# INTERNATIONAL SOYBEAN VARIETY EXPERIMENT

## FOURTH REPORT OF RESULTS 1976

W.H. Judy and D.K. Whigham

International Soybean Program
INTSOY

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COLLEGE OF AGRICULTURE
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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## Fourth Report of Results

W. H. JUDY and D. K. WHIGHAM

College of Agriculture
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International Soybean Program (INTSOY)
College of Agriculture
University of Illinois
113 Mumford Hall
Urbana, Illinois 61801
U.S.A.

Cable address: INTSOY

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## FOREWORD

The International Soybean Variety Experiment (ISVEX) was conducted again during the year 1976 by cooperators in many countries throughout the world. In addition, joint variety evaluation trials were organized with the International Institute for Tropical Agriculture (IITA) and with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). The results of all of these variety trials were returned to INTSOY for analysis and are included in this publication.

INTSOY was established at the University of Illinois and the University of Puerto Rico to give leadership within a network of national and international organizations for soybean research and educational work. The objective of this program is to expand the use of soybeans for human food. The geographic orientation is toward tropical and subtropical areas of the world where protein-calorie nutrition problems tend to be concentrated. However, the perspective is world-wide.

ISVEX was initiated in 1973 as the first part of the genetic improvement program of INTSOY. The objectives are to evaluate soybean cultivars (varieties) for wide environmental adaptability and to provide countries with improved cultivars for direct introduction or for use in breeding programs. The response of cultivars is analyzed for high stable yield and other desirable agronomic characteristics. Other important dividends have been obtained through accumulation of more knowledge about the response of soybeans to different management skills, ranges of temperature and day-length, and various soil conditions. With the cumulative results from more growing seasons, the objectives of this trial are being attained. For the first time, multi-year means for characteristics of cultivars can be calculated within and across environmental zones, for geographical areas within zones, and for selected countries. This has improved the capability for expanded interpretation of results and leads to more accurate prediction of the behavior of cultivars under different environmental conditions. The importance of careful cultivar selection and improved management during production and harvesting is clearly demonstrated.

A world-wide variety evaluation program such as ISVEX requires the cooperation and resources of many organizations and individuals. Foremost in importance are those cooperators who conduct the trials. They record data and send them to INTSOY for analysis. The United States Agency for International Development has provided the general program resources to make ISVEX possible. The Food and Agriculture Organization of the United Nations has provided technical supervision and assistance in sending trials to a number of countries. Other international organizations have provided support, especially the United Nations Development Program. The facilities and services, including the Statistical Laboratory, of the Department of Agronomy, University of Illinois at Urbana-Champaign, are gratefully acknowledged.

Leadership in organizing this ISVEX was provided by D. Keith Whigham with the assistance of Robert Dunker. William H. Judy has ably succeeded Dr. Whigham and is giving leadership to ISVEX, SPOT, and SIEVE soybean varietal evaluation trials with the efficient assistance of Henry J. Hill. The varietal development work in Puerto Rico and seed increase for these trials has been provided by E. H. Paschal II. The sincere appreciation of all in the INTSOY network is expressed to the many who have made the variety evaluation program and the results reported in this publication possible.

INTSOY is pleased to add the Fourth Report of Results of ISVEX to the INTSOY Publication Series. The First, Second, and Third Reports of ISVEX are designated numbers 8, 11, and 15 in the Series, respectively.

William N. Thompson
Director
International Soybean Program (INTSOY)

# INTERNATIONAL SOYBEAN VARIETY EXPERIMENT
## Fourth Report of Results

This publication is the fourth report of results from the International Soybean Variety Evaluation Experiment (ISVEX), organized in 1973 by the International Soybean Program (INTSOY) at the University of Illinois, under a contract with the Agency for International Development, U.S. Department of State.

ISVEX was designed to meet the following objectives:

1. To test the adaptation of soybean cultivars (varieties) under a wide range of environmental conditions

2. To provide research workers with an opportunity to compare local and introduced cultivars

3. To provide a source of new germplasm, which a cooperator may use directly or incorporate into his breeding program

4. To identify areas of the world that have a potential for soybean production

5. To evaluate the response of the soybean to different environments.

## MATERIALS AND METHODS - ISVEX SITES

### Procedures

Instructions for management and data collection for ISVEX were sent with the seed shipment to each cooperator. Soybean seed for planting was provided to each cooperator in individual row packages. Granular inoculant was provided for distribution in the row with the seed prior to covering the seed with soil. The experiment was designed as a randomized complete block with four replications. Each variety was planted once in each block in a plot which consisted of four rows 5 m long and 60 cm apart. All observations, including the grain yield, were obtained from the two center rows.

It was suggested in the instructions that a trial site be chosen which had an identical crop history and where the soil was well drained. A soil analysis was recommended for determination of pH, organic matter, nitrogen, phosphorus, and potassium. It was recommended that a basal application of 25 kg/ha N, 25 kg/ha P, and 25 kg/ha K be broadcast and worked into the plot.

AUTHORS: W. H. Judy is Associate Professor, Department of Agronomy, INTSOY, University of Illinois, Urbana, Illinois. D. K. Whigham is formerly Assistant Professor, Department of Agronomy, INTSOY, University of Illinois, Urbana; now Associate Professor, Department of Agronomy, Iowa State University, Ames, Iowa.

Sufficient seed was provided to overplant approximately 50%. It was recommended that the plants be thinned soon after emergence to a stand of one plant per 5 cm.

The method of weed control suggested was mechanical or chemical according to the facilities available to the cooperator.

Chemicals were recommended for control of insects.

## Cultivars

The pedigrees of soybean cultivars evaluated in the fourth ISVEX during 1976 and early 1977 are described in Table 1. These cultivars were selected for their consistent high yield performance for several years in the U.S. Department of Agriculture Regional Soybean Trials which originate in Lafayette, Indiana, and Stoneville, Mississippi. The entries were selected from U.S. cultivars in order to provide access to adequate quantities of high-quality seed. Certified or foundation seed was purchased from sources in the areas of the United States where each variety was grown. At least one cultivar from each of the maturity groups 00 through IX was selected. There were 20 cultivars retained from the third ISVEX[1] and six new cultivars were added. The cultivars Bonus, Hampton 266A, Hardee, Semmes, and Tracy were deleted, whereas, Bragg, Cutler 71, Essex, Hill, Ransom, and Steele were added.

The cultivars were divided into groups according to their relative maturity and distributed among cooperators according to the environmental zone. Some cultivars were common to more than one zone. The entries Clark 63, Calland, Columbus, Forrest, Williams, and Woodworth were common to all zones. Later maturing cultivars were distributed in tropical zones while earlier maturing entries were included for sites closer to temperate areas (Table 2).

In the instructions for the ISVEX trials it was suggested that the cooperator might wish to substitute one or two local soybean cultivars for those which were supplied by INTSOY. Many cooperators did substitute and the data on the performance of these cultivars may be observed in the table showing the analysis of data for that particular location.

## Experiment Sites

The experiment sites were divided into environmental zones which were defined according to latitude and altitude. Separating the trial sites by latitude permits evaluation of cultivars under similar conditions of day length. Separation according to altitude permits evaluation under similar conditions of day- and nighttime temperatures. There was some variation

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[1] Whigham, D. K., and W. H. Judy, "International Soybean Variety Experiment Third Report of Results," INTSOY Series No. 15, University of Illinois at Urbana-Champaign, 1978, 369pp.

within each zone in temperature, moisture, and solar radiation. The limits of each of the 13 zones and the number of sites are shown in Table 3. The environmental zones were defined by each $10^{\circ}$ increment in latitude from the equator and according to three altitude ranges divided 0 - 500 m, 501 - 1000 m, and higher than 1000 m.

The environment dictated the optimum planting time for each site. Plantings were made throughout the calendar year. The first planting was made on March 9, 1976 and the last planting on March 14, 1977. At several sites, the trial was planted more than once during the year.

The Fourth ISVEX was dispatched to 292 sites in 84 countries. Data were returned from 125 sites of which 25 were in Africa, 43 in Asia, and 21 in South America. Useful data were obtained at 114 sites in 58 countries which are listed in Table 4. Figure 1 shows the locations of these countries. The experiment was tested under a wide range of environmental conditions which are represented by sites which range in latitude from $33^{\circ}$ South in La Platina, Chile to $52^{\circ}$ North in Radzikow, Poland and by a range in elevation from 1820 m in Leku, Ethiopia to -68 m in Deir Alla, Jordan. However, 63 trials were located within $20^{\circ}$ of the equator and at altitudes lower than 500 m.

## Data Collected

Data were reported for each plot by cooperators as follows:

*Yield:* Weight in grams of clean, dry grain from 5 m of the two center rows which is a harvest area of 6 $m^2$.

*Days to flower:* Days from date of emergence to date when 50% of the plants have flowered.

*Days to maturity:* Days from date of emergence to date when 95% of the pods are ripe.

*Nodule number:* The number of nodules on the root system at the time when the first flowers appear and a second count of nodules three weeks after date of first flowering.

*Nodule dry weight:* Dry weight in grams of the nodules associated with the root system at the time first flowers appear and again three weeks after first flowering.

*Plant height at maturity:* Height in centimeters from the ground surface to the top of the main stem at maturity.

*Lodging score:* Estimated rating of lodged or down plants on a scale of 1 (all erect) to 5 (all down) as observed at time of maturity.

*Shattering score:* Estimated rating of the amount of shattering of seed from the pods on a scale of 1 (no seed shattered) to 5 (over 50% shattered) at the time of maturity.

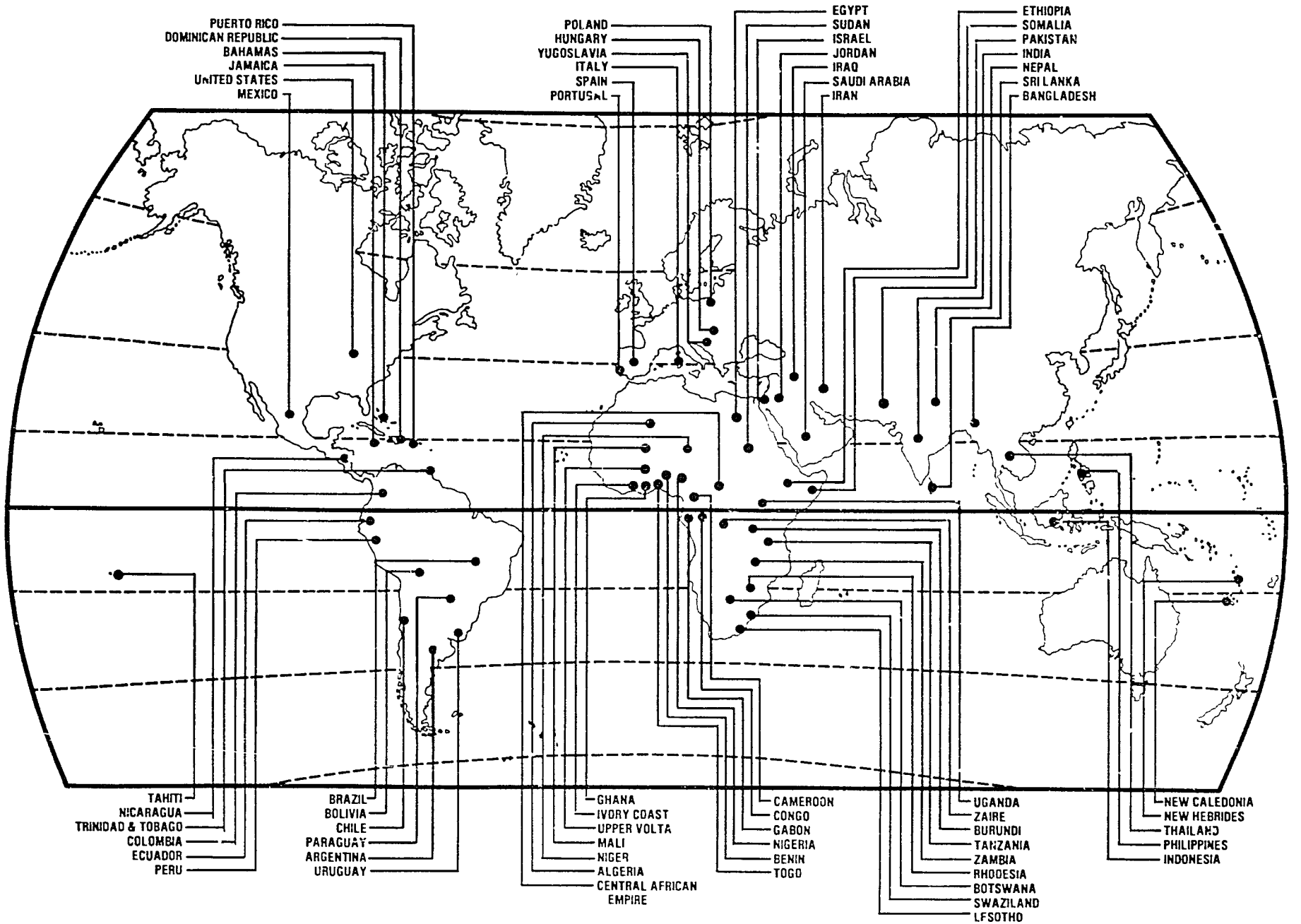


**Figure 1.** Countries from which data were collected in the fourth International Soybean Variety Evaluation Experiment.

*Plants harvested:* Total number of plants harvested from the two center rows of each plot.

*Pods per plant:* Average number of pods per plant at time of harvest.

*Seed weight:* Weight in grams of 100 randomly selected seeds from the dried, cleaned grain.

*Quality of seed:* Estimated rating of seed quality after harvest considering the amount of wrinkling, defective seed coats, off-color seed, and moldy or rotten seed according to a scale of 1 (very good quality) to 5 (very poor quality).

*Disease rating:* Estimated rating of the severity of the three most serious diseases attacking soybeans in the trial according to a rating scale of 1 (highly resistant) to 5 (leaves covered with disease).

### Statistical Analysis of Data

Analysis of variance was completed for variables for which data were reported from more than one replication of the trial at each site during the same season. Means, standard error of a cultivar mean, coefficient of variation, and the least significant difference (LSD) of cultivar means at the 5% level are reported for analyzable variables from each experiment site. Correlation coefficients were computed between all traits reported.

Protein and oil contents were determined on the dry weight basis by a near-infrared light reflectance instrument in the Department of Agronomy at the University of Illinois. The analyses were made from one sample of each cultivar which was composited across replications at each trial site by the cooperator who returned the sample to INTSOY for analysis.

A combined analysis was prepared for all trial locations within an environmental zone where there were five or more trials. In some cases, a combined analysis was also prepared for a restricted geographical area within an environmental zone where there was a sufficient number of trial sites available.

## MATERIALS AND METHODS - JOINT INTSOY/IITA SITES

### Procedures

This publication also includes the report of results from the first joint soybean variety evaluation experiments which were conducted by INTSOY and the International Institute for Tropical Agriculture (IITA) which is located near Ibadan, Nigeria. This joint trial was organized by INTSOY and IITA during 1975 in order to expand the range of germplasm available to cooperators and to reduce confusion of efforts by cooperators who might be expected to conduct both the INTSOY and IITA soybean variety trials. These joint INTSOY/IITA trials were sent to cooperators identified by both organizations in Africa which were located between the latitudes of 20° N and 20° S. This region primarily encompasses the tropical rain forest conditions.

The trials were conducted similar to the ISVEX trials except that eight varieties were supplied by INTSOY and eight varieties by IITA. Otherwise, procedure and instructions for conducting the trial were the same.

### Cultivars

The soybean cultivars tested in the first joint INTSOY/IITA trial during 1976 are listed in Table 2. Those entries with the TGx and TGm prefixes were supplied by IITA. INTSOY supplied eight cultivars normally distributed to environmental zones I, II, and IV. Those included Bossier, Clark 63, Cobb, Davis, Forrest, Improved Pelican, Jupiter, and Williams. Of the eight entries Clark 63, Forrest, and Williams were also common to all ISVEX environmental zones. No substitution was suggested for any of the 16 countries.

### Experiment Sites

Seventy-nine INTSOY/IITA trials were dispatched to cooperators in African countries located in environmental zones I through VI. The experiment was tested under many environmental conditions as represented by the range in latitude from 16° S in Magoye, Zambia to 13° N in Maradi, Niger and by the range in elevation from 1187 m in Kisanga, Zaire to 0 m in Abidjan, Ivory Coast.

### Data Collected

The data which were reported for each plot by the cooperators were the same as that for the ISVEX trials.

### Statistical Analysis of Data

The analysis of variance was completed for parameters which are reported according to the same method as for the ISVEX trials. Protein and oil contents were also determined and are reported. A combined analysis was prepared for all of the trial locations where there were five or more trials.

## MATERIALS AND METHODS - JOINT INTSOY/SEARCA SITES

### Procedures

The results from the joint INTSOY/SEARCA (Southeast Asia Regional Center for Graduate Study and Research in Agriculture) soybean variety trials are included in this publication. The procedures are similar to those followed by INTSOY/IITA cooperators.

### Cultivars

SEARCA supplied eight cultivars and INTSOY supplied nine (Table 2). The cultivars Calland, Clark 63, Columbus, Forrest, and Williams were common to all ISVEX and INTSOY/SEARCA sites.

## Experiment Sites

The INTSOY/SEARCA trials were dispatched to about five cooperators in Asia. Usable data were returned from one site.

## Data Collected

The data which were reported for each plot by the cooperator were similar to that in the ISVEX trials.

## Statistical Analysis of Data

The analysis of variance for parameters is reported according to the same method as the ISVEX trials.

# RESULTS AND DISCUSSION - ISVEX SITES

Summary mean values of the parameters observed for single and multiple years and for selected geographical areas are presented in Tables 6 through 53. Individual site values which were obtained during the conduct of the Fourth ISVEX during 1976 are reported in Tables 54 through 204.

Tables with data for individual sites include agronomic, seed, and other descriptive information which identifies the location, environment, and management. Information is also included for the local cultivars which were tested. These tables are arranged by region, country, and site.

Summary tables have been prepared for environmental zones which contain five or more sites. Combined analyses were also prepared for selected geographical regions and countries. Summary tables were prepared for cultivars which were common to trials in 1974, 1975, and 1976 and for cultivars common in 1975 and 1976.

Discussion of results will concentrate on parameters of cultivars and on correlations between parameters which are significantly different. "Environmental zones" as described in Table 3 will be hereinafter referred to simply as "zones."

### *Yield*

A summary of the yield in tropical zones I and IV is presented in Table 6. There were not sufficient sites in zone II to prepare a combined analysis. Comparable yields were obtained in both zones but the ranking of cultivars is considerably different. Davis was the highest yielding cultivar in both zones with 2525 kg/ha in the 15 sites below 500 meters altitude and 2466 kg/ha at the 16 sites located at the same altitude but between 11-20$^{\circ}$ latitude. The top five yielding cultivars in zone I included Davis followed by Improved Pelican, Forrest, Bragg, and Jupiter. In zone IV, Davis was followed in yield by Calland, Forrest, Cobb, and Williams. There was no significant difference in yield among the top six cultivars in zone IV.

In Tables 32 and 33, two-year and three-year means are presented for zone I. The same six cultivars appeared both years but in a different ranking. Davis and Jupiter were the two highest yielding cultivars in both the two-year and the three-year summaries. For 1975 and 1976, these two varieties were followed by Forrest, Improved Pelican, Williams, and Bossier, whereas, in the three-year mean Improved Pelican moved to third place and was followed by Bossier, Forrest, and Williams. There was less than 10% difference among the top five cultivars.

The combined analysis for Asian sites in zone I is reported in Table 47. Among these twelve sites, Davis was the highest yielding at 2337 kg/ha followed by Forrest, Improved Pelican, Williams, and Bragg. Ten of the zone I sites in Asia were located in Sri Lanka. Again, Davis was the highest yielding cultivar (2726 kg/ha) and Forrest was second, followed by Williams, Bragg, and Bossier, while Improved Pelican dropped to sixth place (Table 50).

The two-year and three-year means for zone IV are reported in Tables 35 and 36, respectively. The cultivar ranks and yields were the same for both summaries except for the absence of Cobb from the three year summary. Davis, Forrest, Bossier, Williams, and Clark 63 made up the top five group.

The combined analyses of yield for zones III, VI, and VII are presented in Table 16. The cultivar Hill moved to first place with 1990 kg/ha for the six sites. Davis and Forrest were second and third ranked in yield while Cobb moved into fourth place, followed by Improved Pelican and Bossier. The rank of yields in zone VI and VII was considerably different from zone III. For the five sites above 1000 m in zone VI, Davis was again first with 3207 kg/ha, but was followed by Essex, Calland, Columbus, and Ransom. For the 16 sites in zone VII, Davis was first with 2371 kg/ha and was followed by Ransom, Bossier, Forrest, and Bragg. The mean grain yield for all cultivars in zone III, VI, and VII was 1535, 2809, and 2101 kg/ha, respectively.

In the two-year mean for zone III shown in Table 34, Davis was the highest yielding followed by Forrest, Bossier, Williams, and Improved Pelican. The 1976 and the two-year mean yields were almost exactly the same. There were not sufficient sites in zone III in 1974 to obtain a combined analysis for that year, so a three-year summary could not be prepared. There were not sufficient sites in zone VI in 1974 or 1975 to prepare a combined analysis.

The two-and three-year means for zone VII are presented in Tables 37 and 38, respectively. The relationship of Davis, followed by Bossier, Forrest, Williams, and Clark 63 was the same for both summaries, but the mean yield over three years was 15 percent lower than the two-year mean.

There were six sites in zone VII in 1976 in Asia and Oceania which could be combined. Williams was the highest yielding cultivar at 1964 kg/ha, followed closely by Davis, Columbus, Forrest, and Clark 63 (Table 49). Williams flowered and matured earlier and did not grow as tall as the other four top varieties, but it was still able to produce a comparable yield. The four sites in Pakistan were combined separately in Table 51.

Ransom produced the highest yield at 2526 kg/ha. There was no significant difference among the top five which included Bragg, Bossier, Davis and Pickett 71.

There were four sites in zone III in Ethiopia which were combined (Table 52). Hill produced the highest yield of 2125 kg/ha, followed closely by Davis. Essex, Forrest and Columbus rounded out the top five yielding varieties in these high altitude (>1000 meter) sites.

There were not sufficient sites in zones VIII and IX to obtain a reliable estimate of yields in a combined analysis.

In zone X there were eight sites which could be combined and these data are reported in Table 25. There was no significant difference among the 12 cultivars represented, but the yield of seven entries exceeded 3000 kg/ha and the yield of the top cultivar, Williams, was 3324 kg/ha.

Among zones where a combined analysis could be prepared, the highest mean yields were obtained in zone X (31-40° latitude, <500 m altitude). However, in zone VI (11-20° latitude, 1000 m altitude), the mean yield of 2809 kg/ha was only 6% less than in zone X. Yields in zones I, IV, and VII exceeded 2000 kg/ha. The highest mean cultivar yield (3324 kg/ha) for combined sites was produced by Williams. Sites near the equator and above 1000 m altitude produced the lowest mean yields.

The highest yield produced by an individual cultivar at any one site was Pickett 71 where 6535 kg/ha were obtained. There was one site which reported a yield higher than 6000 kg/ha; it was Deir Alla, Jordan. Five sites reported yields greater than 5000 kg/ha. There was a total of 15 sites with yields greater than 4000 kg/ha. These included four sites in South America, three sites in Africa, and two sites in Asia.

*Days to Flower*

These data represent the number of days from emergence to that time when 50% of the plants have flowered. As a particular cultivar is moved into an environment where the day length becomes shorter, the time between emergence and first flowering decreases which means that the plants are smaller both when they flower and when they mature.

There was little difference between mean days to flowering of cultivars with similar maturity when grown at sites in zone I (0 - 10° latitude, 0-500 m) and zone IV (11-20° latitude, 0-500 m) as reported in Table 8. However, there was an increase in days to flowering between zones I and III and between zones IV and VI (Tables 8 and 18). This suggests that temperature change (altitude) affects days to flowering more than does day length (latitude) at latitudes less than 20°.

Williams, Calland, Clark 63, and Woodworth were all among the earliest flowering cultivars in zones I, III, IV, VI, and VII. Jupiter and Improved Pelican were the latest to flower. A group which was moderately late included Davis, Bossier, Cobb, Bragg, Forrest and Hill.

Mean days to flower of cultivars grown in zone X (31-40° latitude, 0-500 m altitude) are reported in Table 25. The mean for all cultivars (37 days) was only 4-8 days later than zones I, IV, and VI, but 5-15 days earlier than zones III and VII. The earlier group included Hark, Steele, Corsoy, Wells, Beeson, and Amsoy 71; whereas, the later group included Woodworth, Clark 63, Williams, Calland, and Cutler 71.

Two-year and three-year means for cultivars in zone I (Tables 32 and 33), zone IV (Tables 35 and 36), zone VII (Tables 37 and 38), and X (Table 39) were almost exactly the same as 1976 data. Two-year means for zone III (Table 34) indicate that cultivars matured slightly earlier in 1976.

*Days to Harvest*

Days to harvest is defined as the time from emergence to the growth stage when 95% of the pods are mature. It is useful to consider not only days to flowering and days to harvest but also the time interval between flowering and maturity. The range in mean days for all cultivars from flowering to maturity among all zones (Tables 9, 19, and 25) was 63-77 days whereas the range from emergence to flowering was 29-52 days and from emergence to maturity was 92-124 days.

The late maturing cultivars in zones I and IV (Table 9) and zones III, VI, and VII (Table 19) included Jupiter and Improved Pelican. Davis, Bragg, Bossier, Cobb, Ransom, Forrest, and Pickett 71 fell into the moderately late group. Williams, Calland, Clark 63, Woodworth, and Hill matured earliest.

In zone X (Table 25), the earlier maturing group included Steele, Hark, Hodgson, Corsoy, Wells, and Woodworth. The later maturing cultivars were Cutler 71, Clark 63, and Calland.

These data for zones I, IV, VII, and X were consistent with two-year means reported in Tables 32, 35, 37, and 39, respectively, and three-year means for zones I, IV, and VII reported in Tables 33, 36, and 38, respectively. However, over the two years, cultivars in zone III were reported to mature slightly later (Table 34) than in 1976.

*Nodule Number and Nodule Weight*

The number of nodules which form on the roots of soybean plants is an indication of the presence and relative activity of the strains of rhizobia which are present in the soil and those added through the inoculum. Nodule weight is an indication of nodule size as well as quantity. Usually, larger nodules are more active in fixing nitrogen. By taking nodule data at two stages of growth, an estimate of the persistence and effectiveness of the rhizobia strains can be estimated. Observations on nodulation during early growth gives an indication of the efficiency of inoculum added to the soil. Nodule activity during late flowering and early pod fill usually affects yield of beans.

Data on nodule number and weight for ten plants at two stages of plant growth are reported in Tables 40 and 42-46. Correlations between yield and

these parameters have also been included. Nodule number almost doubled from the first to second time of sampling for all zones except III (Table 42), where the number remained almost constant. In zone III, nodule weight decreased by 50%. In other zones, nodule weights increased 3-5 times.

At the early growth stage, nodule number ranged from a low of 55 for Calland in zone VII (Table 45) to a high of 186 for Ransom in zone III. The weight of nodules ranged from 0.27 g for Bragg in zone I (Table 40) to the high of 3.54 g for Bossier in zone III. Correlations with yield are inconsistent except in zones VI (Table 44) and VII where they are positive and significant.

At time of second sampling, the fewest nodules were observed on Woodworth (78) in zone VII and the most on Bragg (307) in zone VI. Nodule weights ranged from a low of 0.98 g on Hill in zone VII to a high of 4.00 g on Davis in zone VI.

Correlations between nodule number and nodule weight were positive in all zones at the second sampling. The highest correlations between nodule number and yield were observed in zones IV (Table 43), VI, and X (Table 46). The highest correlations between nodule weight and yield were found in zones III, VI, and VII.

*Plant Height*

The tallest cultivars in zones I and IV (Table 10) were Improved Pelican at 74 and 86 cm, respectively, and Jupiter at 68 cm. The mean for all cultivars in those zones was 45 and 48 cm. Davis, Forrest, Bossier and Hill were the shortest in zone I, ranging from 33 to 36 cm. In zone IV, Pickett 71 and Bossier were shortest at 31 and 36 cm. The correlation between yield and plant height (0.48) was positive and significant.

Plants tended to grow taller with an increase in latitude at altitudes below 500 m. Plant height was 45 cm in zone I, 48 cm in zone IV, and 51 cm in zone VII (Table 20). The difference in height between various altitudes within zones is inconsistent. Plants were shorter in zone III (Table 20) than in zone I, but slightly taller in zone VI (Table 20) than in zone IV. The shortest cultivar in zone III was Pickett 71 at 30 cm which grew 36 cm tall in zone VI. Davis grew 40 cm tall in zone III but 66 cm tall in zone VI, where it was the next to the tallest cultivar after Improved Pelican (96 cm). Improved Pelican at 71 cm was also the tallest cultivar in zone III. The range in plant height in zone VI was from 36 cm for Pickett 71 to 96 cm for Improved Pelican.

There was almost a doubling in height of the cultivars between zone VII and zone X (Table 25). The mean for zone X was 85 cm compared to 51 cm for zone VII. The range in height in zone X was from 70 cm for Hodgson to 100 cm for Cutler 71.

The trend in plant height among zones for multi-year means in Tables 32-39 was comparable to 1976 data. In zone I, the three-year mean was 48 cm compared to 1976 data of 45 cm; in zone IV, 42 cm compared to 48 cm; in

zone VII, 54 cm ccmpared to 51 cm; and, in zone X, 81 cm compared to 85 cm.

*Lodging*

The amount of plant lodging is generally closely associated with plant height and with population. In 1976, there was a positive and significant correlation between plant height and lodging. There was very little difference in mean lodging scores for all cultivars among zones I, III, IV, VI, and VII in Tables 11 and 21. However, there were some differences among cultivars within zones. In zone I, Improved Pelican and Jupiter, the tallest cultivars, exhibited the greatest amount of lodging. The same trend carried through zones III, IV, and VI for Improved Pelican. Several cultivars had very low lodging scores. Among these were Davis, Forrest, Bragg, Williams, Bossier, Hill, Ransom, and Pickett 71. In zone X (Table 25), moderate lodging was reported for Amsoy 71, Beeson, Calland, Cutler 71, and Clark 63. Where heavy lodging occurs, lower yields are expected. However, correlations between lodging and yield in the Fourth ISVEX were not highly positive which indicates that lodging was not a serious problem.

*Shattering*

Where shattering is excessive, yields are expected to be lower. Mean shattering scores for individual and all cultivars within zones were low in zones I, III, IV, VI, and VII (Tables 12 and 22). There was no significant difference between varieties within any of these zones. This same situation occurred also in zone X (Table 25). Therefore, shattering did not appear to be a serious problem among the cultivars tested in any of the zones during 1976.

*Pods Per Plant and Seed Weight*

The number of pods produced per plant and the weight of a given number of seeds are both parameters which are usually correlated with grain yield. Mean numbers of pods per plant along with the correlation of this parameter with other observations are presented in Tables 40 and 42-46 for zones I, II, IV, VI, VII, and X. There was a positive and significant correlation between yield and pods per plant. However, the mean number of pods per plant was not always directly associated with changes in yield of beans among zones. The lowest number of pods per plant was in zone III with 19.8 where the lowest yield (1535 kg/ha) was obtained. However, the highest mean yield for all cultivars (2809 kg/ha) was obtained in zone VI where the number of pods per plant was 21.7. In zone I there were 23.5 pods per plant with a yield of 2271 kg/ha; in zone VII, 25.0 pods per plant with a yield of 2101 kg/ha; and in zone IV, 26.4 pods per plant with a yield of 2113 kg/ha.

The association of pods per plant and plant height is more highly correlated than is the relationship between pods and yield except in zone X

(Table 46). Yield and pods per plant were less highly correlated in zone X than in other zones also.

Yield and 100 seed weight were highly and positively correlated except in zone III (Table 42). The weight of 100 seeds ranged from 15.5 g in zone VII to 21.8 g in zone III (Tables 13, 23, and 25). In zone I, the range in seed weight was from 14.4 g for Improved Pelican to 18.7 g for Davis which had the highest yield. In zone IV, the range in weight was from 12.8 g for Improved Pelican to 18.7 g for Williams but Improved Pelican had a slightly higher yield than Williams. Cultivars had higher mean seed weight in zone III than in other zones; the range was from 16.1 g for the cultivar Forrest to 30.9 g for Ransom. However, the yields were lower in zone III than in any other zone. The lowest seed weight was obtained in zone VI with Improved Pelican (16.0 g) and the highest with Calland (22.2g). The highest yield in this zone was obtained with Davis which had a seed weight of 21.3 g. In zone VII, the range was from 13.5 g for the cultivar Forrest to 17.2 g for Calland. The highest yielding variety Davis had a seed weight of 16.1 g.

The cultivars planted in zone X had seed weights comparable to those of cultivars planted in zones I through IX. Wells had the lowest seed weight of 16.2 g and the top yielding variety Williams had a seed weight of 19.3 g. When compared among different environmental zones, Williams had a seed weight of 18.4 g in zone I, 18.9 g in zone III, 18.7 g in zone IV, 20.7 g in zone VI, and 16.4 g in zone VII.

*Seed Quality*

The estimate of seed quality was obtained from a visual rating where a score of 1 indicated the best quality and 5 the poorest quality. Mean seed quality scores for environmental zones I, III, IV, VI, VII, and X are presented in Tables 14, 24, and 25. The best seed quality score was reported for cultivars from environmental zone I which is below 500 m in altitude and near the equator. Average quality scores are reported for environmental zones VI, VII, and X. The lowest quality seed was observed in the 13 sites in zone IV which is below 500 m altitude and between 11 and 20$^{\circ}$ latitude.

In zone I the best quality seed was reported for Improved Pelican and Davis. Bragg, Williams, Clark 63, and Hill also received good ratings. In zone IV the best rating was accorded the cultivar Williams which was followed closely in quality by Davis, Improved Pelican, Clark 63, Hill, and Pickett 71. Comparable quality ratings were given to Woodworth, Williams, Bossier, and Hill in zone III. In zone VI, Improved Pelican was given the highest quality rating and Hill, Davis, and Bragg received good quality ratings.

*Disease Rating*

Cooperators were requested to make observations about incidence and intensity of diseases on plants. However, at many sites, observations were either omitted or incomplete. Therefore, a meaningful summary of disease observations could not be made.

*Protein and Oil Content*

The relationship of protein and oil content of soybean seeds usually fluctuates inversely. As protein content increases, oil decreases.

Zones I, II, and IV are reported in Table 26. In zone I, the mean for all cultivars was 39.5% with the range from 37.7 to 41.4%. Although Bossier was highest at 41.4% there was little difference among the top five cultivars. The mean oil content for all cultivars was 22.8%; Ransom had the highest content (24.8%).

In zone II, only one site returned seed for analysis. Calland and Essex had the highest protein content at 44.5 and 44.4%, respectively. Ransom and Williams were higher than the other entries in oil content.

In zone IV, Bossier and Columbus contained the highest protein content of 44.7 and 43.1%, respectively. Ransom and Woodworth had the highest oil content.

The two zones with the highest mean protein content for all cultivars were III and VIII. The mean protein in zone III (Table 28) was 43.2% with a range of 41.3-45.5%. The highest three cultivars include Improved Pelican, Bossier and Williams. The mean oil content was lowest in zones III (20.1%) and IX (18.6%). Improved Pelican and Hill contained the lowest oil content (19.1%) and Cobb had the highest (20.8%) in zone III.

In zone V (Table 28) with only one site reporting, Jupiter contained the highest protein content (43.9%) and Cobb the highest oil (24.9%).

In zone VI (Table 28), the top four cultivars in protein content included Improved Pelican (42.5%), Essex and Bossier (42.1%), and Columbus (42.0%). The highest oil content was produced by Ransom (23.3%).

The protein content of cultivars in zones VII and VIII were comparable (Table 29). Bossier, Cutler 71, Bragg, and Calland were the highest four in zone VII whereas Calland, Bragg, Cutler 71, and Williams were the top group in zone VIII. The mean for all cultivars was higher in zone VIII (43.2%) than in VII (41.5%). The reverse relationship was observed in oil content with 20.5% in zone VIII compared to 22.2% for zone VII.

Data were available for only two sites in zone IX (Table 29). Clark 63 produced the highest protein (41.9%) and Woodworth, Wells, and Beeson tied for highest oil (19.6%).

Only 2.9% in protein content separated the highest cultivar Columbus (41.7%) from the lowest Amsoy 71 (38.8%) in zone X. Oil content was similar in uniformity as the range was from 21.9% for Williams to 20.4% for Columbus.

Only one site each returned seeds for analysis in zones XI and XII (Table 30). In zone XI, Columbus had the highest protein content (43.4%) and Wells the highest oil content (21.2%). In zone XII, Steele produced the highest protein (43.7%) and Hodgson the highest oil (23.4%).

There were data available for six common cultivars among the three sites which returned seed for analysis in zone XIII (Table 31). The grand mean for protein was 40.2% with Wells highest at 42.8%. There was very little variation in oil content except for Wells (19.3%) which had the lowest oil content. The grand mean was 20.0% and Clark 63 had the highest content (20.7%).

*Yield of Local Cultivars*

As discussed earlier, cooperators were encouraged to substitute one or two local cultivars for INTSOY supplied entries. Cooperators substituted one cultivar at 27 sites and two at 26 sites. Of these 53 sites, the yield of a local entry exceeded that of the other ISVEX cultivars at only nine sites.

The highest yield obtained with any substituted cultivar (3196 kg/ha), was reported at Apatzingan, Mexico with the entry R.A.O. The grand mean of all entries at Apatzingan, Mexico was 2102 kg/ha. There was no significant difference at 5% among the next nine cultivars which included Jupiter, Davis, Hampton 266A, Cobb, Improved Pelican, Columbus, Tracy, Bossier, and Calland. The entry PB-1 yielded 2955 kg/ha at Puttalam, Sri Lanka, but there was no significant difference in the top four entries which also included, in order, Forrest, Hill, and SJ-2 (another substituted cultivar). The third highest was Visoja which yielded 2836 kg/ha at Caacupe, Paraguay. Fourth, fifth, and sixth highest were Loppa (2605 kg/ha) at Tandojam, Pakistan; PB-1 (2563 kg/ha) at Alutharama, Sri Lanka; and Manaus-1 (2217 kg/ha) at Manaus, Brazil, respectively.

Other substitute cultivars which yielded higher than ISVEX entries included Ogden, 43s, and Orba.

## RESULTS AND DISCUSSION - JOINT INTSOY/IITA SITES

The joint INTSOY/IITA trial was difficult to coordinate because the requests for and dispatch of cultivars were received and forwarded from two widely separated institutions--INTSOY and IITA. Nonetheless, through close and careful communication, many cooperators received trials and returned useful data.

There were 25 sites which conducted the trial and 19 sites which returned usable data. The highest mean yield of 3494 kg/ha was obtained at Maradi, Niger. The highest yield for any cultivar was 4438 kg/ha with Davis, also at the Maradi site.

Selected agronomic characteristics of sited which could be combined are reported in Table 15; protein and oil content are reported in Table 27; and individual sites in Tables 55, 56, 73, 74, 75, 76, 81, 83, 86, 90, 91, 93, 95, 98, and 102.

*Agronomic Characteristics*

The combined analysis reported in Table 15 contains data from six sites in zone I (0-10$^{\circ}$ latitude, 0-500 m altitude). Davis and the IITA cultivar TGx 13-3-2644 were clearly first and second in yield and in rank by yield

across locations. Although there was no significant difference among the 15 entries, there was a 30% difference between the yields of the top five and the lowest three cultivars. The rank of INTSOY entries Davis, Jupiter, Williams, Cobb, Clark 63, and Bossier can be compared to the ranking reported for ISVEX sites in zone I in Table 6 where the ranking was Davis, Williams, Jupiter, Bossier, Clark 63, and Cobb. The mean of the top nine in the INTSOY/IITA trial was 2002 kg/ha compared to the mean for ISVEX sites in zone I of 2271 kg/ha. Five of the eight IITA cultivars were ranked among the top seven entries.

Mean days from emergence to flowering and from emergence to maturity are comparable between the INTSOY/IITA group and the ISVEX entries reported in Tables 8 and 9, respectively. The highest yielding IITA cultivars were among the latest to flower and to mature. The other IITA entries were moderately late.

The mean height of INTSOY/IITA cultivars was greater than the ISVEX cultivars which can be attributed to the height of IITA entries which averaged 56 cm compared to Improved Pelican at 67 cm and the other INTSOY entries at 39 cm.

There was a strong positive correlation between yield and root nodule weight and also nodule number. The highest correlation (0.72) within any zone was reported for this trial between yield and nodule weight at the second sampling.

Cooperators reported more lodging for all entries in the INTSOY/IITA trial. The worst lodged was TGm 249-4-b followed by Jupiter, TGm 220-1-2205, and TGx 13-3-2644. The least lodging was reported for Cobb, Bossier, and Davis.

Only one cultivar exhibited moderate shattering (TGm 210-1-2363). There was no real difference or shattering problem among the other 14 entries.

The seed weight per 100 seeds was 16.4 g compared to 17.0 g for ISVEX entries (Table 13). Williams had the largest seed at 20.0 g. A group of four cultivars had seed weighing from 18.0 to 18.9 g. These included Davis, Jupiter, Clark 63, and Bossier. IITA cultivars produced seed weighing from 12.7 to 16.6 g and except for Improved Pelican (13.8 g), most were smaller-seeded than ISVEX cultivars. There was a strong positive correlation between seed size and yield (Table 41).

The best quality seed was produced by TGm 294-4-2371 and TGx 66-5100. These were followed by a group of five cultivars of good quality--Davis, TGx 13-3-2644, TGm 256-1-b, Improved Pelican, and TGm 249-4-b. The group with the next best quality were TGm 210-1-2363, Williams, Cobb, and TGm 255-2-4341. Jupiter had the poorest rating of 2.5; Clark 63 and TGm 220-1-2205 were slightly better in quality.

*Protein and Oil*

The protein content of two IITA cultivars, TGm 294-4-2371 and TGm 256-1-b was 47.5 and 47.1%, respectively. This was higher than other entries at the six INTSOY/IITA sites and also greater than any other zone or cultivar mean from the ISVEX sites. The mean for all cultivars was also higher than the highest ISVEX zone.

Oil content ranged from a high of 24.4% for Cobb to a low of 19.2% for TGm 294-4-2371.

## RESULTS AND DISCUSSION - JOINT INTSOY/SEARCA SITES

Data were available from only one site from the joint INTSOY/SEARCA soybean variety experiment. This trial was conducted at Sukothai in Thailand. The coefficient of variation was high for these data but Calland, Columbus, Forrest, and Multivar 80 had the highest yields which were 2861, 2692, 2632, and 2543 kg/ha, respectively (Table 145).

Those cultivars with medium days to flowering and to maturity had the highest yield. The latest flowering and maturing entries, SJ-4 and Tainung 4 ranked 10th and 11th. Altona and Multivar 80 tied for earliest flowering (27 days) and were also the earliest maturing.

The tallest cultivar Kaohsiung E-32 (118 cm) was lowest in yield and along with Orba (65 cm) was severely lodged. The only other badly lodged cultivar was TK-5. Altona and Forrest were the shortest entries. The mean for all entries was 64 cm.

Calland and Columbus had the largest seed and Orba and Koaohsiung E-32, the smallest. There was little difference in seed quality except for Amsoy 71 and TK-5 which were given very good ratings.

## SUMMARY

A large group of soybean cultivars of diverse genetic composition was evaluated under a wide range of environmental conditions in the Fourth International Soybean Variety Experiment (ISVEX) during 1976. Yields of 2000-4000 kg/ha of good quality seeds were consistently obtained under tropical and sub-tropical conditions.

Change in altitude (day- and nighttime temperature) had more effect on plant height and on days to flowering and maturity than did change in latitude (day length). Cultivars in groups 00 - VIII flowered earlier and did not grow as tall when grown at sites closer to the equator. Later maturing cultivars frequently, but not always, outyielded early maturing types. This presents problems in developing high-yielding cultivars which also mature early, since these types are frequently required for intensive cropping systems.

Lodging and shattering were not serious problems with the cultivars evaluated. Grain quality decreased under conditions of high humidity and temperature, especially near harvest time.

The effectiveness of rhizobia, particularly when related to yield, was difficult to evaluate which suggests problems of adaptability and persistence of strains.

Cultivars introduced through ISVEX consistently outyielded local entries. Multi-year summaries indicated the superiority of Davis, Forrest, Bossier, Williams, Clark 63, Cobb, Improved Pelican, and Jupiter under tropical conditions. The potential of Calland, Columbus, Essex, Hill, Ransom, and Pickett 71 may be reflected in future multi-year summaries.

The protein content of the same cultivars was as high or higher in tropical environments as in temperate conditions.

*Table 1: Pedigree of soybean cultivars grown in the fourth International Soybean Variety Evaluation Experiment (ISVEX) during 1976*

| Cultivar | Maturity Group | Pedigree |
|---|---|---|
| Altona | 00 | P.I. 194654 x Flambeau |
| Amsoy 71 | II | Amsoy$^{8}$ x (Blackhawk x Harosoy) |
| Beeson | II | C1253 x Kent |
| Bossier | VII | Selection from Lee |
| Bragg | VII | Jackson x D49-2491 |
| Calland | III | C1253 x Kent |
| Ces-16-17 | | |
| Clark 63 | IV | (Clark$^{7}$ x CNS) x (Clark$^{6}$ x Blackhawk) |
| Cobb | VIII | F57-735 x D58-3358 |
| Columbus | IV | C1069 x Clark |
| Corsoy | II | Harosoy x Capital |
| Cutler 71 | IV | Cutler$^{4}$ x Kent |
| Davis | VI | [Roanoke x (Ogden x CNS)] x (Ralsoy x Ogden) |
| Essex | V | Lee x S5-7075 |
| Forrest | V | Dyer x Bragg |
| Hark | I | Hawkeye x Harosoy |
| Hill | V | (Dunfield x Haberlandt) x Sib of Lee |
| Hodgson | I | Corsoy x M372 |
| Imp. Pelican | VIII | Tanloxi x P.I. 60406 |
| Jupiter | IX | D49-2491 x P.I. 240664 |
| Kaohsiung E-32 | | |
| Lincoln | III | Mandarin x Manchu |
| Multivar 80 | | |
| Orba | | |
| Pickett 71 | VI | Pickett x P.R. Resistant Lee |
| Ransom | VII | (N55-5931 x N55-3818) x D56-1185 |
| SJ-1 | | |
| Steele | I | Blackhawk x Harosoy |
| Swift | 0 | [(Lincoln$^{2}$ x Richland) x Korean] x (Renville x Capital) |
| Tainung 4 | | |
| TGm 220-1-2205 | | Selection from Lee 68 x (Hill x PI 274,454) |
| TGm 210-1-2363 | | Selection from Lee 68 x (Hill x PI 274,454) |
| TGm 255-2-4341 | | Selection from D66-8666 x (Hill x PI 274,454) |
| TGm 249-4-b | | Selection from D66-8666 x (Hill x PI 274,454) |
| TGm 294-4-2371 | | Selection from 203-6-1-m(7) |
| TGm 256-1-b | | Selection from 066-8666 x(Hill x PI 274,454) |
| TGx 66-5100 | | Selection - parentage unknown |
| TGx 13-3-2644 | | Selection - parentage unknown |
| TK-5 | | |
| Wells | II | C1266R x C1253 |
| Williams | III | Wayne x L57-0034 |
| Woodworth | III | Wayne x L57-0034 |

*Table 2: Distribution of cultivars in the fourth ISVEX during 1975*

| Cultivar | Distribution by environmental zone | | | | | | Joint INTSOY/ IITA Trials | Joint INTSOY/ SEARCA Trials |
|---|---|---|---|---|---|---|---|---|
| | I, II, & III | IV | V, VI, & VII | VIII, IX, X, & XI | XII | Temperate | | |
| Bossier | X | X | X | X | | | X | |
| Bragg | X | X | X | X | | | | |
| Calland | X | X | X | X | X | X | | X |
| Clark 63 | X | X | X | X | X | X | X | X |
| Cobb | X | X | X | | | | X | |
| Columbus | X | X | X | X | X | X | | X |
| Davis | X | X | X | X | | | X | |
| Essex | X | | X | X | X | | | |
| Forrest | X | X | X | X | X | X | X | X |
| Hill | X | X | X | X | X | | | |
| Imp. Pelican | X | X | X | | | | X | |
| Jupiter | X | X | | | | | X | |
| Pickett 71 | X | X | X | X | | | | |
| Ransom | X | X | X | X | | | | |
| Williams | X | X | X | X | X | X | X | X |
| Woodworth | X | X | X | X | X | X | | |
| Cutler 71 | | X | X | X | X | X | | |
| Beeson | | | | X | X | X | | X |
| Wells | | | | X | X | X | | |
| Amsoy | | | | | X | X | | X |
| Corsoy | | | | | X | X | | |
| Hark | | | | | X | X | | |
| Hodgson | | | | | X | X | | |
| Steele | | | | | X | X | | |
| Altona | | | | | | X | | X |
| Swift | | | | | | X | | X |

*Table 2 (Cont'd): Distribution of cultivars in the fourth ISVEX during 1976*

| Cultivar | Joint INTSOY/ IITA Trials | Joint INTSOY/ SEARCA Trials |
|---|---|---|
| TGm 220-1-2205 | X | |
| TGm 210-1-2365 | X | |
| TGm 255-2-4341 | X | |
| TGm 249-4-B | X | |
| TGm 294-4-2371 | X | |
| TGm 256-1-B | X | |
| TGx 66-5100 | X | |
| TGx 13-3-2644 | X | |
| CES-16-17 | | X |
| Kaohsiung E-32 | | X |
| Lincoln | | X |
| Multivar 80 | | X |
| Orba | | X |
| SJ-1 | | X |
| Tainung 4 | | X |
| TK-5 | | X |

*Table 3: Description of environmental zones in the fourth International Soybean Variety Evaluation Experiment*

| Zone | Latitude | Elevation (m) | Number of sites |
|---|---|---|---|
| I | ≤ 10°59'1/ | ≤ 500 | 39 |
| II | ≤ 10°59' | 501 - 1,000 | 6 |
| III | ≤ 10°59' | > 1,000 2/ | 13 |
| IV | 11° - 20°59' | ≤ 500 | 24 |
| V | 11° - 20°59' | 501 - 1,000 | 1 |
| VI | 11° - 20°59' | > 1,000 | 7 |
| VII | 21° - 30°59' | ≤ 500 | 20 |
| VIII | 21° - 30°59' | 501 - 1,000 | 6 |
| IX | 21° - 30°59' | > 1,000 | 3 |
| X | 31° - 40°59' | ≤ 500 | 15 |
| XI | 31° - 40°59' | 501 - 1,000 | 5 |
| XII | 31° - 40°59' | > 1,000 | 2 |
| XIII | ≥ 41° | ≥ 0 | 5 |

1/ ≤ = less than or equal to

2/ > = greater than

*Table 4: Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY*

| Region | Country | Site | Latitude | Elevation (m) |
|---|---|---|---|---|
| Africa | Algeria | Khemis-Miliana | 36° 15'N | 289 |
| | Benin | Parakou | 9° 58'N | 358 |
| | Central African Empire | Bossangoa | 6° 26'N | 521 |
| | Egypt | Bahteem | 30° N | 24 |
| | | Seds | 29° N | 41 |
| | Ethiopia | Awassa | 7° N | 1700 |
| | | Dedessa | 9° 08'N | 1220 |
| | | Jimma | 7° 46'N | 1756 |
| | | Leku | 6° 45'N | 1820 |
| | Gabon | Ntoum (2 trials) | 0° 20'N | 18 |
| | Ghana | Kumasi | 6° 41'N | 270 |
| | | Legon Farm | 5° 39'N | 60 |
| | Ivory Coast | Dekokaha | 9° 05'N | 350 |
| | | Odienne | 9° 06'N | 400 |
| | | Sirasso | 9° 04'N | 350 |
| | Lesotho | Maseru | 29° 21'S | 1550 |
| | Niger | Maradi | 13° 28'N | 351 |
| | Rhodesia | Salisbury | 17° 48'S | 1506 |
| | Somalia | Afgoi | 2° 08'N | 13 |
| | Sudan | Wau | 7° 36'N | 450 |
| | Swaziland | Big Bend | 26° 52'S | 150 |
| | Tanzania | Ilonga | 6° 46'S | 503 |
| | Togo | Davie | 6° 26'N | 95 |
| | | Kitangbao | 9° 16'N | 340 |
| | Uganda | Kampala | 0° 28'N | 1160 |
| | Upper Volta | Bobo-Dioulasso | 11° 25'N | 250 |
| | Zaire | Kisanga | 11° 44'S | 1187 |
| | Zambia | Kabwe | 14° 12'S | 1207 |
| | | Magoye (3 trials) | 16° 01'S | 1067 |
| | | Mulfulira | 12° 37'S | 1265 |
| Asia | Bangladesh | Joydevpur | 24° N | 8 |
| | | Kashimpur | 24° N | 8 |
| | | Mymensingh | 24° N | 18 |
| | | Pabna | 24° 03'N | 22 |
| | India | Jabalpur | 23° 10'N | 393 |
| | | Pantnagar | 29° 05'N | 243 |
| | Indonesia | Malang | 8° 25'S | 335 |
| | | Medan | 3° 35'N | 25 |
| | Nepal | Khairanitar Farm | 28° N | 1000 |
| | | Khumaltar | 27° 40'N | 1360 |

*Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY*

| Region | Country | Site | Latitude | Elevation (m) |
|---|---|---|---|---|
| Asia (cont'd) | Pakistan | Islamabad | 34° N | 526 |
| | | Kotdiji (2 trials) | 27° N | 18 |
| | | Lahore | 31° 30'N | 230 |
| | | Mingora | 36° 46'N | 904 |
| | | Mirwah | 25° N | 20 |
| | | Swat | 36° 46'N | 904 |
| | | Tandojam | 25° N | 63 |
| | | Tandojam | 25° N | 2 |
| | | Umerkot | 25° N | 29 |
| | Philippines | Los Banos | 14° 10'N | 15 |
| | Sri Lanka | Alutharama (2 trials) | 7° 30'N | 266 |
| | | Angunukolapalessa | 6° N | 30 |
| | | Bandarawela | 6° 51'N | 1220 |
| | | Gannoruwa (3 trials) | 7° 15'N | 457 |
| | | Kilinochchi (2 trials) | 9° 02'N | 9 |
| | | Maha Illuppallama (2 trials) | 8° 05'N | 138 |
| | | Okkampitiya | 6° 45'N | 184 |
| | | Puttalam | 8° 15'N | 24 |
| | | Thirunelvely | 10° N | 1 |
| | Thailand | Khon Kaen | 16° 36'N | 180 |
| | | Saraburi | 14° 47'N | 100 |
| | | Suwan Farm | 14° 30'N | 367 |
| Europe | Hungary | Godollo | 47° N | |
| | | Szarvas | 46° 51'N | 84 |
| | Italy | Sassari, Sardinia | 40° 43'N | 80 |
| | | Ussana, Sardinia | 39° 25'N | 89 |
| | Poland | Radzikow | 52° 13'N | 90 |
| | Portugal | Porto | 41° 20'N | 29 |
| | Spain | Seville | 37° 30'N | 20 |
| | Yugoslavia | Novi Sad | 45° 20'N | 80 |
| Mesoamerica | Bahamas | San Andros | 24° 57'N | 2 |
| | Dominican Republic | San Cristobal | 18° 30'N | 43 |
| | Jamaica | Caymanas | 18° N | 2 |
| | Mexico | Apatzingan (2 trials) | 19° N | 337 |
| | Nicaragua | Managua | 12° 33'N | 60 |
| | | Posoltega | 12° 33'N | 60 |
| | Puerto Rico | Isabela | 18° 28'N | 140 |

*Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY*

| Region | Country | Site | Latitude | Elevation (m) |
|---|---|---|---|---|
| Middle East | Iran | Karaj | 37° 47'N | 1300 |
| | | Safiabad | 32° 16'N | 81 |
| | Israel | Bet-Dagan (2 trials) | 32° N | 80 |
| | Jordan | Deir Alla | 35° 12'N | -68 |
| | Saudi Arabia | Wadi Jizan | 17° 55'N | 83 |
| North America | United States | Urbana, Illinois | 40° 07'N | 226 |
| Oceania | New Caledonia | Bourail | 21° S | 0 |
| | New Hebrides | Port Vila | 17° 45'S | 15 |
| | Tahiti | Papeete | 17° 30'S | 2 |
| | United States | Kapaa, Hawaii (2 trials) | 21° N | 168 |
| South America | Argentina | Parana | 31° 50'S | 111 |
| | Bolivia | Santa Cruz | 18° 39'S | 389 |
| | | Santa Cruz | 17° 14'S | 320 |
| | Brazil | Janauba | 15° S | 510 |
| | Chile | La Platina | 33° 27'S | 625 |
| | Colombia | Palmira | 3° 32'N | 1008 |
| | Ecuador | Boliche | 2° 21'S | 17 |
| | | Pallatanga | 1° 59'S | 1 |
| | | Portoviejo | 1° 04'S | 30 |
| | | Pichilingue | 1° 05'S | 73 |
| | Paraguay | Caacupe | 25° 24'S | 228 |
| | Peru | La Vina | 12° 05'S | 251 |
| | | Lima | 12° 05'S | 238 |
| | Uruguay | Tacuarembo | 31° 42'S | 120 |
| | | Treinta y Tres | 33° 18'S | 31 |

*Table 5: List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| AFRICA | Algeria | Officer-in-Charge | Station Regionale<br>I.D.C.I.<br>Khemis-Miliana<br>El-Asnam, ALGERIA |
| | Benin | Director | Institut de Recherches Agronomiques Tropicales<br>B.P. 155<br>Parakou, BENIN |
| | | Mr. E. Limburg<br>Mr. E. Fado | Action Rurale<br>B.P. 102<br>Save, BENIN |
| | Botswana | Mr. P. G. Lee | Agricultural Research Station - Content Farm<br>P/bag 0033<br>Gaborone, BOTSWANA |
| | | Ms. Lynn A. Miller | Mahalapye Rural Training Center<br>Box 300<br>Mahalapye, BOTSWANA |
| | Burundi | Mr. J. De Brabandere | Buhoro Station<br>B.P. 795<br>Bujumbura, BURUNDI |
| | | Mr. De Marcim | ISABU<br>SEMS/IMBO<br>B.P. 2393<br>Bujumbura, BURUNDI |
| | Cameroon | Mr. Jean Praquin | I.C.V.T.<br>Santchou, CAMEROON |
| | Central African Empire | Mr. Miguel L. Carmen | FAO Expert<br>Centre de Multiplication de Soumbe<br>B.P. 39<br>Bossangoa, CENTRAL AFRICAN EMPIRE |
| | Congo | Ing. Ivetic Obrad | Expert de la FAO<br>Agricultural Vulgarisation<br>Lekana, B.P. 3<br>Brazzaville, CONGO |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| AFRICA (cont'd) | Egypt | Dr. Ali Abdel Aziz | Bahteem Research Station<br>Bahteem, EGYPT |
| | | Dr. Samia Ali Mahmoud | 60 A Mohamed Farid St.<br>Abdin, Cairo, EGYPT |
| | Ethiopia | Mr. Teklemariam Haile<br>Mr. Tadesse | Institute of Agricultural Research<br>Bako Research Station<br>P.O. Box 3<br>Bako, ETHIOPIA |
| | | Mr. Demissie Mitiku<br>Mr. Titos Legatos | Leku c/o Awassa<br>P.O. Box 80<br>Sidamo Adm. Region<br>ETHIOPIA |
| | | Mr. G. M. Shekour<br>Mr. G. E. Ande | Jimma Agricultural Institute<br>Box 192<br>Jimma, ETHIOPIA |
| | Gabon | Mr. J. van Amerongen<br>Mr. G. Van de Plas | Project CIAM<br>B.P. 5<br>Ntoum, GABON |
| | Ghana | Mr. R. B. Dadson | Legon Farm<br>University of Ghana<br>Legon, GHANA |
| | | Mr. Hector Mercer-Quarshie | Crops Research Institute<br>Box 3785<br>Kumasi, GHANA |
| | Ivory Coast | Dr. A. D. Assa | Faculte des Sciences<br>Universite National de Cote d'Ivoire<br>B. P. 4322<br>Abidjan, IVORY COAST |
| | Lesotho | Mr. Chen-Kien Chu | P.O. Box 789<br>Maseru, LESOTHO |
| | Mali | Mr. M. Crambade | Institut de Recherches Pour Les Huiles et Oleagineux<br>B.P. 16<br>Koulikoro, MALI |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| AFRICA (cont'd) | Niger | Director | Institut de Recherches Agronomiques Tropicales<br>Station de Tarna<br>E.P. 240<br>Maradi, NIGER |
| | Nigeria | Dr. D. Nangju<br>Mr. J. P. Singh | International Institute of Tropical Agriculture<br>Oyo Road, P.M.B. 5320<br>Ibadan, NIGERIA |
| | Rhodesia | Dr. J. R. Tattersfield<br>Mr. J. S. Tichagwa | Salisbury Research Station<br>Box 8100<br>Causeway<br>Salisbury, RHODESIA |
| | Somalia | Mr. M. A. Arkow<br>Mr. S. J. Osoble<br>Mr. A. H. Maio | Agricultural Research Institute<br>Afgoi, SOMALIA |
| | Sudan | Mr. D. Hopkinson<br>Mr. H.L.M. van Wissen | Halima Experimental Station<br>Ministry of Agriculture<br>Wau, SUDAN |
| | Swaziland | Mrs. Janet Cumberland | Crop Agronomist<br>Malkerns Research Station<br>P.O. Box 4<br>Malkerns, SWAZILAND |
| | Tanzania | Mr. M.E.T. Mmbaga | A.R.I. - Ilonga<br>Private Bag<br>Kilosa, TANZANIA |
| | | Mr. A. J. Carpenter | Kizimbani, Box 159, Zanzibar<br>Zanzibar, TANZANIA |
| | Togo | Mr. J. Marquette | La Chef de la Mission<br>Institut de Recherches Agronomiuqes Tropicales au Togo<br>B.P. 1163<br>Lome, TOGO |
| | Uganda | Mr. C. K. Bulungu | Makerere University Farm<br>P.O. Box 7062<br>Kampala, UGANDA |
| | Upper Volta | Mr. C. I. Korteweg | CERCI<br>B.P. 130<br>BOBO-DIOULASSO, UPPER VOLTA |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| AFRICA (cont'd) | Zaire | Mr. Thomas G. Hart | Programme National Mais<br>B.P. 3673<br>Lubumbashi, ZAIRE |
| | Zambia | Mr. F. Javaheri | Soybean Coordinator<br>Magoye Regional Research Station<br>P.O. Box 11<br>Magoye, ZAMBIA |
| | | Mr. A.A.V. Sarmezey | Copperbelt Regional Research Station<br>P.O. Box 668<br>Mufulira, ZAMBIA |
| | | Mr. N. S. Lipovac | Kabwe Regional Research Station<br>P.O. Box 908<br>Kabwe, ZAMBIA |
| | Bangladesh | Dr. Peter R. Hobbs<br>Mr. Abdus Sobhan<br>Mr. M. A. Hoque<br>Mr. N. I. Miah | Bangladesh Rice Research Institute<br>P.O. Box 911<br>Joydevpur, BANGLADESH |
| | | Dr. A. J. Miah<br>Mr. B. H. Sikder<br>Mr. A. Mansur | Institute of Nuclear Agriculture<br>P.O. Box 4<br>Mymensingh, BANGLADESH |
| | | Mr. M.A.H. Sarker<br>Mr. E. Nafziger | Agricultural Research Substation<br>Pabna, BANGLADESH |
| | India | Dr. S. M. Sharma<br>Mr. S. K. Mehta | Dept. of Plant Breeding and Genetics<br>J. N. Krishi Vishwa Vidyalay<br>Jabalpur -4 (M.P.)<br>INDIA |
| | | Dr. B. B. Singh | G. B. Pant University of Agriculture<br>Pantnagar, INDIA |
| | Indonesia | Mr. Riwanodja<br>Mr. Sumarno | Jambegede Agriculture Station<br>Kepanjen (Malang)<br>East Java, INDONESIA |
| | | Ir. B.O.P. Tampubolon | Fakultas Pertanian, U.S.U.<br>Medan, Sumatra Utara,<br>INDONESIA |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| ASIA (cont'd) | Nepal | Mrs. Meena Panday | Khumaltar Agriculture Farm<br>Khumaltar, G.P.O. Box 404<br>Kathmandu, NEPAL |
| | | Mr. B. Thapa<br>Mr. M. P. Bharati | Gandaki Agriculture Development Project<br>Khairanitar, NEPAL |
| | Pakistan | Mr. A. H. Chaudhry<br>Mr. M. A. Jaleel<br>Mr. N. Ahamed<br>Mr. A. H. Soomro | Oilseeds Section<br>Agricultural Research Institute<br>Tandojam, PAKISTAN |
| | | Mr. R. Troedson | Agricultural Project<br>Technical Services Assoc.<br>23-2 Race Course Road<br>Lahore 3, PAKISTAN |
| | | Mr. P. F. Knowles<br>Mr. M. A. Rana | Pakistan Agricultural Research Station<br>P.O. National Health Laboratories<br>Islamabad, PAKISTAN |
| | | Mr. K. Sheikh<br>Mr. M. I. Soomro | Agricultural Research Sub-station<br>Kotdiji, PAKISTAN |
| | | Mr. Syed Badshah | Tarnab Research Institute<br>Peshawar, PAKISTAN |
| | Philippines | Mr. Benjamin M. Legaspi<br>Mr. R. R. Matias | Legume Research Project<br>Dept. of Agriculture & Natural Resources<br>Bureau of Plant Industry<br>Economic Garden<br>Los Banos, Laguna 3732, PHILIPPINES |
| | Sri Lanka | Mr. S. M. Santhirasivam<br>Mr. S. Kandasamy | Agricultural Research Station<br>Alutharama<br>Mahiyangana, SRI LANKA |
| | | Mr. A. Senthinathan<br>Mr. R. Radhakrishnan | Agricultural Research Centre<br>Angunukolapalessa, SRI LANKA |
| | | Mr. L. G. Herat<br>Mr. G. R. Aloysius | Regional Agricultural Research Station<br>Bandarawela, SRI LANKA |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| ASIA (cont'd) | Sri Lanka (cont'd) | Mr. C. D. Dharmasena | Central Agriculture Research Institute, Gannoruwa Peradeniya, SRI LANKA |
| | | Mr. N. Kanaganayagam | Agricultural Research Station Kilinochchi, SRI LANKA |
| | | Miss P.W.S.M. Weerasinghe | Agricultural Research Station Maha Illuppalama, SRI LANKA |
| | | Mr. S. Thirianathan<br>Mr. I. S. Padmasiri | Agricultural Research Station Ilavankulum Puttalam, SRI LANKA |
| | | Mrs. J. S. Selvaratnam<br>Mr. S. Balasunderam<br>Mr. R. Manokaran | Agricultural Research Centre Thirunelvely Jaffna, SRI LANKA |
| | Thailand | Dr. Prasan Yingchol<br>Mr. Ed Sarobol<br>Mr. J. Verawudh | Division of Agronomy Dept. of Plant Science College of Agriculture Kasetsart University Bangkok, THAILAND |
| | | Dr. Paisan Laosuwan | Khon Kaen University Khon Kaen, THAILAND |
| | | Mr. Waiwat Burantham<br>Mr. Pattawuth Jewtrakool<br>Mr. Prawit Wongsukon | Khun Talae Rubber Research Center Surat Thani, THAILAND |
| | | Dr. Arwooth Na Lampang | Sisumrong Agricultural Experiment Station Sukothai, THAILAND |
| EUROPE | Hungary | Dr. Andor Balint | Dept. for Plant Breeding University of Agricultural Sciences Godollo 2103, HUNGARY |
| | | Dr. Elemer Posgay | Research Institue of Irrigation Szarvas, HUNGARY |
| | Italy | Prof. Guiseppe Rivoira | Instituto di Agronomia Generale e Coltvazioni Erbacee Universita di Sassari Via E. de Nicola Cod. Post. 07100 Sassari, Sardinia, ITALY |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| EUROPE (cont'd) | Poland (cont'd) | Dr. J. Szyrmer | Soybean Laboratory of Plant Breeding and Acclimatiziation Institute<br>Radzikow, POLAND |
| | Portugal | Mr. Abilio Silva<br>Mr. Duarte S. Sousa<br>Mr. Antonio D. Angelico | Estacao Agraria do Porto<br>R. Restauracao<br>Porto, PORTUGAL |
| | Spain | Director | La Rinconada<br>Instituto Nacional de Investigaciones Agrarias<br>San Jose de la Rinconada<br>Seville, SPAIN |
| | Yugoslavia | Dr. Bogdan Belic | Faculty of Agriculture<br>21.00 Novi Sad,<br>V. Vlahovica 2, YUGOSLAVIA |
| MESO-AMERICA | Bahamas | Dr. John R. Thompson | BARTAD Project<br>San Andros P.O.<br>Andros Island, BAHAMAS |
| | Dominican Republic | Mr. J. Diaz<br>Mr. M. Rosario | CNIECA<br>San Cristobal, DOMINICAN REPUBLIC |
| | Jamaica | Mr. Harold R. Wilson | Caymanas Estates Ltd.<br>Spanish Town, JAMAICA |
| | Mexico | Mr. Benito Cazares-Enriques | INIA<br>Caeva Apdo. Postal #40<br>Apatzingan, Mich., MEXICO |
| | Nicaragua | Mr. Manuel Vanegas | Agricultural Division<br>Research & Development Dept.<br>Central Bank of Nicaragua<br>P.O. Box 2252<br>Managua, NICARAGUA |
| | Puerto Rico | Dr. E. H. Paschal II | Isabela, PUERTO RICO |
| | Trinidad & Tobago | Mr. David C. Martin | Chaguaramas Agricultural Development Project<br>Minsitry of Agriculture, Land & Fisheries<br>Port-of-Spain, TRINIDAD |
| MIDDLE EAST | Iran | Dr. M. C. Amirshahi<br>Mr. B. Yazdi Samadi | College of Agriculture<br>University of Tehran<br>Karaj, IRAN |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| MIDDLE EAST (cont'd) | Iran (cont'd) | Mr. Hesmatollah Pourdavai<br>Mr. Ghafari<br>Mr. Shariati | Seed & Plant Improvement Program<br>Oilseed Research Seciton<br>Karaj, IRAN |
| | | Dr. J. C. Carapetian | College of Agriculture and Animal Husbandry<br>P.O. Box 32<br>Rezaiyeh, IRAN |
| | | Dr. E. K. Vaughan<br>Mr. N. Hodjati | Safiabad Research Center<br>IRAN |
| | Iraq | Dr. Salih M. Damirgi | Dept. of Soil Science<br>College of Agriculture<br>Abu-Ghraib, IRAQ |
| | Israel | Dr. Baruch Retig<br>Mr. V. Lehrer | Agricultural Research Organization<br>The Volcani Center<br>P.O. Box 6<br>Bet-Dagan, ISRAEL |
| | Jordan | Mr. N. Katkhuda<br>Mr. M. Khuadare | Wadi Dulail Research Station<br>JORDAN |
| | | Mr. A. Hammuda | Deir Alla Station, JORDAN |
| | Saudi Arabia | Mr. Mohamed Nour Boukhari | Hakma Station<br>Wadi Jizan Agricultural Development Project<br>Jizan, SAUDI ARABIA |
| NORTH AMERIA | United States | Mr. Robert Dunker | INTSOY<br>Dept. of Agronomy<br>University of Illinois<br>Urbana, Illinois, U.S.A. 61801 |
| OCEANIA | New Caledonia | Mr. Robert Arrighi | CREA<br>B.P. 37<br>Bourail, NEW CALEDONIA |
| | New Hebrides | Mr. B. L. Weightman | Department of Agriculture<br>Tagabe Agricultural Station<br>Port Vila, NEW HEBRIDES |
| | Tahiti | Mr. Jean-Louis Reboul<br>Mr. Robert Yau-Akui | Service de l'Economie Rurale<br>B.P. 100<br>Papeete, TAHITI |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| OCEANIA | United States | Mr. Terry Sekioka | Hawaii Agricultural Experiment Station<br>Kapaa, Hawaii, U.S.A. 96746 |
| SOUTH AMERIA | Argentina | Mr. Raul Vicentini | INTA<br>Estacion Experimental Regional Agropecuaria de Parana<br>Casilla Correo 128<br>3100 Parana, Entre Rios, ARGENTINA |
| | Bolivia | Mr. Alberto Castillo | Estacion Experimental "A. Gomez"<br>Casilla #1281<br>Santa Cruz, BOLIVIA |
| | | Mr. Hebert Zurita<br>Mr. Zenon Hunezy<br>Mr. Warner Fisher | Estacion Experimental Agricola de Saavedra<br>Santa Cruz, Casilla 247<br>Santa Cruz, BOLIVIA |
| | Brazil | Dr. Fazal Rahman | Research Scientist<br>Instituto Nacional de Pesquisas da Amazonia<br>Caixa Postal 478 - 69.000<br>Manaus, Amazonas, BRAZIL |
| | Chile | Mr. Hugo Geldres R. | Instituto de Investigaciones Agropecuarias<br>Estacion Expermental La Platina<br>Santa Rosa 11610 - Paradero 33<br>Casilla 10, La Granja<br>Santiago, CHILE |
| | Colombia | Mr. Gilberto Bastidas R. | Programa Leguminosas de Grano y Oleaginosas Anuales<br>Centro Exp. Palmira (ICA)<br>Apartado Aereo 233<br>Palmira, COLOMBIA |
| | Ecuador | Ing. Eduardo Calero H. | Oil Seed Program<br>Instituto Nacional de Investigaciones Agropecuarios<br>Estacion Experimental Boliche<br>Apartado No. 7069<br>Guayaquil, ECUADOR |
| | Paraguay | Mr. Roberto Casaccia<br>Mr. Oscar Aguilera<br>Mr. Justo Lopez | Instituto Agronomico Nacional<br>Caacupe, PARAGUAY |

*Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

| Region | Country | Name | Address |
|---|---|---|---|
| SOUTH AMERICA (cont'd) | Paraguay (cont'd) | Mr. Sinforiano Paniagua S. | Director del C.R.I.A.<br>Ministerio de Agricultura y Ganaderia<br>Capitan-Miranda, PARAGUAY |
| | Peru | Ing. Cesar A. Maceda | CRIA - II<br>Sub-estacion Experimental<br>Bagua - Apartado 116<br>Chiclayo, PERU |
| | | Mr. Hugo Soplin V. | National Agriculture University<br>La Vina, PERU |
| | | Ing. Jose Bruno<br>Ing. Rufino Montalvo | Estacion Experimental - La Molina<br>Centro Regional de Investigacion Agropecuarias<br>Apartado 2791<br>Lima, PERU |
| | Uruguay | Mr. Luis Amendola | Estacion Exp. del Norte<br>Gral Flores 390<br>Tacuarembo, URUGUAY |
| | | Mr. Miguel A. Berasain | Estacion Exp. del Este<br>Avda. Brasil 139<br>Teinta y Tres, URUGUAY |

*Table 6: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth International Soybean Variety Experiment (ISVEX) conducted in similar environmental zones (I and IV)*

| Cultivar | Mean grain yield (kg/ha) | | | |
|---|---|---|---|---|
| | 15 sites | | 16 sites | |
| | 0-10° lat 1/ | | 11-20° lat | |
| | 0-500 m 2/ | | 0-500 m | |
| Davis | 2525 | (1) 3/ | 2466 | (1) |
| Forrest | 2399 | (2) | 2290 | (3) |
| Imp. Pelican | 2365 | (3) | 1857 | (12) |
| Bragg | 2306 | (4) | 2206 | (5) |
| Williams | 2246 | (5) | 2092 | (8) |
| Jupiter | 2242 | (6) | ---- | |
| Bossier | 2143 | (7) | 1953 | (11) |
| Clark 63 | 2117 | (8) | 2102 | (7) |
| Hill | 2093 | (9) | 1970 | (10) |
| Calland | ---- 4/ | | 2356 | (2) |
| Cobb | ---- | | 2236 | (4) |
| Ransom | ---- | | 2193 | (6) |
| Pickett 71 | ---- | | 2061 | (9) |
| Woodworth | ---- | | 1685 | (13) |
| Mean | 2271 | | 2113 | |
| LSD (.05) | -NS- 5/ | | 332.8 | |

1/ Range of latitude where trials were planted
2/ Range of elevations where trials were planted
3/ Numbers in parentheses indicate ranking of mean yields
4/ Cultivar omitted at some sites; therefore, mean values not calculated
5/ LSD not significant at 5% level

*Table 7: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean rank of grain yields | |
|---|---|---|
| | 15 sites<br>0-10° lat<br>0-500 m | 16 sites<br>11-20° lat<br>0-500 m |
| Davis | 1 | 1 |
| Forrest | 3 | 3 |
| Imp. Pelican | 2 | 12 |
| Bragg | 4 | 8 |
| Williams | 6 | 5 |
| Jupiter | 5 | - |
| Bossier | 7 | 10 |
| Clark 63 | 9 | 7 |
| Hill | 8 | 11 |
| Calland | - | 2 |
| Cobb | - | 4 |
| Ransom | - | 6 |
| Pickett 71 | - | 9 |
| Woodworth | - | 13 |

*Table 8: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean days to flower | |
|---|---|---|
| | 15 sites<br>0-10° lat<br>0-500 m | 15 sites[1/]<br>11-20° lat<br>0-500 m |
| Davis | 30 | 33 |
| Forrest | 29 | 29 |
| Imp. Pelican | 34 | 39 |
| Bragg | 30 | 29 |
| Williams | 27 | 26 |
| Jupiter | 38 | -- |
| Bossier | 30 | 28 |
| Clark 63 | 29 | 26 |
| Hill | 31 | 31 |
| Calland | -- | 26 |
| Cobb | -- | 30 |
| Ransom | -- | 29 |
| Pickett 71 | -- | 29 |
| Woodworth | -- | 25 |
| Mean | 31 | 29 |
| LSD (.05) | 2.2 | 2.0 |

1/ Number of sites contributing to mean may vary because data for certain characteristics not recorded at some sites

*Table 9: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean days to harvest | |
|---|---|---|
| | 15 sites<br>0-10° lat<br>0-500 m | 16 sites<br>11-20° lat<br>0-500 m |
| Davis | 99 | 94 |
| Forrest | 90 | 91 |
| Imp. Pelican | 98 | 102 |
| Bragg | 95 | 93 |
| Williams | 88 | 86 |
| Jupiter | 115 | -- |
| Bossier | 94 | 95 |
| Clark 63 | 87 | 87 |
| Hill | 91 | 88 |
| Calland | -- | 88 |
| Cobb | -- | 97 |
| Ransom | -- | 94 |
| Pickett 71 | -- | 92 |
| Woodworth | -- | 84 |
| Mean | 95 | 92 |
| LSD (.05) | 4.1 | 4.9 |

*Table 10: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean plant height (cm) | |
|---|---|---|
| | 15 sites<br>0-10° lat<br>0-500 m | 16 sites<br>11-20° lat<br>0-500 m |
| Davis | 33 | 49 |
| Forrest | 35 | 43 |
| Imp. Pelican | 74 | 86 |
| Bragg | 37 | 42 |
| Williams | 42 | 54 |
| Jupiter | 68 | -- |
| Bossier | 33 | 36 |
| Clark 63 | 45 | 55 |
| Hill | 36 | 40 |
| Calland | -- | 59 |
| Cobb | -- | 44 |
| Ransom | -- | 38 |
| Pickett 71 | -- | 31 |
| Woodworth | -- | 48 |
| Mean | 45 | 48 |
| LSD (.05) | 5.8 | 7.0 |

*Table 11: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean lodging score[1/] | |
|---|---|---|
| | 14 sites<br>0-10° lat<br>0-500 m | 16 sites<br>11-20° lat<br>0-500 m |
| Davis | 1.1 | 1.4 |
| Forrest | 1.1 | 1.2 |
| Imp. Pelican | 1.9 | 2.1 |
| Bragg | 1.2 | 1.2 |
| Williams | 1.0 | 1.4 |
| Jupiter | 1.8 | --- |
| Bossier | 1.1 | 1.2 |
| Clark 63 | 1.2 | 1.7 |
| Hill | 1.1 | 1.4 |
| Calland | --- | 1.6 |
| Cobb | --- | 1.2 |
| Ransom | --- | 1.1 |
| Pickett 71 | --- | 1.1 |
| Woodworth | --- | 1.5 |
| Mean | 1.3 | 1.4 |
| LSD (.05) | 0.36 | 0.35 |

1/ Mean of lodging scores where:
1 = all plants erect
2 = all leaning slightly or a few down
3 = all leaning moderately (45°) or 25-50% down
4 = all leaning considerably or 50-80% down
5 = all plants down

*Table 12: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean shattering score[1/] | |
|---|---|---|
| | 13 sites<br>0-10° lat<br>0-500 m | 13 sites<br>11-20° lat<br>0-500 m |
| Davis | 1.1 | 1.2 |
| Forrest | 1.0 | 1.1 |
| Imp. Pelican | 1.1 | 1.1 |
| Bragg | 1.0 | 1.0 |
| Williams | 1.0 | 1.1 |
| Jupiter | 1.1 | --- |
| Bossier | 1.1 | 1.0 |
| Clark 63 | 1.1 | 1.1 |
| Hill | 1.0 | 1.2 |
| Calland | --- | 1.3 |
| Cobb | --- | 1.2 |
| Ransom | --- | 1.0 |
| Pickett 71 | --- | 1.2 |
| Woodworth | --- | 1.4 |
| Mean | 1.1 | 1.1 |
| LSD (.05) | -NS- | -NS- |

1/ Mean of shattering scores where:
1 = no shattered pods
2 = 1-10% shattered
3 = 10-25% shattered
4 = 25-50% shattered
5 = over 50% shattered

*Table 13: Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean seed weight (g/100 seeds) | |
|---|---|---|
| | 15 sites 0-10° lat 0-500 m | 15 sites 0-10° lat 0-500 m |
| Davis | 18.7 | 16.4 |
| Forrest | 15.0 | 15.0 |
| Imp. Pelican | 14.4 | 12.8 |
| Bragg | 18.3 | 16.4 |
| Williams | 18.4 | 18.7 |
| Jupiter | 18.3 | ---- |
| Bossier | 17.0 | 16.7 |
| Clark 63 | 17.0 | 17.4 |
| Hill | 15.9 | 15.8 |
| Calland | ---- | 19.4 |
| Cobb | ---- | 16.2 |
| Ransom | ---- | 17.4 |
| Pickett 71 | ---- | 16.7 |
| Woodworth | ---- | 16.9 |
| Mean | 17.0 | 16.6 |
| LSD (.05) | 0.97 | 1.40 |

*Table 14: Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

| Cultivar | Mean seed quality score 1/ | |
|---|---|---|
| | 14 sites<br>0-10° lat<br>0-500 m | 13 sites<br>11-20° lat<br>0-500 m |
| Davis | 1.8 | 2.6 |
| Forrest | 2.0 | 2.9 |
| Imp. Pelican | 1.4 | 2.5 |
| Bragg | 1.7 | 3.0 |
| Williams | 1.6 | 2.4 |
| Jupiter | 2.2 | --- |
| Bossier | 2.0 | 2.8 |
| Clark 63 | 1.7 | 2.6 |
| Hill | 1.7 | 2.5 |
| Calland | --- | 2.9 |
| Cobb | --- | 2.8 |
| Ransom | --- | 3.1 |
| Pickett 71 | --- | 2.6 |
| Woodworth | --- | 2.8 |
| Mean | 1.8 | 2.7 |
| LSD (.05) | 0.47 | -NS- |

1/ Mean of seed quality scores where:
1 = very good
2 = good
3 = fair
4 = poor
5 = very poor

*Table 15: Selected agronomic characteristics of cultivars observed in the first joint INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I*

| Cultivar | Means of observations at 6 sites, 0-10°, 0-500m | | | |
|---|---|---|---|---|
| | Grain yield (kg/ha) | Rank of grain yield | Days to[1/] flower | Days to harvest |
| Davis | 2138 | 1 | 28 | 92 |
| TGx 13-3-2644 | 2136 | 2 | 41 | 106 |
| Jupiter | 2103 | 3 | 44 | 105 |
| TGm 210-1-2363 | 2026 | 5 | 39 | 96 |
| TGm 220-1-2205 | 1973 | 7 | 44 | 103 |
| TGm 256-1-b | 1942 | 4 | 38 | 98 |
| TGm 294-4-2371 | 1928 | 10 | 41 | 103 |
| Imp. Pelican | 1899 | 8 | 34 | 91 |
| TGm 255-2-4341 | 1871 | 6 | 36 | 100 |
| TGm 249-4-b | 1859 | 11 | 36 | 101 |
| Williams | 1798 | 9 | 26 | 83 |
| Cobb | 1782 | 12 | 28 | 90 |
| TGx 66-5100 | 1699 | 14 | 36 | 98 |
| Clark 63 | 1668 | 13 | 26 | 85 |
| Bossier | 1481 | 15 | 25 | 88 |
| Mean | 1887 | -- | 35 | 96 |
| LSD (.05) | -NS- | -- | 6.8 | 9.2 |

[1/] Mean from 5 sites only

*Table 15 (cont'd): Selected agronomic characteristics of cultivars observed in the first INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I*

| | Means of observations at 6 sites, 0-10°, 0-500m | | | | |
|---|---|---|---|---|---|
| | Plant height (cm) | Lodging score 1/ | Shattering score 1/ | Seed weight 1/ (g/100 seeds) | Seed quality 2/ score |
| Davis | 32 | 1.4 | 1.0 | 18.9 | 1.5 |
| TGx 13-3-2644 | 63 | 2.3 | 1.1 | 16.6 | 1.6 |
| Jupiter | 58 | 2.4 | 1.0 | 18.3 | 2.5 |
| TGm 210-1-2363 | 51 | 2.0 | 2.0 | 16.0 | 1.8 |
| TGm 220-1-2205 | 44 | 2.4 | 1.2 | 14.0 | 2.1 |
| TGm 256-1-b | 56 | 2.0 | 1.0 | 13.6 | 1.6 |
| TGm 294-4-2371 | 58 | 2.0 | 1.0 | 15.6 | 1.3 |
| Imp. Pelican | 67 | 1.8 | 0.8 | 13.8 | 1.6 |
| TGm 255-2-4341 | 54 | 2.0 | 1.1 | 12.7 | 1.9 |
| TGm 249-4-b | 60 | 2.7 | 1.0 | 15.3 | 1.6 |
| Williams | 42 | 2.0 | 0.8 | 20.0 | 1.8 |
| Cobb | 33 | 1.1 | 1.2 | 19.4 | 1.8 |
| TGx 66-5100 | 61 | 2.0 | 1.0 | 14.9 | 1.3 |
| Clark 63 | 43 | 2.1 | 0.9 | 18.3 | 2.3 |
| Bossier | 27 | 1.3 | 0.8 | 18.0 | 2.2 |
| Mean | 50 | 2.0 | 1.1 | 16.4 | 1.8 |
| LSD (.05) | 10.8 | -NS- | 0.52 | 1.48 | -NS- |

1/ Mean from 5 sites only

2/ Mean from 3 sites only

*Table 16: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean grain yield (kg/ha) | | | | | |
|---|---|---|---|---|---|---|
| | 6 sites | | 5 sites | | 16 sites | |
| | 0-10° lat | | 11-20° lat | | 21-30° lat | |
| | > 1000 m | | > 1000 m | | 0-500 m | |
| Hill | 1990 | (1) | 2776 | (9) | 1942 | (9) |
| Davis | 1934 | (2) | 3207 | (1) | 2371 | (1) |
| Forrest | 1867 | (3) | 2744 | (10) | 2227 | (4) |
| Cobb | 1697 | (4) | 3010 | (6) | ---- | |
| Imp. Pelican | 1661 | (5) | 2518 | (11) | ---- | |
| Bossier | 1616 | (6) | 2839 | (8) | 2306 | (3) |
| Pickett 71 | 1590 | (7) | 2493 | (12) | 2101 | (6) |
| Ransom | 1458 | (8) | 3061 | (5) | 2358 | (2) |
| Williams | 1448 | (9) | 2467 | (14) | 2030 | (7) |
| Calland | 1340 | (10) | 3114 | (3) | 1938 | (10) |
| Clark 63 | 1174 | (11) | 2471 | (13) | 1997 | (8) |
| Woodworth | 1128 | (12) | 2272 | (15) | 1634 | (11) |
| Bragg | 1057 | (13) | 2933 | (7) | 2204 | (5) |
| Essex | ---- | | 3122 | (2) | ---- | |
| Columbus | ---- | | 3111 | (4) | ---- | |
| Mean | 1535 | | 2809 | | 2101 | |
| LSD (.05) | 378.2 | | 447.6 | | 313.3 | |

*Table 17: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean rank of grain yields | | |
|---|---|---|---|
| | 6 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 16 sites<br>21-30° lat<br>0-500 m |
| Hill | 1 | 10 | 9 |
| Davis | 2 | 1 | 3 |
| Forrest | 3 | 9 | 4 |
| Cobb | 5 | 7 | - |
| Imp. Pelican | 4 | 11 | - |
| Bossier | 6 | 8 | 2 |
| Pickett 71 | 7 | 13 | 6 |
| Ransom | 9 | 5 | 1 |
| Williams | 8 | 14 | 7 |
| Calland | 10 | 3 | 10 |
| Clark 63 | 11 | 12 | 8 |
| Woodworth | 12 | 15 | 11 |
| Bragg | 13 | 6 | 5 |
| Essex | - | 2 | - |
| Columbus | - | 4 | - |

*Table 18: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean days to flower | | |
|---|---|---|---|
| | 5 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 13 sites<br>21-30° lat<br>0-500 m |
| Hill | 58 | 42 | 46 |
| Davis | 63 | 43 | 47 |
| Forrest | 53 | 36 | 45 |
| Cobb | 58 | 38 | -- |
| Imp. Pelican | 74 | 52 | -- |
| Bossier | 49 | 32 | 47 |
| Pickett 71 | 50 | 33 | 46 |
| Ransom | 46 | 30 | 45 |
| Williams | 42 | 25 | 34 |
| Calland | 41 | 25 | 34 |
| Clark 63 | 41 | 25 | 35 |
| Woodworth | 42 | 25 | 33 |
| Bragg | 52 | 31 | 46 |
| Essex | -- | 31 | -- |
| Columbus | -- | 26 | -- |
| Mean | 52 | 33 | 42 |
| LSD (.05) | 9.6 | 3.6 | 4.8 |

*Table 19: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean days to harvest | | |
|---|---|---|---|
| | 5 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 15 sites<br>21-30° lat<br>0-500 m |
| Hill | 126 | 102 | 101 |
| Davis | 130 | 109 | 113 |
| Forrest | 129 | 104 | 106 |
| Cobb | 128 | 108 | --- |
| Imp. Pelican | 139 | 115 | --- |
| Bossier | 124 | 105 | 117 |
| Pickett 71 | 122 | 99 | 115 |
| Ransom | 124 | 104 | 117 |
| Williams | 113 | 88 | 94 |
| Calland | 123 | 97 | 98 |
| Clark 63 | 119 | 90 | 97 |
| Woodworth | 113 | 83 | 89 |
| Bragg | 124 | 100 | 116 |
| Essex | --- | 104 | --- |
| Columbus | --- | 97 | --- |
| Mean | 124 | 100 | 106 |
| LSD (.05) | 9.8 | 4.5 | 6.6 |

*Table 20: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean plant height (cm) | | |
|---|---|---|---|
| | 6 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 15 sites<br>21-30° lat<br>0-500 m |
| Hill | 41 | 61 | 47 |
| Davis | 40 | 66 | 55 |
| Forrest | 40 | 58 | 52 |
| Cobb | 38 | 59 | -- |
| Imp. Pelican | 71 | 96 | -- |
| Bossier | 32 | 42 | 55 |
| Pickett 71 | 30 | 36 | 43 |
| Ransom | 32 | 39 | 50 |
| Williams | 31 | 45 | 50 |
| Calland | 34 | 52 | 55 |
| Clark 63 | 33 | 50 | 51 |
| Woodworth | 31 | 44 | 49 |
| Bragg | 34 | 47 | 58 |
| Essex | -- | 45 | -- |
| Columbus | -- | 58 | -- |
| Mean | 37 | 53 | 51 |
| LSD (.05) | 9.7 | 8.1 | 6.4 |

*Table 21: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean lodging score | | |
|---|---|---|---|
| | 4 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 10 sites<br>21-30° lat<br>0-500 m |
| Hill | 1.4 | 1.9 | 1.6 |
| Davis | 1.0 | 1.2 | 1.6 |
| Forrest | 1.1 | 1.6 | 1.5 |
| Cobb | 0.9 | 1.3 | --- |
| Imp. Pelican | 1.9 | 1.6 | --- |
| Bossier | 1.0 | 1.0 | 1.5 |
| Pickett 71 | 1.2 | 1.0 | 1.3 |
| Ransom | 0.9 | 1.0 | 1.4 |
| Williams | 1.2 | 1.2 | 1.3 |
| Calland | 0.9 | 1.0 | 1.4 |
| Clark 63 | 1.2 | 1.2 | 1.3 |
| Woodworth | 1.1 | 1.2 | 1.2 |
| Bragg | 1.1 | 1.2 | 1.3 |
| Essex | --- | 1.0 | --- |
| Columbus | --- | 1.0 | --- |
| Mean | 1.1 | 1.2 | 1.4 |
| LSD (.05) | -NS- | 0.55 | -NS- |

*Table 22: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean shattering score | | |
|---|---|---|---|
| | 4 sites<br>0-10° lat<br>> 1000 m | 4 sites<br>11-20° lat<br>> 1000 m | 9 sites<br>21-30° lat<br>0-500 m |
| Hill | 1.1 | 1.0 | 1.0 |
| Davis | 1.2 | 1.1 | 1.1 |
| Forrest | 1.1 | 1.0 | 1.0 |
| Cobb | 1.4 | 1.0 | --- |
| Imp. Pelican | 1.6 | 1.0 | --- |
| Bossier | 1.0 | 1.1 | 1.0 |
| Pickett 71 | 1.6 | 1.0 | 1.1 |
| Ransom | 1.4 | 1.1 | 1.1 |
| Williams | 1.6 | 1.2 | 1.1 |
| Calland | 1.8 | 1.1 | 1.1 |
| Clark 63 | 1.4 | 1.0 | 1.0 |
| Woodworth | 1.5 | 1.6 | 1.0 |
| Bragg | 1.4 | 1.0 | 1.0 |
| Essex | --- | 1.0 | --- |
| Columbus | --- | 1.0 | --- |
| Mean | 1.4 | 1.1 | 1.0 |
| LSD (.05) | -NS- | -NS- | -NS- |

*Table 23: Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean seed weight (g/100 seeds) | | |
|---|---|---|---|
| | 4 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 m | 14 sites<br>21-30° lat<br>0-500 m |
| Hill | 16.4 | 17.3 | 14.0 |
| Davis | 25.9 | 21.3 | 16.1 |
| Forrest | 16.1 | 17.3 | 13.5 |
| Cobb | 25.0 | 18.8 | ---- |
| Imp. Pelican | 21.6 | 16.0 | ---- |
| Bossier | 18.4 | 19.8 | 15.2 |
| Pickett 71 | 17.1 | 18.1 | 14.6 |
| Ransom | 30.9 | 21.0 | 16.6 |
| Williams | 18.9 | 20.7 | 16.4 |
| Calland | 18.2 | 22.2 | 17.2 |
| Clark 63 | 26.5 | 18.6 | 15.8 |
| Woodworth | 27.6 | 17.8 | 15.3 |
| Bragg | 20.2 | 21.2 | 15.8 |
| Essex | ---- | 18.4 | ---- |
| Columbus | ---- | 20.1 | ---- |
| Mean | 21.8 | 19.2 | 15.5 |
| LSD (.05) | -NS- | 1.66 | 1.18 |

*Table 24: Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

| Cultivar | Mean seed quality score | | |
|---|---|---|---|
| | 5 sites<br>0-10° lat<br>> 1000 m | 5 sites<br>11-20° lat<br>> 1000 | 14 sites<br>21-30° lat<br>0-500 m |
| Hill | 1.8 | 2.0 | 2.2 |
| Davis | 2.1 | 2.0 | 2.4 |
| Forrest | 2.0 | 2.6 | 2.8 |
| Cobb | 1.9 | 2.4 | --- |
| Imp. Pelican | 2.1 | 1.7 | --- |
| Bossier | 1.8 | 2.4 | 2.3 |
| Pickett 71 | 2.0 | 2.6 | 2.4 |
| Ransom | 2.2 | 2.5 | 2.3 |
| Williams | 1.8 | 2.7 | 2.3 |
| Calland | 2.5 | 3.3 | 2.9 |
| Clark 63 | 2.0 | 2.5 | 2.2 |
| Woodworth | 1.7 | 2.7 | 2.4 |
| Bragg | 2.6 | 2.1 | 2.5 |
| Essex | --- | 2.6 | --- |
| Columbus | --- | 2.4 | --- |
| Mean | 2.0 | 2.4 | 2.4 |
| LSD (.05) | 0.40 | 0.77 | 0.43 |

*Table 25: Selected agronomic characteristics of cultivars observed in the fourth ISVEX conducted in zone X*

| Cultivar | Means of observations at 8 sites, 31-40°, 0-500m | | | |
|---|---|---|---|---|
| | Grain yield (kg/ha) | Rank of grain yield | Days to flower | Days to harvest |
| Williams | 3324 | 1 | 39 | 118 |
| Amsoy 71 | 3131 | 2 | 36 | 115 |
| Woodworth | 3085 | 3 | 40 | 111 |
| Beeson | 3081 | 4 | 36 | 115 |
| Calland | 3025 | 5 | 38 | 122 |
| Wells | 3007 | 6 | 36 | 112 |
| Cutler 71 | 3003 | 9 | 43 | 125 |
| Hodgson | 2944 | 7 | 34 | 102 |
| Corsoy | 2928 | 8 | 36 | 110 |
| Clark 63 | 2868 | 10 | 40 | 122 |
| Hark | 2799 | 11 | 35 | 111 |
| Steele | 2757 | 12 | 35 | 101 |
| Mean | 2996 | -- | 37 | 114 |
| LSD (.05) | -NS- | -- | 2.4 | 5.2 |

*Table 25 (cont'd): Selected agronomic characteristics of cultivars observed in the fourth ISVEX in zone X*

| Cultivar | Means of observations at 8 sites, 31-40°, 0-500m | | | | |
|---|---|---|---|---|---|
| | Plant height (cm) | Lodging score | Shattering score | Seed weight[1/] (g/100 seeds) | Seed quality score |
| Williams | 91 | 1.5 | 1.1 | 19.3 | 1.8 |
| Amsoy 71 | 89 | 2.4 | 1.0 | 18.4 | 2.7 |
| Woodworth | 85 | 1.6 | 1.1 | 16.7 | 2.0 |
| Beeson | 87 | 2.1 | 1.1 | 18.9 | 2.8 |
| Calland | 99 | 2.8 | 1.0 | 18.0 | 2.8 |
| Wells | 80 | 1.3 | 1.0 | 16.2 | 2.9 |
| Cutler 71 | 100 | 2.2 | 1.2 | 18.6 | 2.4 |
| Hodgson | 70 | 1.2 | 1.0 | 17.2 | 2.0 |
| Corsoy | 76 | 1.8 | 1.1 | 16.6 | 2.5 |
| Clark 63 | 94 | 2.3 | 1.1 | 16.4 | 2.3 |
| Hark | 82 | 1.8 | 1.0 | 17.3 | 2.5 |
| Steele | 72 | 1.5 | 1.0 | 17.9 | 2.1 |
| Mean | 85 | 1.9 | 1.1 | 17.6 | 2.4 |
| LSD (.05) | 6.4 | 0.61 | -NS- | 1.14 | 0.51 |

[1/] Mean from 7 sites only

*Table 26: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (I, II, and IV)*

| Cultivar | Mean protein and oil content (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 8 sites 0-10° lat 0-500 m | | | 1 site 0-10° lat 501-1000 m | | | 10 sites 11-20° lat 0-500 m | | |
| | Protein | | Oil | Protein | | Oil | Protein | | Oil |
| Bossier | 41.4 | (1)1/ | 22.2 | 42.8 | (5) | 22.5 | 44.7 | (1) | 21.7 |
| Imp. Pelican | 41.2 | (2) | 22.6 | 42.0 | (7) | 22.8 | 42.7 | (5) | 23.1 |
| Bragg | 41.0 | (3) | 22.8 | 42.2 | (6) | 22.6 | 42.5 | (7) | 22.5 |
| Pickett 71 | 40.0 | (4) | 23.0 | 42.0 | (9) | 21.9 | 42.6 | (6) | 23.1 |
| Calland | 39.8 | (5) | 21.6 | 44.5 | (1) | 19.6 | 42.5 | (8) | 21.6 |
| Jupiter | 39.6 | (6) | 23.5 | 41.0 | (13) | 23.8 | -- | | -- |
| Davis | 39.6 | (7) | 22.5 | 43.2 | (3) | 21.6 | 41.8 | (10) | 22.5 |
| Forrest | 39.4 | (8) | 21.9 | 41.0 | (14) | 22.3 | 41.5 | (11) | 22.3 |
| Williams | 39.2 | (9) | 23.2 | 41.7 | (11) | 23.8 | 42.9 | (3) | 23.3 |
| Clark 63 | 39.2 | (10) | 23.0 | 41.2 | (12) | 22.6 | 42.9 | (4) | 22.8 |
| Cobb | 38.5 | (11) | 23.1 | 41.0 | (15) | 22.4 | 39.0 | (14) | 23.8 |
| Ransom | 38.3 | (12) | 24.8 | 41.9 | (10) | 24.6 | 40.7 | (13) | 24.4 |
| Hill | 37.7 | (13) | 22.2 | 38.8 | (16) | 22.9 | 41.0 | (12) | 22.2 |
| Woodworth | 37.7 | (14) | 23.3 | 42.0 | (8) | 22.6 | 42.2 | (9) | 23.9 |
| Essex | -- | | -- | 44.4 | (2) | 21.4 | -- | | -- |
| Columbus | -- | | -- | 42.9 | (4) | 21.4 | 43.1 | (2) | 22.5 |
| Mean | 39.5 | | 22.8 | 42.0 | | 22.5 | 42.1 | | 22.8 |

1/ Ranking of mean protein content within environmental zone

*Table 27: Percent protein and oil in cultivars observed in the first joint INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I*

| Cultivar | Mean protein and oil content (%) 6 sites 0-10° lat 0-500 m | |
|---|---|---|
| | Protein | Oil |
| TGm 294-4-2371 | 47.5 | 19.2 |
| TGm 256-1-b | 47.1 | 19.6 |
| Bossier | 45.8 | 22.4 |
| TGx 66-5100 | 45.1 | 20.3 |
| TGm 255-2-4341 | 44.8 | 23.0 |
| TGm 210-1-2363 | 44.8 | 21.9 |
| Davis | 44.5 | 22.4 |
| Imp. Pelican | 44.3 | 23.0 |
| TGm 249-4-b | 44.2 | 23.3 |
| TGm 220-1-2205 | 44.2 | 22.2 |
| Jupiter | 43.8 | 23.8 |
| Williams | 43.2 | 24.3 |
| TGx 13-3-2644 | 42.8 | 23.2 |
| Cobb | 40.9 | 24.4 |
| Mean | 44.5 | 22.4 |

*Table 28: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, V, and VI)*

| Cultivar | Mean protein and oil content (%) | | | | | |
|---|---|---|---|---|---|---|
| | 6 sites 0-10° lat > 1000 m | | 1 site 11-20° lat 500-1000 m | | 4 sites 11-20° lat > 1000 m | |
| | Protein | Oil | Protein | Oil | Protein | Oil |
| Imp. Pelican | 45.5 (1) | 19.1 | 42.2 (2) | 18.8 | 42.5 (1) | 20.7 |
| Bossier | 44.5 (2) | 19.9 | -- | -- | 42.1 (3) | 21.3 |
| Williams | 44.2 (3) | 19.7 | 42.0 (4) | 22.8 | 40.3 (10) | 22.2 |
| Calland | 43.8 (4) | 19.4 | 41.0 (5) | 22.3 | 41.2 (7) | 21.2 |
| Clark 63 | 43.7 (5) | 20.2 | 39.9 (6) | 23.3 | 39.7 (11) | 22.2 |
| Bragg | 43.6 (6) | 19.8 | -- | -- | 41.3 (6) | 21.2 |
| Woodworth | 43.2 (7) | 19.5 | 37.4 (14) | 24.3 | 38.8 (15) | 22.2 |
| Davis | 42.7 (8) | 20.6 | 39.6 (8) | 23.4 | 41.8 (5) | 20.9 |
| Ransom | 42.7 (9) | 22.1 | 37.9 (13) | 25.6 | 40.4 (9) | 23.3 |
| Pickett 71 | 42.3 (10) | 21.1 | 39.8 (7) | 24.3 | 41.1 (8) | 21.9 |
| Hill | 41.8 (11) | 19.1 | 39.0 (11) | 22.3 | 39.4 (12) | 21.0 |
| Cobb | 41.3 (12) | 20.8 | 38.7 (12) | 24.9 | 39.2 (14) | 22.7 |
| Jupiter | -- | -- | 43.9 (1) | 12.6 | -- | -- |
| Columbus | -- | -- | 42.0 (3) | 23.1 | 42.0 (4) | 21.3 |
| Cutler 71 | -- | -- | 39.6 (9) | 23.2 | -- | -- |
| Forrest | -- | -- | 39.3 (10) | 22.8 | 39.4 (13) | 21.4 |
| Essex | -- | -- | -- | -- | 42.1 (2) | 20.6 |
| Mean | 43.2 | 20.1 | 39.8 | 23.4 | 40.8 | 21.6 |

*Table 29: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (VII, VIII, and IX)*

| Cultivar | Mean protein and oil content (%) | | | | | |
|---|---|---|---|---|---|---|
| | 8 sites 21-30° lat 0-500 m | | 3 sites 21-30° lat 500-1000 m | | 2 sites 21-30° lat > 1000 m | |
| | Protein | Oil | Protein | Oil | Protein | Oil |
| Bossier | 43.6 (1) | 20.7 | 44.8 (2) | 19.8 | 41.2 (2) | 16.1 |
| Cutler 71 | 43.0 (2) | 22.0 | 44.8 (3) | 20.0 | 39.6 (7) | 18.7 |
| Bragg | 42.6 (3) | 21.6 | 42.8 (7) | 20.4 | 39.7 (6) | 16.7 |
| Calland | 42.1 (4) | 21.3 | 44.8 (1) | 18.2 | 41.0 (3) | 19.1 |
| Williams | 41.9 (5) | 22.6 | 44.4 (4) | 20.4 | 38.5 (13) | 20.1 |
| Davis | 41.4 (6) | 22.4 | 42.6 (8) | 21.0 | 38.8 (11) | 18.9 |
| Clark 63 | 41.3 (7) | 22.7 | 43.8 (5) | 21.2 | 41.9 (1) | 19.2 |
| Pickett 71 | 40.9 (8) | 22.6 | 43.4 (6) | 20.7 | 39.6 (8) | 16.4 |
| Forrest | 40.8 (9) | 21.8 | -- | -- | 38.6 (12) | 18.1 |
| Woodworth | 40.6 (10) | 23.6 | 41.3 (10) | 20.8 | 39.0 (10) | 19.6 |
| Ransom | 40.3 (11) | 24.3 | 41.0 (11) | 23.2 | 35.5 (14) | 19.5 |
| Hill | 40.0 (12) | 21.5 | 42.5 (9) | 19.7 | 40.3 (4) | 16.5 |
| Wells | -- | -- | -- | -- | 40.1 (5) | 19.6 |
| Beeson | -- | -- | -- | -- | 39.5 (9) | 19.6 |
| Mean | 41.5 | 22.2 | 43.2 | 20.5 | 39.5 | 18.6 |

*Table 30: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (X, XI, and XII)*

| Cultivar | Mean protein and oil content (%) | | | | | |
|---|---|---|---|---|---|---|
| | 4 sites 31-40° lat 0-500 m | | 1 site 31-40° lat 501-1000 m | | 1 site 31-40° lat > 1000 m | |
| | Protein | Oil | Protein | Oil | Protein | Oil |
| Columbus | 41.7 (1) | 20.4 | 43.4 (1) | 17.5 | 39.9 (11) | 20.9 |
| Cutler 71 | 41.7 (2) | 21.7 | 39.9 (11) | 21.0 | 41.5 (8) | 20.5 |
| Clark 63 | 41.6 (3) | 21.4 | 41.8 (4) | 20.3 | 41.7 (7) | 21.5 |
| Beeson | 41.3 (4) | 21.7 | 41.8 (2) | 18.9 | 40.0 (9) | 21.3 |
| Steele | 41.2 (5) | 21.6 | 41.7 (5) | 19.9 | 43.7 (1) | 21.8 |
| Wells | 40.6 (6) | 21.7 | 40.7 (9) | 21.2 | -- | -- |
| Williams | 40.4 (7) | 21.9 | 41.0 (8) | 20.8 | 42.2 (6) | 20.7 |
| Calland | 40.3 (8) | 20.8 | 41.2 (6) | 20.3 | 42.7 (4) | 20.8 |
| Corsoy | 40.2 (9) | 21.0 | 41.8 (3) | 18.9 | 42.3 (5) | 20.7 |
| Hark | 40.1 (10) | 21.2 | 41.1 (7) | 19.5 | 39.2 (13) | 22.6 |
| Hodgson | 39.6 (11) | 22.8 | 40.5 (10) | 20.9 | 40.0 (10) | 23.4 |
| Woodworth | 39.3 (12) | 21.7 | 38.8 (12) | 21.0 | 39.5 (12) | 22.8 |
| Amsoy 71 | 38.8 (13) | 22.1 | 38.3 (13) | 20.6 | 38.4 (15) | 22.0 |
| Altona | -- | -- | -- | -- | 43.5 (2) | 17.3 |
| Forrest | -- | -- | -- | -- | 42.8 (3) | 16.4 |
| Swift | -- | -- | -- | -- | 39.2 (14) | 22.4 |
| Mean | 40.5 | 21.5 | 40.8 | 20.2 | 41.0 | 21.2 |

*Table 31: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in zone XIII*

| Cultivar | Mean protein and oil content (%) 3 sites ≥ 41° lat ≥ 0 m | |
|---|---|---|
| | Protein | Oil |
| Wells | 42.8 | 19.3 |
| Beeson | 40.3 | 19.8 |
| Woodworth | 40.2 | 19.8 |
| Calland | 39.7 | 20.6 |
| Williams | 39.3 | 20.1 |
| Clark 63 | 38.7 | 20.7 |
| Mean | 40.2 | 20.0 |

*Table 32: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone I*

| Cultivar | Mean for two years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 2484 | 31 | 98 | 33 | 22 | 19.0 |
| Jupiter | 2327 | 38 | 111 | 66 | 32 | 19.2 |
| Forrest | 2280 | 30 | 92 | 34 | 24 | 15.9 |
| Imp. Pelican | 2278 | 35 | 97 | 69 | 32 | 15.1 |
| Williams | 2132 | 28 | 88 | 42 | 20 | 19.3 |
| Bossier | 2084 | 32 | 95 | 34 | 22 | 17.8 |
| Mean | 2264 | 32 | 97 | 46 | 25 | 17.7 |

*Table 33: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone I*

| Cultivar | Mean for three years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 2495 | 31 | 97 | 34 | 24 | 19.0 |
| Jupiter | 2418 | 38 | 110 | 67 | 34 | 19.3 |
| Imp. Pelican | 2328 | 35 | 97 | 69 | 34 | 15.1 |
| Bossier | 2268 | 33 | 96 | 39 | 25 | 17.8 |
| Forrest | 2249 | 30 | 91 | 34 | 26 | 16.0 |
| Williams | 2163 | 28 | 88 | 43 | 21 | 19.7 |
| Mean | 2320 | 32 | 96 | 48 | 27 | 17.8 |

*Table 34: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone III*

| Cultivar | Mean for two years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 1722 | 66 | 131 | 40 | 22 | 21.6 |
| Forrest | 1674 | 58 | 132 | 43 | 22 | 16.2 |
| Bossier | 1568 | 58 | 129 | 38 | 22 | 17.1 |
| Williams | 1472 | 46 | 121 | 32 | 18 | 19.0 |
| Imp. Pelican | 1468 | 74 | 142 | 68 | 29 | 17.9 |
| Mean | 1581 | 60 | 131 | 44 | 23 | 18.4 |

*Table 35: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone IV*

| Cultivar | Mean for two years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 2266 | 33 | 96 | 42 | 30 | 16.7 |
| Forrest | 2123 | 30 | 93 | 40 | 30 | 15.0 |
| Cobb | 1976 | 31 | 98 | 38 | 30 | 16.9 |
| Williams | 1966 | 28 | 86 | 48 | 22 | 18.6 |
| Bossier | 1874 | 30 | 96 | 34 | 27 | 17.1 |
| Clark 63 | 1844 | 28 | 88 | 48 | 25 | 17.2 |
| Mean | 2008 | 30 | 93 | 42 | 27 | 16.9 |

*Table 36: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone IV*

| Cultivar | Mean for three years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 2227 | 34 | 98 | 40 | 30 | 16.9 |
| Forrest | 2050 | 31 | 94 | 38 | 32 | 15.1 |
| Bossier | 2019 | 33 | 99 | 40 | 29 | 16.9 |
| Williams | 1983 | 29 | 87 | 47 | 23 | 18.6 |
| Clark 63 | 1874 | 29 | 89 | 48 | 25 | 17.3 |
| Mean | 2031 | 31 | 93 | 43 | 28 | 17.0 |

*Table 37: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone VII*

| Cultivar | Mean for two years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 2348 | 46 | 108 | 48 | 32 | 15.6 |
| Bossier | 2248 | 44 | 113 | 50 | 36 | 14.1 |
| Forrest | 2208 | 40 | 102 | 46 | 32 | 13.1 |
| Williams | 1951 | 32 | 92 | 48 | 24 | 16.2 |
| Clark 63 | 1840 | 33 | 96 | 49 | 24 | 15.4 |
| Woodworth | 1586 | 32 | 89 | 45 | 23 | 14.8 |
| Mean | 2030 | 38 | 100 | 48 | 28 | 14.9 |

*Table 38: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone VII*

| Cultivar | Mean for three years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Davis | 1851 | 45 | 110 | 54 | 36 | 14.7 |
| Bossier | 1836 | 46 | 114 | 62 | 42 | 13.5 |
| Forrest | 1809 | 40 | 102 | 49 | 37 | 12.4 |
| Williams | 1685 | 31 | 91 | 50 | 26 | 15.1 |
| Clark 63 | 1591 | 32 | 94 | 53 | 27 | 14.5 |
| Mean | 1754 | 39 | 102 | 54 | 34 | 14.0 |

*Table 39: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone X*

| Cultivar | Mean for two years | | | | | |
|---|---|---|---|---|---|---|
| | Yield (kg/ha) | Days to flower | Days to harvest | Plant height (cm) | Pods per plant | Seed weight (g/100 seeds) |
| Williams | 2964 | 42 | 116 | 88 | 33 | 18.3 |
| Amsoy 71 | 2709 | 36 | 114 | 84 | 32 | 17.8 |
| Calland | 2698 | 39 | 122 | 96 | 36 | 17.6 |
| Woodworth | 2654 | 42 | 112 | 82 | 34 | 16.0 |
| Beeson | 2646 | 36 | 114 | 82 | 30 | 18.2 |
| Wells | 2555 | 36 | 110 | 77 | 32 | 15.7 |
| Hark | 2530 | 35 | 110 | 78 | 34 | 17.0 |
| Corsoy | 2521 | 36 | 110 | 75 | 37 | 15.9 |
| Hodgson | 2509 | 34 | 102 | 68 | 34 | 16.3 |
| Mean | 2643 | 37 | 112 | 81 | 34 | 17.0 |

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2524.97 | 30.09 | 99.13 | 94.05 | 130.20 | 0.48 | 1.96 | 32.82 | 1.07 |
| FORREST | 2399.34 | 29.27 | 90.12 | 61.60 | 151.85 | 0.33 | 1.44 | 34.53 | 1.09 |
| IMPROVED PELICAN | 2364.84 | 33.62 | 98.35 | 85.72 | 137.65 | 0.36 | 1.59 | 74.13 | 1.86 |
| BRAGG | 2305.39 | 29.75 | 95.15 | 73.53 | 171.38 | 0.27 | 1.47 | 37.45 | 1.21 |
| WILLIAMS | 2246.42 | 27.07 | 88.23 | 101.62 | 148.20 | 0.33 | 1.18 | 42.21 | 1.04 |
| JUPITER | 2241.50 | 38.25 | 115.33 | 109.62 | 216.87 | 0.47 | 1.74 | 67.93 | 1.79 |
| BOSSIER | 2143.38 | 30.22 | 94.03 | 100.32 | 186.72 | 0.42 | 2.09 | 33.16 | 1.07 |
| CLARK 63 | 2116.71 | 28.67 | 86.98 | 76.42 | 133.95 | 0.38 | 1.37 | 45.31 | 1.20 |
| HILI | 2092.52 | 30.65 | 91.25 | 80.27 | 136.42 | 0.30 | 1.24 | 35.70 | 1.14 |
| GRAND MEAN | 2270.54 | 30.84 | 95.40 | 89.80 | 160.25 | 0.37 | 1.56 | 44.80 | 1.27 |
| NUMBER EXPERIMENTS CONTRIBUTING | 15 | 15 | 15 | 15 | 15 | 13 | 13 | 15 | 14 |
| STANDARD ERROR OF VARIETY MEAN | 110.51 | 0.80 | 1.45 | 5.37 | 13.33 | 0.05 | 0.20 | 2.07 | 0.13 |
| COEFFICIENT OF VARIATION | 37.70% | 20.05% | 11.77% | 54.94% | 61.03% | 97.18% | 91.83% | 35.85% | 76.01% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 2.24 | 4.06 | 17.85 | 37.36 | 0.14 | 0.56 | 5.81 | 0.36 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00<br>540 | 0.05<br>540 | 0.47++<br>540 | -0.07<br>540 | 0.15++<br>540 | 0.07<br>468 | 0.10+<br>468 | 0.46++<br>540 | 0.12++<br>504 |
| DAYS TO FLOWER | 0.05<br>540 | 1.00<br>540 | 0.47++<br>540 | 0.07<br>540 | 0.16++<br>540 | 0.20++<br>468 | 0.14++<br>468 | 0.44++<br>540 | 0.36++<br>504 |
| DAYS TO MATURITY | 0.47++<br>540 | 0.47++<br>540 | 1.00<br>540 | -0.07<br>540 | 0.14++<br>540 | 0.22++<br>468 | 0.25++<br>468 | 0.46++<br>540 | 0.34++<br>504 |
| NODULE NUMBER 1 | -0.07<br>540 | 0.07<br>540 | -0.07<br>540 | 1.00<br>540 | 0.63++<br>540 | 0.13++<br>468 | -0.07<br>468 | 0.02<br>540 | -0.09+<br>504 |
| NODULE NUMBER 2 | 0.15++<br>540 | 0.15++<br>540 | 0.14++<br>540 | 0.63++<br>540 | 1.00<br>540 | 0.11+<br>468 | 0.22++<br>468 | 0.18++<br>540 | -0.01<br>504 |
| NODULE WEIGHT 1 | 0.07<br>468 | 0.20++<br>468 | 0.22++<br>468 | 0.13++<br>468 | 0.11+<br>468 | 1.00<br>468 | 0.59++<br>468 | 0.12++<br>468 | 0.10+<br>432 |
| NODULE WEIGHT 2 | 0.10+<br>468 | 0.14++<br>468 | 0.25++<br>468 | -0.07<br>468 | 0.22++<br>468 | 0.59++<br>468 | 1.00<br>468 | 0.10+<br>468 | 0.11+<br>432 |
| PLANT HEIGHT | 0.48++<br>540 | 0.44++<br>540 | 0.48++<br>540 | 0.02<br>540 | 0.18++<br>540 | 0.12++<br>468 | 0.10+<br>468 | 1.00<br>540 | 0.51++<br>504 |
| LODGING | 0.12++<br>504 | 0.35++<br>504 | 0.34++<br>504 | -0.09+<br>504 | -0.01<br>504 | 0.10+<br>432 | 0.11+<br>432 | 0.51++<br>504 | 1.00<br>504 |
| SHATTER | 0.02<br>468 | -0.02<br>468 | 0.23++<br>468 | -0.05<br>468 | -0.02<br>468 | -0.03<br>396 | -0.00<br>396 | 0.02<br>468 | 0.09<br>468 |
| PLANTS HARVEST | 0.18++<br>540 | -0.15++<br>540 | 0.07<br>540 | -0.06<br>540 | -0.06<br>540 | 0.21++<br>468 | 0.24++<br>468 | 0.13++<br>540 | 0.01<br>504 |
| PODS PER PLANT | 0.49++<br>540 | 0.34++<br>540 | 0.47++<br>540 | -0.14++<br>540 | 0.06<br>540 | 0.03<br>468 | 0.05<br>468 | 0.53++<br>540 | 0.30++<br>504 |
| 100 SEED WEIGHT | 0.58++<br>540 | 0.01<br>540 | 0.45++<br>540 | 0.14++<br>540 | 0.27++<br>540 | -0.03<br>468 | -0.03<br>468 | 0.21++<br>540 | -0.00<br>504 |
| QUALITY OF SEED | -0.12++<br>504 | 0.17++<br>504 | 0.15++<br>504 | 0.06<br>504 | -0.07<br>504 | -0.15++<br>432 | -0.26++<br>432 | -0.08<br>504 | 0.14++<br>468 |

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.13 | 224.98 | 21.25 | 18.66 | 1.77 |
| FORREST | 1.02 | 220.80 | 22.45 | 14.96 | 1.98 |
| IMPROVED PELICAN | 1.10 | 222.35 | 33.26 | 14.39 | 1.36 |
| BRAGG | 1.04 | 219.68 | 18.91 | 18.33 | 1.73 |
| WILLIAMS | 1.02 | 221.37 | 18.16 | [illegible] 43 | 1.64 |
| JUPITER | 1.08 | 207.50 | 31.12 | [illegible] | 2.23 |
| BOSSIER | 1.06 | 204.10 | 21.70 | 17.02 | 1.96 |
| CLARK 63 | 1.10 | 232.88 | 21.21 | 16.96 | 1.68 |
| HILL | 1.02 | 217.22 | 2[illegible].05 | 15.90 | 1.73 |
| GRAND MEAN | 1.06 | 219.04 | 23.45 | 17.00 | 1.79 |
| NUMBER EXPERIMENTS CONTRIBUTING | 13 | 15 | 15 | 15 | 14 |
| STANDARD ERROR OF VARIETY MEAN | 0.04 | 5.67 | 1.65 | 0.34 | 0.17 |
| COEFFICIENT OF VARIATION | 29.45% | 20.05% | 54.39% | 15.70% | 69.76% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 15.88 | 4.62 | 0.97 | 0.47 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.02 | 0.18++ | 0.49++ | 0.69++ | -0.12++ |
| | 458 | 540 | 540 | 540 | 504 |
| DAYS TO FLOWER | -0.02 | -0.15++ | 0.34++ | 0.01 | 0.17++ |
| | 468 | 540 | 540 | 540 | 504 |
| DAYS TO MATURITY | 0.23++ | 0.07 | 0.47++ | 0.45++ | 0.15++ |
| | 456 | 540 | 540 | 540 | 504 |
| NODULE NUMBER 1 | -0.05 | -0.06 | -0.14++ | 0.14++ | 0.06 |
| | 458 | 540 | 540 | 540 | 504 |
| NODULE NUMBER 2 | -0.02 | -0.06 | 0.06 | 0.27++ | -0.07 |
| | 458 | 540 | 540 | 540 | 504 |
| NODULE WEIGHT 1 | -0.03 | 0.21++ | 0.03 | -0.03 | -0.15++ |
| | 396 | 468 | 468 | 468 | 432 |
| NODULE WEIGHT 2 | -0.00 | 0.24++ | 0.06 | -0.03 | -0.26++ |
| | 396 | 468 | 468 | 468 | 432 |
| PLANT HEIGHT | 0.02 | 0.13++ | 0.53++ | 0.21++ | -0.08 |
| | 458 | 540 | 540 | 540 | 504 |
| LODGING | 0.09 | 0.01 | 0.30++ | -0.00 | 0.14++ |
| | 458 | 504 | 504 | 504 | 468 |
| SHATTER | 1.00 | 0.01 | 0.12++ | 0.09 | 0.31++ |
| | 468 | 468 | 468 | 468 | 432 |
| PLANTS HARVEST | 0.01 | 1.00 | -0.15++ | -0.12++ | -0.12++ |
| | 458 | 540 | 540 | 540 | 504 |
| PODS PER PLANT | 0.12++ | -0.15++ | 1.00 | 0.37++ | 0.10+ |
| | 468 | 540 | 540 | 540 | 504 |
| 100 SEED WEIGHT | 0.09 | -0.12++ | 0.37++ | 1.00 | 0.00 |
| | 458 | 540 | 540 | 540 | 504 |
| QUALITY OF SEED | 0.31++ | -0.12++ | 0.10+ | 0.00 | 1.00 |
| | 432 | 504 | 504 | 504 | 504 |

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE 1 FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2137.65 | 28.35 | 91.75 | 138.44 | 224.63 | 1.62 | 2.40 | 32.42 | 1.40 |
| TGX 13-3-2644 | 2135.91 | 41.10 | 106.50 | 164.88 | 340.63 | 1.90 | 3.12 | 63.26 | 2.30 |
| JUPITER | 2102.85 | 44.25 | 105.33 | 196.94 | 301.00 | 1.38 | 2.17 | 58.20 | 2.40 |
| TGM 210-1-2363 | 2025.89 | 38.55 | 95.88 | 131.75 | 213.44 | 1.26 | 1.88 | 50.78 | 2.05 |
| TGM 220-1-2205 | 1972.69 | 44.20 | 103.25 | 177.69 | 231.00 | 1.42 | 2.63 | 43.50 | 2.35 |
| TGM 256-1-B | 1942.33 | 37.95 | 97.75 | 162.56 | 273.69 | 1.60 | 2.90 | 56.36 | 2.05 |
| TGM 294-4-2371 | 1928.02 | 41.05 | 103.21 | 158.38 | 260.44 | 1.29 | 2.26 | 57.74 | 1.95 |
| IMPROVED PELICAN | 1898.64 | 33.65 | 91.25 | 117.00 | 210.81 | 1.06 | 1.70 | 67.05 | 1.85 |
| TGM 255-2-4341 | 1871.35 | 35.55 | 100.21 | 161.50 | 299.13 | 1.21 | 2.62 | 53.94 | 2.00 |
| TGM 249-4-B | 1859.40 | 35.50 | 101.08 | 162.44 | 357.00 | 1.59 | 2.98 | 60.18 | 2.70 |
| WILLIAMS | 1797.72 | 26.50 | 83.00 | 160.38 | 228.88 | 1.44 | 2.37 | 42.30 | 1.95 |
| COBB | 1752.37 | 27.55 | 90.00 | 124.94 | 262.88 | 1.97 | 3.07 | 32.61 | 1.10 |
| TGX 66-5100 | 1698.81 | 36.25 | 97.63 | 111.13 | 198.13 | 1.46 | 2.45 | 61.05 | 2.05 |
| CLARK 63 | 1667.56 | 25.50 | 85.06 | 149.00 | 233.56 | 1.44 | 2.56 | 43.20 | 2.10 |
| BOSSIER | 1450.57 | 25.30 | 87.54 | 145.44 | 262.63 | 1.62 | 2.88 | 26.93 | 1.30 |
| GRAND MEAN | 1886.78 | 34.75 | 95.98 | 150.83 | 259.85 | 1.48 | 2.53 | 49.97 | 1.97 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 5 | 6 | 4 | 4 | 3 | 3 | 6 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 138.50 | 2.40 | 3.25 | 21.33 | 37.46 | 0.25 | 0.43 | 3.83 | 0.36 |
| COEFFICIENT OF VARIATION | 35.96% | 30.92% | 16.59% | 56.56% | 57.67% | 59.38% | 58.42% | 37.54% | 80.61% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 6.01 | 9.17 | ******** | ******** | ******** | ******** | 10.80 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.25++ | 0.12+ | 0.41++ | 0.65++ | 0.48++ | 0.72++ | 0.46++ | 0.15+ |
| | 360 | 300 | 360 | 240 | 240 | 180 | 180 | 360 | 300 |
| DAYS TO FLOWER | 0.25++ | 1.00 | 0.48++ | 0.21++ | 0.26++ | 0.24++ | 0.27++ | 0.27++ | -0.01 |
| | 300 | 300 | 300 | 240 | 240 | 180 | 180 | 300 | 240 |
| DAYS TO MATURITY | 0.12+ | 0.48++ | 1.00 | 0.14+ | 0.30++ | 0.18+ | 0.28++ | 0.27++ | 0.01 |
| | 360 | 300 | 360 | 240 | 240 | 180 | 180 | 360 | 300 |
| NODULE NUMBER 1 | 0.41++ | 0.21++ | 0.14+ | 1.00 | 0.77++ | 0.91++ | 0.86++ | 0.05 | -0.24++ |
| | 240 | 240 | 240 | 240 | 180 | 180 | 120 | 240 | 240 |
| NODULE NUMBER 2 | 0.65++ | 0.26++ | 0.30++ | 0.77++ | 1.00 | 0.88++ | 0.93++ | 0.33++ | -0.14 |
| | 240 | 240 | 240 | 180 | 240 | 120 | 180 | 240 | 180 |
| NODULE WEIGHT 1 | 0.48++ | 0.24++ | 0.18+ | 0.91++ | 0.88++ | 1.00 | 0.95++ | 0.07 | -0.51++ |
| | 180 | 180 | 180 | 180 | 120 | 180 | 120 | 180 | 180 |
| NODULE WEIGHT 2 | 0.72++ | 0.27++ | 0.28++ | 0.86++ | 0.93++ | 0.95++ | 1.00 | 0.31++ | -0.54++ |
| | 180 | 180 | 180 | 120 | 180 | 120 | 180 | 180 | 120 |
| PLANT HEIGHT | 0.46++ | 0.27++ | 0.27++ | 0.05 | 0.33++ | 0.07 | 0.31++ | 1.00 | 0.36++ |
| | 360 | 300 | 360 | 240 | 240 | 180 | 180 | 360 | 300 |
| LODGING | 0.15+ | -0.01 | 0.01 | -0.24++ | -0.14 | -0.51++ | -0.54++ | 0.36++ | 1.00 |
| | 300 | 240 | 300 | 240 | 180 | 180 | 120 | 300 | 300 |
| SHATTER | -0.54++ | -0.01 | 0.13+ | -0.12 | -0.12 | -0.13 | -0.23+ | -0.22++ | -0.12+ |
| | 300 | 240 | 300 | 240 | 180 | 180 | 120 | 300 | 300 |
| PLANTS HARVEST | 0.39++ | -0.10 | -0.28++ | -0.19++ | -0.27++ | -0.40++ | -0.41++ | 0.21++ | 0.22++ |
| | 360 | 300 | 360 | 240 | 240 | 180 | 180 | 360 | 300 |
| PODS PER PLANT | 0.25++ | 0.21++ | 0.35++ | -0.22++ | 0.48++ | -0.20++ | 0.44++ | 0.47++ | 0.28++ |
| | 360 | 300 | 360 | 240 | 240 | 180 | 180 | 360 | 300 |
| 100 SEED WEIGHT | 0.60++ | -0.02 | -0.11 | 0.38++ | 0.52++ | 0.45++ | 0.57++ | 0.07 | -0.21++ |
| | 300 | 240 | 300 | 180 | 180 | 180 | 180 | 300 | 240 |
| QUALITY OF SEED | -0.25++ | -0.01 | -0.02 | 0.05 | 0.12 | 0.09 | 0.16 | -0.21++ | -0.12 |
| | 180 | 120 | 180 | 120 | 60 | 120 | 60 | 180 | 180 |

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.00 | 166.54 | 24.12 | 18.92 | 1.50 |
| TGX 13-3-2644 | 1.10 | 148.71 | 35.43 | 16.65 | 1.58 |
| JUPITER | 0.95 | 104.29 | 43.30 | 18.32 | 2.50 |
| TGM 210-1-2363 | 1.95 | 163.00 | 31.48 | 16.02 | 1.75 |
| TGM 220-1-2205 | 1.25 | 114.13 | 40.65 | 14.00 | 2.08 |
| TGM 256-1-B | 0.95 | 164.54 | 31.28 | 13.57 | 1.58 |
| TGM 294-4-2371 | 1.05 | 182.50 | 27.54 | 15.57 | 1.33 |
| IMPROVED PELICAN | 0.85 | 134.04 | 43.98 | 13.76 | 1.58 |
| TGM 255-2-4341 | 1.10 | 140.79 | 45.20 | 12.67 | 1.92 |
| TGM 249-4-B | 1.05 | 100.17 | 44.58 | 15.27 | 1.58 |
| WILLIAMS | 0.80 | 151.46 | 21.13 | 20.04 | 1.75 |
| COBB | 1.25 | 135.67 | 26.80 | 19.45 | 1.83 |
| TGX 66-5100 | 1.05 | 152.79 | 33.66 | 14.93 | 1.33 |
| CLARK 63 | 0.90 | 156.63 | 22.02 | 18.26 | 2.33 |
| BOSSIER | 0.85 | 124.96 | 25.17 | 18.04 | 2.17 |
| GRAND MEAN | 1.07 | 142.68 | 33.09 | 16.36 | 1.79 |
| NUMBER EXPERIMENTS CONTRIBUTING | 5 | 6 | 6 | 5 | 3 |
| STANDARD ERROR OF VARIETY MEAN | 0.19 | 11.95 | 3.27 | 0.52 | 0.25 |
| COEFFICIENT OF VARIATION | 77.16% | 41.03% | 48.38% | 14.28% | 48.74% |
| 5% LSD VARIETY MEANS (*****=NS) | 0.52 | 33.71 | 9.22 | 1.48 | ********** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.54++ | 0.39++ | 0.25++ | 0.60++ | -0.25++ |
| | | 300 | 360 | 360 | 300 | 180 |
| DAYS TO | FLOWER | -0.01 | -0.10 | 0.21++ | -0.02 | -0.01 |
| | | 240 | 300 | 300 | 240 | 120 |
| DAYS TO | MATURITY | 0.13+ | -0.28++ | 0.35++ | -0.11 | -0.02 |
| | | 300 | 360 | 360 | 300 | 180 |
| NODULE | NUMBER 1 | -0.12 | -0.19++ | -0.22++ | 0.38++ | 0.05 |
| | | 240 | 240 | 240 | 180 | 120 |
| NODULE | NUMBER 2 | -0.12 | -0.27++ | 0.48++ | 0.52++ | 0.12 |
| | | 180 | 240 | 240 | 180 | 60 |
| NODULE | WEIGHT 1 | -0.13 | -0.40++ | -0.20++ | 0.45++ | 0.09 |
| | | 180 | 180 | 180 | 180 | 120 |
| NODULE | WEIGHT 2 | -0.23+ | -0.41++ | 0.44++ | 0.57++ | 0.16 |
| | | 120 | 180 | 180 | 180 | 60 |
| PLANT | HEIGHT | -0.22++ | 0.21++ | 0.47++ | 0.07 | -0.21++ |
| | | 300 | 360 | 360 | 300 | 180 |
| | LODGING | -0.12+ | 0.22++ | 0.28++ | -0.21++ | -0.12 |
| | | 300 | 300 | 300 | 240 | 180 |
| | SHATTER | 1.00 | -0.47++ | -0.01 | -0.41++ | 0.15+ |
| | | 300 | 300 | 300 | 240 | 180 |
| PLANTS | HARVEST | -0.47++ | 1.00 | -0.26++ | 0.13+ | -0.42++ |
| | | 300 | 360 | 360 | 300 | 180 |
| PODS PER | PLANT | -0.01 | -0.26++ | 1.00 | 0.06 | -0.07 |
| | | 300 | 360 | 360 | 300 | 180 |
| 100 SEED | WEIGHT | -0.41++ | 0.13+ | 0.06 | 1.00 | -0.06 |
| | | 240 | 300 | 300 | 300 | 180 |
| QUALITY | OF SEED | 0.15+ | -0.42++ | -0.07 | -0.06 | 1.00 |
| | | 180 | 180 | 180 | 180 | 180 |

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| HILL | 1990.24 | 58.40 | 125.80 | 100.94 | 132.44 | 2.81 | 1.33 | 40.60 | 1.38 |
| DAVIS | 1933.88 | 63.40 | 129.55 | 94.81 | 126.88 | 3.42 | 1.61 | 39.99 | 1.00 |
| FORREST | 1866.75 | 52.95 | 128.90 | 101.25 | 150.50 | 3.10 | 1.57 | 40.39 | 1.13 |
| CCBB | 1696.75 | 58.45 | 128.50 | 100.38 | 127.63 | 3.07 | 1.50 | 38.33 | 0.88 |
| IMPROVED PELICAN | 1660.56 | 73.50 | 138.65 | 70.63 | 116.63 | 3.48 | 1.46 | 70.61 | 1.88 |
| BOSSIER | 1615.56 | 49.30 | 123.60 | 156.13 | 145.31 | 3.54 | 1.61 | 32.26 | 1.00 |
| PICKETT 71 | 1590.35 | 50.15 | 122.00 | 86.88 | 106.81 | 2.31 | 1.24 | 30.33 | 1.19 |
| BANSOM | 1457.89 | 46.45 | 124.00 | 186.38 | 169.06 | 3.52 | 1.48 | 31.75 | 0.88 |
| WILLIAMS | 1448.34 | 42.20 | 113.45 | 176.63 | 165.00 | 3.46 | 1.63 | 31.47 | 1.19 |
| CALLAND | 1339.91 | 40.95 | 123.10 | 102.56 | 116.69 | 2.53 | 1.42 | 33.60 | 0.94 |
| CLARK 63 | 1173.84 | 40.55 | 119.00 | 150.69 | 130.06 | 3.12 | 1.35 | 33.43 | 1.25 |
| WOOLWORTH | 1128.38 | 41.55 | 112.95 | 134.13 | 124.75 | 2.52 | 1.25 | 30.60 | 1.06 |
| EBAGG | 1057.20 | 52.50 | 124.00 | 114.94 | 137.56 | 2.64 | 1.57 | 33.64 | 1.13 |
| GRAND MEAN | 1535.36 | 51.57 | 124.12 | 121.25 | 134.56 | 3.04 | 1.46 | 37.46 | 1.14 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 5 | 5 | 4 | 4 | 2 | 2 | 6 | 4 |
| STANDARD ERROR OF VARIETY MEAN | 133.71 | 3.38 | 3.46 | 14.04 | 14.37 | 0.48 | 0.32 | 3.42 | 0.23 |
| COEFFICIENT OF VARIATION | 42.66% | 29.34% | 12.48% | 46.31% | 42.73% | 44.47% | 62.75% | 44.69% | 81.10% |
| 5% LSD VARIETY MEANS (*****=NS) | 378.24 | 9.62 | 9.85 | 40.26 | ******** | ******** | ******** | 9.67 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00<br>312 | 0.21++<br>260 | 0.12<br>260 | -0.09<br>208 | 0.14+<br>208 | -0.10<br>104 | 0.30++<br>104 | 0.38++<br>312 | -0.16+<br>208 |
| DAYS TO FLOWER | 0.21++<br>260 | 1.00<br>260 | 0.84++<br>260 | -0.02<br>156 | 0.27++<br>156 | -0.29+<br>52 | 0.35++<br>52 | 0.56++<br>260 | 0.04<br>208 |
| DAYS TO MATURITY | 0.12<br>260 | 0.84++<br>260 | 1.00<br>260 | 0.33++<br>156 | 0.56++<br>156 | 0.00<br>52 | 0.00<br>52 | 0.37++<br>260 | -0.13<br>208 |
| NODULE NUMBER 1 | -0.09<br>208 | -0.02<br>156 | 0.33++<br>156 | 1.00<br>208 | 0.60++<br>208 | 0.14<br>104 | 0.03<br>104 | -0.06<br>208 | 0.39++<br>104 |
| NODULE NUMBER 2 | 0.14+<br>208 | 0.27++<br>156 | 0.56++<br>156 | 0.60++<br>208 | 1.00<br>208 | -0.01<br>104 | 0.63++<br>104 | 0.08<br>208 | 0.07<br>104 |
| NODULE WEIGHT 1 | -0.10<br>104 | -0.29+<br>52 | 0.00<br>52 | 0.14<br>104 | -0.01<br>104 | 1.00<br>104 | -0.33++<br>104 | 0.58++<br>104 | 0.00<br>52 |
| NODULE WEIGHT 2 | 0.30++<br>104 | 0.35++<br>52 | 0.00<br>52 | 0.03<br>104 | 0.63++<br>104 | -0.33++<br>104 | 1.00<br>104 | -0.20+<br>104 | 0.00<br>52 |
| PLANT HEIGHT | 0.38++<br>312 | 0.56++<br>260 | 0.37++<br>260 | -0.06<br>208 | 0.08<br>208 | 0.58++<br>104 | -0.20+<br>104 | 1.00<br>312 | 0.35++<br>208 |
| LODGING | -0.16+<br>208 | 0.04<br>208 | -0.13<br>208 | 0.39++<br>104 | 0.07<br>104 | 0.00<br>52 | 0.00<br>52 | 0.35++<br>208 | 1.00<br>208 |
| SHATTER | 0.08<br>208 | 0.08<br>208 | 0.18++<br>208 | 0.23+<br>104 | -0.02<br>104 | 0.00<br>52 | 0.00<br>52 | 0.25++<br>208 | -0.14+<br>208 |
| PLANTS HARVEST | 0.37++<br>260 | -0.36++<br>260 | -0.46++<br>260 | 0.01<br>156 | -0.24++<br>156 | 0.24<br>52 | 0.22<br>52 | 0.21++<br>260 | 0.03<br>208 |
| PODS PER PLANT | 0.51++<br>312 | 0.56++<br>260 | 0.39++<br>260 | 0.16+<br>208 | 0.35++<br>208 | -0.51++<br>104 | 0.48++<br>104 | 0.68++<br>312 | 0.21++<br>208 |
| 100 SEED WEIGHT | 0.06<br>208 | -0.06<br>156 | -0.03<br>156 | 0.29++<br>156 | 0.25++<br>156 | 0.45++<br>104 | 0.00<br>104 | 0.07<br>208 | 0.10<br>156 |
| QUALITY OF SEED | -0.00<br>260 | -0.51++<br>260 | -0.58++<br>260 | -0.33++<br>156 | -0.25++<br>156 | -0.05<br>52 | 0.06<br>52 | -0.09<br>260 | -0.05<br>208 |

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| HILL | 1.13 | 200.10 | 22.41 | 16.36 | 1.75 |
| DAVIS | 1.25 | 188.15 | 22.88 | 25.88 | 2.10 |
| FORREST | 1.13 | 174.30 | 20.37 | 16.13 | 1.95 |
| COBB | 1.38 | 174.30 | 24.79 | 25.04 | 1.90 |
| IMPROVED PELICAN | 1.63 | 169.00 | 37.07 | 21.65 | 2.10 |
| BOSSIER | 1.00 | 167.05 | 19.69 | 18.38 | 1.85 |
| PICKETT 71 | 1.56 | 171.55 | 17.78 | 17.13 | 1.95 |
| BANSOM | 1.44 | 182.10 | 18.17 | 30.91 | 2.20 |
| WILLIAMS | 1.56 | 176.10 | 15.74 | 18.91 | 1.80 |
| CALLAND | 1.75 | 193.45 | 14.67 | 18.25 | 2.50 |
| CLARK 63 | 1.38 | 182.80 | 15.58 | 26.51 | 1.95 |
| WOODWORTH | 1.50 | 193.10 | 14.65 | 27.64 | 1.70 |
| BRAGG | 1.44 | 186.20 | 13.01 | 20.24 | 2.55 |
| GRAND MEAN | 1.39 | 181.40 | 19.76 | 21.77 | 2.02 |
| NUMBER EXPERIMENTS CONTRIBUTING | 4 | 5 | 6 | 4 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 0.16 | 7.12 | 2.53 | 4.92 | 0.14 |
| COEFFICIENT OF VARIATION | 44.82% | 17.56% | 62.72% | 90.37% | 31.29% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 20.25 | 7.15 | ******** | 0.40 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.08 | 0.37++ | 0.51++ | 0.06 | -0.00 |
| | 208 | 260 | 312 | 208 | 260 |
| DAYS TO FLOWER | 0.08 | -0.36++ | 0.56++ | -0.06 | -0.51++ |
| | 208 | 260 | 260 | 156 | 260 |
| DAYS TO MATURITY | 0.18++ | -0.46++ | 0.39++ | -0.03 | -0.58++ |
| | 208 | 260 | 260 | 156 | 260 |
| NODULE NUMBER 1 | 0.23+ | 0.01 | 0.16+ | 0.29++ | -0.33++ |
| | 104 | 156 | 208 | 156 | 156 |
| NODULE NUMBER 2 | -0.02 | -0.24++ | 0.35++ | 0.25++ | -0.25++ |
| | 104 | 156 | 208 | 156 | 156 |
| NODULE WEIGHT 1 | 0.00 | 0.24 | -0.51++ | 0.45++ | -0.05 |
| | 52 | 52 | 104 | 104 | 52 |
| NODULE WEIGHT 2 | 0.00 | 0.22 | 0.48++ | 0.00 | 0.06 |
| | 52 | 52 | 104 | 104 | 52 |
| PLANT HEIGHT | 0.25++ | 0.21++ | 0.68++ | 0.07 | -0.09 |
| | 208 | 260 | 312 | 208 | 260 |
| LODGING | -0.14+ | 0.03 | 0.21++ | 0.10 | -0.05 |
| | 208 | 208 | 208 | 156 | 208 |
| SHATTER | 1.00 | 0.31++ | 0.17+ | -0.14 | 0.04 |
| | 208 | 208 | 208 | 156 | 208 |
| PLANTS HARVEST | 0.31++ | 1.00 | 0.04 | 0.05 | 0.47++ |
| | 208 | 260 | 260 | 156 | 260 |
| PODS PER PLANT | 0.17+ | 0.04 | 1.00 | -0.01 | -0.11 |
| | 208 | 260 | 312 | 208 | 260 |
| 100 SEED WEIGHT | -0.14 | 0.05 | -0.01 | 1.00 | -0.21++ |
| | 156 | 156 | 208 | 208 | 156 |
| QUALITY OF SEED | 0.04 | 0.47++ | -0.11 | -0.21++ | 1.00 |
| | 208 | 260 | 260 | 156 | 260 |

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2465.90 | 33.23 | 93.92 | 135.31 | 258.27 | 0.88 | 3.33 | 49.18 | 1.42 |
| CALLAND | 2356.00 | 25.65 | 88.36 | 84.77 | 203.63 | 0.62 | 2.96 | 58.78 | 1.56 |
| FORREST | 2289.91 | 29.30 | 90.92 | 99.25 | 242.98 | 0.64 | 2.68 | 42.65 | 1.17 |
| COBB | 2236.15 | 30.25 | 97.43 | 105.44 | 244.85 | 0.69 | 2.95 | 44.20 | 1.22 |
| BRAGG | 2206.06 | 28.80 | 92.61 | 100.98 | 278.25 | 0.70 | 3.11 | 42.07 | 1.25 |
| RANSOM | 2192.60 | 28.77 | 94.34 | 119.23 | 285.21 | 0.71 | 2.93 | 37.73 | 1.14 |
| CLARK 63 | 2101.88 | 25.95 | 86.77 | 92.21 | 193.87 | 0.51 | 2.49 | 54.64 | 1.69 |
| WILLIAMS | 2091.88 | 26.08 | 85.55 | 119.02 | 234.00 | 0.65 | 2.84 | 53.72 | 1.38 |
| PICKETT 71 | 2060.56 | 28.65 | 92.31 | 72.60 | 171.42 | 0.66 | 2.43 | 31.24 | 1.09 |
| HILL | 1969.84 | 31.42 | 87.72 | 92.15 | 170.63 | 0.63 | 1.99 | 40.24 | 1.44 |
| BOSSIER | 1953.32 | 27.75 | 95.11 | 111.35 | 251.29 | 0.82 | 3.09 | 35.95 | 1.16 |
| IMPROVED PELICAN | 1856.71 | 39.07 | 102.27 | 122.13 | 221.15 | 1.00 | 2.33 | 85.89 | 2.09 |
| WOODWORTH | 1685.35 | 25.37 | 83.93 | 84.40 | 166.71 | 0.53 | 2.35 | 47.91 | 1.50 |
| GRAND MEAN | 2112.79 | 29.25 | 91.64 | 102.99 | 224.79 | 0.70 | 2.73 | 48.01 | 1.39 |
| NUMBER EXPERIMENTS CONTRIBUTING | 16 | 15 | 16 | 12 | 13 | 9 | 9 | 16 | 16 |
| STANDARD ERROR OF VARIETY MEAN | 119.27 | 0.74 | 1.75 | 10.88 | 18.20 | 0.07 | 0.22 | 2.50 | 0.12 |
| COEFFICIENT OF VARIATION | 45.16% | 19.47% | 15.25% | 73.23% | 58.40% | 62.38% | 48.39% | 41.58% | 71.55% |
| 5% LSD FOR DIFF OF MEANS (*****=NS) | 332.85 | 2.05 | 4.88 | 30.45 | 50.89 | 0.20 | 0.62 | 6.96 | 0.35 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.29++ | 0.31++ | 0.29++ | 0.28++ | 0.01 | 0.15++ | 0.23++ | -0.13++ |
| | 832 | 730 | 832 | 624 | 676 | 468 | 468 | 832 | 832 |
| DAYS TO FLOWER | 0.29++ | 1.00 | 0.48++ | 0.29++ | 0.06 | 0.35++ | 0.11+ | 0.36++ | 0.09+ |
| | 780 | 780 | 780 | 572 | 624 | 468 | 468 | 780 | 780 |
| DAYS TO MATURITY | 0.31++ | 0.48++ | 1.00 | 0.35++ | 0.50++ | 0.17++ | 0.38++ | 0.27++ | -0.09++ |
| | 832 | 780 | 832 | 624 | 676 | 468 | 468 | 832 | 832 |
| NODULE NUMBER 1 | 0.29++ | 0.29++ | 0.35++ | 1.00 | 0.53++ | 0.64++ | 0.40++ | 0.37++ | -0.00 |
| | 624 | 572 | 624 | 624 | 572 | 468 | 364 | 624 | 624 |
| NODULE NUMBER 2 | 0.28++ | 0.06 | 0.50++ | 0.53++ | 1.00 | 0.02 | 0.59++ | 0.28++ | -0.07 |
| | 676 | 624 | 676 | 572 | 676 | 416 | 468 | 676 | 676 |
| NODULE WEIGHT 1 | 0.01 | 0.35++ | 0.17++ | 0.64++ | 0.02 | 1.00 | 0.31++ | 0.08 | -0.07 |
| | 468 | 468 | 468 | 468 | 416 | 468 | 364 | 468 | 468 |
| NODULE WEIGHT 2 | 0.15++ | 0.11+ | 0.38++ | 0.40++ | 0.59++ | 0.31++ | 1.00 | -0.04 | -0.25++ |
| | 468 | 468 | 468 | 364 | 468 | 364 | 468 | 468 | 468 |
| PLANT HEIGHT | 0.23++ | 0.36++ | 0.27++ | 0.37++ | 0.28++ | 0.08 | -0.04 | 1.00 | 0.40++ |
| | 832 | 780 | 832 | 624 | 676 | 468 | 468 | 832 | 832 |
| LODGING | -0.13++ | 0.09+ | -0.09++ | -0.00 | -0.07 | -0.07 | -0.25++ | 0.40++ | 1.00 |
| | 832 | 780 | 832 | 624 | 676 | 468 | 468 | 832 | 832 |
| SHATTER | -0.07 | -0.09+ | -0.19++ | -0.14++ | -0.18++ | -0.06 | -0.03 | -0.06 | -0.05 |
| | 676 | 624 | 676 | 468 | 520 | 312 | 312 | 676 | 676 |
| PLANTS HARVEST | -0.12++ | -0.25++ | -0.16++ | -0.03 | -0.26++ | 0.04 | -0.24++ | -0.03 | 0.18++ |
| | 832 | 780 | 832 | 624 | 676 | 468 | 468 | 832 | 832 |
| PODS PER PLANT | 0.36++ | 0.44++ | 0.29++ | 0.34++ | 0.27++ | 0.15++ | 0.05 | 0.47++ | -0.01 |
| | 728 | 676 | 728 | 520 | 572 | 364 | 364 | 728 | 728 |
| 100 SEED WEIGHT | 0.40++ | 0.16++ | 0.25++ | 0.13++ | -0.10++ | 0.14++ | 0.37++ | -0.13++ | -0.13++ |
| | 780 | 728 | 780 | 572 | 624 | 416 | 416 | 780 | 780 |
| QUALITY OF SEED | -0.17++ | -0.14++ | 0.23++ | 0.11+ | 0.40++ | -0.02 | 0.27++ | 0.16++ | 0.16++ |
| | 676 | 624 | 676 | 520 | 624 | 364 | 416 | 676 | 676 |

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.17 | 217.64 | 31.87 | 16.36 | 2.56 |
| CALLAND | 1.29 | 210.73 | 24.57 | 19.40 | 2.88 |
| FORREST | 1.08 | 199.61 | 28.65 | 14.97 | 2.94 |
| COBB | 1.17 | 186.08 | 30.54 | 16.18 | 2.75 |
| BRAGG | 1.00 | 206.81 | 25.69 | 16.37 | 3.04 |
| RANSOM | 1.02 | 204.00 | 23.57 | 17.44 | 3.06 |
| CLARK 63 | 1.06 | 202.17 | 23.29 | 17.44 | 2.56 |
| WILLIAMS | 1.10 | 206.48 | 21.37 | 18.68 | 2.38 |
| PICKETT 71 | 1.25 | 185.30 | 22.41 | 16.73 | 2.63 |
| HILL | 1.25 | 210.69 | 25.76 | 15.85 | 2.50 |
| BOSSIER | 1.02 | 165.77 | 24.83 | 16.70 | 2.77 |
| IMPROVED PELICAN | 1.08 | 154.77 | 39.94 | 12.84 | 2.54 |
| WOODWORTH | 1.37 | 199.39 | 20.97 | 16.88 | 2.79 |
| GRAND MEAN | 1.14 | 196.88 | 26.42 | 16.60 | 2.72 |
| NUMBER EXPERIMENTS CONTRIBUTING | 13 | 16 | 14 | 15 | 13 |
| STANDARD ERROR OF VARIETY MEAN | 0.12 | 5.01 | 2.11 | 0.50 | 0.22 |
| COEFFICIENT OF VARIATION | 74.92% | 20.36% | 59.81% | 23.44% | 57.76% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 13.98 | 5.90 | 1.40 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.07 | -0.12++ | 0.35++ | 0.40++ | -0.17++ |
| | 576 | 832 | 728 | 780 | 676 |
| DAYS TO FLOWER | -0.09+ | -0.25++ | 0.44++ | 0.16++ | -0.14++ |
| | 624 | 780 | 676 | 728 | 624 |
| DAYS TO MATURITY | -0.19++ | -0.16++ | 0.29++ | 0.25++ | 0.24++ |
| | 676 | 832 | 728 | 780 | 676 |
| NODULE NUMBER 1 | -0.14++ | -0.03 | 0.34++ | 0.13++ | 0.11+ |
| | 468 | 624 | 520 | 572 | 520 |
| NODULE NUMBER 2 | -0.18++ | -0.26++ | 0.27++ | -0.10++ | 0.40++ |
| | 520 | 676 | 572 | 624 | 624 |
| NODULE WEIGHT 1 | -0.06 | 0.04 | 0.15++ | 0.14++ | -0.02 |
| | 312 | 468 | 364 | 416 | 364 |
| NODULE WEIGHT 2 | -0.03 | -0.24++ | 0.05 | 0.37++ | 0.27++ |
| | 312 | 468 | 364 | 416 | 416 |
| PLANT HEIGHT | -0.06 | -0.03 | 0.47++ | -0.13++ | 0.16++ |
| | 676 | 832 | 728 | 780 | 676 |
| LODGING | -0.05 | 0.18++ | -0.01 | -0.13++ | 0.16++ |
| | 576 | 832 | 728 | 780 | 676 |
| SHATTER | 1.00 | -0.12++ | 0.04 | -0.04 | 0.02 |
| | 676 | 676 | 624 | 624 | 572 |
| PLANTS HARVEST | -0.12++ | 1.00 | -0.33++ | -0.02 | -0.10++ |
| | 676 | 832 | 728 | 780 | 676 |
| PODS PER PLANT | 0.04 | -0.38++ | 1.00 | 0.08+ | -0.04 |
| | 624 | 728 | 728 | 728 | 572 |
| 100 SEED WEIGHT | -0.04 | -0.02 | 0.08+ | 1.00 | -0.21++ |
| | 624 | 780 | 728 | 780 | 624 |
| QUALITY OF SEED | 0.02 | -0.10++ | -0.04 | -0.21++ | 1.00 |
| | 572 | 676 | 572 | 624 | 676 |

TABLE 44 COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 3207.31 | 42.70 | 108.80 | 150.90 | 280.05 | 1.98 | 4.00 | 66.41 | 1.20 |
| ESSEX | 3122.20 | 31.00 | 104.05 | 139.85 | 280.95 | 0.93 | 3.04 | 45.33 | 1.00 |
| CALLAND | 3114.05 | 25.35 | 96.80 | 87.40 | 211.20 | 0.77 | 2.67 | 51.99 | 1.00 |
| COLUMBUS | 3111.43 | 25.55 | 97.00 | 105.45 | 239.70 | 0.84 | 2.69 | 57.87 | 1.05 |
| BANSOM | 3060.84 | 29.70 | 103.90 | 91.00 | 285.15 | 0.71 | 2.80 | 39.01 | 1.00 |
| COBB | 3010.33 | 37.50 | 108.05 | 112.20 | 256.60 | 0.75 | 2.63 | 58.64 | 1.30 |
| BRAGG | 2933.17 | 31.10 | 100.45 | 80.10 | 307.00 | 0.58 | 2.42 | 47.23 | 1.20 |
| BOSSIER | 2838.99 | 31.80 | 104.60 | 127.55 | 245.25 | 0.90 | 2.76 | 41.72 | 1.00 |
| HILL | 2776.01 | 41.50 | 102.10 | 104.60 | 185.45 | 1.08 | 2.18 | 61.06 | 1.90 |
| FORREST | 2744.46 | 35.80 | 104.45 | 75.75 | 216.60 | 0.45 | 2.10 | 58.45 | 1.65 |
| IMPROVED PELICAN | 2518.47 | 52.40 | 114.70 | 157.70 | 215.85 | 1.12 | 2.62 | 95.68 | 1.60 |
| PICKETT 71 | 2493.10 | 32.70 | 98.55 | 75.70 | 166.95 | 0.41 | 1.72 | 36.18 | 1.00 |
| CLARK 63 | 2471.28 | 25.40 | 89.55 | 97.25 | 194.05 | 0.74 | 2.68 | 50.13 | 1.25 |
| WILLIAMS | 2466.94 | 24.80 | 87.60 | 121.15 | 163.30 | 0.79 | 1.91 | 44.87 | 1.15 |
| WOODWORTH | 2272.35 | 24.60 | 82.75 | 98.90 | 145.95 | 0.71 | 1.85 | 44.11 | 1.25 |
| GRAND MEAN | 2809.39 | 32.79 | 100.22 | 108.37 | 226.34 | 0.85 | 2.54 | 53.25 | 1.24 |
| NUMBER EXPERIMENTS CONTRIBUTING | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 157.99 | 1.27 | 1.53 | 17.22 | 25.54 | 0.21 | 0.35 | 2.87 | 0.19 |
| COEFFICIENT OF VARIATION | 25.15% | 17.31% | 7.06% | 71.05% | 50.47% | 109.45% | 61.13% | 24.15% | 70.38% |
| 5% LSD VARIETY MEANS (*****=NS) | 447.51 | 3.50 | 4.43 | 48.77 | 72.36 | 0.59 | 0.98 | 8.14 | 0.55 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00<br>300 | 0.05<br>300 | 0.12+<br>300 | 0.17++<br>300 | 0.36++<br>300 | 0.44++<br>300 | 0.51++<br>300 | 0.17++<br>300 | -0.08<br>300 |
| DAYS TO FLOWER | 0.05<br>300 | 1.00<br>300 | 0.81++<br>300 | 0.59++<br>300 | 0.47++<br>300 | 0.25++<br>300 | 0.14+<br>300 | 0.77++<br>300 | 0.44++<br>300 |
| DAYS TO MATURITY | 0.12+<br>300 | 0.81++<br>300 | 1.00<br>300 | 0.68++<br>300 | 0.59++<br>300 | 0.24++<br>300 | 0.21++<br>300 | 0.60++<br>300 | 0.32++<br>300 |
| NODULE NUMBER 1 | 0.17++<br>300 | 0.59++<br>300 | 0.68++<br>300 | 1.00<br>300 | 0.73++<br>300 | 0.38++<br>300 | 0.28++<br>300 | 0.54++<br>300 | 0.29++<br>300 |
| NODULE NUMBER 2 | 0.36++<br>300 | 0.47++<br>300 | 0.59++<br>300 | 0.73++<br>300 | 1.00<br>300 | 0.17++<br>300 | 0.22++<br>300 | 0.43++<br>300 | 0.31++<br>300 |
| NODULE WEIGHT 1 | 0.44++<br>300 | 0.25++<br>300 | 0.24++<br>300 | 0.38++<br>300 | 0.17++<br>300 | 1.00<br>300 | 0.79++<br>300 | 0.29++<br>300 | -0.07<br>300 |
| NODULE WEIGHT 2 | 0.51++<br>300 | 0.14+<br>300 | 0.21++<br>300 | 0.28++<br>300 | 0.22++<br>300 | 0.79++<br>300 | 1.00<br>300 | 0.18++<br>300 | -0.11<br>300 |
| PLANT HEIGHT | 0.17++<br>300 | 0.77++<br>300 | 0.60++<br>300 | 0.54++<br>300 | 0.43++<br>300 | 0.29++<br>300 | 0.18++<br>300 | 1.00<br>300 | 0.44++<br>300 |
| LODGING | -0.08<br>300 | 0.44++<br>300 | 0.32++<br>300 | 0.29++<br>300 | 0.31++<br>300 | -0.07<br>300 | -0.11<br>300 | 0.44++<br>300 | 1.00<br>300 |
| SHATTER | -0.05<br>240 | -0.07<br>240 | -0.05<br>240 | 0.15+<br>240 | 0.08<br>240 | -0.01<br>240 | 0.10<br>240 | -0.04<br>240 | -0.01<br>240 |
| PLANTS HARVEST | -0.21++<br>300 | -0.32++<br>300 | -0.31++<br>300 | -0.35++<br>300 | -0.40++<br>300 | 0.00<br>300 | -0.03<br>300 | -0.18++<br>300 | -0.19++<br>300 |
| PODS PER PLANT | 0.36++<br>300 | 0.57++<br>300 | 0.42++<br>300 | 0.47++<br>300 | 0.49++<br>300 | 0.23++<br>300 | 0.16++<br>300 | 0.59++<br>300 | 0.35++<br>300 |
| 100 SEED WEIGHT | 0.54++<br>300 | -0.23++<br>300 | -0.01<br>300 | 0.09<br>300 | 0.27++<br>300 | 0.23++<br>300 | 0.34++<br>300 | -0.10<br>300 | -0.21++<br>300 |
| QUALITY OF SEED | 0.04<br>300 | -0.35++<br>300 | -0.19++<br>300 | -0.11<br>300 | -0.12+<br>300 | -0.04<br>300 | -0.02<br>300 | -0.24++<br>300 | -0.04<br>300 |

TABLE 44 COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.13 | 257.55 | 24.02 | 21.34 | 1.95 |
| ESSEX | 1.00 | 235.90 | 23.40 | 18.37 | 2.65 |
| CALLAND | 1.13 | 243.85 | 16.94 | 22.23 | 3.30 |
| COLUMBUS | 1.00 | 250.80 | 20.02 | 20.06 | 2.40 |
| BANSOM | 1.06 | 250.10 | 17.16 | 20.95 | 2.50 |
| COBB | 1.00 | 229.60 | 27.33 | 18.80 | 2.45 |
| BRAGG | 1.00 | 256.75 | 17.73 | 21.24 | 2.10 |
| BOSSIER | 1.06 | 191.90 | 20.56 | 19.77 | 2.35 |
| HILL | 1.00 | 247.25 | 23.77 | 17.27 | 2.05 |
| FORREST | 1.00 | 249.80 | 22.34 | 17.28 | 2.60 |
| IMPROVED PELICAN | 1.00 | 216.00 | 37.75 | 16.02 | 1.70 |
| PICKETT 71 | 1.00 | 224.15 | 19.84 | 18.14 | 2.60 |
| CLARK 63 | 1.00 | 265.50 | 18.97 | 18.60 | 2.50 |
| WILLIAMS | 1.19 | 264.40 | 18.29 | 20.67 | 2.70 |
| WOODWORTH | 1.56 | 245.55 | 17.71 | 17.76 | 2.70 |
| GRAND MEAN | 1.08 | 242.61 | 21.72 | 19.23 | 2.44 |
| NUMBER EXPERIMENTS CONTRIBUTING | 4 | 5 | 5 | 5 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 0.16 | 8.93 | 2.42 | 0.59 | 0.27 |
| COEFFICIENT OF VARIATION | 58.07% | 16.46% | 49.83% | 13.65% | 50.18% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 25.29 | 6.86 | 1.66 | 0.77 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.05 | -0.21++ | 0.35++ | 0.54++ | 0.04 |
| | 240 | 300 | 300 | 300 | 300 |
| DAYS TO FLOWER | -0.07 | -0.32++ | 0.57++ | -0.23++ | -0.35++ |
| | 240 | 300 | 300 | 300 | 300 |
| DAYS TO MATURITY | -0.05 | -0.31++ | 0.42++ | -0.01 | -0.19++ |
| | 240 | 300 | 300 | 300 | 300 |
| NODULE NUMBER 1 | 0.15+ | -0.35++ | 0.47++ | 0.09 | -0.11 |
| | 240 | 300 | 300 | 300 | 300 |
| NODULE NUMBER 2 | 0.08 | -0.40++ | 0.49++ | 0.27++ | -0.12+ |
| | 240 | 300 | 300 | 300 | 300 |
| NODULE WEIGHT 1 | -0.01 | 0.00 | 0.23++ | 0.23++ | -0.04 |
| | 240 | 300 | 300 | 300 | 300 |
| NODULE WEIGHT 2 | 0.10 | -0.03 | 0.16++ | 0.34++ | -0.02 |
| | 240 | 300 | 300 | 300 | 300 |
| PLANT HEIGHT | -0.04 | -0.18++ | 0.59++ | -0.10 | -0.24++ |
| | 240 | 300 | 300 | 300 | 300 |
| LODGING | -0.01 | -0.19++ | 0.35++ | -0.21++ | -0.04 |
| | 240 | 300 | 300 | 300 | 300 |
| SHATTER | 1.00 | -0.15+ | 0.02 | 0.05 | 0.11 |
| | 240 | 240 | 240 | 240 | 240 |
| PLANTS HARVEST | -0.16+ | 1.00 | -0.51++ | -0.01 | 0.03 |
| | 240 | 300 | 300 | 300 | 300 |
| PODS PER PLANT | 0.02 | -0.51++ | 1.00 | 0.01 | -0.05 |
| | 240 | 300 | 300 | 300 | 300 |
| 100 SEED WEIGHT | 0.05 | -0.01 | 0.01 | 1.00 | 0.24++ |
| | 240 | 300 | 300 | 300 | 300 |
| QUALITY OF SEED | 0.11 | 0.03 | -0.05 | 0.24++ | 1.00 |
| | 240 | 300 | 300 | 300 | 300 |

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2371.39 | 46.56 | 112.70 | 93.05 | 110.52 | 0.90 | 1.64 | 55.12 | 1.60 |
| RANSOM | 2357.94 | 44.52 | 117.35 | 105.59 | 141.90 | 0.84 | 1.39 | 50.07 | 1.40 |
| BOSSIER | 2306.90 | 46.54 | 115.65 | 92.09 | 114.48 | 1.05 | 1.45 | 54.83 | 1.50 |
| FORREST | 2225.67 | 45.04 | 106.40 | 71.34 | 108.94 | 0.56 | 1.47 | 51.91 | 1.50 |
| BRAGG | 2204.21 | 46.38 | 115.80 | 91.09 | 130.48 | 0.75 | 1.36 | 57.82 | 1.33 |
| PICKETT 71 | 2101.42 | 46.19 | 115.25 | 63.80 | 90.29 | 0.49 | 1.06 | 43.47 | 1.28 |
| WILLIAMS | 2029.62 | 34.44 | 93.62 | 72.57 | 105.50 | 0.42 | 1.40 | 50.25 | 1.28 |
| CLARK 63 | 1995.41 | 34.90 | 96.93 | 64.32 | 101.50 | 0.38 | 1.37 | 50.88 | 1.30 |
| HILL | 1941.54 | 45.56 | 100.85 | 71.50 | 82.40 | 0.52 | 0.98 | 46.71 | 1.65 |
| CALLAND | 1938.00 | 34.37 | 97.93 | 55.25 | 92.17 | 0.42 | 1.33 | 55.05 | 1.35 |
| WOODWORTH | 1633.77 | 33.38 | 89.00 | 63.23 | 77.50 | 0.32 | 1.12 | 48.59 | 1.25 |
| GRAND MEAN | 2100.72 | 41.53 | 105.69 | 76.71 | 105.06 | 0.60 | 1.32 | 51.34 | 1.40 |
| NUMBER EXPERIMENTS CONTRIBUTING | 16 | 13 | 15 | 11 | 12 | 9 | 11 | 15 | 10 |
| STANDARD ERROR OF VARIETY MEAN | 112.11 | 1.70 | 2.33 | 8.11 | 10.98 | 0.12 | 0.14 | 2.30 | 0.14 |
| COEFFICIENT OF VARIATION | 42.59% | 29.51% | 17.43% | 70.10% | 72.38% | 116.67% | 70.02% | 34.67% | 64.98% |
| 5% LSD VARIETY MEANS (*****=NS) | 313.28 | 4.77 | 6.65 | 22.75 | 30.76 | 0.33 | 0.39 | 6.42 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00<br>704 | 0.38++<br>572 | 0.36++<br>660 | 0.27++<br>484 | 0.17++<br>528 | 0.26++<br>396 | 0.33++<br>484 | 0.33++<br>660 | 0.32++<br>440 |
| DAYS TO FLOWER | 0.38++<br>572 | 1.00<br>572 | 0.61++<br>528 | 0.38++<br>484 | 0.19++<br>528 | 0.57++<br>396 | 0.38++<br>484 | 0.44++<br>528 | 0.49++<br>396 |
| DAYS TO MATURITY | 0.36++<br>660 | 0.61++<br>528 | 1.00<br>660 | 0.50++<br>440 | 0.45++<br>484 | 0.54++<br>352 | 0.22++<br>440 | 0.49++<br>660 | 0.24++<br>440 |
| NODULE NUMBER 1 | 0.27++<br>484 | 0.38++<br>484 | 0.50++<br>440 | 1.00<br>484 | 0.68++<br>484 | 0.79++<br>396 | 0.50++<br>440 | 0.19++<br>440 | 0.09<br>396 |
| NODULE NUMBER 2 | 0.17++<br>528 | 0.19++<br>528 | 0.45++<br>484 | 0.68++<br>484 | 1.00<br>528 | 0.49++<br>396 | 0.66++<br>484 | 0.13++<br>484 | -0.03<br>396 |
| NODULE WEIGHT 1 | 0.26++<br>396 | 0.57++<br>396 | 0.54++<br>352 | 0.79++<br>396 | 0.49++<br>396 | 1.00<br>396 | 0.54++<br>396 | 0.37++<br>352 | 0.20++<br>352 |
| NODULE WEIGHT 2 | 0.33++<br>484 | 0.38++<br>484 | 0.22++<br>440 | 0.50++<br>440 | 0.66++<br>484 | 0.54++<br>396 | 1.00<br>484 | 0.24++<br>440 | 0.17++<br>396 |
| PLANT HEIGHT | 0.33++<br>660 | 0.44++<br>528 | 0.49++<br>660 | 0.19++<br>440 | 0.13++<br>484 | 0.37++<br>352 | 0.24++<br>440 | 1.00<br>660 | 0.27++<br>440 |
| LODGING | 0.32++<br>440 | 0.49++<br>396 | 0.24++<br>440 | 0.09<br>396 | -0.03<br>396 | 0.20++<br>352 | 0.17++<br>396 | 0.27++<br>440 | 1.00<br>440 |
| SHATTER | -0.02<br>396 | 0.06<br>352 | 0.25++<br>396 | 0.15++<br>352 | 0.17++<br>352 | 0.12+<br>352 | 0.08<br>352 | 0.21++<br>396 | -0.04<br>396 |
| PLANTS HARVEST | 0.21++<br>660 | 0.11+<br>528 | 0.19++<br>660 | 0.23++<br>440 | 0.40++<br>484 | 0.05<br>352 | 0.25++<br>440 | 0.02<br>660 | 0.28++<br>440 |
| PODS PER PLANT | 0.30++<br>572 | 0.17++<br>528 | 0.29++<br>572 | 0.03<br>440 | -0.21++<br>484 | 0.33++<br>352 | -0.04<br>440 | 0.42++<br>572 | 0.15++<br>440 |
| 100 SEED WEIGHT | 0.49++<br>516 | 0.20++<br>484 | 0.35++<br>616 | 0.31++<br>440 | 0.36++<br>484 | 0.19++<br>352 | 0.32++<br>440 | 0.20++<br>616 | 0.30++<br>440 |
| QUALITY OF SEED | -0.22++<br>516 | 0.08<br>484 | 0.18++<br>572 | -0.03<br>440 | 0.05<br>484 | -0.07<br>396 | -0.03<br>484 | -0.12++<br>572 | 0.25++<br>440 |

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.14 | 209.83 | 26.53 | 16.11 | 2.43 |
| RANSOM | 1.06 | 209.52 | 25.81 | 16.65 | 2.30 |
| BOSSIER | 1.03 | 172.58 | 33.32 | 15.21 | 2.27 |
| FORREST | 1.03 | 198.83 | 27.30 | 13.50 | 2.82 |
| BRAGG | 1.00 | 210.73 | 27.75 | 15.77 | 2.50 |
| PICKETT 71 | 1.06 | 190.90 | 27.02 | 14.56 | 2.39 |
| WILLIAMS | 1.06 | 201.32 | 20.52 | 16.39 | 2.27 |
| CLARK 63 | 1.03 | 198.77 | 21.36 | 15.81 | 2.16 |
| HILL | 1.00 | 206.18 | 24.80 | 13.96 | 2.23 |
| CALLAND | 1.08 | 195.28 | 19.95 | 17.18 | 2.93 |
| WOODWORTH | 1.00 | 196.07 | 20.58 | 15.29 | 2.36 |
| GRAND MEAN | 1.04 | 198.18 | 24.99 | 15.49 | 2.42 |
| NUMBER EXPERIMENTS CONTRIBUTING | 9 | 15 | 13 | 14 | 14 |
| STANDARD ERROR OF VARIETY MEAN | 0.04 | 6.56 | 1.57 | 0.42 | 0.15 |
| COEFFICIENT OF VARIATION | 23.43% | 26.05% | 45.42% | 20.40% | 47.35% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 18.63 | 4.41 | 1.18 | 0.43 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.02 | 0.21++ | 0.30++ | 0.49++ | -0.22++ |
| | 396 | 660 | 572 | 616 | 616 |
| DAYS TO FLOWER | 0.06 | 0.11+ | 0.17++ | 0.20++ | 0.08 |
| | 352 | 528 | 528 | 484 | 484 |
| DAYS TO MATURITY | 0.25++ | 0.19++ | 0.29++ | 0.36++ | 0.18++ |
| | 396 | 660 | 572 | 616 | 572 |
| NODULE NUMBER 1 | 0.15++ | 0.23++ | 0.03 | 0.31++ | -0.03 |
| | 352 | 440 | 440 | 440 | 440 |
| NODULE NUMBER 2 | 0.17++ | 0.40++ | -0.21++ | 0.36++ | 0.05 |
| | 352 | 484 | 484 | 484 | 484 |
| NODULE WEIGHT 1 | 0.12+ | 0.05 | 0.33++ | 0.19++ | -0.07 |
| | 352 | 352 | 352 | 352 | 396 |
| NODULE WEIGHT 2 | 0.08 | 0.25++ | -0.04 | 0.32++ | -0.03 |
| | 352 | 440 | 440 | 440 | 484 |
| PLANT HEIGHT | 0.21++ | 0.02 | 0.42++ | 0.20++ | -0.12++ |
| | 396 | 660 | 572 | 616 | 572 |
| LODGING | -0.04 | 0.28++ | 0.15++ | 0.30++ | 0.25++ |
| | 396 | 440 | 440 | 440 | 440 |
| SHATTER | 1.00 | -0.06 | 0.14++ | 0.12+ | 0.07 |
| | 396 | 396 | 396 | 396 | 396 |
| PLANTS HARVEST | -0.06 | 1.00 | -0.47++ | 0.30++ | 0.24++ |
| | 396 | 660 | 572 | 616 | 572 |
| PODS PER PLANT | 0.14++ | -0.47++ | 1.00 | -0.04 | -0.17++ |
| | 396 | 572 | 572 | 528 | 484 |
| 100 SEED WEIGHT | 0.12+ | 0.30++ | -0.04 | 1.00 | 0.06 |
| | 396 | 616 | 528 | 616 | 572 |
| QUALITY OF SEED | 0.07 | 0.24++ | -0.17++ | 0.06 | 1.00 |
| | 396 | 572 | 484 | 572 | 616 |

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| WILLIAMS | 3324.01 | 39.31 | 118.00 | 112.38 | 253.75 | 0.67 | 1.85 | 91.08 | 1.53 |
| ANSOY 71 | 3130.51 | 36.41 | 114.81 | 81.63 | 187.75 | 0.21 | 1.44 | 88.83 | 2.38 |
| WOODWORTH | 3084.52 | 40.25 | 110.88 | 83.75 | 180.13 | 0.49 | 1.28 | 85.18 | 1.56 |
| BEESON | 3081.44 | 36.41 | 114.66 | 79.25 | 138.50 | 0.34 | 1.47 | 87.44 | 2.13 |
| CALLAND | 3025.13 | 38.03 | 121.97 | 89.00 | 167.00 | 0.43 | 1.66 | 98.56 | 2.84 |
| WELLS | 3007.30 | 35.88 | 112.47 | 69.63 | 156.38 | 0.34 | 1.64 | 80.04 | 1.34 |
| CUTLER 71 | 3002.66 | 42.97 | 124.94 | 159.63 | 286.25 | 1.45 | 1.98 | 99.80 | 2.19 |
| HODGSON | 2944.33 | 34.00 | 101.84 | 100.50 | 175.13 | 0.32 | 1.69 | 70.40 | 1.22 |
| COBSOY | 2928.50 | 35.66 | 109.81 | 110.25 | 222.50 | 0.33 | 2.41 | 76.03 | 1.84 |
| CLARK 63 | 2868.03 | 40.34 | 122.41 | 112.25 | 210.13 | 0.45 | 1.44 | 94.17 | 2.34 |
| HARK | 2799.04 | 34.53 | 111.41 | 72.38 | 169.88 | 0.25 | 1.57 | 81.58 | 1.81 |
| STEELE | 2756.76 | 35.25 | 101.34 | 96.00 | 195.00 | 0.53 | 1.61 | 71.87 | 1.50 |
| GRAND MEAN | 2996.02 | 37.42 | 113.71 | 97.22 | 195.20 | 0.48 | 1.67 | 85.42 | 1.89 |
| NUMBER EXPERIMENTS CONTRIBUTING | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 8 | 8 |
| STANDARD ERROR OF VARIETY MEAN | 132.01 | 0.86 | 1.84 | 16.93 | 36.98 | 0.26 | 0.39 | 2.28 | 0.22 |
| COEFFICIENT OF VARIATION | 24.92% | 13.07% | 9.13% | 49.25% | 53.58% | 151.86% | 65.38% | 15.11% | 64.41% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 2.44 | 5.17 | ******** | ******** | ******** | ******** | 6.42 | 0.61 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.37++ | -0.08 | 0.44++ | 0.51++ | -0.19 | 0.19 | 0.63++ | 0.49++ |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| DAYS TO FLOWER | -0.37++ | 1.00 | 0.57++ | -0.30++ | -0.39++ | 0.41++ | -0.03 | -0.23++ | -0.22++ |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| DAYS TO MATURITY | -0.08 | 0.57++ | 1.00 | -0.06 | -0.15 | 0.37++ | 0.02 | 0.36++ | 0.14++ |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| NODULE NUMBER 1 | 0.44++ | -0.30++ | -0.06 | 1.00 | 0.51++ | 0.20+ | 0.26+ | 0.43++ | 0.39++ |
| | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| NODULE NUMBER 2 | 0.51++ | -0.39++ | -0.15 | 0.51++ | 1.00 | 0.11 | 0.65++ | 0.46++ | 0.44++ |
| | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| NODULE WEIGHT 1 | -0.19 | 0.41++ | 0.37++ | 0.20+ | 0.11 | 1.00 | 0.27++ | -0.13 | -0.19 |
| | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| NODULE WEIGHT 2 | 0.19 | -0.03 | 0.02 | 0.25+ | 0.65++ | 0.27++ | 1.00 | 0.01 | 0.12 |
| | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| PLANT HEIGHT | 0.63++ | -0.23++ | 0.36++ | 0.43++ | 0.46++ | -0.13 | 0.01 | 1.00 | 0.57++ |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| LODGING | 0.49++ | -0.22++ | 0.14++ | 0.39++ | 0.44++ | -0.19 | 0.12 | 0.57++ | 1.00 |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| SHATTER | -0.17++ | 0.09 | 0.21++ | 0.12 | -0.02 | -0.02 | -0.11 | 0.10+ | 0.05 |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |
| PLANTS HARVEST | 0.42++ | -0.25++ | 0.27++ | -0.06 | -0.08 | -0.20 | -0.07 | 0.63++ | 0.33++ |
| | 336 | 336 | 336 | 48 | 48 | 48 | 48 | 336 | 336 |
| PODS PER PLANT | 0.26++ | -0.03 | -0.39++ | -0.08 | -0.06 | 0.09 | 0.05 | -0.25++ | 0.09 |
| | 240 | 240 | 240 | 48 | 48 | 48 | 48 | 240 | 240 |
| 100 SEED WEIGHT | 0.40++ | -0.24++ | 0.27++ | 0.48++ | 0.43++ | -0.22+ | 0.04 | 0.64++ | 0.39++ |
| | 336 | 336 | 336 | 96 | 96 | 96 | 96 | 336 | 336 |
| QUALITY OF SEED | -0.12+ | 0.07 | 0.23++ | -0.19 | -0.12 | -0.27++ | -0.09 | -0.02 | 0.16++ |
| | 384 | 384 | 384 | 96 | 96 | 96 | 96 | 384 | 384 |

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| WILLIAMS | 1.13 | 136.14 | 38.12 | 19.27 | 1.78 |
| AMSOY 71 | 1.03 | 175.89 | 38.53 | 18.40 | 2.72 |
| WOODWORTH | 1.13 | 134.96 | 37.00 | 16.69 | 1.97 |
| BEESON | 1.06 | 178.50 | 36.38 | 18.90 | 2.84 |
| CALLAND | 1.03 | 179.14 | 39.54 | 18.03 | 2.81 |
| WELLS | 1.00 | 193.85 | 38.20 | 16.18 | 2.88 |
| CUTLER 71 | 1.16 | 175.93 | 38.39 | 18.55 | 2.38 |
| HODGSON | 1.00 | 138.54 | 37.93 | 17.21 | 1.97 |
| CORSOY | 1.06 | 178.46 | 45.09 | 16.55 | 2.53 |
| CLARK 63 | 1.13 | 131.29 | 36.58 | 16.38 | 2.34 |
| HARK | 1.03 | 157.50 | 39.97 | 17.34 | 2.47 |
| STEELE | 1.00 | 190.50 | 34.32 | 17.94 | 2.09 |
| GRAND MEAN | 1.06 | 180.39 | 38.34 | 17.62 | 2.40 |
| NUMBER EXPERIMENTS CONTRIBUTING | 8 | 7 | 5 | 7 | 8 |
| STANDARD ERROR OF VARIETY MEAN | 0.05 | 5.65 | 2.43 | 0.40 | 0.18 |
| COEFFICIENT OF VARIATION | 28.55% | 16.52% | 28.40% | 12.09% | 42.55% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 15.94 | ******** | 1.14 | 0.51 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.17++ | 0.42++ | 0.26++ | 0.40++ | -0.12+ |
| | 384 | 336 | 240 | 336 | 384 |
| DAYS TO FLOWER | 0.09 | -0.26++ | -0.03 | -0.24++ | 0.07 |
| | 384 | 336 | 240 | 336 | 384 |
| DAYS TO MATURITY | 0.21++ | 0.27++ | -0.39++ | 0.27++ | 0.23++ |
| | 384 | 336 | 240 | 336 | 384 |
| NODULE NUMBER 1 | 0.12 | -0.05 | -0.03 | 0.48++ | -0.19 |
| | 96 | 48 | 48 | 96 | 96 |
| NODULE NUMBER 2 | -0.02 | -0.08 | -0.06 | 0.43++ | -0.12 |
| | 96 | 48 | 48 | 96 | 96 |
| NODULE WEIGHT 1 | -0.02 | -0.20 | 0.09 | -0.22+ | -0.27++ |
| | 96 | 48 | 48 | 96 | 96 |
| NODULE WEIGHT 2 | -0.11 | -0.07 | 0.05 | 0.04 | -0.09 |
| | 96 | 48 | 48 | 96 | 96 |
| PLANT HEIGHT | 0.10+ | 0.63++ | -0.25++ | 0.64++ | -0.02 |
| | 384 | 336 | 240 | 336 | 384 |
| LODGING | 0.05 | 0.33++ | 0.09 | 0.39++ | 0.16++ |
| | 384 | 336 | 240 | 336 | 384 |
| SHATTER | 1.00 | 0.27++ | -0.33++ | 0.13+ | 0.12+ |
| | 384 | 336 | 240 | 336 | 384 |
| PLANTS HARVEST | 0.27++ | 1.00 | -0.58++ | 0.63++ | 0.01 |
| | 336 | 336 | 240 | 288 | 336 |
| PODS PER PLANT | -0.33++ | -0.58++ | 1.00 | -0.43++ | -0.08 |
| | 240 | 240 | 240 | 240 | 240 |
| 100 SEED WEIGHT | 0.13+ | 0.53++ | -0.43++ | 1.00 | 0.05 |
| | 336 | 288 | 240 | 336 | 336 |
| QUALITY OF SEED | 0.12+ | 0.01 | -0.09 | 0.05 | 1.00 |
| | 384 | 336 | 240 | 336 | 384 |

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2337.08 | 29.81 | 97.58 | 92.02 | 177.73 | 0.45 | 1.89 | 32.05 | 1.09 |
| FORREST | 2288.16 | 28.60 | 88.56 | 86.15 | 144.77 | 0.35 | 1.43 | 33.71 | 1.09 |
| IMPROVED PELICAN | 2175.29 | 33.79 | 97.73 | 89.77 | 191.06 | 0.37 | 1.61 | 70.59 | 1.66 |
| WILLIAMS | 2173.91 | 26.67 | 86.85 | 99.62 | 153.44 | 0.34 | 1.15 | 41.40 | 1.05 |
| BRAGG | 2138.06 | 29.75 | 93.67 | 83.04 | 172.79 | 0.30 | 1.56 | 37.86 | 1.25 |
| BOSSIER | 2089.49 | 30.46 | 92.94 | 99.81 | 195.21 | 0.45 | 2.28 | 34.06 | 1.09 |
| CLARK 63 | 2032.65 | 28.58 | 84.79 | 76.96 | 140.56 | 0.43 | 1.46 | 44.50 | 1.18 |
| HILL | 1988.16 | 30.29 | 90.08 | 85.52 | 139.33 | 0.33 | 1.31 | 35.47 | 1.18 |
| JUPITER | 1920.29 | 37.35 | 114.67 | 109.21 | 215.65 | 0.43 | 1.71 | 64.29 | 1.70 |
| GRAND MEAN | 2127.01 | 30.59 | 94.10 | 91.34 | 170.06 | 0.38 | 1.60 | 43.77 | 1.26 |
| NUMBER EXPERIMENTS CONTRIBUTING | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 12 | 11 |
| STANDARD ERROR OF VARIETY MEAN | 121.37 | 0.87 | 1.78 | 7.38 | 15.03 | 0.06 | 0.2 | 2.29 | 0.15 |
| COEFFICIENT OF VARIATION | 39.53% | 19.63% | 13.09% | 56.00% | 61.25% | 94.44% | 99.[illegible]% | 36.26% | 79.83% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 2.44 | 5.00 | ******** | 42.25 | ******** | ******** | 6.44 | 0.43 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.44++ | -0.09 | 0.16++ | 0.07 | 0.12+ | 0.50++ | 0.08 |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.45++ | 0.06 | 0.15++ | 0.16++ | 0.14+ | 0.43++ | 0.38++ |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| DAYS TO MATURITY | 0.44++ | 0.46++ | 1.00 | -0.08 | 0.12+ | 0.24++ | 0.29++ | 0.51++ | 0.34++ |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| NODULE NUMBER 1 | -0.09 | 0.06 | -0.08 | 1.00 | 0.67++ | 0.05 | -0.11+ | 0.02 | -0.09 |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| NODULE NUMBER 2 | 0.16++ | 0.15++ | 0.12+ | 0.67++ | 1.00 | 0.07 | 0.16++ | 0.22++ | -0.03 |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| NODULE WEIGHT 1 | 0.07 | 0.16++ | 0.24++ | 0.05 | 0.07 | 1.00 | 0.60++ | 0.10 | 0.11+ |
| | 360 | 360 | 360 | 360 | 360 | 360 | 360 | 360 | 324 |
| NODULE WEIGHT 2 | 0.12+ | 0.14+ | 0.29++ | -0.11+ | 0.16++ | 0.60++ | 1.00 | 0.12+ | 0.12+ |
| | 360 | 360 | 360 | 360 | 360 | 360 | 360 | 360 | 324 |
| PLANT HEIGHT | 0.50++ | 0.43++ | 0.51++ | 0.02 | 0.22++ | 0.10 | 0.12+ | 1.00 | 0.43++ |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| LODGING | 0.08 | 0.38++ | 0.34++ | -0.09 | -0.03 | 0.11+ | 0.12+ | 0.43++ | 1.00 |
| | 396 | 396 | 396 | 396 | 396 | 324 | 324 | 396 | 396 |
| SHATTER | -0.01 | -0.06 | 0.20++ | -0.03 | -0.02 | 0.01 | 0.03 | 0.06 | 0.11+ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 360 |
| PLANTS HARVEST | 0.30++ | -0.10+ | 0.19++ | -0.09 | -0.06 | 0.21++ | 0.26++ | 0.21++ | 0.05 |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| PODS PER PLANT | 0.47++ | 0.24++ | 0.40++ | -0.20++ | -0.02 | 0.01 | 0.07 | 0.53++ | 0.20++ |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| 100 SEED WEIGHT | 0.68++ | -0.09 | 0.40++ | 0.16++ | 0.33++ | -0.04 | -0.00 | 0.27++ | -0.01 |
| | 432 | 432 | 432 | 432 | 432 | 360 | 360 | 432 | 396 |
| QUALITY OF SEED | -0.18++ | 0.23++ | 0.09 | 0.07 | -0.09 | -0.13+ | -0.27++ | -0.00 | 0.23++ |
| | 396 | 396 | 396 | 396 | 396 | 324 | 324 | 396 | 360 |

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.10 | 235.67 | 19.10 | 17.77 | 1.66 |
| FORREST | 1.00 | 231.67 | 20.46 | 14.15 | 2.14 |
| IMPROVED PELICAN | 1.05 | 234.54 | 29.93 | 13.72 | 1.36 |
| WILLIAMS | 1.03 | 231.77 | 16.89 | 17.78 | 1.48 |
| BRAGG | 1.03 | 228.00 | 16.90 | 16.97 | 1.59 |
| BOSSIER | 1.00 | 215.10 | 20.35 | 16.11 | 1.75 |
| CLARK 63 | 1.05 | 245.94 | 19.98 | 16.34 | 1.45 |
| HILL | 1.00 | 226.58 | 22.13 | 15.07 | 1.57 |
| JUPITER | 1.10 | 222.58 | 24.09 | 16.99 | 2.34 |
| GRAND MEAN | 1.04 | 230.21 | 21.09 | 16.10 | 1.70 |
| NUMBER EXPERIMENTS CONTRIBUTING | 10 | 12 | 12 | 12 | 11 |
| STANDARD ERROR OF VARIETY MEAN | 0.05 | 6.85 | 1.44 | 0.37 | 0.19 |
| COEFFICIENT OF VARIATION | 28.03% | 20.61% | 47.40% | 15.76% | 72.63% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | ******** | 4.06 | 1.03 | 0.53 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.01 | 0.30++ | 0.47++ | 0.68++ | -0.18++ |
| | | 360 | 432 | 432 | 432 | 396 |
| DAYS TO | FLOWER | -0.06 | -0.10+ | 0.24++ | -0.09 | 0.23++ |
| | | 360 | 432 | 432 | 432 | 396 |
| DAYS TO | MATURITY | 0.20++ | 0.19++ | 0.40++ | 0.40++ | 0.09 |
| | | 350 | 432 | 432 | 432 | 396 |
| NODULE | NUMBER 1 | -0.03 | -0.09 | -0.20++ | 0.16++ | 0.07 |
| | | 360 | 432 | 432 | 432 | 396 |
| NODULE | NUMBER 2 | -0.02 | -0.06 | -0.02 | 0.33++ | -0.09 |
| | | 360 | 432 | 432 | 432 | 396 |
| NODULE | WEIGHT 1 | 0.01 | 0.21++ | 0.01 | -0.04 | -0.13+ |
| | | 288 | 360 | 360 | 360 | 324 |
| NODULE | WEIGHT 2 | 0.03 | 0.26++ | 0.07 | -0.00 | -0.27++ |
| | | 288 | 360 | 360 | 360 | 324 |
| PLANT | HEIGHT | 0.06 | 0.21++ | 0.53++ | 0.27++ | -0.00 |
| | | 360 | 432 | 432 | 432 | 396 |
| | LODGING | 0.11+ | 0.05 | 0.20++ | -0.01 | 0.23++ |
| | | 360 | 396 | 396 | 396 | 360 |
| | SHATTER | 1.00 | 0.17++ | 0.03 | 0.01 | 0.19++ |
| | | 360 | 360 | 360 | 360 | 324 |
| PLANTS | HARVEST | 0.17++ | 1.00 | 0.05 | 0.08 | -0.01 |
| | | 360 | 432 | 432 | 432 | 396 |
| PODS PER | PLANT | 0.03 | 0.05 | 1.00 | 0.20++ | 0.03 |
| | | 360 | 432 | 432 | 432 | 396 |
| 100 SEED | WEIGHT | 0.01 | 0.08 | 0.20++ | 1.00 | -0.20++ |
| | | 360 | 432 | 432 | 432 | 396 |
| QUALITY | OF SEED | 0.19++ | -0.01 | 0.03 | -0.20++ | 1.00 |
| | | 324 | 396 | 396 | 396 | 396 |

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITE ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2485.66 | 31.92 | 96.96 | 179.50 | 388.80 | 0.60 | 3.91 | 49.26 | 1.71 |
| BRAGG | 2411.13 | 27.33 | 96.04 | 148.44 | 456.60 | 0.44 | 3.50 | 48.36 | 1.58 |
| RANSOM | 2320.48 | 27.04 | 99.54 | 143.69 | 402.00 | 0.42 | 3.11 | 43.95 | 1.21 |
| CALLAND | 2314.75 | 24.08 | 91.33 | 72.56 | 274.95 | 0.22 | 2.82 | 71.09 | 2.04 |
| PICKETT 71 | 2278.38 | 27.33 | 96.92 | 80.50 | 245.15 | 0.26 | 2.60 | 36.93 | 1.08 |
| FORREST | 2269.18 | 29.42 | 95.17 | 139.81 | 367.50 | 0.31 | 2.93 | 47.89 | 1.38 |
| COBB | 2204.59 | 28.58 | 102.38 | 143.31 | 369.90 | 0.44 | 3.68 | 49.27 | 1.38 |
| WILLIAMS | 2161.52 | 23.88 | 88.58 | 130.69 | 333.90 | 0.32 | 2.92 | 61.30 | 1.63 |
| BOSSIER | 2140.25 | 25.92 | 99.17 | 122.81 | 387.50 | 0.50 | 3.84 | 39.83 | 1.29 |
| CUTLER 71 | 2033.47 | 23.88 | 91.42 | 109.94 | 313.60 | 0.22 | 2.73 | 67.55 | 2.21 |
| CLARK 63 | 2006.35 | 24.13 | 89.96 | 99.06 | 275.35 | 0.19 | 2.72 | 65.50 | 2.29 |
| HILL | 1882.02 | 31.75 | 89.88 | 119.75 | 253.05 | 0.29 | 2.11 | 44.15 | 1.83 |
| WOODWORTH | 1861.01 | 23.67 | 85.00 | 105.69 | 255.25 | 0.22 | 2.42 | 58.05 | 1.88 |
| IMPROVED PELICAN | 1526.76 | 37.25 | 109.38 | 204.13 | 347.20 | 0.82 | 2.88 | 97.12 | 2.71 |
| GRAND MEAN | 2135.40 | 27.58 | 95.12 | 128.99 | 333.77 | 0.38 | 3.01 | 55.73 | 1.73 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 6 | 6 | 4 | 5 | 4 | 4 | 6 | 6 |
| STANDARD ERROR OF VARIETY MEAN | 232.79 | 0.89 | 3.29 | 21.02 | 35.44 | 0.11 | 0.35 | 3.83 | 0.27 |
| COEFFICIENT OF VARIATION | 53.41% | 15.73% | 16.93% | 65.18% | 47.49% | 119.55% | 45.94% | 33.69% | 76.77% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 2.50 | 9.29 | 60.12 | 100.59 | 0.32 | 0.99 | 10.83 | 0.77 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.26++ | 0.28++ | 0.34++ | 0.09 | 0.12 | 0.13 | 0.12+ | -0.14++ |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| DAYS TO FLOWER | 0.26++ | 1.00 | 0.57++ | 0.47++ | 0.10 | 0.52++ | 0.33++ | 0.15++ | 0.01 |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| DAYS TO MATURITY | 0.28++ | 0.57++ | 1.00 | 0.33++ | 0.50++ | 0.34++ | 0.72++ | -0.01 | -0.32++ |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| NODULE NUMBER 1 | 0.34++ | 0.47++ | 0.33++ | 1.00 | 0.42++ | 0.67++ | 0.37++ | 0.17+ | -0.04 |
| | 224 | 224 | 224 | 224 | 224 | 224 | 168 | 224 | 224 |
| NODULE NUMBER 2 | 0.09 | 0.10 | 0.50++ | 0.42++ | 1.00 | 0.25++ | 0.64++ | 0.04 | -0.27++ |
| | 280 | 280 | 280 | 224 | 280 | 224 | 224 | 280 | 280 |
| NODULE WEIGHT 1 | 0.12 | 0.52++ | 0.34++ | 0.67++ | 0.25++ | 1.00 | 0.39++ | 0.04 | -0.01 |
| | 224 | 224 | 224 | 224 | 224 | 224 | 168 | 224 | 224 |
| NODULE WEIGHT 2 | 0.13 | 0.33++ | 0.72++ | 0.37++ | 0.64++ | 0.39++ | 1.00 | -0.20++ | -0.44++ |
| | 224 | 224 | 224 | 168 | 224 | 168 | 224 | 224 | 224 |
| PLANT HEIGHT | 0.12+ | 0.15++ | -0.01 | 0.17+ | 0.04 | 0.04 | -0.20++ | 1.00 | 0.46++ |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| LODGING | -0.14++ | 0.01 | -0.32++ | -0.04 | -0.27++ | -0.01 | -0.44++ | 0.46++ | 1.00 |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| SHATTER | 0.07 | 0.15++ | 0.20++ | 0.13+ | 0.05 | 0.10 | 0.00 | 0.01 | 0.04 |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| PLANTS HARVEST | 0.11+ | -0.05 | -0.41++ | -0.09 | -0.54++ | 0.02 | -0.22++ | -0.13+ | 0.29++ |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |
| PODS PER PLANT | 0.29++ | 0.06 | 0.10 | 0.27++ | 0.49++ | -0.20++ | -0.06 | 0.37++ | -0.16++ |
| | 280 | 280 | 280 | 168 | 224 | 168 | 168 | 280 | 280 |
| 100 SEED WEIGHT | 0.72++ | 0.25++ | 0.57++ | 0.40++ | 0.01 | 0.29++ | 0.58++ | -0.00 | -0.24++ |
| | 280 | 280 | 280 | 168 | 224 | 168 | 168 | 280 | 280 |
| QUALITY OF SEED | -0.32++ | -0.04 | 0.24++ | -0.04 | 0.31++ | 0.19++ | 0.23++ | -0.02 | -0.01 |
| | 336 | 336 | 336 | 224 | 280 | 224 | 224 | 336 | 336 |

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.00 | 227.50 | 23.82 | 15.67 | 3.63 |
| BRAGG | 1.00 | 219.96 | 24.71 | 15.90 | 3.33 |
| RANSOM | 1.00 | 226.71 | 22.41 | 16.87 | 4.00 |
| CALLAND | 1.00 | 219.75 | 24.73 | 18.23 | 3.54 |
| PICKETT 71 | 1.00 | 206.88 | 20.76 | 15.35 | 3.21 |
| FORREST | 1.00 | 219.46 | 26.89 | 13.86 | 3.71 |
| COBB | 1.33 | 196.17 | 28.57 | 15.06 | 3.38 |
| WILLIAMS | 1.00 | 223.25 | 19.42 | 18.28 | 2.96 |
| BOSSIER | 1.00 | 195.29 | 24.38 | 15.39 | 3.29 |
| CUTLER 71 | 1.00 | 214.54 | 21.29 | 19.15 | 3.17 |
| CLARK 63 | 1.00 | 206.54 | 20.18 | 16.74 | 2.92 |
| HILL | 1.00 | 212.96 | 25.78 | 15.31 | 3.25 |
| WOODWORTH | 1.00 | 215.71 | 22.40 | 16.12 | 3.21 |
| IMPROVED PELICAN | 1.04 | 168.96 | 36.44 | 13.24 | 3.00 |
| GRAND MEAN | 1.03 | 210.98 | 24.41 | 16.08 | 3.33 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 6 | 5 | 5 | 6 |
| STANDARD ERROR OF VARIETY MEAN | 0.09 | 8.16 | 2.47 | 0.77 | 0.33 |
| COEFFICIENT OF VARIATION | 42.43% | 18.94% | 45.33% | 21.49% | 48.64% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 23.04 | 7.02 | 2.19 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.07 | 0.11+ | 0.29++ | 0.72++ | -0.32++ |
| | 336 | 336 | 280 | 280 | 336 |
| DAYS TO FLOWER | 0.15++ | -0.06 | 0.06 | 0.25++ | -0.04 |
| | 336 | 336 | 280 | 280 | 336 |
| DAYS TO MATURITY | 0.20++ | -0.41++ | 0.10 | 0.57++ | 0.24++ |
| | 336 | 336 | 280 | 280 | 336 |
| NODULE NUMBER 1 | 0.13+ | -0.09 | 0.27++ | 0.40++ | -0.04 |
| | 224 | 224 | 168 | 168 | 224 |
| NODULE NUMBER 2 | 0.05 | -0.54++ | 0.49++ | 0.01 | 0.31++ |
| | 280 | 280 | 224 | 224 | 280 |
| NODULE WEIGHT 1 | 0.10 | 0.02 | -0.20++ | 0.29++ | 0.19++ |
| | 224 | 224 | 168 | 168 | 224 |
| NODULE WEIGHT 2 | 0.00 | -0.22++ | -0.06 | 0.58++ | 0.23++ |
| | 224 | 224 | 168 | 168 | 224 |
| PLANT HEIGHT | 0.01 | -0.13+ | 0.37++ | -0.00 | -0.02 |
| | 336 | 336 | 280 | 280 | 336 |
| LODGING | 0.04 | 0.29++ | -0.15++ | -0.24++ | -0.01 |
| | 336 | 336 | 280 | 280 | 336 |
| SHATTER | 1.00 | 0.00 | -0.00 | -0.01 | 0.01 |
| | 336 | 336 | 280 | 280 | 336 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.67++ | 0.22++ | -0.28++ |
| | 336 | 336 | 280 | 280 | 336 |
| PODS PER PLANT | -0.00 | -0.67++ | 1.00 | -0.07 | -0.09 |
| | 280 | 280 | 280 | 280 | 280 |
| 100 SEED WEIGHT | -0.01 | 0.22++ | -0.07 | 1.00 | -0.36++ |
| | 280 | 280 | 280 | 280 | 280 |
| QUALITY OF SEED | 0.01 | -0.28++ | -0.09 | -0.36++ | 1.00 |
| | 336 | 336 | 280 | 280 | 336 |

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| WILLIAMS | 1963.50 | 30.75 | 92.21 | 59.15 | 97.30 | 0.28 | 1.08 | 37.04 | 1.15 |
| DAVIS | 1936.93 | 38.13 | 103.00 | 64.10 | 115.50 | 0.28 | 1.47 | 42.87 | 1.55 |
| COLUMBUS | 1919.26 | 31.50 | 95.33 | 70.65 | 130.75 | 0.35 | 1.41 | 42.24 | 1.25 |
| FORREST | 1913.86 | 35.79 | 101.25 | 50.75 | 97.90 | 0.20 | 1.24 | 45.26 | 1.50 |
| CLARK 63 | 1880.94 | 30.79 | 95.96 | 46.25 | 75.85 | 0.16 | 0.84 | 40.04 | 1.30 |
| CALLAND | 1855.39 | 30.46 | 97.50 | 49.20 | 96.15 | 0.25 | 0.97 | 41.37 | 1.30 |
| RANSOM | 1841.61 | 34.04 | 103.13 | 74.60 | 152.15 | 0.43 | 1.32 | 36.40 | 1.15 |
| BOSSIER | 1789.30 | 33.83 | 101.96 | 59.35 | 108.70 | 0.33 | 1.39 | 33.14 | 1.05 |
| HILL | 1771.54 | 37.88 | 95.75 | 54.80 | 73.30 | 0.23 | 0.87 | 39.48 | 1.75 |
| WOODWORTH | 1755.43 | 31.00 | 88.42 | 47.70 | 72.65 | 0.23 | 0.81 | 37.99 | 1.20 |
| PICKETT 71 | 1730.50 | 34.58 | 100.83 | 45.45 | 79.90 | 0.19 | 0.86 | 30.85 | 1.00 |
| BRAGG | 1549.51 | 34.21 | 101.75 | 58.35 | 128.95 | 0.30 | 1.30 | 37.22 | 1.05 |
| GRAND MEAN | 1825.71 | 33.58 | 98.18 | 56.70 | 102.43 | 0.27 | 1.13 | 38.66 | 1.27 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 6 | 5 | 5 | 5 | 4 | 5 | 6 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 120.06 | 1.52 | 3.50 | 8.53 | 16.04 | 0.06 | 0.17 | 2.42 | 0.22 |
| COEFFICIENT OF VARIATION | 32.22% | 22.15% | 17.49% | 67.30% | 70.03% | 83.06% | 68.98% | 30.65% | 75.85% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 4.30 | ******** | ******** | 45.71 | ******** | 0.50 | 6.85 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.20++ | 0.22++ | -0.31++ | -0.09 | -0.59++ | 0.23++ | 0.69++ | 0.27++ |
| | 238 | 238 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| DAYS TO FLOWER | -0.20++ | 1.00 | 0.43++ | 0.40++ | 0.10 | 0.39++ | 0.20++ | 0.00 | 0.49++ |
| | 238 | 238 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| DAYS TO MATURITY | 0.22++ | 0.43++ | 1.00 | 0.09 | 0.33++ | -0.09 | 0.37++ | 0.35++ | 0.24++ |
| | 238 | 288 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| NODULE NUMBER 1 | -0.31++ | 0.40++ | 0.09 | 1.00 | 0.66++ | 0.89++ | 0.57++ | -0.25++ | 0.14+ |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |
| NODULE NUMBER 2 | -0.09 | 0.10 | 0.33++ | 0.66++ | 1.00 | 0.59++ | 0.81++ | -0.02 | 0.02 |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |
| NODULE WEIGHT 1 | -0.59++ | 0.39++ | -0.09 | 0.89++ | 0.59++ | 1.00 | 0.37++ | -0.64++ | -0.22++ |
| | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 |
| NODULE WEIGHT 2 | 0.23++ | 0.20++ | 0.37++ | 0.57++ | 0.81++ | 0.37++ | 1.00 | 0.21++ | 0.16+ |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |
| PLANT HEIGHT | 0.59++ | 0.00 | 0.35++ | -0.25++ | -0.02 | -0.64++ | 0.21++ | 1.00 | 0.50++ |
| | 288 | 288 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| LODGING | 0.27++ | 0.49++ | 0.24++ | 0.14+ | 0.02 | -0.22++ | 0.16+ | 0.50++ | 1.00 |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 |
| PLANTS HARVEST | 0.13+ | 0.32++ | 0.35++ | 0.49++ | 0.49++ | 0.37++ | 0.38++ | 0.20++ | 0.38++ |
| | 288 | 288 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| PODS PER PLANT | 0.49++ | -0.07 | 0.52++ | -0.41++ | -0.13 | -0.50++ | 0.02 | 0.50++ | 0.11 |
| | 288 | 288 | 288 | 240 | 240 | 192 | 240 | 288 | 240 |
| 100 SEED WEIGHT | 0.52++ | -0.09 | 0.31++ | -0.01 | 0.29++ | -0.32++ | 0.38++ | 0.59++ | 0.29++ |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |
| QUALITY OF SEED | -0.38++ | 0.58++ | 0.57++ | 0.25++ | 0.13 | 0.15+ | 0.05 | 0.02 | 0.41++ |
| | 240 | 240 | 240 | 240 | 240 | 192 | 240 | 240 | 240 |

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| WILLIAMS | 1.00 | 227.00 | 14.46 | 16.28 | 2.40 |
| DAVIS | 1.00 | 232.08 | 17.13 | 15.07 | 3.00 |
| COLUMBUS | 1.00 | 211.33 | 15.48 | 15.62 | 2.50 |
| FORREST | 1.00 | 218.67 | 21.24 | 13.78 | 2.85 |
| CLARK 63 | 1.00 | 226.21 | 14.96 | 15.21 | 2.45 |
| CALLAND | 1.00 | 222.53 | 13.73 | 16.58 | 2.75 |
| RANSOM | 1.00 | 233.21 | 17.06 | 15.31 | 2.40 |
| BOSSIER | 1.00 | 194.46 | 20.53 | 13.77 | 2.50 |
| HILL | 1.00 | 222.46 | 19.97 | 13.60 | 2.90 |
| WOODWORTH | 1.00 | 232.21 | 13.40 | 14.56 | 2.35 |
| PICKETT 71 | 1.00 | 208.96 | 18.72 | 13.96 | 2.65 |
| BRAGG | 1.00 | 231.13 | 18.80 | 15.06 | 2.90 |
| GRAND MEAN | 1.00 | 221.59 | 17.12 | 14.90 | 2.64 |
| NUMBER EXPERIMENTS CONTRIBUTING | 4 | 6 | 6 | 5 | 5 |
| STANDARD ERROR OF VARIETY MEAN | 0.00 | 11.38 | 1.93 | 0.56 | 0.26 |
| COEFFICIENT OF VARIATION | 0.00% | 25.14% | 55.14% | 16.84% | 43.77% |
| 5% LSD VARIETY MEANS (*****=NS) | 0.00 | ******** | 5.46 | 1.60 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.13+ | 0.40++ | 0.62++ | -0.38++ |
| | 192 | 288 | 288 | 240 | 240 |
| DAYS TO FLOWER | 0.00 | 0.32++ | -0.07 | -0.09 | 0.68++ |
| | 192 | 288 | 288 | 240 | 240 |
| DAYS TO MATURITY | 0.00 | 0.35++ | 0.52++ | 0.31++ | 0.57++ |
| | 192 | 288 | 288 | 240 | 240 |
| NODULE NUMBER 1 | 0.00 | 0.49++ | -0.41++ | -0.01 | 0.25++ |
| | 192 | 240 | 240 | 240 | 240 |
| NODULE NUMBER 2 | 0.00 | 0.49++ | -0.13 | 0.29++ | 0.13 |
| | 192 | 240 | 240 | 240 | 240 |
| NODULE WEIGHT 1 | 0.00 | 0.37++ | -0.50++ | -0.32++ | 0.15+ |
| | 192 | 192 | 192 | 192 | 192 |
| NODULE WEIGHT 2 | 0.00 | 0.38++ | 0.02 | 0.38++ | 0.05 |
| | 192 | 240 | 240 | 240 | 240 |
| PLANT HEIGHT | 0.00 | 0.20++ | 0.5[illegible]++ | 0.59++ | 0.02 |
| | 192 | 288 | 288 | 240 | 240 |
| LODGING | 0.00 | 0.38++ | 0.11 | 0.29++ | 0.41++ |
| | 192 | 240 | 240 | 240 | 240 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 192 | 192 | 192 | 192 | 192 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.13++ | 0.48++ | 0.30++ |
| | 192 | 288 | 288 | 240 | 240 |
| PODS PER PLANT | 0.00 | -0.18++ | 1.00 | 0.11 | -0.01 |
| | 192 | 288 | 288 | 240 | 240 |
| 100 SEED WEIGHT | 0.00 | 0.48++ | 0.11 | 1.00 | 0.01 |
| | 192 | 240 | 240 | 240 | 240 |
| QUALITY OF SEED | 0.00 | 0.30++ | -0.01 | 0.01 | 1.00 |
| | 192 | 240 | 240 | 240 | 240 |

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| DAVIS | 2725.65 | 29.58 | 101.20 | 88.73 | 185.38 | 0.49 | 2.17 | 33.73 | 1.11 |
| FORREST | 2610.43 | 28.03 | 91.18 | 87.23 | 149.80 | 0.40 | 1.59 | 35.08 | 1.00 |
| WILLIAMS | 2537.18 | 26.00 | 88.75 | 92.20 | 164.03 | 0.36 | 1.31 | 45.58 | 1.06 |
| BRAGG | 2477.41 | 29.40 | 97.30 | 82.12 | 186.63 | 0.33 | 1.81 | 40.62 | 1.31 |
| BOSSIER | 2418.17 | 30.75 | 96.43 | 96.37 | 209.25 | 0.50 | 2.57 | 36.53 | 1.11 |
| IMPROVED PELICAN | 2415.31 | 33.45 | 99.58 | 91.23 | 198.98 | 0.39 | 1.79 | 75.21 | 1.58 |
| CLARK 63 | 2351.20 | 28.50 | 86.65 | 78.45 | 154.10 | 0.50 | 1.72 | 47.90 | 1.11 |
| HILL | 2287.52 | 29.75 | 91.75 | 88.25 | 144.38 | 0.37 | 1.50 | 37.49 | 1.11 |
| JUPITER | 2171.20 | 37.63 | 116.70 | 108.23 | 215.78 | 0.47 | 1.92 | 68.91 | 1.83 |
| GRAND MEAN | 2443.79 | 30.34 | 96.61 | 90.31 | 178.70 | 0.42 | 1.83 | 46.78 | 1.25 |
| NUMBER EXPERIMENTS CONTRIBUTING | 10 | 10 | 10 | 10 | 10 | 8 | 8 | 10 | 9 |
| STANDARD ERROR OF VARIETY MEAN | 139.58 | 1.00 | 1.99 | 8.40 | 17.20 | 0.07 | 0.31 | 2.57 | 0.17 |
| COEFFICIENT OF VARIATION | 36.12% | 20.90% | 13.01% | 58.85% | 60.88% | 94.44% | 95.26% | 34.74% | 79.94% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 2.83 | 5.60 | ******** | 48.50 | ******** | ******** | 7.25 | 0.47 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.08 | 0.31++ | -0.08 | 0.09 | -0.05 | -0.05 | 0.39++ | 0.13+ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| DAYS TO FLOWER | 0.08 | 1.00 | 0.50++ | 0.02 | 0.17++ | 0.14+ | 0.18++ | 0.50++ | 0.36++ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| DAYS TO MATURITY | 0.31++ | 0.50++ | 1.00 | -0.12+ | 0.03 | 0.16++ | 0.23++ | 0.41++ | 0.39++ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| NODULE NUMBER 1 | -0.08 | 0.02 | -0.12+ | 1.00 | 0.71++ | 0.03 | -0.10 | 0.03 | -0.11 |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| NODULE NUMBER 2 | 0.09 | 0.17++ | 0.03 | 0.71++ | 1.00 | 0.03 | 0.11 | 0.17++ | -0.02 |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| NODULE WEIGHT 1 | -0.05 | 0.14+ | 0.15++ | 0.03 | 0.03 | 1.00 | 0.59++ | 0.02 | 0.08 |
| | 288 | 288 | 288 | 288 | 288 | 288 | 288 | 288 | 252 |
| NODULE WEIGHT 2 | -0.05 | 0.18++ | 0.23++ | -0.10 | 0.11 | 0.59++ | 1.00 | 0.02 | 0.14+ |
| | 288 | 288 | 288 | 288 | 288 | 288 | 288 | 288 | 252 |
| PLANT HEIGHT | 0.39++ | 0.50++ | 0.41++ | 0.03 | 0.17++ | 0.02 | 0.02 | 1.00 | 0.47++ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| LODGING | 0.13+ | 0.36++ | 0.39++ | -0.11 | -0.02 | 0.08 | 0.14+ | 0.47++ | 1.00 |
| | 324 | 324 | 324 | 324 | 324 | 252 | 252 | 324 | 324 |
| SHATTER | -0.05 | -0.07 | 0.20++ | -0.04 | -0.03 | -0.01 | 0.01 | 0.04 | 0.10 |
| | 324 | 324 | 324 | 324 | 324 | 252 | 252 | 324 | 324 |
| PLANTS HARVEST | -0.08 | -0.15++ | -0.11+ | -0.14++ | -0.20++ | 0.09 | 0.14+ | -0.02 | 0.02 |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| PODS PER PLANT | 0.40++ | 0.27++ | 0.33++ | -0.20++ | -0.09 | -0.04 | 0.01 | 0.47++ | 0.21++ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| 100 SEED WEIGHT | 0.58++ | 0.01 | 0.33++ | 0.22++ | 0.31++ | -0.15+ | -0.16++ | 0.15++ | 0.05 |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |
| QUALITY OF SEED | 0.04 | 0.13+ | 0.19++ | 0.03 | -0.05 | -0.12+ | -0.22++ | 0.11+ | 0.22++ |
| | 360 | 360 | 360 | 360 | 360 | 288 | 288 | 360 | 324 |

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| DAVIS | 1.11 | 254.75 | 20.60 | 18.83 | 1.55 |
| FORREST | 1.00 | 248.90 | 21.17 | 14.51 | 2.00 |
| WILLIAMS | 1.03 | 251.28 | 18.51 | 18.63 | 1.35 |
| BRAGG | 1.03 | 245.55 | 17.99 | 17.69 | 1.50 |
| BOSSIER | 1.00 | 230.98 | 21.85 | 16.78 | 1.60 |
| IMPROVED PELICAN | 1.06 | 253.30 | 30.25 | 14.32 | 1.25 |
| CLARK 63 | 1.06 | 267.63 | 21.81 | 17.06 | 1.33 |
| HILL | 1.00 | 246.35 | 23.63 | 15.65 | 1.43 |
| JUPITER | 1.11 | 244.93 | 24.72 | 17.79 | 2.25 |
| GRAND MEAN | 1.04 | 249.29 | 22.29 | 16.81 | 1.58 |
| NUMBER EXPERIMENTS CONTRIBUTING | 9 | 10 | 10 | 10 | 10 |
| STANDARD ERROR OF VARIETY MEAN | 0.05 | 7.71 | 1.63 | 0.38 | 0.20 |
| COEFFICIENT OF VARIATION | 29.47% | 19.55% | 47.53% | 14.33% | 81.87% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | ******** | 4.72 | 1.07 | 0.58 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.05 | -0.08 | 0.40++ | 0.58++ | 0.04 |
| | 324 | 360 | 360 | 360 | 360 |
| DAYS TO FLOWER | -0.07 | -0.15++ | 0.27++ | 0.01 | 0.13+ |
| | 324 | 360 | 360 | 360 | 360 |
| DAYS TO MATURITY | 0.20++ | -0.11+ | 0.33++ | 0.33++ | 0.19++ |
| | 324 | 360 | 360 | 360 | 360 |
| NODULE NUMBER 1 | -0.04 | -0.14++ | -0.20++ | 0.22++ | 0.03 |
| | 324 | 360 | 360 | 360 | 360 |
| NODULE NUMBER 2 | -0.03 | -0.20++ | -0.09 | 0.31++ | -0.05 |
| | 324 | 360 | 360 | 360 | 360 |
| NODULE WEIGHT 1 | -0.01 | 0.09 | -0.04 | -0.15+ | -0.12+ |
| | 252 | 288 | 288 | 288 | 288 |
| NODULE WEIGHT 2 | 0.01 | 0.14+ | 0.01 | -0.16++ | -0.22++ |
| | 252 | 288 | 288 | 288 | 288 |
| PLANT HEIGHT | 0.04 | -0.02 | 0.47++ | 0.15++ | 0.11+ |
| | 324 | 360 | 360 | 360 | 360 |
| LODGING | 0.10 | 0.02 | 0.21++ | 0.05 | 0.22++ |
| | 324 | 324 | 324 | 324 | 324 |
| SHATTER | 1.00 | 0.17++ | 0.01 | -0.02 | 0.19++ |
| | 324 | 324 | 324 | 324 | 324 |
| PLANTS HARVEST | 0.17++ | 1.00 | -0.14++ | -0.29++ | 0.18++ |
| | 324 | 360 | 360 | 360 | 360 |
| PODS PER PLANT | 0.01 | -0.14++ | 1.00 | 0.11+ | 0.14++ |
| | 324 | 360 | 360 | 360 | 360 |
| 100 SEED WEIGHT | -0.02 | -0.29++ | 0.11+ | 1.00 | -0.01 |
| | 324 | 360 | 360 | 360 | 360 |
| QUALITY OF SEED | 0.19++ | 0.18++ | 0.14++ | -0.01 | 1.00 |
| | 324 | 360 | 360 | 360 | 360 |

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| RANSOM | 2526.34 | 43.38 | 107.33 | 8.50 | 8.25 | 0.00 | 0.00 | 53.73 | 0.00 |
| BRAGG | 2379.75 | 44.25 | 105.88 | 13.00 | 10.88 | 0.00 | 0.00 | 60.24 | 0.00 |
| BOSSIER | 2343.39 | 44.13 | 106.00 | 5.25 | 6.50 | 0.00 | 0.00 | 57.04 | 0.00 |
| DAVIS | 2122.92 | 43.63 | 101.00 | 8.75 | 13.75 | 0.00 | 0.37 | 44.16 | 0.00 |
| PICKETT 71 | 2113.13 | 42.50 | 105.50 | 9.00 | 8.63 | 0.00 | 0.00 | 43.55 | 0.00 |
| HAMPTON 266A | 1978.83 | 47.13 | 108.31 | 10.25 | 9.63 | 0.00 | 0.00 | 50.44 | 0.00 |
| FORREST | 1827.03 | 42.00 | 94.19 | 5.75 | 15.63 | 0.00 | 0.91 | 41.48 | 0.00 |
| ESSEX | 1772.35 | 39.00 | 92.33 | 7.50 | 20.00 | 0.00 | 0.89 | 36.61 | 0.00 |
| WILLIAMS | 1719.41 | 35.25 | 85.69 | 12.50 | 24.00 | 0.00 | 1.29 | 54.63 | 0.00 |
| CALL'ND | 1689.09 | 38.25 | 90.06 | 8.75 | 18.25 | 0.00 | 1.18 | 60.32 | 0.00 |
| CLA! ' 63 | 1578.44 | 35.50 | 88.06 | 9.00 | 22.38 | 0.00 | 1.12 | 51.68 | 0.00 |
| WOODWORTH | 1392.78 | 35.50 | 83.69 | 11.25 | 17.38 | 0.00 | 0.94 | 52.08 | 0.00 |
| CUTLER 71 | 1385.28 | 35.75 | 87.31 | 13.50 | 23.50 | 0.00 | 0.84 | 46.44 | 0.00 |
| HILL | 1268.80 | 42.38 | 87.06 | 14.50 | 19.13 | 0.00 | 0.57 | 35.45 | 0.00 |
| GRAND MEAN | 1864.15 | 40.62 | 95.89 | 9.82 | 15.56 | 0.00 | 0.58 | 49.13 | 0.00 |
| NUMBER EXPERIMENTS CONTRIBUTING | 4 | 2 | 4 | 1 | 2 | 0 | 1 | 4 | 0 |
| STANDARD ERROR OF VARIETY MEAN | 141.35 | 1.64 | 1.87 | 3.06 | 5.54 | 0.00 | 0.28 | 3.36 | 0.00 |
| COEFFICIENT OF VARIATION | 30.33% | 11.44% | 7.79% | 62.38% | 100.70% | 0.00% | 96.52% | 27.33% | 0.00% |
| 5% LSD VARIETY MEANS (*****=NS) | 404.34 | 5.02 | 5.34 | ******** | ******** | 0.00 | 0.80 | 9.60 | 0.00 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.16 | 0.57++ | 0.01 | -0.37++ | 0.00 | -0.38++ | 0.21++ | 0.00 |
| | 224 | 112 | 224 | 56 | 112 | 0 | 56 | 224 | 0 |
| DAYS TO FLOWER | -0.16 | 1.00 | 0.20+ | -0.07 | -0.03 | 0.00 | -0.62++ | 0.39++ | 0.00 |
| | 112 | 112 | 112 | 56 | 112 | 0 | 56 | 112 | 0 |
| DAYS TO MATURITY | 0.57++ | 0.20+ | 1.00 | -0.11 | -0.55++ | 0.00 | -0.66++ | 0.20++ | 0.00 |
| | 224 | 112 | 224 | 56 | 112 | 0 | 56 | 224 | 0 |
| NODULE NUMBER 1 | 0.01 | -0.07 | -0.11 | 1.00 | 0.97++ | 0.00 | 0.00 | 0.19 | 0.00 |
| | 56 | 56 | 56 | 56 | 56 | 0 | 0 | 56 | 0 |
| NODULE NUMBER 2 | -0.37++ | -0.03 | -0.55++ | 0.97++ | 1.00 | 0.00 | 0.91++ | 0.19+ | 0.00 |
| | 112 | 112 | 112 | 56 | 112 | 0 | 56 | 112 | 0 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NODULE WEIGHT 2 | -0.38++ | -0.62++ | -0.66++ | 0.00 | 0.91++ | 0.00 | 1.00 | 0.18 | 0.00 |
| | 56 | 56 | 56 | 0 | 56 | 0 | 56 | 56 | 0 |
| PLANT HEIGHT | 0.21++ | 0.39++ | 0.20++ | 0.19 | 0.19+ | 0.00 | 0.18 | 1.00 | 0.00 |
| | 224 | 112 | 224 | 56 | 112 | 0 | 56 | 224 | 0 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLANTS HARVEST | 0.22++ | 0.46++ | -0.12 | 0.16 | 0.20+ | 0.00 | 0.17 | 0.35++ | 0.00 |
| | 224 | 112 | 224 | 56 | 112 | 0 | 56 | 224 | 0 |
| PODS PER PLANT | 0.60++ | -0.33++ | 0.54++ | -0.10 | -0.39++ | 0.00 | -0.34++ | -0.20+ | 0.00 |
| | 112 | 112 | 112 | 56 | 112 | 0 | 56 | 112 | 0 |
| 100 SEED WEIGHT | -0.07 | 0.05 | 0.00 | -0.10 | -0.03 | 0.00 | -0.06 | 0.07 | 0.00 |
| | 224 | 112 | 224 | 56 | 112 | 0 | 56 | 224 | 0 |
| QUALITY OF SEED | -0.15+ | -0.32+ | -0.11 | 0.00 | 0.12 | 0.00 | 0.26 | 0.11 | 0.00 |
| | 168 | 56 | 168 | 0 | 56 | 0 | 56 | 168 | 0 |

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| RANSOM | 0.00 | 159.50 | 43.63 | 16.76 | 2.00 |
| BRAGG | 0.00 | 157.63 | 49.88 | 13.90 | 2.08 |
| BOSSIER | 0.00 | 133.75 | 68.50 | 14.32 | 2.00 |
| DAVIS | 0.00 | 146.81 | 47.38 | 14.62 | 2.08 |
| PICKETT 71 | 0.00 | 140.94 | 46.63 | 13.44 | 2.00 |
| HAMPTON 266A | 0.00 | 92.63 | 77.00 | 16.27 | 2.08 |
| FORREST | 0.00 | 112.56 | 40.88 | 12.22 | 2.08 |
| ESSEX | 0.00 | 133.94 | 37.25 | 14.21 | 2.00 |
| WILLIAMS | 0.00 | 154.69 | 39.13 | 14.46 | 2.00 |
| CALLAND | 0.00 | 143.69 | 42.25 | 15.88 | 2.42 |
| CLARK 63 | 0.00 | 126.06 | 41.38 | 14.99 | 2.00 |
| WOODWORTH | 0.00 | 143.31 | 40.75 | 15.46 | 2.17 |
| CUTLER 71 | 0.00 | 121.88 | 34.63 | 17.98 | 2.08 |
| HILL | 0.00 | 139.50 | 39.88 | 12.93 | 2.00 |
| GRAND MEAN | 0.00 | 136.21 | 46.37 | 14.82 | 2.07 |
| NUMBER EXPERIMENTS CONTRIBUTING | 0 | 4 | 2 | 4 | 3 |
| STANDARD ERROR OF VARIETY MEAN | 0.00 | 13.80 | 6.87 | 0.83 | 0.07 |
| COEFFICIENT OF VARIATION | 0.00% | 40.52% | 41.91% | 22.28% | 11.74% |
| 5% LSD VARIETY MEANS (*****=NS) | 0.00 | ******** | 20.99 | 2.35 | 0.20 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.22++ | 0.60++ | -0.07 | -0.15+ |
| | 0 | 224 | 112 | 224 | 168 |
| DAYS TO FLOWER | 0.00 | 0.46++ | -0.33++ | 0.05 | -0.32+ |
| | 0 | 112 | 112 | 112 | 56 |
| DAYS TO MATURITY | 0.00 | -0.12 | 0.54++ | 0.00 | -0.11 |
| | 0 | 224 | 112 | 224 | 168 |
| NODULE NUMBER 1 | 0.00 | 0.15 | -0.10 | -0.10 | 0.00 |
| | 0 | 56 | 56 | 56 | 0 |
| NODULE NUMBER 2 | 0.00 | 0.20+ | -0.39++ | -0.03 | 0.12 |
| | 0 | 112 | 112 | 112 | 56 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 0 | 0 | 0 | 0 | 0 |
| NODULE WEIGHT 2 | 0.00 | 0.17 | -0.34++ | -0.06 | 0.26 |
| | 0 | 56 | 56 | 56 | 56 |
| PLANT HEIGHT | 0.00 | 0.35++ | -0.20+ | 0.07 | 0.11 |
| | 0 | 224 | 112 | 224 | 168 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 0 | 0 | 0 | 0 | 0 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 0 | 0 | 0 | 0 | 0 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.27++ | -0.04 | -0.09 |
| | 0 | 224 | 112 | 224 | 168 |
| PODS PER PLANT | 0.00 | -0.27++ | 1.00 | 0.07 | -0.10 |
| | 0 | 112 | 112 | 112 | 56 |
| 100 SEED WEIGHT | 0.00 | -0.04 | 0.07 | 1.00 | 0.13 |
| | 0 | 224 | 112 | 224 | 168 |
| QUALITY OF SEED | 0.00 | -0.09 | -0.10 | 0.13 | 1.00 |
| | 0 | 168 | 56 | 168 | 168 |

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| HILL | 2125.11 | 58.67 | 147.00 | 114.75 | 144.17 | 4.98 | 0.92 | 43.25 | 1.00 |
| DAVIS | 1932.99 | 78.00 | 152.58 | 102.67 | 121.83 | 5.80 | 1.00 | 44.75 | 1.00 |
| ESSEX | 1857.04 | 59.83 | 144.33 | 197.08 | 190.67 | 4.20 | 2.38 | 42.00 | 0.75 |
| FORREST | 1828.91 | 53.25 | 152.17 | 119.75 | 163.50 | 5.67 | 1.15 | 42.75 | 1.25 |
| COLUMBUS | 1740.56 | 45.17 | 145.67 | 228.58 | 212.17 | 4.65 | 1.73 | 46.13 | 1.13 |
| BOSSIER | 1728.47 | 50.50 | 143.33 | 174.92 | 162.42 | 5.93 | 1.68 | 36.69 | 1.00 |
| COBB | 1724.72 | 72.75 | 151.50 | 108.92 | 134.67 | 5.10 | 1.05 | 43.94 | 0.75 |
| PICKETT 71 | 1657.83 | 51.58 | 140.33 | 96.00 | 110.00 | 3.90 | 0.97 | 33.25 | 1.38 |
| IMPROVED PELICAN | 1627.20 | 93.50 | 168.08 | 77.83 | 114.50 | 6.37 | 0.62 | 82.31 | 2.50 |
| RANSOM | 1507.59 | 55.42 | 143.33 | 208.08 | 180.25 | 5.80 | 1.35 | 34.69 | 0.75 |
| WILLIAMS | 1502.90 | 47.33 | 127.42 | 193.92 | 185.83 | 5.90 | 1.93 | 32.75 | 1.25 |
| CALLAND | 1216.28 | 46.58 | 142.83 | 113.50 | 126.83 | 4.15 | 1.35 | 33.75 | 0.88 |
| WOODWORTH | 1149.81 | 47.25 | 127.92 | 154.67 | 132.17 | 4.23 | 1.40 | 31.31 | 1.00 |
| CLARK 63 | 1069.80 | 44.92 | 136.67 | 168.42 | 135.58 | 5.12 | 1.08 | 34.13 | 1.38 |
| BRAGG | 901.35 | 53.83 | 144.00 | 122.08 | 138.75 | 4.27 | 1.00 | 35.88 | 1.25 |
| GRAND MEAN | 1571.40 | 50.57 | 144.48 | 145.41 | 150.22 | 5.07 | 1.31 | 41.17 | 1.15 |
| NUMBER EXPERIMENTS CONTRIBUTING | 4 | 3 | 3 | 3 | 3 | 1 | 1 | 4 | 2 |
| STANDARD ERROR OF VARIETY MEAN | 175.39 | 3.27 | 4.21 | 17.54 | 17.51 | 0.93 | 0.29 | 4.33 | 0.40 |
| COEFFICIENT OF VARIATION | 44.65% | 18.71% | 10.09% | 41.78% | 40.38% | 36.76% | 43.96% | 42.02% | 97.77% |
| 5% LSD VARIETY MEANS (*****=NS) | 500.58 | 9.48 | 12.19 | 50.81 | 50.72 | ******** | 0.82 | 12.34 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00<br>240 | 0.36++<br>180 | 0.28++<br>180 | -0.01<br>180 | 0.13<br>180 | -0.02<br>60 | 0.02<br>60 | 0.34++<br>240 | -0.33++<br>120 |
| DAYS TO FLOWER | 0.36++<br>180 | 1.00<br>180 | 0.60++<br>180 | -0.32++<br>120 | 0.07<br>120 | 0.00<br>0 | 0.00<br>0 | 0.69++<br>180 | 0.01<br>120 |
| DAYS TO MATURITY | 0.28++<br>180 | 0.50++<br>180 | 1.00<br>180 | 0.03<br>120 | 0.48++<br>120 | 0.00<br>0 | 0.00<br>0 | 0.41++<br>180 | -0.35++<br>120 |
| NODULE NUMBER 1 | -0.01<br>180 | -0.32++<br>120 | 0.03<br>120 | 1.00<br>180 | 0.65++<br>180 | -0.09<br>60 | 0.54++<br>60 | -0.19+<br>180 | 0.17<br>60 |
| NODULE NUMBER 2 | 0.13<br>180 | 0.07<br>120 | 0.48++<br>120 | 0.65++<br>180 | 1.00<br>180 | -0.05<br>60 | 0.77++<br>60 | -0.02<br>180 | 0.00<br>60 |
| NODULE WEIGHT 1 | -0.02<br>60 | 0.00<br>0 | 0.00<br>0 | -0.09<br>60 | -0.05<br>60 | 1.00<br>60 | -0.21<br>60 | -0.02<br>60 | 0.00<br>0 |
| NODULE WEIGHT 2 | 0.02<br>60 | 0.00<br>0 | 0.00<br>0 | 0.54++<br>60 | 0.77++<br>60 | -0.21<br>60 | 1.00<br>60 | 0.07<br>60 | 0.00<br>0 |
| PLANT HEIGHT | 0.34++<br>240 | 0.59++<br>180 | 0.41++<br>180 | -0.19+<br>180 | -0.02<br>180 | -0.02<br>60 | 0.07<br>60 | 1.00<br>240 | 0.31++<br>120 |
| LODGING | -0.33++<br>120 | 0.01<br>120 | -0.35++<br>120 | 0.17<br>60 | 0.00<br>60 | 0.00<br>0 | 0.00<br>0 | 0.31++<br>120 | 1.00<br>120 |
| SHATTER | -0.00<br>120 | 0.07<br>120 | 0.27++<br>120 | 0.00<br>60 | -0.13<br>60 | 0.00<br>0 | 0.00<br>0 | 0.06<br>120 | -0.29++<br>120 |
| PLANTS HARVEST | 0.35++<br>180 | 0.11<br>180 | -0.24++<br>180 | -0.21+<br>120 | -0.52++<br>120 | 0.00<br>0 | 0.00<br>0 | 0.14<br>180 | -0.36++<br>120 |
| PODS PER PLANT | 0.52++<br>240 | 0.67++<br>180 | 0.49++<br>180 | 0.17+<br>180 | 0.33++<br>180 | 0.16<br>60 | -0.04<br>60 | 0.67++<br>240 | 0.15<br>120 |
| 100 SEED WEIGHT | 0.03<br>180 | -0.16<br>120 | -0.19+<br>120 | 0.23+<br>120 | 0.17<br>120 | 0.13<br>60 | 0.16<br>60 | 0.00<br>180 | 0.12<br>120 |
| QUALITY OF SEED | -0.12<br>180 | 0.15+<br>180 | 0.23++<br>180 | -0.01<br>120 | -0.09<br>120 | 0.00<br>0 | 0.00<br>0 | 0.12<br>180 | -0.05<br>120 |

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| HILL | 1.25 | 194.83 | 24.83 | 17.32 | 1.25 |
| DAVIS | 1.38 | 159.67 | 23.10 | 29.00 | 1.33 |
| ESSEX | 1.50 | 186.67 | 19.53 | 18.10 | 1.17 |
| FORREST | 1.13 | 158.75 | 19.75 | 16.36 | 1.42 |
| COLUMBUS | 1.50 | 160.75 | 23.49 | 32.51 | 1.17 |
| BOSSIER | 1.00 | 154.75 | 20.03 | 19.36 | 1.42 |
| COBB | 1.50 | 157.33 | 27.62 | 27.78 | 1.50 |
| PICKETT 71 | 1.50 | 159.33 | 17.89 | 17.00 | 1.42 |
| IMPROVED PELICAN | 1.75 | 156.17 | 42.41 | 24.64 | 1.75 |
| RANSOM | 1.63 | 175.58 | 19.15 | 35.46 | 1.58 |
| WILLIAMS | 2.13 | 154.33 | 16.62 | 19.20 | 1.33 |
| CALLAND | 2.25 | 178.25 | 14.71 | 18.44 | 2.25 |
| WOODWORTH | 1.50 | 139.75 | 13.73 | 31.38 | 1.17 |
| CLARK 63 | 1.50 | 167.42 | 15.21 | 29.56 | 1.58 |
| BRAGG | 1.53 | 170.42 | 12.23 | 19.98 | 2.08 |
| GRAND MEAN | 1.54 | 172.27 | 20.69 | 23.74 | 1.49 |
| NUMBER EXPERIMENTS CONTRIBUTING | 2 | 3 | 4 | 3 | 3 |
| STANDARD ERROR OF VARIETY MEAN | 0.18 | 8.22 | 3.31 | 6.66 | 0.18 |
| COEFFICIENT OF VARIATION | 32.97% | 16.53% | 63.89% | 97.15% | 41.28% |
| 5% LSD VARIETY MEANS (*****=NS) | 0.35 | ******** | 9.43 | ******** | 0.52 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.00 | 0.35++ | 0.52++ | 0.03 | -0.12 |
| | 120 | 150 | 240 | 180 | 180 |
| DAYS TO FLOWER | 0.07 | 0.11 | 0.67++ | -0.16 | 0.16+ |
| | 120 | 180 | 180 | 120 | 180 |
| DAYS TO MATURITY | 0.27++ | -0.24++ | 0.49++ | -0.19+ | 0.23++ |
| | 120 | 180 | 180 | 120 | 180 |
| NODULE NUMBER 1 | 0.00 | -0.21+ | 0.17+ | 0.23+ | -0.01 |
| | 50 | 120 | 180 | 120 | 120 |
| NODULE NUMBER 2 | -0.13 | -0.52++ | 0.33++ | 0.17 | -0.09 |
| | 60 | 120 | 180 | 120 | 120 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.15 | 0.13 | 0.00 |
| | 0 | 0 | 60 | 60 | 0 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | -0.04 | 0.16 | 0.00 |
| | 0 | 0 | 60 | 60 | 0 |
| PLANT HEIGHT | 0.06 | 0.14 | 0.67++ | 0.00 | 0.12 |
| | 120 | 180 | 240 | 180 | 180 |
| LODGING | -0.29++ | -0.36++ | 0.15 | 0.12 | -0.05 |
| | 120 | 120 | 120 | 120 | 120 |
| SHATTER | 1.00 | 0.17 | 0.07 | -0.25++ | 0.26++ |
| | 120 | 120 | 120 | 120 | 120 |
| PLANTS HARVEST | 0.17 | 1.00 | -0.05 | -0.18 | 0.15+ |
| | 120 | 180 | 180 | 120 | 180 |
| PODS PER PLANT | 0.07 | -0.05 | 1.00 | -0.03 | 0.01 |
| | 120 | 180 | 240 | 180 | 180 |
| 100 SEED WEIGHT | -0.25++ | -0.13 | -0.03 | 1.00 | -0.18+ |
| | 120 | 120 | 180 | 180 | 120 |
| QUALITY OF SEED | 0.26++ | 0.15+ | 0.01 | -0.18+ | 1.00 |
| | 120 | 180 | 180 | 120 | 180 |

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| COLUMBUS | 2226.60 | 25.92 | 83.33 | 98.75 | 162.60 | 0.94 | 2.80 | 52.79 | 1.08 |
| DAVIS | 2213.93 | 30.33 | 87.54 | 88.04 | 152.40 | 1.11 | 2.89 | 40.63 | 1.04 |
| CALLAND | 2204.55 | 24.88 | 84.04 | 84.67 | 164.75 | 0.94 | 3.22 | 54.63 | 1.25 |
| FORREST | 2048.14 | 27.75 | 86.17 | 74.42 | 184.45 | 0.91 | 2.47 | 37.25 | 1.04 |
| WILLIAMS | 1951.95 | 24.96 | 82.17 | 101.50 | 158.15 | 0.92 | 2.97 | 50.29 | 1.21 |
| CLAPE 63 | 1913.54 | 25.38 | 82.25 | 70.75 | 125.70 | 0.76 | 2.51 | 49.13 | 1.42 |
| RANSOM | 1896.46 | 28.58 | 89.63 | 100.21 | 213.35 | 0.95 | 2.79 | 31.83 | 1.00 |
| CUTLER 71 | 1879.53 | 25.08 | 82.75 | 90.00 | 155.75 | 1.08 | 2.89 | 48.92 | 1.21 |
| COBB | 1875.98 | 29.63 | 92.21 | 73.42 | 147.50 | 0.89 | 2.58 | 39.29 | 1.04 |
| HILL | 1838.08 | 29.96 | 85.88 | 72.54 | 121.55 | 0.90 | 1.99 | 36.42 | 1.17 |
| PICKETT 71 | 1827.06 | 28.63 | 90.38 | 75.75 | 146.40 | 0.98 | 2.26 | 26.25 | 1.00 |
| BRAGG | 1813.24 | 28.54 | 90.63 | 72.79 | 201.30 | 0.91 | 3.25 | 38.67 | 1.04 |
| BOSSIER | 1781.39 | 27.88 | 93.71 | 102.03 | 185.75 | 1.08 | 2.74 | 32.67 | 1.00 |
| IMPROVED PELICAN | 1701.71 | 39.08 | 98.29 | 75.29 | 162.85 | 1.14 | 2.05 | 86.75 | 2.17 |
| WOODWORTH | 1550.95 | 24.42 | 82.83 | 58.04 | 97.60 | 0.77 | 2.43 | 43.96 | 1.21 |
| GRAND MEAN | 1914.91 | 28.07 | 87.45 | 82.55 | 158.67 | 0.95 | 2.66 | 44.63 | 1.19 |
| NUMBER EXPERIMENTS CONTRIBUTING | 6 | 6 | 5 | 6 | 5 | 5 | 4 | 6 | 6 |
| STANDARD ERROR OF VARIETY MEAN | 112.68 | 0.76 | 2.74 | 10.34 | 14.90 | 0.10 | 0.29 | 2.17 | 0.13 |
| COEFFICIENT OF VARIATION | 28.83% | 13.31% | 15.35% | 61.34% | 42.00% | 47.93% | 43.36% | 23.84% | 54.35% |
| 5% LSD VARIETY MEANS (*****=NS) | 317.81 | 2.15 | 7.73 | ******** | 42.22 | ******** | ******** | 6.13 | 0.37 |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.01 | -0.02 | 0.01 | 0.45++ | 0.05 | 0.27++ | 0.01 | -0.09 |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| DAYS TO FLOWER | 0.01 | 1.00 | 0.42++ | 0.21++ | 0.10 | 0.37++ | -0.04 | 0.30++ | 0.42++ |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| DAYS TO MATURITY | -0.02 | 0.42++ | 1.00 | 0.21++ | 0.27++ | 0.28++ | -0.09 | 0.25++ | 0.17++ |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| NODULE NUMBER 1 | 0.01 | 0.21++ | 0.21++ | 1.00 | 0.55++ | 0.91++ | 0.44++ | 0.27++ | 0.03 |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| NODULE NUMBER 2 | 0.45++ | 0.10 | 0.27++ | 0.55++ | 1.00 | 0.51++ | 0.45++ | 0.17++ | -0.08 |
| | 300 | 300 | 300 | 300 | 300 | 240 | 240 | 300 | 300 |
| NODULE WEIGHT 1 | 0.05 | 0.37++ | 0.28++ | 0.91++ | 0.51++ | 1.00 | 0.45++ | 0.28++ | 0.16++ |
| | 300 | 300 | 300 | 300 | 240 | 300 | 240 | 300 | 300 |
| NODULE WEIGHT 2 | 0.27++ | -0.04 | -0.09 | 0.44++ | 0.45++ | 0.45++ | 1.00 | 0.00 | -0.02 |
| | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 |
| PLANT HEIGHT | 0.01 | 0.30++ | 0.25++ | 0.27++ | 0.17++ | 0.28++ | 0.00 | 1.00 | 0.40++ |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| LODGING | -0.09 | 0.42++ | 0.17++ | 0.03 | -0.08 | 0.16++ | -0.02 | 0.40++ | 1.00 |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| SHATTER | -0.30++ | -0.43++ | -0.38++ | -0.04 | -0.22+ | -0.19+ | -0.24 | -0.04 | -0.12 |
| | 180 | 180 | 180 | 180 | 120 | 120 | 60 | 180 | 180 |
| PLANTS HARVEST | -0.14++ | -0.05 | 0.24++ | 0.16++ | 0.02 | 0.00 | -0.38++ | 0.24++ | -0.00 |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| PODS PER PLANT | -0.22++ | 0.38++ | 0.05 | 0.24++ | -0.08 | 0.41++ | 0.22++ | 0.32++ | 0.31++ |
| | 300 | 300 | 300 | 300 | 240 | 240 | 180 | 300 | 300 |
| 100 SEED WEIGHT | -0.05 | -0.07 | -0.03 | 0.17++ | -0.14+ | 0.23++ | 0.23++ | -0.19++ | 0.18++ |
| | 360 | 360 | 360 | 360 | 300 | 300 | 240 | 360 | 360 |
| QUALITY OF SEED | -0.17++ | 0.01 | 0.15+ | 0.14+ | 0.16+ | 0.21++ | 0.17+ | 0.01 | 0.15+ |
| | 240 | 240 | 240 | 240 | 240 | 180 | 180 | 240 | 240 |

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

| VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| COLUMBUS | 1.25 | 197.08 | 26.62 | 16.70 | 2.00 |
| DAVIS | 1.42 | 236.13 | 26.49 | 15.94 | 1.75 |
| CALLAND | 2.25 | 224.83 | 24.54 | 19.06 | 2.81 |
| FORREST | 1.33 | 201.21 | 27.56 | 14.43 | 2.94 |
| WILLIAMS | 1.42 | 212.67 | 20.70 | 18.62 | 2.38 |
| CLARK 63 | 1.25 | 215.92 | 20.13 | 17.72 | 2.75 |
| RANSOM | 1.08 | 212.63 | 22.23 | 16.51 | 2.38 |
| CUTLER 71 | 2.08 | 199.33 | 21.51 | 18.96 | 2.63 |
| COBB | 1.00 | 199.42 | 28.82 | 15.94 | 2.63 |
| HILL | 2.00 | 230.29 | 22.35 | 15.58 | 2.25 |
| PICKETT 71 | 2.08 | 189.79 | 21.65 | 16.63 | 2.31 |
| BRAGG | 1.00 | 211.67 | 24.80 | 15.10 | 3.69 |
| BOSSIER | 1.00 | 166.46 | 24.21 | 15.98 | 2.88 |
| IMPROVED PELICAN | 1.25 | 170.33 | 42.49 | 11.17 | 2.63 |
| WOODWORTH | 2.58 | 206.79 | 17.69 | 17.03 | 3.25 |
| GRAND MEAN | 1.53 | 205.37 | 24.73 | 16.36 | 2.62 |
| NUMBER EXPERIMENTS CONTRIBUTING | 3 | 6 | 5 | 6 | 4 |
| STANDARD ERROR OF VARIETY MEAN | 0.43 | 7.00 | 3.01 | 0.98 | 0.42 |
| COEFFICIENT OF VARIATION | 97.64% | 16.70% | 54.32% | 29.23% | 64.56% |
| 5% LSD VARIETY MEANS (*****=NS) | ******** | 19.75 | 8.53 | 2.75 | ******** |

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.30++ | -0.14++ | -0.22++ | -0.05 | -0.17++ |
| | | 180 | 360 | 300 | 360 | 240 |
| DAYS TO | FLOWER | -0.43++ | -0.05 | 0.38++ | -0.07 | 0.01 |
| | | 180 | 360 | 300 | 360 | 240 |
| DAYS TO | MATURITY | -0.38++ | 0.24++ | 0.05 | -0.03 | 0.16+ |
| | | 180 | 360 | 300 | 360 | 240 |
| NODULE | NUMBER 1 | -0.04 | 0.16++ | 0.24++ | 0.17++ | 0.14+ |
| | | 180 | 360 | 300 | 360 | 240 |
| NODULE | NUMBER 2 | -0.22+ | 0.02 | -0.03 | -0.14+ | 0.16+ |
| | | 120 | 300 | 240 | 300 | 240 |
| NODULE | WEIGHT 1 | -0.19+ | 0.00 | 0.41++ | 0.23++ | 0.21++ |
| | | 120 | 300 | 240 | 300 | 180 |
| NODULE | WEIGHT 2 | -0.24 | -0.38++ | 0.22++ | 0.23++ | 0.17+ |
| | | 60 | 240 | 180 | 240 | 180 |
| PLANT | HEIGHT | -0.04 | 0.24++ | 0.32++ | -0.19++ | 0.01 |
| | | 180 | 360 | 300 | 360 | 240 |
| | LODGING | -0.12 | -0.00 | 0.31++ | 0.18++ | 0.15+ |
| | | 180 | 360 | 300 | 360 | 240 |
| | SHATTER | 1.00 | -0.11 | 0.01 | -0.10 | 0.16 |
| | | 180 | 180 | 180 | 180 | 120 |
| PLANTS | HARVEST | -0.11 | 1.00 | 0.14+ | 0.15++ | -0.22++ |
| | | 180 | 360 | 300 | 360 | 240 |
| PODS PER | PLANT | 0.01 | 0.14+ | 1.00 | 0.14+ | -0.16+ |
| | | 180 | 300 | 300 | 300 | 180 |
| 100 SEED | WEIGHT | -0.10 | 0.15++ | 0.14+ | 1.00 | -0.03 |
| | | 180 | 360 | 300 | 360 | 240 |
| QUALITY | OF SEED | 0.16 | -0.22++ | -0.16+ | -0.03 | 1.00 |
| | | 120 | 240 | 180 | 240 | 240 |

TABLE 54 EXPERIMENT 90 - YEAR 1976

REGION - AFRICA
SITE - KHEMIS-MILIANA
LATITUDE - 36 DEG. 15 MIN. N
COOPERATOR - I.D.C.I.
DATE PLANTED - APRIL 19, 1976
SOIL TYPE - SAND 13%, SILT 21%, CLAY 30%, PH 8.2
FERTILIZER USED (KG/HA) - P 100.0, K 120.0
AMOUNT OF MOISTURE - 1060 MM
NUMBER OF IRRIGATIONS - 48
LOCAL VARIETIES - TIE FENG 17, KAI YU 3

COUNTRY - ALGERIA
ELEVATION - 289 M
LONGITUDE - 2 DEG. 14 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | HODGSON | 2983.90 | 41.50 | 103.00 | 99.00 | 163.75 | 0.54 | 2.21 | 47.00 | 1.00 |
| 12 | CORSOY | 2541.26 | 41.00 | 115.00 | 71.25 | 129.00 | 0.35 | 1.80 | 49.50 | 1.00 |
| 2 | WOODWORTH | 2369.41 | 52.75 | 115.00 | 69.25 | 179.25 | 0.79 | 1.43 | 68.50 | 1.00 |
| 16 | STEELE | 2327.75 | 42.75 | 103.00 | 108.25 | 128.00 | 0.94 | 1.54 | 49.75 | 1.00 |
| 9 | BEESON | 2218.39 | 41.00 | 115.00 | 46.00 | 101.75 | 0.23 | 1.27 | 62.00 | 1.00 |
| 13 | AMSOY 71 | 2176.73 | 42.00 | 115.00 | 53.00 | 120.00 | 0.25 | 1.10 | 59.00 | 1.25 |
| 5 | WILLIAMS | 2152.26 | 46.75 | 122.00 | 102.00 | 244.75 | 1.05 | 1.98 | 67.00 | 1.25 |
| 8 | WELLS | 2098.62 | 41.50 | 115.00 | 43.50 | 70.25 | 0.35 | 1.11 | 47.75 | 1.00 |
| 4 | CUTLER 71 | 2020.31 | 55.25 | 129.00 | 116.50 | 250.25 | 2.33 | 2.37 | 73.75 | 1.00 |
| 11 | KAI YU 3 | 1859.08 | 41.50 | 115.00 | 38.25 | 62.50 | 0.10 | 0.64 | 54.00 | 1.50 |
| 1 | CALLAND | 1791.38 | 41.00 | 122.00 | 61.50 | 160.00 | 0.56 | 2.25 | 69.00 | 1.50 |
| 15 | HARK | 1655.98 | 42.25 | 105.00 | 71.00 | 61.00 | 0.40 | 1.51 | 47.75 | 1.00 |
| 6 | CLARK 63 | 1520.59 | 45.50 | 129.00 | 84.50 | 157.00 | 0.62 | 1.38 | 56.25 | 1.00 |
| 10 | TIE FENG 17 | 1447.68 | 47.25 | 115.00 | 38.75 | 119.00 | 0.42 | 1.47 | 56.75 | 1.50 |
| 3 | HILL | 921.73 | 59.00 | 186.00 | 196.00 | 105.75 | 2.45 | 1.43 | 70.00 | 3.00 |
| 7 | FORREST | 510.33 | 59.00 | 201.00 | 202.50 | 93.75 | 2.15 | 1.38 | 90.75 | 2.75 |
| | GRAND MEAN | 1912.23 | 46.25 | 125.31 | 87.58 | 134.13 | 0.85 | 1.55 | 60.55 | 1.36 |
| | STANDARD ERROR OF A VARIETY MEAN | 169.92 | 1.80 | 0.00 | 19.55 | 32.57 | 0.43 | 0.38 | 4.45 | 0.26 |
| | COEFFICIENT OF VARIATION | 17.77% | 7.79% | 0.00% | 44.65% | 48.57% | 102.16% | 48.68% | 14.71% | 37.91% |
| | 5% LSD VARIETY MEANS (********=NS) | 484.02 | 5.13 | 0.00 | 55.70 | 92.77 | 1.23 | ******** | 12.69 | 0.73 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.48++ | -0.69++ | -0.26+ | 0.30+ | -0.20 | 0.30+ | -0.22 | -0.48++ |
| DAYS TO | FLOWER | -0.48++ | 1.00 | 0.73++ | 0.57++ | 0.02 | 0.54++ | -0.08 | 0.59++ | 0.52++ |
| DAYS TO | MATURITY | -0.69++ | 0.73++ | 1.00 | 0.67++ | -0.06 | 0.54++ | -0.04 | 0.63++ | 0.73++ |
| NODULE | NUMBER 1 | -0.26+ | 0.57++ | 0.67++ | 1.00 | 0.23 | 0.68++ | 0.28+ | 0.41++ | 0.48++ |
| NODULE | NUMBER 2 | 0.30+ | 0.02 | -0.06 | 0.23 | 1.00 | 0.30+ | 0.79++ | 0.12 | -0.01 |
| NODULE | WEIGHT 1 | -0.20 | 0.54++ | 0.54++ | 0.68++ | 0.30+ | 1.00 | 0.28+ | 0.47++ | 0.45++ |
| NODULE | WEIGHT 2 | 0.30+ | -0.08 | -0.04 | 0.28+ | 0.79++ | 0.28+ | 1.00 | 0.10 | 0.12 |
| PLANT | HEIGHT | -0.22 | 0.59++ | 0.63++ | 0.41++ | 0.12 | 0.47++ | 0.10 | 1.00 | 0.54++ |
| | LODGING | -0.48++ | 0.52++ | 0.73++ | 0.48++ | -0.01 | 0.45++ | 0.12 | 0.54++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.12 | -0.07 | -0.13 | -0.04 | 0.14 | -0.08 | 0.15 | -0.32++ | -0.20 |
| PODS PER | PLANT | 0.26+ | -0.20 | -0.19 | -0.14 | -0.02 | 0.01 | 0.00 | 0.02 | 0.02 |
| 100 SEED | WEIGHT | -0.05 | 0.28+ | 0.48++ | 0.41++ | -0.05 | 0.26+ | 0.03 | 0.39++ | 0.47++ |
| QUALITY | OF SEED | -0.11 | -0.39++ | -0.43++ | -0.55++ | -0.17 | -0.46++ | -0.14 | -0.37++ | -0.32+ |

TABLE 54 EXPERIMENT 90 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | HODGSON | 1.00 | 85.75 | 51.90 | 14.32 | 1.50 | 41.2 | 22.2 |
| 12 | CORSOY | 1.00 | 79.00 | 52.32 | 12.57 | 3.00 | 39.2 | 24.0 |
| 2 | WOODWORTH | 1.00 | 72.25 | 47.75 | 12.28 | 2.25 | 41.0 | 23.6 |
| 16 | STEELE | 1.00 | 74.75 | 40.95 | 14.58 | 1.50 | 42.4 | 23.5 |
| 9 | BEESON | 1.00 | 77.25 | 45.15 | 13.18 | 3.00 | 40.7 | 21.7 |
| 13 | AMSOY 71 | 1.00 | 71.75 | 47.05 | 13.66 | 3.00 | 38.8 | 21.5 |
| 5 | WILLIAMS | 1.00 | 73.75 | 64.32 | 13.47 | 1.75 | 40.2 | 23.6 |
| 8 | WELLS | 1.00 | 84.00 | 51.05 | 12.26 | 2.25 | 40.0 | 23.5 |
| 4 | CUTLER 71 | 1.00 | 75.25 | 42.00 | 12.03 | 2.25 | 43.0 | 20.4 |
| 11 | KAI YU 3 | 1.00 | 39.25 | 63.75 | 14.24 | 3.25 | 39.9 | 21.6 |
| 1 | CALLAND | 1.00 | 70.00 | 48.55 | 11.79 | 3.50 | 43.0 | 19.6 |
| 15 | HARK | 1.00 | 69.00 | 45.95 | 12.21 | 3.75 | 40.4 | 22.3 |
| 6 | CLARK 63 | 1.00 | 79.25 | 33.47 | 11.01 | 3.00 | -- | -- |
| 10 | TIE P_NG 17 | 1.00 | 72.75 | 50.42 | 10.89 | 4.25 | 42.3 | 19.3 |
| 3 | HILL | 1.00 | 76.00 | 53.27 | 15.48 | 1.25 | -- | -- |
| 7 | FORREST | 1.00 | 61.75 | 32.35 | 17.81 | 1.00 | 43.9 | 20.1 |
| | GRAND MEAN | 1.00 | 72.61 | 48.14 | 13.24 | 2.53 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 4.47 | 6.01 | 0.86 | 0.33 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 12.30% | 24.98% | 12.99% | 26.30% | | |
| | 5% ISD VARIETY MEANS (********=NS) | 0.00 | 12.72 | 17.13 | 2.45 | 0.95 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.12 | 0.26+ | -0.05 | -0.11 |
| DAYS TO | FLOWER | 0.00 | -0.07 | -0.20 | 0.28+ | -0.39++ |
| DAYS TO | MATURITY | 0.00 | -0.13 | -0.19 | 0.48++ | -0.43++ |
| NODULE | NUMBER 1 | 0.00 | -0.04 | -0.14 | 0.41++ | -0.55++ |
| NODULE | NUMBER 2 | 0.00 | 0.14 | -0.02 | -0.05 | -0.17 |
| NODULE | WEIGHT 1 | 0.00 | -0.08 | 0.01 | 0.26+ | -0.46++ |
| NODULE | WEIGHT 2 | 0.00 | 0.15 | 0.00 | 0.03 | -0.14 |
| PLANT | HEIGHT | 0.00 | -0.32++ | 0.02 | 0.39++ | -0.37++ |
| | LODGING | 0.00 | -0.20 | 0.02 | 0.47++ | -0.32+ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.25+ | -0.14 | -0.10 |
| PODS PER | PLANT | 0.00 | -0.25+ | 1.00 | 0.03 | 0.06 |
| 100 SEED | WEIGHT | 0.00 | -0.14 | 0.03 | 1.00 | -0.63++ |
| QUALITY | OF SEED | 0.00 | -0.10 | 0.06 | -0.63++ | 1.00 |

TABLE 55 EXPERIMENT 239 YEAR 1976

REGION - AFRICA
SITE - PARAKOU
LATITUDE - 9 DEG. 58 MIN. N
COOPERATOR - I.R.A.T.-BENIN
DATE PLANTED - JULY 22, 1976
SOIL TYPE - SAND, PH 5.7
FERTILIZER USED (KG/HA) - P 40.0, K 60.0
AMOUNT OF MOISTURE - 689 MM
LOCAL VARIETY - 72-20-57-2

COUNTRY - BENIN
ELEVATION - 358 M
LONGITUDE - 2 DEG. 44 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | JUPITER | 3467.36 | 50.75 | 115.00 | 291.50 | 407.25 | 3.28 | 4.25 | 74.00 | 1.75 |
| 7 | TGX 13-3-2644 | 3242.31 | 43.75 | 107.75 | 335.75 | 577.50 | 5.20 | 6.30 | 71.50 | 1.00 |
| 16 | 72-20-57-2 | 3217.31 | 52.00 | 117.00 | 368.25 | 449.50 | 4.12 | 4.98 | 86.50 | 1.00 |
| 2 | TGM 210-1-2363 | 3175.63 | 44.50 | 101.00 | 209.00 | 317.00 | 3.30 | 3.80 | 67.00 | 1.00 |
| 5 | TGM 294-4-2371 | 3058.94 | 51.00 | 100.75 | 234.50 | 434.75 | 3.23 | 4.32 | 69.25 | 1.00 |
| 1 | TGM 220-1-2205 | 3025.60 | 49.75 | 101.50 | 247.50 | 319.00 | 3.45 | 5.18 | 48.75 | 1.00 |
| 14 | DAVIS | 3000.60 | 39.75 | 98.25 | 244.00 | 336.50 | 4.20 | 4.98 | 34.50 | 1.00 |
| 8 | TGM 256-1-B | 2717.21 | 45.50 | 101.00 | 304.25 | 477.50 | 4.23 | 6.82 | 62.75 | 1.00 |
| 4 | TGM 249-4-B | 2650.53 | 38.50 | 98.00 | 334.50 | 751.25 | 4.20 | 6.75 | 71.25 | 1.00 |
| 6 | TGX 66-5100 | 2375.47 | 43.00 | 98.00 | 217.75 | 433.25 | 3.80 | 5.90 | 66.50 | 1.00 |
| 3 | TGM 255-2-4341 | 2325.46 | 41.00 | 101.00 | 292.00 | 485.00 | 3.05 | 5.33 | 53.50 | 1.00 |
| 13 | COBB | 2267.12 | 38.75 | 98.75 | 259.50 | 546.00 | 5.30 | 7.30 | 36.25 | 1.00 |
| 11 | WILLIAMS | 2175.43 | 35.00 | 92.00 | 323.50 | 350.25 | 3.60 | 4.55 | 45.75 | 1.00 |
| 15 | IMPROVED PELICAN | 2158.76 | 41.75 | 98.00 | 207.00 | 325.75 | 2.80 | 3.43 | 83.25 | 1.00 |
| 12 | CLARK 63 | 2108.75 | 35.00 | 95.75 | 296.00 | 324.50 | 3.45 | 4.43 | 49.00 | 1.00 |
| 10 | BOSSIER | 1533.64 | 35.00 | 99.50 | 274.00 | 450.25 | 4.20 | 5.18 | 27.50 | 1.00 |
| | GRAND MEAN | 2656.26 | 42.81 | 101.45 | 277.44 | 436.58 | 3.84 | 5.22 | 59.20 | 1.05 |
| | STANDARD ERROR OF A VARIETY MEAN | 197.73 | 0.99 | 1.23 | 33.67 | 48.80 | 0.38 | 0.54 | 3.51 | 0.06 |
| | COEFFICIENT OF VARIATION | 14.89% | 4.61% | 2.43% | 24.27% | 22.36% | 19.67% | 20.64% | 11.84% | 11.94% |
| | 5% LSD VARIETY MEANS (********=NS) | 563.21 | 2.81 | 3.51 | 95.92 | 139.01 | 1.07 | 1.53 | 9.98 | 0.18 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.62++ | 0.53++ | 0.11 | 0.03 | 0.09 | 0.05 | 0.51++ | 0.24 |
| DAYS TO FLOWER | 0.62++ | 1.00 | 0.67++ | -0.01 | -0.03 | -0.11 | -0.08 | 0.55++ | 0.28+ |
| DAYS TO MATURITY | 0.53++ | 0.67++ | 1.00 | 0.25+ | 0.09 | 0.07 | -0.05 | 0.47++ | 0.45++ |
| NODULE NUMBER 1 | 0.11 | -0.01 | 0.25+ | 1.00 | 0.42++ | 0.57++ | 0.40++ | 0.05 | 0.02 |
| NODULE NUMBER 2 | 0.03 | -0.03 | 0.09 | 0.42++ | 1.00 | 0.53++ | 0.77++ | 0.14 | -0.00 |
| NODULE WEIGHT 1 | 0.09 | -0.11 | 0.07 | 0.57++ | 0.53++ | 1.00 | 0.71++ | -0.19 | -0.16 |
| NODULE WEIGHT 2 | 0.05 | -0.08 | -0.05 | 0.40++ | 0.77++ | 0.71++ | 1.00 | -0.12 | -0.13 |
| PLANT HEIGHT | 0.51++ | 0.55++ | 0.47++ | 0.05 | 0.14 | -0.19 | -0.12 | 1.00 | 0.18 |
| LODGING | 0.24 | 0.28+ | 0.45++ | 0.02 | -0.00 | -0.16 | -0.13 | 0.18 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.18 | 0.16 | -0.05 | -0.18 | -0.37++ | -0.12 | -0.33++ | 0.02 | -0.13 |
| PODS PER PLANT | 0.21 | 0.31+ | 0.40++ | 0.17 | 0.31+ | -0.07 | 0.14 | 0.51++ | 0.12 |
| 100 SEED WEIGHT | 0.02 | -0.34++ | -0.18 | 0.00 | -0.12 | 0.25+ | -0.03 | -0.54++ | 0.18 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 55 EXPERIMENT 239 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | JUPITER | 1.00 | 108.50 | 45.75 | 22.28 | 0.00 | 39.2 | 24.0 |
| 7 | TGX 13-3-2644 | 1.00 | 132.75 | 30.00 | 21.33 | 0.00 | 41.0 | 23.7 |
| 16 | 72-20-57-2 | 1.00 | 136.00 | 60.50 | 15.73 | 0.00 | 42.2 | 21.2 |
| 2 | TGM 210-1-2363 | 1.00 | 151.50 | 30.25 | 21.80 | 0.00 | 42.0 | 21.6 |
| 5 | TGM 294-4-2371 | 1.00 | 167.50 | 30.75 | 20.10 | 0.00 | 45.4 | 20.7 |
| 1 | TGM 220-1-2205 | 1.00 | 90.50 | 36.00 | 18.98 | 0.00 | 41.4 | 22.8 |
| 14 | DAVIS | 1.00 | 153.25 | 26.25 | 23.63 | 0.00 | 42.9 | 22.4 |
| 8 | TGM 256-1-B | 1.00 | 130.00 | 35.00 | 16.48 | 0.00 | -- | -- |
| 4 | TGM 249-4-B | 1.00 | 80.75 | 59.00 | 18.73 | 0.00 | 40.6 | 22.2 |
| 6 | TGX 66-5100 | 1.00 | 118.75 | 40.50 | 17.40 | 0.00 | 45.2 | 19.4 |
| 3 | TGM 255-2-4341 | 1.00 | 98.75 | 63.25 | 14.33 | 0.00 | 41.9 | 23.4 |
| 13 | COBB | 1.00 | 116.00 | 30.25 | 22.13 | 0.00 | 41.5 | 23.3 |
| 11 | WILLIAMS | 1.00 | 150.50 | 18.75 | 23.63 | 0.00 | 42.4 | 23.7 |
| 15 | IMPROVED PELICAN | 1.00 | 125.00 | 41.75 | 14.90 | 0.00 | 41.9 | 23.2 |
| 12 | CLARK 63 | 1.00 | 130.25 | 22.50 | 21.80 | 0.00 | 41.9 | 22.5 |
| 10 | BOSSIER | 1.00 | 92.00 | 28.75 | 23.18 | 0.00 | 45.4 | 21.8 |
| | GRAND MEAN | 1.00 | 123.88 | 37.45 | 19.77 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.14 | 4.50 | 0.18 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 13.14% | 24.01% | 1.80% | 0.00% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 23.19 | 12.81 | 0.51 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.18 | 0.21 | 0.02 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.16 | 0.31+ | -0.34++ | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.05 | 0.40++ | -0.18 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | -0.18 | 0.17 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | -0.37++ | 0.31+ | -0.12 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | -0.12 | -0.07 | 0.25+ | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.33++ | 0.14 | -0.03 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.02 | 0.51++ | -0.54++ | 0.00 |
| | LODGING | 0.00 | -0.13 | 0.12 | 0.18 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.49++ | 0.21 | 0.00 |
| PODS PER | PLANT | 0.00 | -0.49++ | 1.00 | -0.62++ | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.21 | -0.62++ | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 56 EXPERIMENT 271 YEAR 1976

REGION - AFRICA
SITE - SAVE
LATITUDE - 8 DEG. N
COOPERATOR - E. LIMBURG
DATE PLANTED - AUGUST 24, 1976
SOIL TYPE - SAND, PH 6.5
FERTILIZER USED (KG/HA) - N 15.0, P 25.0, K 15.0
AMOUNT OF MOISTURE - 267 MM
LOCAL VARIETY - FORREST (BENIN)

COUNTRY - BENIN
ELEVATION - 200 M
LONGITUDE - 2 DEG. 40 MIN. E
DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 3297.14 | 52.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.00 | 0.00 |
| 13 | COBB | 2566.18 | 50.50 | 77.00 | 0.00 | 0.00 | 0.00 | 0.00 | 66.25 | 0.00 |
| 15 | IMPROVED PELICAN | 2483.18 | 52.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 66.25 | 0.00 |
| 5 | TGM 294-4-2371 | 1497.69 | 52.00 | 72.25 | 0.00 | 0.00 | 0.00 | 0.00 | 70.25 | 0.00 |
| 11 | WILLIAMS | 1494.91 | 51.00 | 75.75 | 0.00 | 0.00 | 0.00 | 0.00 | 68.25 | 0.00 |
| 16 | FORREST (BENIN) | 1118.14 | 50.00 | 77.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.75 | 0.00 |
| 4 | TGM 249-4-B | 904.93 | 49.25 | 72.25 | 0.00 | 0.00 | 0.00 | 0.00 | 72.25 | 0.00 |
| 2 | TGM 210-1-2363 | 856.67 | 49.50 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.75 | 0.00 |
| 7 | TGX 13-3-2644 | 796.24 | 49.25 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.25 | 0.00 |
| 10 | BOSSIER | 694.15 | 51.00 | 73.00 | 0.00 | 0.00 | 0.00 | 0.00 | 65.00 | 0.00 |
| 6 | TGX 66-5100 | 632.34 | 50.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 66.25 | 0.00 |
| 12 | CLARK 63 | 588.24 | 49.00 | 73.25 | 0.00 | 0.00 | 0.00 | 0.00 | 72.00 | 0.00 |
| 1 | TGM 220-1-2205 | 511.15 | 49.00 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.50 | 0.00 |
| 8 | TGM 256-1-B | 432.67 | 49.50 | 74.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.75 | 0.00 |
| 3 | TGM 255-2-4341 | 247.24 | 49.25 | 72.75 | 0.00 | 0.00 | 0.00 | 0.00 | 69.25 | 0.00 |
| 9 | JUPITER | 10.76 | 50.75 | 74.25 | 0.00 | 0.00 | 0.00 | 0.00 | 70.25 | 0.00 |
| | GRAND MEAN | 1133.23 | 50.25 | 74.41 | 0.00 | 0.00 | 0.00 | 0.00 | 68.94 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 285.92 | 0.36 | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 1.76 | 0.00 |
| | COEFFICIENT OF VARIATION | 50.46% | 1.45% | 1.28% | 0.00% | 0.00% | 0.00% | 0.00% | 5.11% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 814.42 | 1.03 | 1.36 | 0.00 | 0.00 | 0.00 | 0.00 | ******** | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.52++ | 0.67++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.24 | 0.00 |
| DAYS TO | FLOWER | 0.52++ | 1.00 | 0.55++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.28+ | 0.00 |
| DAYS TO | MATURITY | 0.67++ | 0.55++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.14 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.24 | -0.28+ | -0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.54++ | 0.30+ | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 56 EXPERIMENT 271 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 14 | DAVIS | 0.00 | 76.00 | 0.00 | 0.00 | 0.00 |
| 13 | COBB | 0.00 | 77.00 | 0.00 | 0.00 | 0.00 |
| 15 | IMPROVED PELICAN | 0.00 | 56.75 | 0.00 | 0.00 | 0.00 |
| 5 | TGM 294-4-2371 | 0.00 | 133.25 | 0.00 | 0.00 | 0.00 |
| 11 | WILLIAMS | 0.00 | 37.00 | 0.00 | 0.00 | 0.00 |
| 16 | FORREST (BENIN) | 0.00 | 38.75 | 0.00 | 0.00 | 0.00 |
| 4 | TGM 249-4-B | 0.00 | 40.50 | 0.00 | 0.00 | 0.00 |
| 2 | TGM 210-1-2363 | 0.00 | 75.25 | 0.00 | 0.00 | 0.00 |
| 7 | TGX 13-3-2644 | 0.00 | 72.75 | 0.00 | 0.00 | 0.00 |
| 10 | BOSSIER | 0.00 | 27.50 | 0.00 | 0.00 | 0.00 |
| 6 | TGX 66-5100 | 0.00 | 62.00 | 0.00 | 0.00 | 0.00 |
| 12 | CLARK 63 | 0.00 | 27.75 | 0.00 | 0.00 | 0.00 |
| 1 | TGM 220-1-2205 | 0.00 | 9.50 | 0.00 | 0.00 | 0.00 |
| 8 | TGM 256-1-B | 0.00 | 58.00 | 0.00 | 0.00 | 0.00 |
| 3 | TGM 255-2-4341 | 0.00 | 7.00 | 0.00 | 0.00 | 0.00 |
| 9 | JUPITER | 0.00 | 1.75 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 50.05 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.44 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 49.73% | 0.00% | 0.00% | 0.00% |
| | 5% ISL VARIETY MEANS (********=NS) | 0.00 | 35.45 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.54++ | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.30+ | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.03 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 57 EXPERIMENT 150 YEAR 1976

REGION - AFRICA
SITE - GABORONE
LATITUDE - 24 DEG. 34 MIN. S
COOPERATOR - P.G. LEE
DATE PLANTED - NOVEMBER 25, 1976
SOIL TYPE - PH 5.7
FERTILIZER USED (KG/HA) - N 25.0, P 37.0, K 25.0
AMOUNT OF MOISTURE - 439 MM

COUNTRY - BOTSWANA
ELEVATION - 994 M
LONGITUDE - 25 DEG. 57 MIN. E
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 1668.33 | 60.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | BOSSIER | 1568.77 | 62.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | RANSOM | 1549.43 | 55.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | BRAGG | 1495.55 | 62.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | FORREST | 1492.42 | 56.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | PICKETT 71 | 1407.95 | 58.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | CUTLER 71 | 1404.45 | 43.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 1403.24 | 37.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | CLARK 63 | 1389.74 | 42.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | HILL | 1322.85 | 58.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | ESSEX | 1309.76 | 51.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | WILLIAMS | 1289.42 | 46.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | COLUMBUS | 934.10 | 46.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | WOODWORTH | 923.56 | 42.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | WELLS | 770.82 | 40.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | BEESON | 655.17 | 42.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 1286.60 | 50.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 266.07 | 3.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 41.36% | 14.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 10.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | FLOWER | 0.09 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.10 | -0.37++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 57 EXPERIMENT 150 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | DAVIS | 0.00 | 0.00 | 0.00 | 17.81 | 0.00 |
| 8 | BOSSIER | 0.00 | 0.00 | 0.00 | 16.31 | 0.00 |
| 4 | PANSOM | 0.00 | 0.00 | 0.00 | 18.82 | 0.00 |
| 3 | BRAGG | 0.00 | 0.00 | 0.00 | 18.91 | 0.00 |
| 12 | FORREST | 0.00 | 0.00 | 0.00 | 15.58 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 0.00 | 0.00 | 16.97 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 0.00 | 0.00 | 18.37 | 0.00 |
| 1 | CALLAND | 0.00 | 0.00 | 0.00 | 19.15 | 0.00 |
| 10 | CLAR. 63 | 0.00 | 0.00 | 0.00 | 18.53 | 0.00 |
| 5 | HILL | 0.00 | 0.00 | 0.00 | 15.82 | 0.00 |
| 16 | ESSEX | 0.00 | 0.00 | 0.00 | 17.18 | 0.00 |
| 9 | WILLIAMS | 0.00 | 0.00 | 0.00 | 19.06 | 0.00 |
| 15 | COLUMBUS | 0.00 | 0.00 | 0.00 | 16.05 | 0.00 |
| 2 | WOODWORTH | 0.00 | 0.00 | 0.00 | 19.00 | 0.00 |
| 13 | WELLS | 0.00 | 0.00 | 0.00 | 17.13 | 0.00 |
| 14 | BEESON | 0.00 | 0.00 | 0.00 | 18.60 | 0.00 |
| | GRAND MEAN | 0.00 | 0.00 | 0.00 | 17.71 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 10.68% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | ******** | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | -0.37++ | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 58 EXPERIMENT 149 YEAR 1976

REGION - AFRICA
SITE - MAHALAPYE
LATITUDE - 23 DEG. 7 MIN. S
COOPERATOR - LYNN A. MILLER
DATE PLANTED - NOVEMBER 3, 1976
SOIL TYPE - SAND 78%, SILT 14%, CLAY 8%, PH 5.3
LOlocal VARIETIES - GEDULD, MASTERPIECE

COUNTRY - BOTSWANA
ELEVATION - 1000 M
LONGITUDE - 26 DEG. 50 MIN. E

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | RANSOM | 3244.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | BOSSIER | 3160.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | PICKETT 71 | 3054.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | DAVIS | 2891.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | BRAGG | 2724.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | FORREST | 2532.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | MASTERPIECE | 2430.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | GEDULD | 2157.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 1764.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | HILL | 1555.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | WELLS | 1044.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | CUTLER 71 | 837.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 2283.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 375.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 32.90% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 1080.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 58 EXPERIMENT 149 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | RANSOM | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | BOSSIER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | PICKETT 71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | DAVIS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | BRAGG | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | FORREST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | MASTERPIECE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | GEDULD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | HILL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | WELLS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | CUTLER 71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 59 EXPERIMENT 171 YEAR 1976

REGION - AFRICA
SITE - BUHORO
LATITUDE - 3 DEG. S
COOPERATOR - J. DE BRABANDERE
DATE PLANTED - MARCH 4, 1977
AMOUNT OF MOISTURE - 550 MM
LOCAL VARIETIES - PALMETTO, OGDEN

COUNTRY - BURUNDI
ELEVATION - 1450 M

DATE HARVESTED - MAY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | OGDEN | 1546.14 | 0.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | CUTLER 71 | 1487.80 | 0.00 | 150.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | COBB | 1316.93 | 0.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | COLUMBUS | 981.45 | 0.00 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | FORREST | 981.45 | 0.00 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | IMPROVED PELICAN | 939.77 | 0.00 | 110.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | DAVIS | 827.25 | 0.00 | 110.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | HILL | 798.08 | 0.00 | 110.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | WILLIAMS | 702.22 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17 | PALMETTO | 685.55 | 0.00 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 627.21 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | CLARK 63 | 614.71 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | BOSSIER | 602.20 | 0.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | BRAGG | 564.70 | 0.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | RANSOM | 525.10 | 0.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | PICKETT 71 | 516.77 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | JUPITER | 464.68 | 0.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | WOODWORTH | 460.51 | 0.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 813.47 | 0.00 | 105.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 122.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 30.13% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 347.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.63++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.63++ | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 59 EXPERIMENT 171 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 18 | OGDEN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | COBB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | COLUMBUS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | FORREST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | IMPROVED PELICAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | DAVIS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | HILL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | WILLIAMS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17 | PALMETTO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | CLARK 63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | BOSSIER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | BRAGG | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | RANSOM | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | JUPITER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | WOODWORTH | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 60 EXPERIMENT 171A YEAR 1976

REGION - AFRICA
SITE - SEMS-IMBO
LATITUDE - 3 DEG. 20 MIN. S
COOPERATOR - DE MARCIN
DATE PLANTED - MARCH 14, 1977
SOIL PH - 7
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 304 MM
LOCAL VARIETY - PALMETTO

COUNTRY - BURUNDI
ELEVATION - 780 M
LONGITUDE - 29 DEG. E
DATE HARVESTED - JULY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 398.41 | 37.25 | 103.75 | 14.50 | 0.00 | 0.30 | 0.00 | 28.80 | 1.25 |
| 10 | CLARK 63 | 317.56 | 36.00 | 94.50 | 37.75 | 0.00 | 0.64 | 0.00 | 24.60 | 1.25 |
| 2 | WOODWORTH | 285.06 | 32.75 | 92.25 | 38.75 | 0.00 | 0.58 | 0.00 | 26.65 | 1.50 |
| 13 | IMPROVED PELICAN | 270.89 | 44.00 | 114.00 | 14.00 | 0.00 | 0.26 | 0.00 | 34.55 | 1.25 |
| 11 | COBB | 262.55 | 35.00 | 105.00 | 9.00 | 0.00 | 0.20 | 0.00 | 18.65 | 1.50 |
| 12 | DAVIS | 250.05 | 35.00 | 104.50 | 23.25 | 0.00 | 0.47 | 0.00 | 19.95 | 1.50 |
| 16 | PALMETTO | 244.22 | 37.25 | 94.50 | 39.50 | 0.00 | 1.18 | 0.00 | 30.55 | 1.00 |
| 5 | HILL | 234.21 | 38.00 | 97.00 | 18.00 | 0.00 | 0.28 | 0.00 | 24.00 | 1.50 |
| 9 | WILLIAMS | 210.88 | 36.00 | 93.25 | 17.00 | 0.00 | 0.33 | 0.00 | 21.90 | 1.00 |
| 15 | COLUMBUS | 208.37 | 36.00 | 96.50 | 73.50 | 0.00 | 1.34 | 0.00 | 22.40 | 1.75 |
| 14 | FORREST | 179.20 | 35.00 | 97.00 | 37.00 | 0.00 | 0.67 | 0.00 | 23.10 | 1.25 |
| 7 | JUPITER | 172.53 | 44.00 | 116.50 | 31.50 | 0.00 | 0.52 | 0.00 | 39.70 | 1.00 |
| 8 | BOSSIER | 160.03 | 34.25 | 97.00 | 65.00 | 0.00 | 1.35 | 0.00 | 15.10 | 1.50 |
| 6 | PICKETT 71 | 158.36 | 35.00 | 102.50 | 22.50 | 0.00 | 0.40 | 0.00 | 16.40 | 2.00 |
| 3 | BRAGG | 155.03 | 35.00 | 99.75 | 19.25 | 0.00 | 0.25 | 0.00 | 22.30 | 1.00 |
| 4 | RANSOM | 126.69 | 35.25 | 94.50 | 35.75 | 0.00 | 0.56 | 0.00 | 17.70 | 1.25 |
| | GRAND MEAN | 227.13 | 36.61 | 100.16 | 31.02 | 0.00 | 0.58 | 0.00 | 24.15 | 1.34 |
| | STANDARD ERROR OF A VARIETY MEAN | 59.34 | 0.65 | 2.30 | 9.21 | 0.00 | 0.18 | 0.00 | 2.06 | 0.23 |
| | COEFFICIENT OF VARIATION | 52.25% | 3.58% | 4.59% | 59.38% | 0.00% | 62.42% | 0.00% | 17.08% | 33.63% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.87 | 6.55 | 26.23 | 0.00 | 0.52 | 0.00 | 5.87 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.01 | 0.13 | -0.13 | 0.00 | -0.07 | 0.00 | 0.39++ | -0.28+ |
| DAYS TO FLOWER | 0.01 | 1.00 | 0.62++ | -0.09 | 0.00 | -0.08 | 0.00 | 0.62++ | -0.20 |
| DAYS TO MATURITY | 0.13 | 0.62++ | 1.00 | -0.26+ | 0.00 | -0.29+ | 0.00 | 0.47++ | -0.09 |
| NODULE NUMBER 1 | -0.13 | -0.09 | -0.26+ | 1.00 | 0.00 | 0.89++ | 0.00 | -0.18 | -0.01 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | -0.07 | -0.08 | -0.29+ | 0.89++ | 0.00 | 1.00 | 0.00 | -0.12 | -0.03 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.39++ | 0.62++ | 0.47++ | -0.18 | 0.00 | -0.12 | 0.00 | 1.00 | -0.43++ |
| LODGING | -0.28+ | -0.20 | -0.09 | -0.01 | 0.00 | -0.03 | 0.00 | -0.43++ | 1.00 |
| SHATTER | 0.13 | 0.04 | -0.04 | -0.07 | 0.00 | 0.15 | 0.00 | 0.10 | 0.18 |
| PLANTS HARVEST | 0.15 | -0.03 | 0.06 | -0.07 | 0.00 | -0.10 | 0.00 | 0.19 | -0.29+ |
| PODS PER PLANT | 0.27+ | 0.66++ | 0.76++ | -0.13 | 0.00 | -0.11 | 0.00 | 0.74++ | -0.31+ |
| 100 SEED WEIGHT | 0.38++ | -0.32++ | -0.20 | 0.20 | 0.00 | 0.17 | 0.00 | -0.09 | 0.08 |
| QUALITY OF SEED | -0.15 | 0.34++ | 0.38++ | -0.29+ | 0.00 | -0.28+ | 0.00 | 0.30+ | -0.20 |

TABLE 60 EXPERIMENT 171A YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 3.25 | 40.75 | 25.58 | 21.75 | 3.50 | 43.3 | 21.6 |
| 10 | CLARK 63 | 1.25 | 41.00 | 19.15 | 20.50 | 2.75 | 42.6 | 22.7 |
| 2 | WOODWORTH | 2.25 | 45.75 | 16.25 | 19.75 | 2.75 | 41.9 | 22.3 |
| 13 | IMPROVED PELICAN | 2.00 | 38.25 | 46.90 | 15.00 | 4.50 | 45.2 | 21.8 |
| 11 | COBB | 2.25 | 42.50 | 21.95 | 20.25 | 3.25 | 42.6 | 22.3 |
| 12 | DAVIS | 2.50 | 45.75 | 25.33 | 20.25 | 3.50 | 44.6 | 19.8 |
| 16 | PALMETTO | 5.00 | 42.75 | 19.25 | 20.25 | 2.75 | 46.2 | 17.8 |
| 5 | HILL | 3.25 | 38.75 | 16.65 | 17.75 | 3.50 | 41.1 | 21.6 |
| 9 | WILLIAMS | 1.50 | 40.75 | 11.63 | 20.00 | 3.25 | 42.6 | 23.2 |
| 15 | COLUMBUS | 3.00 | 42.75 | 16.72 | 21.00 | 2.50 | 44.4 | 21.0 |
| 14 | FORREST | 1.00 | 36.50 | 14.15 | 17.25 | 4.25 | 42.9 | 21.7 |
| 7 | JUPITER | 1.50 | 43.25 | 53.15 | 17.75 | 4.00 | 44.1 | 19.6 |
| 8 | BOSSIER | 1.75 | 33.25 | 16.77 | 19.00 | 2.50 | 44.6 | 20.8 |
| 6 | PICKETT 71 | 2.75 | 38.25 | 16.40 | 17.50 | 3.25 | 43.2 | 20.9 |
| 3 | BRAGG | 1.50 | 50.00 | 20.20 | 18.25 | 4.25 | 43.0 | 21.7 |
| 4 | RANSOM | 1.50 | 41.00 | 15.58 | 13.25 | 3.00 | 41.7 | 23.3 |
| | GRAND MEAN | 2.27 | 41.33 | 22.23 | 19.03 | 3.34 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.50 | 2.37 | 4.86 | 1.02 | 0.40 | | |
| | COEFFICIENT OF VARIATION | 43.99% | 11.47% | 43.69% | 10.72% | 23.72% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 1.42 | 6.75 | 13.83 | 2.91 | 1.13 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.13 | 0.16 | 0.27+ | 0.38++ | -0.15 |
| DAYS TO | FLOWER | 0.04 | -0.03 | 0.66++ | -0.32++ | 0.34++ |
| DAYS TO | MATURITY | -0.04 | 0.06 | 0.76++ | -0.20 | 0.38++ |
| NODULE | NUMBER 1 | -0.07 | -0.07 | -0.13 | 0.20 | -0.29+ |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.15 | -0.10 | -0.11 | 0.17 | -0.28+ |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.10 | 0.19 | 0.74++ | -0.09 | 0.30+ |
| | LODGING | 0.18 | -0.29+ | -0.31+ | 0.08 | -0.20 |
| | SHATTER | 1.00 | 0.02 | 0.01 | 0.13 | -0.21 |
| PLANTS | HARVEST | 0.02 | 1.00 | 0.18 | 0.01 | 0.13 |
| PODS PER | PLANT | 0.01 | 0.18 | 1.00 | -0.17 | 0.29+ |
| 100 SEED | WEIGHT | 0.13 | 0.01 | -0.17 | 1.00 | -0.52++ |
| QUALITY | OF SEED | -0.21 | 0.13 | 0.29+ | -0.52++ | 1.00 |

TABLE 61 EXPERIMENT 478 YEAR 1976

REGION - AFRICA
SITE - DSCHANG
LATITUDE - 5 DEG. 27 MIN. N
COOPERATOR - JEAN PRAQUIN
DATE PLANTED - MARCH 9, 1976
SOIL PH 5.3
AMOUNT OF MOISTURE - 1124 MM

COUNTRY - CAMEROON
ELEVATION - 1450 M
LONGITUDE - 10 DEG. 3 MIN. E

DATE HARVESTED - JUNE, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 2838.07 | 55.00 | 140.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.75 | 0.00 |
| 4 | IMPROVED PELICAN | 2760.97 | 55.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 60.25 | 0.00 |
| 7 | DAVIS | 2202.52 | 40.00 | 117.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.75 | 0.00 |
| 2 | HAMPTON 266A | 1710.76 | 40.00 | 104.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.50 | 0.00 |
| 9 | FORREST | 1389.86 | 40.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.25 | 0.00 |
| 5 | COBB | 1269.84 | 40.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.50 | 0.00 |
| 10 | COLUMBUS | 985.61 | 40.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.50 | 0.00 |
| 6 | BOSSIER | 516.77 | 40.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.25 | 0.00 |
| 14 | SEMMES | 516.77 | 40.00 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 | 0.00 |
| 13 | CALLAND | 410.50 | 40.00 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.75 | 0.00 |
| 3 | HARDEE | 372.99 | 40.00 | 119.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.50 | 0.00 |
| 11 | WOODWORTH | 331.32 | 40.00 | 99.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.75 | 0.00 |
| 12 | WILLIAMS | 293.81 | 40.00 | 104.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.25 | 0.00 |
| 8 | TRACY | 285.47 | 40.00 | 93.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.00 | 0.00 |
| | GRAND MEAN | 1134.66 | 42.14 | 110.86 | 0.00 | 0.00 | 0.00 | 0.00 | 26.50 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 237.01 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 2.14 | 0.00 |
| | COEFFICIENT OF VARIATION | 41.78% | 0.00% | 0.96% | 0.00% | 0.00% | 0.00% | 0.00% | 16.14% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 677.99 | 0.00 | 1.53 | 0.00 | 0.00 | 0.00 | 0.00 | 6.12 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.68++ | 0.59++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.74++ | 0.00 |
| DAYS TO | FLOWER | 0.68++ | 1.00 | 0.65++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.91++ | 0.00 |
| DAYS TO | MATURITY | 0.59++ | 0.65++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.63++ | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.74++ | 0.91++ | 0.63++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.83++ | 0.56++ | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59++ | 0.00 |
| PODS PER | PLANT | 0.57++ | 0.58++ | 0.74++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.70++ | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 61 EXPERIMENT 478 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 1 | JUPITER | 0.00 | 143.50 | 57.05 | 0.00 | 0.00 |
| 4 | IMPROVED PELICAN | 0.00 | 248.25 | 39.45 | 0.00 | 0.00 |
| 7 | DAVIS | 0.00 | 148.00 | 31.00 | 0.00 | 0.00 |
| 2 | HAMPTON 266A | 0.00 | 185.25 | 16.83 | 0.00 | 0.00 |
| 9 | FORREST | 0.00 | 120.75 | 35.80 | 0.00 | 0.00 |
| 5 | COBB | 0.00 | 101.75 | 23.08 | 0.00 | 0.00 |
| 10 | COLUMBUS | 0.00 | 51.50 | 43.25 | 0.00 | 0.00 |
| 6 | BOSSIER | 0.00 | 50.50 | 22.35 | 0.00 | 0.00 |
| 14 | SEMMES | 0.00 | 82.75 | 17.85 | 0.00 | 0.00 |
| 13 | CALLAND | 0.00 | 36.25 | 22.78 | 0.00 | 0.00 |
| 3 | HARDEE | 0.00 | 18.75 | 36.97 | 0.00 | 0.00 |
| 11 | WOODWORTH | 0.00 | 38.50 | 15.38 | 0.00 | 0.00 |
| 12 | WILLIAMS | 0.00 | 36.50 | 17.30 | 0.00 | 0.00 |
| 8 | TRACY | 0.00 | 63.75 | 15.58 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 94.71 | 28.19 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 17.66 | 4.04 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 37.28% | 28.69% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 50.50 | 11.57 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.83++ | 0.57++ | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.56++ | 0.58++ | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.26 | 0.74++ | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.59++ | 0.70++ | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.27+ | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.27+ | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 62 EXPERIMENT 477 YEAR 1976

REGION - AFRICA
SITE - SANTCHOU
LATITUDE - 5 DEG. 12 MIN. N
COOPERATOR - JEAN PRAQUIN
DATE PLANTED - MARCH 22, 1976
SOIL PH 5.6
AMOUNT OF MOISTURE - 849 MM

COUNTRY - CAMEROON
ELEVATION - 730 M
LONGITUDE - 10 DEG. 3 MIN. E

DATE HARVESTED - JULY, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 2479.66 | 0.00 | 115.00 | 114.50 | 235.50 | 0.50 | 1.95 | 76.00 | 0.00 |
| 4 | IMPROVED PELICAN | 2362.97 | 0.00 | 94.00 | 119.00 | 194.00 | 0.45 | 2.00 | 65.00 | 0.00 |
| 7 | DAVIS | 2183.77 | 0.00 | 98.00 | 61.75 | 145.75 | 0.23 | 1.85 | 32.00 | 0.00 |
| 13 | SEMMES | 2175.43 | 0.00 | 94.00 | 95.50 | 267.25 | 0.25 | 1.85 | 30.00 | 0.00 |
| 5 | COBB | 2160.85 | 0.00 | 98.00 | 70.00 | 172.50 | 0.23 | 2.23 | 35.00 | 0.00 |
| 2 | HAMPTON 266A | 2125.42 | 0.00 | 96.00 | 125.50 | 213.75 | 0.30 | 2.43 | 30.00 | 0.00 |
| 9 | FORREST | 2050.41 | 0.00 | 94.00 | 66.00 | 172.00 | 0.15 | 2.05 | 40.00 | 0.00 |
| 8 | TRACY | 2035.82 | 0.00 | 90.00 | 86.75 | 99.25 | 0.28 | 1.38 | 25.00 | 0.00 |
| 3 | HARDEE | 1964.98 | 0.00 | 98.00 | 80.25 | 114.50 | 0.40 | 1.58 | 31.00 | 0.00 |
| 10 | COLUMBUS | 1706.59 | 0.00 | 96.00 | 91.50 | 186.75 | 0.30 | 2.18 | 45.00 | 0.00 |
| 6 | BOSSIER | 1154.40 | 0.00 | 94.00 | 79.50 | 141.50 | 0.20 | 1.68 | 39.00 | 0.00 |
| 12 | CALLAND | 966.86 | 0.00 | 96.00 | 38.75 | 140.00 | 0.15 | 1.48 | 40.00 | 0.00 |
| 11 | WOODWORTH | 954.36 | 0.00 | 90.00 | 62.50 | 120.75 | 0.20 | 1.80 | 25.00 | 0.00 |
| | GRAND MEAN | 1870.89 | 0.00 | 96.38 | 83.96 | 169.50 | 0.28 | 1.88 | 39.46 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 310.80 | 0.00 | 0.00 | 14.72 | 29.76 | 0.08 | 0.30 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 33.23% | 0.00% | 0.00% | 35.06% | 35.11% | 56.23% | 32.13% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 891.45 | 0.00 | 0.00 | 42.22 | 85.35 | ******** | ******** | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.29+ | 0.34+ | 0.23 | 0.31+ | 0.17 | 0.24 | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.29+ | 0.00 | 1.00 | 0.21 | 0.30+ | 0.36++ | 0.10 | 0.71++ | 0.00 |
| NODULE NUMBER 1 | 0.34+ | 0.00 | 0.21 | 1.00 | 0.33+ | 0.62++ | 0.29+ | 0.31+ | 0.00 |
| NODULE NUMBER 2 | 0.23 | 0.00 | 0.30+ | 0.33+ | 1.00 | 0.17 | 0.54++ | 0.31+ | 0.00 |
| NODULE WEIGHT 1 | 0.31+ | 0.00 | 0.36++ | 0.62++ | 0.17 | 1.00 | 0.23 | 0.40++ | 0.00 |
| NODULE WEIGHT 2 | 0.17 | 0.00 | 0.10 | 0.29+ | 0.54++ | 0.23 | 1.00 | 0.11 | 0.00 |
| PLANT HEIGHT | 0.24 | 0.00 | 0.71++ | 0.31+ | 0.31+ | 0.40++ | 0.11 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.39++ | 0.00 | 0.01 | 0.30+ | 0.33+ | 0.12 | 0.18 | 0.15 | 0.00 |
| PODS PER PLANT | 0.45++ | 0.00 | 0.39++ | 0.03 | -0.05 | 0.15 | 0.11 | 0.26 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 62 EXPERIMENT 477 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 1 | JUPITER | 0.00 | 204.00 | 23.22 | 0.00 | 0.00 |
| 4 | IMPROVED PELICAN | 0.00 | 281.50 | 19.75 | 0.00 | 0.00 |
| 7 | DAVIS | 0.00 | 278.25 | 22.40 | 0.00 | 0.00 |
| 13 | SEMMES | 0.00 | 248.50 | 13.20 | 0.00 | 0.00 |
| 5 | COBB | 0.00 | 190.25 | 22.75 | 0.00 | 0.00 |
| 2 | HAMPTON 266A | 0.00 | 221.75 | 15.30 | 0.00 | 0.00 |
| 9 | FORREST | 0.00 | 252.25 | 18.38 | 0.00 | 0.00 |
| 8 | TRACY | 0.00 | 190.25 | 15.83 | 0.00 | 0.00 |
| 3 | HARDEE | 0.00 | 165.75 | 25.92 | 0.00 | 0.00 |
| 10 | COLUMBUS | 0.00 | 165.25 | 18.38 | 0.00 | 0.00 |
| 6 | BOSSIER | 0.00 | 156.75 | 17.90 | 0.00 | 0.00 |
| 12 | CALLAND | 0.00 | 105.25 | 17.23 | 0.00 | 0.00 |
| 11 | WOODWORTH | 0.00 | 176.00 | 12.83 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 202.75 | 18.70 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.97 | 2.41 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 14.77% | 25.78% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 42.94 | 6.91 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.39++ | 0.45++ | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.01 | 0.39++ | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.30+ | 0.03 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.33+ | -0.05 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.12 | 0.15 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.18 | 0.11 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.15 | 0.26 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 63 EXPERIMENT 236 YEAR 1976

REGION - AFRICA
SITE - BOSSANGOA
LATITUDE - 6 DEG. 26 MIN. N
COOPERATOR - M.L. CARMEN
DATE PLANTED - JUNE 28, 1976
AMOUNT OF MOISTURE - 654 MM
LOCAL VARIETIES - AVOYELLE, ARACATUBA

COUNTRY - CENTRAL AFRICAN EMPIRE
ELEVATION - 521 M
LONGITUDE - 17 DEG. 12 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 1779.52 | 35.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.75 | 0.00 |
| 7 | BOSSIER | 1662.83 | 29.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30.25 | 0.00 |
| 8 | WILLIAMS | 1537.81 | 29.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.50 | 0.00 |
| 4 | HARDEE | 1529.47 | 38.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.75 | 0.00 |
| 13 | FORREST | 1521.14 | 32.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.50 | 0.00 |
| 5 | ARACATUBA | 1512.80 | 40.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.75 | 0.00 |
| 12 | IMPROVED PELICAN | 1500.30 | 39.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.25 | 0.00 |
| 2 | AVOYELLE | 1487.80 | 45.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 73.75 | 0.00 |
| 1 | HAMPTON 266A | 1475.29 | 33.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 41.00 | 0.00 |
| 9 | CLARK 63 | 1416.95 | 29.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.00 | 0.00 |
| 3 | PALMETTO | 1371.11 | 39.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 63.75 | 0.00 |
| 6 | JUPITER | 1246.08 | 48.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.25 | 0.00 |
| 10 | COBB | 1075.21 | 31.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.25 | 0.00 |
| | GRAND MEAN | 1470.49 | 36.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.98 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 171.13 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.45 | 0.00 |
| | COEFFICIENT OF VARIATION | 23.28% | 3.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 10.89% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.02 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.02 | 0.00 |
| DAYS TO FLOWER | -0.05 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.68++ | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.02 | 0.68++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.23 | 0.66++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.62++ | 0.00 |
| 100 SEED WEIGHT | 0.04 | -0.50++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.72++ | 0.00 |
| QUALITY OF SEED | -0.41++ | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.26 | 0.00 |

TABLE 63 EXPERIMENT 236 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | DAVIS | 0.00 | 0.00 | 17.50 | 22.25 | 1.75 |
| 7 | BOSSIER | 0.00 | 0.00 | 15.00 | 21.25 | 2.25 |
| 8 | WILLIAMS | 0.00 | 0.00 | 12.75 | 22.50 | 1.75 |
| 4 | HARDEE | 0.00 | 0.00 | 21.75 | 21.75 | 2.25 |
| 13 | FORREST | 0.00 | 0.00 | 17.50 | 20.75 | 2.25 |
| 5 | ARACATUBA | 0.00 | 0.00 | 24.00 | 12.75 | 1.25 |
| 12 | IMPROVED PELICAN | 0.00 | 0.00 | 23.75 | 15.50 | 1.75 |
| 2 | AVOYELLE | 0.00 | 0.00 | 30.00 | 12.50 | 1.50 |
| 1 | HAMPTON 266A | 0.00 | 0.00 | 14.75 | 23.50 | 2.50 |
| 9 | CLARK 63 | 0.00 | 0.00 | 11.75 | 20.25 | 3.00 |
| 3 | PALMETTO | 0.00 | 0.00 | 19.25 | 15.25 | 1.75 |
| 6 | JUPITER | 0.00 | 0.00 | 21.00 | 21.75 | 4.00 |
| 10 | COBB | 0.00 | 0.00 | 13.75 | 21.25 | 2.25 |
| | GRAND MEAN | 0.00 | 0.00 | 18.67 | 19.33 | 2.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 2.10 | 0.84 | 0.29 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 22.53% | 8.65% | 26.99% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 6.03 | 2.40 | 0.84 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.23 | 0.04 | -0.81++ |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.66++ | -0.50++ | 0.06 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.62++ | -0.72++ | -0.26 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | -0.52++ | -0.28+ |
| 100 SEED | WEIGHT | 0.00 | 0.00 | -0.52++ | 1.00 | 0.39++ |
| QUALITY | OF SEED | 0.00 | 0.00 | -0.28+ | 0.39++ | 1.00 |

TABLE 64 EXPERIMENT 170 YEAR 1976

REGION - AFRICA
SITE - LEKANA
LATITUDE - 2 DEG. 20 MIN. S
COOPERATOR - IVETIC OBRAD
DATE PLANTED - NOVEMBER 25, 1976
SOIL TYPE - SAND, SILT 2%, CLAY 30%
FERTILIZER USED (KG/HA) - N 50.0, P 90.0, K 150.0
AMOUNT OF MOISTURE - 1090 MM

COUNTRY - CONGO
ELEVATION - 800-850 M
LONGITUDE - 14 DEG. 20 MIN. E
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 716.81 | 51.00 | 104.00 | 107.00 | 0.00 | 1.33 | 0.00 | 18.50 | 1.00 |
| 7 | JUPITER | 704.31 | 75.00 | 125.00 | 87.00 | 0.00 | 0.92 | 0.00 | 36.25 | 1.00 |
| 5 | HILL | 670.97 | 46.00 | 92.00 | 81.50 | 0.00 | 1.03 | 0.00 | 22.00 | 1.00 |
| 3 | BRAGG | 668.88 | 47.00 | 93.00 | 165.00 | 0.00 | 1.55 | 0.00 | 18.00 | 1.00 |
| 4 | RANSOM | 631.38 | 47.00 | 93.00 | 129.25 | 0.00 | 1.10 | 0.00 | 21.00 | 1.00 |
| 12 | DAVIS | 614.71 | 52.50 | 110.00 | 89.25 | 0.00 | 1.68 | 0.00 | 17.50 | 1.00 |
| 15 | COLUMBUS | 604.29 | 46.00 | 92.00 | 86.50 | 0.00 | 1.20 | 0.00 | 22.50 | 1.00 |
| 13 | IMPROVED PELICAN | 579.28 | 48.00 | 95.00 | 75.25 | 0.00 | 0.87 | 0.00 | 26.75 | 1.00 |
| 1 | CALLAND | 562.61 | 46.00 | 92.00 | 68.00 | 0.00 | 0.90 | 0.00 | 22.25 | 1.00 |
| 14 | FORREST | 475.09 | 48.00 | 100.00 | 65.50 | 0.00 | 0.72 | 0.00 | 20.00 | 1.00 |
| 9 | WILLIAMS | 473.01 | 46.00 | 90.00 | 108.75 | 0.00 | 1.35 | 0.00 | 20.25 | 1.00 |
| 2 | WOODWORTH | 460.51 | 47.00 | 93.00 | 67.75 | 0.00 | 0.83 | 0.00 | 27.00 | 1.00 |
| 16 | ESSEX | 450.09 | 46.00 | 90.00 | 152.50 | 0.00 | 1.43 | 0.00 | 19.50 | 1.00 |
| 10 | CLARK 63 | 437.59 | 42.00 | 88.00 | 77.50 | 0.00 | 0.75 | 0.00 | 20.50 | 1.00 |
| 11 | COBB | 385.49 | 52.50 | 110.00 | 89.75 | 0.00 | 1.08 | 0.00 | 19.00 | 1.00 |
| 6 | PICKETT 71 | 329.23 | 46.00 | 92.00 | 73.25 | 0.00 | 0.72 | 0.00 | 17.00 | 1.00 |
| | GRAND MEAN | 547.77 | 49.13 | 97.44 | 95.23 | 0.00 | 1.09 | 0.00 | 21.75 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 82.56 | 0.17 | 0.00 | 14.93 | 0.00 | 0.23 | 0.00 | 2.68 | 0.00 |
| | COEFFICIENT OF VARIATION | 30.15% | 0.70% | 0.00% | 31.35% | 0.00% | 41.93% | 0.00% | 24.66% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 235.18 | 0.49 | 0.00 | 42.51 | 0.00 | ******** | 0.00 | 7.64 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.25+ | 0.21 | 0.18 | 0.00 | 0.24 | 0.00 | 0.20 | 0.00 |
| DAYS TO FLOWER | 0.25+ | 1.00 | 0.92++ | -0.05 | 0.00 | 0.01 | 0.00 | 0.50++ | 0.00 |
| DAYS TO MATURITY | 0.21 | 0.92++ | 1.00 | -0.10 | 0.00 | 0.06 | 0.00 | 0.32++ | 0.00 |
| NODULE NUMBER 1 | 0.18 | -0.05 | -0.10 | 1.00 | 0.00 | 0.69++ | 0.00 | -0.07 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.24 | 0.01 | 0.06 | 0.69++ | 0.00 | 1.00 | 0.00 | -0.08 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.20 | 0.50++ | 0.32++ | -0.07 | 0.00 | -0.08 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.52++ | 0.15 | 0.20 | -0.01 | 0.00 | 0.19 | 0.00 | 0.04 | 0.00 |
| PODS PER PLANT | 0.59++ | 0.29+ | 0.23 | 0.13 | 0.00 | 0.16 | 0.00 | 0.36++ | 0.00 |
| 100 SEED WEIGHT | 0.23 | 0.23 | 0.16 | 0.21 | 0.00 | 0.17 | 0.00 | 0.12 | 0.00 |
| QUALITY OF SEED | -0.04 | 0.21 | 0.09 | 0.18 | 0.00 | -0.11 | 0.00 | 0.07 | 0.00 |

TABLE 64 EXPERIMENT 170 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 1.00 | 182.50 | 7.20 | 20.38 | 1.00 | 42.8 | 22.5 |
| 7 | JUPITER | 1.00 | 160.25 | 10.50 | 23.65 | 2.00 | 41.0 | 23.8 |
| 5 | HILL | 1.00 | 181.25 | 9.25 | 19.75 | 1.00 | 38.8 | 22.9 |
| 3 | BRAGG | 1.00 | 138.25 | 8.45 | 24.75 | 1.00 | 42.2 | 22.6 |
| 4 | RANSOM | 1.00 | 167.25 | 7.28 | 22.13 | 3.00 | 41.9 | 24.6 |
| 12 | DAVIS | 1.00 | 185.00 | 7.43 | 22.13 | 1.00 | 43.2 | 21.6 |
| 15 | COLUMBUS | 1.00 | 145.00 | 9.22 | 22.20 | 1.00 | 42.9 | 21.4 |
| 13 | IMPROVED PELICAN | 1.00 | 131.00 | 9.32 | 17.05 | 1.00 | 42.0 | 22.8 |
| 1 | CALLAND | 1.00 | 164.00 | 6.60 | 24.85 | 1.00 | 44.5 | 19.6 |
| 14 | FORREST | 1.00 | 137.25 | 7.70 | 18.03 | 2.00 | 41.0 | 22.3 |
| 9 | WILLIAMS | 1.00 | 149.75 | 5.05 | 20.78 | 1.00 | 41.7 | 23.8 |
| 2 | WOODWORTH | 1.00 | 138.25 | 5.40 | 21.58 | 1.00 | 42.0 | 22.6 |
| 16 | ESSEX | 1.00 | 160.75 | 7.48 | 19.58 | 2.00 | 44.4 | 21.4 |
| 10 | CLARK 63 | 1.00 | 137.50 | 6.85 | 19.70 | 1.00 | 41.2 | 22.6 |
| 11 | COBB | 1.00 | 150.00 | 6.65 | 20.35 | 1.00 | 41.0 | 22.4 |
| 6 | PICKETT 71 | 1.00 | 124.50 | 5.95 | 18.95 | 2.00 | 42.0 | 21.9 |
| | GRAND MEAN | 1.00 | 153.28 | 7.52 | 20.99 | 1.38 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.80 | 1.23 | 0.89 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 18.01% | 32.73% | 8.53% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 39.32 | ******** | 2.55 | 0.00 | | |

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.52** | 0.59** | 0.23 | -0.04 |
| DAYS TO FLOWER | 0.00 | 0.15 | 0.29* | 0.23 | 0.21 |
| DAYS TO MATURITY | 0.00 | 0.20 | 0.23 | 0.16 | 0.09 |
| NODULE NUMBER 1 | 0.00 | -0.01 | 0.13 | 0.21 | 0.18 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.19 | 0.16 | 0.17 | -0.11 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.04 | 0.36** | 0.12 | 0.07 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.17 | 0.21 | -0.01 |
| PODS PER PLANT | 0.00 | 0.17 | 1.00 | 0.02 | 0.04 |
| 100 SEED WEIGHT | 0.00 | 0.21 | 0.02 | 1.00 | -0.06 |
| QUALITY OF SEED | 0.00 | -0.01 | 0.04 | -0.06 | 1.00 |

TABLE 65 EXPERIMENT 66 YEAR 1976

REGION - AFRICA
SITE - BAHTEEM
LATITUDE - 30 DEG. N
COOPERATOR - ALI ABDEL AZIZ
DATE PLANTED - MAY 17, 1976
SOIL TYPE - CLAY LOAM, PH 8.0
FERTILIZER USED (KG/HA) - N 25.00, P 56.25
NUMBER OF IRRIGATIONS - 7-9
SUBSTITUTE VARIETY - CLARK

COUNTRY - EGYPT
ELEVATION - 24 M
LONGITUDE - 31 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | ESSEX | 3406.10 | 57.00 | 135.00 | 200.25 | 175.00 | 3.14 | 3.75 | 67.00 | 1.00 |
| 8 | BOSSIER | 2948.51 | 68.75 | 158.00 | 134.00 | 133.75 | 2.09 | 2.56 | 105.25 | 2.75 |
| 4 | RANSOM | 2767.22 | 64.50 | 153.25 | 202.25 | 177.25 | 2.44 | 2.12 | 86.50 | 1.50 |
| 11 | DAVIS | 2558.84 | 68.00 | 134.25 | 107.25 | 150.00 | 1.79 | 2.73 | 107.25 | 1.75 |
| 7 | CUTLER 71 | 2538.01 | 40.50 | 105.75 | 115.25 | 223.75 | 0.46 | 2.73 | 76.50 | 1.00 |
| 5 | HILL | 2485.91 | 62.25 | 129.00 | 154.25 | 102.50 | 1.26 | 1.31 | 72.00 | 1.00 |
| 6 | PICKETT 71 | 2398.40 | 67.75 | 153.50 | 72.50 | 96.00 | 0.89 | 1.27 | 83.75 | 1.50 |
| 12 | FORREST | 2340.05 | 58.75 | 132.50 | 147.50 | 153.75 | 1.56 | 1.76 | 77.00 | 1.00 |
| 3 | BRAGG | 2292.12 | 67.50 | 143.75 | 227.00 | 190.00 | 2.16 | 2.59 | 113.50 | 1.00 |
| 10 | CLARK 63 | 2265.04 | 36.50 | 106.25 | 84.75 | 281.50 | 0.33 | 3.81 | 80.50 | 1.00 |
| 9 | WILLIAMS | 2156.68 | 34.00 | 98.50 | 88.25 | 229.25 | 0.45 | 3.43 | 79.00 | 1.00 |
| 15 | CLARK | 1971.23 | 36.25 | 105.25 | 75.75 | 142.25 | 0.34 | 1.40 | 72.75 | 1.00 |
| 1 | CALLAND | 1885.79 | 34.75 | 106.00 | 62.50 | 142.25 | 0.34 | 1.89 | 68.25 | 1.00 |
| 2 | WOODWORTH | 1654.50 | 35.75 | 94.75 | 115.50 | 201.25 | 0.30 | 3.05 | 75.75 | 1.00 |
| 14 | BEESON | 1619.07 | 33.25 | 93.50 | 52.00 | 137.25 | 0.28 | 1.39 | 68.00 | 1.00 |
| 13 | WELLS | 1571.15 | 33.00 | 93.75 | 52.50 | 123.00 | 0.38 | 1.89 | 61.25 | 1.00 |
| | GRAND MEAN | 2303.66 | 49.91 | 121.44 | 118.22 | 166.17 | 1.14 | 2.35 | 80.89 | 1.22 |
| | STANDARD ERROR OF A VARIETY MEAN | 211.45 | 0.62 | 4.07 | 27.54 | 41.28 | 0.32 | 0.60 | 5.71 | 0.27 |
| | COEFFICIENT OF VARIATION | 18.36% | 2.49% | 6.70% | 46.60% | 49.68% | 56.63% | 51.35% | 14.12% | 44.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 602.29 | 1.77 | 11.58 | 78.45 | ******** | 0.92 | 1.72 | 16.27 | 0.76 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.52++ | 0.54++ | 0.62++ | 0.28+ | 0.68++ | 0.38++ | 0.36++ | 0.20 |
| DAYS TO | FLOWER | 0.52++ | 1.00 | 0.91++ | 0.43++ | -0.20 | 0.65++ | -0.08 | 0.57++ | 0.41++ |
| DAYS TO | MATURITY | 0.54++ | 0.91++ | 1.00 | 0.50++ | -0.07 | 0.70++ | 0.05 | 0.49++ | 0.47++ |
| NODULE | NUMBER 1 | 0.62++ | 0.43++ | 0.50++ | 1.00 | 0.47++ | 0.78++ | 0.47++ | 0.35++ | 0.17 |
| NODULE | NUMBER 2 | 0.28+ | -0.20 | -0.07 | 0.47++ | 1.00 | 0.20 | 0.86++ | 0.12 | -0.02 |
| NODULE | WEIGHT 1 | 0.68++ | 0.65++ | 0.70++ | 0.78++ | 0.20 | 1.00 | 0.33++ | 0.35++ | 0.29+ |
| NODULE | WEIGHT 2 | 0.38++ | -0.08 | 0.05 | 0.47++ | 0.86++ | 0.33++ | 1.00 | 0.19 | 0.08 |
| PLANT | HEIGHT | 0.36++ | 0.57++ | 0.49++ | 0.35++ | 0.12 | 0.35++ | 0.19 | 1.00 | 0.36++ |
| | LODGING | 0.20 | 0.41++ | 0.47++ | 0.17 | -0.02 | 0.29+ | 0.08 | 0.36++ | 1.00 |
| | SHATTER | 0.09 | 0.23 | 0.09 | -0.04 | -0.05 | 0.11 | 0.07 | 0.33++ | 0.17 |
| PLANTS | HARVEST | 0.47++ | -0.11 | -0.11 | 0.14 | 0.17 | 0.07 | 0.18 | -0.12 | -0.11 |
| PODS PER | PLANT | 0.49++ | 0.69++ | 0.64++ | 0.45++ | 0.04 | 0.60++ | 0.17 | 0.52++ | 0.44++ |
| 100 SEED | WEIGHT | 0.09 | 0.06 | 0.11 | 0.14 | 0.11 | 0.07 | 0.06 | 0.34++ | 0.30+ |
| QUALITY | OF SEED | -0.19 | -0.11 | -0.12 | -0.13 | -0.10 | -0.03 | -0.16 | -0.13 | 0.21 |

TABLE 65 EXPERIMENT 66 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | ESSEX | 1.00 | 194.00 | 38.75 | 14.50 | 1.75 | 42.1 | 21.0 |
| 8 | BOSSIER | 1.00 | 178.75 | 49.00 | 17.93 | 2.00 | 43.4 | 20.5 |
| 4 | RANSOM | 1.00 | 185.75 | 47.00 | 17.83 | 1.75 | 42.0 | 22.5 |
| 11 | DAVIS | 2.00 | 184.75 | 44.00 | 16.48 | 2.00 | 41.1 | 21.9 |
| 7 | CUTLER 71 | 1.00 | 193.50 | 24.00 | 16.50 | 1.75 | 41.6 | 21.6 |
| 5 | HILL | 1.00 | 195.75 | 29.00 | 14.50 | 1.00 | 39.2 | 21.1 |
| 6 | PICKETT 71 | 1.00 | 198.25 | 43.25 | 15.63 | 1.75 | 37.7 | 22.8 |
| 12 | FORREST | 1.00 | 177.50 | 31.50 | 11.65 | 3.00 | 39.7 | 21.6 |
| 3 | BRAGG | 1.00 | 158.25 | 44.50 | 18.50 | 1.25 | 42.8 | 21.4 |
| 10 | CLARK 63 | 1.00 | 175.50 | 21.25 | 14.80 | 1.50 | 40.6 | 22.0 |
| 9 | WILLIAMS | 1.00 | 179.50 | 27.75 | 15.28 | 1.50 | 40.9 | 23.0 |
| 15 | CLARK | 1.00 | 190.25 | 15.25 | 16.58 | 1.75 | 40.1 | 20.8 |
| 1 | CALLAND | 1.25 | 184.75 | 19.50 | 17.73 | 2.50 | 38.0 | 21.7 |
| 2 | WOODWORTH | 1.00 | 190.25 | 27.25 | 16.15 | 2.25 | 39.0 | 24.3 |
| 14 | BEESON | 1.00 | 193.75 | 21.00 | 17.95 | 2.00 | 41.2 | 22.9 |
| 13 | WELLS | 1.00 | 189.50 | 28.50 | 13.78 | 2.00 | 40.1 | 20.8 |
| | GRAND MEAN | 1.08 | 185.63 | 31.97 | 15.98 | 1.86 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.06 | 9.16 | 4.88 | 0.78 | 0.29 | | |
| | COEFFICIENT OF VARIATION | 11.59% | 9.87% | 30.55% | 9.71% | 30.74% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.18 | ******** | 13.91 | 2.21 | 0.81 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.09 | 0.47++ | 0.49++ | 0.09 | -0.19 |
| DAYS TO FLOWER | 0.23 | -0.11 | 0.69++ | 0.06 | -0.11 |
| DAYS TO MATURITY | 0.09 | -0.11 | 0.64++ | 0.11 | -0.12 |
| NODULE NUMBER 1 | -0.04 | 0.14 | 0.45++ | 0.14 | -0.13 |
| NODULE NUMBER 2 | -0.05 | 0.17 | 0.04 | 0.11 | -0.10 |
| NODULE WEIGHT 1 | 0.11 | 0.07 | 0.60++ | 0.07 | -0.03 |
| NODULE WEIGHT 2 | 0.07 | 0.18 | 0.17 | 0.06 | -0.16 |
| PLANT HEIGHT | 0.33++ | -0.12 | 0.52++ | 0.34++ | -0.13 |
| LODGING | 0.17 | -0.11 | 0.44++ | 0.30+ | 0.21 |
| SHATTER | 1.00 | 0.03 | 0.21 | 0.08 | 0.06 |
| PLANTS HARVEST | 0.03 | 1.00 | 0.01 | 0.08 | -0.13 |
| PODS PER PLANT | 0.21 | 0.01 | 1.00 | 0.24 | -0.09 |
| 100 SEED WEIGHT | 0.08 | 0.08 | 0.24 | 1.00 | -0.28+ |
| QUALITY OF SEED | 0.06 | -0.13 | -0.09 | -0.28+ | 1.00 |

TABLE 66 EXPERIMENT 109 YEAR 1976

REGION - AFRICA COUNTRY - EGYPT
SITE - GIZA ELEVATION - 41 M
LATITUDE - 29 DEG. N LONGITUDE - 31 DEG. E
COOPERATOR - SAMIA ALI MAHMOUD
DATE PLANTED - DECEMBER 8, 1976 DATE HARVESTED - MAY, 1977
SOIL TYPE - CLAY LOAM, PH 8.0
FERTILIZER USED (KG/HA) - N 108.0, P 37.5
NUMBER OF IRRIGATIONS - 4
SUBSTITUTE VARIETY - CLARK

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 5021.84 | 83.00 | 165.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.00 | 1.00 |
| 6 | WELLS | 4300.86 | 88.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.75 | 1.00 |
| 3 | CUTLER 71 | 4092.48 | 88.00 | 165.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.50 | 1.00 |
| 4 | WILLIAMS | 3971.63 | 83.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.25 | 1.00 |
| 9 | ANSOY 71 | 3813.26 | 91.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.75 | 1.00 |
| 2 | WOODWORTH | 3804.93 | 84.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.75 | 1.00 |
| 7 | BEESON | 3579.88 | 88.00 | 174.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.25 | 1.00 |
| 5 | CLARK 63 | 3371.51 | 88.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.75 | 1.00 |
| 10 | HODGSON | 3167.30 | 89.00 | 160.50 | 0.00 | 0.00 | 0.00 | 0.00 | 34.25 | 1.00 |
| 13 | ALTONA | 2608.85 | 81.00 | 154.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.00 | 1.00 |
| 11 | HARK | 2096.25 | 81.00 | 154.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 1.00 |
| 8 | CLARK | 1508.63 | 81.00 | 159.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.75 | 1.00 |
| 12 | SWIFT | 770.99 | 79.00 | 154.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.50 | 1.00 |
| | GRAND MEAN | 3239.11 | 84.92 | 160.04 | 0.00 | 0.00 | 0.00 | 0.00 | 29.77 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 529.55 | 0.55 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 | 3.17 | 0.00 |
| | COEFFICIENT OF VARIATION | 32.70% | 1.31% | 0.52% | 0.00% | 0.00% | 0.00% | 0.00% | 21.31% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 1518.86 | 1.59 | 1.19 | 0.00 | 0.00 | 0.00 | 0.00 | 9.10 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.38++ | 0.43++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 |
| DAYS TO FLOWER | 0.38++ | 1.00 | 0.45++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 |
| DAYS TO MATURITY | 0.43++ | 0.45++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.62++ | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.22 | 0.21 | 0.62++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.89++ | 0.30+ | 0.38++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 |
| 100 SEED WEIGHT | 0.41++ | 0.35+ | 0.53++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 |
| QUALITY OF SEED | -0.11 | -0.01 | -0.05 | 0.00 | 0.00 | 0.00 | 0.00 | -0.04 | 0.00 |

TABLE 66 EXPERIMENT 109 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 1.00 | 10.00 | 22.70 | 17.13 | 1.25 | 38.8 | 20.7 |
| 6 | WELLS | 1.00 | 10.00 | 19.20 | 15.58 | 1.75 | 41.7 | 20.3 |
| 3 | CUTLER 71 | 1.00 | 10.00 | 16.25 | 15.88 | 1.75 | 39.5 | 20.5 |
| 4 | WILLIAMS | 1.00 | 10.00 | 17.50 | 16.43 | 1.25 | 42.0 | 20.1 |
| 9 | AMSOY 71 | 1.00 | 10.00 | 19.60 | 15.83 | 1.50 | 41.7 | 19.5 |
| 2 | WOODWORTH | 1.00 | 10.00 | 18.58 | 14.68 | 2.00 | 38.2 | 20.8 |
| 7 | BEESON | 1.00 | 10.00 | 14.95 | 20.48 | 2.00 | 43.2 | 19.8 |
| 5 | CLARK 63 | 1.00 | 10.00 | 14.15 | 14.45 | 2.00 | 39.4 | 20.5 |
| 10 | HODGSON | 1.00 | 10.00 | 12.25 | 17.98 | 1.75 | 43.9 | 17.4 |
| 13 | ALTONA | 1.00 | 10.00 | 8.55 | 15.93 | 2.50 | 45.8 | 15.9 |
| 11 | HARK | 1.00 | 10.00 | 12.13 | 15.18 | 1.50 | 44.7 | 18.8 |
| 8 | CLARK | 1.00 | 10.00 | 8.10 | 13.90 | 1.25 | 41.0 | 19.0 |
| 12 | SWIFT | 1.00 | 10.00 | 6.70 | 12.20 | 2.00 | 44.4 | 16.5 |
| | GRAND MEAN | 1.00 | 10.00 | 14.67 | 15.82 | 1.73 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 2.26 | 1.07 | 0.30 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 30.86% | 13.51% | 34.25% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 6.49 | 3.06 | ******** | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.89++ | 0.41++ | -0.11 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.30+ | 0.35+ | -0.01 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.38++ | 0.53++ | -0.05 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.15 | 0.19 | -0.04 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.23 | -0.18 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.23 | 1.00 | -0.23 |
| QUALITY | OF SEED | 0.00 | 0.00 | -0.18 | -0.23 | 1.00 |

TABLE 67 EXPERIMENT 67 YEAR 1976

REGION - AFRICA
SITE - SEDS
LATITUDE - 29 DEG. N
COOPERATOR - ALI ABDEL AZIZ
DATE PLANTED - JUNE 1, 1976
SOIL TYPE - CLAY LOAM, PH 8.0
FERTILIZER USED (KG/HA) - N 75.0, P 37.5
NUMBER OF IRRIGATIONS - 5-6
SUBSTITUTE VARIETY - CLARK

COUNTRY - EGYPT
ELEVATION - 41 M
LONGITUDE - 31 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | CLARK 63 | 2667.20 | 30.75 | 112.50 | 30.50 | 26.00 | 0.05 | 0.22 | 68.75 | 1.25 |
| 4 | RANSOM | 2271.29 | 48.75 | 136.25 | 33.00 | 59.75 | 0.43 | 0.57 | 75.00 | 2.00 |
| 11 | DAVIS | 2250.45 | 51.00 | 128.75 | 69.75 | 87.25 | 1.05 | 1.70 | 76.25 | 2.00 |
| 12 | FORREST | 2208.77 | 43.00 | 116.25 | 20.25 | 51.50 | 0.14 | 0.60 | 66.25 | 1.00 |
| 7 | CUTLER 71 | 2167.10 | 30.50 | 97.50 | 25.00 | 18.75 | 0.02 | 0.14 | 52.50 | 1.00 |
| 5 | HILL | 2062.91 | 46.50 | 110.00 | 24.75 | 38.50 | 0.27 | 0.39 | 60.00 | 1.00 |
| 15 | CLARK | 1979.56 | 29.75 | 100.00 | 22.50 | 32.25 | 0.04 | 0.62 | 56.25 | 1.00 |
| 16 | ESSEX | 1950.39 | 45.00 | 127.50 | 31.00 | 58.25 | 0.29 | 0.87 | 51.25 | 1.00 |
| 9 | WILLIAMS | 1854.54 | 32.00 | 90.00 | 17.50 | 32.25 | 0.01 | 0.32 | 53.75 | 1.00 |
| 6 | PICKETT 71 | 1729.51 | 60.25 | 136.25 | 15.25 | 92.25 | 0.28 | 1.06 | 77.50 | 1.75 |
| 14 | BEESON | 1637.83 | 28.50 | 88.75 | 27.25 | 28.75 | 0.02 | 0.24 | 50.00 | 1.00 |
| 13 | WELLS | 1604.49 | 28.25 | 90.00 | 19.75 | 31.25 | 0.03 | 0.36 | 42.50 | 1.00 |
| 3 | BRAGG | 1562.81 | 60.50 | 138.75 | 21.25 | 28.50 | 0.26 | 0.19 | 96.25 | 2.25 |
| 1 | CALLAND | 1521.14 | 32.25 | 101.25 | 20.75 | 27.75 | 0.03 | 0.61 | 66.25 | 1.00 |
| 2 | WOODWORTH | 1458.62 | 30.75 | 85.00 | 21.75 | 19.00 | 0.03 | 0.10 | 52.50 | 1.00 |
| 8 | BOSSIER | 1229.41 | 60.50 | 142.50 | 51.75 | 80.25 | 0.91 | 0.73 | 93.75 | 2.25 |
| | GRAND MEAN | 1884.75 | 41.14 | 112.58 | 28.25 | 44.52 | 0.24 | 0.55 | 64.30 | 1.34 |
| | STANDARD ERROR OF A VARIETY MEAN | 235.38 | 1.21 | 2.89 | 14.31 | 15.52 | 0.22 | 0.25 | 3.35 | 0.19 |
| | COEFFICIENT OF VARIATION | 24.98% | 5.86% | 5.14% | 101.28% | 69.72% | 177.91% | 93.13% | 10.41% | 28.69% |
| | 5% LSD VARIETY MEANS (********=NS) | 670.45 | 3.44 | 8.25 | ******** | 44.20 | 0.61 | 0.73 | 9.54 | 0.55 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.08 | 0.04 | -0.06 | 0.09 | -0.06 | 0.06 | -0.05 | -0.03 |
| DAYS TO FLOWER | -0.08 | 1.00 | 0.90++ | 0.18 | 0.49++ | 0.46++ | 0.33++ | 0.71++ | 0.67++ |
| DAYS TO MATURITY | 0.04 | 0.90++ | 1.00 | 0.20 | 0.51++ | 0.44++ | 0.38++ | 0.73++ | 0.70++ |
| NODULE NUMBER 1 | -0.06 | 0.18 | 0.20 | 1.00 | 0.33++ | 0.82++ | 0.41++ | 0.14 | 0.16 |
| NODULE NUMBER 2 | 0.09 | 0.49++ | 0.51++ | 0.33++ | 1.00 | 0.44++ | 0.83++ | 0.32++ | 0.28+ |
| NODULE WEIGHT 1 | -0.06 | 0.46++ | 0.44++ | 0.82++ | 0.44++ | 1.00 | 0.51++ | 0.31+ | 0.38++ |
| NODULE WEIGHT 2 | 0.06 | 0.33++ | 0.38++ | 0.41++ | 0.83++ | 0.51++ | 1.00 | 0.22 | 0.17 |
| PLANT HEIGHT | -0.05 | 0.71++ | 0.73++ | 0.14 | 0.32++ | 0.31+ | 0.22 | 1.00 | 0.72++ |
| LODGING | -0.03 | 0.67++ | 0.70++ | 0.16 | 0.28+ | 0.38++ | 0.17 | 0.72++ | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.32+ | -0.28+ | -0.21 | 0.06 | 0.08 | -0.09 | 0.04 | -0.15 | -0.10 |
| PODS PER PLANT | 0.22 | 0.44++ | 0.51++ | 0.10 | 0.38++ | 0.26+ | 0.32+ | 0.26+ | 0.39++ |
| 100 SEED WEIGHT | 0.18 | -0.07 | 0.02 | 0.01 | -0.04 | 0.07 | 0.08 | 0.14 | 0.14 |
| QUALITY OF SEED | -0.35++ | -0.20 | -0.35++ | -0.15 | -0.36++ | -0.23 | -0.39++ | -0.04 | -0.10 |

TABLE 67 EXPERIMENT 67 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 10 | CLARK 63 | 1.00 | 216.25 | 23.50 | 13.27 | 1.50 | 38.5 | 22.8 |
| 4 | RANSOM | 1.00 | 228.50 | 34.50 | 14.70 | 2.00 | 39.8 | 25.0 |
| 11 | DAVIS | 1.00 | 225.00 | 29.25 | 14.64 | 1.00 | 40.3 | 22.2 |
| 12 | FORREST | 1.00 | 211.75 | 18.75 | 15.26 | 2.25 | 39.2 | 22.2 |
| 7 | CUTLER 71 | 1.00 | 209.50 | 18.00 | 15.42 | 1.75 | 40.5 | 23.5 |
| 5 | HILL | 1.00 | 196.00 | 21.00 | 12.21 | 2.00 | 38.8 | 22.7 |
| 15 | CLARK | 1.00 | 243.00 | 17.75 | 16.76 | 2.00 | 40.6 | 19.8 |
| 16 | ESSEX | 1.00 | 178.50 | 35.50 | 13.21 | 1.00 | 40.4 | 22.0 |
| 9 | WILLIAMS | 1.00 | 219.00 | 15.00 | 14.17 | 2.75 | 40.6 | 21.9 |
| 6 | PICKETT 71 | 1.00 | 200.50 | 30.25 | 13.60 | 1.25 | 38.9 | 22.6 |
| 14 | BEESON | 1.00 | 204.75 | 20.00 | 14.50 | 2.75 | 40.3 | 21.3 |
| 13 | WELLS | 1.00 | 209.25 | 18.00 | 12.33 | 2.00 | 39.5 | 23.5 |
| 3 | BRAGG | 1.00 | 191.00 | 29.50 | 13.84 | 2.75 | 41.8 | 20.0 |
| 1 | CALLAND | 1.00 | 194.50 | 15.50 | 15.73 | 2.50 | 40.0 | 20.5 |
| 2 | WOODWORTH | 1.00 | 203.50 | 22.00 | 12.64 | 3.00 | 40.0 | 24.9 |
| 8 | BOSSIER | 1.00 | 170.75 | 25.75 | 14.77 | 2.25 | 42.4 | 20.4 |
| | GRAND MEAN | 1.00 | 206.36 | 23.39 | 14.19 | 2.05 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.44 | 4.49 | 0.64 | 0.28 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 13.03% | 38.35% | 9.07% | 27.57% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 12.78 | 1.83 | 0.80 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.32+ | 0.22 | 0.18 | -0.35++ |
| DAYS TO FLOWER | 0.00 | -0.28+ | 0.44++ | -0.07 | -0.20 |
| DAYS TO MATURITY | 0.00 | -0.21 | 0.51++ | 0.02 | -0.35++ |
| NODULE NUMBER 1 | 0.00 | 0.06 | 0.10 | 0.01 | -0.15 |
| NODULE NUMBER 2 | 0.00 | 0.08 | 0.38++ | -0.04 | -0.36++ |
| NODULE WEIGHT 1 | 0.00 | -0.09 | 0.26+ | 0.07 | -0.23 |
| NODULE WEIGHT 2 | 0.00 | 0.04 | 0.32+ | 0.08 | -0.39++ |
| PLANT HEIGHT | 0.00 | -0.15 | 0.26+ | 0.14 | -0.04 |
| LODGING | 0.00 | -0.10 | 0.39++ | 0.14 | -0.10 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.22 | 0.09 | -0.02 |
| PODS PER PLANT | 0.00 | -0.22 | 1.00 | -0.15 | -0.19 |
| 100 SEED WEIGHT | 0.00 | 0.09 | -0.15 | 1.00 | -0.13 |
| QUALITY OF SEED | 0.00 | -0.02 | -0.19 | -0.13 | 1.00 |

TABLE 68 EXPERIMENT 53 YEAR 1976

REGION - AFRICA
COUNTRY - ETHIOPIA
SITE - AWASSA
ELEVATION - 1700 M
LATITUDE - 7 DEG. N
LONGITUDE - 38 DEG. 30 MIN. E
COOPERATOR - AWASSA EXPERIMENT STATION
DATE PLANTED - JUNE 16, 1976
DATE HARVESTED - NOVEMBER, 1976
SOIL TYPE - SAND 37.0%, SILT 33.4%, CLAY 15.2%, PH 6.1
FERTILIZER USED (KG/HA) - N 18.0, P 46.0
AMOUNT OF MOISTURE - 747 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | HILL | 2638.03 | 69.00 | 159.00 | 129.50 | 211.75 | 0.00 | 0.00 | 41.25 | 0.00 |
| 13 | IMPROVED PELICAN | 2100.42 | 90.00 | 175.00 | 127.50 | 209.50 | 0.00 | 0.00 | 87.50 | 0.00 |
| 12 | DAVIS | 1919.13 | 70.00 | 150.75 | 146.75 | 179.00 | 0.00 | 0.00 | 36.50 | 0.00 |
| 15 | COLUMBUS | 1837.87 | 47.50 | 159.00 | 259.25 | 292.00 | 0.00 | 0.00 | 39.00 | 0.00 |
| 11 | COBB | 1833.70 | 66.25 | 159.00 | 155.00 | 199.50 | 0.00 | 0.00 | 43.75 | 0.00 |
| 16 | ESSEX | 1587.82 | 58.00 | 159.00 | 232.50 | 221.25 | 0.00 | 0.00 | 38.00 | 0.00 |
| 14 | FORREST | 1479.46 | 58.00 | 159.00 | 147.75 | 269.25 | 0.00 | 0.00 | 38.75 | 0.00 |
| 4 | RANSOM | 1279.42 | 57.75 | 159.00 | 323.50 | 254.25 | 0.00 | 0.00 | 27.75 | 0.00 |
| 9 | WILLIAMS | 1256.50 | 53.00 | 146.50 | 262.00 | 233.00 | 0.00 | 0.00 | 30.25 | 0.00 |
| 1 | CALLAND | 1212.74 | 44.75 | 159.00 | 148.75 | 169.25 | 0.00 | 0.00 | 30.75 | 0.00 |
| 7 | CUTLER 71 | 1181.49 | 47.50 | 159.00 | 234.25 | 202.75 | 0.00 | 0.00 | 29.75 | 0.00 |
| 8 | BOSSIER | 1104.39 | 57.75 | 159.00 | 240.25 | 215.00 | 0.00 | 0.00 | 35.00 | 0.00 |
| 6 | PICKETT 71 | 1050.21 | 58.00 | 148.00 | 94.25 | 136.50 | 0.00 | 0.00 | 23.25 | 0.00 |
| 10 | CLARK 63 | 991.86 | 46.50 | 156.25 | 210.00 | 181.75 | 0.00 | 0.00 | 29.25 | 0.00 |
| 2 | WOODWORTH | 954.36 | 52.50 | 135.25 | 188.00 | 122.50 | 0.00 | 0.00 | 30.00 | 0.00 |
| 3 | BRAGG | 750.15 | 58.00 | 159.00 | 128.50 | 213.75 | 0.00 | 0.00 | 32.00 | 0.00 |
| | GRAND MEAN | 1448.60 | 58.41 | 156.36 | 189.23 | 206.94 | 0.00 | 0.00 | 37.05 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 150.06 | 2.50 | 2.10 | 20.92 | 23.86 | 0.00 | 0.00 | 1.92 | 0.00 |
| | COEFFICIENT OF VARIATION | 20.72% | 8.56% | 2.69% | 22.11% | 23.06% | 0.00% | 0.00% | 10.37% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 427.42 | 7.12 | 5.98 | 59.60 | 67.96 | 0.00 | 0.00 | 5.47 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.48++ | 0.27+ | -0.25+ | 0.12 | 0.00 | 0.00 | 0.53++ | 0.00 |
| DAYS TO FLOWER | 0.48++ | 1.00 | 0.38++ | -0.34++ | 0.02 | 0.00 | 0.00 | 0.75++ | 0.00 |
| DAYS TO MATURITY | 0.27+ | 0.38++ | 1.00 | -0.06 | 0.35++ | 0.00 | 0.00 | 0.61++ | 0.00 |
| NODULE NUMBER 1 | -0.25+ | -0.34++ | -0.06 | 1.00 | 0.44++ | 0.00 | 0.00 | -0.26+ | 0.00 |
| NODULE NUMBER 2 | 0.12 | 0.02 | 0.35++ | 0.44++ | 1.00 | 0.00 | 0.00 | 0.15 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.53++ | 0.75++ | 0.61++ | -0.26+ | 0.15 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.32+ | -0.09 | -0.21 | -0.10 | -0.18 | 0.00 | 0.00 | -0.06 | 0.00 |
| PODS PER PLANT | 0.56++ | 0.58++ | 0.39++ | -0.13 | 0.10 | 0.00 | 0.00 | 0.68++ | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | -0.46++ | 0.23 | 0.09 | -0.01 | -0.11 | 0.00 | 0.00 | -0.22 | 0.00 |

TABLE 68 EXPERIMENT 53 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 5 | HILL | 0.00 | 154.00 | 35.75 | 0.00 | 1.00 | 41.2 | 17.7 |
| 13 | IMPROVED PELICAN | 0.00 | 99.50 | 58.60 | 0.00 | 1.25 | 43.9 | 17.8 |
| 12 | DAVIS | 0.00 | 99.50 | 29.43 | 0.00 | 1.00 | 41.1 | 20.8 |
| 15 | COLUMBUS | 0.00 | 107.00 | 31.38 | 0.00 | 1.00 | 44.9 | 18.0 |
| 11 | COBB | 0.00 | 126.00 | 35.90 | 0.00 | 1.00 | 39.5 | 19.5 |
| 16 | ESSEX | 0.00 | 162.50 | 17.48 | 0.00 | 1.00 | 42.6 | 19.5 |
| 14 | FORREST | 0.00 | 112.75 | 20.58 | 0.00 | 1.00 | 40.9 | 19.4 |
| 4 | RANSOM | 0.00 | 146.75 | 26.03 | 0.00 | 1.75 | 41.3 | 21.4 |
| 9 | WILLIAMS | 0.00 | 110.25 | 21.60 | 0.00 | 1.25 | 43.1 | 18.7 |
| 1 | CALLAND | 0.00 | 134.00 | 17.88 | 0.00 | 2.50 | 44.1 | 17.8 |
| 7 | CUTLER 71 | 0.00 | 99.50 | 21.15 | 0.00 | 1.00 | 44.0 | 18.0 |
| 8 | BOSSIER | 0.00 | 131.75 | 17.68 | 0.00 | 1.50 | 43.4 | 19.4 |
| 6 | PICKETT 71 | 0.00 | 129.00 | 15.83 | 0.00 | 1.50 | 41.4 | 20.5 |
| 10 | CLARK 63 | 0.00 | 118.50 | 19.13 | 0.00 | 1.50 | 42.5 | 18.9 |
| 2 | WOODWORTH | 0.00 | 161.25 | 17.60 | 0.00 | 1.25 | 42.3 | 18.4 |
| 3 | BRAGG | 0.00 | 121.75 | 12.98 | 0.00 | 2.00 | 42.6 | 18.0 |
| | GRAND MEAN | 0.00 | 125.88 | 24.93 | 0.00 | 1.34 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.94 | 5.06 | 0.00 | 0.25 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 14.20% | 40.61% | 0.00% | 37.93% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 25.45 | 14.42 | 0.00 | 0.73 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.32+ | 0.56++ | 0.00 | -0.46++ |
| DAYS TO | FLOWER | 0.00 | -0.09 | 0.58++ | 0.00 | -0.23 |
| DAYS TO | MATURITY | 0.00 | -0.21 | 0.39++ | 0.00 | 0.09 |
| NODULE | NUMBER 1 | 0.00 | -0.10 | -0.13 | 0.00 | -0.01 |
| NODULE | NUMBER 2 | 0.00 | -0.18 | 0.10 | 0.00 | -0.11 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.06 | 0.68++ | 0.00 | -0.22 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.13 | 0.00 | -0.13 |
| PODS PER | PLANT | 0.00 | -0.13 | 1.00 | 0.00 | -0.21 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | -0.13 | -0.21 | 0.00 | 1.00 |

TABLE 69 EXPERIMENT 54 YEAR 1976

REGION - AFRICA COUNTRY - ETHIOPIA
SITE - BAKO ELEVATION - 1220 M
LATITUDE - 9 DEG. 8 MIN. N LONGITUDE - 36 DEG. 24 MIN. E
COOPERATORS - H.M. TEKLEMARIAM, TADESSE
DATE PLANTED - JULY 2, 1976 DATE HARVESTED - OCTOBER, 1976
SOIL TYPE - SAND 14-34%, SILT 8-34%, CLAY 44-68%, PH 5.1-5.9
FERTILIZER USED (KG/HA) - N 50.0, P 22.0

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 1825.36 | 0.00 | 0.00 | 62.00 | 63.25 | 3.90 | 0.97 | 37.75 | 0.00 |
| 12 | DAVIS | 1696.17 | 0.00 | 0.00 | 68.75 | 67.00 | 5.80 | 1.09 | 39.25 | 0.00 |
| 14 | FORREST | 1583.65 | 0.00 | 0.00 | 103.75 | 112.00 | 5.67 | 1.15 | 47.75 | 0.00 |
| 15 | COLUMBUS | 1250.25 | 0.00 | 0.00 | 216.00 | 173.25 | 4.65 | 1.73 | 51.00 | 0.00 |
| 13 | IMPROVED PELICAN | 1175.23 | 0.00 | 0.00 | 41.00 | 48.75 | 6.37 | 0.62 | 40.00 | 0.00 |
| 5 | HILL | 1108.55 | 0.00 | 0.00 | 89.50 | 98.25 | 4.98 | 0.92 | 34.50 | 0.00 |
| 16 | ESSEX | 1083.55 | 0.00 | 0.00 | 168.50 | 197.00 | 4.20 | 2.38 | 46.25 | 0.00 |
| 9 | WILLIAMS | 1058.54 | 0.00 | 0.00 | 128.25 | 179.50 | 5.90 | 1.93 | 28.75 | 0.00 |
| 2 | WOODWORTH | 1041.87 | 0.00 | 0.00 | 119.00 | 125.25 | 4.23 | 1.40 | 27.75 | 0.00 |
| 8 | BOSSIER | 1033.54 | 0.00 | 0.00 | 141.00 | 151.25 | 5.93 | 1.68 | 27.75 | 0.00 |
| 11 | COBB | 1016.87 | 0.00 | 0.00 | 71.75 | 70.75 | 5.10 | 1.05 | 32.50 | 0.00 |
| 7 | CUTLER 71 | 1000.20 | 0.00 | 0.00 | 83.50 | 117.00 | 5.50 | 1.00 | 29.00 | 0.00 |
| 4 | RANSOM | 1000.20 | 0.00 | 0.00 | 116.50 | 138.25 | 5.80 | 1.35 | 41.75 | 0.00 |
| 10 | CLARK 63 | 875.17 | 0.00 | 0.00 | 84.50 | 104.50 | 5.12 | 1.08 | 29.50 | 0.00 |
| 1 | CALLAND | 783.49 | 0.00 | 0.00 | 70.00 | 109.50 | 4.15 | 1.35 | 35.00 | 0.00 |
| 3 | BRAGG | 716.81 | 0.00 | 0.00 | 71.50 | 82.50 | 4.27 | 1.00 | 35.25 | 0.00 |
| | GRAND MEAN | 1140.59 | 0.00 | 0.00 | 102.22 | 114.88 | 5.10 | 1.29 | 36.48 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 113.43 | 0.00 | 0.00 | 16.57 | 20.88 | 0.91 | 0.28 | 1.97 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.89% | 0.00% | 0.00% | 32.41% | 36.34% | 35.68% | 43.93% | 10.81% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 323.09 | 0.00 | 0.00 | 47.19 | 59.46 | ******** | 0.81 | 5.62 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.00 | 0.02 | -0.11 | -0.02 | 0.03 | 0.30+ | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.02 | 0.00 | 0.00 | 1.00 | 0.68++ | -0.09 | 0.54++ | 0.25+ | 0.00 |
| NODULE NUMBER 2 | -0.11 | 0.00 | 0.00 | 0.68++ | 1.00 | -0.05 | 0.76++ | 0.04 | 0.00 |
| NODULE WEIGHT 1 | -0.02 | 0.00 | 0.00 | -0.09 | -0.05 | 1.00 | -0.21 | -0.04 | 0.00 |
| NODULE WEIGHT 2 | 0.03 | 0.00 | 0.00 | 0.54++ | 0.76++ | -0.21 | 1.00 | 0.10 | 0.00 |
| PLANT HEIGHT | 0.30+ | 0.00 | 0.00 | 0.25+ | 0.04 | -0.04 | 0.10 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.05 | 0.00 | 0.00 | -0.03 | -0.03 | 0.17 | -0.08 | -0.07 | 0.00 |
| 100 SEED WEIGHT | -0.15 | 0.00 | 0.00 | 0.37++ | 0.29+ | 0.13 | 0.17 | -0.13 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 69 EXPERIMENT 54 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 0.00 | 0.00 | 10.50 | 16.50 | 0.00 | -- | -- |
| 12 | DAVIS | 0.00 | 0.00 | 9.00 | 19.00 | 0.00 | 45.0 | 21.8 |
| 14 | FORREST | 0.00 | 0.00 | 8.25 | 17.50 | 0.00 | 42.6 | 21.9 |
| 15 | COLUMBUS | 0.00 | 0.00 | 8.50 | 19.50 | 0.00 | 45.9 | 19.9 |
| 13 | IMPROVED PELICAN | 0.00 | 0.00 | 9.25 | 16.50 | 0.00 | 44.4 | 21.0 |
| 5 | HILL | 0.00 | 0.00 | 5.50 | 20.00 | 0.00 | 41.9 | 21.4 |
| 16 | ESSEX | 0.00 | 0.00 | 6.75 | 19.50 | 0.00 | -- | -- |
| 9 | WILLIAMS | 0.00 | 0.00 | 8.50 | 20.50 | 0.00 | 45.0 | 20.9 |
| 2 | WOODWORTH | 0.00 | 0.00 | 9.50 | 20.50 | 0.00 | 43.7 | 21.1 |
| 8 | BOSSIER | 0.00 | 0.00 | 8.75 | 20.00 | 0.00 | -- | -- |
| 11 | COBB | 0.00 | 0.00 | 7.25 | 18.50 | 0.00 | 42.8 | 21.7 |
| 7 | CUTLER 71 | 0.00 | 0.00 | 11.00 | 18.50 | 0.00 | 44.9 | 20.3 |
| 4 | RAMSON | 0.00 | 0.00 | 9.25 | 22.25 | 0.00 | 44.9 | 22.3 |
| 10 | CLARK 63 | 0.00 | 0.00 | 8.50 | 19.50 | 0.00 | 44.6 | 20.4 |
| 1 | CALLAND | 0.00 | 0.00 | 8.00 | 19.00 | 0.00 | 45.0 | 19.3 |
| 3 | BRAGG | 0.00 | 0.00 | 7.50 | 18.00 | 0.00 | 44.9 | 20.2 |
| | GRAND MEAN | 0.00 | 0.00 | 8.50 | 19.08 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 1.19 | 0.83 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 27.97% | 8.68% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | ******** | 2.36 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.00 | 0.05 | -0.15 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | -0.03 | 0.37** | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | -0.03 | 0.29* | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.17 | 0.13 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | -0.08 | 0.17 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | -0.07 | -0.13 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | -0.01 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | -0.01 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 70 EXPERIMENT 56 YEAR 1976

REGION - AFRICA
SITE - JIMMA
LATITUDE - 7 DEG. 46 MIN. N
COOPERATORS - M. SHEKOUR, E. ANDE
DATE PLANTED - JUNE 9, 1976
SOIL TYPE - SAND 6.75%, SILT 23.75%, CLAY 69.50%, PH 6.2
FERTILIZER USED (KG/HA) - P 36.8
AMOUNT OF MOISTURE - 1067 MM
LOCAL VARIETY - KWANYKYO

COUNTRY - ETHIOPIA
ELEVATION - 1756 M
LONGITUDE - 36 DEG. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | HILL | 2207.52 | 61.00 | 130.00 | 125.25 | 122.50 | 0.00 | 0.00 | 50.75 | 1.50 |
| 11 | COBB | 2072.91 | 61.00 | 133.25 | 100.00 | 133.75 | 0.00 | 0.00 | 47.00 | 1.00 |
| 16 | ESSEX | 2031.24 | 51.00 | 124.25 | 190.25 | 153.75 | 0.00 | 0.00 | 42.25 | 1.50 |
| 13 | IMPROVED PELICAN | 1841.20 | 79.00 | 157.00 | 65.00 | 85.25 | 0.00 | 0.00 | 90.25 | 2.00 |
| 14 | FORREST | 1802.03 | 58.00 | 144.25 | 107.75 | 109.25 | 0.00 | 0.00 | 40.00 | 1.50 |
| 15 | COLUMBUS | 1711.18 | 39.00 | 120.25 | 210.50 | 171.25 | 0.00 | 0.00 | 39.25 | 1.75 |
| 12 | DAVIS | 1682.84 | 68.00 | 143.75 | 92.50 | 119.50 | 0.00 | 0.00 | 46.75 | 1.00 |
| 8 | BOSSIER | 1654.50 | 51.00 | 119.00 | 143.50 | 121.00 | 0.00 | 0.00 | 38.25 | 1.00 |
| 4 | RANSOM | 1483.63 | 51.00 | 116.75 | 184.25 | 148.25 | 0.00 | 0.00 | 35.00 | 1.50 |
| 6 | PICKETT 71 | 1371.94 | 51.00 | 120.25 | 131.75 | 130.25 | 0.00 | 0.00 | 35.00 | 1.75 |
| 9 | WILLIAMS | 1258.58 | 39.00 | 103.00 | 191.50 | 145.00 | 0.00 | 0.00 | 31.75 | 1.75 |
| 10 | CLARK 63 | 1061.88 | 39.00 | 110.75 | 210.75 | 120.50 | 0.00 | 0.00 | 34.75 | 2.25 |
| 1 | CALLAND | 1047.71 | 44.50 | 116.00 | 121.75 | 101.75 | 0.00 | 0.00 | 30.00 | 1.50 |
| 7 | KWANYKYO | 996.03 | 39.00 | 119.50 | 117.50 | 109.75 | 0.00 | 0.00 | 36.75 | 1.75 |
| 3 | BRAGG | 898.51 | 61.00 | 123.50 | 166.25 | 120.00 | 0.00 | 0.00 | 37.00 | 2.25 |
| 2 | WOODWORTH | 827.67 | 39.00 | 98.00 | 157.00 | 148.75 | 0.00 | 0.00 | 28.75 | 1.75 |
| | GRAND MEAN | 1496.84 | 51.97 | 123.72 | 144.72 | 127.53 | 0.00 | 0.00 | 41.47 | 1.61 |
| | STANDARD ERROR OF A VARIETY MEAN | 159.02 | 1.38 | 2.61 | 17.69 | 18.17 | 0.00 | 0.00 | 2.59 | 0.25 |
| | COEFFICIENT OF VARIATION | 21.25% | 5.29% | 4.22% | 24.45% | 28.50% | 0.00% | 0.00% | 12.51% | 31.69% |
| | 5% LSD VARIETY MEANS (********=NS) | 452.95 | 3.92 | 7.43 | 50.40 | ******** | 0.00 | 0.00 | 7.39 | 0.73 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.45++ | 0.59++ | -0.11 | 0.16 | 0.00 | 0.00 | 0.53++ | -0.27+ |
| DAYS TO | FLOWER | 0.45++ | 1.00 | 0.83++ | -0.48++ | -0.25+ | 0.00 | 0.00 | 0.73++ | -0.16 |
| DAYS TO | MATURITY | 0.59++ | 0.83++ | 1.00 | -0.51++ | -0.22 | 0.00 | 0.00 | 0.77++ | -0.12 |
| NODULE | NUMBER 1 | -0.11 | -0.48++ | -0.51++ | 1.00 | 0.63++ | 0.00 | 0.00 | -0.40++ | 0.16 |
| NODULE | NUMBER 2 | 0.16 | -0.25+ | -0.22 | 0.63++ | 1.00 | 0.00 | 0.00 | -0.21 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.53++ | 0.73++ | 0.77++ | -0.40++ | -0.21 | 0.00 | 0.00 | 1.00 | 0.04 |
| | LODGING | -0.27+ | -0.16 | -0.12 | 0.18 | 0.00 | 0.00 | 0.00 | 0.04 | 1.00 |
| | SHATTER | -0.32+ | -0.21 | -0.10 | -0.04 | -0.15 | 0.00 | 0.00 | 0.07 | 0.15 |
| PLANTS | HARVEST | -0.26+ | -0.14 | -0.32++ | 0.19 | 0.18 | 0.00 | 0.00 | -0.34++ | -0.06 |
| PODS PER | PLANT | 0.80++ | 0.60++ | 0.69++ | -0.26+ | -0.07 | 0.00 | 0.00 | 0.76++ | -0.14 |
| 100 SEED | WEIGHT | 0.20 | -0.01 | 0.04 | 0.21 | 0.23 | 0.00 | 0.00 | 0.07 | -0.03 |
| QUALITY | OF SEED | -0.24 | 0.16 | 0.16 | -0.08 | -0.17 | 0.00 | 0.00 | 0.18 | 0.34++ |

TABLE 70 EXPERIMENT 56 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 5 | HILL | 1.00 | 180.25 | 27.50 | 17.50 | 1.00 | 41.1 | 18.5 |
| 11 | COBB | 1.25 | 181.75 | 28.50 | 51.00 | 1.00 | 42.9 | 17.9 |
| 16 | ESSEX | 1.25 | 183.75 | 23.50 | 17.75 | 1.50 | 43.7 | 18.8 |
| 13 | IMPROVED PELICAN | 1.75 | 171.75 | 32.75 | 45.00 | 2.00 | 46.0 | 17.2 |
| 14 | FORREST | 1.00 | 174.50 | 22.50 | 15.75 | 1.50 | 41.7 | 18.3 |
| 15 | COLUMBUS | 1.25 | 179.75 | 22.00 | 62.50 | 1.00 | 46.7 | 18.6 |
| 12 | DAVIS | 1.00 | 193.25 | 18.75 | 52.50 | 1.25 | 42.5 | 18.7 |
| 8 | BOSSIER | 1.00 | 178.75 | 19.25 | 19.50 | 1.00 | 44.4 | 19.1 |
| 4 | BANSOI | 1.25 | 188.00 | 15.75 | 67.00 | 1.50 | 44.0 | 20.5 |
| 6 | PICKETT 71 | 1.00 | 176.25 | 16.75 | 18.25 | 1.25 | 43.6 | 18.4 |
| 9 | WILLIAMS | 2.25 | 190.75 | 15.50 | 19.75 | 1.00 | 45.1 | 17.5 |
| 10 | CLARK 63 | 1.25 | 185.00 | 14.50 | 53.25 | 1.50 | 45.6 | 18.0 |
| 1 | CALLAND | 2.00 | 188.75 | 12.75 | 21.25 | 1.75 | 45.7 | 18.1 |
| 7 | TANYKYO | 2.25 | 180.00 | 13.50 | 20.25 | 1.75 | 46.0 | 15.8 |
| 3 | BRAGG | 1.25 | 192.25 | 13.00 | 20.25 | 2.00 | 44.9 | 16.7 |
| 2 | WOODWORTH | 1.00 | 186.00 | 11.25 | 57.75 | 1.00 | 45.2 | 17.4 |
| | GRAND MEAN | 1.36 | 183.17 | 19.23 | 34.95 | 1.38 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.18 | 3.44 | 1.73 | 19.76 | 0.22 | | |
| | COEFFICIENT OF VARIATION | 26.47% | 3.75% | 17.99% | 113.04% | 31.61% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.51 | 9.79 | 4.93 | ******** | 0.62 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.32+ | -0.26+ | 0.80++ | 0.20 | -0.24 |
| DAYS TO | FLOWER | -0.21 | -0.14 | 0.60++ | -0.01 | 0.16 |
| DAYS TO | MATURITY | -0.10 | -0.32++ | 0.69++ | 0.04 | 0.16 |
| NODULE | NUMBER 1 | -0.04 | 0.19 | -0.26+ | 0.21 | -0.08 |
| NODULE | NUMBER 2 | -0.15 | 0.18 | -0.07 | 0.23 | -0.17 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.07 | -0.34++ | 0.76++ | 0.07 | 0.18 |
| | LODGING | 0.15 | -0.06 | -0.14 | -0.03 | 0.34++ |
| | SHATTER | 1.00 | 0.05 | -0.11 | -0.22 | 0.25 |
| PLANTS | HARVEST | 0.05 | 1.00 | -0.38++ | -0.14 | 0.12 |
| PODS PER | PLANT | -0.11 | -0.38++ | 1.00 | 0.04 | -0.03 |
| 100 SEED | WEIGHT | -0.22 | -0.14 | 0.04 | 1.00 | -0.18 |
| QUALITY | OF SEED | 0.25 | 0.12 | -0.03 | -0.18 | 1.00 |

TABLE 71 EXPERIMENT 52 YEAR 1976

REGION - AFRICA
SITE - LEKU
LATITUDE - 6 DEG. 45 MIN. N
COOPERATORS - D. MITIKU, T. LEGATO
DATE PLANTED - JUNE 30, 1976
SOIL TYPE - SANDY SILT
FERTILIZER USED (KG/HA) - N 27.0, P 69.0

COUNTRY - ETHIOPIA
ELEVATION - 1820 M
LONGITUDE - 38 DEG. 20 MIN. E
DATE HARVESTED - DECEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 3121.46 | 72.75 | 152.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.75 | 1.00 |
| 16 | ESSEX | 2725.54 | 70.50 | 149.75 | 0.00 | 0.00 | 0.00 | 0.00 | 41.50 | 0.00 |
| 5 | HILL | 2546.34 | 76.00 | 152.00 | 0.00 | 0.00 | 0.00 | 0.00 | 46.50 | 0.50 |
| 14 | FORREST | 2450.49 | 73.75 | 153.25 | 0.00 | 0.00 | 0.00 | 0.00 | 44.50 | 1.00 |
| 9 | WILLIAMS | 2437.99 | 50.00 | 132.75 | 0.00 | 0.00 | 0.00 | 0.00 | 40.25 | 0.75 |
| 12 | DAVIS | 2433.82 | 96.00 | 163.25 | 0.00 | 0.00 | 0.00 | 0.00 | 56.50 | 1.00 |
| 6 | PICKETT 71 | 2383.81 | 75.75 | 152.75 | 0.00 | 0.00 | 0.00 | 0.00 | 37.00 | 1.00 |
| 4 | RANSOM | 2267.12 | 57.50 | 154.25 | 0.00 | 0.00 | 0.00 | 0.00 | 34.25 | 0.00 |
| 15 | COLUMBUS | 2162.93 | 49.00 | 157.75 | 0.00 | 0.00 | 0.00 | 0.00 | 5[illegible].25 | 0.50 |
| 11 | COBB | 1975.39 | 91.00 | 162.25 | 0.00 | 0.00 | 0.00 | 0.00 | 52.50 | 0.50 |
| 1 | CALLAND | 1821.20 | 50.50 | 1[illegible]3.50 | 0.00 | 0.00 | 0.00 | 0.00 | 39.25 | 0.25 |
| 2 | WOODWORTH | 1775.35 | 50.25 | 150.50 | 0.00 | 0.00 | 0.00 | 0.00 | 38.75 | 0.25 |
| 7 | CUTLER 71 | 1562.81 | 57.25 | 150.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.50 | 0.50 |
| 13 | IMPROVED PELICAN | 1391.94 | 111.50 | 172.25 | 0.00 | 0.00 | 0.00 | 0.00 | 111.50 | 3.00 |
| 10 | CLARK 63 | 1350.27 | 49.25 | 143.00 | 0.00 | 0.00 | 0.00 | 0.00 | 43.00 | 0.50 |
| 3 | BRAGG | 1241.91 | 72.50 | 149.50 | 0.00 | 0.00 | 0.00 | 0.00 | 39.25 | 0.25 |
| | GRAND MEAN | 2103.02 | 68.97 | 153.05 | 0.00 | 0.00 | 0.00 | 0.00 | 48.02 | 0.69 |
| | STANDARD ERROR OF A VARIETY MEAN | 224.56 | 2.39 | 3.27 | 0.00 | 0.00 | 0.00 | 0.00 | 2.06 | 0.23 |
| | COEFFICIENT OF VARIATION | 21.36% | 6.93% | 4.27% | 0.00% | 0.00% | 0.00% | 0.00% | 8.56% | 66.39% |
| | 5% LSD VARIETY MEANS (********=NS) | 639.63 | 6.81 | 9.32 | 0.00 | 0.00 | 0.00 | 0.00 | 5.86 | 0.65 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.02 | -0.05 | 0.00 | 0.00 | 0.00 | 0.00 | -0.14 | -0.0[illegible] |
| DAYS TO FLOWER | 0.02 | 1.00 | 0.61++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.65++ | 0.59++ |
| DAYS TO MATURITY | -0.05 | 0.61++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.60++ | 0.32+ |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.14 | 0.65++ | 0.60++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.77++ |
| LODGING | -0.01 | 0.59++ | 0.32+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.77++ | 1.00 |
| SHATTER | -0.30+ | -0.20 | -0.11 | 0.00 | 0.00 | 0.00 | 0.00 | -0.14 | -0.19 |
| PLANTS HARVEST | 0.06 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | -0.17 |
| PODS PER PLANT | 0.08 | 0.73++ | 0.54++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.85++ | 0.75++ |
| 100 SEED WEIGHT | 0.11 | -0.30+ | -0.30+ | 0.00 | 0.00 | 0.00 | 0.00 | -0.41++ | -0.35++ |
| QUALITY OF SEED | -0.21 | 0.13 | 0.32+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.05 |

TABLE 71 EXPERIMENT 52 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 1.00 | 183.75 | 34.45 | 18.58 | 1.75 | 44.3 | 19.4 |
| 16 | ESSEX | 1.75 | 213.75 | 30.40 | 17.05 | 1.00 | 42.1 | 23.2 |
| 5 | HILL | 1.50 | 250.25 | 30.58 | 14.45 | 1.75 | 42.8 | 18.5 |
| 14 | FORREST | 1.25 | 219.60 | 27.73 | 15.83 | 1.75 | 39.5 | 20.6 |
| 9 | WILLIAMS | 2.00 | 192.00 | 20.88 | 17.35 | 1.75 | 44.5 | 19.0 |
| 12 | DAVIS | 1.75 | 216.25 | 35.23 | 15.50 | 1.75 | 42.8 | 20.4 |
| 6 | PICKETT 71 | 2.00 | 202.75 | 28.48 | 16.25 | 1.50 | 40.6 | 21.6 |
| 4 | RANSOM | 2.00 | 192.00 | 25.58 | 17.13 | 1.50 | 42.0 | 21.6 |
| 15 | COLUMBUS | 1.75 | 195.50 | 32.08 | 15.53 | 1.50 | 42.9 | 19.9 |
| 11 | COBB | 1.75 | 198.25 | 38.83 | 13.85 | 2.50 | 40.5 | 21.2 |
| 1 | CALLAND | 2.50 | 212.00 | 20.20 | 15.68 | 2.50 | 43.8 | 18.4 |
| 2 | WOODWORTH | 2.00 | 222.00 | 16.78 | 15.88 | 1.25 | 43.9 | 18.6 |
| 7 | CUTLER 71 | 2.25 | 211.25 | 20.28 | 17.83 | 2.00 | 43.9 | 18.8 |
| 13 | IMPROVED PELICAN | 1.75 | 197.25 | 69.02 | 12.43 | 2.00 | 46.2 | 18.5 |
| 10 | CLARK 63 | 1.75 | 198.75 | 18.73 | 15.93 | 1.75 | 43.8 | 19.1 |
| 3 | BRAGG | 2.00 | 197.25 | 15.63 | 21.70 | 2.25 | 43.8 | 18.0 |
| | GRAND MEAN | 1.81 | 206.13 | 29.05 | 16.27 | 1.78 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.20 | 12.33 | 2.70 | 0.91 | 0.30 | | |
| | COEFFICIENT OF VARIATION | 21.95% | 11.97% | 18.56% | 11.23% | 33.28% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.57 | ******** | 7.63 | 2.60 | ******** | | |

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.30* | 0.06 | 0.09 | 0.11 | -0.21 |
| DAYS TO | FLOWER | -0.20 | 0.00 | 0.73** | -0.30* | 0.13 |
| DAYS TO | MATURITY | -0.11 | 0.02 | 0.54** | -0.30* | 0.32* |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.14 | -0.03 | 0.85** | -0.41** | 0.14 |
| | LODGING | -0.19 | -0.17 | 0.75** | -0.35** | 0.05 |
| | SHATTER | 1.00 | -0.16 | -0.24 | 0.00 | 0.07 |
| PLANTS | HARVEST | -0.16 | 1.00 | -0.21 | -0.10 | 0.08 |
| PODS PER | PLANT | -0.24 | -0.21 | 1.00 | -0.47** | -0.00 |
| 100 SEED | WEIGHT | 0.00 | -0.10 | -0.47** | 1.00 | 0.01 |
| QUALITY | OF SEED | 0.07 | 0.08 | -0.00 | 0.01 | 1.00 |

TABLE 72 EXPERIMENT 326 YEAR 1976

REGION - AFRICA
SITE - NTOUM
LATITUDE - 0 DEG. 20 MIN. N
COOPERATORS - J. VAN AMZEONGEN, G. VAN DE PLAS
DATE PLANTED - SEPTEMBER 30, 1976
SOIL TYPE - SAND 64.5%, SILT 21.5%, CLAY 10.5%, PH 6.3
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 1177 MM

COUNTRY - GABON
ELEVATION - 18 M
LONGITUDE - 9 DEG. 45 MIN. E
DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 2158.76 | 34.25 | 102.00 | 83.25 | 244.00 | 0.61 | 2.50 | 87.25 | 3.00 |
| 6 | DAVIS | 1967.06 | 30.50 | 95.00 | 83.00 | 166.00 | 0.44 | 1.93 | 45.75 | 1.75 |
| 7 | IMPROVED PELICAN | 1683.67 | 36.75 | 97.00 | 71.00 | 162.25 | 0.35 | 1.95 | 72.00 | 2.75 |
| 8 | FORREST | 1662.83 | 30.75 | 90.00 | 100.50 | 20[illegible] 50 | 0.60 | 2.58 | 44.75 | 1.00 |
| 3 | WILLIAMS | 1475.29 | 31.75 | 94.00 | 122.25 | 278.00 | 0.96 | 3.78 | 50.75 | 1.75 |
| 4 | CLARK 63 | 1425.28 | 28.25 | 92.00 | 112.00 | 268.00 | 0.84 | 3.25 | 55.75 | 1.75 |
| 2 | BOSSIER | 1387.78 | 27.25 | 94.00 | 114.00 | 223.25 | 0.79 | 2.82 | 45.25 | 1.00 |
| 5 | COBB | 1358.60 | 29.50 | 107.00 | 81.75 | 214.50 | 0.50 | 2.85 | 48.00 | 1.25 |
| | GRAND MEAN | 1639.91 | 31.13 | 96.38 | 95.97 | 220.19 | 0.64 | 2.71 | 56.19 | 1.78 |
| | STANDARD ERROR OF A VARIETY MEAN | 209.09 | 0.24 | 0.00 | 18.59 | 25.35 | 0.11 | 0.41 | 2.06 | 0.22 |
| | COEFFICIENT OF VARIATION | 25.50% | 1.53% | 0.00% | 38.75% | 23.03% | 33.44% | 30.02% | 7.32% | 24.21% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.70 | 0.00 | ******** | 74.57 | 0.31 | ******** | 6.05 | 0.63 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.32 | 0.06 | 0.01 | -0.17 | 0.04 | -0.11 | 0.39+ | 0.26 |
| DAYS TO FLOWER | 0.32 | 1.00 | 0.22 | -0.30 | -0.17 | -0.34 | -0.27 | 0.70++ | 0.70++ |
| DAYS TO MATURITY | 0.06 | 0.22 | 1.00 | -0.28 | -0.06 | -0.28 | -0.09 | 0.36+ | 0.26 |
| NODULE NUMBER 1 | 0.01 | -0.30 | -0.28 | 1.00 | 0.28 | 0.66++ | 0.21 | -0.10 | -0.16 |
| NODULE NUMBER 2 | -0.17 | -0.17 | -0.06 | 0.28 | 1.00 | 0.50++ | 0.69++ | 0.02 | -0.14 |
| NODULE WEIGHT 1 | 0.04 | -0.34 | -0.28 | 0.66++ | 0.50++ | 1.00 | 0.62++ | -0.07 | -0.19 |
| NODULE WEIGHT 2 | -0.1[illegible] | -0.27 | -0.09 | 0.21 | 0.69++ | 0.62++ | 1.00 | -0.17 | -0.35+ |
| PLANT HEIGHT | 0.39+ | 0.70++ | 0.36+ | -0.10 | 0.02 | -0.07 | -0.17 | 1.00 | 0.82++ |
| LODGING | 0.26 | 0.70++ | 0.26 | -0.16 | -0.14 | -0.19 | -0.35+ | 0.82++ | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.19 | -0.12 | -0.17 | 0.29 | 0.34 | 0.17 | 0.14 | 0.06 | 0.08 |
| PODS PER PLANT | 0.47++ | 0.71++ | 0.39+ | -0.18 | -0.19 | -0.13 | -0.11 | 0.70++ | 0.60++ |
| 100 SEED WEIGHT | 0.18 | 0.01 | 0.08 | 0.14 | 0.49++ | 0.38+ | 0.35+ | 0.06 | 0.09 |
| QUALITY OF SEED | -0.04 | 0.15 | 0.30 | -0.32 | -0.34 | -0.33 | -0.25 | 0.17 | 0.31 |

TABLE 72 EXPERIMENT 326 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 0.00 | 169.00 | 45.75 | 23.25 | 3.00 | 46.1 | 28.9 |
| 6 | DAVIS | 0.00 | 182.25 | 25.75 | 23.25 | 3.75 | 44.4 | 27.4 |
| 7 | IMPROVED PELICAN | 0.00 | 141.25 | 42.00 | 19.25 | 3.50 | 47.5 | 26.9 |
| 8 | FORREST | 0.00 | 144.25 | 26.75 | 19.50 | 2.50 | 43.9 | 26.6 |
| 3 | WILLIAMS | 0.00 | 192.50 | 23.75 | 25.00 | 2.25 | 46.0 | 28.5 |
| 4 | CLARK 63 | 0.00 | 192.75 | 19.75 | 21.50 | 3.00 | 47.3 | 25.2 |
| 2 | BOSSIER | 0.00 | 143.75 | 24.75 | 20.75 | 2.50 | 47.0 | 25.6 |
| 5 | COBB | 0.00 | 148.25 | 27.75 | 21.00 | 3.50 | 40.6 | 30.8 |
| | GRAND MEAN | 0.00 | 164.25 | 29.53 | 21.69 | 3.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.43 | 3.24 | 0.61 | 0.29 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 12.70% | 21.94% | 5.64% | 19.59% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 30.66 | 9.53 | 1.80 | 0.86 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.19 | 0.47** | 0.18 | -0.04 |
| DAYS TO FLOWER | 0.00 | -0.12 | 0.71** | 0.01 | 0.15 |
| DAYS TO MATURITY | 0.00 | -0.17 | 0.39* | 0.08 | 0.30 |
| NODULE NUMBER 1 | 0.00 | 0.29 | -0.18 | 0.14 | -0.32 |
| NODULE NUMBER 2 | 0.00 | 0.34 | -0.19 | 0.49** | -0.34 |
| NODULE WEIGHT 1 | 0.00 | 0.17 | -0.13 | 0.38* | -0.33 |
| NODULE WEIGHT 2 | 0.00 | 0.14 | -0.11 | 0.35* | -0.25 |
| PLANT HEIGHT | 0.00 | 0.06 | 0.70** | 0.06 | 0.17 |
| LODGING | 0.00 | 0.08 | 0.60** | 0.09 | 0.31 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.35* | 0.58** | -0.14 |
| PODS PER PLANT | 0.00 | -0.35* | 1.00 | -0.07 | 0.34 |
| 100 SEED WEIGHT | 0.00 | 0.58** | -0.07 | 1.00 | -0.17 |
| QUALITY OF SEED | 0.00 | -0.14 | 0.34 | -0.17 | 1.00 |

TABLE 73 EXPERIMENT 325 YEAR 1976

REGION - AFRICA COUNTRY - GABON
SITE - NTOUM ELEVATION - 18 M
LATITUDE - 0 DEG. 20 MIN. N LONGITUDE - 9 DEG. 45 MIN. E
COOPERATORS - J. VAN AMERONGEN, G. VAN DE PLAS
DATE PLANTED - MARCH 10, 1977 DATE HARVESTED - JUNE, 1977
SOIL TYPE - SAND 22.0%, SILT 63.5%, CLAY 14.5%, PH 6.4
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 490 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | JUPITER | 1900.38 | 29.25 | 98.00 | 0.00 | 132.25 | 0.00 | 1.38 | 68.50 | 0.00 |
| 8 | TGM 256-1-B | 1779.52 | 33.50 | 90.00 | 0.00 | 112.50 | 0.00 | 1.28 | 68.75 | 0.00 |
| 5 | TGM 294-4-2371 | 1758.68 | 37.25 | 97.75 | 0.00 | 160.75 | 0.00 | 1.83 | 66.50 | 0.00 |
| 3 | TGM 255-2-4341 | 1742.01 | 29.50 | 88.75 | 0.00 | 234.50 | 0.00 | 1.93 | 58.50 | 0.00 |
| 7 | TGX 13-3-2644 | 1704.51 | 35.50 | 97.75 | 0.00 | 184.75 | 0.00 | 2.25 | 71.50 | 0.00 |
| 14 | DAVIS | 1629.49 | 28.50 | 98.25 | 0.00 | 122.00 | 0.00 | 1.45 | 43.75 | 0.00 |
| 2 | TGM 210-1-2363 | 1612.82 | 31.25 | 89.25 | 0.00 | 107.25 | 0.00 | 1.15 | 57.25 | 0.00 |
| 1 | TGM 220-1-2205 | 1571.15 | 36.75 | 101.00 | 0.00 | 191.00 | 0.00 | 2.05 | 51.00 | 0.00 |
| 15 | IMPROVED PELICAN | 1512.80 | 31.50 | 98.50 | 0.00 | 138.50 | 0.00 | 1.08 | 55.00 | 0.00 |
| 16 | FORREST | 1446.12 | 29.00 | 86.00 | 0.00 | 95.50 | 0.00 | 1.20 | 43.25 | 0.00 |
| 11 | WILLIAMS | 1441.95 | 26.50 | 87.75 | 0.00 | 176.75 | 0.00 | 1.65 | 47.00 | 0.00 |
| 13 | COBB | 1433.62 | 26.50 | 98.00 | 0.00 | 99.75 | 0.00 | 1.20 | 45.00 | 0.00 |
| 6 | TGX 66-5100 | 1425.28 | 30.75 | 87.50 | 0.00 | 36.25 | 0.00 | 0.75 | 70.00 | 0.00 |
| 12 | CLARK 63 | 1312.76 | 26.75 | 86.25 | 0.00 | 238.00 | 0.00 | 2.08 | 48.75 | 0.00 |
| 4 | TGM 249-4-B | 1204.41 | 31.00 | 101.25 | 0.00 | 178.50 | 0.00 | 1.35 | 55.50 | 0.00 |
| 10 | BOSSIER | 1058.54 | 26.00 | 90.25 | 0.00 | 138.75 | 0.00 | 2.48 | 42.50 | 0.00 |
| | GRAND MEAN | 1533.38 | 30.59 | 93.52 | 0.00 | 150.44 | 0.00 | 1.57 | 55.80 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 169.35 | 0.94 | 0.96 | 0.00 | 25.29 | 0.00 | 0.29 | 3.25 | 0.00 |
| | COEFFICIENT OF VARIATION | 22.09% | 6.18% | 2.04% | 0.00% | 33.62% | 0.00% | 37.46% | 11.66% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 2.69 | 2.72 | 0.00 | 72.03 | 0.00 | 0.84 | 9.27 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.18 | 0.23 | 0.00 | 0.14 | 0.00 | 0.03 | 0.50++ | 0.00 |
| DAYS TO FLOWER | 0.18 | 1.00 | 0.34++ | 0.00 | -0.10 | 0.00 | 0.00 | 0.42++ | 0.00 |
| DAYS TO MATURITY | 0.23 | 0.34++ | 1.00 | 0.00 | 0.07 | 0.00 | 0.05 | 0.15 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.14 | -0.10 | 0.07 | 0.00 | 1.00 | 0.00 | 0.73++ | -0.04 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.03 | 0.00 | 0.05 | 0.00 | 0.73++ | 0.00 | 1.00 | -0.03 | 0.00 |
| PLANT HEIGHT | 0.50++ | 0.42++ | 0.15 | 0.00 | -0.04 | 0.00 | -0.03 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.30+ | 0.26+ | -0.32++ | 0.00 | -0.14 | 0.00 | -0.16 | 0.26+ | 0.00 |
| PODS PER PLANT | 0.13 | -0.11 | 0.13 | 0.00 | 0.13 | 0.00 | 0.00 | 0.13 | 0.00 |
| 100 SEED WEIGHT | 0.04 | -0.39++ | 0.10 | 0.00 | 0.02 | 0.00 | 0.15 | -0.14 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 73 EXPERIMENT 325 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | JUPITER | 0.00 | 165.00 | 20.33 | 17.45 | 0.00 | 42.0 | 24.7 |
| 8 | TGM 256-1-B | 0.00 | 242.75 | 19.58 | 11.78 | 0.00 | 43.9 | 20.1 |
| 5 | TGM 294-4-2371 | 0.00 | 206.00 | 16.53 | 16.20 | 0.00 | 42.6 | 20.5 |
| 3 | TGM 255-2-4341 | 0.00 | 182.25 | 27.53 | 12.90 | 0.00 | 42.6 | 24.0 |
| 7 | TGX 13-3-2644 | 0.00 | 176.25 | 14.38 | 16.23 | 0.00 | 40.6 | 24.0 |
| 14 | DAVIS | 0.00 | 177.25 | 18.60 | 17.43 | 0.00 | 43.5 | 22.9 |
| 2 | TGM 210-1-2363 | 0.00 | 203.75 | 18.10 | 15.33 | 0.00 | 42.4 | 23.2 |
| 1 | TGM 220-1-2205 | 0.00 | 164.00 | 21.25 | 13.05 | 0.00 | 42.4 | 22.2 |
| 15 | IMPROVED PELICAN | 0.00 | 152.50 | 27.90 | 12.48 | 0.00 | 41.5 | 24.4 |
| 16 | FORREST | 0.00 | 166.75 | 23.88 | 14.33 | 0.00 | 41.0 | 22.2 |
| 11 | WILLIAMS | 0.00 | 177.75 | 11.28 | 18.18 | 0.00 | 43.3 | 23.5 |
| 13 | COBB | 0.00 | 147.00 | 19.70 | 17.53 | 0.00 | 39.6 | 25.2 |
| 6 | TGX 66-5100 | 0.00 | 193.25 | 20.28 | 14.40 | 0.00 | 41.9 | 21.1 |
| 12 | CLARK 63 | 0.00 | 192.50 | 13.35 | 16.55 | 0.00 | 40.6 | 26.5 |
| 4 | TGM 249-4-B | 0.00 | 60.00 | 27.35 | 14.40 | 0.00 | 41.8 | 24.4 |
| 10 | BOSSIER | 0.00 | 114.75 | 18.50 | 15.95 | 0.00 | 43.3 | 23.2 |
| | GRAND MEAN | 0.00 | 170.11 | 19.91 | 15.26 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 19.46 | 3.20 | 0.67 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 22.88% | 32.11% | 8.75% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 55.34 | 9.10 | 1.90 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.30+ | 0.13 | 0.04 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.26+ | -0.11 | -0.39++ | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.32++ | 0.18 | 0.10 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | -0.14 | 0.13 | 0.02 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | -0.16 | 0.00 | 0.15 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.26+ | 0.13 | -0.14 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.46++ | -0.15 | 0.00 |
| PODS PER PLANT | 0.00 | -0.46++ | 1.00 | -0.22 | 0.00 |
| 100 SEED WEIGHT | 0.00 | -0.15 | -0.22 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 74 EXPERIMENT 0 YEAR 1976

REGION - AFRICA
SITE - KUMASI
LATITUDE - 6 DEG. 41 MIN. N
COOPERATOR - H. MERCER-QUARSHIE
DATE PLANTED - APRIL 29, 1976
SOIL TYPE - SILT, PH-6.0
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 614 MM
LOCAL VARIETY - CES 407

COUNTRY - GHANA
ELEVATION - 270 M
LONGITUDE - 1 DEG. 42 MIN. W
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 2743.88 | 30.00 | 97.00 | 67.50 | 0.00 | 0.35 | 0.00 | 24.25 | 1.00 |
| 11 | WILLIAMS | 2695.96 | 26.00 | 85.75 | 65.00 | 0.00 | 0.34 | 0.00 | 54.00 | 1.25 |
| 1 | TGM 220-1-2205 | 2676.79 | 43.00 | 102.50 | 87.50 | 0.00 | 0.41 | 0.00 | 49.25 | 4.75 |
| 8 | TGM 256-1-B | 2473.83 | 39.00 | 99.00 | 52.50 | 0.00 | 0.25 | 0.00 | 70.00 | 3.75 |
| 2 | TGM 210-1-2363 | 2421.32 | 36.00 | 95.00 | 17.25 | 0.00 | 0.08 | 0.00 | 62.50 | 3.00 |
| 3 | TGM 255-2-4341 | 2367.97 | 32.00 | 103.25 | 75.00 | 0.00 | 0.25 | 0.00 | 88.25 | 3.25 |
| 6 | TGX 66-5100 | 2352.14 | 40.00 | 97.00 | 19.00 | 0.00 | 0.14 | 0.00 | 90.00 | 3.75 |
| 12 | CLARK 63 | 2326.30 | 26.00 | 96.75 | 82.50 | 0.00 | 0.38 | 0.00 | 56.25 | 1.75 |
| 15 | IMPROVED PELICAN | 2297.54 | 37.00 | 99.00 | 17.25 | 0.00 | 0.04 | 0.00 | 104.75 | 2.75 |
| 7 | TGX 13-3-2644 | 2260.45 | 35.00 | 104.00 | 35.00 | 0.00 | 0.15 | 0.00 | 86.00 | 3.75 |
| 5 | TGM 294-4-2371 | 2251.70 | 43.75 | 96.75 | 82.50 | 0.00 | 0.35 | 0.00 | 66.75 | 1.75 |
| 4 | TGM 249-4-B | 2219.19 | 35.00 | 101.50 | 19.75 | 0.00 | 0.04 | 0.00 | 89.00 | 4.00 |
| 10 | BOSSIER | 2080.00 | 26.00 | 98.00 | 44.25 | 0.00 | 0.18 | 0.00 | 25.75 | 1.00 |
| 13 | COBB | 2068.75 | 30.00 | 103.00 | 30.00 | 0.00 | 0.19 | 0.00 | 33.25 | 1.00 |
| 16 | CES 407 | 1904.55 | 42.00 | 113.75 | 63.25 | 0.00 | 0.35 | 0.00 | 103.75 | 3.25 |
| 9 | JUPITER | 1757.85 | 47.00 | 114.25 | 45.00 | 0.00 | 0.22 | 0.00 | 55.50 | 2.75 |
| | GRAND MEAN | 2306.14 | 35.48 | 100.41 | 50.20 | 0.00 | 0.23 | 0.00 | 66.20 | 2.67 |
| | STANDARD ERROR OF A VARIETY MEAN | 173.37 | 0.06 | 1.13 | 13.24 | 0.00 | 0.08 | 0.00 | 3.73 | 0.27 |
| | COEFFICIENT OF VARIATION | 15.04% | 0.35% | 2.26% | 52.74% | 0.00% | 66.38% | 0.00% | 11.25% | 20.27% |
| | 5% LSD VARIETY MEANS (********=NS) | 493.83 | 0.18 | 3.23 | 37.71 | 0.00 | 0.22 | 0.00 | 10.61 | 0.77 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.20 | -0.43++ | 0.10 | 0.00 | 0.13 | 0.00 | -0.12 | 0.17 |
| DAYS TO | FLOWER | -0.20 | 1.00 | 0.55++ | -0.01 | 0.00 | -0.00 | 0.00 | 0.40++ | 0.56++ |
| DAYS TO | MATURITY | -0.43++ | 0.55++ | 1.00 | -0.02 | 0.00 | -0.00 | 0.00 | 0.26+ | 0.37++ |
| NODULE | NUMBER 1 | 0.10 | -0.01 | -0.02 | 1.00 | 0.00 | 0.83++ | 0.00 | -0.18 | -0.13 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.13 | -0.00 | -0.00 | 0.83++ | 0.00 | 1.00 | 0.00 | -0.25+ | -0.14 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.12 | 0.40++ | 0.26+ | -0.18 | 0.00 | -0.25+ | 0.00 | 1.00 | 0.60++ |
| | LODGING | 0.17 | 0.56++ | 0.37++ | -0.13 | 0.00 | -0.14 | 0.00 | 0.60++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.32++ | -0.27+ | -0.55++ | -0.05 | 0.00 | -0.09 | 0.00 | -0.06 | 0.05 |
| PODS PER | PLANT | -0.11 | 0.56++ | 0.47++ | 0.02 | 0.00 | -0.04 | 0.00 | 0.62++ | 0.50++ |
| 100 SEED | WEIGHT | -0.01 | -0.43++ | -0.05 | 0.06 | 0.00 | 0.17 | 0.00 | -0.50++ | -0.55++ |
| QUALITY | OF SEED | -0.20 | -0.20 | 0.09 | 0.07 | 0.00 | 0.10 | 0.00 | -0.42++ | -0.17 |

TABLE 74 EXPERIMENT 0 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 1.00 | 157.50 | 44.00 | 21.25 | 1.50 | 43.2 | 21.3 |
| 11 | WILLIAMS | 1.00 | 140.00 | 45.00 | 21.75 | 1.50 | 42.6 | 23.3 |
| 1 | TGM 220-1-2205 | 1.00 | 124.50 | 83.00 | 15.25 | 2.00 | 45.0 | 21.9 |
| 8 | TGM 256-1-B | 1.00 | 171.25 | 63.75 | 15.50 | 1.50 | 46.4 | 18.8 |
| 2 | TGM 210-1-2363 | 1.00 | 171.50 | 66.75 | 17.00 | 2.25 | 43.8 | 20.2 |
| 3 | TGM 255-2-4341 | 1.00 | 170.00 | 77.00 | 14.25 | 1.25 | 44.3 | 20.8 |
| 6 | TGX 66-5100 | 1.00 | 168.50 | 58.25 | 16.50 | 1.50 | 45.1 | 19.6 |
| 12 | CLARK 63 | 1.00 | 163.25 | 37.75 | 20.50 | 2.50 | 43.3 | 22.9 |
| 15 | IMPROVED PELICAN | 1.00 | 119.00 | 90.50 | 15.00 | 1.00 | 43.4 | 21.6 |
| 7 | TGX 13-3-2644 | 1.00 | 170.25 | 55.00 | 18.75 | 1.25 | 43.3 | 21.7 |
| 5 | TGM 294-4-2371 | 1.00 | 176.50 | 57.50 | 17.00 | 1.00 | 47.4 | 17.8 |
| 4 | TGM 249-4-B | 1.00 | 146.75 | 72.75 | 17.25 | 1.25 | 42.9 | 22.9 |
| 10 | BOSSIER | 1.00 | 135.00 | 36.25 | 20.50 | 2.00 | 44.4 | 22.6 |
| 13 | COBB | 1.00 | 119.50 | 43.50 | 23.00 | 2.50 | 41.2 | 23.8 |
| 16 | CES 407 | 1.00 | 60.00 | 101.50 | 19.50 | 1.50 | 44.8 | 19.6 |
| 9 | JUPITER | 1.00 | 76.50 | 72.50 | 19.75 | 2.00 | 44.1 | 21.5 |
| | GRAND MEAN | 1.00 | 141.88 | 62.81 | 18.30 | 1.66 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.78 | 7.40 | 0.84 | 0.24 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 15.20% | 23.56% | 9.22% | 29.42% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 30.70 | 21.08 | 2.40 | 0.69 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.32++ | -0.11 | -0.01 | -0.20 |
| DAYS TO FLOWER | 0.00 | -0.27+ | 0.56++ | -0.43++ | -0.20 |
| DAYS TO MATURITY | 0.00 | -0.55++ | 0.47++ | -0.05 | 0.09 |
| NODULE NUMBER 1 | 0.00 | -0.05 | 0.02 | 0.06 | 0.07 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | -0.09 | -0.04 | 0.17 | 0.10 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.06 | 0.62++ | -0.50++ | -0.42++ |
| LODGING | 0.00 | 0.05 | 0.50++ | -0.55++ | -0.17 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.35++ | -0.27+ | -0.18 |
| PODS PER PLANT | 0.00 | -0.35++ | 1.00 | -0.43++ | -0.14 |
| 100 SEED WEIGHT | 0.00 | -0.27+ | -0.43++ | 1.00 | 0.33++ |
| QUALITY OF SEED | 0.00 | -0.18 | -0.14 | 0.33++ | 1.00 |

TABLE 75 EXPERIMENT 234 YEAR 1976

REGION - AFRICA
SITE - LEGON FARM
LATITUDE - 5 DEG. 39 MIN. N
COOPERATOR - R.B. DADSON
DATE PLANTED - MAY 26, 1976
SOIL PH 6.2
AMOUNT OF MOISTURE - 438 MM
NUMBER OF IRRIGATIONS - 9

COUNTRY - GHANA
ELEVATION - 60 M
LONGITUDE - 0 DEG. 11 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | IMPROVED PELICAN | 1772.02 | 21.25 | 80.00 | 80.75 | 112.75 | 0.34 | 0.61 | 45.43 | 2.25 |
| 7 | TGX 13-3-2644 | 1703.26 | 53.75 | 111.00 | 66.00 | 114.75 | 0.34 | 0.80 | 36.60 | 1.00 |
| 9 | JUPITER | 1603.24 | 48.25 | 98.00 | 171.50 | 157.50 | 0.64 | 0.88 | 49.93 | 2.50 |
| 3 | TGM 255-2-4341 | 1391.94 | 42.25 | 101.00 | 67.25 | 92.50 | 0.32 | 0.61 | 32.13 | 2.00 |
| 4 | TGM 249-4-B | 1381.53 | 40.25 | 98.00 | 104.00 | 109.50 | 0.53 | 0.84 | 32.25 | 2.75 |
| 11 | WILLIAMS | 1347.35 | 21.00 | 76.00 | 118.75 | 149.00 | 0.37 | 0.90 | 34.08 | 2.50 |
| 16 | FORREST | 1339.85 | 12.75 | 76.00 | 92.25 | 106.50 | 0.31 | 0.76 | 29.48 | 1.75 |
| 12 | CLARK 63 | 1236.08 | 15.50 | 76.00 | 133.00 | 154.00 | 0.48 | 1.18 | 34.68 | 1.75 |
| 13 | COBB | 1228.16 | 15.50 | 62.75 | 110.00 | 107.50 | 0.41 | 0.71 | 27.20 | 1.50 |
| 1 | TGM 220-1-2205 | 1182.74 | 50.50 | 111.00 | 97.00 | 107.25 | 0.39 | 0.67 | 39.48 | 1.75 |
| 14 | DAVIS | 1171.90 | 13.50 | 76.00 | 101.25 | 132.25 | 0.30 | 0.76 | 31.28 | 2.25 |
| 5 | TGM 294-4-2371 | 1168.98 | 31.00 | 111.00 | 72.75 | 104.00 | 0.31 | 0.64 | 39.68 | 1.75 |
| 10 | BOSSIER | 1156.48 | 14.75 | 76.00 | 121.75 | 129.75 | 0.48 | 0.99 | 22.55 | 1.25 |
| 8 | TGM 256-1-B | 1145.23 | 33.75 | 98.00 | 68.75 | 123.25 | 0.33 | 0.59 | 46.15 | 2.25 |
| 6 | TGX 66-5100 | 1143.56 | 31.75 | 106.00 | 96.25 | 107.50 | 0.43 | 0.69 | 45.23 | 1.50 |
| 2 | TGM 210-1-2363 | 1094.80 | 45.00 | 96.00 | 63.50 | 98.25 | 0.41 | 0.67 | 39.93 | 2.00 |
| | GRAND MEAN | 1316.70 | 30.67 | 90.80 | 97.80 | 119.14 | 0.40 | 0.77 | 36.63 | 1.92 |
| | STANDARD ERROR OF A VARIETY MEAN | 119.46 | 8.60 | 3.31 | 12.99 | 16.12 | 0.08 | 0.12 | 2.69 | 0.39 |
| | COEFFICIENT OF VARIATION | 18.15% | 56.09% | 7.30% | 26.57% | 27.07% | 40.05% | 30.43% | 14.72% | 40.27% |
| | 5% LSD VARIETY MEANS (********=NS) | 340.29 | 24.50 | 9.44 | 37.01 | ******** | ******** | ******** | 7.68 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.16 | -0.01 | 0.12 | 0.17 | 0.03 | 0.08 | 0.23 | 0.09 |
| DAYS TO FLOWER | 0.16 | 1.00 | 0.43++ | 0.02 | 0.03 | 0.20 | -0.07 | 0.33++ | -0.07 |
| DAYS TO MATURITY | -0.01 | 0.43++ | 1.00 | -0.24 | -0.16 | 0.04 | -0.23 | 0.46++ | -0.01 |
| NODULE NUMBER 1 | 0.12 | 0.02 | -0.24 | 1.00 | 0.58++ | 0.64++ | 0.52++ | 0.01 | 0.01 |
| NODULE NUMBER 2 | 0.17 | 0.03 | -0.16 | 0.58++ | 1.00 | 0.47++ | 0.71++ | 0.16 | -0.05 |
| NODULE WEIGHT 1 | 0.03 | 0.20 | 0.04 | 0.64++ | 0.47++ | 1.00 | 0.52++ | 0.06 | 0.02 |
| NODULE WEIGHT 2 | 0.08 | -0.07 | -0.23 | 0.52++ | 0.71++ | 0.52++ | 1.00 | -0.15 | -0.16 |
| PLANT HEIGHT | 0.23 | 0.33++ | 0.46++ | 0.01 | 0.16 | 0.06 | -0.15 | 1.00 | 0.26+ |
| LODGING | 0.09 | -0.07 | -0.01 | 0.01 | -0.05 | 0.02 | -0.16 | 0.26+ | 1.00 |
| SHATTER | -0.13 | -0.13 | -0.08 | -0.23 | -0.12 | -0.02 | -0.02 | -0.04 | 0.15 |
| PLANTS HARVEST | -0.10 | -0.09 | -0.16 | -0.21 | -0.06 | -0.26+ | -0.16 | -0.17 | -0.17 |
| PODS PER PLANT | 0.44++ | 0.16 | 0.03 | 0.19 | 0.20 | 0.22 | 0.12 | 0.26+ | -0.00 |
| 100 SEED WEIGHT | 0.04 | -0.29+ | -0.70++ | 0.48++ | 0.40++ | 0.22 | 0.32+ | -0.33++ | -0.06 |
| QUALITY OF SEED | 0.10 | -0.09 | -0.12 | 0.20 | 0.12 | 0.18 | 0.13 | -0.07 | -0.01 |

TABLE 75 EXPERIMENT 234 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | IMPROVED PELICAN | 1.00 | 143.50 | 42.17 | 14.25 | 1.75 |
| 7 | TGX 13-3-2644 | 1.00 | 161.25 | 27.80 | 13.23 | 1.50 |
| 9 | JUPITER | 1.00 | 132.25 | 38.20 | 16.98 | 2.25 |
| 3 | TGM 255-2-4341 | 1.25 | 151.25 | 27.25 | 12.10 | 1.75 |
| 4 | TGM 249-4-B | 1.00 | 140.00 | 25.80 | 13.45 | 1.25 |
| 11 | WILLIAMS | 1.00 | 181.50 | 17.63 | 20.10 | 1.00 |
| 16 | FORREST | 1.00 | 170.75 | 29.65 | 15.48 | 2.25 |
| 12 | CLARK 63 | 1.00 | 154.75 | 28.45 | 1[illegible].25 | 2.00 |
| 13 | COBB | 1.25 | 149.00 | 26.40 | 19.13 | 1.25 |
| 1 | TGM 220-1-2205 | 1.25 | 128.75 | 30.53 | 12.50 | 1.25 |
| 14 | DAVIS | 1.00 | 190.50 | 14.05 | 17.58 | 1.00 |
| 5 | TGM 294-4-2371 | 1.00 | 164.00 | 22.70 | 11.00 | 1.00 |
| 10 | BOSSIER | 1.25 | 150.75 | 29.85 | 17.18 | 2.00 |
| 8 | TGM 256-1-B | 1.25 | 172.50 | 23.58 | 13.33 | 1.00 |
| 6 | TGX 66-5100 | 1.25 | 153.00 | 16.18 | 13.78 | 1.00 |
| 2 | TGM 210-1-2363 | 1.25 | 171.75 | 24.15 | 12.68 | 1.75 |
| | GRAND MEAN | 1.11 | 157.22 | 26.52 | 15.00 | 1.50 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.17 | 14.14 | 2.76 | 0.94 | 0.32 |
| | COEFFICIENT OF VARIATION | 30.65% | 17.99% | 20.79% | 12.47% | 42.02% |
| | 5% ISD VARIETY MEANS (********=NS) | ******** | ******** | 7.85 | 2.66 | 0.90 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.13 | -0.10 | 0.44++ | 0.04 | 0.10 |
| DAYS TO FLOWER | -0.13 | -0.09 | 0.16 | -0.29+ | -0.09 |
| DAYS TO MATURITY | -0.08 | -0.16 | 0.03 | -0.70++ | -0.12 |
| NODULE NUMBER 1 | -0.23 | -0.21 | 0.19 | 0.48++ | 0.20 |
| NODULE NUMBER 2 | -0.12 | -0.06 | 0.20 | 0.40++ | 0.12 |
| NODULE WEIGHT 1 | -0.02 | -0.26+ | 0.22 | 0.22 | 0.18 |
| NODULE WEIGHT 2 | -0.02 | -0.16 | 0.12 | 0.32+ | 0.13 |
| PLANT HEIGHT | -0.04 | -0.17 | 0.26+ | -0.33++ | -0.07 |
| LODGING | 0.15 | -0.17 | -0.00 | -0.06 | -0.01 |
| SHATTER | 1.00 | -0.05 | -0.19 | -0.03 | -0.18 |
| PLANTS HARVEST | -0.05 | 1.00 | -0.41++ | 0.14 | -0.17 |
| PODS PER PLANT | -0.19 | -0.41++ | 1.00 | -0.02 | 0.42++ |
| 100 SEED WEIGHT | -0.03 | 0.14 | -0.02 | 1.00 | 0.08 |
| QUALITY OF SEED | -0.18 | -0.17 | 0.42++ | 0.08 | 1.00 |

TABLE 76 EXPERIMENT 996 YEAR 1976

REGION - AFRICA
SITE - ABIDJAN
LATITUDE - 5 DEG. N
COOPERATOR - AYEMOU D. ASSA
DATE PLANTED - MAY 18, 1976
SOIL TYPE - SAND, PH 5.3
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 1864 MM

COUNTRY - IVORY COAST
ELEVATION - 0 M
LONGITUDE - 4 DEG. W
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | TGM 256-1-B | 1192.08 | 40.25 | 95.75 | 0.00 | 0.00 | 0.00 | 0.00 | 40.50 | 1.00 |
| 6 | TGX 66-5100 | 687.08 | 39.25 | 88.50 | 0.00 | 0.00 | 0.00 | 0.00 | 45.25 | 1.00 |
| 7 | TGX 13-3-2644 | 376.67 | 37.00 | 105.50 | 0.00 | 0.00 | 0.00 | 0.00 | 51.25 | 1.00 |
| 5 | TGM 294-4-2371 | 262.08 | 54.00 | 100.25 | 0.00 | 0.00 | 0.00 | 0.00 | 31.00 | 1.00 |
| 4 | TGM 249-4-B | 221.25 | 35.50 | 85.75 | 0.00 | 0.00 | 0.00 | 0.00 | 28.75 | 1.00 |
| 2 | TGM 210-1-2363 | 210.42 | 39.50 | 89.75 | 0.00 | 0.00 | 0.00 | 0.00 | 23.25 | 1.00 |
| 1 | TGM 220-1-2205 | 202.50 | 47.00 | 100.75 | 0.00 | 0.00 | 0.00 | 0.00 | 23.50 | 1.00 |
| 3 | TGM 255-2-4341 | 107.92 | 35.75 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.50 | 1.00 |
| | GRAND MEAN | 407.50 | 41.03 | 94.16 | 0.00 | 0.00 | 0.00 | 0.00 | 33.13 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 117.03 | 0.87 | 0.86 | 0.00 | 0.00 | 0.00 | 0.00 | 2.18 | 0.00 |
| | COEFFICIENT OF VARIATION | 57.44% | 4.24% | 1.83% | 0.00% | 0.00% | 0.00% | 0.00% | 13.14% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 344.21 | 2.56 | 2.53 | 0.00 | 0.00 | 0.00 | 0.00 | 6.40 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.13 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.60++ | 0.00 |
| DAYS TO FLOWER | -0.13 | 1.00 | 0.50++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.19 | 0.00 |
| DAYS TO MATURITY | 0.04 | 0.50++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.60++ | -0.19 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.62++ | -0.31 | -0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65++ | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 76 EXPERIMENT 996 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | TGM 256-1-B | 1.00 | 171.00 | 0.00 | 0.00 | 4.00 |
| 6 | TGX 66-5100 | 1.00 | 213.00 | 0.00 | 0.00 | 4.00 |
| 7 | TGX 13-3-2644 | 1.00 | 162.50 | 0.00 | 0.00 | 4.00 |
| 5 | TGM 294-4-2371 | 1.00 | 132.75 | 0.00 | 0.00 | 4.00 |
| 4 | TGM 249-4-B | 1.00 | 131.50 | 0.00 | 0.00 | 4.00 |
| 2 | TGM 210-1-2363 | 1.00 | 143.25 | 0.00 | 0.00 | 4.00 |
| 1 | TGM 220-1-2205 | 1.00 | 94.00 | 0.00 | 0.00 | 4.00 |
| 3 | TGM 255-2-4341 | 1.00 | 120.75 | 0.00 | 0.00 | 4.00 |
| | GRAND MEAN | 1.00 | 146.09 | 0.00 | 0.00 | 4.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 18.62 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 25.49% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 54.75 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.62++ | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | -0.31 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.15 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.65++ | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 77 EXPERIMENT 252 YEAR 1976

REGION - AFRICA
SITE - DEKOKAHA
LATITUDE - 9 DEG. 5 MIN. N
COOPERATOR - AYEMOU D. ASSA
DATE PLANTED - JULY 23, 1976
SOIL TYPE - SANDY LOAM, PH 5.5
FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
AMOUNT OF MOISTURE - 539 MM

COUNTRY - IVORY COAST
ELEVATION - 350 M
LONGITUDE - 5 DEG. 6 MIN. W
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 2228.75 | 39.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.63 | 1.00 |
| 6 | DAVIS | 2171.25 | 37.00 | 103.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.28 | 1.00 |
| 7 | IMPROVED PELICAN | 1746.25 | 39.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.10 | 1.00 |
| 8 | FORREST | 1686.25 | 35.00 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.70 | 1.00 |
| 5 | COBB | 1667.50 | 35.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.45 | 1.00 |
| 2 | BOSSIER | 1537.50 | 35.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.78 | 1.00 |
| 3 | WILLIAMS | 1483.75 | 37.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.45 | 1.00 |
| 4 | CLARK 63 | 1387.50 | 36.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.68 | 1.00 |
| | GRAND MEAN | 1738.59 | 36.63 | 97.25 | 0.00 | 0.00 | 0.00 | 0.00 | 27.38 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 171.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.86 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.74% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 6.31% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 504.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.54 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.33 | 0.56++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.42+ | 0.00 |
| DAYS TO FLOWER | 0.33 | 1.00 | 0.49++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.78++ | 0.00 |
| DAYS TO MATURITY | 0.56++ | 0.49++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.77++ | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.42+ | 0.78++ | 0.77++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.10 | -0.42+ | -0.26 | 0.00 | 0.00 | 0.00 | 0.00 | -0.54++ | 0.00 |
| PODS PER PLANT | 0.24 | 0.45++ | 0.64++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.63++ | 0.00 |
| 100 SEED WEIGHT | -0.26 | 0.05 | -0.19 | 0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 |
| QUALITY OF SEED | 0.16 | -0.18 | 0.35+ | 0.00 | 0.00 | 0.00 | 0.00 | -0.07 | 0.00 |

TABLE 77 EXPERIMENT 252 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 1 | JUPITER | 1.00 | 184.50 | 17.50 | 18.80 | 3.00 |
| 6 | DAVIS | 1.00 | 346.25 | 10.00 | 12.98 | 3.00 |
| 7 | IMPROVED PELICAN | 1.00 | 215.75 | 13.00 | 14.68 | 2.00 |
| 8 | FORREST | 1.00 | 275.00 | 11.25 | 12.75 | 2.00 |
| 5 | COBB | 1.00 | 275.25 | 10.50 | 17.68 | 3.00 |
| 2 | BOSSIER | 1.00 | 245.50 | 9.75 | 17.78 | 3.00 |
| 3 | WILLIAMS | 1.00 | 261.75 | 7.00 | 20.25 | 2.00 |
| 4 | CLARK 63 | 1.00 | 276.75 | 9.50 | 19.10 | 3.00 |
| | GRAND MEAN | 1.00 | 260.09 | 11.06 | 16.75 | 2.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 18.28 | 1.44 | 0.25 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 14.05% | 26.01% | 3.04% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 53.75 | 4.23 | 0.75 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.10 | 0.24 | -0.26 | 0.16 |
| DAYS TO FLOWER | 0.00 | -0.42+ | 0.45++ | 0.05 | -0.18 |
| DAYS TO MATURITY | 0.00 | -0.26 | 0.64++ | -0.19 | 0.35+ |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.54++ | 0.63++ | -0.00 | -0.07 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.47++ | -0.35+ | 0.13 |
| PODS PER PLANT | 0.00 | -0.47++ | 1.00 | -0.06 | 0.13 |
| 100 SEED WEIGHT | 0.00 | -0.35+ | -0.06 | 1.00 | 0.24 |
| QUALITY OF SEED | 0.00 | 0.13 | 0.13 | 0.24 | 1.00 |

TABLE 78 EXPERIMENT 256 YEAR 1976

REGION - AFRICA
SITE - ODIENNE
LATITUDE - 9 DEG. 6 MIN. N
COOPERATOR - AYEMOU D. ASSA
DATE PLANTED - JULY 23, 1976
SOIL TYPE - SANDY LOAM, PH 5.6
FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
AMOUNT OF MOISTURE - 1252 MM

COUNTRY - IVORY COAST
ELEVATION - 400 M
LONGITUDE - 7 DEG. 7 MIN. W
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | COBB | 2262.50 | 36.00 | 94.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.53 | 1.00 |
| 1 | JUPITER | 2201.25 | 40.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 72.25 | 1.00 |
| 2 | BOSSIER | 2188.75 | 36.00 | 94.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.20 | 1.00 |
| 6 | DAVIS | 2148.75 | 37.25 | 100.50 | 0.00 | 0.00 | 0.00 | 0.00 | 33.13 | 1.00 |
| 8 | FORREST | 2013.75 | 36.00 | 94.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.53 | 1.00 |
| 7 | IMPROVED PELICAN | 2013.75 | 38.00 | 93.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.23 | 1.00 |
| 4 | CLARK 63 | 1793.75 | 37.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.68 | 1.00 |
| 3 | WILLIAMS | 1712.50 | 37.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.15 | 1.00 |
| | GRAND MEAN | 2041.88 | 37.16 | 96.06 | 0.00 | 0.00 | 0.00 | 0.00 | 43.21 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 129.80 | 0.09 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 2.61 | 0.00 |
| | COEFFICIENT OF VARIATION | 12.71% | 0.48% | 1.84% | 0.00% | 0.00% | 0.00% | 0.00% | 12.08% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.26 | 2.60 | 0.00 | 0.00 | 0.00 | 0.00 | 7.68 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.02 | 0.35+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 |
| DAYS TO FLOWER | 0.02 | 1.00 | 0.72++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.83++ | 0.00 |
| DAYS TO MATURITY | 0.35+ | 0.72++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64++ | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.16 | 0.83++ | 0.64++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.05 | -0.40+ | -0.21 | 0.00 | 0.00 | 0.00 | 0.00 | -0.47++ | 0.00 |
| PODS PER PLANT | 0.49++ | 0.25 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58++ | 0.00 |
| 100 SEED WEIGHT | -0.04 | -0.31 | -0.19 | 0.00 | 0.00 | 0.00 | 0.00 | -0.43+ | 0.00 |
| QUALITY OF SEED | 0.18 | 0.84++ | 0.89++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.77++ | 0.00 |

TABLE 78 EXPERIMENT 256 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 5 | COBB | 1.00 | 295.50 | 18.70 | 19.45 | 2.00 |
| 1 | JUPITER | 1.00 | 238.50 | 23.50 | 17.60 | 3.00 |
| 2 | BOSSIER | 1.00 | 289.50 | 21.73 | 19.85 | 2.00 |
| 6 | DAVIS | 1.00 | 347.50 | 13.35 | 17.48 | 2.00 |
| 8 | FORREST | 1.00 | 300.50 | 20.85 | 16.15 | 2.00 |
| 7 | IMPROVED PELICAN | 1.00 | 275.75 | 23.53 | 13.93 | 2.00 |
| 4 | CLARK 63 | 1.00 | 260.50 | 13.43 | 18.48 | 2.00 |
| 3 | WILLIAMS | 1.00 | 300.25 | 15.00 | 21.40 | 2.00 |
| | GRAND MEAN | 1.00 | 288.50 | 18.77 | 18.04 | 2.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 17.77 | 1.28 | 0.16 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 12.32% | 13.66% | 1.75% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 52.25 | 3.77 | 0.46 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.05 | 0.49++ | -0.04 | 0.18 |
| DAYS TO | FLOWER | 0.00 | -0.40+ | 0.25 | -0.31 | 0.84++ |
| DAYS TO | MATURITY | 0.00 | -0.21 | 0.35 | -0.19 | 0.89++ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.47++ | 0.58++ | -0.43+ | 0.77++ |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.27 | 0.08 | -0.45++ |
| PODS PER | PLANT | 0.00 | -0.27 | 1.00 | -0.35 | 0.37+ |
| 100 SEED | WEIGHT | 0.00 | 0.08 | -0.35 | 1.00 | -0.08 |
| QUALITY | OF SEED | 0.00 | -0.45++ | 0.37+ | -0.08 | 1.00 |

TABLE 79 EXPERIMENT 245 YEAR 1976

REGION - AFRICA
SITE - SIRASSO
LATITUDE - 9 DEG. 4 MIN. N
COOPERATOR - AYEMOU D. ASSA
DATE PLANTED - JULY 27, 1976
SOIL TYPE - SAND 85%, SILT 6%, CLAY 9%, PH 7.5
FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
AMOUNT OF MOISTURE - 707 MM

COUNTRY - IVORY COAST
ELEVATION - 350 M
LONGITUDE - 6 DEG. 2 MIN. W
DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | DAVIS | 2841.25 | 33.00 | 101.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.33 | 1.00 |
| 7 | IMPROVED PELICAN | 2590.00 | 33.00 | 91.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.75 | 1.00 |
| 5 | COB3 | 2516.25 | 33.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.18 | 1.00 |
| 1 | JUPITER | 2201.25 | 37.00 | 105.25 | 0.00 | 0.00 | 0.00 | 0.00 | 69.82 | 1.00 |
| 2 | BOSSIER | 2172.50 | 32.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.30 | 1.00 |
| 8 | FORREST | 1993.75 | 32.00 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.52 | 1.00 |
| 4 | CLARK 63 | 1855.00 | 30.00 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.58 | 1.00 |
| 3 | WILLIAMS | 1795.00 | 30.00 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.03 | 1.00 |
| | GRAND MEAN | 2245.63 | 33.13 | 95.66 | 0.00 | 0.00 | 0.00 | 0.00 | 38.94 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 183.17 | 0.00 | 2.74 | 0.00 | 0.00 | 0.00 | 0.00 | 1.67 | 0.00 |
| | COEFFICIENT OF VARIATION | 16.31% | 0.00% | 5.73% | 0.00% | 0.00% | 0.00% | 0.00% | 8.58% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 538.73 | 0.00 | 8.06 | 0.00 | 0.00 | 0.00 | 0.00 | 4.92 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.43+ | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
| DAYS TO FLOWER | 0.43+ | 1.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.73++ | 0.00 |
| DAYS TO MATURITY | 0.18 | 0.31 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.03 | 0.73++ | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.09 | -0.19 | -0.11 | 0.00 | 0.00 | 0.00 | 0.00 | -0.23 | 0.00 |
| PODS PER PLANT | 0.04 | 0.75++ | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.85++ | 0.00 |
| 100 SEED WEIGHT | -0.03 | -0.35 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | -0.36+ | 0.00 |
| QUALITY OF SEED | -0.45++ | -0.07 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 |

TABLE 79 EXPERIMENT 245 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | DAVIS | 1.00 | 145.25 | 29.00 | 18.68 | 1.00 |
| 7 | IMPROVED PELICAN | 1.00 | 139.00 | 50.75 | 12.50 | 1.00 |
| 5 | COBB | 1.00 | 138.00 | 30.25 | 19.55 | 2.00 |
| 1 | JUPITER | 1.00 | 119.50 | 63.75 | 20.33 | 3.00 |
| 2 | BOSSIER | 1.00 | 132.50 | 30.25 | 19.48 | 2.00 |
| 8 | FORREST | 1.00 | 167.50 | 40.25 | 15.88 | 2.00 |
| 4 | CLARK 63 | 1.00 | 141.00 | 32.00 | 17.63 | 2.00 |
| 3 | WILLIAMS | 1.00 | 137.00 | 33.75 | 18.83 | 2.00 |
| | GRAND MEAN | 1.00 | 139.97 | 38.75 | 17.86 | 1.88 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.46 | 2.21 | 0.28 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 13.51% | 11.41% | 3.18% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 6.50 | 0.83 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.09 | 0.04 | -0.03 | -0.45++ |
| DAYS TO | FLOWER | 0.00 | -0.19 | 0.75++ | -0.35 | -0.07 |
| DAYS TO | MATURITY | 0.00 | -0.11 | 0.21 | 0.30 | 0.27 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.23 | 0.85++ | -0.36+ | 0.19 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.17 | -0.20 | -0.22 |
| PODS PER | PLANT | 0.00 | -0.17 | 1.00 | -0.20 | 0.39+ |
| 100 SEED | WEIGHT | 0.00 | -0.20 | -0.20 | 1.00 | 0.60++ |
| QUALITY | OF SEED | 0.00 | -0.22 | 0.39+ | 0.60++ | 1.00 |

TABLE 80 EXPERIMENT 151 YEAR 1976

REGION - AFRICA
SITE - MASERU
LATITUDE - 29 DEG. 21 MIN. S
COOPERATOR - CHEN-KIEN CHU
DATE PLANTED - DECEMBER 22, 1976
SOIL TYPE - SILTY LOAM, PH 6.3
FERTILIZER USED (KG/HA) - N 9.2, P 25.0, K 30.0
AMOUNT OF MOISTURE - 509 MM

COUNTRY - LESOTHO
ELEVATION - 1550 M
LONGITUDE - 27 DEG. 30 MIN E
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 3242.06 | 45.00 | 104.00 | 248.75 | 659.75 | 0.44 | 2.13 | 74.07 | 1.00 |
| 7 | CUTLER 71 | 3229.02 | 46.75 | 112.25 | 262.75 | 803.75 | 0.69 | 3.34 | 93.67 | 1.25 |
| 9 | WILLIAMS | 3220.10 | 45.00 | 110.75 | 269.25 | 582.00 | 0.52 | 1.63 | 75.43 | 1.00 |
| 13 | WELLS | 2978.72 | 39.00 | 104.25 | 186.75 | 467.75 | 0.44 | 1.79 | 61.98 | 1.00 |
| 14 | BEESON | 2936.92 | 39.00 | 109.50 | 228.25 | 311.75 | 0.62 | 1.55 | 74.65 | 1.00 |
| 1 | CALLAND | 2929.54 | 42.75 | 113.75 | 151.75 | 409.75 | 0.43 | 1.96 | 89.00 | 1.75 |
| 10 | CLARK 63 | 2894.54 | 44.50 | 111.25 | 204.50 | 526.00 | 0.41 | 2.03 | 84.87 | 1.00 |
| 15 | ESSEX | 2563.22 | 59.25 | 138.75 | 511.00 | 683.25 | 1.87 | 3.03 | 94.75 | 2.00 |
| 4 | RANSOM | 2338.22 | 57.50 | 125.00 | 678.00 | 930.50 | 1.54 | 2.53 | 100.63 | 4.00 |
| 3 | BRAGG | 1957.77 | 62.00 | 135.50 | 477.75 | 637.25 | 0.75 | 1.92 | 116.23 | 4.75 |
| 6 | PICKETT 71 | 1906.13 | 66.00 | 127.75 | 372.25 | 309.00 | 0.73 | 1.69 | 93.35 | 4.25 |
| 12 | FORREST | 1792.82 | 59.50 | 135.50 | 348.25 | 663.75 | 0.83 | 2.31 | 106.73 | 5.00 |
| 8 | BOSSIER | 1646.62 | 68.00 | 139.75 | 621.00 | 523.00 | 1.97 | 2.52 | 100.80 | 5.00 |
| 5 | HILL | 1572.77 | 68.25 | 139.50 | 503.00 | 326.25 | 0.89 | 1.27 | 100.80 | 5.00 |
| 11 | DAVIS | 1031.87 | 74.00 | 149.75 | 466.25 | 352.25 | 1.77 | 2.38 | 115.93 | 5.00 |
| | GRAND MEAN | 2416.02 | 54.43 | 123.82 | 368.63 | 545.73 | 0.93 | 2.14 | 92.19 | 2.87 |
| | STANDARD ERROR OF A VARIETY MEAN | 122.51 | 0.62 | 0.61 | 86.81 | 85.38 | 0.23 | 0.37 | 2.71 | 0.16 |
| | COEFFICIENT OF VARIATION | 10.14% | 2.29% | 0.99% | 47.10% | 31.29% | 50.36% | 34.14% | 5.88% | 10.85% |
| | 5% LSD VARIETY MEANS (********=NS) | 349.64 | 1.78 | 1.75 | 247.77 | 243.69 | 0.67 | 1.04 | 7.73 | 0.44 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.89++ | -0.87++ | -0.39++ | 0.25 | -0.43++ | 0.09 | -0.74++ | -0.89++ |
| DAYS TO | FLOWER | -0.89++ | 1.00 | 0.94++ | 0.55++ | -0.09 | 0.55++ | 0.05 | 0.78++ | 0.90++ |
| DAYS TO | MATURITY | -0.87++ | 0.94++ | 1.00 | 0.53++ | -0.08 | 0.60++ | 0.09 | 0.82++ | 0.87++ |
| NODULE | NUMBER 1 | -0.39++ | 0.55++ | 0.53++ | 1.00 | 0.45++ | 0.82++ | 0.41++ | 0.43++ | 0.49++ |
| NODULE | NUMBER 2 | 0.25 | -0.09 | -0.08 | 0.45++ | 1.00 | 0.34++ | 0.73++ | 0.11 | -0.11 |
| NODULE | WEIGHT 1 | -0.43++ | 0.55++ | 0.60++ | 0.82++ | 0.34++ | 1.00 | 0.51++ | 0.45++ | 0.42++ |
| NODULE | WEIGHT 2 | 0.09 | 0.05 | 0.09 | 0.41++ | 0.73++ | 0.51++ | 1.00 | 0.18 | -0.08 |
| PLANT | HEIGHT | -0.74++ | 0.78++ | 0.82++ | 0.43++ | 0.11 | 0.45++ | 0.18 | 1.00 | 0.80++ |
| | LODGING | -0.89++ | 0.90++ | 0.87++ | 0.49++ | -0.11 | 0.42++ | -0.08 | 0.80++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.74++ | -0.73++ | -0.68++ | -0.35++ | 0.16 | -0.38++ | -0.07 | -0.54++ | -0.73++ |
| PODS PER | PLANT | -0.69++ | 0.75++ | 0.74++ | 0.46++ | -0.06 | 0.40++ | 0.01 | 0.52++ | 0.74++ |
| 100 SEED | WEIGHT | 0.78++ | -0.86++ | -0.79++ | -0.51++ | 0.02 | -0.52++ | -0.06 | -0.55++ | -0.73++ |
| QUALITY | OF SEED | -0.86++ | 0.82++ | 0.80++ | 0.37++ | -0.15 | 0.43++ | 0.06 | 0.64++ | 0.81++ |

TABLE 80 EXPERIMENT 151 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 1.00 | 207.00 | 34.28 | 14.69 | 1.75 | 39.5 | 18.2 |
| 7 | CUTLER 71 | 1.00 | 171.75 | 33.33 | 18.27 | 1.25 | 39.8 | 17.2 |
| 9 | WILLIAMS | 1.00 | 238.00 | 25.28 | 18.11 | 1.00 | 41.3 | 18.0 |
| 13 | WELLS | 1.00 | 213.50 | 32.20 | 14.99 | 1.25 | 40.5 | 18.6 |
| 14 | BEESON | 1.00 | 174.75 | 29.50 | 19.11 | 1.50 | 41.4 | 17.7 |
| 1 | CALLAND | 1.00 | 232.25 | 23.73 | 19.55 | 1.00 | 42.1 | 17.1 |
| 10 | CLARK 63 | 1.00 | 229.50 | 29.10 | 15.72 | 1.00 | 42.0 | 17.7 |
| 15 | ESSEX | 1.00 | 201.50 | 52.58 | 11.20 | 2.00 | 41.7 | 15.2 |
| 4 | RANSOM | 1.00 | 205.25 | 41.50 | 13.40 | 2.50 | 39.7 | 16.3 |
| 3 | BRAGG | 1.00 | 157.00 | 43.28 | 13.58 | 2.00 | 42.0 | 14.0 |
| 6 | PICKETT 71 | 1.00 | 121.00 | 56.95 | 11.39 | 3.00 | 42.3 | 13.9 |
| 12 | FORREST | 1.00 | 126.25 | 69.55 | 12.40 | 4.00 | 40.4 | 15.7 |
| 8 | BOSSIER | 1.00 | 86.75 | 60.58 | 12.30 | 3.00 | 41.7 | 13.8 |
| 5 | HILL | 1.00 | 130.00 | 61.88 | 10.67 | 3.75 | 42.5 | 14.4 |
| 11 | DAVIS | 1.00 | 119.00 | 51.63 | 10.08 | 5.00 | 41.3 | 16.3 |
| | GRAND MEAN | 1.00 | 174.23 | 43.02 | 14.36 | 2.27 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.44 | 4.10 | 0.25 | 0.20 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 11.98% | 19.06% | 3.51% | 17.49% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 29.78 | 11.70 | 0.72 | 0.57 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.74++ | -0.69++ | 0.78++ | -0.86++ |
| DAYS TO FLOWER | 0.00 | -0.73++ | 0.75++ | -0.86++ | 0.82++ |
| DAYS TO MATURITY | 0.00 | -0.68++ | 0.74++ | -0.79++ | 0.80++ |
| NODULE NUMBER 1 | 0.00 | -0.35++ | 0.46++ | -0.51++ | 0.37++ |
| NODULE NUMBER 2 | 0.00 | 0.16 | -0.06 | 0.02 | -0.15 |
| NODULE WEIGHT 1 | 0.00 | -0.38++ | 0.40++ | -0.52++ | 0.43++ |
| NODULE WEIGHT 2 | 0.00 | -0.07 | 0.01 | -0.06 | 0.06 |
| PLANT HEIGHT | 0.00 | -0.54++ | 0.52++ | -0.55++ | 0.64++ |
| LODGING | 0.00 | -0.73++ | 0.74++ | -0.73++ | 0.81++ |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.72++ | 0.57++ | -0.74++ |
| PODS PER PLANT | 0.00 | -0.72++ | 1.00 | -0.75++ | 0.71++ |
| 100 SEED WEIGHT | 0.00 | 0.57++ | -0.75++ | 1.00 | -0.78++ |
| QUALITY OF SEED | 0.00 | -0.74++ | 0.71++ | -0.78++ | 1.00 |

TABLE 81 EXPERIMENT 230 YEAR 1976

REGION - AFRICA
SITE - KOULIKORO
LATITUDE - 12 DEG. 55 MIN. N
COOPERATOR - M. CRAMBADE
DATE PLANTED - JULY 26, 1976
SOIL TYPE - SAND 52.5%, SILT 39.8%, CLAY 7.7%, PH 6.3
FERTILIZER USED (KG/HA) - N 7.2, P 18.4, K 30.0
AMOUNT OF MOISTURE - 488 MM

COUNTRY - MALI
ELEVATION - 326 M
LONGITUDE - 7 DEG. 33 MIN. W

DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | COBB | 733.48 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.50 | 1.50 |
| 1 | TGM 256-1-B | 733.48 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.00 | 2.25 |
| 4 | WILLIAMS | 729.31 | 0.00 | 82.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.50 | 1.75 |
| 3 | BOSSIER | 720.98 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.25 | 2.25 |
| 9 | FORREST | 662.63 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.00 | 2.50 |
| 5 | CLARK 63 | 637.63 | 0.00 | 82.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.25 | 2.75 |
| 7 | DAVIS | 508.43 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.25 | 2.00 |
| 8 | IMPROVED PELICAN | 483.43 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 52.00 | 1.50 |
| 2 | JUPITER | 416.75 | 0.00 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.25 | 2.75 |
| | GRAND MEAN | 625.12 | 0.00 | 86.33 | 0.00 | 0.00 | 0.00 | 0.00 | 40.22 | 2.14 |
| | STANDARD ERROR OF A VARIETY MEAN | 107.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.26 | 0.49 |
| | COEFFICIENT OF VARIATION | 34.53% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 16.19% | 45.44% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | -0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.19 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | -0.31 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.16 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.07 | 0.00 | -0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | -0.11 |
| LODGING | 0.19 | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | -0.11 | 1.00 |
| SHATTER | 0.07 | 0.00 | 0.39+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.35+ | 0.47++ |
| PLANTS HARVEST | 0.24 | 0.00 | -0.48++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | -0.23 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.24 | 0.00 | -0.14 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | -0.16 |
| QUALITY OF SEED | 0.08 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 |

TABLE 81 EXPERIMENT 23C YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 6 | COBB | 1.50 | 43.25 | 0.00 | 12.45 | 4.25 | 43.0 | 25.5 |
| 1 | TGM 256-1-B | 3.00 | 27.00 | 0.00 | 9.67 | 4.50 | -- | -- |
| 4 | WILLIAMS | 2.00 | 97.25 | 0.00 | 14.20 | 5.00 | 43.5 | 27.4 |
| 3 | BOSSIER | 1.50 | 41.25 | 0.00 | 12.23 | 4.50 | 44.5 | 25.3 |
| 9 | FORREST | 1.00 | 35.25 | 0.00 | 11.65 | 5.00 | 42.3 | 23.5 |
| 5 | CLARK 63 | 1.75 | 82.00 | 0.00 | 12.08 | 5.00 | 42.6 | 27.3 |
| 7 | DAVIS | 1.25 | 73.50 | 0.00 | 11.53 | 4.25 | 42.9 | 24.7 |
| 8 | IMPROVED PELICAN | 1.00 | 33.50 | 0.00 | 11.03 | 4.00 | 45.4 | 22.8 |
| 2 | JUPITER | 3.00 | 33.25 | 0.00 | 12.03 | 5.00 | 45.2 | 23.4 |
| | GRAND MEAN | 1.78 | 51.81 | 0.00 | 11.87 | 4.61 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.27 | 9.32 | 0.00 | 0.73 | 0.18 | | |
| | COEFFICIENT OF VARIATION | 30.01% | 35.99% | 0.00% | 12.26% | 7.88% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.78 | 27.21 | 0.00 | 2.12 | 0.53 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.07 | 0.24 | 0.00 | 0.24 | 0.08 |
| DAYS TO FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.39+ | -0.48++ | 0.00 | -0.14 | 0.06 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.35+ | 0.07 | 0.00 | -0.01 | 0.00 |
| LODGING | 0.47++ | -0.23 | 0.00 | -0.16 | 0.22 |
| SHATTER | 1.00 | -0.19 | 0.00 | -0.23 | 0.25 |
| PLANTS HARVEST | -0.19 | 1.00 | 0.00 | 0.44++ | 0.28 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | -0.23 | 0.44++ | 0.00 | 1.00 | 0.12 |
| QUALITY OF SEED | 0.25 | 0.28 | 0.00 | 0.12 | 1.00 |

TABLE 82 EXPERIMENT 226 YEAR 1976

REGION - AFRICA
SITE - MARADI
LATITUDE - 13 DEG. 28 MIN. N
COOPERATOR - INRAN
DATE PLANTED - JULY 8, 1976
SOIL TYPE - CLAY + FINE SILT 17%, PH 6.5
FERTILIZER USED (KG/HA) - P 45.0
AMOUNT OF MOISTURE - 484 MM
NUMBER OF IRRIGATIONS - 1

COUNTRY - NIGER
ELEVATION - 351 M
LONGITUDE - 7 DEG. 7 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 4438.39 | 32.50 | 72.00 | 3.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | COBB | 4146.66 | 28.50 | 72.00 | 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | FORREST | 4125.82 | 27.25 | 69.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | BOSSIER | 3938.29 | 26.50 | 72.00 | 3.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | TGM 255-2-4341 | 3750.75 | 38.00 | 72.00 | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | TGM 256-1-B | 3688.24 | 38.00 | 75.00 | 1.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | WILLIAMS | 3688.24 | 26.50 | 72.00 | 3.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | TGX 13-3-2644 | 3563.21 | 38.00 | 78.00 | 1.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | TGM 210-1-2363 | 3375.67 | 38.00 | 75.00 | 2.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | JUPITER | 3250.65 | 38.00 | 81.00 | 1.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | TGM 294-4-2371 | 3208.97 | 38.00 | 75.00 | 3.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | CLARK 63 | 3104.79 | 25.75 | 69.00 | 3.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | TGX 66-5100 | 3021.44 | 38.00 | 72.00 | 4.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | TGM 249-4-B | 2917.25 | 35.50 | 78.00 | 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | IMPROVED PELICAN | 2875.57 | 38.00 | 72.00 | 5.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | TGM 220-1-2205 | 2813.06 | 38.00 | 81.00 | 1.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 3494.19 | 34.03 | 74.06 | 3.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 326.89 | 1.22 | 2.77 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 18.71% | 7.15% | 7.43% | 16.99% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 931.13 | 3.46 | ******** | 0.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.29+ | -0.12 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | -0.29+ | 1.00 | 0.46++ | -0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | -0.12 | 0.46++ | 1.00 | -0.33++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | -0.01 | -0.12 | -0.33++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.40++ | -0.41++ | -0.53++ | 0.44++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | -0.01 | 0.33++ | 0.05 | -0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 82 EXPERIMENT 226 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 0.00 | 127.50 | 5.20 | 0.00 | 0.00 | -- | -- |
| 13 | COBB | 0.00 | 120.00 | 5.20 | 0.00 | 0.00 | 39.9 | 25.2 |
| 16 | FORREST | 0.00 | 139.25 | 6.67 | 0.00 | 0.00 | 41.8 | 24.3 |
| 10 | BOSSIER | 0.00 | 109.25 | 4.30 | 0.00 | 0.00 | 46.9 | 23.8 |
| 3 | TGM 255-2-4341 | 0.00 | 132.50 | 9.30 | 0.00 | 0.00 | 43.5 | 25.4 |
| 8 | TGM 256-1-B | 0.00 | 100.00 | 7.37 | 0.00 | 0.00 | 48.6 | 20.9 |
| 11 | WILLIAMS | 0.00 | 142.00 | 4.32 | 0.00 | 0.00 | 43.1 | 24.9 |
| 7 | TGX 13-3-2644 | 0.00 | 116.50 | 5.75 | 0.00 | 0.00 | 43.8 | 24.1 |
| 2 | TGM 210-1-2363 | 0.00 | 109.25 | 8.42 | 0.00 | 0.00 | 46.1 | 22.7 |
| 9 | JUPITER | 0.00 | 82.75 | 6.20 | 0.00 | 0.00 | 44.4 | 25.6 |
| 5 | TGM 294-4-2371 | 0.00 | 99.00 | 5.90 | 0.00 | 0.00 | 47.7 | 21.5 |
| 12 | CLARK 63 | 0.00 | 146.25 | 3.48 | 0.00 | 0.00 | 43.1 | 24.4 |
| 6 | TGX 66-5100 | 0.00 | 122.25 | 5.47 | 0.00 | 0.00 | 43.7 | 21.8 |
| 4 | TGM 249-4-B | 0.00 | 53.75 | 10.89 | 0.00 | 0.00 | 42.9 | 26.8 |
| 15 | IMPROVED PELICAN | 0.00 | 128.75 | 4.97 | 0.00 | 0.00 | 42.8 | 25.4 |
| 1 | TGM 220-1-2205 | 0.00 | 32.00 | 5.60 | 0.00 | 0.00 | 45.4 | 26.2 |
| | GRAND MEAN | 0.00 | 110.06 | 6.19 | 0.00 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.15 | 0.96 | 0.00 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 14.81% | 30.98% | 0.00% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 23.22 | 2.73 | 0.00 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.40++ | -0.01 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | -0.41++ | 0.33++ | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.53++ | 0.05 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.44++ | -0.18 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.29+ | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | -0.29+ | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 83 EXPERIMENT 399 YEAR 1976

REGION - AFRICA COUNTRY - NIGERIA
SITE - IBADAN
COOPERATORS - D. NANGJU, J.P. SINGH
DATE PLANTED - AUGUST 23, 1976 DATE HARVESTED - DECEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | FORREST | 2861.00 | 37.00 | 92.00 | 173.50 | 139.50 | 0.74 | 0.91 | 47.65 | 2.25 |
| 10 | BOSSIER | 2735.50 | 37.00 | 92.00 | 303.50 | 310.00 | 1.30 | 1.70 | 62.28 | 2.75 |
| 1 | TGM 220-1-2205 | 2346.50 | 41.00 | 92.00 | 440.00 | 238.00 | 1.65 | 1.37 | 57.45 | 3.00 |
| 12 | COBB | 2315.25 | 31.00 | 92.00 | 213.50 | 216.00 | 0.98 | 1.32 | 44.78 | 1.00 |
| 13 | DAVIS | 2284.53 | 37.00 | 92.00 | 221.50 | 201.00 | 1.35 | 1.71 | 38.15 | 1.00 |
| 5 | TGM 294-4-2371 | 2262.66 | 41.00 | 92.00 | 311.75 | 231.50 | 1.41 | 1.52 | 72.18 | 2.00 |
| 2 | TGM 210-1-2363 | 2227.25 | 37.00 | 92.00 | 203.50 | 218.00 | 0.83 | 1.16 | 54.88 | 2.00 |
| 14 | IMPROVED PELICAN | 2123.62 | 37.00 | 92.00 | 161.50 | 194.00 | 0.81 | 1.74 | 80.55 | 4.00 |
| 11 | WILLIAMS | 2116.33 | 27.00 | 92.00 | 281.75 | 176.00 | 1.80 | 1.36 | 57.05 | 1.00 |
| 7 | TGX 13-3-2644 | 2092.89 | 37.00 | 92.00 | 127.75 | 158.75 | 0.79 | 1.17 | 79.95 | 2.00 |
| 6 | TGX 66-5100 | 2085.08 | 37.00 | 92.00 | 126.50 | 142.75 | 0.72 | 1.28 | 82.75 | 2.50 |
| 8 | TGM 256-1-B | 2036.13 | 41.00 | 92.00 | 287.50 | 189.75 | 1.45 | 1.44 | 65.00 | 2.00 |
| 4 | TGM 249-4-B | 1749.72 | 37.00 | 92.00 | 154.75 | 351.25 | 0.81 | 1.73 | 67.55 | 1.50 |
| 9 | JUPITER | 1728.37 | 41.00 | 101.00 | 226.75 | 207.75 | 1.02 | 1.65 | 82.55 | 2.00 |
| 3 | TGM 255-2-4341 | 1699.73 | 37.00 | 92.00 | 186.50 | 175.75 | 0.97 | 1.17 | 70.12 | 3.50 |
| | GRAND MEAN | 2177.64 | 37.00 | 92.60 | 228.02 | 210.00 | 1.11 | 1.42 | 64.19 | 2.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 161.71 | 0.00 | 0.00 | 37.76 | 35.52 | 0.24 | 0.29 | 2.66 | 0.22 |
| | COEFFICIENT OF VARIATION | 14.85% | 0.00% | 0.00% | 33.12% | 33.83% | 43.93% | 41.68% | 8.27% | 20.35% |
| | 5% LSD VARIETY MEANS (********=NS) | 461.54 | 0.00 | 0.00 | 107.78 | 101.37 | 0.69 | ******** | 7.58 | 0.63 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.07 | -0.29+ | 0.19 | 0.06 | 0.04 | -0.01 | -0.39++ | 0.02 |
| DAYS TO | FLOWER | -0.07 | 1.00 | 0.29+ | 0.17 | 0.09 | -0.06 | 0.07 | 0.34++ | 0.39++ |
| DAYS TO | MATURITY | -0.29+ | 0.29+ | 1.00 | -0.00 | -0.01 | -0.04 | 0.11 | 0.34++ | -0.05 |
| NODULE | NUMBER 1 | 0.19 | 0.17 | -0.00 | 1.00 | 0.30+ | 0.74++ | 0.22 | -0.18 | 0.05 |
| NODULE | NUMBER 2 | 0.06 | 0.09 | -0.01 | 0.30+ | 1.00 | 0.25 | 0.74++ | -0.05 | -0.04 |
| NODULE | WEIGHT 1 | 0.04 | -0.06 | -0.04 | 0.74++ | 0.25 | 1.00 | 0.25 | -0.15 | -0.11 |
| NODULE | WEIGHT 2 | -0.01 | 0.07 | 0.11 | 0.22 | 0.74++ | 0.25 | 1.00 | 0.12 | -0.01 |
| PLANT | HEIGHT | -0.39++ | 0.34++ | 0.34++ | -0.18 | -0.05 | -0.15 | 0.12 | 1.00 | 0.43++ |
| | LODGING | 0.02 | 0.39++ | -0.05 | 0.05 | -0.04 | -0.11 | -0.01 | 0.43++ | 1.00 |
| | SHATTER | 0.07 | 0.0 | -0.10 | -0.06 | -0.00 | -0.01 | 0.01 | -0.48++ | -0.28+ |
| PLANTS | HARVEST | 0.23 | 0.26+ | -0.19 | 0.08 | -0.17 | -0.07 | -0.13 | 0.22 | 0.71++ |
| PODS PER | PLANT | -0.20 | -0.25+ | -0.03 | -0.08 | 0.32+ | 0.02 | 0.26+ | -0.20 | -0.55++ |
| 100 SEED | WEIGHT | 0.36++ | -0.68++ | -0.16 | 0.01 | -0.12 | 0.09 | -0.03 | -0.50++ | -0.46++ |
| QUALITY | OF SEED | 0.10 | 0.03 | 0.60++ | 0.13 | -0.13 | 0.11 | -0.05 | -0.16 | -0.38++ |

TABLE 83 EXPERIMENT 399 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 15 | FORREST | 1.00 | 272.00 | 20.75 | 17.66 | 2.00 | 43.5 | 21.6 |
| 10 | BOSSIER | 1.00 | 272.25 | 19.60 | 16.77 | 1.50 | 45.7 | 21.2 |
| 1 | TGM 220-1-2205 | 1.00 | 338.00 | 15.93 | 14.50 | 2.00 | 45.2 | 20.7 |
| 12 | COBB | 1.00 | 101.50 | 46.28 | 19.82 | 2.00 | 40.1 | 23.9 |
| 13 | DAVIS | 3.00 | 149.75 | 34.35 | 19.85 | 2.00 | 46.6 | 20.1 |
| 5 | TGM 294-4-2371 | 1.00 | 238.00 | 20.68 | 15.88 | 1.50 | 48.3 | 18.2 |
| 2 | TGM 210-1-2363 | 3.00 | 304.50 | 11.28 | 17.11 | 1.25 | 45.4 | 21.0 |
| 14 | IMPROVED PELICAN | 1.00 | 343.75 | 13.40 | 15.55 | 1.00 | 45.2 | 21.6 |
| 11 | WILLIAMS | 1.00 | 141.75 | 38.30 | 20.26 | 2.00 | 42.9 | 24.1 |
| 7 | TGX 13-3-2644 | 1.00 | 246.75 | 20.78 | 16.96 | 2.00 | 43.7 | 22.1 |
| 6 | TGX 66-510C | 1.00 | 274.25 | 15.65 | 16.83 | 1.00 | 44.8 | 20.1 |
| 8 | TGM 256-1-B | 1.00 | 123.00 | 37.73 | 14.07 | 1.75 | 47.8 | 18.5 |
| 4 | TGM 249-4-B | 1.00 | 68.25 | 70.00 | 14.19 | 1.00 | 45.9 | 21.2 |
| 9 | JUPITER | 1.00 | 150.25 | 25.10 | 15.30 | 3.00 | 45.2 | 20.8 |
| 3 | TGM 255-2-4341 | 1.00 | 291.75 | 19.00 | 14.72 | 1.00 | 45.2 | 22.4 |
| | GRAND MEAN | 1.27 | 221.05 | 27.25 | 16.63 | 1.67 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 26.77 | 6.53 | 0.58 | 0.14 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 24.22% | 47.95% | 6.98% | 16.99% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 76.41 | 18.65 | 1.66 | 0.40 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.07 | 0.23 | -0.20 | 0.36++ | 0.10 |
| DAYS TO FLOWER | 0.0 | 0.26+ | -0.25+ | -0.68++ | 0.03 |
| DAYS TO MATURITY | -0.10 | -0.19 | -0.03 | -0.16 | 0.60++ |
| NODULE NUMBER 1 | -0.06 | 0.08 | -0.08 | 0.01 | 0.13 |
| NODULE NUMBER 2 | -0.00 | -0.17 | 0.32+ | -0.12 | -0.13 |
| NODULE WEIGHT 1 | -0.01 | -0.07 | 0.02 | 0.09 | 0.11 |
| NODULE WEIGHT 2 | 0.01 | -0.13 | 0.26+ | -0.03 | -0.05 |
| PLANT HEIGHT | -0.48++ | 0.22 | -0.20 | -0.50++ | -0.16 |
| LODGING | -0.28+ | 0.71++ | -0.55++ | -0.46++ | -0.38++ |
| SHATTER | 1.00 | 0.02 | -0.09 | 0.33+ | -0.03 |
| PLANTS HARVEST | 0.02 | 1.00 | -0.80++ | -0.15 | -0.30+ |
| PODS PER PLANT | -0.09 | -0.80++ | 1.00 | -0.01 | 0.05 |
| 100 SEED WEIGHT | 0.33+ | -0.15 | -0.01 | 1.00 | 0.20 |
| QUALITY OF SEED | -0.03 | -0.30+ | 0.05 | 0.20 | 1.00 |

TABLE 84 EXPERIMENT 59 YEAR 1976

REGION - AFRICA
COUNTRY - RHODESIA
SITE - SALISBURY
ELEVATION - 1506 M
LATITUDE - 17 DEG. 48 MIN. S
LONGITUDE - 31 DEG. 3 MIN. E
COOPERATORS - J.R. TATTERSFIELD, J.S. TICHAGWA
DATE PLANTED - DECEMBER 10, 1976
DATE HARVESTED - APRIL, 1977
SOIL TYPE - CLAY, PH 5.9
FERTILIZER USED (KG/HA) - N 24.0, P 19.0, K 25.0
AMOUNT OF MOISTURE - 904 MM
NUMBER OF IRRIGATIONS - 4
LOCAL VARIETY - ORIBI

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | ESSEX | 3395.29 | 42.00 | 121.75 | 352.25 | 521.50 | 0.82 | 1.89 | 61.00 | 1.00 |
| 3 | BRAGG | 3374.46 | 42.00 | 120.00 | 255.25 | 707.50 | 0.75 | 2.45 | 64.50 | 2.00 |
| 4 | RANSOM | 3369.25 | 39.00 | 123.00 | 208.50 | 595.25 | 0.39 | 2.05 | 49.50 | 1.00 |
| 14 | FORREST | 3265.10 | 46.00 | 123.75 | 249.75 | 500.00 | 0.81 | 2.19 | 76.25 | 4.00 |
| 15 | COLUMBUS | 3176.57 | 31.25 | 116.00 | 210.00 | 473.25 | 0.49 | 2.13 | 70.25 | 1.00 |
| 1 | CALLAND | 3155.74 | 29.75 | 109.00 | 208.50 | 353.00 | 0.61 | 2.35 | 59.50 | 1.00 |
| 12 | DAVIS | 3046.39 | 60.00 | 126.00 | 372.00 | 644.25 | 1.71 | 3.63 | 84.00 | 1.25 |
| 10 | CLARK 63 | 3030.76 | 29.00 | 102.75 | 216.25 | 356.00 | 0.48 | 2.15 | 57.00 | 1.25 |
| 8 | BOSSIER | 2968.27 | 46.00 | 123.75 | 357.00 | 476.75 | 1.24 | 2.26 | 66.00 | 1.00 |
| 9 | WILLIAMS | 2931.82 | 29.00 | 98.00 | 321.00 | 388.75 | 0.54 | 2.01 | 50.00 | 1.25 |
| 7 | ORIBI | 2921.41 | 46.00 | 124.50 | 253.25 | 551.75 | 0.82 | 1.87 | 89.50 | 1.00 |
| 5 | HILL | 2827.67 | 53.00 | 118.25 | 285.50 | 486.00 | 0.93 | 2.41 | 73.75 | 2.75 |
| 6 | PICKETT 71 | 2692.28 | 46.00 | 116.00 | 267.00 | 395.50 | 0.84 | 1.68 | 45.75 | 1.00 |
| 11 | COBB | 2681.86 | 53.00 | 126.00 | 389.50 | 721.75 | 1.25 | 2.90 | 87.00 | 2.50 |
| 2 | WOODWORTH | 2213.19 | 29.00 | 95.00 | 245.75 | 370.50 | 0.47 | 2.65 | 49.50 | 1.50 |
| 13 | IMPROVED PELICAN | 2109.04 | 67.00 | 144.00 | 359.00 | 500.75 | 1.23 | 2.03 | 122.00 | 3.00 |
| | GRAND MEAN | 2947.44 | 43.00 | 117.98 | 284.41 | 502.66 | 0.84 | 2.29 | 69.09 | 1.66 |
| | STANDARD ERROR OF A VARIETY MEAN | 122.89 | 0.27 | 0.68 | 30.19 | 37.32 | 0.08 | 0.17 | 1.71 | 0.19 |
| | COEFFICIENT OF VARIATION | 8.34% | 1.27% | 1.16% | 21.23% | 14.85% | 20.27% | 15.16% | 4.95% | 22.84% |
| | 5% LSD VARIETY MEANS (*********=NS) | 350.05 | 0.78 | 1.95 | 86.00 | 106.32 | 0.24 | 0.49 | 4.87 | 0.54 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.27+ | -0.02 | -0.24 | 0.16 | -0.21 | -0.12 | -0.34++ | -0.22 |
| DAYS TO FLOWER | -0.27+ | 1.00 | 0.86++ | 0.47++ | 0.48++ | 0.76++ | 0.24 | 0.77++ | 0.46++ |
| DAYS TO MATURITY | -0.02 | 0.86++ | 1.00 | 0.33++ | 0.51++ | 0.57++ | 0.02 | 0.77++ | 0.36++ |
| NODULE NUMBER 1 | -0.24 | 0.47++ | 0.33++ | 1.00 | 0.41++ | 0.78++ | 0.43++ | 0.35++ | 0.07 |
| NODULE NUMBER 2 | 0.16 | 0.48++ | 0.51++ | 0.41++ | 1.00 | 0.47++ | 0.50++ | 0.36++ | 0.16 |
| NODULE WEIGHT 1 | -0.21 | 0.76++ | 0.57++ | 0.78++ | 0.47++ | 1.00 | 0.54++ | 0.56++ | 0.17 |
| NODULE WEIGHT 2 | -0.12 | 0.24 | 0.02 | 0.43++ | 0.50++ | 0.54++ | 1.00 | 0.17 | 0.06 |
| PLANT HEIGHT | -0.34++ | 0.77++ | 0.77++ | 0.35++ | 0.36++ | 0.56++ | 0.17 | 1.00 | 0.50++ |
| LODGING | -0.22 | 0.46++ | 0.36++ | 0.07 | 0.16 | 0.17 | 0.06 | 0.50++ | 1.00 |
| SHATTER | -0.38++ | -0.42++ | -0.60++ | -0.06 | -0.37++ | -0.28+ | 0.13 | -0.35++ | -0.10 |
| PLANTS HARVEST | 0.09 | 0.12 | 0.10 | -0.06 | 0.07 | 0.03 | -0.04 | 0.01 | -0.03 |
| PODS PER PLANT | -0.29+ | 0.61++ | 0.59++ | 0.22 | 0.25+ | 0.36++ | 0.01 | 0.65++ | 0.30+ |
| 100 SEED WEIGHT | 0.45++ | -0.53++ | -0.34++ | -0.30+ | -0.04 | -0.32+ | -0.05 | -0.40++ | -0.55++ |
| QUALITY OF SEED | -0.15 | -0.28+ | -0.29+ | -0.07 | -0.28+ | -0.24 | 0.00 | -0.23 | 0.17 |

TABLE 84 EXPERIMENT 59 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | ESSEX | 1.00 | 195.75 | 37.48 | 17.13 | 1.75 | 44.1 | 19.1 |
| 3 | BRAGG | 1.00 | 198.00 | 32.58 | 22.24 | 2.00 | 42.0 | 18.8 |
| 4 | RANSOM | 1.00 | 195.25 | 23.03 | 22.29 | 2.50 | 42.2 | 21.8 |
| 14 | FORREST | 1.00 | 194.50 | 31.13 | 17.32 | 2.75 | 40.1 | 19.6 |
| 15 | COLUMBUS | 1.00 | 195.00 | 27.38 | 20.41 | 2.00 | 43.6 | 19.5 |
| 1 | CALLAND | 1.25 | 191.25 | 21.20 | 23.88 | 2.50 | 44.3 | 19.0 |
| 12 | DAVIS | 1.00 | 199.25 | 38.50 | 20.38 | 1.75 | 42.3 | 20.0 |
| 10 | CLARK 63 | 1.00 | 194.75 | 20.35 | 20.41 | 2.50 | 41.9 | 20.6 |
| 8 | BOSSIER | 1.00 | 197.00 | 30.35 | 20.61 | 2.25 | 44.9 | 18.5 |
| 9 | WILLIAMS | 1.75 | 196.00 | 32.60 | 23.36 | 2.75 | 42.6 | 19.9 |
| 7 | ORIBI | 0.75 | 195.75 | 41.83 | 22.10 | 1.00 | 38.0 | 18.8 |
| 5 | HILL | 1.00 | 196.00 | 33.38 | 15.59 | 2.00 | 41.6 | 18.3 |
| 6 | PICKETT 71 | 1.00 | 195.25 | 29.55 | 18.84 | 2.00 | 43.3 | 19.7 |
| 11 | COBB | 1.00 | 189.50 | 41.68 | 18.49 | 2.00 | 40.6 | 18.7 |
| 2 | WOODWORTH | 3.25 | 192.50 | 18.38 | 17.55 | 2.75 | 39.6 | 20.2 |
| 13 | IMPROVED PELICAN | 1.00 | 196.00 | 66.60 | 15.37 | 2.50 | 43.3 | 16.4 |
| | GRAND MEAN | 1.19 | 195.11 | 32.87 | 19.75 | 2.19 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.13 | 3.38 | 5.80 | 0.31 | 0.20 | | |
| | COEFFICIENT OF VARIATION | 21.29% | 3.47% | 35.28% | 3.12% | 17.87% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.36 | ******** | 16.52 | 0.88 | 0.56 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.38++ | 0.09 | -0.29+ | 0.45++ | -0.15 |
| DAYS TO | FLOWER | -0.42++ | 0.12 | 0.61++ | -0.53++ | -0.28+ |
| DAYS TO | MATURITY | -0.60++ | 0.10 | 0.59++ | -0.34++ | -0.29+ |
| NODULE | NUMBER 1 | -0.06 | -0.06 | 0.22 | -0.30+ | -0.07 |
| NODULE | NUMBER 2 | -0.37++ | 0.07 | 0.25+ | -0.04 | -0.28+ |
| NODULE | WEIGHT 1 | -0.28+ | 0.03 | 0.36++ | -0.32+ | -0.24 |
| NODULE | WEIGHT 2 | 0.13 | -0.04 | 0.01 | -0.05 | 0.00 |
| PLANT | HEIGHT | -0.35++ | 0.01 | 0.65++ | -0.40++ | -0.23 |
| | LODGING | -0.10 | -0.03 | 0.30+ | -0.55++ | 0.17 |
| | SHATTER | 1.00 | -0.14 | -0.26+ | -0.07 | 0.38++ |
| PLANTS | HARVEST | -0.14 | 1.00 | -0.01 | 0.01 | -0.20 |
| PODS PER | PLANT | -0.26+ | -0.01 | 1.00 | -0.32++ | -0.09 |
| 100 SEED | WEIGHT | -0.07 | 0.01 | -0.32++ | 1.00 | -0.06 |
| QUALITY | OF SEED | 0.38++ | -0.20 | -0.09 | -0.06 | 1.00 |

TABLE 85 EXPERIMENT 284 YEAR 1976

REGION - AFRICA
SITE - AFGOI
LATITUDE - 2 DEG. 8 MIN. N
COOPERATORS - M.A. ABKOW, S.J. OSOBLE
DATE PLANTED - SEPTEMBER 28, 1976
SOIL TYPE - CLAY, PH 7.7
AMOUNT OF MOISTURE - 130 MM
NUMBER OF IRRIGATIONS - 3

COUNTRY - SOMALIA
ELEVATION - 13 M
LONGITUDE - 45 DEG. 7 MIN. E

DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 3448.26 | 37.00 | 117.75 | 53.75 | 0.00 | 0.00 | 0.00 | 100.00 | 2.00 |
| 3 | WILLIAMS | 2067.39 | 32.25 | 89.00 | 75.25 | 0.00 | 0.00 | 0.00 | 48.75 | 2.00 |
| 4 | CLARK 63 | 2034.54 | 34.00 | 90.75 | 68.00 | 0.00 | 0.00 | 0.00 | 53.75 | 2.50 |
| 7 | IMPROVED PELICAN | 1807.49 | 39.25 | 97.00 | 67.00 | 0.00 | 0.00 | 0.00 | 72.50 | 1.50 |
| 2 | BOSSIER | 1715.03 | 31.75 | 95.00 | 73.75 | 0.00 | 0.00 | 0.00 | 38.75 | 2.25 |
| 6 | DAVIS | 1523.32 | 32.50 | 101.00 | 51.75 | 0.00 | 0.00 | 0.00 | 45.50 | 2.75 |
| 5 | COBB | 1516.89 | 35.50 | 100.75 | 61.25 | 0.00 | 0.00 | 0.00 | 41.25 | 2.00 |
| 8 | FORREST | 1440.14 | 36.00 | 92.75 | 36.00 | 0.00 | 0.00 | 0.00 | 42.50 | 1.50 |
| | GRAND MEAN | 1944.13 | 34.78 | 98.00 | 60.84 | 0.00 | 0.00 | 0.00 | 55.38 | 2.06 |
| | STANDARD ERROR OF A VARIETY MEAN | 223.61 | 0.62 | 1.68 | 12.12 | 0.00 | 0.00 | 0.00 | 3.34 | 0.28 |
| | COEFFICIENT OF VARIATION | 23.00% | 3.54% | 3.43% | 39.84% | 0.00% | 0.00% | 0.00% | 12.05% | 26.71% |
| | 5% LSD VARIETY MEANS (********=NS) | 657.65 | 1.81 | 4.95 | ******** | 0.00 | 0.00 | 0.00 | 9.82 | 0.81 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.15 | 0.44+ | -0.03 | 0.00 | 0.00 | 0.00 | 0.56++ | 0.16 |
| DAYS TO FLOWER | 0.15 | 1.00 | 0.35+ | 0.02 | 0.00 | 0.00 | 0.00 | 0.57++ | -0.38+ |
| DAYS TO MATURITY | 0.44+ | 0.35+ | 1.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.67++ | -0.10 |
| NODULE NUMBER 1 | -0.03 | 0.02 | 0.01 | 1.00 | 0.00 | 0.00 | 0.00 | -0.04 | -0.14 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.56++ | 0.57++ | 0.67++ | -0.04 | 0.00 | 0.00 | 0.00 | 1.00 | -0.20 |
| LODGING | 0.16 | -0.38+ | -0.10 | -0.14 | 0.00 | 0.00 | 0.00 | -0.20 | 1.00 |
| SHATTER | -0.33 | -0.46++ | -0.49++ | 0.02 | 0.00 | 0.00 | 0.00 | -0.59++ | 0.20 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.09 | 0.29 | 0.07 | -0.25 | 0.00 | 0.00 | 0.00 | 0.23 | -0.19 |
| 100 SEED WEIGHT | 0.55++ | 0.07 | 0.56++ | 0.33 | 0.00 | 0.00 | 0.00 | 0.54++ | -0.15 |
| QUALITY OF SEED | -0.53++ | 0.05 | -0.41+ | 0.07 | 0.00 | 0.00 | 0.00 | -0.53++ | -0.11 |

TABLE 85 EXPERIMENT 284 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | JUPITER | 1.00 | 0.00 | 21.75 | 21.15 | 1.50 | 40.8 | 26.1 |
| 3 | WILLIAMS | 1.75 | 0.00 | 20.50 | 18.68 | 2.25 | 41.8 | 24.9 |
| 4 | CLARK 63 | 1.25 | 0.00 | 13.75 | 16.95 | 2.00 | 40.8 | 25.8 |
| 7 | IMPROVED PELICAN | 1.00 | 0.00 | 31.50 | 16.63 | 2.25 | 41.7 | 24.6 |
| 2 | BOSSIER | 2.00 | 0.00 | 22.25 | 16.50 | 2.25 | 42.9 | 23.7 |
| 6 | DAVIS | 1.50 | 0.00 | 19.50 | 16.18 | 2.25 | 42.1 | 24.6 |
| 5 | COBB | 1.50 | 0.00 | 21.25 | 17.90 | 2.75 | 39.0 | 25.0 |
| 8 | FORREST | 1.75 | 0.00 | 18.25 | 14.58 | 3.25 | 41.0 | 24.0 |
| | GRAND MEAN | 1.47 | 0.00 | 21.09 | 17.32 | 2.31 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.19 | 0.00 | 2.84 | 0.77 | 0.25 | | |
| | COEFFICIENT OF VARIATION | 25.33% | 0.00% | 26.93% | 8.88% | 21.88% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.55 | 0.00 | 8.35 | 2.26 | 0.74 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.33 | 0.00 | 0.09 | 0.55++ | -0.53++ |
| DAYS TO | FLOWER | -0.46++ | 0.00 | 0.29 | 0.07 | 0.05 |
| DAYS TO | MATURITY | -0.49++ | 0.00 | 0.07 | 0.56++ | -0.41+ |
| NODULE | NUMBER 1 | 0.02 | 0.00 | -0.25 | 0.33 | 0.07 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.59++ | 0.00 | 0.23 | 0.54++ | -0.53++ |
| | LODGING | 0.20 | 0.00 | -0.19 | -0.15 | -0.11 |
| | SHATTER | 1.00 | 0.00 | -0.20 | -0.27 | 0.40+ |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | -0.20 | 0.00 | 1.00 | -0.06 | -0.21 |
| 100 SEED | WEIGHT | -0.27 | 0.00 | -0.06 | 1.00 | -0.33 |
| QUALITY | OF SEED | 0.40+ | 0.00 | -0.21 | -0.33 | 1.00 |

TABLE 86 EXPERIMENT 267 YEAR 1976

REGION - AFRICA COUNTRY - SUDAN
SITE - WAU ELEVATION - 450 M
LATITUDE - 7 DEG. 36 MIN. N LONGITUDE - 27 DEG. 53 MIN. E
COOPERATORS - D. HOPKINSON, H.L.M. VAN WISSEN
DATE PLANTED - JULY 27 AND AUGUST 13, 1976 DATE HARVESTED - OCTOBER, 1976
SOIL TYPE - SAND 68.6%, SILT 10.1%, CLAY 21.3%, PH 6.8
AMOUNT OF MOISTURE - 450 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | FORREST | 1179.40 | 0.00 | 78.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.40 | 1.50 |
| 11 | WILLIAMS | 1104.39 | 0.00 | 73.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.70 | 2.00 |
| 15 | IMPROVED PELICAN | 1087.72 | 0.00 | 82.50 | 0.00 | 0.00 | 0.00 | 0.00 | 53.15 | 1.75 |
| 14 | DAVIS | 1029.37 | 0.00 | 86.25 | 0.00 | 0.00 | 0.00 | 0.00 | 28.00 | 2.00 |
| 9 | JUPITER | 971.03 | 0.00 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.80 | 1.75 |
| 13 | COBB | 841.83 | 0.00 | 85.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.95 | 2.00 |
| 12 | CLARK 63 | 833.50 | 0.00 | 73.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.25 | 2.75 |
| 10 | BOSSIER | 679.30 | 0.00 | 73.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.30 | 2.00 |
| 8 | TGM 256-1-B | 558.44 | 0.00 | 104.25 | 0.00 | 0.00 | 0.00 | 0.00 | 36.00 | 1.50 |
| 2 | TGM 210-1-2363 | 495.93 | 0.00 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 26.25 | 1.00 |
| 7 | TGX 13-3-2644 | 487.60 | 0.00 | 112.50 | 0.00 | 0.00 | 0.00 | 0.00 | 40.95 | 1.75 |
| 6 | TGX 66-5100 | 437.59 | 0.00 | 112.50 | 0.00 | 0.00 | 0.00 | 0.00 | 40.35 | 1.75 |
| 1 | TGM 220-1-2205 | 420.92 | 0.00 | 101.50 | 0.00 | 0.00 | 0.00 | 0.00 | 26.00 | 1.50 |
| 5 | TGM 294-4-2371 | 412.58 | 0.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.75 | 1.75 |
| 3 | TGM 255-2-4341 | 275.05 | 0.00 | 113.25 | 0.00 | 0.00 | 0.00 | 0.00 | 32.25 | 1.50 |
| 4 | TGM 249-4-B | 54.18 | 0.00 | 112.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.80 | 1.75 |
| | GRAND MEAN | 679.30 | 0.00 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 34.99 | 1.77 |
| | STANDARD ERROR OF A VARIETY MEAN | 84.66 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 | 0.00 | 2.23 | 0.27 |
| | COEFFICIENT OF VARIATION | 24.93% | 0.00% | 2.08% | 0.00% | 0.00% | 0.00% | 0.00% | 12.72% | 30.68% |
| | 5% LSD VARIETY MEANS (********=NS) | 241.15 | 0.00 | 2.80 | 0.00 | 0.00 | 0.00 | 0.00 | 6.34 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | -0.72++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.19 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | -0.72++ | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27+ | -0.31+ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.04 | 0.00 | 0.27+ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.04 |
| | LODGING | 0.19 | 0.00 | -0.31+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 1.00 |
| | SHATTER | -0.45++ | 0.00 | 0.49++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.13 | -0.19 |
| PLANTS | HARVEST | 0.74++ | 0.00 | -0.76++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.20 | 0.26+ |
| PODS PER | PLANT | -0.37++ | 0.00 | 0.58++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.29+ | -0.18 |
| 100 SEED | WEIGHT | 0.44++ | 0.00 | -0.48++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.31+ |
| QUALITY | OF SEED | 0.28+ | 0.00 | -0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |

TABLE 86 EXPERIMENT 267 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | FORREST | 1.00 | 122.50 | 24.87 | 12.67 | 4.00 | 43.4 | 20.4 |
| 11 | WILLIAMS | 1.00 | 126.50 | 15.20 | 16.53 | 2.75 | 45.1 | 22.7 |
| 15 | IMPROVED PELICAN | 1.25 | 92.25 | 34.03 | 12.19 | 2.00 | 42.4 | 23.9 |
| 14 | DAVIS | 1.75 | 123.00 | 17.95 | 14.74 | 2.00 | 42.9 | 21.8 |
| 9 | JUPITER | 1.75 | 84.50 | 29.42 | 15.13 | 3.25 | 42.9 | 22.9 |
| 13 | COBB | 2.00 | 104.25 | 17.63 | 15.49 | 1.75 | 40.8 | 22.1 |
| 12 | CLARK 63 | 1.50 | 115.25 | 15.30 | 15.18 | 2.50 | 41.7 | 23.5 |
| 10 | BOSSIER | 1.00 | 106.00 | 19.10 | 13.40 | 2.50 | 42.7 | 21.8 |
| 8 | TGM 256-1-B | 1.50 | 85.50 | 20.83 | 10.75 | 2.25 | 45.4 | 19.4 |
| 2 | TGM 210-1-2363 | 3.75 | 75.25 | 24.28 | 13.28 | 1.25 | 43.8 | 21.4 |
| 7 | TGX 13-3-2644 | 2.00 | 35.00 | 45.20 | 13.73 | 2.00 | 42.3 | 21.9 |
| 6 | TGX 66-5100 | 2.00 | 41.00 | 44.57 | 12.58 | 1.50 | 43.8 | 19.1 |
| 1 | TGM 220-1-2205 | 3.00 | 37.75 | 38.37 | 10.20 | 3.00 | 41.1 | 20.2 |
| 5 | TGM 294-4-2371 | 2.00 | 107.00 | 17.45 | 13.55 | 2.00 | 46.3 | 18.4 |
| 3 | TGM 255-2-4341 | 2.25 | 19.00 | 43.98 | 9.77 | 2.75 | 45.6 | 17.1 |
| 4 | TGM 249-4-B | 2.25 | 8.75 | 45.07 | 12.50 | 2.25 | 44.9 | 20.1 |
| | GRAND MEAN | 1.88 | 80.22 | 28.33 | 13.23 | 2.36 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.23 | 7.18 | 4.26 | 0.49 | 0.29 | | |
| | COEFFICIENT OF VARIATION | 24.98% | 17.91% | 30.09% | 7.35% | 24.64% | | |
| | 5% ISD VARIETY MEANS (********=NS) | 0.67 | 20.46 | 12.14 | 1.38 | 0.83 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.45++ | 0.74++ | -0.37++ | 0.44++ | 0.28+ |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.49++ | -0.76++ | 0.58++ | -0.48++ | -0.22 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.13 | -0.20 | 0.29+ | 0.06 | 0.00 |
| | LODGING | -0.19 | 0.26+ | -0.18 | 0.31+ | 0.01 |
| | SHATTER | 1.00 | -0.47++ | 0.27+ | -0.21 | -0.32+ |
| PLANTS | HARVEST | -0.47++ | 1.00 | -0.74++ | 0.51++ | 0.11 |
| PODS PER | PLANT | 0.27+ | -0.74++ | 1.00 | -0.39++ | -0.13 |
| 100 SEED | WEIGHT | -0.21 | 0.51++ | -0.39++ | 1.00 | -0.10 |
| QUALITY | OF SEED | -0.32+ | 0.11 | -0.13 | -0.10 | 1.00 |

TABLE 87 EXPERIMENT 144 YEAR 1976

REGION - AFRICA
SITE - BIGBEND
LATITUDE - 26 DEG. 52 MIN. S
COOPERATOR - J. CUMBERLAND
DATE PLANTED - OCTOBER 16, 1976
SOIL TYPE - SAND 30%, SILT 20%, CLAY 50%
FERTILIZER USED (KG/HA) - P 40.0, K 60.0
LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND
ELEVATION - 150 M
LONGITUDE - 31 DEG. 55 MIN. E

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 3854.94 | 70.00 | 0.00 | 205.50 | 192.00 | 1.56 | 3.01 | 0.00 | 0.00 |
| 6 | PICKETT 71 | 3782.01 | 72.50 | 0.00 | 168.00 | 165.00 | 0.88 | 2.49 | 0.00 | 0.00 |
| 11 | DAVIS | 3709.07 | 69.25 | 0.00 | 144.75 | 119.75 | 1.46 | 2.72 | 0.00 | 0.00 |
| 16 | WELKOM | 3625.72 | 76.25 | 0.00 | 251.00 | 224.00 | 1.71 | 2.72 | 0.00 | 0.00 |
| 8 | BOSSIER | 3573.63 | 70.00 | 0.00 | 186.50 | 146.00 | 1.88 | 2.40 | 0.00 | 0.00 |
| 15 | COLUMBUS | 3459.02 | 51.25 | 0.00 | 237.25 | 181.25 | 1.83 | 3.18 | 0.00 | 0.00 |
| 3 | BRAGG | 3396.51 | 68.75 | 0.00 | 165.25 | 140.00 | 1.11 | 2.66 | 0.00 | 0.00 |
| 12 | FORREST | 3250.65 | 72.50 | 0.00 | 117.75 | 201.25 | 1.23 | 3.42 | 0.00 | 0.00 |
| 10 | CLARK 63 | 3052.69 | 63.75 | 0.00 | 185.00 | 155.00 | 1.98 | 2.86 | 0.00 | 0.00 |
| 1 | CALLAND | 2979.76 | 57.50 | 0.00 | 122.25 | 173.50 | 1.80 | 3.65 | 0.00 | 0.00 |
| 9 | WILLIAMS | 2938.09 | 58.75 | 0.00 | 178.25 | 157.75 | 1.71 | 2.69 | 0.00 | 0.00 |
| 7 | CUTLER 71 | 2896.41 | 50.00 | 0.00 | 149.50 | 137.75 | 1.63 | 3.25 | 0.00 | 0.00 |
| 5 | HILL | 2865.16 | 70.00 | 0.00 | 112.00 | 160.00 | 0.96 | 1.73 | 0.00 | 0.00 |
| 2 | WOODWORTH | 2510.92 | 47.50 | 0.00 | 154.25 | 104.00 | 1.33 | 1.94 | 0.00 | 0.00 |
| 14 | BEESON | 2073.33 | 48.75 | 0.00 | 110.00 | 127.25 | 1.55 | 2.08 | 0.00 | 0.00 |
| 13 | WELLS | 1812.86 | 60.00 | 0.00 | 103.00 | 136.50 | 1.31 | 1.96 | 0.00 | 0.00 |
| | GRAND MEAN | 3111.30 | 62.86 | 0.00 | 161.89 | 157.56 | 1.49 | 2.67 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 155.23 | 6.20 | 0.00 | 31.01 | 34.99 | 0.33 | 0.58 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 9.98% | 19.72% | 0.00% | 38.31% | 44.41% | 44.29% | 43.18% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 442.16 | 17.66 | 0.00 | 88.32 | ******** | ******** | ******** | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.39++ | 0.00 | 0.34++ | 0.14 | 0.03 | 0.19 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.39++ | 1.00 | 0.00 | -0.02 | 0.05 | -0.22 | -0.12 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.34++ | -0.02 | 0.00 | 1.00 | 0.36++ | 0.66++ | 0.31+ | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.14 | 0.05 | 0.00 | 0.36++ | 1.00 | 0.43++ | 0.62++ | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.03 | -0.22 | 0.00 | 0.66++ | 0.43++ | 1.00 | 0.56++ | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.19 | -0.12 | 0.00 | 0.31+ | 0.62++ | 0.56++ | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | -0.42++ | -0.26+ | 0.00 | -0.32+ | 0.01 | 0.00 | 0.10 | 0.00 | 0.00 |

TABLE 87 EXPERIMENT 144 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | RANSOM | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 |
| 6 | PICKETT 71 | 0.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 11 | DAVIS | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| 16 | WELKOM | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 |
| 8 | BOSSIER | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 15 | COLUMBUS | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| 3 | BRAGG | 0.00 | 0.00 | 0.00 | 0.00 | 1.50 |
| 12 | FORREST | 0.00 | 0.00 | 0.00 | 0.00 | 4.25 |
| 10 | CLARK 63 | 0.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 1 | CALLAND | 0.00 | 0.00 | 0.00 | 0.00 | 4.00 |
| 9 | WILLIAMS | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| 7 | CUTLER 71 | 0.00 | 0.00 | 0.00 | 0.00 | 3.50 |
| 5 | HILL | 0.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 2 | WOODWORTH | 0.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 14 | BEESON | 0.00 | 0.00 | 0.00 | 0.00 | 4.50 |
| 13 | WELLS | 0.00 | 0.00 | 0.00 | 0.00 | 4.50 |
| | GRAND MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 2.70 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 0.00% | 18.87% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | 0.00 | 0.73 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.00 | 0.00 | -0.42++ |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | -0.26+ |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | -0.32+ |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 88 EXPERIMENT 146 YEAR 1976

REGION - AFRICA
SITE - MALKERNS
LATITUDE - 26 DEG. 32 MIN. S
COOPERATOR - J. CUMBERLAND
DATE PLANTED - OCTOBER 16, 1976
SOIL TYPE - SAND 61%, SILT 15%, CLAY 24%, PH 5.0-5.5
FERTILIZER USED (KG/HA) - P 40.0, K 60.0
AMOUNT OF MOISTURE - 888 MM
NUMBER OF IRRIGATIONS - 2
LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND
ELEVATION - 800 M
LONGITUDE - 31 DEG. 10 MIN. E
DATE HARVESTED - FEBRUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 2990.60 | 79.75 | 156.00 | 71.25 | 117.00 | 1.30 | 1.66 | 66.00 | 1.25 |
| 8 | BOSSIER | 2558.43 | 88.00 | 169.00 | 56.25 | 201.25 | 0.92 | 2.07 | 48.40 | 1.00 |
| 5 | HILL | 2270.45 | 85.75 | 165.00 | 47.50 | 126.25 | 0.35 | 1.06 | 61.68 | 1.00 |
| 16 | WELKOM | 2257.95 | 94.00 | 169.00 | 68.25 | 143.50 | 1.34 | 1.80 | 93.65 | 2.75 |
| 3 | BRAGG | 2245.03 | 87.75 | 169.00 | 53.00 | 161.50 | 0.35 | 1.65 | 45.75 | 1.00 |
| 15 | COLUMBUS | 2210.86 | 59.25 | 126.50 | 100.50 | 176.25 | 1.15 | 3.19 | 65.90 | 1.00 |
| 12 | FORREST | 2150.85 | 86.75 | 169.00 | 56.50 | 135.50 | 0.43 | 1.53 | 63.85 | 1.00 |
| 6 | PICKETT 71 | 1892.86 | 81.50 | 169.00 | 28.00 | 57.25 | 0.20 | 0.64 | 29.25 | 1.00 |
| 2 | WOODWORTH | 1649.50 | 51.00 | 111.75 | 65.50 | 103.25 | 1.10 | 1.87 | 37.65 | 1.00 |
| 14 | BEESON | 1630.74 | 58.75 | 110.00 | 27.25 | 110.75 | 0.49 | 1.50 | 30.75 | 1.00 |
| 13 | WELLS | 1574.90 | 61.75 | 110.00 | 31.50 | 79.00 | 0.42 | 0.89 | 28.50 | 1.00 |
| 4 | RANSOM | 1293.59 | 82.00 | 169.00 | 75.00 | 100.25 | 0.93 | 1.03 | 37.10 | 1.00 |
| 10 | CLARK 63 | 1231.91 | 56.50 | 117.00 | 57.25 | 108.75 | 0.75 | 2.32 | 41.15 | 1.00 |
| 7 | CUTLER 71 | 1170.23 | 61.75 | 117.00 | 70.75 | 137.50 | 1.22 | 2.25 | 46.68 | 1.00 |
| 9 | WILLIAMS | 1076.05 | 59.50 | 120.75 | 96.00 | 117.25 | 1.18 | 1.89 | 43.95 | 1.00 |
| 1 | CALLAND | 869.34 | 60.75 | 124.50 | 70.50 | 139.75 | 1.14 | 2.35 | 44.70 | 1.00 |
| | GRAND MEAN | 1817.08 | 72.17 | 142.03 | 60.94 | 125.94 | 0.83 | 1.73 | 49.06 | 1.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 290.67 | 2.98 | 3.80 | 12.92 | 27.94 | 0.24 | 0.41 | 3.06 | 0.17 |
| | COEFFICIENT OF VARIATION | 31.99% | 8.25% | 5.35% | 42.40% | 44.37% | 57.95% | 47.67% | 12.46% | 29.63% |
| | 5% LSD VARIETY MEANS (********=NS) | 827.94 | 8.48 | 10.82 | 36.80 | ******** | 0.69 | 1.17 | 8.71 | 0.47 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.45++ | 0.43++ | -0.10 | 0.15 | 0.01 | -0.00 | 0.36++ | 0.19 |
| DAYS TO | FLOWER | 0.45++ | 1.00 | 0.91++ | -0.16 | 0.19 | -0.20 | -0.24 | 0.49++ | 0.34++ |
| DAYS TO | MATURITY | 0.43++ | 0.91++ | 1.00 | -0.08 | 0.12 | -0.11 | -0.22 | 0.45++ | 0.25+ |
| NODULE | NUMBER 1 | -0.10 | -0.16 | -0.08 | 1.00 | 0.13 | 0.60++ | 0.27+ | 0.23 | 0.07 |
| NODULE | NUMBER 2 | 0.15 | 0.19 | 0.12 | 0.13 | 1.00 | -0.00 | 0.73++ | 0.24 | 0.03 |
| NODULE | WEIGHT 1 | 0.01 | -0.20 | -0.11 | 0.60++ | -0.00 | 1.00 | 0.20 | 0.25+ | 0.17 |
| NODULE | WEIGHT 2 | -0.00 | -0.24 | -0.22 | 0.27+ | 0.73++ | 0.20 | 1.00 | 0.20 | 0.01 |
| PLANT | HEIGHT | 0.36++ | 0.49++ | 0.45++ | 0.23 | 0.24 | 0.25+ | 0.20 | 1.00 | 0.60++ |
| | LODGING | 0.19 | 0.34++ | 0.25+ | 0.07 | 0.03 | 0.17 | 0.01 | 0.60++ | 1.00 |
| | SHATTER | -0.31+ | -0.55++ | -0.67++ | -0.02 | -0.04 | 0.10 | 0.19 | -0.27+ | -0.17 |
| PLANTS | HARVEST | -0.08 | -0.49++ | -0.50++ | -0.15 | -0.28+ | -0.17 | -0.13 | -0.37++ | -0.38++ |
| PODS PER | PLANT | 0.03 | -0.00 | -0.01 | 0.18 | 0.07 | 0.21 | 0.13 | 0.40++ | 0.13 |
| 100 SEED | WEIGHT | 0.26+ | 0.18 | 0.20 | 0.29+ | 0.13 | 0.26+ | 0.14 | 0.28+ | 0.37++ |
| QUALITY | OF SEED | -0.52++ | -0.27+ | -0.25+ | 0.15 | 0.00 | 0.08 | 0.08 | -0.24 | -0.17 |

TABLE 88 EXPERIMENT 146 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 2.00 | 229.00 | 22.75 | 23.30 | 3.00 | 41.8 | 22.2 |
| 8 | BOSSIER | 1.25 | 150.25 | 16.53 | 23.06 | 3.50 | 44.6 | 20.2 |
| 5 | HILL | 1.00 | 201.50 | 53.63 | 20.51 | 4.00 | 43.6 | 19.4 |
| 16 | WELKOM | 1.50 | 107.75 | 31.88 | 23.71 | 3.25 | 44.0 | 19.4 |
| 3 | BRAGG | 1.00 | 187.00 | 13.90 | 24.43 | 3.25 | 43.0 | 20.0 |
| 15 | COLUMBUS | 1.00 | 193.00 | 26.13 | 20.76 | 3.00 | 44.7 | 19.1 |
| 12 | FORREST | 1.00 | 178.75 | 15.80 | 20.87 | 2.75 | 41.8 | 19.8 |
| 6 | PICKETT 71 | 1.00 | 175.00 | 14.38 | 19.33 | 3.50 | 42.0 | 21.7 |
| 2 | WOODWORTH | 2.00 | 228.50 | 23.80 | 21.70 | 2.25 | 39.6 | 21.8 |
| 14 | BEESON | 2.00 | 227.75 | 18.90 | 22.20 | 3.25 | 44.3 | 20.7 |
| 13 | WELLS | 2.00 | 260.00 | 15.58 | 18.63 | 3.75 | 42.0 | 21.5 |
| 4 | RANSOM | 1.00 | 161.75 | 12.58 | 20.61 | 4.25 | 40.5 | 24.2 |
| 10 | CLARK 63 | 3.00 | 240.00 | 25.40 | 21.41 | 5.00 | 45.2 | 22.2 |
| 7 | CUTLER 71 | 2.25 | 188.00 | 28.35 | 20.26 | 4.50 | 45.2 | 20.5 |
| 9 | WILLIAMS | 2.50 | 183.50 | 20.50 | 21.83 | 4.75 | 45.9 | 20.6 |
| 1 | CALLAND | 2.00 | 218.25 | 28.60 | 21.87 | 5.00 | 44.8 | 19.6 |
| | GRAND MEAN | 1.66 | 195.63 | 23.04 | 21.53 | 3.69 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.25 | 14.08 | 3.81 | 1.33 | 0.32 | | |
| | COEFFICIENT OF VARIATION | 30.77% | 14.40% | 33.10% | 12.36% | 17.45% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.73 | 40.11 | 10.86 | ******** | 0.92 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.31+ | -0.08 | 0.03 | 0.26+ | -0.52++ |
| DAYS TO | FLOWER | -0.55++ | -0.49++ | -0.00 | 0.18 | -0.27+ |
| DAYS TO | MATURITY | -0.67++ | -0.50++ | -0.01 | 0.20 | -0.25+ |
| NODULE | NUMBER 1 | -0.02 | -0.15 | 0.18 | 0.29+ | 0.15 |
| NODULE | NUMBER 2 | -0.04 | -0.28+ | 0.07 | 0.13 | 0.00 |
| NODULE | WEIGHT 1 | 0.10 | -0.17 | 0.21 | 0.26+ | 0.08 |
| NODULE | WEIGHT 2 | 0.19 | -0.13 | 0.13 | 0.14 | 0.08 |
| PLANT | HEIGHT | -0.27+ | -0.37++ | 0.40++ | 0.28+ | -0.24 |
| | LODGING | -0.17 | -0.38++ | 0.13 | 0.37++ | -0.17 |
| | SHATTER | 1.00 | 0.26+ | 0.02 | -0.17 | 0.38++ |
| PLANTS | HARVEST | 0.26+ | 1.00 | 0.03 | -0.03 | -0.03 |
| PODS PER | PLANT | 0.02 | 0.03 | 1.00 | -0.03 | 0.15 |
| 100 SEED | WEIGHT | -0.17 | -0.03 | -0.03 | 1.00 | -0.19 |
| QUALITY | OF SEED | 0.38++ | -0.03 | 0.15 | -0.19 | 1.00 |

TABLE 89 EXPERIMENT 145 YEAR 1976

REGION - AFRICA
SITE - MANGCONGO
LATITUDE - 26 DEG. 35 MIN. S
COOPERATOR - J. CUMBERLAND
DATE PLANTED - NOVEMBER 4, 1976
SOIL TYPE - SAND 51%, SILT 17%, CLAY 32%
FERTILIZER USED (KG/HA) - P 40.0, K 60.0
AMOUNT OF MOISTURE - 831 MM
LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND
ELEVATION - 1500 M
LONGITUDE - 30 DEG. 50 MIN. E

DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 2277.54 | 79.50 | 194.00 | 38.25 | 76.75 | 0.25 | 1.71 | 94.77 | 1.75 |
| 12 | FORREST | 2207.94 | 78.00 | 194.00 | 12.25 | 49.75 | 0.04 | 0.70 | 90.40 | 2.50 |
| 11 | DAVIS | 2130.43 | 84.25 | 194.00 | 37.25 | 162.75 | 0.70 | 6.32 | 90.87 | 2.00 |
| 1 | CALLAND | 1877.88 | 66.75 | 151.00 | 53.00 | 74.00 | 1.03 | 3.00 | 57.30 | 1.00 |
| 4 | RANSOM | 1872.87 | 78.50 | 194.00 | 80.25 | 134.75 | 0.91 | 2.56 | 80.90 | 1.75 |
| 13 | WELLS | 1804.53 | 65.75 | 111.00 | 35.25 | 87.75 | 0.49 | 2.09 | 46.55 | 1.00 |
| 16 | WELKOM | 1769.10 | 83.00 | 194.00 | 26.00 | 77.00 | 0.05 | 3.37 | 91.97 | 1.50 |
| 15 | COLUMBUS | 1733.68 | 74.00 | 151.00 | 33.00 | 117.25 | 0.83 | 4.47 | 64.50 | 2.00 |
| 14 | BEESON | 1687.84 | 69.25 | 131.00 | 21.25 | 26.75 | 0.14 | 0.67 | 53.75 | 1.00 |
| 2 | WOODWORTH | 1667.00 | 65.25 | 111.00 | 44.75 | 66.25 | 0.65 | 1.78 | 52.13 | 1.00 |
| 9 | WILLIAMS | 1571.98 | 67.25 | 131.00 | 11.25 | 30.75 | 0.19 | 0.62 | 56.75 | 1.00 |
| 8 | BOSSIER | 1488.21 | 78.75 | 194.00 | 5.75 | 31.00 | 0.02 | 0.74 | 92.82 | 1.75 |
| 10 | CLARK 63 | 1453.62 | 68.25 | 151.00 | 20.00 | 40.75 | 0.27 | 1.00 | 68.85 | 1.00 |
| 7 | CUTLER 71 | 1441.95 | 70.25 | 151.00 | 35.75 | 42.25 | 0.71 | 1.16 | 62.25 | 1.00 |
| 5 | HILL | 1378.19 | 88.00 | 161.75 | 22.25 | 41.25 | 0.15 | 0.48 | 93.02 | 1.75 |
| 6 | PICKETT 71 | 1128.14 | 82.25 | 194.00 | 11.75 | 21.25 | 0.08 | 0.35 | 70.55 | 1.50 |
| | GRAND MEAN | 1718.18 | 74.94 | 162.98 | 30.50 | 67.52 | 0.41 | 1.94 | 72.96 | 1.47 |
| | STANDARD ERROR OF A VARIETY MEAN | 277.11 | 1.63 | 4.65 | 12.45 | 20.41 | 0.19 | 0.62 | 3.55 | 0.36 |
| | COEFFICIENT OF VARIATION | 32.26% | 4.36% | 5.70% | 81.63% | 60.46% | 92.65% | 64.25% | 9.72% | 49.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 4.65 | 13.23 | 35.46 | 58.14 | 0.54 | 1.77 | 10.10 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.07 | 0.14 | 0.29+ | 0.41++ | 0.20 | 0.33++ | 0.18 | 0.25+ |
| DAYS TO FLOWER | 0.07 | 1.00 | 0.73++ | -0.06 | 0.14 | -0.24 | 0.14 | 0.75++ | 0.40++ |
| DAYS TO MATURITY | 0.14 | 0.73++ | 1.00 | -0.00 | 0.16 | -0.15 | 0.15 | 0.80++ | 0.42++ |
| NODULE NUMBER 1 | 0.29+ | -0.06 | -0.00 | 1.00 | 0.40++ | 0.86++ | 0.32++ | -0.04 | -0.02 |
| NODULE NUMBER 2 | 0.41++ | 0.14 | 0.16 | 0.40++ | 1.00 | 0.42++ | 0.88++ | 0.13 | 0.09 |
| NODULE WEIGHT 1 | 0.20 | -0.24 | -0.15 | 0.86++ | 0.42++ | 1.00 | 0.40++ | -0.21 | 0.00 |
| NODULE WEIGHT 2 | 0.33++ | 0.14 | 0.15 | 0.32++ | 0.88++ | 0.40++ | 1.00 | 0.11 | 0.01 |
| PLANT HEIGHT | 0.18 | 0.75++ | 0.80++ | -0.04 | 0.13 | -0.21 | 0.11 | 1.00 | 0.43++ |
| LODGING | 0.25+ | 0.40++ | 0.42++ | -0.02 | 0.09 | 0.00 | 0.01 | 0.43++ | 1.00 |
| SHATTER | 0.30+ | 0.31+ | 0.43++ | 0.09 | 0.24 | 0.04 | 0.15 | 0.35++ | 0.39++ |
| PLANTS HARVEST | 0.12 | -0.36++ | -0.49++ | 0.13 | 0.16 | 0.17 | 0.10 | -0.33++ | -0.17 |
| PODS PER PLANT | 0.32++ | 0.62++ | 0.61++ | -0.12 | 0.07 | -0.26+ | 0.09 | 0.60++ | 0.46++ |
| 100 SEED WEIGHT | 0.51++ | -0.24 | -0.03 | 0.28+ | 0.26+ | 0.32++ | 0.26+ | -0.22 | 0.03 |
| QUALITY OF SEED | -0.20 | -0.16 | -0.25+ | -0.03 | -0.13 | 0.11 | -0.09 | -0.22 | -0.13 |

TABLE 89 EXPERIMENT 145 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 2.25 | 158.75 | 25.08 | 19.12 | 1.00 | 37.7 | 19.1 |
| 12 | FORREST | 2.75 | 165.25 | 28.93 | 16.55 | 1.75 | 37.1 | 20.1 |
| 11 | DAVIS | 1.75 | 195.25 | 32.23 | 17.24 | 1.00 | 37.6 | 20.1 |
| 1 | CALLAND | 1.25 | 178.50 | 11.13 | 22.00 | 3.75 | 39.2 | 22.3 |
| 4 | RANSOM | 1.75 | 188.75 | 23.38 | 19.26 | 2.00 | 30.2 | 23.5 |
| 13 | WELLS | 1.00 | 203.50 | 15.55 | 17.04 | 2.00 | 39.5 | 21.2 |
| 16 | WELKOM | 1.75 | 85.50 | 36.58 | 17.18 | 1.00 | 40.6 | 18.5 |
| 15 | COLUMBUS | 1.50 | 167.25 | 19.30 | 19.49 | 3.50 | 41.3 | 23.9 |
| 14 | BEESON | 1.00 | 242.25 | 21.18 | 18.61 | 2.25 | 36.2 | 23.0 |
| 2 | WOODWORTH | 1.00 | 166.25 | 15.80 | 16.22 | 1.00 | 37.9 | 22.2 |
| 9 | WILLIAMS | 1.00 | 194.00 | 10.65 | 18.90 | 2.25 | 32.8 | 24.3 |
| 8 | BOSSIER | 2.00 | 78.50 | 42.45 | 16.30 | 1.50 | 40.7 | 18.7 |
| 10 | CLARK 63 | 1.00 | 194.00 | 12.20 | 16.75 | 3.50 | 41.7 | 22.3 |
| 7 | CUTLER 71 | 1.25 | 114.50 | 11.10 | 19.34 | 2.50 | 39.3 | 22.1 |
| 5 | HILL | 1.00 | 150.75 | 22.60 | 14.90 | 4.00 | 37.8 | 19.0 |
| 6 | PICKETT 71 | 2.00 | 100.25 | 31.13 | 15.12 | 1.25 | 35.0 | 20.6 |
| | GRAND MEAN | 1.52 | 161.45 | 22.45 | 17.75 | 2.14 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.47 | 16.49 | 3.36 | 1.07 | 0.45 | | |
| | COEFFICIENT OF VARIATION | 61.68% | 20.42% | 29.95% | 12.10% | 42.40% | | |
| | 5% LSD VARIETY MEANS (*****=NS) | ******** | 46.96 | 9.58 | 3.06 | 1.29 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.30+ | 0.12 | 0.32++ | 0.51++ | -0.20 |
| DAYS TO FLOWER | 0.31+ | -0.36++ | 0.62++ | -0.24 | -0.16 |
| DAYS TO MATURITY | 0.43++ | -0.49++ | 0.61++ | -0.03 | -0.25+ |
| NODULE NUMBER 1 | 0.09 | 0.13 | -0.12 | 0.28+ | -0.03 |
| NODULE NUMBER 2 | 0.24 | 0.16 | 0.07 | 0.26+ | -0.13 |
| NODULE WEIGHT 1 | 0.04 | 0.17 | -0.26+ | 0.32++ | 0.11 |
| NODULE WEIGHT 2 | 0.15 | 0.10 | 0.09 | 0.26+ | -0.09 |
| PLANT HEIGHT | 0.35++ | -0.33++ | 0.60++ | -0.22 | -0.22 |
| LODGING | 0.39++ | -0.17 | 0.46++ | 0.03 | -0.13 |
| SHATTER | 1.00 | -0.18 | 0.41++ | 0.11 | -0.16 |
| PLANTS HARVEST | -0.18 | 1.00 | -0.45++ | 0.02 | 0.17 |
| PODS PER PLANT | 0.41++ | -0.45++ | 1.00 | -0.09 | -0.40++ |
| 100 SEED WEIGHT | 0.11 | 0.02 | -0.09 | 1.00 | 0.21 |
| QUALITY OF SEED | -0.16 | 0.17 | -0.40++ | 0.21 | 1.00 |

TABLE 90 EXPERIMENT 994 YEAR 1976

REGION - AFRICA
SITE - ILONGA
LATITUDE - 6 DEG. 46 MIN. S
COOPERATOR - M.E.T. MMBAGA
LOCAL VARIETIES - L4, 1H/192

COUNTRY - TANZANIA
ELEVATION - 503 M

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | BOSSIER | 2311.09 | 35.25 | 80.75 | 0.00 | 0.00 | 0.00 | 0.00 | 57.83 | 0.00 |
| 17 | L4 | 2278.28 | 35.75 | 81.25 | 0.00 | 0.00 | 0.00 | 0.00 | 62.15 | 0.00 |
| 13 | COBB | 2241.83 | 27.00 | 80.50 | 0.00 | 0.00 | 0.00 | 0.00 | 32.55 | 0.00 |
| 12 | CLARK 63 | 2214.75 | 33.25 | 81.75 | 0.00 | 0.00 | 0.00 | 0.00 | 44.08 | 0.00 |
| 11 | WILLIAMS | 2163.20 | 27.50 | 76.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.83 | 0.00 |
| 7 | TGX 13-3-2644 | 2026.24 | 38.00 | 89.50 | 0.00 | 0.00 | 0.00 | 0.00 | 61.40 | 0.00 |
| 16 | FORREST | 1930.42 | 28.00 | 77.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.85 | 0.00 |
| 1 | TGM 220-1-2205 | 1913.76 | 37.25 | 85.25 | 0.00 | 0.00 | 0.00 | 0.00 | 42.33 | 0.00 |
| 8 | TGM 256-1-B | 1759.09 | 36.50 | 79.75 | 0.00 | 0.00 | 0.00 | 0.00 | 58.63 | 0.00 |
| 14 | DAVIS | 1730.97 | 28.25 | 78.00 | 0.00 | 0.00 | 0.00 | 0.00 | 27.68 | 0.00 |
| 4 | TGM 249-4-B | 1707.54 | 33.50 | 86.75 | 0.00 | 0.00 | 0.00 | 0.00 | 68.27 | 0.00 |
| 5 | TGM 294-4-2371 | 1578.91 | 39.75 | 86.75 | 0.00 | 0.00 | 0.00 | 0.00 | 73.95 | 0.00 |
| 6 | TGX 66-5100 | 1467.47 | 37.00 | 82.25 | 0.00 | 0.00 | 0.00 | 0.00 | 75.68 | 0.00 |
| 3 | TGM 255-2-4341 | 1462.27 | 35.75 | 86.50 | 0.00 | 0.00 | 0.00 | 0.00 | 66.07 | 0.00 |
| 15 | IMPROVED PELICAN | 1378.95 | 34.00 | 81.75 | 0.00 | 0.00 | 0.00 | 0.00 | 73.52 | 0.00 |
| 2 | TGM 210-1-2363 | 1356.55 | 36.25 | 83.50 | 0.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 |
| 9 | JUPITER | 1054.00 | 40.50 | 91.75 | 0.00 | 0.00 | 0.00 | 0.00 | 72.45 | 0.00 |
| 18 | 1H/192 | 657.71 | 48.00 | 108.25 | 0.00 | 0.00 | 0.00 | 0.00 | 98.22 | 0.00 |
| | GRAND MEAN | 1735.17 | 35.08 | 84.29 | 0.00 | 0.00 | 0.00 | 0.00 | 58.64 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 167.39 | 0.35 | 0.97 | 0.00 | 0.00 | 0.00 | 0.00 | 2.42 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.29% | 2.00% | 2.31% | 0.00% | 0.00% | 0.00% | 0.00% | 8.24% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 475.27 | 1.00 | 2.76 | 0.00 | 0.00 | 0.00 | 0.00 | 6.86 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.50++ | -0.46++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.45++ | 0.00 |
| DAYS TO | FLOWER | -0.50++ | 1.00 | 0.83++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.78++ | 0.00 |
| DAYS TO | MATURITY | -0.46++ | 0.83++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.70++ | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.45++ | 0.78++ | 0.70++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.28+ | 0.02 | -0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 90 EXPERIMENT 994 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 10 | BOSSIER | 0.00 | 186.50 | 0.00 | 0.00 | 0.00 |
| 17 | L4 | 0.00 | 179.50 | 0.00 | 0.00 | 0.00 |
| 13 | COBB | 0.00 | 126.50 | 0.00 | 0.00 | 0.00 |
| 12 | CLARK 63 | 0.00 | 169.50 | 0.00 | 0.00 | 0.00 |
| 11 | WILLIAMS | 0.00 | 178.75 | 0.00 | 0.00 | 0.00 |
| 7 | TGX 13-3-2644 | 0.00 | 178.50 | 0.00 | 0.00 | 0.00 |
| 16 | FORREST | 0.00 | 101.00 | 0.00 | 0.00 | 0.00 |
| 1 | TGM 220-1-2205 | 0.00 | 57.25 | 0.00 | 0.00 | 0.00 |
| 8 | TGM 256-1-B | 0.00 | 99.50 | 0.00 | 0.00 | 0.00 |
| 14 | DAVIS | 0.00 | 102.00 | 0.00 | 0.00 | 0.00 |
| 4 | TGM 249-4-B | 0.00 | 35.25 | 0.00 | 0.00 | 0.00 |
| 5 | TGM 294-4-2371 | 0.00 | 188.25 | 0.00 | 0.00 | 0.00 |
| 6 | TGX 66-5100 | 0.00 | 133.25 | 0.00 | 0.00 | 0.00 |
| 3 | TGM 255-2-4341 | 0.00 | 179.50 | 0.00 | 0.00 | 0.00 |
| 15 | IMPROVED PELICAN | 0.00 | 150.50 | 0.00 | 0.00 | 0.00 |
| 2 | TGM 210-1-2363 | 0.00 | 98.50 | 0.00 | 0.00 | 0.00 |
| 9 | JUPITER | 0.00 | 175.25 | 0.00 | 0.00 | 0.00 |
| 18 | 1H/192 | 0.00 | 85.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 134.69 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 20.61 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 30.60% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 58.50 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.28+ | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.06 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 91 EXPERIMENT 274 YEAR 1976

REGION - AFRICA
SITE - ZANZIBAR
LATITUDE - 6 DEG. S
COOPERATOR - A.J. CARPENTER
DATE PLANTED - JUNE 20, 1976
SOIL PH 6.4
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 200 MM

COUNTRY - TANZANIA
ELEVATION - 30 M
LONGITUDE - 38 DEG. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 859.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.25 | 1.00 |
| 11 | WILLIAMS | 848.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.75 | 1.00 |
| 13 | COBB | 671.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 27.50 | 1.00 |
| 5 | TGM 294-4-2371 | 640.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.00 | 1.00 |
| 10 | BOSSIER | 630.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.75 | 1.00 |
| 2 | TGM 210-1-2363 | 583.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.00 | 1.00 |
| 12 | CLARK 63 | 567.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.00 | 1.00 |
| 6 | TGX 66-5100 | 557.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.75 | 1.00 |
| 16 | FORREST | 515.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.25 | 1.00 |
| 9 | JUPITER | 494.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.75 | 1.00 |
| 15 | IMPROVED PELICAN | 473.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.75 | 1.00 |
| 4 | TGM 249-4-B | 463.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.00 | 1.00 |
| 3 | TGM 255-2-4341 | 453.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.25 | 1.00 |
| 1 | TGM 220-1-2205 | 416.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.25 | 1.00 |
| 8 | TGM 256-1-B | 395.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.50 | 1.00 |
| 7 | TGX 13-3-2644 | 256.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.00 | 1.00 |
| | GRAND MEAN | 551.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.30 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 116.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.62 | 0.00 |
| | COEFFICIENT OF VARIATION | 42.18% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 21.14% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.32 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 91 EXPERIMENT 274 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 14 | DAVIS | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | WILLIAMS | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | COBB | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | TGM 294-4-2371 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | BOSSIER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | TGM 210-1-2363 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | CLARK 63 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | TGX 66-5100 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | FORREST | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | JUPITER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | IMPROVED PELICAN | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | TGM 249-4-B | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | TGM 255-2-4341 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | TGM 220-1-2205 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | TGM 256-1-B | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | TGX 13-3-2644 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 92 EXPERIMENT 222 YEAR 1976

REGION - AFRICA
SITE - AMOUTCHOU
LATITUDE - 7 DEG. 21 MIN. N
COOPERATOR - I.R.A.T.-TOGO
DATE PLANTED - MAY 13, 1976
FERTILIZER USED (KG/HA) - P 20.0, K 20.0
AMOUNT OF MOISTURE - 379 MM

COUNTRY - TOGO
ELEVATION - 160 M
LONGITUDE - 1 DEG. 10 MIN. E

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | DAVIS | 1750.35 | 25.00 | 76.00 | 73.75 | 189.25 | 0.00 | 0.00 | 18.75 | 1.00 |
| 2 | WILLIAMS | 1125.22 | 23.00 | 69.00 | 98.00 | 211.25 | 0.00 | 0.00 | 25.75 | 1.00 |
| 4 | COBB | 958.52 | 23.00 | 74.00 | 63.00 | 269.00 | 0.00 | 0.00 | 18.25 | 1.00 |
| 3 | CLARK 63 | 937.69 | 23.00 | 63.00 | 81.50 | 181.00 | 0.00 | 0.00 | 31.25 | 1.00 |
| 6 | IMPROVED PELICAN | 666.80 | 24.00 | 80.00 | 51.00 | 140.25 | 0.00 | 0.00 | 34.00 | 1.00 |
| 1 | BOSSIER | 645.96 | 23.00 | 69.00 | 57.00 | 199.00 | 0.00 | 0.00 | 16.00 | 1.00 |
| | GRAND MEAN | 1014.09 | 23.50 | 71.83 | 70.71 | 198.29 | 0.00 | 0.00 | 24.00 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 178.93 | 0.00 | 0.00 | 11.32 | 27.29 | 0.00 | 0.00 | 4.46 | 0.00 |
| | COEFFICIENT OF VARIATION | 35.29% | 0.00% | 0.00% | 32.01% | 27.53% | 0.00% | 0.00% | 37.17% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 539.36 | 0.00 | 0.00 | ******** | ******** | 0.00 | 0.00 | ******** | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.50+ | 0.09 | 0.13 | 0.10 | 0.00 | 0.00 | 0.11 | 0.00 |
| DAYS TO FLOWER | 0.50+ | 1.00 | 0.65++ | -0.11 | -0.27 | 0.00 | 0.00 | -0.01 | 0.00 |
| DAYS TO MATURITY | 0.09 | 0.65++ | 1.00 | -0.34 | -0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.13 | -0.11 | -0.34 | 1.00 | 0.17 | 0.00 | 0.00 | -0.06 | 0.00 |
| NODULE NUMBER 2 | 0.10 | -0.27 | -0.12 | 0.17 | 1.00 | 0.00 | 0.00 | -0.53++ | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.11 | -0.01 | 0.00 | -0.06 | -0.53++ | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.61++ | 0.49+ | 0.10 | 0.41+ | 0.07 | 0.00 | 0.00 | 0.20 | 0.00 |
| PODS PER PLANT | 0.37 | 0.05 | 0.03 | -0.31 | -0.08 | 0.00 | 0.00 | 0.34 | 0.00 |
| 100 SEED WEIGHT | 0.54++ | 0.11 | -0.34 | 0.17 | 0.12 | 0.00 | 0.00 | -0.10 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 92 EXPERIMENT 222 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 5 | DAVIS | 1.00 | 233.50 | 13.45 | 18.28 | 0.00 | 43.1 | 24.5 |
| 2 | WILLIAMS | 1.00 | 217.25 | 9.72 | 18.05 | 0.00 | 43.0 | 23.5 |
| 4 | COBB | 1.00 | 144.25 | 14.93 | 15.85 | 0.00 | 40.2 | 24.0 |
| 3 | CLARK 63 | 1.00 | 188.00 | 14.48 | 17.25 | 0.00 | 41.3 | 25.2 |
| 6 | IMPROVED PELICAN | 1.00 | 175.75 | 12.95 | 15.14 | 0.00 | 43.6 | 24.0 |
| 1 | BOSSIER | 1.00 | 97.25 | 12.75 | 17.25 | 0.00 | 45.6 | 22.7 |
| | GRAND MEAN | 1.00 | 176.00 | 13.05 | 16.97 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.35 | 1.28 | 0.64 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 14.04% | 19.70% | 7.49% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 37.24 | ******** | 1.92 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.61++ | 0.37 | 0.54++ | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.49+ | 0.05 | 0.11 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.10 | 0.03 | -0.34 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.41+ | -0.31 | 0.17 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.07 | -0.08 | 0.12 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.20 | 0.34 | -0.10 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.19 | 0.29 | 0.00 |
| PODS PER | PLANT | 0.00 | -0.19 | 1.00 | -0.02 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.29 | -0.02 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 93 EXPERIMENT 238 YEAR 1976

REGION - AFRICA
SITE - BARKOISSI
LATITUDE - 10 DEG. 32 MIN. N
COOPERATOR - I.R.A.T.-TOGO
DATE PLANTED - JULY 17, 1976
FERTILIZER USED (KG/HA) - P 20.0, K 20.0
AMOUNT OF MOISTURE - 502 MM

COUNTRY - TOGO
ELEVATION - 163 M
LONGITUDE - 0 DEG. 18 MIN. E
DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 2125.42 | 22.00 | 94.00 | 251.25 | 585.00 | 0.00 | 0.00 | 35.15 | 1.00 |
| 8 | TGM 256-1-B | 1729.51 | 26.25 | 94.00 | 409.25 | 494.50 | 0.00 | 0.00 | 60.10 | 1.00 |
| 9 | JUPITER | 1521.14 | 33.00 | 107.00 | 364.75 | 438.00 | 0.00 | 0.00 | 70.25 | 3.00 |
| 2 | TGM 210-1-2363 | 1521.14 | 32.00 | 94.00 | 319.75 | 696.00 | 0.00 | 0.00 | 53.80 | 2.00 |
| 11 | WILLIAMS | 1500.30 | 19.50 | 107.00 | 270.50 | 437.25 | 0.00 | 0.00 | 49.88 | 2.00 |
| 16 | FORREST | 1458.62 | 27.00 | 94.00 | 290.75 | 494.25 | 0.00 | 0.00 | 44.65 | 3.00 |
| 4 | TGM 249-4-B | 1458.62 | 29.00 | 93.00 | 355.00 | 725.75 | 0.00 | 0.00 | 74.30 | 3.00 |
| 15 | IMPROVED PELICAN | 1450.29 | 34.00 | 94.00 | 291.25 | 340.50 | 0.00 | 0.00 | 89.70 | 1.00 |
| 13 | COBB | 1437.79 | 33.00 | 107.00 | 340.75 | 570.25 | 0.00 | 0.00 | 54.05 | 1.00 |
| 5 | TGM 294-4-2371 | 1437.79 | 32.00 | 103.00 | 238.25 | 469.00 | 0.00 | 0.00 | 72.50 | 3.00 |
| 7 | TGX 13-3-2644 | 1312.76 | 32.00 | 94.00 | 305.25 | 499.00 | 0.00 | 0.00 | 70.25 | 2.00 |
| 10 | BOSSIER | 1291.92 | 21.00 | 94.00 | 330.50 | 596.75 | 0.00 | 0.00 | 30.10 | 1.00 |
| 6 | TGX 66-5100 | 1291.92 | 9.25 | 94.00 | 258.50 | 532.50 | 0.00 | 0.00 | 78.45 | 1.00 |
| 3 | TGM 255-2-4341 | 1146.06 | 31.00 | 94.00 | 355.00 | 651.50 | 0.00 | 0.00 | 66.60 | 1.00 |
| 12 | CLARK 63 | 979.36 | 23.25 | 93.75 | 273.75 | 421.00 | 0.00 | 0.00 | 46.20 | 3.00 |
| 1 | TGM 220-1-2205 | 625.12 | 45.75 | 107.00 | 383.50 | 583.00 | 0.00 | 0.00 | 40.45 | 3.00 |
| | GRAND MEAN | 1392.99 | 28.13 | 97.73 | 314.88 | 533.39 | 0.00 | 0.00 | 58.53 | 1.94 |
| | STANDARD ERROR OF A VARIETY MEAN | 235.80 | 2.17 | 2.24 | 48.82 | 85.60 | 0.00 | 0.00 | 6.01 | 0.00 |
| | COEFFICIENT OF VARIATION | 33.85% | 15.43% | 4.59% | 31.01% | 32.09% | 0.00% | 0.00% | 20.54% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 6.18 | 6.38 | ******** | ******** | 0.00 | 0.00 | 17.12 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.14 | -0.07 | -0.05 | 0.08 | 0.00 | 0.00 | 0.22 | -0.19 |
| DAYS TO FLOWER | -0.14 | 1.00 | 0.35++ | 0.19 | 0.05 | 0.00 | 0.00 | 0.07 | 0.33++ |
| DAYS TO MATURITY | -0.07 | 0.35++ | 1.00 | -0.07 | -0.00 | 0.00 | 0.00 | -0.05 | 0.24 |
| NODULE NUMBER 1 | -0.05 | 0.19 | -0.07 | 1.00 | 0.34++ | 0.00 | 0.00 | 0.03 | -0.01 |
| NODULE NUMBER 2 | 0.08 | 0.05 | -0.00 | 0.34++ | 1.00 | 0.00 | 0.00 | -0.15 | -0.04 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.22 | 0.07 | -0.05 | 0.03 | -0.15 | 0.00 | 0.00 | 1.00 | -0.03 |
| LODGING | -0.19 | 0.33++ | 0.24 | -0.01 | -0.04 | 0.00 | 0.00 | -0.03 | 1.00 |
| SHATTER | -0.17 | 0.25+ | 0.51++ | 0.30+ | 0.06 | 0.00 | 0.00 | 0.09 | 0.16 |
| PLANTS HARVEST | 0.37++ | -0.43++ | -0.34++ | -0.20 | -0.25 | 0.00 | 0.00 | -0.03 | -0.39++ |
| PODS PER PLANT | -0.17 | 0.31+ | 0.03 | 0.36++ | 0.20 | 0.00 | 0.00 | 0.19 | -0.01 |
| 100 SEED WEIGHT | 0.09 | -0.07 | 0.47++ | 0.01 | -0.10 | 0.00 | 0.00 | -0.03 | 0.38++ |
| QUALITY OF SEED | -0.05 | -0.21 | -0.02 | -0.05 | -0.14 | 0.00 | 0.00 | -0.13 | 0.32++ |

TABLE 93 EXPERIMENT 238 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | DAVIS | 1.00 | 214.75 | 50.00 | 21.00 | 3.00 | 45.3 | 23.8 |
| 8 | TGM 256-1-B | 2.00 | 155.00 | 47.50 | 16.00 | 5.00 | 49.0 | 20.6 |
| 9 | JUPITER | 3.00 | 131.00 | 69.25 | 42.00 | 3.00 | 44.9 | 24.7 |
| 2 | TGM 210-1-2363 | 1.00 | 169.25 | 49.50 | 21.00 | 3.00 | 47.4 | 21.9 |
| 11 | WILLIAMS | 2.00 | 209.50 | 20.25 | 39.00 | 5.00 | 45.3 | 24.1 |
| 16 | FORREST | 1.00 | 159.25 | 41.00 | 18.00 | 5.00 | 44.7 | 23.3 |
| 4 | TGM 249-4-B | 2.00 | 66.50 | 80.25 | 26.00 | 3.00 | 43.5 | 25.3 |
| 15 | IMPROVED PELICAN | 1.00 | 218.25 | 113.75 | 15.75 | 2.00 | 47.2 | 23.6 |
| 13 | COBB | 2.00 | 151.25 | 40.00 | 22.00 | 2.00 | 41.5 | 25.3 |
| 5 | TGM 294-4-2371 | 1.00 | 28.75 | 35.25 | 19.00 | 4.00 | 49.3 | 20.2 |
| 7 | TGX 13-3-2644 | 1.00 | 183.25 | 49.25 | 19.00 | 5.00 | 45.0 | 23.9 |
| 10 | BOSSIER | 1.00 | 152.75 | 28.75 | 20.00 | 3.00 | 48.9 | 22.8 |
| 6 | TGX 66-5100 | 2.00 | 193.25 | 53.00 | 17.00 | 4.00 | 47.8 | 19.3 |
| 3 | TGM 255-2-4341 | 2.00 | 118.50 | 113.75 | 15.00 | 3.00 | 45.9 | 24.0 |
| 12 | CLARK 63 | 1.00 | 215.25 | 23.25 | 23.00 | 4.00 | 45.5 | 24.3 |
| 1 | TGM 220-1-2205 | 3.00 | 28.75 | 132.50 | 18.00 | 4.00 | 44.1 | 23.2 |
| | GRAND MEAN | 1.63 | 149.70 | 59.20 | 21.98 | 3.63 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 24.38 | 20.56 | 0.19 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 32.57% | 69.45% | 1.71% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 69.44 | 58.56 | 0.53 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.17 | 0.37++ | -0.17 | 0.09 | -0.05 |
| DAYS TO FLOWER | 0.25+ | -0.43++ | 0.31+ | -0.07 | -0.21 |
| DAYS TO MATURITY | 0.51++ | -0.34++ | 0.03 | 0.47++ | -0.02 |
| NODULE NUMBER 1 | 0.30+ | -0.20 | 0.36++ | 0.01 | -0.05 |
| NODULE NUMBER 2 | 0.06 | -0.25 | 0.20 | -0.10 | -0.14 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.09 | -0.03 | 0.19 | -0.03 | -0.13 |
| LODGING | 0.16 | -0.39++ | -0.01 | 0.38++ | 0.32++ |
| SHATTER | 1.00 | -0.34++ | 0.29+ | 0.42++ | -0.02 |
| PLANTS HARVEST | -0.34++ | 1.00 | -0.37++ | 0.06 | 0.01 |
| PODS PER PLANT | 0.29+ | -0.37++ | 1.00 | -0.18 | -0.23 |
| 100 SEED WEIGHT | 0.42++ | 0.06 | -0.18 | 1.00 | 0.03 |
| QUALITY OF SEED | -0.02 | 0.01 | -0.23 | 0.03 | 1.00 |

TABLE 94 EXPERIMENT 223 YEAR 1976

REGION - AFRICA
SITE - DAVIE
LATITUDE - 6 DEG. 26 MIN. N
COOPERATOR - I.R.A.T.-TOGO
DATE PLANTED - MAY 14, 1976
SOIL TYPE - SILTY CLAY, PH 7.5
FERTILIZER USED (KG/HA) - P 40.0, K 30.0
AMOUNT OF MOISTURE - 257 MM
NUMBER OF IRRIGATIONS - 5

COUNTRY - TOGO
ELEVATION - 95 M
LONGITUDE - 1 DEG. 13 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | IMPROVED PELICAN | 1625.32 | 31.00 | 91.25 | 165.75 | 265.50 | 0.00 | 0.00 | 65.18 | 1.50 |
| 3 | WILLIAMS | 1333.60 | 26.00 | 80.00 | 192.00 | 348.75 | 0.00 | 0.00 | 34.73 | 2.00 |
| 5 | COBB | 1312.76 | 30.00 | 80.00 | 140.25 | 230.25 | 0.00 | 0.00 | 29.21 | 1.25 |
| 1 | JUPITER | 1271.09 | 41.00 | 91.75 | 362.00 | 429.75 | 0.00 | 0.00 | 52.32 | 1.75 |
| 6 | DAVIS | 1229.41 | 31.00 | 80.00 | 235.00 | 408.25 | 0.00 | 0.00 | 23.81 | 2.00 |
| 8 | FORREST | 1229.41 | 29.00 | 80.00 | 191.50 | 333.25 | 0.00 | 0.00 | 32.40 | 1.50 |
| 2 | BOSSIER | 1187.74 | 26.00 | 79.50 | 290.00 | 342.50 | 0.00 | 0.00 | 25.38 | 1.25 |
| 4 | CLARK 63 | 1166.90 | 26.00 | 79.50 | 208.25 | 299.75 | 0.00 | 0.00 | 29.70 | 1.75 |
| | GRAND MEAN | 1294.53 | 30.00 | 82.75 | 223.09 | 332.25 | 0.00 | 0.00 | 36.59 | 1.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 124.99 | 0.20 | 0.35 | 35.19 | 37.67 | 0.00 | 0.00 | 2.09 | 0.24 |
| | COEFFICIENT OF VARIATION | 19.31% | 1.36% | 0.84% | 31.55% | 22.64% | 0.00% | 0.00% | 11.44% | 29.27% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.60 | 1.03 | 103.51 | 110.60 | 0.00 | 0.00 | 6.15 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.11 | 0.35 | -0.00 | 0.01 | 0.00 | 0.00 | 0.46++ | -0.35+ |
| DAYS TO FLOWER | 0.11 | 1.00 | 0.76++ | 0.41+ | 0.33 | 0.00 | 0.00 | 0.52++ | 0.06 |
| DAYS TO MATURITY | 0.35 | 0.76++ | 1.00 | 0.29 | 0.14 | 0.00 | 0.00 | 0.90++ | -0.01 |
| NODULE NUMBER 1 | -0.00 | 0.41+ | 0.29 | 1.00 | 0.67++ | 0.00 | 0.00 | 0.02 | -0.22 |
| NODULE NUMBER 2 | 0.01 | 0.33 | 0.14 | 0.67++ | 1.00 | 0.00 | 0.00 | -0.03 | 0.16 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.46++ | 0.52++ | 0.90++ | 0.02 | -0.03 | 0.00 | 0.00 | 1.00 | 0.04 |
| LODGING | -0.35+ | 0.06 | -0.01 | -0.22 | 0.16 | 0.00 | 0.00 | 0.04 | 1.00 |
| SHATTER | 0.16 | -0.11 | -0.01 | -0.19 | -0.06 | 0.00 | 0.00 | 0.06 | -0.06 |
| PLANTS HARVEST | 0.29 | 0.10 | 0.12 | -0.29 | -0.09 | 0.00 | 0.00 | 0.24 | -0.07 |
| PODS PER PLANT | 0.56++ | 0.58++ | 0.73++ | 0.33 | 0.15 | 0.00 | 0.00 | 0.61++ | -0.29 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | -0.22 | 0.45++ | 0.36+ | 0.49++ | 0.32 | 0.00 | 0.00 | 0.24 | 0.16 |

TABLE 94 EXPERIMENT 223 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | IMPROVED PELICAN | 2.00 | 198.75 | 23.08 | 0.00 | 1.25 | 42.6 | 23.8 |
| 3 | WILLIAMS | 1.75 | 197.00 | 10.00 | 0.00 | 2.00 | 42.7 | 24.5 |
| 5 | COBB | 1.75 | 197.50 | 15.98 | 0.00 | 1.00 | 40.8 | 25.7 |
| 1 | JUPITER | 1.25 | 194.25 | 22.53 | 0.00 | 3.00 | 46.6 | 23.0 |
| 6 | DAVIS | 2.00 | 194.00 | 13.10 | 0.00 | 1.00 | 43.7 | 23.2 |
| 8 | FORREST | 1.25 | 196.25 | 13.60 | 0.00 | 2.00 | 40 3 | 23.4 |
| 2 | BOSSIER | 2.00 | 190.75 | 14.05 | 0.00 | 1.50 | 45.8 | 21.7 |
| 4 | CLARK 63 | 1.00 | 188.50 | 10.38 | 0.00 | 2.00 | 44.4 | 23.8 |
| | GRAND MEAN | 1.63 | 194.88 | 15.34 | 0.00 | 1.72 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.20 | 3.97 | 2.15 | 0.00 | 0.14 | | |
| | COEFFICIENT OF VARIATION | 25.12% | 4.07% | 28.08% | 0.00% | 16.34% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.60 | ******** | 6.33 | 0.00 | 0.41 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.16 | 0.29 | 0.56++ | 0.00 | -0.22 |
| DAYS TO FLOWER | -0.11 | 0.10 | 0.58++ | 0.00 | 0.45++ |
| DAYS TO MATURITY | -0.01 | 0.12 | 0.73++ | 0.00 | 0.36+ |
| NODULE NUMBER 1 | -0.19 | -0.29 | 0.33 | 0.00 | 0.49++ |
| NODULE NUMBER 2 | -0.06 | -0.09 | 0.15 | 0.00 | 0.32 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.06 | 0.24 | 0.61++ | 0.00 | 0.24 |
| LODGING | -0.06 | -0.07 | -0.29 | 0.00 | 0.16 |
| SHATTER | 1.00 | 0.10 | -0.16 | 0.00 | -0.54++ |
| PLANTS HARVEST | 0.10 | 1.00 | 0.26 | 0.00 | -0.13 |
| PODS PER PLANT | -0.16 | 0.26 | 1.00 | 0.00 | 0.14 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | -0.54++ | -0.13 | 0.14 | 0.00 | 1.00 |

TABLE 95 EXPERIMENT 221 YEAR 1976

REGION - AFRICA
SITE - KITANGBAO
LATITUDE - 9 DEG. 16 MIN. N
COOPERATOR - I.R.A.T.-TOGO
DATE PLANTED - JULY 14, 1976
FERTILIZER USED (KG/HA) - P 30.0, K 30.0
AMOUNT OF MOISTURE - 817 MM
SUBSTITUTE VARIETY - HARDEE

COUNTRY - TOGO
ELEVATION - 340 M
LONGITUDE - 0 DEG. 43 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | TGM 249-4-B | 3646.56 | 32.75 | 95.75 | 191.50 | 388.75 | 0.00 | 0.00 | 68.25 | 4.00 |
| 7 | TGX 13-3-2644 | 3417.35 | 37.50 | 106.00 | 222.75 | 485.50 | 0.00 | 0.00 | 73.00 | 4.00 |
| 16 | HARDEE | 3396.51 | 33.50 | 95.50 | 248.25 | 516.75 | 0.00 | 0.00 | 37.00 | 0.25 |
| 2 | TGM 210-1-2363 | 3354.84 | 36.00 | 94.75 | 237.25 | 331.25 | 0.00 | 0.00 | 51.75 | 3.25 |
| 14 | DAVIS | 3250.65 | 30.00 | 94.75 | 141.00 | 307.75 | 0.00 | 0.00 | 32.75 | 0.75 |
| 3 | TGM 255-2-4341 | 3125.62 | 33.00 | 94.00 | 211.75 | 384.50 | 0.00 | 0.00 | 59.00 | 2.25 |
| 8 | TGM 256-1-B | 2979.76 | 38.00 | 94.25 | 224.75 | 381.50 | 0.00 | 0.00 | 54.50 | 1.75 |
| 1 | TGM 220-1-2205 | 2958.92 | 41.00 | 102.00 | 278.75 | 306.75 | 0.00 | 0.00 | 46.50 | 2.75 |
| 9 | JUPITER | 2917.25 | 46.00 | 109.75 | 279.75 | 507.00 | 0.00 | 0.00 | 55.50 | 3.25 |
| 5 | TGM 224-4-2371 | 2917.25 | 42.25 | 102.00 | 243.75 | 342.25 | 0.00 | 0.00 | 64.50 | 3.50 |
| 13 | COBB | 2854.74 | 27.00 | 94.50 | 100.25 | 298.25 | 0.00 | 0.00 | 29.00 | 0.00 |
| 15 | IMPROVED PELICAN | 2563.01 | 36.75 | 89.50 | 163.00 | 266.25 | 0.00 | 0.00 | 60.75 | 1.50 |
| 6 | TGX 66-5100 | 2458.82 | 35.75 | 86.00 | 111.50 | 215.50 | 0.00 | 0.00 | 54.25 | 2.25 |
| 10 | BOSSIER | 2375.47 | 24.75 | 88.50 | 141.75 | 271.75 | 0.00 | 0.00 | 22.00 | 1.25 |
| 12 | CLARK 63 | 2187.94 | 24.25 | 82.75 | 84.50 | 217.75 | 0.00 | 0.00 | 35.25 | 3.25 |
| 11 | WILLIAMS | 2021 24 | 24.00 | 83.50 | 134.25 | 239.50 | 0.00 | 0.00 | 33.25 | 3.00 |
| | GRAND MEAN | 2901.62 | 33.91 | 94.59 | 188.42 | 341.31 | 0.00 | 0.00 | 48.58 | 2.31 |
| | STANDARD ERROR OF A VARIETY MEAN | 154.02 | 0.77 | 0.88 | 22.64 | 35.51 | 0.00 | 0.00 | 2.61 | 0.43 |
| | COEFFICIENT OF VARIATION | 10.62% | 4.56% | 1.85% | 24.03% | 20.81% | 0.00% | 0.00% | 10.73% | 37.10% |
| | 5% LSD VARIETY MEANS (********=NS) | 438.71 | 2.20 | 2.49 | 64.48 | 101.15 | 0.00 | 0.00 | 7.43 | 1.22 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.35++ | 0.57++ | 0.49++ | 0.46++ | 0.00 | 0.00 | 0.48++ | 0.19 |
| DAYS TO FLOWER | 0.35++ | 1.00 | 0.74++ | 0.64++ | 0.42++ | 0.00 | 0.00 | 0.65++ | 0.28+ |
| DAYS TO MATURITY | 0.57++ | 0.74++ | 1.00 | 0.66++ | 0.64++ | 0.00 | 0.00 | 0.48++ | 0.23 |
| NODULE NUMBER 1 | 0.49++ | 0.64++ | 0.66++ | 1.00 | 0.51++ | 0.00 | 0.00 | 0.45++ | 0.32+ |
| NODULE NUMBER 2 | 0.46++ | 0.42++ | 0.64++ | 0.51++ | 1.00 | 0.00 | 0.00 | 0.29+ | 0.02 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.48++ | 0.65++ | 0.48++ | 0.45++ | 0.29+ | 0.00 | 0.00 | 1.00 | 0.59++ |
| LODGING | 0.19 | 0.28+ | 0.23 | 0.32+ | 0.02 | 0.00 | 0.00 | 0.59++ | 1.00 |
| SHATTER | 0.20 | 0.02 | 0.09 | 0.05 | 0.03 | 0.00 | 0.00 | -0.01 | 0.08 |
| PLANTS HARVEST | 0.13 | -0.01 | -0.13 | -0.17 | -0.23 | 0.00 | 0.00 | 0.30+ | 0.11 |
| PODS PER PLANT | 0.32+ | 0.46++ | 0.59++ | 0.41++ | 0.42++ | 0.00 | 0.00 | 0.39++ | 0.18 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 95 EXPERIMENT 221 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 4 | TGM 249-4-B | 0.00 | 164.75 | 37.47 | 0.00 | 0.00 | 45.3 | 23.5 |
| 7 | TGX 13-3-2644 | 0.50 | 216.75 | 40.17 | 0.00 | 0.00 | 42.4 | 24.3 |
| 16 | HARDEE | 0.00 | 148.25 | 32.37 | 0.00 | 0.00 | 43.9 | 25.7 |
| 2 | TGM 210-1-2363 | 2.75 | 204.25 | 25.35 | 0.00 | 0.00 | 45.3 | 23.2 |
| 14 | DAVIS | 0.25 | 197.75 | 23.85 | 0.00 | 0.00 | 44.5 | 23.9 |
| 3 | TGM 255-2-4341 | 0.00 | 223.50 | 32.17 | 0.00 | 0.00 | 45.8 | 24.7 |
| 8 | TGM 256-1-3 | 0.00 | 185.25 | 24.97 | 0.00 | 0.00 | 48.3 | 20.1 |
| 1 | TGM 220-1-2205 | 0.00 | 139.25 | 34.75 | 0.00 | 0.00 | 44.1 | 23.9 |
| 9 | JUPITER | 0.00 | 59.00 | 53.62 | 0.00 | 0.00 | 43.7 | 26.3 |
| 5 | TGM 294-4-2371 | 0.25 | 274.00 | 20.33 | 0.00 | 0.00 | 49.1 | 20.0 |
| 13 | COBB | 1.00 | 178.25 | 23.33 | 0.00 | 0.00 | 41.7 | 25.2 |
| 15 | IMPROVED PELICAN | 0.00 | 172.00 | 27.55 | 0.00 | 0.00 | 45.1 | 23.8 |
| 6 | TGX 66-5100 | 0.00 | 242.25 | 22.20 | 0.00 | 0.00 | 46.1 | 21.5 |
| 10 | BOSSIER | 0.00 | 151.25 | 18.55 | 0.00 | 0.00 | 47.4 | 23.4 |
| 12 | CLARK 63 | 0.00 | 183.75 | 14.75 | 0.00 | 0.00 | 44.1 | 24.5 |
| 11 | WILLIAMS | 0.00 | 132.50 | 18.90 | 0.00 | 0.00 | 41.6 | 27.5 |
| | GRAND MEAN | 0.30 | 179.55 | 28.15 | 0.00 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.24 | 13.37 | 4.77 | 0.00 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 164.28% | 14.90% | 33.87% | 0.00% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.69 | 38.10 | 13.58 | 0.00 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.20 | 0.13 | 0.32+ | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.02 | -0.01 | 0.46++ | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.09 | -0.13 | 0.59++ | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.05 | -0.17 | 0.41++ | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.03 | -0.23 | 0.42++ | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.01 | 0.30+ | 0.39++ | 0.00 | 0.00 |
| LODGING | 0.08 | 0.11 | 0.18 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.17 | -0.08 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.17 | 1.00 | -0.38++ | 0.00 | 0.00 |
| PODS PER PLANT | -0.08 | -0.38++ | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 96 EXPERIMENT 324 YEAR 1976

REGION - AFRICA
SITE - KAMPALA
LATITUDE - 0 DEG. 28 MIN. N
COOPERATOR - C.K. BULUNGU
DATE PLANTED - OCTOBER 21, 1976
SOIL TYPE - SILT
FERTILIZER USED (KG/HA) - P 30.8, K 41.5
AMOUNT OF MOISTURE - 534 MM
LOCAL VARIETIES - BUKALASA-4, CONGO-72, KABANYOLO-1, 403DR, 8-350, 43S, 43K, 43E

COUNTRY - UGANDA
ELEVATION - 1160 M
LONGITUDE - 32 DEG. 27 MIN. E
DATE HARVESTED - FEBRUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 43S | 1724.93 | 51.00 | 128.00 | 63.25 | 87.25 | 0.29 | 0.61 | 39.20 | 1.00 |
| 2 | CONGO-72 | 1709.93 | 51.75 | 111.50 | 50.00 | 50.75 | 0.14 | 0.32 | 48.45 | 1.00 |
| 5 | 8-350 | 1702.01 | 56.75 | 133.00 | 129.25 | 158.25 | 0.56 | 0.80 | 50.25 | 1.00 |
| 8 | 43E | 1621.99 | 55.25 | 132.75 | 40.50 | 65.50 | 0.11 | 0.20 | 52.75 | 1.00 |
| 16 | FORREST | 1589.90 | 40.25 | 104.25 | 26.50 | 93.75 | 0.05 | 0.46 | 29.03 | 1.00 |
| 3 | KABANYOLO-1 | 1574.06 | 47.75 | 115.50 | 54.25 | 60.75 | 0.20 | 0.41 | 56.75 | 1.00 |
| 7 | 43K | 1523.64 | 52.25 | 136.25 | 80.00 | 67.75 | 0.27 | 0.39 | 53.70 | 1.00 |
| 14 | DAVIS | 1469.46 | 41.00 | 111.00 | 48.00 | 77.25 | 0.13 | 0.29 | 28.85 | 1.00 |
| 9 | JUPITER | 1403.20 | 50.25 | 119.25 | 34.50 | 45.75 | 0.05 | 0.31 | 46.25 | 1.00 |
| 4 | 403DR | 1353.60 | 51.75 | 125.25 | 32.75 | 85.50 | 0.09 | 0.57 | 38.40 | 1.00 |
| 15 | IMPROVED PELICAN | 1196.91 | 41.75 | 100.25 | 19.25 | 22.25 | 0.03 | 0.07 | 41.33 | 1.00 |
| 13 | COBB | 1158.98 | 30.75 | 99.25 | 2.00 | 34.25 | 0.01 | 0.11 | 24.45 | 1.00 |
| 11 | WILLIAMS | 1128.98 | 30.75 | 96.50 | 2.75 | 56.25 | 0.02 | 0.20 | 27.85 | 1.00 |
| 1 | BUKALASA-4 | 1007.28 | 56.50 | 111.25 | 62.75 | 73.75 | 0.38 | 0.57 | 47.50 | 1.00 |
| 12 | CLARK 63 | 966.44 | 30.50 | 96.50 | 4.00 | 72.75 | 0.02 | 0.31 | 26.85 | 1.00 |
| 10 | BOSSIER | 693.89 | 31.25 | 96.75 | 2.75 | 29.00 | 0.02 | 0.26 | 18.08 | 1.00 |
| | GRAND MEAN | 1364.07 | 44.97 | 113.58 | 40.78 | 67.55 | 0.15 | 0.37 | 39.35 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 157.91 | 1.01 | 1.82 | 11.47 | 14.34 | 0.05 | 0.09 | 2.37 | 0.00 |
| | COEFFICIENT OF VARIATION | 23.15% | 4.51% | 3.21% | 56.25% | 42.46% | 73.94% | 51.38% | 12.04% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 449.80 | 2.89 | 5.19 | 32.67 | 40.85 | 0.15 | 0.27 | 6.75 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.44++ | 0.49++ | 0.51++ | 0.54++ | 0.40++ | 0.52++ | 0.55++ | 0.00 |
| DAYS TO | FLOWER | 0.44++ | 1.00 | 0.82++ | 0.68++ | 0.35++ | 0.60++ | 0.43++ | 0.80++ | 0.00 |
| DAYS TO | MATURITY | 0.49++ | 0.82++ | 1.00 | 0.66++ | 0.42++ | 0.53++ | 0.42++ | 0.66++ | 0.00 |
| NODULE | NUMBER 1 | 0.51++ | 0.68++ | 0.66++ | 1.00 | 0.68++ | 0.91++ | 0.64++ | 0.64++ | 0.00 |
| NODULE | NUMBER 2 | 0.54++ | 0.35++ | 0.42++ | 0.68++ | 1.00 | 0.67++ | 0.82++ | 0.30+ | 0.00 |
| NODULE | WEIGHT 1 | 0.40++ | 0.60++ | 0.53++ | 0.91++ | 0.67++ | 1.00 | 0.70++ | 0.58++ | 0.00 |
| NODULE | WEIGHT 2 | 0.52++ | 0.43++ | 0.42++ | 0.64++ | 0.82++ | 0.70++ | 1.00 | 0.39++ | 0.00 |
| PLANT | HEIGHT | 0.55++ | 0.80++ | 0.66++ | 0.64++ | 0.30+ | 0.58++ | 0.39++ | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.22 | 0.72++ | 0.78++ | 0.54++ | 0.40++ | 0.57++ | 0.46++ | 0.47++ | 0.00 |
| PLANTS | HARVEST | 0.19 | -0.14 | -0.15 | -0.08 | -0.00 | -0.00 | 0.02 | 0.12 | 0.00 |
| PODS PER | PLANT | 0.60++ | 0.39++ | 0.37++ | 0.38++ | 0.32++ | 0.21 | 0.31+ | 0.51++ | 0.00 |
| 100 SEED | WEIGHT | 0.30+ | 0.53++ | 0.70++ | 0.44++ | 0.36++ | 0.40++ | 0.36++ | 0.32+ | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 96 EXPERIMENT 324 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 6 | 43S | 2.00 | 178.50 | 19.30 | 18.50 | 1.00 | 43.1 | 20.8 |
| 2 | CONGO-72 | 1.00 | 177.00 | 26.48 | 16.25 | 1.00 | 38.5 | 21.7 |
| 5 | 8-350 | 2.00 | 200.00 | 23.60 | 18.50 | 1.00 | 44.9 | 19.3 |
| 8 | 43E | 2.00 | 180.00 | 22.10 | 18.75 | 1.00 | 43.1 | 20.0 |
| 16 | FORREST | 1.00 | 176.50 | 22.30 | 15.25 | 1.00 | 41.3 | 21.7 |
| 3 | KABANYOLO-1 | 1.00 | 217.50 | 23.18 | 14.75 | 1.00 | 42.1 | 19.6 |
| 7 | 43K | 2.00 | 159.00 | 23.00 | 19.75 | 1.00 | 43.4 | 19.8 |
| 14 | DAVIS | 1.00 | 161.50 | 19.48 | 17.00 | 1.00 | 42.8 | 22.1 |
| 9 | JUPITER | 1.00 | 152.00 | 25.55 | 18.25 | 1.00 | 42.8 | 22.5 |
| 4 | 403DR | 2.00 | 112.75 | 21.73 | 18.50 | 1.00 | 43.9 | 19.5 |
| 15 | IMPROVED PELICAN | 1.00 | 212.75 | 25.03 | 12.00 | 1.00 | 43.8 | 22.3 |
| 13 | COBB | 1.00 | 192.00 | 16.10 | 16.00 | 1.00 | 41.3 | 21.8 |
| 11 | WILLIAMS | 1.00 | 231.00 | 14.28 | 17.25 | 1.00 | 43.2 | 22.0 |
| 1 | BUKALASA-4 | 2.00 | 141.25 | 17.43 | 17.75 | 1.00 | 44.9 | 18.2 |
| 12 | CLARK 63 | 1.00 | 160.00 | 17.23 | 15.00 | 1.00 | 42.5 | 23.1 |
| 10 | BOSSIER | 1.00 | 143.00 | 12.23 | 15.50 | 1.00 | 45.8 | 21.0 |
| | GRAND MEAN | 1.38 | 174.67 | 20.56 | 16.81 | 1.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 20.62 | 2.49 | 0.35 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 23.61% | 24.25% | 4.19% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 58.72 | 7.10 | 1.00 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.22 | 0.19 | 0.60++ | 0.30+ | 0.00 |
| DAYS TO | FLOWER | 0.72++ | -0.14 | 0.39++ | 0.53++ | 0.00 |
| DAYS TO | MATURITY | 0.78++ | -0.15 | 0.37++ | 0.70++ | 0.00 |
| NODULE | NUMBER 1 | 0.54++ | -0.08 | 0.38++ | 0.44++ | 0.00 |
| NODULE | NUMBER 2 | 0.40++ | -0.00 | 0.32++ | 0.36++ | 0.00 |
| NODULE | WEIGHT 1 | 0.57++ | -0.00 | 0.21 | 0.40++ | 0.00 |
| NODULE | WEIGHT 2 | 0.46++ | 0.02 | 0.31+ | 0.36++ | 0.00 |
| PLANT | HEIGHT | 0.47++ | 0.12 | 0.51++ | 0.32+ | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | -0.20 | 0.07 | 0.69++ | 0.00 |
| PLANTS | HARVEST | -0.20 | 1.00 | -0.24 | -0.24 | 0.00 |
| PODS PER | PLANT | 0.07 | -0.24 | 1.00 | 0.03 | 0.00 |
| 100 SEED | WEIGHT | 0.69++ | -0.24 | 0.03 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 97 EXPERIMENT 232 YEAR 1976

REGION - AFRICA
SITE - BOBO-DIOULASSO
LATITUDE - 11 DEG. 25 MIN. N
COOPERATOR - C.I. KORTEWEG
DATE PLANTED - JULY 22, 1976
SOIL TYPE - CLAY, PH 5.5
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 639 MM

COUNTRY - UPPER VOLTA
ELEVATION - 250 M
LONGITUDE - 4 DEG. 20 MIN. W

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | CLARK 63 | 3418.18 | 27.00 | 78.00 | 302.25 | 465.00 | 0.00 | 0.00 | 69.80 | 4.00 |
| 8 | FORREST | 3374.84 | 32.00 | 80.00 | 329.50 | 595.00 | 0.00 | 0.00 | 59.03 | 3.00 |
| 3 | WILLIAMS | 3305.24 | 27.00 | 75.00 | 246.25 | 565.75 | 0.00 | 0.00 | 61.20 | 2.00 |
| 5 | COBB | 2893.91 | 32.00 | 84.00 | 146.25 | 419.75 | 0.00 | 0.00 | 50.55 | 2.00 |
| 6 | DAVIS | 2806.39 | 32.00 | 82.00 | 252.25 | 436.00 | 0.00 | 0.00 | 45.15 | 3.00 |
| 2 | BOSSIER | 2707.62 | 28.00 | 82.00 | 218.25 | 539.25 | 0.00 | 0.00 | 42.70 | 2.00 |
| 1 | JUPITER | 2603.44 | 44.00 | 103.00 | 196.25 | 757.50 | 0.00 | 0.00 | 93.10 | 3.00 |
| 7 | IMPROVED PELICAN | 2097.09 | 37.00 | 84.00 | 183.50 | 334.50 | 0.00 | 0.00 | 93.90 | 4.00 |
| | GRAND MEAN | 2900.84 | 32.38 | 83.50 | 234.31 | 514.09 | 0.00 | 0.00 | 64.43 | 2.88 |
| | STANDARD ERROR OF A VARIETY MEAN | 84.81 | 0.00 | 0.00 | 47.87 | 98.74 | 0.00 | 0.00 | 5.22 | 0.00 |
| | COEFFICIENT OF VARIATION | 5.85% | 0.00% | 0.00% | 40.86% | 38.41% | 0.00% | 0.00% | 16.19% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 249.43 | 0.00 | 0.00 | ******** | ******** | 0.00 | 0.00 | 15.34 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.58++ | -0.48++ | 0.35+ | 0.01 | 0.00 | 0.00 | -0.34 | -0.17 |
| DAYS TO FLOWER | -0.58++ | 1.00 | 0.91++ | -0.23 | 0.21 | 0.00 | 0.00 | 0.64++ | 0.28 |
| DAYS TO MATURITY | -0.48++ | 0.91++ | 1.00 | -0.25 | 0.31 | 0.00 | 0.00 | 0.49++ | 0.09 |
| NODULE NUMBER 1 | 0.35+ | -0.23 | -0.25 | 1.00 | 0.06 | 0.00 | 0.00 | -0.18 | 0.17 |
| NODULE NUMBER 2 | 0.01 | 0.21 | 0.31 | 0.06 | 1.00 | 0.00 | 0.00 | 0.03 | -0.16 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.34 | 0.64++ | 0.49++ | -0.18 | 0.03 | 0.00 | 0.00 | 1.00 | 0.57++ |
| LODGING | -0.17 | 0.28 | 0.09 | 0.17 | -0.16 | 0.00 | 0.00 | 0.57++ | 1.00 |
| SHATTER | 0.14 | 0.33 | 0.51++ | 0.08 | 0.26 | 0.00 | 0.00 | 0.48++ | 0.46++ |
| PLANTS HARVEST | 0.23 | -0.53++ | -0.57++ | -0.03 | -0.11 | 0.00 | 0.00 | -0.37+ | -0.13 |
| PODS PER PLANT | -0.52++ | 0.80++ | 0.70++ | -0.35+ | 0.01 | 0.00 | 0.00 | 0.49++ | 0.16 |
| 100 SEED WEIGHT | 0.63++ | -0.41+ | -0.09 | 0.15 | 0.36+ | 0.00 | 0.00 | -0.46++ | -0.66++ |
| QUALITY OF SEED | -0.16 | 0.43+ | 0.17 | 0.05 | -0.07 | 0.00 | 0.00 | 0.53++ | 0.59++ |

TABLE 97 EXPERIMENT 232 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | CLARK 63 | 2.00 | 210.00 | 23.50 | 17.50 | 3.00 |
| 8 | FORREST | 1.00 | 172.50 | 38.00 | 17.20 | 4.00 |
| 3 | WILLIAMS | 1.00 | 254.00 | 27.25 | 19.40 | 2.00 |
| 5 | COBB | 1.00 | 193.75 | 39.75 | 17.00 | 3.00 |
| 6 | DAVIS | 1.00 | 242.75 | 31.75 | 16.40 | 2.00 |
| 2 | BOSSIER | 1.00 | 180.75 | 32.00 | 18.80 | 2.00 |
| 1 | JUPITER | 2.00 | 146.75 | 57.50 | 17.80 | 3.00 |
| 7 | IMPROVED PELICAN | 1.00 | 187.00 | 51.25 | 11.70 | 4.00 |
| | GRAND MEAN | 1.25 | 198.44 | 37.63 | 16.97 | 2.88 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.33 | 3.36 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 14.45% | 17.86% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 42.16 | 9.88 | 0.00 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.14 | 0.23 | -0.52++ | 0.63++ | -0.16 |
| DAYS TO FLOWER | 0.33 | -0.53++ | 0.80++ | -0.41+ | 0.43+ |
| DAYS TO MATURITY | 0.51++ | -0.57++ | 0.70++ | -0.09 | 0.17 |
| NODULE NUMBER 1 | 0.08 | -0.03 | -0.35+ | 0.[illegible] | 0.05 |
| NODULE NUMBER 2 | 0.26 | -0.11 | 0.01 | 0.36+ | -0.07 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.48++ | -0.37+ | 0.49++ | -0.46++ | 0.53++ |
| LODGING | 0.46++ | -0.13 | 0.16 | -0.66++ | 0.59++ |
| SHATTER | 1.00 | -0.28 | 0.13 | 0.18 | 0.09 |
| PLANTS HARVEST | -0.28 | 1.00 | -0.50++ | 0.13 | -0.46++ |
| PODS PER PLANT | 0.13 | -0.50++ | 1.00 | -0.41+ | 0.44+ |
| 100 SEED WEIGHT | 0.18 | 0.13 | -0.41+ | 1.00 | -0.64++ |
| QUALITY OF SEED | 0.09 | -0.46++ | 0.44+ | -0.64++ | 1.00 |

TABLE 98 EXPERIMENT 278 YEAR 1976

REGION - AFRICA
SITE - KISANGA
LATITUDE - 11 DEG. 44 MIN. S
COOPERATOR - T.G. HART
DATE PLANTED - JANUARY 5, 1977
SOIL TYPE - SAND 22%, SILT 23%, CLAY 55%, PH 6.4
FERTILIZER USED (KG/HA) - N 60.0, P 12.3
AMOUNT OF MOISTURE - 816 MM

COUNTRY - ZAIRE
ELEVATION - 1187 M
LONGITUDE - 27 DEG. 25 MIN. E
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | DAVIS | 2359.19 | 38.00 | 101.00 | 143.75 | 165.50 | 1.85 | 3.15 | 35.40 | 1.00 |
| 1 | TGM 249-4-B | 2090.83 | 44.00 | 99.25 | 194.25 | 238.00 | 1.68 | 3.15 | 63.05 | 1.00 |
| 4 | JUPITER | 2019.57 | 52.00 | 123.00 | 216.00 | 280.75 | 2.23 | 4.30 | 89.75 | 4.00 |
| 10 | IMPROVED PELICAN | 1987.90 | 48.00 | 99.25 | 103.00 | 170.75 | 1.45 | 2.68 | 62.23 | 1.00 |
| 11 | FORREST | 1829.12 | 44.00 | 97.50 | 162.00 | 234.50 | 1.80 | 3.28 | 35.35 | 1.00 |
| 2 | TGM 294-4-2371 | 1801.61 | 60.00 | 117.00 | 127.25 | 160.00 | 1.45 | 2.10 | 69.50 | 1.00 |
| 8 | COBB | 1788.69 | 44.00 | 101.00 | 209.25 | 188.75 | 2.70 | 3.55 | 30.20 | 1.00 |
| 3 | TGX 66-5100 | 1664.92 | 44.00 | 94.00 | 130.00 | 123.75 | 1.83 | 3.05 | 56.50 | 1.00 |
| 5 | BOSSIER | 1621.99 | 22.00 | 94.00 | 211.25 | 232.75 | 2.45 | 4.58 | 25.90 | 1.00 |
| 6 | WILLIAMS | 1446.96 | 22.00 | 94.00 | 267.75 | 235.50 | 2.15 | 3.70 | 34.25 | 1.00 |
| 7 | CLARK 63 | 1430.70 | 27.50 | 94.00 | 215.25 | 208.50 | 2.33 | 3.08 | 37.60 | 1.00 |
| | GRAND MEAN | 1821.31 | 41.05 | 101.27 | 179.98 | 203.52 | 1.99 | 3.33 | 49.07 | 1.27 |
| | STANDARD ERROR OF A VARIETY MEAN | 202.60 | 1.76 | 0.97 | 26.84 | 38.07 | 0.21 | 0.69 | 3.27 | 0.00 |
| | COEFFICIENT OF VARIATION | 22.25% | 8.58% | 1.92% | 29.83% | 37.41% | 20.98% | 41.56% | 13.31% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 5.09 | 2.81 | 77.52 | ******** | 0.60 | ******** | 9.43 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.39** | 0.27 | -0.02 | -0.00 | 0.01 | -0.09 | 0.31* | 0.14 |
| DAYS TO | FLOWER | 0.39** | 1.00 | 0.69** | -0.44** | -0.18 | -0.32* | -0.28 | 0.66** | 0.29 |
| DAYS TO | MATURITY | 0.27 | 0.69** | 1.00 | -0.09 | 0.10 | -0.08 | -0.05 | 0.75** | 0.73** |
| NODULE | NUMBER 1 | -0.02 | -0.44** | -0.09 | 1.00 | 0.58** | 0.58** | 0.51** | -0.15 | 0.17 |
| NODULE | NUMBER 2 | -0.00 | -0.18 | 0.10 | 0.58** | 1.00 | 0.09 | 0.77** | 0.06 | 0.29 |
| NODULE | WEIGHT 1 | 0.01 | -0.32* | -0.08 | 0.58** | 0.09 | 1.00 | 0.37* | -0.24 | 0.12 |
| NODULE | WEIGHT 2 | -0.09 | -0.28 | -0.05 | 0.51** | 0.77** | 0.37* | 1.00 | -0.10 | 0.23 |
| PLANT | HEIGHT | 0.31* | 0.66** | 0.75** | -0.15 | 0.06 | -0.24 | -0.10 | 1.00 | 0.64** |
| | LODGING | 0.14 | 0.29 | 0.73** | 0.17 | 0.29 | 0.12 | 0.23 | 0.64** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.20 | -0.51** | -0.37* | 0.17 | -0.08 | 0.09 | -0.03 | -0.24 | -0.07 |
| PODS PER | PLANT | 0.40** | 0.79** | 0.78** | -0.24 | 0.02 | -0.19 | -0.17 | 0.76** | 0.37* |
| 100 SEED | WEIGHT | 0.14 | -0.37* | -0.01 | 0.47** | 0.12 | 0.45** | 0.20 | -0.37* | 0.15 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 98 EXPERIMENT 278 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | DAVIS | 1.00 | 208.25 | 24.83 | 21.90 | 1.00 | 41.7 | 21.8 |
| 1 | TGH 249-4-B | 1.00 | 188.00 | 31.45 | 18.08 | 1.00 | 44.9 | 19.1 |
| 4 | JUPITER | 1.00 | 187.75 | 41.60 | 20.13 | 1.00 | 42.5 | 20.6 |
| 10 | IMPROVED PELICAN | 1.00 | 189.00 | 34.03 | 16.00 | 1.00 | 44.7 | 19.5 |
| 11 | FORREST | 1.00 | 203.75 | 25.78 | 18.20 | 1.00 | 43.6 | 21.2 |
| 2 | TGH 294-4-2371 | 1.00 | 153.50 | 49.13 | 17.23 | 1.00 | 43.7 | 17.5 |
| 8 | COBB | 1.00 | 169.25 | 26.25 | 21.30 | 1.00 | 41.6 | 20.8 |
| 3 | TGX 66-5100 | 1.00 | 180.00 | 26.50 | 16.78 | 1.00 | 43.9 | 19.2 |
| 5 | BOSSIER | 1.00 | 194.75 | 18.90 | 20.13 | 1.00 | 45.4 | 20.9 |
| 6 | WILLIAMS | 1.00 | 227.25 | 14.90 | 21.38 | 1.00 | 43.1 | 20.4 |
| 7 | CLARK 63 | 1.00 | 260.50 | 15.45 | 19.23 | 1.00 | 43.1 | 19.4 |
| | GRAND MEAN | 1.00 | 196.55 | 28.07 | 19.12 | 1.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 15.00 | 3.27 | 0.60 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 15.27% | 23.30% | 6.26% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 43.33 | 9.45 | 1.73 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.20 | 0.40** | 0.14 | 0.00 |
| DAYS TO FLOWER | 0.00 | -0.51** | 0.79** | -0.37* | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.37* | 0.78** | -0.01 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.17 | -0.24 | 0.47** | 0.00 |
| NODULE NUMBER 2 | 0.00 | -0.08 | 0.02 | 0.12 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.09 | -0.19 | 0.45** | 0.00 |
| NODULE WEIGHT 2 | 0.00 | -0.03 | -0.17 | 0.20 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.24 | 0.76** | -0.37* | 0.00 |
| LODGING | 0.00 | -0.07 | 0.37* | 0.15 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.62** | 0.23 | 0.00 |
| PODS PER PLANT | 0.00 | -0.62** | 1.00 | -0.31* | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.23 | -0.31* | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 99 EXPERIMENT 187 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
SITE - KABWE ELEVATION - 1207 M
LATITUDE - 16 DEG. 12 MIN. S LONGITUDE - 28 DEG. 16 MIN. E
COOPERATORS - N.S. LIPOVAC, F. JAVAHERI
DATE PLANTED - DECEMBER 14, 1976 DATE HARVESTED - APRIL, 1977
SOIL TYPE - SAND 77.6%, SILT 13.6%, CLAY 8.8%, PH 5.5
FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
AMOUNT OF MOISTURE - 650 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | DAVIS | 4494.23 | 39.00 | 110.50 | 162.75 | 268.25 | 5.60 | 9.97 | 72.50 | 1.00 |
| 14 | FORREST | 4185.84 | 34.00 | 105.25 | 5[illegible].25 | 196.75 | 1.08 | 4.55 | 62.75 | 1.00 |
| 4 | RAMSOM | 4074.98 | 29.00 | 100.50 | 139.25 | 271.50 | 2.85 | 7.60 | 35.50 | 1.00 |
| 16 | ESSEX | 4064.56 | 32.00 | 105.50 | 153.50 | 323.75 | 2.98 | 8.05 | 47.25 | 1.00 |
| 11 | COBB | 4022.05 | 36.00 | 109.00 | 73.75 | 220.25 | 1.60 | 6.60 | 61.50 | 1.00 |
| 3 | BRAGG | 3859.52 | 31.00 | 105.50 | 89.25 | 239.00 | 1.73 | 6.33 | 46.00 | 1.00 |
| 15 | COLUMBUS | 3821.60 | 26.00 | 95.50 | 160.00 | 190.00 | 3.10 | 6.60 | 61.75 | 1.00 |
| 1 | CALLAND | 3509.87 | 28.00 | 96.00 | 129.75 | 175.25 | 2.75 | 6.33 | 49.00 | 1.00 |
| 5 | HILL | 3504.03 | 41.00 | 103.75 | 112.75 | 169.50 | 3.53 | 4.60 | 65.00 | 1.00 |
| 6 | PICKETT 71 | 3280.66 | 31.00 | 98.50 | 74.00 | 129.25 | 1.00 | 4.43 | 35.00 | 1.00 |
| 13 | IMPROVED PELICAN | 3177.72 | 54.00 | 110.75 | 122.00 | 201.25 | 2.65 | 6.65 | 106.75 | 1.00 |
| 8 | BOSSIER | 3154.80 | 31.00 | 102.00 | 122.75 | 183.00 | 2.55 | 7.10 | 34.00 | 1.00 |
| 7 | CUTLER 71 | 3142.71 | 27.00 | 94.50 | 106.25 | 176.00 | 2.80 | 7.38 | 54.75 | 1.00 |
| 2 | WOODWORTH | 2858.90 | 25.00 | 82.75 | 117.50 | 115.50 | 2.38 | 3.40 | 48.50 | 1.00 |
| 10 | CLARK 63 | 2828.48 | 28.00 | 90.75 | 140.50 | 184.50 | 2.43 | 7.30 | 48.25 | 1.00 |
| 9 | WILLIAMS | 2784.72 | 25.00 | 90.50 | 107.00 | 135.00 | 2.63 | 4.35 | 41.50 | 1.00 |
| | GRAND MEAN | 3547.79 | 32.31 | 100.08 | 116.58 | 198.67 | 2.61 | 6.33 | 54.38 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 208.91 | 0.00 | 1.72 | 21.26 | 37.05 | 0.43 | 1.21 | 2.95 | 0.00 |
| | COEFFICIENT OF VARIATION | 11.78% | 0.00% | 3.43% | 36.47% | 37.30% | 32.95% | 38.38% | 10.84% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 595.05 | 0.00 | 4.89 | 60.56 | 105.53 | 1.23 | 3.46 | 8.39 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.18 | 0.55++ | 0.08 | 0.57++ | 0.34++ | 0.43++ | 0.19 | 0.00 |
| DAYS TO | FLOWER | 0.18 | 1.00 | 0.71++ | -0.03 | 0.16 | 0.16 | 0.12 | 0.79++ | 0.00 |
| DAYS TO | MATURITY | 0.55++ | 0.71++ | 1.00 | -0.01 | 0.36++ | 0.15 | 0.32++ | 0.43++ | 0.00 |
| NODULE | NUMBER 1 | 0.08 | -0.03 | -0.01 | 1.00 | 0.32+ | 0.69++ | 0.37++ | 0.07 | 0.00 |
| NODULE | NUMBER 2 | 0.57++ | 0.16 | 0.36++ | 0.32+ | 1.00 | 0.32+ | 0.62++ | 0.12 | 0.00 |
| NODULE | WEIGHT 1 | 0.34++ | 0.16 | 0.15 | 0.69++ | 0.32+ | 1.00 | 0.43++ | 0.28+ | 0.00 |
| NODULE | WEIGHT 2 | 0.43++ | 0.12 | 0.32++ | 0.37++ | 0.62++ | 0.43++ | 1.00 | 0.10 | 0.00 |
| PLANT | HEIGHT | 0.19 | 0.79++ | 0.43++ | 0.07 | 0.12 | 0.28+ | 0.10 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.03 | -0.20 | -0.19 | -0.11 | -0.13 | 0.00 | -0.26+ | -0.01 | 0.00 |
| PODS PER | PLANT | 0.20 | 0.34++ | 0.16 | 0.24 | 0.05 | 0.30+ | 0.16 | 0.45++ | 0.00 |
| 100 SEED | WEIGHT | 0.19 | -0.48++ | -0.24 | 0.01 | 0.11 | 0.01 | 0.07 | -0.39++ | 0.00 |
| QUALITY | OF SEED | -0.26+ | -0.76++ | -0.72++ | -0.00 | -0.28+ | -0.26+ | -0.28+ | -0.43++ | 0.00 |

TABLE 99 EXPERIMENT 187 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 12 | DAVIS | 0.00 | 263.25 | 24.50 | 21.50 | 1.00 |
| 14 | FORREST | 0.00 | 264.25 | 25.00 | 20.00 | 3.00 |
| 4 | HANSON | 0.00 | 237.00 | 20.75 | 23.00 | 2.00 |
| 16 | ESSEX | 0.00 | 250.75 | 23.75 | 20.50 | 3.00 |
| 11 | COBB | 0.00 | 224.75 | 26.00 | 20.50 | 2.00 |
| 3 | BRAGG | 0.00 | 265.00 | 17.25 | 22.75 | 2.00 |
| 15 | COLUMBUS | 0.00 | 280.75 | 29.50 | 20.75 | 4.00 |
| 1 | CALLAND | 0.00 | 243.25 | 21.75 | 24.00 | 4.00 |
| 5 | HILL | 0.00 | 234.75 | 31.25 | 20.00 | 2.00 |
| 6 | PICKETT 71 | 0.00 | 252.50 | 20.75 | 19.75 | 3.00 |
| 13 | IMPROVED PELICAN | 0.00 | 226.25 | 30.00 | 15.75 | 1.00 |
| 8 | BOSSIER | 0.00 | 166.00 | 21.75 | 20.50 | 2.00 |
| 7 | CUTLER 71 | 0.00 | 240.50 | 23.50 | 21.50 | 3.00 |
| 2 | WOODWORTH | 0.00 | 236.50 | 27.00 | 22.25 | 4.00 |
| 10 | CLARK 63 | 0.00 | 272.50 | 22.25 | 19.25 | 3.00 |
| 9 | WILLIAMS | 0.00 | 294.50 | 17.00 | 21.75 | 3.00 |
| | GRAND MEAN | 0.00 | 247.03 | 23.88 | 20.86 | 2.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 16.24 | 2.60 | 1.10 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 13.15% | 21.77% | 10.56% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 46.26 | 7.40 | 3.14 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.03 | 0.20 | 0.19 | -0.26* |
| DAYS TO FLOWER | 0.00 | -0.20 | 0.34** | -0.48** | -0.76** |
| DAYS TO MATURITY | 0.00 | -0.19 | 0.16 | -0.24 | -0.72** |
| NODULE NUMBER 1 | 0.00 | -0.11 | 0.24 | 0.01 | -0.00 |
| NODULE NUMBER 2 | 0.00 | -0.13 | 0.05 | 0.11 | -0.28* |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.30* | 0.01 | -0.26* |
| NODULE WEIGHT 2 | 0.00 | -0.26* | 0.16 | 0.07 | -0.28* |
| PLANT HEIGHT | 0.00 | -0.01 | 0.45** | -0.39** | -0.43** |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.36** | 0.08 | 0.22 |
| PODS PER PLANT | 0.00 | -0.36** | 1.00 | -0.30* | -0.05 |
| 100 SEED WEIGHT | 0.00 | 0.08 | -0.30* | 1.00 | 0.27* |
| QUALITY OF SEED | 0.00 | 0.22 | -0.05 | 0.27* | 1.00 |

TABLE 100 EXPERIMENT 189 YEAR 1976

REGION - AFRICA
SITE - MAGOYE
LATITUDE - 16 DEG. 1 MIN. S
COOPERATOR - F. JAVAHERI
DATE PLANTED - DECEMBER 15, 1976
SOIL TYPE - SAND 74.5%, SILT 10.0%, CLAY 15.5%, PH 4.8
FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 52.0
AMOUNT OF MOISTURE - 386 MM

COUNTRY - ZAMBIA
ELEVATION - 1067 M
LONGITUDE - 27 DEG. 37 MIN. E
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | COBB | 4155.83 | 31.50 | 97.75 | 27.75 | 201.00 | 0.22 | 1.92 | 51.95 | 1.00 |
| 1 | CALLAND | 3993.72 | 21.00 | 85.00 | 28.50 | 282.25 | 0.11 | 1.76 | 49.20 | 1.00 |
| 13 | IMPROVED PELICAN | 3826.60 | 49.00 | 101.00 | 215.25 | 236.50 | 0.82 | 2.60 | 97.45 | 1.00 |
| 16 | ESSEX | 3785.34 | 24.00 | 93.00 | 54.50 | 290.75 | 0.32 | 1.63 | 39.90 | 1.00 |
| 15 | COLCHBUS | 3766.59 | 21.00 | 86.50 | 37.75 | 256.75 | 0.16 | 2.12 | 52.80 | 1.25 |
| 12 | DAVIS | 3709.07 | 37.50 | 97.25 | 109.00 | 285.75 | 1.62 | 3.47 | 68.65 | 1.25 |
| 8 | BOSSIER | 3646.98 | 25.75 | 92.00 | 25.50 | 278.00 | 0.16 | 1.74 | 33.40 | 1.00 |
| 5 | HILL | 3543.63 | 37.50 | 93.50 | 36.50 | 154.25 | 0.33 | 1.85 | 60.45 | 2.00 |
| 4 | RANSOM | 3501.53 | 25.50 | 92.00 | 32.50 | 312.25 | 0.08 | 1.70 | 36.75 | 1.00 |
| 3 | BRAGG | 3162.72 | 26.25 | 92.00 | 8.00 | 376.75 | 0.16 | 1.35 | 40.25 | 1.00 |
| 7 | CUTLER 71 | 3024.77 | 21.00 | 83.50 | 66.00 | 306.75 | 0.24 | 2.35 | 52.70 | 1.25 |
| 10 | CLARK 63 | 2835.57 | 21.00 | 82.50 | 23.75 | 222.75 | 0.20 | 1.48 | 51.05 | 1.25 |
| 6 | PICKETT 71 | 2746.38 | 29.50 | 92.00 | 5.75 | 178.75 | 0.03 | 1.14 | 32.70 | 1.00 |
| 9 | WILLIAMS | 2683.45 | 21.00 | 82.00 | 45.75 | 136.25 | 0.21 | 0.98 | 45.40 | 1.25 |
| 14 | FORREST | 2522.17 | 31.25 | 94.75 | 16.75 | 240.50 | 0.20 | 1.72 | 60.70 | 1.25 |
| 2 | WOODWORTH | 2250.03 | 21.00 | 76.00 | 26.25 | 134.25 | 0.11 | 1.00 | 43.00 | 1.75 |
| | GRAND MEAN | 3322.15 | 27.73 | 90.05 | 47.47 | 243.34 | 0.31 | 1.80 | 51.02 | 1.20 |
| | STANDARD ERROR OF A VARIETY MEAN | 406.82 | 0.96 | 0.39 | 14.11 | 55.33 | 0.22 | 0.45 | 2.38 | 0.22 |
| | COEFFICIENT OF VARIATION | 24.49% | 6.90% | 0.86% | 59.46% | 45.48% | 141.57% | 49.72% | 9.31% | 36.55% |
| | 5% LSD VARIETY MEANS (********=NS) | 1158.81 | 2.72 | 1.10 | 40.20 | ******** | 0.62 | 1.27 | 6.77 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.20 | 0.38** | 0.14 | 0.06 | 0.12 | 0.16 | 0.15 | -0.27* |
| DAYS TO FLOWER | 0.20 | 1.00 | 0.80** | 0.59** | -0.06 | 0.42** | 0.31* | 0.71** | 0.02 |
| DAYS TO MATURITY | 0.38** | 0.80** | 1.00 | 0.37** | 0.14 | 0.32** | 0.32* | 0.42** | -0.21 |
| NODULE NUMBER 1 | 0.14 | 0.59** | 0.37** | 1.00 | 0.07 | 0.62** | 0.38** | 0.76** | -0.11 |
| NODULE NUMBER 2 | 0.06 | -0.06 | 0.14 | 0.07 | 1.00 | 0.05 | 0.47** | 0.03 | -0.26* |
| NODULE WEIGHT 1 | 0.12 | 0.42** | 0.32** | 0.62** | 0.05 | 1.00 | 0.31* | 0.45** | -0.10 |
| NODULE WEIGHT 2 | 0.16 | 0.31* | 0.32* | 0.38** | 0.47** | 0.31* | 1.00 | 0.35** | -0.07 |
| PLANT HEIGHT | 0.15 | 0.71** | 0.42** | 0.76** | 0.03 | 0.45** | 0.35** | 1.00 | 0.08 |
| LODGING | -0.27* | 0.02 | -0.21 | -0.11 | -0.26* | -0.10 | -0.07 | 0.08 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.18 | -0.22 | -0.32** | 0.07 | 0.25* | 0.16 | 0.21 | 0.12 | 0.10 |
| PODS PER PLANT | 0.27* | 0.73** | 0.58** | 0.61** | -0.11 | 0.27* | 0.20 | 0.73** | -0.04 |
| 100 SEED WEIGHT | 0.23 | -0.26* | 0.03 | -0.11 | 0.48** | -0.04 | 0.29* | -0.13 | -0.17 |
| QUALITY OF SEED | 0.00 | -0.30* | -0.05 | -0.24 | -0.06 | 0.05 | -0.14 | -0.35** | -0.12 |

TABLE 100 EXPERIMENT 189 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 11 | COBB | 1.00 | 232.25 | 32.53 | 20.85 | 3.75 | 39.1 | 25.3 |
| 1 | CALLAND | 1.00 | 253.00 | 19.25 | 21.95 | 2.50 | 39.4 | 22.9 |
| 13 | IMPROVED PELICAN | 1.00 | 220.00 | 52.07 | 17.00 | 1.00 | 41.9 | 22.2 |
| 16 | ESSEX | 1.00 | 220.00 | 26.27 | 20.18 | 3.00 | 41.3 | 21.4 |
| 15 | COLUMBUS | 1.00 | 271.50 | 16.75 | 21.45 | 2.00 | 41.4 | 21.8 |
| 12 | DAVIS | 1.00 | 297.50 | 25.23 | 23.28 | 2.25 | 41.1 | 21.8 |
| 8 | BOSSIER | 1.00 | 191.25 | 21.60 | 19.75 | 2.50 | 39.8 | 23.6 |
| 5 | HILL | 1.00 | 236.25 | 27.63 | 17.83 | 2.25 | 38.4 | 22.6 |
| 4 | RANSOM | 1.00 | 268.25 | 17.47 | 21.70 | 2.75 | 39.8 | 23.7 |
| 3 | BRAGG | 1.00 | 261.50 | 15.98 | 22.63 | 1.75 | 41.2 | 22.0 |
| 7 | CUTLER 71 | 1.00 | 240.75 | 24.65 | 23.38 | 2.75 | 41.9 | 22.1 |
| 10 | CLARK 63 | 1.00 | 294.50 | 21.28 | 19.98 | 2.25 | 37.8 | 23.7 |
| 6 | PICKETT 71 | 1.00 | 202.75 | 20.83 | 19.00 | 3.00 | 40.1 | 23.9 |
| 9 | WILLIAMS | 1.00 | 281.50 | 15.03 | 20.68 | 2.75 | 37.8 | 24.4 |
| 14 | FORREST | 1.00 | 263.25 | 28.08 | 18.25 | 2.75 | 39.0 | 22.4 |
| 2 | WOODWORTH | 1.00 | 278.25 | 20.25 | 15.55 | 2.25 | 36.3 | 24.8 |
| | GRAND MEAN | 1.00 | 250.78 | 24.05 | 20.21 | 2.47 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.51 | 2.30 | 0.70 | 0.33 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 11.57% | 19.15% | 6.90% | 26.62% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 41.33 | 6.56 | 1.99 | 0.94 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.18 | 0.27+ | 0.24 | 0.00 |
| DAYS TO | FLOWER | 0.00 | -0.22 | 0.73++ | -0.26+ | -0.30+ |
| DAYS TO | MATURITY | 0.00 | -0.32++ | 0.58++ | 0.03 | -0.05 |
| NODULE | NUMBER 1 | 0.00 | 0.07 | 0.61++ | -0.11 | -0.24 |
| NODULE | NUMBER 2 | 0.00 | 0.25+ | -0.11 | 0.48++ | -0.06 |
| NODULE | WEIGHT 1 | 0.00 | 0.16 | 0.27+ | -0.04 | 0.05 |
| NODULE | WEIGHT 2 | 0.00 | 0.21 | 0.20 | 0.29+ | -0.14 |
| PLANT | HEIGHT | 0.00 | 0.12 | 0.73++ | -0.13 | -0.35++ |
| | LODGING | 0.00 | 0.10 | -0.04 | -0.17 | -0.12 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.38++ | 0.26+ | -0.06 |
| PODS PER | PLANT | 0.00 | -0.38++ | 1.00 | -0.31+ | -0.15 |
| 100 SEED | WEIGHT | 0.00 | 0.26+ | -0.31+ | 1.00 | 0.06 |
| QUALITY | OF SEED | 0.00 | -0.06 | -0.15 | 0.06 | 1.00 |

TABLE 101 EXPERIMENT 188 YEAR 1976

REGION - AFRICA
SITE - MAGOYE
LATITUDE - 15 DEG. 5 MIN. S
COOPERATOR - F. JAVAHERI
DATE PLANTED - DECEMBER 16, 1976
SOIL TYPE - SAND 48.9%, SILT 28.3%, CLAY 22.8%, PH 4.35
FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
AMOUNT OF MOISTURE - 378 MM

COUNTRY - ZAMBIA
ELEVATION - 1049 M
LONGITUDE - 27 DEG. 46 MIN. E
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 2574.26 | 27.50 | 93.50 | 7.50 | 140.75 | 0.05 | 0.71 | 34.20 | 1.00 |
| 2 | WOODWORTH | 2563.43 | 23.00 | 76.00 | 5.75 | 59.50 | 0.00 | 0.51 | 38.55 | 1.00 |
| 12 | DAVIS | 2545.51 | 37.00 | 98.50 | 14.25 | 101.75 | 0.10 | 0.93 | 51.15 | 1.50 |
| 11 | COBB | 2533.84 | 34.00 | 96.75 | 18.75 | 77.00 | 0.14 | 0.62 | 44.00 | 1.00 |
| 1 | CALLAND | 2457.57 | 23.00 | 88.50 | 5.00 | 107.25 | 0.00 | 0.61 | 51.50 | 1.00 |
| 15 | COLUMBUS | 2445.91 | 23.00 | 91.00 | 7.00 | 131.50 | 0.02 | 0.57 | 50.80 | 1.00 |
| 3 | BRAGG | 2337.55 | 27.25 | 89.50 | 1.00 | 133.75 | 0.00 | 0.62 | 41.65 | 1.00 |
| 16 | ESSEX | 2331.30 | 27.00 | 92.50 | 12.50 | 99.75 | 0.01 | 0.64 | 34.75 | 1.00 |
| 5 | HILL | 2253.37 | 37.00 | 92.50 | 18.75 | 85.75 | 0.03 | 1.19 | 51.10 | 2.00 |
| 14 | FORREST | 2247.53 | 34.75 | 94.00 | 8.25 | 79.50 | 0.01 | 0.52 | 46.80 | 1.00 |
| 4 | HANSON | 2184.60 | 27.00 | 94.00 | 4.50 | 141.25 | 0.00 | 0.62 | 32.05 | 1.00 |
| 10 | CLARK 63 | 2141.26 | 23.00 | 81.25 | 11.25 | 100.75 | 0.06 | 0.43 | 43.60 | 1.75 |
| 9 | WILLIAMS | 2094.17 | 23.00 | 80.50 | 12.50 | 63.00 | 0.02 | 0.27 | 40.20 | 1.25 |
| 13 | IMPROVED PELICAN | 1990.81 | 44.00 | 107.25 | 46.50 | 59.00 | 0.14 | 0.68 | 82.70 | 1.75 |
| 6 | PICKETT 71 | 1948.72 | 27.00 | 87.00 | 3.75 | 84.50 | 0.03 | 0.40 | 28.93 | 1.00 |
| 7 | CUTLER 71 | 1847.87 | 23.00 | 80.50 | 7.00 | 88.75 | 0.00 | 0.41 | 44.15 | 1.25 |
| | GRAND MEAN | 2281.11 | 28.78 | 90.20 | 11.52 | 97.11 | 0.04 | 0.61 | 44.76 | 1.22 |
| | STANDARD ERROR OF A VARIETY MEAN | 170.51 | 0.23 | 1.63 | 4.01 | 21.61 | 0.03 | 0.17 | 2.38 | 0.15 |
| | COEFFICIENT OF VARIATION | 14.95% | 1.62% | 3.61% | 69.60% | 44.50% | 152.92% | 57.28% | 19.63% | 23.88% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.67 | 4.63 | 11.42 | ******** | 0.08 | ******** | 6.77 | 0.41 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.01 | 0.15 | -0.11 | 0.15 | -0.05 | 0.17 | -0.04 | -0.20 |
| DAYS TO FLOWER | -0.01 | 1.00 | 0.78++ | 0.63++ | -0.17 | 0.45++ | 0.34++ | 0.60++ | 0.39++ |
| DAYS TO MATURITY | 0.15 | 0.78++ | 1.00 | 0.41++ | 0.08 | 0.32+ | 0.28+ | 0.51++ | 0.07 |
| NODULE NUMBER 1 | -0.11 | 0.63++ | 0.41++ | 1.00 | -0.14 | 0.49++ | 0.30+ | 0.67++ | 0.48++ |
| NODULE NUMBER 2 | 0.15 | -0.17 | 0.08 | -0.14 | 1.00 | -0.16 | 0.49++ | -0.20 | -0.08 |
| NODULE WEIGHT 1 | -0.05 | 0.45++ | 0.32+ | 0.49++ | -0.16 | 1.00 | 0.21 | 0.35++ | 0.23 |
| NODULE WEIGHT 2 | 0.17 | 0.34++ | 0.28+ | 0.30+ | 0.49++ | 0.21 | 1.00 | 0.18 | 0.34++ |
| PLANT HEIGHT | -0.04 | 0.60++ | 0.51++ | 0.67++ | -0.20 | 0.35++ | 0.18 | 1.00 | 0.46++ |
| LODGING | -0.20 | 0.39++ | 0.07 | 0.48++ | -0.08 | 0.23 | 0.34++ | 0.46++ | 1.00 |
| SHATTER | 0.07 | 0.01 | 0.15 | -0.08 | 0.13 | 0.10 | 0.22 | 0.02 | -0.04 |
| PLANTS HARVEST | 0.11 | -0.28+ | -0.33++ | -0.24 | 0.07 | -0.23 | 0.01 | -0.08 | -0.00 |
| PODS PER PLANT | 0.01 | 0.41++ | 0.33++ | 0.51++ | -0.17 | 0.44++ | 0.01 | 0.44++ | 0.27+ |
| 100 SEED WEIGHT | 0.40++ | 0.11 | 0.23 | 0.00 | 0.15 | 0.02 | 0.13 | 0.22 | -0.04 |
| QUALITY OF SEED | -0.10 | -0.07 | -0.19 | 0.08 | -0.13 | -0.18 | -0.07 | 0.10 | 0.14 |

TABLE 101 EXPERIMENT 188 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 1.25 | 155.50 | 21.13 | 18.65 | 2.25 | 41.3 | 21.6 |
| 2 | WOODWORTH | 1.00 | 251.25 | 17.42 | 17.75 | 2.75 | 40.0 | 22.3 |
| 12 | DAVIS | 1.50 | 263.75 | 21.67 | 21.75 | 2.25 | 42.0 | 20.7 |
| 11 | COBB | 1.00 | 208.50 | 26.45 | 17.80 | 2.50 | 38.7 | 23.0 |
| 1 | CALLAND | 1.25 | 263.25 | 14.08 | 20.53 | 3.50 | 40.8 | 21.1 |
| 15 | COLUMBUS | 1.00 | 236.75 | 18.58 | 18.20 | 1.50 | 41.4 | 22.3 |
| 3 | BRAGG | 1.00 | 260.50 | 15.63 | 18.93 | 2.75 | 41.8 | 22.0 |
| 16 | ESSEX | 1.00 | 234.00 | 19.53 | 16.03 | 2.25 | 40.9 | 21.2 |
| 5 | HILL | 1.00 | 231.75 | 18.17 | 17.35 | 2.25 | 39.3 | 21.9 |
| 14 | FORREST | 1.00 | 220.25 | 20.42 | 16.03 | 2.75 | 38.4 | 22.9 |
| 4 | RANSOM | 1.25 | 234.25 | 16.25 | 17.70 | 2.25 | 40.0 | 24.0 |
| 10 | CLARK 63 | 1.00 | 237.50 | 24.03 | 16.35 | 2.50 | 41.1 | 22.0 |
| 9 | WILLIAMS | 1.00 | 255.25 | 19.92 | 18.63 | 3.25 | 41.0 | 22.4 |
| 13 | IMPROVED PELICAN | 1.00 | 181.50 | 30.40 | 18.78 | 2.75 | 43.4 | 21.8 |
| 6 | PICKETT 71 | 1.00 | 205.50 | 17.65 | 16.13 | 2.75 | 40.9 | 21.7 |
| 7 | CUTLER 71 | 1.25 | 208.00 | 22.28 | 17.95 | 2.50 | 40.1 | 22.2 |
| | GRAND MEAN | 1.09 | 227.97 | 20.22 | 18.03 | 2.55 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.15 | 9.74 | 2.10 | 0.71 | 0.23 | | |
| | COEFFICIENT OF VARIATION | 27.04% | 8.54% | 20.77% | 7.83% | 18.23% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 27.74 | 5.98 | 2.01 | 0.66 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.07 | 0.11 | 0.01 | 0.40** | -0.10 |
| DAYS TO FLOWER | 0.01 | -0.28* | 0.41** | 0.11 | -0.07 |
| DAYS TO MATURITY | 0.15 | -0.33** | 0.33** | 0.23 | -0.19 |
| NODULE NUMBER 1 | -0.08 | -0.24 | 0.51** | 0.00 | 0.08 |
| NODULE NUMBER 2 | 0.13 | 0.07 | -0.17 | 0.15 | -0.13 |
| NODULE WEIGHT 1 | 0.10 | -0.23 | 0.44** | 0.02 | -0.18 |
| NODULE WEIGHT 2 | 0.22 | 0.01 | 0.01 | 0.13 | -0.07 |
| PLANT HEIGHT | 0.02 | -0.08 | 0.44** | 0.22 | 0.10 |
| LODGING | -0.04 | -0.00 | 0.27* | -0.04 | 0.14 |
| SHATTER | 1.00 | 0.01 | 0.04 | 0.27* | 0.06 |
| PLANTS HARVEST | 0.01 | 1.00 | -0.44** | 0.17 | 0.12 |
| PODS PER PLANT | 0.04 | -0.44** | 1.00 | -0.12 | -0.19 |
| 100 SEED WEIGHT | 0.27* | 0.17 | -0.12 | 1.00 | 0.13 |
| QUALITY OF SEED | 0.06 | 0.12 | -0.19 | 0.13 | 1.00 |

TABLE 102 EXPERIMENT 997 YEAR 1976

REGION - AFRICA
SITE - MAGOYE
LATITUDE - 16 DEG. 1 MIN. S
COOPERATOR - F. JAVAHERI
DATE PLANTED - DECEMBER 17, 1976
SOIL TYPE - SAND 68.9%, SILT 13.1%, CLAY 18.0%, PH 4.9
FERTILIZER USED (KG/HA) - N 25.0, P 22.0, K 21.0
AMOUNT OF MOISTURE - 370 MM
LOCAL VARIETY - GEDULD

COUNTRY - ZAMBIA
ELEVATION - 1067 M
LONGITUDE - 27 DEG. 37 MIN. E

DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | TGX 13-3-2644 | 2968.09 | 44.00 | 112.00 | 4.00 | 18.75 | 0.24 | 2.61 | 97.10 | 2.00 |
| 15 | GEDULD | 2795.98 | 44.00 | 102.00 | 7.50 | 34.00 | 0.75 | 4.44 | 72.60 | 1.00 |
| 14 | DAVIS | 2775.55 | 40.50 | 103.00 | 3.00 | 22.50 | 0.27 | 3.85 | 56.40 | 1.00 |
| 1 | TGM 220-1-2205 | 2672.62 | 60.00 | 112.00 | 15.00 | 21.00 | 1.31 | 2.90 | 79.20 | 4.75 |
| 4 | TGM 249-4-B | 2602.60 | 42.50 | 104.50 | 1.50 | 11.25 | 0.07 | 1.16 | 70.00 | 1.00 |
| 16 | FORREST | 2594.27 | 38.00 | 98.25 | 2.00 | 20.75 | 0.10 | 1.93 | 57.60 | 1.00 |
| 8 | TGM 256-1-B | 2561.35 | 51.00 | 109.00 | 11.25 | 18.50 | 0.56 | 2.44 | 100.50 | 3.00 |
| 13 | COBB | 2523.42 | 38.00 | 103.00 | 2.75 | 14.50 | 0.39 | 2.02 | 53.15 | 1.00 |
| 5 | TGM 294-4-2371 | 2484.66 | 62.00 | 109.00 | 13.00 | 22.75 | 1.73 | 2.92 | 84.60 | 1.00 |
| 10 | BOSSIER | 2375.89 | 35.75 | 97.00 | 4.00 | 18.00 | 0.13 | 1.48 | 40.20 | 1.00 |
| 11 | WILLIAMS | 2341.72 | 25.00 | 87.00 | 3.75 | 11.25 | 0.07 | 0.89 | 39.55 | 1.25 |
| 2 | TGM 210-1-2363 | 2203.77 | 49.00 | 102.25 | 6.75 | 11.25 | 0.44 | 1.99 | 73.75 | 1.50 |
| 3 | TGM 255-2-4341 | 2139.59 | 44.50 | 108.00 | 3.50 | 20.50 | 0.71 | 1.69 | 65.40 | 1.00 |
| 6 | TGX 66-5100 | 2043.74 | 51.25 | 98.00 | 6.50 | 12.50 | 0.30 | 1.74 | 72.65 | 1.75 |
| 9 | JUPITER | 1915.38 | 62.00 | 122.75 | 14.50 | 16.25 | 1.30 | 2.56 | 109.65 | 2.75 |
| 12 | CLARK 63 | 1573.23 | 25.00 | 80.00 | 2.50 | [illegible].50 | 0.08 | 0.81 | 41.45 | 1.50 |
| | GRAND MEAN | 2410.74 | 44.53 | 102.98 | 6.34 | 17.58 | 0.53 | 2.21 | 69.61 | 1.66 |
| | STANDARD ERROR OF A VARIETY MEAN | 187.71 | 1.57 | 0.44 | 2.17 | 3.52 | 0.26 | 0.52 | 2.12 | 0.21 |
| | COEFFICIENT OF VARIATION | 15.57% | 7.05% | 0.86% | 68.56% | 40.06% | 98.08% | 46.60% | 6.10% | 25.16% |
| | 5% LSD VARIETY MEANS (*********=NS) | 534.69 | 4.47 | 1.26 | 6.19 | 10.03 | 0.74 | 1.47 | 6.05 | 0.59 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.09 | 0.26* | 0.03 | 0.27* | -0.02 | 0.29* | 0.17 | 0.02 |
| DAYS TO FLOWER | 0.09 | 1.00 | 0.81** | 0.64** | 0.22 | 0.60** | 0.34** | 0.78** | 0.49** |
| DAYS TO MATURITY | 0.26* | 0.81** | 1.00 | 0.45** | 0.27* | 0.46** | 0.38** | 0.82** | 0.41** |
| NODULE NUMBER 1 | 0.03 | 0.64** | 0.45** | 1.00 | 0.39** | 0.79** | 0.39** | 0.52** | 0.53** |
| NODULE NUMBER 2 | 0.27* | 0.22 | 0.27* | 0.39** | 1.00 | 0.43** | 0.78** | 0.20 | 0.00 |
| NODULE WEIGHT 1 | -0.02 | 0.60** | 0.46** | 0.79** | 0.43** | 1.00 | 0.37** | 0.42** | 0.30* |
| NODULE WEIGHT 2 | 0.29* | 0.34** | 0.38** | 0.39** | 0.78** | 0.37** | 1.00 | 0.37** | 0.07 |
| PLANT HEIGHT | 0.17 | 0.78** | 0.82** | 0.52** | 0.20 | 0.42** | 0.37** | 1.00 | 0.49** |
| LODGING | 0.02 | 0.49** | 0.41** | 0.53** | 0.00 | 0.30* | 0.07 | 0.49** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.30* | 0.03 | -0.12 | 0.20 | -0.13 | 0.14 | -0.16 | 0.16 | -0.06 |
| PODS PER PLANT | 0.22 | 0.38** | 0.48** | 0.15 | 0.16 | 0.27* | 0.16 | 0.19 | 0.02 |
| 100 SEED WEIGHT | 0.25 | -0.22 | -0.10 | -0.15 | 0.12 | -0.13 | 0.24 | -0.24 | -0.29* |
| QUALITY OF SEED | 0.06 | -0.32** | -0.35** | -0.29* | -0.10 | -0.24 | -0.03 | -0.33** | -0.33** |

TABLE 102 EXPERIMENT 997 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 7 | TGX 13-3-2644 | 1.00 | 238.75 | 20.25 | 18.95 | 1.25 |
| 15 | GEDOLD | 1.00 | 243.75 | 21.00 | 20.15 | 2.75 |
| 14 | DAVIS | 1.00 | 121.00 | 36.25 | 21.13 | 1.50 |
| 1 | TGH 220-1-2205 | 1.00 | 159.25 | 27.50 | 16.45 | 1.00 |
| 4 | TGH 249-4-B | 1.00 | 162.50 | 29.50 | 18.53 | 1.00 |
| 16 | FORREST | 1.00 | 248.25 | 24.50 | 17.15 | 2.25 |
| 8 | TGH 256-1-B | 1.00 | 253.00 | 27.75 | 15.10 | 1.25 |
| 13 | COBB | 1.00 | 171.00 | 30.25 | 19.43 | 2.75 |
| 5 | TGH 294-4-2371 | 1.00 | 315.50 | 25.00 | 17.65 | 2.00 |
| 10 | BOSSIER | 1.00 | 240.50 | 22.75 | 19.00 | 2.25 |
| 11 | WILLIAMS | 1.00 | 329.50 | 11.75 | 18.38 | 2.50 |
| 2 | TGH 210-1-2363 | 1.00 | 285.50 | 18.25 | 19.90 | 2.25 |
| 3 | TGH 255-2-4341 | 1.00 | 206.50 | 39.50 | 14.33 | 1.25 |
| 6 | TGX 66-5100 | 1.00 | 227.50 | 28.75 | 15.70 | 1.50 |
| 9 | JUPITER | 1.00 | 327.75 | 28.00 | 17.00 | 1.25 |
| 12 | CLARK 63 | 1.00 | 283.25 | 13.25 | 16.73 | 2.00 |
| | GRAND MEAN | 1.00 | 238.28 | 25.27 | 17.85 | 1.80 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.07 | 2.33 | 0.56 | 0.37 |
| | COEFFICIENT OF VARIATION | 0.00% | 7.61% | 18.42% | 6.26% | 41.13% |
| | 5% LSD VARIETY MEANS (**=**=**=NS) | 0.00 | 25.84 | 6.63 | 1.59 | 1.05 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.30+ | 0.22 | 0.25 | 0.06 |
| DAYS TO | FLOWER | 0.00 | 0.03 | 0.38++ | -0.22 | -0.32++ |
| DAYS TO | MATURITY | 0.00 | -0.12 | 0.48++ | -0.10 | -0.35++ |
| MODULE | NUMBER 1 | 0.00 | 0.20 | 0.15 | -0.15 | -0.29+ |
| MODULE | NUMBER 2 | 0.00 | -0.13 | 0.16 | 0.12 | -0.10 |
| MODULE | WEIGHT 1 | 0.00 | 0.14 | 0.27+ | -0.13 | -0.24 |
| MODULE | WEIGHT 2 | 0.00 | -0.16 | 0.16 | 0.24 | -0.03 |
| PLANT | HEIGHT | 0.00 | 0.16 | 0.19 | -0.24 | -0.33++ |
| | LODGING | 0.00 | -0.06 | 0.02 | -0.29+ | -0.33++ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.56++ | -0.17 | 0.22 |
| PODS PER | PLANT | 0.00 | -0.56++ | 1.00 | -0.17 | -0.33++ |
| 100 SEED | WEIGHT | 0.00 | -0.17 | -0.17 | 1.00 | 0.25+ |
| QUALITY | OF SEED | 0.00 | 0.22 | -0.33++ | 0.25+ | 1.00 |

TABLE 103 EXPERIMENT 186 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
SITE - MUFULIRA ELEVATION - 1265 M
LATITUDE - 12 DEG. 37 MIN. S LONGITUDE - 28 DEG. 9 MIN. E
COOPERATORS - A.A.V. SABMEZEY, F. JAVAHERI
DATE PLANTED - DECEMBER 12, 1976 DATE HARVESTED - APRIL, 1977
SOIL TYPE - SANDY LOAM, PH 4.3
FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
AMOUNT OF MOISTURE - 905 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 2453.32 | 25.00 | 105.50 | 65.25 | 138.25 | 0.40 | 2.30 | 50.75 | 1.00 |
| 15 | COLUMBUS | 2346.47 | 26.50 | 96.00 | 112.50 | 147.00 | 0.42 | 2.04 | 53.75 | 1.00 |
| 12 | DAVIS | 2241.36 | 40.00 | 111.75 | 96.50 | 100.25 | 0.86 | 2.00 | 55.75 | 1.00 |
| 4 | RANSOM | 2173.85 | 28.00 | 110.00 | 70.25 | 105.50 | 0.24 | 2.03 | 41.25 | 1.00 |
| 16 | ESSEX | 2034.49 | 30.00 | 107.50 | 126.50 | 169.00 | 0.52 | 2.97 | 43.75 | 1.00 |
| 3 | BRAGG | 1931.59 | 29.00 | 95.25 | 47.00 | 78.00 | 0.25 | 1.34 | 43.75 | 1.00 |
| 8 | BOSSIER | 1850.62 | 28.75 | 111.75 | 125.00 | 147.75 | 0.49 | 2.01 | 41.00 | 1.00 |
| 9 | WILLIAMS | 1[illegible]0.53 | 26.00 | 87.00 | 119.50 | 93.50 | 0.58 | 1.95 | 47.25 | 1.00 |
| 6 | PICKETT 71 | 1797.44 | 30.00 | 99.25 | 28.00 | 46.75 | 0.14 | 0.97 | 38.50 | 1.00 |
| 5 | HILL | 1751.35 | 39.00 | 102.50 | 69.50 | 31.75 | 0.58 | 0.82 | 55.00 | 1.75 |
| 11 | COBB | 1658.08 | 33.00 | 110.75 | 51.25 | 63.00 | 0.36 | 1.11 | 48.75 | 1.00 |
| 10 | CLARK 63 | 1520.30 | 26.00 | 90.50 | 94.50 | 106.25 | 0.53 | 2.02 | 50.75 | 1.00 |
| 14 | FORREST | 1501.63 | 33.00 | 104.50 | 49.75 | 66.25 | 0.14 | 1.50 | 45.75 | 1.00 |
| 13 | IMPROVED PELICAN | 1488.17 | 48.00 | 110.50 | 45.75 | 81.75 | 0.77 | 1.15 | 69.50 | 1.25 |
| 2 | WOODWORTH | 1476.21 | 25.00 | 84.00 | 99.25 | 55.00 | 0.58 | 1.71 | 41.00 | 1.00 |
| 7 | CUTLER 71 | 1466.25 | 26.00 | 90.75 | 59.50 | 88.25 | 0.42 | 2.22 | 44.75 | 1.00 |
| | GRAND MEAN | 1845.73 | 30.83 | 101.09 | 78.75 | 94.89 | 0.45 | 1.76 | 48.20 | 1.06 |
| | STANDARD ERROR OF A VARIETY MEAN | 237.75 | 0.14 | 1.40 | 21.73 | 19.85 | 0.13 | 0.43 | 3.70 | 0.14 |
| | COEFFICIENT OF VARIATION | 25.76% | 0.90% | 2.76% | 55.19% | 41.84% | 56.75% | 48.99% | 15.33% | 25.78% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.39 | 3.97 | 61.90 | 56.54 | 0.37 | ******** | 10.53 | 0.39 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.11 | 0.28+ | 0.33++ | 0.48++ | 0.25+ | 0.43++ | 0.36++ | 0.01 |
| DAYS TO | FLOWER | -0.11 | 1.00 | 0.55++ | -0.19 | -0.24 | 0.31+ | -0.29+ | 0.56++ | 0.35++ |
| DAYS TO | MATURITY | 0.28+ | 0.55++ | 1.00 | -0.01 | 0.23 | 0.11 | 0.04 | 0.24 | 0.08 |
| NODULE | NUMBER 1 | 0.33+ | -0.19 | -0.01 | 1.00 | 0.48++ | 0.64++ | 0.48++ | 0.08 | 0.07 |
| NODULE | NUMBER 2 | 0.48++ | -0.24 | 0.23 | 0.48++ | 1.00 | 0.23 | 0.75++ | 0.05 | -0.12 |
| NODULE | WEIGHT 1 | 0.25+ | 0.31+ | 0.11 | 0.64++ | 0.23 | 1.00 | 0.37++ | 0.51++ | 0.31+ |
| NODULE | WEIGHT 2 | 0.43++ | -0.42+ | 0.04 | 0.48++ | 0.75++ | 0.37++ | 1.00 | 0.10 | -0.13 |
| PLANT | HEIGHT | 0.36++ | 0.56++ | 0.24 | 0.08 | 0.05 | 0.51++ | 0.10 | 1.00 | 0.38++ |
| | LODGING | 0.01 | 0.35++ | 0.08 | 0.07 | -0.12 | 0.31+ | -0.13 | 0.38++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.04 | 0.12 | 0.04 | -0.05 | -0.19 | -0.02 | -0.24 | 0.03 | 0.17 |
| PODS PER | PLANT | 0.01 | 0.31+ | 0.41++ | -0.05 | 0.07 | 0.09 | -0.02 | 0.19 | 0.30+ |
| 100 SEED | WEIGHT | 0.72++ | -0.49++ | 0.07 | 0.35++ | 0.57++ | 0.08 | 0.47++ | -0.07 | -0.15 |
| QUALITY | OF SEED | 0.44++ | -0.36++ | 0.29+ | 0.21 | 0.51++ | -0.03 | 0.42++ | -0.12 | -0.14 |

TABLE 103 EXPERIMENT 186 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 1.00 | 268.50 | 8.40 | 20.80 | 4.00 | 40.6 | 21.5 |
| 15 | COLUMBUS | 1.00 | 270.00 | 7.90 | 19.51 | 2.50 | 41.5 | 22.1 |
| 12 | DAVIS | 1.00 | 314.00 | 10.20 | 19.77 | 2.50 | 41.8 | 20.9 |
| 4 | RANSOM | 1.00 | 315.75 | 8.30 | 20.06 | 3.00 | 39.1 | 24.3 |
| 16 | ESSEX | 1.00 | 279.00 | 9.95 | 18.03 | 3.25 | 41.8 | 20.9 |
| 3 | BRAGG | 1.00 | 298.75 | 7.22 | 19.64 | 2.00 | 39.4 | 23.0 |
| 8 | BOSSIER | 1.00 | 249.75 | 7.97 | 19.33 | 2.75 | 43.4 | 20.8 |
| 9 | WILLIAMS | 1.00 | 294.75 | 6.87 | 18.96 | 1.75 | 39.7 | 22.5 |
| 6 | PICKETT 71 | 1.00 | 264.75 | 10.43 | 17.00 | 2.25 | 39.3 | 22.3 |
| 5 | HILL | 1.00 | 337.50 | 8.42 | 15.58 | 1.75 | 37.8 | 21.1 |
| 11 | COBB | 1.00 | 293.00 | 9.97 | 16.37 | 2.00 | 38.2 | 22.4 |
| 10 | CLARK 63 | 1.00 | 328.25 | 6.95 | 17.07 | 2.25 | 36.7 | 23.1 |
| 14 | FORREST | 1.00 | 306.75 | 7.07 | 14.80 | 1.75 | 39.8 | 21.5 |
| 13 | IMPROVED PELICAN | 1.00 | 256.25 | 9.67 | 13.23 | 1.25 | 41.9 | 21.4 |
| 2 | WOODWORTH | 1.00 | 269.25 | 5.50 | 15.69 | 1.75 | 39.4 | 21.2 |
| 7 | CUTLER 71 | 1.00 | 229.75 | 8.75 | 18.85 | 2.50 | 39.1 | 23.1 |
| | GRAND MEAN | 1.00 | 286.00 | 8.35 | 17.79 | 2.33 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 19.29 | 1.01 | 0.69 | 0.32 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 13.49% | 24.20% | 7.77% | 27.60% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 54.95 | 2.88 | 1.97 | 0.92 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.04 | 0.01 | 0.72** | 0.44** |
| DAYS TO FLOWER | 0.00 | 0.12 | 0.31* | -0.49** | -0.36** |
| DAYS TO MATURITY | 0.00 | 0.04 | 0.41** | 0.07 | 0.29* |
| NODULE NUMBER 1 | 0.00 | -0.05 | -0.05 | 0.35** | 0.21 |
| NODULE NUMBER 2 | 0.00 | -0.19 | 0.07 | 0.57** | 0.51** |
| NODULE WEIGHT 1 | 0.00 | -0.02 | 0.09 | 0.08 | -0.03 |
| NODULE WEIGHT 2 | 0.00 | -0.24 | -0.02 | 0.47** | 0.42** |
| PLANT HEIGHT | 0.00 | 0.03 | 0.19 | -0.07 | -0.12 |
| LODGING | 0.00 | 0.17 | 0.30* | -0.15 | -0.14 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.14 | -0.05 | -0.13 |
| PODS PER PLANT | 0.00 | -0.14 | 1.00 | 0.01 | 0.12 |
| 100 SEED WEIGHT | 0.00 | -0.05 | 0.01 | 1.00 | 0.55** |
| QUALITY OF SEED | 0.00 | -0.13 | 0.12 | 0.55** | 1.00 |

TABLE 104 EXPERIMENT 367 YEAR 1976

REGION - ASIA
COUNTRY - BANGLADESH
SITE - JOYDEVPUR
ELEVATION - 8 M
LATITUDE - 24 DEG. N
LONGITUDE - 90 DEG. E
COOPERATORS - A. SOBHAN, M.Z. HOQUE, P.R. HOBBS, N.I. MIAH
DATE PLANTED - OCTOBER 15, 1976
DATE HARVESTED - JANUARY, 1977
SOIL TYPE - SAND 26%, SILT 44%, CLAY 30%, PH 7.7
FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
AMOUNT OF MOISTURE - 2829 MM
NUMBER OF IRRIGATIONS - 5 (2286 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | BOSSIER | 3155.15 | 28.00 | 88.00 | 54.00 | 78.50 | 0.27 | 1.33 | 30.65 | 1.00 |
| 10 | WILLIAMS | 2820.84 | 31.00 | 84.00 | 58.50 | 88.75 | 0.31 | 1.41 | 38.95 | 1.00 |
| 2 | WOODWORTH | 2787.75 | 31.00 | 80.00 | 35.75 | 46.00 | 0.16 | 0.94 | 40.99 | 1.00 |
| 11 | CLARK 63 | 2712.95 | 30.00 | 89.00 | 38.00 | 53.75 | 0.16 | 1.05 | 39.14 | 1.00 |
| 13 | DAVIS | 2655.58 | 29.00 | 89.00 | 49.25 | 70.50 | 0.23 | 1.22 | 41.18 | 1.00 |
| 15 | FORREST | 2623.79 | 25.00 | 84.00 | 25.50 | 46.75 | 0.10 | 0.82 | 42.74 | 1.00 |
| 1 | CALLAND | 2617.62 | 28.00 | 87.00 | 31.25 | 40.00 | 0.12 | 0.80 | 38.81 | 1.00 |
| 14 | IMPROVED PELICAN | 2602.62 | 31.00 | 90.00 | 35.50 | 58.75 | 0.16 | 1.13 | 51.39 | 1.00 |
| 6 | PICKETT 71 | 2565.51 | 27.00 | 87.00 | 30.25 | 42.75 | 0.12 | 0.91 | 30.98 | 1.00 |
| 7 | CUTLER 71 | 2555.67 | 29.00 | 87.00 | 51.25 | 63.75 | 0.24 | 1.23 | 48.04 | 1.00 |
| 3 | BRAGG | 2439.58 | 27.00 | 87.00 | 44.00 | 53.75 | 0.19 | 1.04 | 33.00 | 1.00 |
| 4 | HANSON | 2419.20 | 26.00 | 87.00 | 64.75 | 80.75 | 0.29 | 1.26 | 41.28 | 1.00 |
| 12 | COBB | 2402.46 | 26.00 | 88.00 | 54.50 | 83.75 | 0.26 | 1.35 | 29.33 | 1.00 |
| 16 | COLUMBUS | 2364.37 | 29.00 | 90.00 | 59.25 | 91.50 | 0.31 | 1.43 | 42.92 | 1.00 |
| 5 | HILL | 2303.62 | 29.00 | 90.00 | 42.00 | 58.75 | 0.17 | 1.12 | 36.00 | 1.00 |
| 8 | JUPITER | 1953.62 | 41.00 | 98.75 | 46.00 | 58.25 | 0.20 | 1.13 | 48.73 | 3.00 |
| | GRAND MEAN | 2561.27 | 29.19 | 87.86 | 44.98 | 63.52 | 0.20 | 1.13 | 39.63 | 1.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 6.13 | 0.00 | 0.06 | 0.97 | 0.86 | 0.01 | 0.02 | 0.16 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.48% | 0.00% | 0.14% | 4.33% | 2.71% | 12.32% | 3.27% | 0.81% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 17.47 | 0.00 | 0.18 | 2.78 | 2.45 | 0.04 | 0.05 | 0.45 | 0.00 |

CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.40++ | -0.64++ | -0.07 | 0.04 | 0.03 | 0.01 | -0.29+ | -0.61++ |
| DAYS TO | FLOWER | -0.40++ | 1.00 | 0.63++ | 0.03 | -0.05 | 0.03 | 0.10 | 0.52++ | 0.86++ |
| DAYS TO | MATURITY | -0.64++ | 0.63++ | 1.00 | 0.16 | 0.12 | 0.10 | 0.23 | 0.28+ | 0.74++ |
| NODULE | NUMBER 1 | -0.07 | 0.03 | 0.16 | 1.00 | 0.91++ | 0.95++ | 0.90++ | -0.05 | 0.02 |
| NODULE | NUMBER 2 | 0.04 | -0.05 | 0.12 | 0.91++ | 1.00 | 0.91++ | 0.96++ | -0.07 | -0.08 |
| NODULE | WEIGHT 1 | 0.03 | 0.03 | 0.10 | 0.95++ | 0.91++ | 1.00 | 0.90++ | -0.04 | -0.02 |
| NODULE | WEIGHT 2 | 0.01 | 0.10 | 0.23 | 0.90++ | 0.96++ | 0.90++ | 1.00 | -0.02 | -0.00 |
| PLANT | HEIGHT | -0.29+ | 0.52++ | 0.28+ | -0.05 | -0.07 | -0.04 | -0.02 | 1.00 | 0.37++ |
| | LODGING | -0.61++ | 0.86++ | 0.74++ | 0.02 | -0.08 | -0.02 | -0.00 | 0.37++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.31+ | -0.34++ | -0.20 | 0.13 | 0.13 | 0.08 | 0.15 | -0.40++ | -0.27+ |
| PODS PER | PLANT | 0.26+ | 0.12 | 0.01 | 0.03 | 0.08 | 0.08 | 0.14 | 0.33++ | 0.02 |
| 100 SEED | WEIGHT | 0.35++ | -0.38++ | -0.25+ | 0.39++ | 0.30+ | 0.40++ | 0.34++ | -0.55++ | -0.50++ |
| QUALITY | OF SEED | -0.61++ | 0.86++ | 0.74++ | 0.02 | -0.08 | -0.02 | -0.00 | 0.37++ | 1.00++ |

TABLE 104 EXPERIMENT 367 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 9 | BOSSIER | 1.00 | 217.00 | 20.08 | 14.00 | 1.00 |
| 10 | WILLIAMS | 1.00 | 181.50 | 19.15 | 14.03 | 1.00 |
| 2 | WOODWORTH | 1.00 | 174.75 | 16.30 | 13.63 | 1.00 |
| 11 | CLARK 63 | 1.00 | 177.25 | 17.75 | 14.02 | 1.00 |
| 13 | DAVIS | 1.00 | 219.25 | 13.93 | 14.03 | 1.00 |
| 15 | FORREST | 1.00 | 187.75 | 17.85 | 12.41 | 1.00 |
| 1 | CALLAND | 1.00 | 130.75 | 15.13 | 14.01 | 1.00 |
| 14 | IMPROVED PELICAN | 1.00 | 176.75 | 23.00 | 13.00 | 1.00 |
| 6 | PICKETT 71 | 1.00 | 188.50 | 16.88 | 14.02 | 1.00 |
| 7 | CUTLER 71 | 1.00 | 176.25 | 19.05 | 14.00 | 1.00 |
| 3 | BRAGG | 1.00 | 198.25 | 16.35 | 14.04 | 1.00 |
| 4 | RANSOM | 1.00 | 200.00 | 18.03 | 13.63 | 1.00 |
| 12 | COBB | 1.00 | 202.75 | 15.35 | 14.01 | 1.00 |
| 16 | COLUMBUS | 1.00 | 119.50 | 15.75 | 14.00 | 1.00 |
| 5 | HILL | 1.00 | 200.75 | 14.95 | 13.58 | 1.00 |
| 8 | JUPITER | 1.00 | 149.25 | 17.48 | 12.71 | 2.00 |
| | GRAND MEAN | 1.00 | 181.27 | 17.31 | 13.69 | 1.06 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.01 | 0.92 | 0.02 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 8.83% | 10.62% | 0.24% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 22.81 | 2.62 | 0.05 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.31* | 0.26* | 0.35** | -0.61** |
| DAYS TO | FLOWER | 0.00 | -0.34** | 0.12 | -0.34** | 0.86** |
| DAYS TO | MATURITY | 0.00 | -0.20 | 0.01 | -0.25* | 0.74** |
| NODULE | NUMBER 1 | 0.00 | 0.13 | 0.03 | 0.39** | 0.02 |
| NODULE | NUMBER 2 | 0.00 | 0.13 | 0.08 | 0.30* | -0.08 |
| NODULE | WEIGHT 1 | 0.00 | 0.08 | 0.08 | 0.40** | -0.02 |
| NODULE | WEIGHT 2 | 0.00 | 0.15 | 0.14 | 0.34** | -0.00 |
| PLANT | HEIGHT | 0.00 | -0.40** | 0.33** | -0.55** | 0.37** |
| | LODGING | 0.00 | -0.27* | 0.02 | -0.50** | 1.00** |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.05 | 0.10 | -0.27* |
| PODS PER | PLANT | 0.00 | 0.05 | 1.00 | -0.26* | 0.02 |
| 100 SEED | WEIGHT | 0.00 | 0.10 | -0.26* | 1.00 | -0.50** |
| QUALITY | OF SEED | 0.00 | -0.27* | 0.02 | -0.50** | 1.00 |

TABLE 105 EXPERIMENT 154 YEAR 1976

REGION - ASIA
COUNTRY - BANGLADESH
SITE - KASHIMPUR
ELEVATION - 8 M
LATITUDE - 24 DEG. N
LONGITUDE - 90 DEG. E
COOPERATORS - A. SOBHAN, M.Z. HOQUE, P.R. HOBBS
DATE PLANTED - JANUARY 22, 1977
DATE HARVESTED - MAY, 1977
SOIL TYPE - SAND 1.5%, SILT 37%, CLAY 61.5%, PH 5.0
FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
AMOUNT OF MOISTURE - 520 MM
NUMBER OF IRRIGATIONS - 3 (76 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | COLUMBUS | 1720.00 | 33.75 | 98.00 | 16.00 | 22.25 | 0.06 | 0.23 | 34.73 | 1.00 |
| 7 | CUTLER 71 | 1650.00 | 31.50 | 101.00 | 16.50 | 22.25 | 0.06 | 0.24 | 32.86 | 1.00 |
| 12 | FORREST | 1640.00 | 34.50 | 106.75 | 14.75 | 20.00 | 0.05 | 0.22 | 41.44 | 1.25 |
| 6 | PICKETT 71 | 1640.00 | 40.00 | 97.75 | 18.50 | 25.25 | 0.07 | 0.28 | 31.37 | 1.00 |
| 9 | WILLIAMS | 1610.00 | 36.75 | 101.00 | 19.50 | 24.50 | 0.07 | 0.26 | 33.17 | 1.25 |
| 14 | BEESON | 1605.00 | 37.75 | 101.25 | 15.50 | 21.00 | 0.06 | 0.22 | 42.12 | 1.00 |
| 8 | BOSSIER | 1600.00 | 35.25 | 106.75 | 17.75 | 24.75 | 0.29 | 0.25 | 29.96 | 1.25 |
| 10 | CLARK 63 | 1595.00 | 36.50 | 106.75 | 14.50 | 21.00 | 0.06 | 0.23 | 42.40 | 1.00 |
| 4 | RANSOM | 1545.00 | 40.00 | 107.50 | 17.50 | 24.00 | 0.31 | 0.26 | 39.06 | 1.75 |
| 16 | ESSEX | 1535.00 | 37.75 | 106.75 | 15.50 | 20.75 | 0.06 | 0.21 | 41.11 | 1.25 |
| 1 | CALLAND | 1465.00 | 36.50 | 106.00 | 14.75 | 19.75 | 0.06 | 0.20 | 44.52 | 1.00 |
| 11 | DAVIS | 1455.00 | 34.75 | 97.50 | 16.50 | 23.50 | 0.06 | 0.26 | 36.68 | 1.25 |
| 5 | HILL | 1445.00 | 34.50 | 98.50 | 15.25 | 20.50 | 0.05 | 0.22 | 32.80 | 1.50 |
| 13 | WELLS | 1425.00 | 32.75 | 100.75 | 19.75 | 28.50 | 0.07 | 0.28 | 45.20 | 1.25 |
| 3 | BRAGG | 1385.00 | 31.00 | 100.50 | 14.00 | 19.25 | 0.04 | 0.20 | 29.91 | 1.00 |
| 2 | WOODWORTH | 1220.00 | 34.75 | 97.50 | 13.75 | 18.25 | 0.04 | 0.19 | 43.03 | 1.00 |
| | GRAND MEAN | 1533.44 | 35.50 | 102.14 | 16.25 | 22.22 | 0.09 | 0.23 | 37.52 | 1.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 149.61 | 0.30 | 0.37 | 2.76 | 3.32 | 0.09 | 0.03 | 1.26 | 0.18 |
| | COEFFICIENT OF VARIATION | 19.51% | 1.67% | 0.72% | 33.98% | 29.88% | 191.33% | 29.89% | 6.70% | 31.36% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.84 | 1.05 | ******** | ******** | ******** | ******** | 3.58 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.11 | 0.12 | 0.16 | 0.13 | 0.10 | 0.07 | -0.03 | -0.11 |
| DAYS TO FLOWER | 0.11 | 1.00 | 0.31+ | 0.12 | 0.11 | 0.16 | 0.13 | 0.17 | 0.15 |
| DAYS TO MATURITY | 0.12 | 0.31+ | 1.00 | -0.04 | -0.02 | 0.20 | -0.04 | 0.29+ | 0.17 |
| NODULE NUMBER 1 | 0.16 | 0.12 | -0.04 | 1.00 | 0.93++ | 0.48++ | 0.91++ | 0.05 | -0.13 |
| NODULE NUMBER 2 | 0.13 | 0.11 | -0.02 | 0.93++ | 1.00 | 0.49++ | 0.97++ | 0.02 | -0.08 |
| NODULE WEIGHT 1 | 0.10 | 0.16 | 0.20 | 0.48++ | 0.49++ | 1.00 | 0.53++ | -0.02 | 0.14 |
| NODULE WEIGHT 2 | 0.07 | 0.13 | -0.04 | 0.91++ | 0.97++ | 0.53++ | 1.00 | -0.02 | -0.06 |
| PLANT HEIGHT | -0.03 | 0.17 | 0.29+ | 0.05 | 0.02 | -0.02 | -0.02 | 1.00 | -0.08 |
| LODGING | -0.11 | 0.15 | 0.17 | -0.13 | -0.08 | 0.14 | -0.06 | -0.08 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.57++ | 0.03 | 0.04 | 0.16 | 0.21 | -0.03 | 0.22 | -0.01 | -0.02 |
| PODS PER PLANT | 0.60++ | 0.06 | 0.12 | -0.02 | -0.06 | 0.17 | -0.06 | -0.12 | -0.03 |
| 100 SEED WEIGHT | 0.05 | 0.11 | -0.17 | -0.08 | -0.12 | -0.08 | -0.09 | -0.05 | -0.01 |
| QUALITY OF SEED | -0.08 | -0.06 | -0.10 | -0.17 | -0.13 | -0.25+ | -0.16 | -0.15 | 0.15 |

TABLE 105 EXPERIMENT 154 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | COLUMBUS | 1.00 | 192.25 | 24.75 | 13.23 | 2.50 |
| 7 | CUTLER 71 | 1.00 | 186.00 | 22.00 | 13.26 | 3.50 |
| 12 | FORREST | 1.00 | 179.50 | 23.00 | 13.11 | 3.50 |
| 6 | PICKETT 71 | 1.00 | 175.50 | 21.00 | 13.15 | 3.50 |
| 9 | WILLIAMS | 1.00 | 177.25 | 21.75 | 13.20 | 4.25 |
| 14 | BEESON | 1.00 | 186.50 | 20.25 | 14.36 | 3.50 |
| 8 | BOSSIER | 1.00 | 163.50 | 22.00 | 13.16 | 2.75 |
| 10 | CLARK 63 | 1.00 | 179.25 | 22.00 | 13.28 | 2.75 |
| 4 | RANSOM | 1.00 | 169.75 | 24.25 | 13.09 | 3.25 |
| 16 | ESSEX | 1.00 | 171.25 | 19.50 | 13.18 | 3.75 |
| 1 | CALLAND | 1.00 | 176.25 | 18.25 | 13.14 | 3.00 |
| 11 | DAVIS | 1.00 | 163.75 | 19.50 | 13.09 | 3.50 |
| 5 | HILL | 1.00 | 174.75 | 19.25 | 14.05 | 3.50 |
| 13 | WELLS | 1.00 | 168.75 | 16.50 | 12.95 | 3.25 |
| 3 | BRAGG | 1.00 | 163.25 | 20.25 | 13.21 | 4.25 |
| 2 | WOODWORTH | 1.00 | 149.50 | 20.25 | 13.07 | 3.50 |
| | GRAND MEAN | 1.00 | 173.56 | 20.91 | 13.28 | 3.39 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.59 | 1.84 | 0.01 | 0.49 |
| | COEFFICIENT OF VARIATION | 0.00% | 9.90% | 17.61% | 0.12% | 29.19% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | ******** | 0.02 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.57** | 0.60** | 0.05 | -0.08 |
| DAYS TO | FLOWER | 0.00 | 0.03 | 0.06 | 0.11 | -0.06 |
| DAYS TO | MATURITY | 0.00 | 0.04 | 0.12 | -0.17 | -0.10 |
| NODULE | NUMBER 1 | 0.00 | 0.16 | -0.02 | -0.08 | -0.17 |
| NODULE | NUMBER 2 | 0.00 | 0.21 | -0.06 | -0.12 | -0.13 |
| NODULE | WEIGHT 1 | 0.00 | -0.03 | 0.17 | -0.08 | -0.25* |
| NODULE | WEIGHT 2 | 0.00 | 0.22 | -0.06 | -0.09 | -0.16 |
| PLANT | HEIGHT | 0.00 | -0.01 | -0.12 | -0.05 | -0.15 |
| | LODGING | 0.00 | -0.02 | -0.03 | -0.01 | 0.15 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.[illegible] |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.28* | 0.22 | -0.03 |
| PODS PER | PLANT | 0.00 | 0.28* | 1.00 | -0.05 | -0.14 |
| 100 SEED | WEIGHT | 0.00 | 0.22 | -0.05 | 1.00 | 0.04 |
| QUALITY | OF SEED | 0.00 | -0.03 | -0.14 | 0.04 | 1.00 |

TABLE 106 EXPERIMENT 50 YEAR 1976

REGION - ASIA
COUNTRY - BANGLADESH
SITE - MYMENSINGH
ELEVATION - 18 M
LATITUDE - 24 DEG. N
LONGITUDE - 90 DEG. E
COOPERATORS - A.J. MIAH, B.H. SIKDER, A. MANSOR
DATE PLANTED - NOVEMBER 3, 1976
DATE HARVESTED - FEBRUARY, 1977
SOIL TYPE - SAND 10.14%, SILT 65.51%, CLAY 24.35%, PH 6.8
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 967.28 | 35.00 | 92.00 | 94.00 | 170.00 | 0.62 | 1.46 | 21.31 | 1.00 |
| 4 | RANSOM | 842.67 | 36.00 | 97.00 | 184.00 | 231.50 | 1.05 | 1.51 | 23.18 | 1.00 |
| 12 | DAVIS | 828.29 | 38.00 | 99.00 | 65.25 | 129.00 | 0.56 | 1.00 | 23.85 | 1.00 |
| 16 | ESSEX | 809.33 | 34.00 | 98.00 | 110.50 | 134.75 | 0.65 | 0.97 | 22.74 | 1.00 |
| 14 | FORREST | 789.53 | 36.00 | 96.00 | 59.75 | 11[illegible].75 | 0.47 | 1.01 | 27.81 | 1.00 |
| 3 | ERAGO | 766.82 | 37.00 | 92.00 | 130.75 | 213.00 | 0.90 | 1.53 | 25.24 | 1.00 |
| 15 | COLUMBUS | 752.86 | 35.00 | 101.00 | 129.50 | 223.75 | 0.95 | 1.77 | 22.18 | 1.00 |
| 11 | COBB | 732.65 | 36.00 | 97.00 | 95.00 | 155.25 | 0.74 | 1.18 | 22.83 | 1.00 |
| 5 | HILL | 732.02 | 39.00 | 96.00 | 120.25 | 146.50 | 0.64 | 1.03 | 24.21 | 1.00 |
| 6 | PICKETT 71 | 643.25 | 35.00 | 91.00 | 91.00 | 158.25 | 0.49 | 1.18 | 16.78 | 1.00 |
| 1 | CALLAND | 633.46 | 33.00 | 99.00 | 100.50 | 224.50 | 0.78 | 1.59 | 21.77 | 1.00 |
| 10 | CLARK 63 | 625.12 | 32.00 | 99.00 | 74.25 | 108.25 | 0.38 | 0.87 | 20.63 | 1.00 |
| 9 | WILLIAMS | 623.46 | 32.00 | 97.00 | 99.00 | 126.50 | 0.68 | 0.89 | 19.10 | 1.00 |
| 2 | WOODWORTH | 594.70 | 31.00 | 98.00 | 99.00 | 167.00 | 0.71 | 1.24 | 18.05 | 1.00 |
| 7 | CUTLER 71 | 590.16 | 32.00 | 98.00 | 87.75 | 140.00 | 0.48 | 1.04 | 22.32 | 1.00 |
| 13 | IMPROVED PELICAN | 544.90 | 41.00 | 106.00 | 74.75 | 138.50 | 0.38 | 1.35 | 30.77 | 1.00 |
| | GRAND MEAN | 717.28 | 35.13 | 97.25 | 100.95 | 161.28 | 0.65 | 1.22 | 22.67 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 38.93 | 0.32 | 0.00 | 3.50 | 13.37 | 0.03 | 0.11 | 1.30 | 0.00 |
| | COEFFICIENT OF VARIATION | 10.85% | 1.84% | 0.00% | 6.94% | 16.58% | 9.04% | 17.60% | 11.45% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 110.89 | 0.92 | 0.00 | 9.98 | 38.08 | 0.08 | 0.31 | 3.70 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.21 | -0.38** | 0.17 | 0.14 | 0.26* | 0.12 | 0.24 | 0.00 |
| DAYS TO | FLOWER | 0.21 | 1.00 | 0.17 | 0.03 | 0.01 | -0.03 | 0.17 | 0.63** | 0.00 |
| DAYS TO | MATURITY | -0.38** | 0.17 | 1.00 | -0.17 | -0.10 | -0.15 | 0.03 | 0.37** | 0.00 |
| NODULE | NUMBER 1 | 0.17 | 0.03 | -0.17 | 1.00 | 0.64** | 0.84** | 0.44** | -0.13 | 0.00 |
| NODULE | NUMBER 2 | 0.14 | 0.01 | -0.10 | 0.64** | 1.00 | 0.73** | 0.83** | -0.05 | 0.00 |
| NODULE | WEIGHT 1 | 0.26* | -0.03 | -0.15 | 0.84** | 0.73** | 1.00 | 0.59** | -0.13 | 0.00 |
| NODULE | WEIGHT 2 | 0.12 | 0.17 | 0.03 | 0.44** | 0.83** | 0.59** | 1.00 | 0.05 | 0.00 |
| PLANT | HEIGHT | 0.24 | 0.63** | 0.37** | -0.13 | -0.05 | -0.13 | 0.05 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.26* | -0.22 | -0.15 | 0.09 | 0.17 | 0.12 | 0.06 | 0.13 | 0.00 |
| PODS PER | PLANT | 0.44** | 0.55** | 0.03 | -0.02 | -0.15 | -0.15 | 0.00 | 0.44** | 0.00 |
| 100 SEED | WEIGHT | 0.07 | -0.45** | 0.02 | 0.09 | 0.30* | 0.43** | 0.20 | -0.16 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 106 EXPERIMENT 50 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | BOSSIER | 1.00 | 247.25 | 11.35 | 12.69 | 3.00 | 44.2 | 16.1 |
| 4 | RANSOM | 1.00 | 263.50 | 9.65 | 13.06 | 3.00 | 41.7 | 17.2 |
| 12 | DAVIS | 1.00 | 255.00 | 9.70 | 13.41 | 3.00 | 43.0 | 18.0 |
| 16 | ESSEX | 1.00 | 262.00 | 11.58 | 12.02 | 3.00 | 43.7 | 16.2 |
| 14 | FORREST | 1.00 | 257.00 | 10.83 | 12.56 | 3.00 | 38.7 | 18.6 |
| 3 | BRAGG | 1.00 | 272.75 | 8.72 | 13.80 | 3.00 | 43.3 | 16.6 |
| 15 | COLUMBUS | 1.00 | 248.00 | 9.97 | 14.28 | 3.00 | 46.3 | 15.8 |
| 11 | COBB | 1.00 | 265.25 | 9.47 | 13.98 | 3.00 | 40.9 | 16.5 |
| 5 | HILL | 1.00 | 255.00 | 12.98 | 9.64 | 3.00 | 40.5 | 17.7 |
| 6 | PICKETT 71 | 1.00 | 246.75 | 9.62 | 11.21 | 3.00 | 41.6 | 17.7 |
| 1 | CALLAND | 1.00 | 272.00 | 7.80 | 14.25 | 3.00 | 44.5 | 16.8 |
| 10 | CLARK 63 | 1.00 | 256.25 | 8.42 | 12.33 | 3.00 | 44.3 | 16.2 |
| 9 | WILLIAMS | 1.00 | 243.00 | 7.25 | 14.58 | 3.00 | 43.4 | 17.4 |
| 2 | WOODWORTH | 1.00 | 267.50 | 8.40 | 12.54 | 3.00 | 43.0 | 16.9 |
| 7 | CUTLER 71 | 1.00 | 272.25 | 9.45 | 13.77 | 3.00 | 43.8 | 16.6 |
| 13 | IMPROVED PELICAN | 1.00 | 233.25 | 11.48 | 11.01 | 3.00 | 46.7 | 15.4 |
| | GRAND MEAN | 1.00 | 257.42 | 9.79 | 12.82 | 3.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.10 | 0.59 | 0.12 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 7.85% | 12.12% | 1.93% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 1.69 | 0.35 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.26+ | 0.44++ | 0.07 | 0.00 |
| DAYS TO FLOWER | 0.00 | -0.22 | 0.55++ | -0.45++ | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.15 | 0.03 | 0.02 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.09 | -0.02 | 0.09 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.17 | -0.15 | 0.30+ | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.12 | -0.15 | 0.43++ | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.06 | 0.00 | 0.20 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.13 | 0.44++ | -0.16 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.13 | 0.19 | 0.00 |
| PODS PER PLANT | 0.00 | -0.13 | 1.00 | -0.56++ | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.19 | -0.56++ | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 107 EXPERIMENT 153 YEAR 1976

REGION - ASIA
COUNTRY - BANGLADESH
SITE - PABNA
ELEVATION - 20-25 M
LATITUDE - 24 DEG. 3 MIN. N
LONGITUDE - 89 DEG. 15 MIN. E
COOPERATORS - M.A.H. SARKER, E. NAPZIGER
DATE PLANTED - JANUARY 7, 1977
DATE HARVESTED - MAY, 1977
SOIL TYPE - SAND 26.34%, SILT 40.70%, CLAY 32.96%, PH 7.7
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 360 MM
NUMBER OF IRRIGATIONS - 1 (50 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 2907.66 | 57.00 | 119.25 | 117.25 | 125.25 | 0.00 | 2.01 | 60.95 | 3.50 |
| 16 | ESSEX | 2760.14 | 48.25 | 116.25 | 88.50 | 165.50 | 0.00 | 2.48 | 45.50 | 1.50 |
| 15 | COLUMBUS | 2740.96 | 40.25 | 113.75 | 103.25 | 181.00 | 0.00 | 2.57 | 51.70 | 1.75 |
| 12 | FORREST | 2718.88 | 55.50 | 117.75 | 100.75 | 166.75 | 0.00 | 2.15 | 72.45 | 3.25 |
| 7 | CUTLER 71 | 2519.25 | 41.50 | 111.25 | 96.50 | 199.50 | 0.00 | 2.39 | 51.25 | 1.75 |
| 5 | HILL | 2285.87 | 56.75 | 117.00 | 75.25 | 80.00 | 0.00 | 1.27 | 56.35 | 3.25 |
| 1 | CALLAND | 2279.62 | 40.00 | 111.25 | 88.75 | 102.25 | 0.00 | 1.51 | 50.60 | 2.25 |
| 3 | BRAGG | 2217.94 | 47.00 | 114.25 | 63.50 | 193.00 | 0.00 | 2.34 | 41.60 | 1.00 |
| 9 | WILLIAMS | 2208.36 | 40.25 | 105.00 | 88.75 | 143.00 | 0.00 | 1.82 | 43.50 | 1.25 |
| 4 | HANSON | 2132.09 | 40.25 | 109.25 | 79.00 | 144.50 | 0.00 | 1.38 | 29.00 | 1.00 |
| 2 | WOODWORTH | 2044.99 | 40.50 | 102.50 | 74.25 | 63.50 | 0.00 | 1.01 | 41.90 | 1.00 |
| 10 | CLARK 63 | 2012.90 | 40.00 | 110.00 | 69.25 | 93.75 | 0.00 | 1.21 | 45.25 | 2.25 |
| 8 | BOSSIER | 2007.90 | 40.75 | 111.25 | 80.25 | 125.00 | 0.00 | 2.02 | 30.70 | 1.00 |
| 14 | BEESON | 1977.06 | 41.25 | 101.75 | 68.00 | 94.00 | 0.00 | 1.27 | 41.60 | 1.25 |
| 6 | PICKETT 71 | 1665.75 | 42.25 | 113.00 | 67.75 | 94.25 | 0.00 | 1.01 | 29.85 | 1.00 |
| 13 | WELLS | 1587.82 | 40.50 | 100.00 | 70.25 | 92.00 | 0.00 | 0.91 | 32.10 | 1.00 |
| | GRAND MEAN | 2254.20 | 44.50 | 110.84 | 83.20 | 128.95 | 0.00 | 1.71 | 45.27 | 1.75 |
| | STANDARD ERROR OF A VARIETY MEAN | 168.51 | 0.57 | 1.04 | 14.15 | 18.64 | 0.00 | 0.28 | 2.38 | 0.25 |
| | COEFFICIENT OF VARIATION | 14.95% | 2.54% | 1.88% | 34.00% | 28.90% | 0.00% | 32.48% | 10.50% | 28.41% |
| | 5% LSD VARIETY MEANS (********=NS) | 479.98 | 1.61 | 2.97 | ******** | 53.08 | 0.00 | 0.79 | 6.77 | 0.71 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.43** | 0.57** | 0.47** | 0.51** | 0.00 | 0.56** | 0.65** | 0.47** |
| DAYS TO | FLOWER | 0.43** | 1.00 | 0.69** | 0.19 | 0.08 | 0.00 | 0.21 | 0.64** | 0.66** |
| DAYS TO | MATURITY | 0.57** | 0.69** | 1.00 | 0.24 | 0.32** | 0.00 | 0.45** | 0.53** | 0.54** |
| NODULE | NUMBER 1 | 0.47** | 0.19 | 0.24 | 1.00 | 0.35** | 0.00 | 0.34** | 0.38** | 0.34** |
| NODULE | NUMBER 2 | 0.51** | 0.08 | 0.32** | 0.35** | 1.00 | 0.00 | 0.86** | 0.20 | 0.09 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.56** | 0.21 | 0.45** | 0.34** | 0.86** | 0.00 | 1.00 | 0.30* | 0.19 |
| PLANT | HEIGHT | 0.65** | 0.64** | 0.53** | 0.38** | 0.20 | 0.00 | 0.30* | 1.00 | 0.77** |
| | LODGING | 0.47** | 0.66** | 0.54** | 0.34** | 0.09 | 0.00 | 0.19 | 0.77** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.07 | 0.19 | -0.29* | -0.06 | -0.36** | 0.00 | -0.32** | 0.19 | 0.18 |
| PODS PER | PLANT | 0.48** | 0.73** | 0.73** | 0.40** | 0.23 | 0.00 | 0.38** | 0.53** | 0.55** |
| 100 SEED | WEIGHT | 0.31* | -0.31* | -0.00 | 0.21 | 0.36** | 0.00 | 0.35** | 0.06 | -0.03 |
| QUALITY | OF SEED | 0.37** | 0.49** | 0.32* | 0.17 | -0.01 | 0.00 | 0.16 | 0.55** | 0.51** |

TABLE 107 EXPERIMENT 153 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 0.00 | 325.75 | 23.43 | 16.85 | 4.50 | 43.1 | 22.2 |
| 16 | ESSEX | 0.00 | 277.00 | 20.48 | 16.13 | 5.00 | 46.5 | 20.3 |
| 15 | COLUMBUS | 0.00 | 271.75 | 16.40 | 18.85 | 4.00 | 45.2 | 21.9 |
| 12 | FORREST | 0.00 | 296.50 | 21.25 | 15.30 | 4.75 | 45.1 | 19.1 |
| 7 | CUTLER 71 | 0.00 | 250.50 | 13.15 | 17.60 | 4.00 | 44.2 | 22.7 |
| 5 | HILL | 0.00 | 331.00 | 18.65 | 15.00 | 5.00 | 41.5 | 20.2 |
| 1 | CALLARD | 0.00 | 302.50 | 14.40 | 20.00 | 4.75 | 44.3 | 22.1 |
| 3 | BRAGG | 0.00 | 291.00 | 15.15 | 18.75 | 3.25 | 45.1 | 22.4 |
| 9 | WILLIAMS | 0.00 | 313.00 | 12.45 | 18.83 | 2.75 | 42.5 | 24.4 |
| 4 | RAMSON | 0.00 | 297.75 | 12.68 | 17.25 | 2.75 | 42.2 | 24.0 |
| 2 | WOODWORTH | 0.00 | 315.50 | 11.05 | 16.30 | 3.25 | 41.8 | 24.6 |
| 10 | CLARK 63 | 0.00 | 309.75 | 12.00 | 17.43 | 3.50 | 41.3 | 24.7 |
| 8 | BOSSIER | 0.00 | 238.00 | 13.96 | 16.28 | 2.75 | 45.0 | 21.7 |
| 14 | BEESON | 0.00 | 316.25 | 11.60 | 18.48 | 4.50 | 45.9 | 21.0 |
| 6 | PICKETT 71 | 0.00 | 238.25 | 15.50 | 15.25 | 2.75 | 44.1 | 22.4 |
| 13 | WELLS | 0.00 | 356.75 | 9.37 | 13.80 | 4.00 | 41.2 | 24.8 |
| | GRAND MEAN | 0.00 | 295.70 | 15.10 | 17.02 | 3.84 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.40 | 1.42 | 0.49 | 0.28 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 6.36% | 18.83% | 5.73% | 14.48% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 26.76 | 4.05 | 1.39 | 0.79 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.07 | 0.48++ | 0.31+ | 0.37++ |
| DAYS TO FLOWER | 0.00 | 0.19 | 0.73++ | -0.31+ | 0.49++ |
| DAYS TO MATURITY | 0.00 | -0.29+ | 0.73++ | -0.00 | 0.32+ |
| NODULE NUMBER 1 | 0.00 | -0.06 | 0.40++ | 0.21 | 0.17 |
| NODULE NUMBER 2 | 0.00 | -0.36++ | 0.23 | 0.36++ | -0.01 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | -0.32++ | 0.38++ | 0.35++ | 0.16 |
| PLANT HEIGHT | 0.00 | 0.19 | 0.53++ | 0.06 | 0.55++ |
| LODGING | 0.00 | 0.18 | 0.55++ | -0.03 | 0.51++ |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.14 | -0.15 | 0.27+ |
| PODS PER PLANT | 0.00 | -0.14 | 1.00 | -0.10 | 0.43++ |
| 100 SEED WEIGHT | 0.00 | -0.15 | -0.10 | 1.00 | -0.01 |
| QUALITY OF SEED | 0.00 | 0.27+ | 0.43++ | -0.01 | 1.00 |

TABLE 108 EXPERIMENT 181 YEAR 1976

REGION - ASIA
SITE - JABALPUR
LATITUDE - 23 DEG. 10 MIN. N
COOPERATORS - S.M. SHARMA, S.K. MEHTA
DATE PLANTED - JULY 19, 1976
SOIL TYPE - CLAY LOAM, PH 7.3
FERTILIZER USED (KG/HA) - N 11.25, P 4.80
AMOUNT OF MOISTURE - 926 MM
LOCAL VARIETY - J.S.2

COUNTRY - INDIA
ELEVATION - 393 M
LONGITUDE - 79 DEG. 57 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | COBB | 1264.91 | 37.75 | 91.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.05 | 0.00 |
| 9 | WILLIAMS | 1247.05 | 25.50 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.90 | 0.00 |
| 13 | IMPROVED PELICAN | 1172.64 | 40.25 | 89.75 | 0.00 | 0.00 | 0.00 | 0.00 | 51.15 | 0.00 |
| 4 | RANSOM | 1169.67 | 34.75 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.35 | 0.00 |
| 8 | BOSSIER | 1065.50 | 35.00 | 86.75 | 0.00 | 0.00 | 0.00 | 0.00 | 33.80 | 0.00 |
| 12 | DAVIS | 1035.73 | 37.75 | 86.25 | 0.00 | 0.00 | 0.00 | 0.00 | 35.45 | 0.00 |
| 7 | J.S.2 | 1017.88 | 36.00 | 80.25 | 0.00 | 0.00 | 0.00 | 0.00 | 37.65 | 0.00 |
| 10 | CLARK 63 | 1011.92 | 26.25 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.10 | 0.00 |
| 6 | PICKETT 71 | 988.11 | 34.25 | 85.50 | 0.00 | 0.00 | 0.00 | 0.00 | 30.85 | 0.00 |
| 16 | ESSEX | 982.16 | 33.75 | 82.25 | 0.00 | 0.00 | 0.00 | 0.00 | 32.25 | 0.00 |
| 14 | FORREST | 934.54 | 34.75 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.05 | 0.00 |
| 2 | WOODWORTH | 934.54 | 29.75 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30.60 | 0.00 |
| 5 | HILL | 916.68 | 36.50 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.95 | 0.00 |
| 15 | COLUMBUS | 877.99 | 30.25 | 79.75 | 0.00 | 0.00 | 0.00 | 0.00 | 35.65 | 0.00 |
| 3 | BRAGG | 836.33 | 35.25 | 85.75 | 0.00 | 0.00 | 0.00 | 0.00 | 42.20 | 0.00 |
| 1 | CALLAND | 738.11 | 26.25 | 78.50 | 0.00 | 0.00 | 0.00 | 0.00 | 32.15 | 0.00 |
| | GRAND MEAN | 1012.11 | 33.38 | 83.98 | 0.00 | 0.00 | 0.00 | 0.00 | 35.57 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 92.90 | 0.49 | 1.52 | 0.00 | 0.00 | 0.00 | 0.00 | 2.82 | 0.00 |
| | COEFFICIENT OF VARIATION | 18.36% | 2.91% | 3.62% | 0.00% | 0.00% | 0.00% | 0.00% | 15.85% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 264.62 | 1.38 | 4.33 | 0.00 | 0.00 | 0.00 | 0.00 | 8.03 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.16 | 0.28* | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 |
| DAYS TO FLOWER | 0.16 | 1.00 | 0.62** | 0.00 | 0.00 | 0.00 | 0.00 | 0.32** | 0.00 |
| DAYS TO MATURITY | 0.28* | 0.62** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.09 | 0.32** | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.20 | 0.16 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 |
| PODS PER PLANT | 0.24 | 0.55** | 0.25* | 0.00 | 0.00 | 0.00 | 0.00 | 0.48** | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 108 EXPERIMENT 181 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | COBB | 0.00 | 109.50 | 14.55 | 0.00 | 0.00 |
| 9 | WILLIAMS | 0.00 | 177.00 | 10.05 | 0.00 | 0.00 |
| 13 | IMPROVED PELICAN | 0.00 | 195.00 | 17.10 | 0.00 | 0.00 |
| 4 | HANSON | 0.00 | 199.50 | 10.70 | 0.00 | 0.00 |
| 8 | BOSSIER | 0.00 | 159.25 | 13.90 | 0.00 | 0.00 |
| 12 | DAVIS | 0.00 | 191.50 | 10.35 | 0.00 | 0.00 |
| 7 | J.S.2 | 0.00 | 152.50 | 16.50 | 0.00 | 0.00 |
| 10 | CLARK 63 | 0.00 | 172.75 | 9.30 | 0.00 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 190.50 | 11.65 | 0.00 | 0.00 |
| 16 | ESSEX | 0.00 | 178.50 | 12.70 | 0.00 | 0.00 |
| 14 | FORREST | 0.00 | 204.50 | 10.00 | 0.00 | 0.00 |
| 2 | WOODWORTH | 0.00 | 182.50 | 7.20 | 0.00 | 0.00 |
| 5 | HILL | 0.00 | 195.50 | 11.40 | 0.00 | 0.00 |
| 15 | COLUMBUS | 0.00 | 186.25 | 9.50 | 0.00 | 0.00 |
| 3 | BRAGG | 0.00 | 180.50 | 15.15 | 0.00 | 0.00 |
| 1 | CALLAND | 0.00 | 171.50 | 8.45 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 182.92 | 11.78 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.21 | 1.23 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 15.54% | 20.84% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 3.50 | 0.00 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.20 | 0.28 | 0.00 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.16 | 0.55** | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.24 | 0.25* | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.07 | 0.48** | 0.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.17 | 0.00 | 0.00 |
| PODS PER PLANT | 0.00 | -0.17 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 109 EXPERIMENT 45 YEAR 1976

REGION - ASIA
SITE - PANTNAGAR
LATITUDE - 29 DEG. 5 MIN. N
COOPERATOR - B.B. SINGH
DATE PLANTED - JULY 6, 1976
SOIL TYPE - SANDY LOAM, PH 6.8
FERTILIZER USED (KG/HA) - N 20.0
AMOUNT OF MOISTURE - 1272 MM
LOCAL VARIETY - PK-71-21

COUNTRY - INDIA
ELEVATION - 243 M
LONGITUDE - 79 DEG. 3 MIN. E

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | CUTLER 71 | 1875.37 | 48.00 | 107.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.48 | 0.00 |
| 11 | COBB | 1864.96 | 48.00 | 114.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.75 | 0.00 |
| 12 | DAVIS | 1864.96 | 45.50 | 102.25 | 0.00 | 0.00 | 0.00 | 0.00 | 67.35 | 0.00 |
| 2 | WOODWORTH | 1771.19 | 36.00 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.72 | 0.00 |
| 1 | CALLAND | 1719.09 | 36.50 | 90.25 | 0.00 | 0.00 | 0.00 | 0.00 | 78.35 | 0.00 |
| 14 | FORREST | 1594.07 | 38.00 | 95.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.95 | 0.00 |
| 8 | PK-71-21 | 1541.97 | 44.50 | 109.50 | 0.00 | 0.00 | 0.00 | 0.00 | 66.00 | 0.00 |
| 10 | CLARK 63 | 1531.56 | 37.00 | 90.75 | 0.00 | 0.00 | 0.00 | 0.00 | 58.03 | 0.00 |
| 9 | WILLIAMS | 1531.56 | 35.75 | 90.75 | 0.00 | 0.00 | 0.00 | 0.00 | 72.02 | 0.00 |
| 6 | PICKETT 71 | 1469.04 | 40.00 | 102.75 | 0.00 | 0.00 | 0.00 | 0.00 | 56.05 | 0.00 |
| 3 | BRAGG | 1458.62 | 41.75 | 106.75 | 0.00 | 0.00 | 0.00 | 0.00 | 69.10 | 0.00 |
| 5 | HILL | 1458.62 | 40.00 | 90.50 | 0.00 | 0.00 | 0.00 | 0.00 | 57.90 | 0.00 |
| 15 | ESSEX | 1437.79 | 37.50 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 50.53 | 0.00 |
| 4 | RANSOM | 1437.79 | 39.50 | 112.25 | 0.00 | 0.00 | 0.00 | 0.00 | 66.25 | 0.00 |
| 13 | IMPROVED PELICAN | 1146.06 | 53.00 | 109.75 | 0.00 | 0.00 | 0.00 | 0.00 | 76.35 | 0.00 |
| | GRAND MEAN | 1580.18 | 41.40 | 100.45 | 0.00 | 0.00 | 0.00 | 0.00 | 65.12 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 227.19 | 0.46 | 0.39 | 0.00 | 0.00 | 0.00 | 0.00 | 3.83 | 0.00 |
| | COEFFICIENT OF VARIATION | 28.75% | 2.21% | 0.78% | 0.00% | 0.00% | 0.00% | 0.00% | 11.78% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.31 | 1.11 | 0.00 | 0.00 | 0.00 | 0.00 | 10.94 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.02 | -0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.26+ | 0.00 |
| DAYS TO FLOWER | -0.02 | 1.00 | 0.76++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 |
| DAYS TO MATURITY | -0.03 | 0.76++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.26+ | 0.12 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.21 | -0.16 | -0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 |
| PODS PER PLANT | 0.16 | 0.47++ | 0.49++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.09 | 0.00 |
| 100 SEED WEIGHT | 0.23 | -0.41++ | -0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | 0.00 |
| QUALITY OF SEED | -0.01 | -0.49++ | -0.56++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.33++ | 0.00 |

TABLE 109 EXPERIMENT 45 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | CUTLER 71 | 0.00 | 97.25 | 76.40 | 12.51 | 1.75 | -- | -- |
| 11 | COBB | 0.00 | 107.25 | 60.63 | 12.38 | 2.25 | 41.0 | 23.2 |
| 12 | DAVIS | 0.00 | 159.25 | 62.03 | 12.38 | 2.25 | 42.4 | 22.0 |
| 2 | WOODWORTH | 0.00 | 97.25 | 43.35 | 13.95 | 3.75 | 42.9 | 22.6 |
| 1 | CALLAND | 0.00 | 160.50 | 39.80 | 11.14 | 4.75 | 44.0 | 22.3 |
| 14 | FORREST | 0.00 | 130.75 | 51.63 | 11.48 | 2.50 | 42.6 | 22.5 |
| 8 | PK-71-21 | 0.00 | 101.00 | 75.85 | 12.96 | 2.50 | 43.1 | 22.1 |
| 10 | CLARK 63 | 0.00 | 113.75 | 50.25 | 12.95 | 2.75 | 43.5 | 23.3 |
| 9 | WILLIAMS | 0.00 | 140.75 | 42.48 | 13.37 | 4.00 | 43.0 | 21.7 |
| 6 | PICKETT 71 | 0.00 | 152.00 | 53.13 | 11.35 | 2.50 | 44.7 | 21.2 |
| 3 | BRAGG | 0.00 | 164.75 | 73.40 | 13.50 | 2.25 | 43.6 | 21.2 |
| 5 | HILL | 0.00 | 126.75 | 57.15 | 11.51 | 2.75 | 39.2 | 24.9 |
| 15 | ESSEX | 0.00 | 134.50 | 55.48 | 11.49 | 2.25 | 44.2 | 22.1 |
| 4 | HANSON | 0.00 | 157.00 | 50.45 | 14.65 | 2.25 | 43.7 | 22.6 |
| 13 | IMPROVED PELICAN | 0.00 | 112.75 | 54.60 | 8.27 | 2.50 | 43.1 | 21.9 |
| | GRAND MEAN | 0.00 | 130.37 | 56.45 | 12.26 | 2.73 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 18.68 | 4.78 | 0.36 | 0.28 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 28.66% | 16.95% | 5.94% | 20.43% | | |
| | 5% LSD VARIETY MEANS (*********NS) | 0.00 | ******** | 13.65 | 1.04 | 0.80 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.21 | 0.16 | 0.23 | -0.01 |
| DAYS TO | FLOWER | 0.00 | -0.16 | 0.47** | -0.41** | -0.49** |
| DAYS TO | MATURITY | 0.00 | -0.03 | 0.49** | -0.00 | -0.56** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.19 | -0.09 | -0.03 | 0.33** |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.15 | 0.03 | 0.13 |
| PODS PER | PLANT | 0.00 | -0.15 | 1.00 | 0.07 | -0.57** |
| 100 SEED | WEIGHT | 0.00 | 0.03 | 0.07 | 1.00 | -0.02 |
| QUALITY | OF SEED | 0.00 | 0.13 | -0.57** | -0.02 | 1.00 |

TABLE 110 EXPERIMENT 19 YEAR 1976

REGION - ASIA
SITE - MALANG, JAVA
LATITUDE - 8 DEG. 25 MIN. S
COOPERATORS - KIWANODJA, SUBARNO
DATE PLANTED - MAY 5, 1976
SOIL PH 6.0
FERTILIZER USED (KG/HA) - N 50.0, P 44.0, K 41.5
AMOUNT OF MOISTURE - 30 MM
NUMBER OF IRRIGATIONS - 11
LOCAL VARIETIES - ORBA, NO. 29

COUNTRY - INDONESIA
ELEVATION - 335 M
LONGITUDE - 112 DEG. 5 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | ORBA | 1094.39 | 38.00 | 83.00 | 195.50 | 160.00 | 0.77 | 1.45 | 48.00 | 2.00 |
| 13 | IMPROVED PELICAN | 910.60 | 38.00 | 91.00 | 115.75 | 140.75 | 0.47 | 1.18 | 51.25 | 3.00 |
| 11 | COBB | 810.58 | 35.00 | 83.00 | 141.75 | 92.00 | 0.55 | 0.67 | 24.25 | 1.00 |
| 10 | CLARK 63 | 568.86 | 33.00 | 83.00 | 72.25 | 44.50 | 0.23 | 0.33 | 33.00 | 2.00 |
| 15 | NO. 29 | 545.94 | 50.00 | 106.00 | 308.50 | 171.25 | 1.35 | 0.97 | 69.75 | 3.00 |
| 1 | CALLAND | 543.86 | 33.00 | 91.00 | 96.50 | 88.50 | 0.40 | 0.65 | 33.75 | 2.00 |
| 14 | FORREST | 470.93 | 36.00 | 83.00 | 97.75 | 80.00 | 0.25 | 0.45 | 30.25 | 2.00 |
| 2 | WOODWORTH | 423.83 | 33.00 | 77.00 | 90.00 | 46.00 | 0.23 | 0.40 | 33.00 | 1.00 |
| 3 | BRAGG | 402.16 | 36.00 | 83.00 | 106.75 | 73.00 | 0.31 | 0.33 | 26.25 | 1.00 |
| 9 | WILLIAMS | 372.93 | 35.00 | 83.00 | 166.00 | 112.25 | 0.40 | 0.57 | 23.75 | 1.00 |
| 5 | HILL | 364.66 | 36.00 | 91.00 | 100.75 | 139.00 | 0.23 | 0.67 | 29.50 | 2.00 |
| 12 | DAVIS | 360.49 | 35.00 | 91.00 | 146.00 | 189.00 | 0.43 | 1.03 | 26.50 | 1.00 |
| 6 | PICKETT 71 | 262.55 | 33.00 | 83.00 | 141.50 | 77.50 | 0.45 | 0.20 | 21.75 | 1.00 |
| 8 | BOSSIER | 258.38 | 33.00 | 83.00 | 136.25 | 97.25 | 0.38 | 0.47 | 23.00 | 1.00 |
| 4 | RANSOM | 256.30 | 35.00 | 83.00 | 180.50 | 136.25 | 0.35 | 0.72 | 22.50 | 1.50 |
| 7 | JUPITER | 227.96 | 39.00 | 106.00 | 134.00 | 224.00 | 0.42 | 0.87 | 42.00 | 1.25 |
| | GRAND MEAN | 492.16 | 36.13 | 87.50 | 139.36 | 116.95 | 0.45 | 0.69 | 33.66 | 1.61 |
| | STANDARD ERROR OF A VARIETY MEAN | 66.78 | 0.35 | 0.00 | 23.81 | 21.31 | 0.09 | 0.15 | 1.62 | 0.09 |
| | COEFFICIENT OF VARIATION | 27.14% | 1.96% | 0.00% | 34.16% | 36.44% | 41.06% | 44.89% | 9.66% | 11.64% |
| | 5% LSD VARIETY MEANS (*********=NS) | 190.20 | 1.01 | 0.00 | 67.81 | 60.70 | 0.26 | 0.44 | 4.63 | 0.27 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.19 | -0.08 | 0.16 | 0.05 | 0.34** | 0.47** | 0.47** | 0.45** |
| DAYS TO FLOWER | 0.19 | 1.00 | 0.73** | 0.58** | 0.41** | 0.72** | 0.38** | 0.83** | 0.60** |
| DAYS TO MATURITY | -0.08 | 0.73** | 1.00 | 0.34** | 0.58** | 0.47** | 0.34** | 0.64** | 0.45** |
| NODULE NUMBER 1 | 0.16 | 0.58** | 0.34** | 1.00 | 0.40** | 0.89** | 0.31* | 0.44** | 0.26* |
| NODULE NUMBER 2 | 0.05 | 0.41** | 0.58** | 0.40** | 1.00 | 0.34** | 0.77** | 0.37** | 0.18 |
| NODULE WEIGHT 1 | 0.34** | 0.72** | 0.47** | 0.89** | 0.34** | 1.00 | 0.37** | 0.67** | 0.42** |
| NODULE WEIGHT 2 | 0.47** | 0.38** | 0.34** | 0.31* | 0.77** | 0.37** | 1.00 | 0.50** | 0.36** |
| PLANT HEIGHT | 0.47** | 0.83** | 0.64** | 0.44** | 0.37** | 0.67** | 0.50** | 1.00 | 0.77** |
| LODGING | 0.45** | 0.60** | 0.45** | 0.26* | 0.18 | 0.42** | 0.36** | 0.77** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.31* | 0.09 | -0.30* | 0.23 | -0.12 | 0.20 | 0.08 | 0.12 | 0.30* |
| PODS PER PLANT | 0.49** | 0.69** | 0.33** | 0.33** | 0.34** | 0.52** | 0.56** | 0.83** | 0.62** |
| 100 SEED WEIGHT | -0.07 | -0.73** | -0.50** | -0.40** | -0.31* | -0.54** | -0.25* | -0.67** | -0.55** |
| QUALITY OF SEED | -0.36** | 0.05 | 0.17 | -0.05 | 0.23 | -0.08 | 0.11 | 0.07 | 0.11 |

TABLE 110 EXPERIMENT 18 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | ORBA | 0.00 | 180.25 | 28.75 | 9.75 | 2.75 | 40.6 | 18.6 |
| 13 | IMPROVED PELICAN | 0.00 | 181.50 | 26.00 | 10.75 | 2.50 | 46.3 | 18.6 |
| 11 | COBB | 0.00 | 171.00 | 15.00 | 13.75 | 1.50 | 39.0 | 21.4 |
| 10 | CLARK 63 | 0.00 | 183.00 | 13.25 | 12.50 | 2.75 | 45.4 | 19.7 |
| 15 | NO. 29 | 0.00 | 200.00 | 32.25 | 6.00 | 3.00 | 49.0 | 13.5 |
| 1 | CALLAND | 0.00 | 179.00 | 12.75 | 13.00 | 3.00 | 45.3 | 17.8 |
| 14 | FORREST | 0.00 | 199.00 | 14.00 | 10.50 | 3.50 | 42.6 | 19.4 |
| 2 | WOODWORTH | 0.00 | 185.00 | 16.50 | 12.50 | 2.75 | 44.5 | 19.4 |
| 3 | BRAGG | 0.00 | 188.50 | 12.25 | 12.00 | 2.50 | 43.5 | 19.6 |
| 9 | WILLIAMS | 0.00 | 172.50 | 8.50 | 14.00 | 2.75 | 45.9 | 19.3 |
| 5 | HILL | 0.00 | 162.50 | 13.75 | 11.25 | 3.00 | 43.5 | 19.1 |
| 12 | DAVIS | 0.00 | 190.50 | 11.75 | 12.50 | 2.75 | 46.2 | 18.5 |
| 6 | PICKETT 71 | 0.00 | 161.75 | 11.25 | 12.00 | 2.75 | 43.4 | 20.2 |
| 8 | BOSSIER | 0.00 | 174.50 | 12.00 | 10.25 | 3.25 | 45.1 | 18.8 |
| 4 | RANSOM | 0.00 | 183.50 | 14.75 | 12.00 | 3.00 | 41.0 | 21.9 |
| 7 | JUPITER | 0.00 | 106.75 | 18.75 | 11.00 | 3.25 | 44.6 | 18.6 |
| | GRAND MEAN | 0.00 | 176.20 | 16.34 | 11.48 | 2.81 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.93 | 2.10 | 0.52 | 0.30 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 10.13% | 25.64% | 9.07% | 21.12% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 25.43 | 5.97 | 1.48 | 0.85 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.31* | 0.49** | -0.07 | -0.36** |
| DAYS TO FLOWER | 0.00 | 0.09 | 0.69** | -0.73** | 0.05 |
| DAYS TO MATURITY | 0.00 | -0.30* | 0.43** | -0.50** | 0.17 |
| NODULE NUMBER 1 | 0.00 | 0.23 | 0.33** | -0.40** | -0.05 |
| NODULE NUMBER 2 | 0.00 | -0.12 | 0.34** | -0.31* | 0.23 |
| NODULE WEIGHT 1 | 0.00 | 0.20 | 0.52** | -0.54** | -0.06 |
| NODULE WEIGHT 2 | 0.00 | 0.08 | 0.56** | -0.25* | 0.11 |
| PLANT HEIGHT | 0.00 | 0.12 | 0.83** | -0.67** | 0.07 |
| LODGING | 0.00 | 0.30* | 0.62** | -0.55** | 0.11 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.02 | -0.11 | -0.15 |
| PODS PER PLANT | 0.00 | 0.02 | 1.00 | -0.63** | -0.03 |
| 100 SEED WEIGHT | 0.00 | -0.11 | -0.63** | 1.00 | -0.28* |
| QUALITY OF SEED | 0.00 | -0.15 | -0.03 | -0.28* | 1.00 |

TABLE 111 EXPERIMENT 17 YEAR 1976

REGION - ASIA
SITE - MEDAN
LATITUDE - 3 DEG. 35 MIN. N
COOPERATOR - B.O.P. TAMPUBOLON
DATE PLANTED - MAY 15, 1976
SOIL TYPE - SAND 39%, SILT 29%, CLAY 32%, PH 5.6
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 1060 MM
LOCAL VARIETIES - ORBA, SIPERAK

COUNTRY - INDONESIA
ELEVATION - 25 M
LONGITUDE - 98 DEG. 41 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 1103.55 | 33.00 | 103.00 | 94.25 | 206.00 | 0.12 | 0.84 | 40.35 | 1.00 |
| 13 | IMPROVED PELICAN | 1039.79 | 33.00 | 86.00 | 49.25 | 162.25 | 0.12 | 0.56 | 43.73 | 1.00 |
| 14 | FORREST | 882.68 | 27.00 | 68.00 | 63.75 | 159.25 | 0.08 | 1.15 | 23.46 | 1.00 |
| 11 | COBB | 767.65 | 27.00 | 68.00 | 80.75 | 101.00 | 0.09 | 0.61 | 21.48 | 1.00 |
| 15 | ORBA | 756.82 | 36.00 | 83.00 | 69.50 | 93.25 | 0.05 | 0.18 | 38.41 | 1.00 |
| 8 | BOSSIER | 633.88 | 25.00 | 68.00 | 97.75 | 152.75 | 0.10 | 0.93 | 20.45 | 1.00 |
| 5 | HILL | 618.04 | 30.00 | 72.50 | 43.00 | 89.25 | 0.07 | 0.49 | 21.23 | 1.00 |
| 1 | CALLAND | 594.29 | 25.00 | 68.00 | 64.00 | 85.75 | 0.09 | 0.54 | 27.83 | 1.00 |
| 2 | WOODWORTH | 518.02 | 25.00 | 68.00 | 94.00 | 71.25 | 0.12 | 0.44 | 20.30 | 1.00 |
| 6 | PICKETT 71 | 488.43 | 25.00 | 68.00 | 45.25 | 77.75 | 0.05 | 0.41 | 19.56 | 1.00 |
| 3 | BRAGG | 480.51 | 27.00 | 68.00 | 68.50 | 134.25 | 0.08 | 0.76 | 21.88 | 1.00 |
| 4 | RANSOM | 441.34 | 27.00 | 68.00 | 100.25 | 130.25 | 0.08 | 0.50 | 17.77 | 1.00 |
| 12 | DAVIS | 428.00 | 27.00 | 68.00 | 71.00 | 90.00 | 0.10 | 0.56 | 20.81 | 1.00 |
| 16 | SIPERAK | 425.50 | 36.00 | 79.25 | 67.00 | 94.25 | 0.08 | 0.22 | 35.68 | 1.00 |
| 9 | WILLIAMS | 342.15 | 25.00 | 71.75 | 107.50 | 88.75 | 0.15 | 0.45 | 17.17 | 1.00 |
| 10 | CLARK 63 | 310.90 | 25.00 | 68.00 | 66.75 | 101.25 | 0.06 | 0.51 | 21.98 | 1.00 |
| | GRAND MEAN | 614.47 | 28.31 | 73.47 | 73.91 | 114.83 | 0.09 | 0.57 | 25.75 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 66.57 | 0.00 | 1.77 | 11.94 | 18.41 | 0.03 | 0.11 | 1.28 | 0.00 |
| | COEFFICIENT OF VARIATION | 21.67% | 0.00% | 4.82% | 32.31% | 32.06% | 57.57% | 38.29% | 9.95% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 189.63 | 0.00 | 5.05 | 34.01 | 52.43 | ******** | 0.31 | 3.65 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.41** | 0.54** | -0.12 | 0.35** | 0.01 | 0.25 | 0.58** | 0.00 |
| DAYS TO | FLOWER | 0.41** | 1.00 | 0.72** | -0.16 | 0.18 | -0.08 | -0.27* | 0.81** | 0.00 |
| DAYS TO | MATURITY | 0.54** | 0.72** | 1.00 | -0.04 | 0.35** | 0.07 | -0.03 | 0.79** | 0.00 |
| NODULE | NUMBER 1 | -0.12 | -0.16 | -0.04 | 1.00 | 0.34** | 0.67** | 0.18 | -0.18 | 0.00 |
| NODULE | NUMBER 2 | 0.35** | 0.18 | 0.35** | 0.34** | 1.00 | 0.47** | 0.49** | 0.27* | 0.00 |
| NODULE | WEIGHT 1 | 0.01 | -0.08 | 0.07 | 0.67** | 0.47** | 1.00 | 0.32** | 0.04 | 0.00 |
| NODULE | WEIGHT 2 | 0.25 | -0.27* | -0.03 | 0.18 | 0.49** | 0.32** | 1.00 | -0.08 | 0.00 |
| PLANT | HEIGHT | 0.58** | 0.81** | 0.79** | -0.18 | 0.27* | 0.04 | -0.08 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.52** | 0.20 | 0.73** | 0.19 | 0.50** | 0.24 | 0.27* | 0.42** | 0.00 |
| PODS PER | PLANT | 0.92** | 0.63** | 0.59** | -0.20 | 0.29* | -0.02 | 0.04 | 0.72** | 0.00 |
| 100 SEED | WEIGHT | 0.13 | -0.62** | -0.23 | 0.15 | 0.10 | 0.10 | 0.47** | -0.35** | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 111 EXPERIMENT 17 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 1.00 | 115.00 | 23.13 | 14.94 | 0.00 | 46.5 | 22.3 |
| 13 | IMPROVED PELICAN | 1.00 | 100.00 | 30.65 | 10.65 | 0.00 | 46.9 | 23.2 |
| 14 | FORREST | 1.00 | 92.00 | 19.85 | 14.26 | 0.00 | 47.1 | 22.1 |
| 11 | COBB | 1.00 | 90.00 | 16.05 | 15.15 | 0.00 | 43.2 | 24.6 |
| 15 | ORBA | 1.00 | 90.00 | 21.80 | 11.44 | 0.00 | 44.2 | 21.1 |
| 8 | BOSSIER | 1.00 | 97.00 | 13.75 | 15.27 | 0.00 | 48.7 | 22.2 |
| 5 | HILL | 1.00 | 93.00 | 14.95 | 13.09 | 0.00 | 43.5 | 22.9 |
| 1 | CALLAND | 1.00 | 93.00 | 11.55 | 16.93 | 0.00 | 46.2 | 22.7 |
| 2 | WOODWORTH | 1.00 | 93.00 | 12.15 | 14.07 | 0.00 | 44.6 | 23.9 |
| 6 | PICKETT 71 | 1.00 | 94.00 | 11.85 | 13.13 | 0.00 | 46.8 | 22.0 |
| 3 | BRAGG | 1.00 | 92.00 | 10.63 | 14.77 | 0.00 | 46.9 | 23.5 |
| 4 | RANSOM | 1.00 | 95.00 | 11.78 | 12.11 | 0.00 | 44.8 | 23.7 |
| 12 | DAVIS | 1.00 | 90.00 | 11.40 | 12.37 | 0.00 | 46.9 | 21.1 |
| 16 | SIPERAK | 1.00 | 90.00 | 15.60 | 8.91 | 0.00 | 44.6 | 18.1 |
| 9 | WILLIAMS | 1.00 | 96.00 | 9.10 | 12.98 | 0.00 | 46.0 | 22.0 |
| 10 | CLARK 63 | 1.00 | 92.00 | 8.47 | 12.92 | 0.00 | 46.6 | 23.2 |
| | GRAND MEAN | 1.00 | 94.50 | 15.17 | 13.31 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 1.54 | 0.09 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 20.28% | 1.38% | 0.00% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 0.00 | 4.38 | 0.26 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.52** | 0.92** | 0.13 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.20 | 0.63** | -0.62** | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.73** | 0.59** | -0.23 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.19 | -0.20 | 0.15 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.50** | 0.29* | 0.10 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.24 | -0.02 | 0.10 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.27* | 0.04 | 0.47** | 0.00 |
| PLANT HEIGHT | 0.00 | 0.42** | 0.72** | -0.35** | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.39** | 0.19 | 0.00 |
| PODS PER PLANT | 0.00 | 0.39** | 1.00 | -0.24 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.19 | -0.24 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 112 EXPERIMENT 92 YEAR 1976

REGION - ASIA
SITE - KHAIRANITAR FARM
LATITUDE - 28 DEG. N
COOPERATORS - B. THAPA, M.P. BHARATI
DATE PLANTED - JULY 9, 1976
SOIL TYPE - SAND
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0

COUNTRY - NEPAL
ELEVATION - 1000 M
LONGITUDE - 84 DEG. E
DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | ESSEX | 2208.77 | 75.75 | 103.25 | 0.00 | 0.00 | 0.00 | 0.00 | 44.75 | 0.00 |
| 9 | BEESON | 2083.75 | 77.50 | 103.25 | 0.00 | 0.00 | 0.00 | 0.00 | 48.75 | 0.00 |
| 1 | CALLAND | 2083.75 | 71.25 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 49.00 | 0.00 |
| 6 | CLARK 63 | 2083.75 | 74.25 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.75 | 0.00 |
| 4 | CUTLER 71 | 2000.40 | 76.25 | 102.25 | 0.00 | 0.00 | 0.00 | 0.00 | 53.75 | 0.00 |
| 12 | CORSOY | 1958.72 | 78.25 | 103.25 | 0.00 | 0.00 | 0.00 | 0.00 | 31.75 | 0.00 |
| 16 | STEELE | 1917.05 | 73.00 | 101.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.75 | 0.00 |
| 5 | WILLIAMS | 1917.05 | 76.25 | 104.00 | 0.00 | 0.00 | 0.00 | 0.00 | 46.50 | 0.00 |
| 10 | COLUMBUS | 1875.37 | 71.75 | 103.50 | 0.00 | 0.00 | 0.00 | 0.00 | 42.50 | 0.00 |
| 15 | HARK | 1875.37 | 83.00 | 103.50 | 0.00 | 0.00 | 0.00 | 0.00 | 51.25 | 0.00 |
| 8 | WELLS | 1875.37 | 76.25 | 101.50 | 0.00 | 0.00 | 0.00 | 0.00 | 40.25 | 0.00 |
| 14 | HODGSON | 1833.70 | 76.25 | 101.50 | 0.00 | 0.00 | 0.00 | 0.00 | 31.75 | 0.00 |
| 7 | FORREST | 1792.02 | 79.75 | 101.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.25 | 0.00 |
| 3 | HILL | 1583.65 | 77.50 | 103.00 | 0.00 | 0.00 | 0.00 | 0.00 | 53.75 | 0.00 |
| 2 | WOODWORTH | 1541.97 | 74.50 | 102.50 | 0.00 | 0.00 | 0.00 | 0.00 | 41.25 | 0.00 |
| 13 | AMSOY 71 | 1500.30 | 75.25 | 103.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.00 | 0.00 |
| | GRAND MEAN | 1883.19 | 76.05 | 102.53 | 0.00 | 0.00 | 0.00 | 0.00 | 44.88 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 229.55 | 2.65 | 1.19 | 0.00 | 0.00 | 0.00 | 0.00 | 5.26 | 0.00 |
| | COEFFICIENT OF VARIATION | 24.38% | 6.96% | 2.32% | 0.00% | 0.00% | 0.00% | 0.00% | 23.42% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | ******** | 0.00 | 0.00 | 0.00 | 0.00 | ******** | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.09 | -0.14 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 |
| DAYS TO FLOWER | -0.09 | 1.00 | 0.31+ | 0.00 | 0.00 | 0.00 | 0.00 | -0.20 | 0.00 |
| DAYS TO MATURITY | -0.14 | 0.31+ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.01 | -0.20 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.28+ | -0.10 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 |
| PODS PER PLANT | 0.08 | -0.09 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69++ | 0.00 |
| 100 SEED WEIGHT | 0.20 | -0.09 | -0.21 | 0.00 | 0.00 | 0.00 | 0.00 | -0.26+ | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 112 EXPERIMENT 92 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | ESSEX | 0.00 | 123.50 | 9.13 | 15.25 | 0.00 |
| 9 | BEESON | 0.00 | 125.50 | 9.23 | 15.50 | 0.00 |
| 1 | CALLAND | 0.00 | 125.75 | 9.75 | 17.00 | 0.00 |
| 6 | CLARK 63 | 0.00 | 125.00 | 8.65 | 15.50 | 0.00 |
| 4 | CUTLER 71 | 0.00 | 125.25 | 9.63 | 17.50 | 0.00 |
| 12 | COBSOY | 0.00 | 125.75 | 6.67 | 16.00 | 0.00 |
| 16 | STEELE | 0.00 | 124.00 | 7.30 | 17.25 | 0.00 |
| 5 | WILLIAMS | 0.00 | 124.00 | 8.77 | 15.75 | 0.00 |
| 10 | COLUMBUS | 0.00 | 125.50 | 8.32 | 17.75 | 0.00 |
| 15 | HARK | 0.00 | 124.75 | 9.90 | 14.25 | 0.00 |
| 8 | WELLS | 0.00 | 124.00 | 7.50 | 15.00 | 0.00 |
| 14 | HODGSON | 0.00 | 123.75 | 6.70 | 17.75 | 0.00 |
| 7 | FORREST | 0.00 | 124.00 | 7.80 | 17.75 | 0.00 |
| 3 | HILL | 0.00 | 125.50 | 9.80 | 15.00 | 0.00 |
| 2 | WOODWORTH | 0.00 | 123.75 | 6.32 | 17.00 | 0.00 |
| 13 | ANSOY 71 | 0.00 | 124.25 | 8.47 | 15.00 | 0.00 |
| | GRAND MEAN | 0.00 | 124.64 | 8.50 | 16.20 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 1.15 | 0.77 | 0.79 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 1.85% | 18.02% | 9.74% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 2.18 | 2.25 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.28* | 0.08 | 0.20 | 0.00 |
| DAYS TO | FLOWER | 0.00 | -0.10 | -0.09 | -0.09 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.12 | 0.07 | -0.21 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.15 | 0.69** | -0.26* | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.13 | 0.02 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.13 | 1.00 | -0.18 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.02 | -0.18 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 113 EXPERIMENT 61 YEAR 1976

REGION - ASIA
SITE - KHUMALTAR
LATITUDE - 27 DEG. 40 MIN. N
COOPERATORS - MEENA PANDAY, M.P. BHARATI
DATE PLANTED - MAY 20, 1976
SOIL TYPE - CLAY LOAM
FERTILIZER USED (KG/HA) - N 10.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 740 MM
LOCAL VARIETY - KHUMAL G.P.1

COUNTRY - NEPAL
ELEVATION - 1360 M
LONGITUDE - 85 DEG. 20 MIN. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 3260.65 | 56.25 | 145.00 | 358.50 | 0.00 | 2.25 | 0.00 | 57.45 | 2.00 |
| 11 | DAVIS | 3213.14 | 66.50 | 145.00 | 253.75 | 0.00 | 1.82 | 0.00 | 73.40 | 1.75 |
| 6 | PICKETT 71 | 3194.39 | 56.50 | 144.75 | 267.50 | 0.00 | 1.58 | 0.00 | 59.63 | 2.00 |
| 3 | BRAGG | 2871.82 | 52.00 | 135.00 | 233.75 | 0.00 | 1.91 | 0.00 | 66.95 | 1.75 |
| 8 | BOSSIER | 2789.31 | 61.50 | 144.75 | 319.50 | 0.00 | 2.54 | 0.00 | 71.82 | 2.00 |
| 12 | FORREST | 2770.14 | 53.50 | 130.25 | 203.00 | 0.00 | 1.33 | 0.00 | 66.93 | 1.00 |
| 16 | KHUMAL G.P.1 | 2613.86 | 65.00 | 134.50 | 268.50 | 0.00 | 2.37 | 0.00 | 135.73 | 4.00 |
| 5 | HILL | 2475.91 | 60.50 | 128.25 | 169.00 | 0.00 | 0.92 | 0.00 | 63.98 | 1.00 |
| 2 | WOODWORTH | 2115.01 | 39.25 | 114.25 | 271.50 | 0.00 | 1.39 | 0.00 | 50.78 | 1.25 |
| 15 | COLUMBUS | 1984.15 | 43.75 | 116.25 | 318.00 | 0.00 | 1.80 | 0.00 | 62.40 | 1.00 |
| 9 | WILLIAMS | 1837.45 | 34.50 | 102.50 | 332.25 | 0.00 | 2.19 | 0.00 | 45.35 | 1.00 |
| 7 | CUTLER 71 | 1775.35 | 33.25 | 101.50 | 260.75 | 0.00 | 1.53 | 0.00 | 46.98 | 1.00 |
| 10 | CLARK 63 | 1382.78 | 39.25 | 107.00 | 284.50 | 0.00 | 1.88 | 0.00 | 45.48 | 1.00 |
| 1 | CALLAND | 1279.42 | 33.75 | 107.25 | 180.25 | 0.00 | 1.63 | 0.00 | 38.23 | 1.00 |
| 14 | BEESON | 1203.99 | 32.00 | 95.00 | 178.00 | 0.00 | 1.47 | 0.00 | 25.98 | 1.00 |
| 13 | WELLS | 385.91 | 32.25 | 93.00 | 186.25 | 0.00 | 1.13 | 0.00 | 17.40 | 1.00 |
| | GRAND MEAN | 2197.08 | 47.48 | 121.52 | 255.31 | 0.00 | 1.73 | 0.00 | 58.03 | 1.48 |
| | STANDARD ERROR OF A VARIETY MEAN | 314.24 | 2.27 | 5.14 | 34.06 | 0.00 | 0.24 | 0.00 | 4.04 | 0.11 |
| | COEFFICIENT OF VARIATION | 28.60% | 9.54% | 8.45% | 26.68% | 0.00% | 27.51% | 0.00% | 13.93% | 14.91% |
| | 5% LSD VARIETY MEANS (********=NS) | 895.08 | 6.45 | 14.63 | 97.03 | 0.00 | 0.68 | 0.00 | 11.51 | 0.32 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.79** | 0.81** | 0.17 | 0.00 | 0.16 | 0.00 | 0.62** | 0.49** |
| DAYS TO | FLOWER | 0.79** | 1.00 | 0.89** | 0.12 | 0.00 | 0.21 | 0.00 | 0.77** | 0.67** |
| DAYS TO | MATURITY | 0.81** | 0.89** | 1.00 | 0.18 | 0.00 | 0.19 | 0.00 | 0.64** | 0.58** |
| NODULE | NUMBER 1 | 0.17 | 0.12 | 0.18 | 1.00 | 0.00 | 0.65** | 0.00 | 0.15 | 0.14 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.16 | 0.21 | 0.19 | 0.65** | 0.00 | 1.00 | 0.00 | 0.30* | 0.40** |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.62** | 0.77** | 0.64** | 0.15 | 0.00 | 0.30* | 0.00 | 1.00 | 0.83** |
| | LODGING | 0.49** | 0.67** | 0.58** | 0.14 | 0.00 | 0.40** | 0.00 | 0.83** | 1.00 |
| | SHATTER | -0.13 | 0.07 | -0.06 | 0.14 | 0.00 | 0.28* | 0.00 | 0.28* | 0.32* |
| PLANTS | HARVEST | 0.18 | 0.05 | 0.10 | -0.05 | 0.00 | -0.18 | 0.00 | 0.34** | 0.05 |
| PODS PER | PLANT | 0.74** | 0.82** | 0.77** | 0.20 | 0.00 | 0.31* | 0.00 | 0.51** | 0.42** |
| 100 SEED | WEIGHT | -0.18 | -0.38** | -0.32* | 0.09 | 0.00 | 0.10 | 0.00 | -0.28* | -0.22 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 113 EXPERIMENT 61 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | BANSON | 3.00 | 123.00 | 48.13 | 20.75 | 0.00 |
| 11 | DAVIS | 2.00 | 151.75 | 47.30 | 24.75 | 0.00 |
| 6 | PICKETT 71 | 1.00 | 154.25 | 39.83 | 18.50 | 0.00 |
| 3 | BRAGG | 1.25 | 135.50 | 35.35 | 23.25 | 0.00 |
| 8 | BOSSIER | 2.00 | 113.75 | 60.65 | 18.00 | 0.00 |
| 12 | FORREST | 2.00 | 150.75 | 32.88 | 17.50 | 0.00 |
| 16 | KHOMAL G.P.1 | 3.00 | 167.00 | 34.28 | 19.25 | 0.00 |
| 5 | HILL | 2.00 | 144.50 | 47.30 | 17.75 | 0.00 |
| 2 | WOODWORTH | 1.75 | 149.25 | 25.65 | 24.00 | 0.00 |
| 15 | COLUMBUS | 2.00 | 174.50 | 28.90 | 22.75 | 0.00 |
| 9 | WILLIAMS | 2.00 | 148.75 | 19.10 | 24.50 | 0.00 |
| 7 | CUTLER 71 | 2.00 | 156.75 | 21.90 | 21.75 | 0.00 |
| 10 | CLARK 63 | 2.00 | 151.50 | 24.10 | 20.50 | 0.00 |
| 1 | CALLAND | 2.00 | 144.75 | 22.90 | 21.25 | 0.00 |
| 14 | BEESON | 2.00 | 122.25 | 11.38 | 22.50 | 0.00 |
| 13 | WELLS | 2.00 | 99.75 | 11.68 | 21.00 | 0.00 |
| | GRAND MEAN | 2.00 | 143.00 | 31.96 | 21.13 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.09 | 14.75 | 4.39 | 0.43 | 0.00 |
| | COEFFICIENT OF VARIATION | 9.13% | 20.63% | 27.45% | 4.09% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.26 | ******** | 12.49 | 1.23 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.13 | 0.18 | 0.74** | -0.19 | 0.00 |
| DAYS TO | FLOWER | 0.07 | 0.05 | 0.82** | -0.38** | 0.00 |
| DAYS TO | MATURITY | -0.06 | 0.10 | 0.77** | -0.32* | 0.00 |
| NODULE | NUMBER 1 | 0.14 | -0.05 | 0.20 | 0.09 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.28* | -0.18 | 0.31* | 0.10 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.28* | 0.34** | 0.51** | -0.28* | 0.00 |
| | LODGING | 0.32* | 0.05 | 0.42** | -0.22 | 0.00 |
| | SHATTER | 1.00 | 0.02 | -0.00 | -0.09 | 0.00 |
| PLANTS | HARVEST | 0.02 | 1.00 | -0.13 | 0.01 | 0.00 |
| PODS PER | PLANT | -0.00 | -0.13 | 1.00 | -0.35** | 0.00 |
| 100 SEED | WEIGHT | -0.09 | 0.01 | -0.35** | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 114 EXPERIMENT 80 YEAR 1976

REGION - ASIA
SITE - ISLAMABAD
LATITUDE - 34 DEG. N
COOPERATORS - P.P. KNOWLES, M.A. BANA
DATE PLANTED - JULY 17, 1976
SOIL TYPE - SANDY LOAM
FERTILIZER USED (KG/HA) - N 55.0, P 24.2
AMOUNT OF MOISTURE - 890 MM

COUNTRY - PAKISTAN
ELEVATION - 526 M
LONGITUDE - 73 DEG. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 1194.61 | 43.00 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.25 | 1.50 |
| 3 | BRAGG | 1129.37 | 43.00 | 98.50 | 0.00 | 0.00 | 0.00 | 0.00 | 72.58 | 1.00 |
| 8 | BOSSIER | 1125.29 | 43.25 | 95.25 | 0.00 | 0.00 | 0.00 | 0.00 | 70.75 | 1.25 |
| 14 | BEESON | 1108.64 | 37.25 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.50 | 2.00 |
| 11 | DAVIS | 1096.75 | 44.00 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.58 | 1.75 |
| 7 | CUTLER 71 | 1096.57 | 34.00 | 82.75 | 0.00 | 0.00 | 0.00 | 0.00 | 65.25 | 3.25 |
| 10 | CLARK 63 | 1076.37 | 32.75 | 83.50 | 0.00 | 0.00 | 0.00 | 0.00 | 62.09 | 2.00 |
| 13 | WELLS | 1049.87 | 33.50 | 75.50 | 0.00 | 0.00 | 0.00 | 0.00 | 52.08 | 1.00 |
| 2 | WOODWORTH | 1021.32 | 34.00 | 84.25 | 0.00 | 0.00 | 0.00 | 0.00 | 58.67 | 1.25 |
| 9 | WILLIAMS | 1019.29 | 31.50 | 85.75 | 0.00 | 0.00 | 0.00 | 0.00 | 59.42 | 1.25 |
| 12 | FORREST | 982.59 | 39.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.08 | 1.00 |
| 4 | RANSOM | 929.13 | 42.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 1.25 |
| 1 | CALLAND | 865.61 | 33.00 | 84.75 | 0.00 | 0.00 | 0.00 | 0.00 | 56.92 | 1.50 |
| 16 | ESSEX | 830.29 | 36.75 | 93.75 | 0.00 | 0.00 | 0.00 | 0.00 | 61.00 | 1.00 |
| 15 | COLUMBUS | 776.70 | 35.25 | 90.50 | 0.00 | 0.00 | 0.00 | 0.00 | 67.50 | 1.00 |
| 5 | HILL | 717.58 | 41.50 | 94.00 | 0.00 | 0.00 | 0.00 | 0.00 | 66.75 | 1.50 |
| | GRAND MEAN | 1001.25 | 37.53 | 90.84 | 0.00 | 0.00 | 0.00 | 0.00 | 64.34 | 1.47 |
| | STANDARD ERROR OF A VARIETY MEAN | 128.74 | 0.34 | 1.47 | 0.00 | 0.00 | 0.00 | 0.00 | 2.30 | 0.23 |
| | COEFFICIENT OF VARIATION | 25.72% | 1.82% | 3.23% | 0.00% | 0.00% | 0.00% | 0.00% | 7.15% | 31.79% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.97 | 4.18 | 0.00 | 0.00 | 0.00 | 0.00 | 6.56 | 0.67 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50** | 0.26* |
| DAYS TO FLOWER | -0.00 | 1.00 | 0.84** | 0.00 | 0.00 | 0.00 | 0.00 | 0.57** | -0.22 |
| DAYS TO MATURITY | 0.07 | 0.84** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.63** | -0.22 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.50** | 0.57** | 0.63** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.16 |
| LODGING | 0.26* | -0.22 | -0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 1.00 |
| SHATTER | -0.05 | 0.35** | 0.38** | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | -0.02 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | -0.02 | 0.67** | 0.72** | 0.00 | 0.00 | 0.00 | 0.00 | 0.60** | -0.11 |
| 100 SEED WEIGHT | 0.53** | -0.40** | -0.30* | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.35** |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 114 EXPERIMENT 80 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 2.00 | 0.00 | 26.46 | 10.08 | 0.00 |
| 3 | BRAGG | 1.00 | 0.00 | 25.90 | 11.30 | 0.00 |
| 8 | BOSSIER | 1.00 | 0.00 | 23.18 | 9.67 | 0.00 |
| 14 | BEESON | 1.00 | 0.00 | 13.31 | 12.38 | 0.00 |
| 11 | DAVIS | 1.25 | 0.00 | 24.58 | 11.63 | 0.00 |
| 7 | CUTLER 71 | 1.00 | 0.00 | 17.00 | 13.15 | 0.00 |
| 10 | CLARK 63 | 1.00 | 0.00 | 18.69 | 11.65 | 0.00 |
| 13 | WELLS | 1.00 | 0.00 | 12.32 | 11.65 | 0.00 |
| 2 | WOODWORTH | 1.00 | 0.00 | 16.41 | 11.83 | 0.00 |
| 9 | WILLIAMS | 1.00 | 0.00 | 18.81 | 13.30 | 0.00 |
| 12 | FORREST | 1.25 | 0.00 | 32.20 | 8.15 | 0.00 |
| 4 | RANSON | 1.25 | 0.00 | 30.75 | 10.05 | 0.00 |
| 1 | CALLAND | 1.00 | 0.00 | 16.18 | 11.10 | 0.00 |
| 16 | ESSEX | 1.00 | 0.00 | 23.73 | 8.58 | 0.00 |
| 15 | COLUMBUS | 1.00 | 0.00 | 18.80 | 11.23 | 0.00 |
| 5 | HILL | 1.00 | 0.00 | 32.05 | 9.20 | 0.00 |
| | GRAND MEAN | 1.11 | 0.00 | 21.90 | 10.93 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.15 | 0.00 | 2.21 | 0.76 | 0.00 |
| | COEFFICIENT OF VARIATION | 26.72% | 0.00% | 20.21% | 13.89% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.42 | 0.00 | 6.30 | 2.16 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.05 | 0.00 | -0.02 | 0.53** | 0.00 |
| DAYS TO | FLOWER | 0.35** | 0.00 | 0.67** | -0.40** | 0.00 |
| DAYS TO | MATURITY | 0.38** | 0.00 | 0.72** | -0.30* | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.10 | 0.00 | 0.60** | 0.07 | 0.00 |
| | LODGING | -0.02 | 0.00 | -0.11 | 0.35** | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.18 | -0.19 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.18 | 0.00 | 1.00 | -0.43** | 0.00 |
| 100 SEED | WEIGHT | -0.19 | 0.00 | -0.43** | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 115 EXPERIMENT 107 YEAR 1976

REGION - ASIA
SITE - KOTDIJI
LATITUDE - 27 DEG. N
COOPERATORS - A.H. CHAUDHRY, K. SHEIKH, H.I. SOOMRO
DATE PLANTED - JUNE 19, 1976
SOIL TYPE - SANDY LOAM
NUMBER OF IRRIGATIONS - 7
LOCAL VARIETY - LOPPA

COUNTRY - PAKISTAN
ELEVATION - 18 M
LONGITUDE - 68 DEG. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 1769.94 | 41.75 | 93.00 | 23.25 | 30.00 | 0.00 | 0.00 | 65.50 | 0.00 |
| 3 | CUTLER 71 | 1742.01 | 40.25 | 91.75 | 35.50 | 45.00 | 0.00 | 0.00 | 60.25 | 0.00 |
| 9 | LOPPA | 1534.06 | 44.25 | 88.50 | 12.25 | 21.00 | 0.00 | 0.00 | 71.00 | 0.00 |
| 5 | CLARK 63 | 1463.21 | 44.00 | 97.00 | 9.00 | 16.50 | 0.00 | 0.00 | 63.75 | 0.00 |
| 7 | WELLS | 1416.12 | 39.00 | 87.75 | 22.75 | 30.25 | 0.00 | 0.00 | 42.00 | 0.00 |
| 11 | AMSOY 71 | 1368.61 | 39.25 | 94.50 | 13.75 | 21.25 | 0.00 | 0.00 | 53.75 | 0.00 |
| 1 | CALLAND | 1368.61 | 42.50 | 96.00 | 38.00 | 48.75 | 0.00 | 0.00 | 59.50 | 0.00 |
| 2 | WOODWORTH | 1345.27 | 42.50 | 87.50 | 20.00 | 30.25 | 0.00 | 0.00 | 55.50 | 0.00 |
| 13 | BARK | 1091.05 | 40.75 | 88.00 | 15.00 | 24.00 | 0.00 | 0.00 | 48.50 | 0.00 |
| 6 | FORREST | 1061.46 | 43.75 | 97.00 | 8.50 | 15.00 | 0.00 | 0.00 | 46.00 | 0.00 |
| 8 | BEESON | 1014.79 | 40.00 | 97.00 | 17.00 | 25.75 | 0.00 | 0.00 | 49.25 | 0.00 |
| 14 | STEELE | 943.94 | 36.00 | 73.25 | 8.25 | 17.25 | 0.00 | 0.00 | 42.50 | 0.00 |
| 12 | HODGSON | 896.85 | 34.25 | 89.25 | 10.00 | 18.75 | 0.00 | 0.00 | 28.25 | 0.00 |
| 10 | CORSOY | 754.73 | 37.50 | 71.50 | 29.25 | 36.50 | 0.00 | 0.00 | 30.75 | 0.00 |
| 16 | ALTONA | 730.98 | 36.75 | 73.25 | 11.00 | 22.25 | 0.00 | 0.00 | 34.25 | 0.00 |
| 15 | SWIFT | 683.89 | 37.00 | 68.75 | 2.75 | 10.25 | 0.00 | 0.00 | 31.25 | 0.00 |
| | GRAND MEAN | 1199.09 | 39.97 | 87.13 | 17.27 | 25.80 | 0.00 | 0.00 | 48.88 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 157.14 | 1.34 | 1.73 | 7.76 | 8.15 | 0.00 | 0.00 | 4.27 | 0.00 |
| | COEFFICIENT OF VARIATION | 26.21% | 6.68% | 3.96% | 89.89% | 63.20% | 0.00% | 0.00% | 17.46% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 447.61 | 3.80 | 4.92 | ******** | ******** | 0.00 | 0.00 | 12.16 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.31+ | 0.39++ | 0.27+ | 0.27+ | 0.00 | 0.00 | 0.64++ | 0.00 |
| DAYS TO | FLOWER | 0.31+ | 1.00 | 0.45++ | 0.15 | 0.15 | 0.00 | 0.00 | 0.50++ | 0.00 |
| DAYS TO | MATURITY | 0.39++ | 0.45++ | 1.00 | 0.12 | 0.10 | 0.00 | 0.00 | 0.43++ | 0.00 |
| NODULE | NUMBER 1 | 0.27+ | 0.15 | 0.12 | 1.00 | 0.99++ | 0.00 | 0.00 | 0.15 | 0.00 |
| NODULE | NUMBER 2 | 0.27+ | 0.15 | 0.10 | 0.99++ | 1.00 | 0.00 | 0.00 | 0.16 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.64++ | 0.50++ | 0.43++ | 0.15 | 0.16 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.88++ | 0.32++ | 0.48++ | 0.23 | 0.22 | 0.00 | 0.00 | 0.60++ | 0.00 |
| PODS PER | PLANT | 0.50++ | 0.23 | 0.24 | 0.21 | 0.25+ | 0.00 | 0.00 | 0.72++ | 0.00 |
| 100 SEED | WEIGHT | 0.16 | -0.08 | 0.11 | 0.15 | 0.13 | 0.00 | 0.00 | 0.04 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 115 EXPERIMENT 107 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 0.00 | 150.00 | 38.25 | 12.50 | 0.00 |
| 3 | CUTLER 71 | 0.00 | 158.00 | 45.25 | 14.00 | 0.00 |
| 9 | LOPPA | 0.00 | 125.00 | 46.50 | 10.75 | 0.00 |
| 5 | CLARK 63 | 0.00 | 117.75 | 30.00 | 12.25 | 0.00 |
| 7 | WELLS | 0.00 | 135.25 | 45.25 | 12.00 | 0.00 |
| 11 | AMSOY 71 | 0.00 | 110.75 | 47.75 | 13.00 | 0.00 |
| 1 | CALLAND | 0.00 | 107.25 | 44.50 | 12.00 | 0.00 |
| 2 | WOODWORTH | 0.00 | 108.50 | 44.75 | 12.25 | 0.00 |
| 13 | HARK | 0.00 | 94.00 | 41.00 | 10.75 | 0.00 |
| 6 | FORREST | 0.00 | 86.75 | 28.25 | 7.75 | 0.00 |
| 8 | BEESON | 0.00 | 74.50 | 34.75 | 12.50 | 0.00 |
| 14 | STEELE | 0.00 | 66.75 | 31.75 | 15.25 | 0.00 |
| 12 | HODGSON | 0.00 | 62.75 | 24.00 | 11.25 | 0.00 |
| 10 | CORSOY | 0.00 | 41.50 | 25.25 | 11.50 | 0.00 |
| 16 | ALTONA | 0.00 | 35.75 | 24.25 | 9.75 | 0.00 |
| 15 | SWIFT | 0.00 | 39.50 | 21.75 | 9.50 | 0.00 |
| | GRAND MEAN | 0.00 | 94.63 | 36.45 | 11.69 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 17.28 | 5.61 | 0.82 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 36.52% | 30.79% | 14.04% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 49.21 | 15.99 | 2.34 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.88** | 0.50** | 0.16 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.32** | 0.23 | -0.08 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.44** | 0.24 | 0.11 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.23 | 0.21 | 0.15 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.22 | 0.25* | 0.13 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.60** | 0.72** | 0.04 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.51** | 0.18 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.51** | 1.00 | -0.02 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.18 | -0.02 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 116 EXPERIMENT 47 YEAR 1976

REGION - ASIA
SITE - KOTDIJI
LATITUDE - 27 DEG. N
COOPERATORS - A.H. CHAUDHRY, K. SHEIKH, S.I. SOOMRO
DATE PLANTED - JULY 1, 1976
SOIL TYPE - SANDY LOAM
NUMBER OF IRRIGATIONS - 7
SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN
ELEVATION - 18 M
LONGITUDE - 68 DEG. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RAMSON | 1974.56 | 51.75 | 103.25 | 8.50 | 16.50 | 0.00 | 0.00 | 72.50 | 0.00 |
| 8 | BOSSIER | 1922.47 | 51.75 | 103.50 | 5.25 | 13.00 | 0.00 | 0.00 | 73.25 | 0.00 |
| 11 | COBB | 1903.71 | 52.25 | 112.50 | 12.75 | 21.25 | 0.00 | 0.00 | 66.25 | 0.00 |
| 6 | PICKETT 71 | 1903.71 | 50.75 | 100.75 | 9.00 | 17.25 | 0.00 | 0.00 | 57.50 | 0.00 |
| 15 | HAMPTON 266A | 1856.20 | 52.50 | 104.50 | 10.25 | 19.25 | 0.00 | 0.00 | 72.50 | 0.00 |
| 3 | BRAGG | 1778.69 | 52.75 | 103.75 | 13.00 | 21.75 | 0.00 | 0.00 | 75.00 | 0.00 |
| 9 | WILLIAMS | 1776.61 | 45.50 | 88.00 | 12.50 | 21.25 | 0.00 | 0.00 | 73.25 | 0.00 |
| 12 | DAVIS | 1739.51 | 51.50 | 101.50 | 8.75 | 17.50 | 0.00 | 0.00 | 51.25 | 0.00 |
| 2 | WOODWORTH | 1737.85 | 46.00 | 88.00 | 11.25 | 17.75 | 0.00 | 0.00 | 69.75 | 0.00 |
| 16 | ESSEX | 1734.51 | 50.00 | 97.25 | 7.50 | 17.25 | 0.00 | 0.00 | 45.00 | 0.00 |
| 1 | CALLAND | 1671.17 | 47.25 | 88.50 | 8.75 | 16.00 | 0.00 | 0.00 | 68.75 | 0.00 |
| 13 | IMPROVED PELICAN | 1470.71 | 55.00 | 111.50 | 10.25 | 17.75 | 0.00 | 0.00 | 116.25 | 0.00 |
| 7 | CUTLER 71 | 1439.45 | 46.75 | 91.75 | 13.50 | 23.50 | 0.00 | 0.00 | 62.00 | 0.00 |
| 5 | HILL | 1416.12 | 51.50 | 91.50 | 14.50 | 24.75 | 0.00 | 0.00 | 44.50 | 0.00 |
| 14 | FORREST | 1242.33 | 52.00 | 100.50 | 5.75 | 13.00 | 0.00 | 0.00 | 47.50 | 0.00 |
| 10 | CLARK 63 | 1189.82 | 46.75 | 91.00 | 9.00 | 16.75 | 0.00 | 0.00 | 59.25 | 0.00 |
| | GRAND MEAN | 1672.34 | 50.25 | 98.61 | 10.03 | 18.41 | 0.00 | 0.00 | 65.91 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 198.95 | 0.79 | 0.87 | 3.17 | 3.81 | 0.00 | 0.00 | 4.48 | 0.00 |
| | COEFFICIENT OF VARIATION | 23.79% | 3.13% | 1.76% | 63.22% | 41.36% | 0.00% | 0.00% | 13.61% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 2.24 | 2.47 | ******** | ******** | 0.00 | 0.00 | 12.77 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.17 | 0.14 | -0.01 | -0.01 | 0.00 | 0.00 | 0.14 | 0.00 |
| DAYS TO FLOWER | 0.17 | 1.00 | 0.78++ | -0.02 | 0.04 | 0.00 | 0.00 | 0.22 | 0.00 |
| DAYS TO MATURITY | 0.14 | 0.78++ | 1.00 | -0.02 | -0.02 | 0.00 | 0.00 | 0.34++ | 0.00 |
| NODULE NUMBER 1 | -0.01 | -0.02 | -0.02 | 1.00 | 0.97++ | 0.00 | 0.00 | 0.13 | 0.00 |
| NODULE NUMBER 2 | -0.01 | 0.04 | -0.02 | 0.97++ | 1.00 | 0.00 | 0.00 | 0.08 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.14 | 0.22 | 0.34++ | 0.13 | 0.08 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.68++ | 0.15 | 0.09 | 0.13 | 0.13 | 0.00 | 0.00 | 0.26+ | 0.00 |
| PODS PER PLANT | 0.10 | 0.26+ | 0.[illegible]0++ | -0.10 | -0.13 | 0.00 | 0.00 | 0.67++ | 0.00 |
| 100 SEED WEIGHT | 0.15 | -0.01 | 0.07 | -0.09 | -0.07 | 0.00 | 0.00 | 0.01 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 116 EXPERIMENT 47 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | RANSOM | 0.00 | 184.50 | 33.00 | 21.00 | 0.00 |
| 8 | BOSSIER | 0.00 | 176.50 | 58.00 | 16.00 | 0.00 |
| 11 | COBB | 0.00 | 170.00 | 43.00 | 13.25 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 183.50 | 34.00 | 14.50 | 0.00 |
| 15 | HAMPTON 266A | 0.00 | 169.25 | 54.50 | 17.25 | 0.00 |
| 3 | BRAGG | 0.00 | 203.75 | 26.75 | 15.75 | 0.00 |
| 9 | WILLIAMS | 0.00 | 170.75 | 35.75 | 11.75 | 0.00 |
| 12 | DAVIS | 0.00 | 117.25 | 29.00 | 12.50 | 0.00 |
| 2 | WOODWORTH | 0.00 | 173.75 | 36.75 | 16.00 | 0.00 |
| 16 | ESSEX | 0.00 | 151.75 | 22.50 | 15.25 | 0.00 |
| 1 | CALLAND | 0.00 | 169.75 | [illegible]50 | 12.25 | 0.00 |
| 13 | IMPROVED PELICAN | 0.00 | 133.75 | [illegible]75 | 11.75 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 116.25 | 34.25 | 19.00 | 0.00 |
| 5 | BILL | 0.00 | 144.25 | 33.25 | 10.50 | 0.00 |
| 14 | FORREST | 0.00 | 70.75 | 27.50 | 13.75 | 0.00 |
| 10 | CLARK 63 | 0.00 | 99.50 | 31.25 | 15.50 | 0.00 |
| | GRAND MEAN | 0.00 | 152.20 | 38.23 | 14.75 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 20.58 | 5.00 | 0.57 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 27.04% | 26.16% | 7.73% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 58.62 | 14.24 | 1.62 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.68++ | 0.10 | 0.15 | 0.00 |
| DAYS TO FLOWER | 0.00 | 0.15 | 0.26+ | -0.01 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.09 | 0.40++ | 0.07 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.13 | -0.10 | -0.05 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.13 | -0.13 | -0.07 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.26+ | 0.67++ | 0.01 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.10 | 0.12 | 0.00 |
| PODS PER PLANT | 0.00 | 0.10 | 1.00 | -0.08 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.12 | -0.08 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 117 EXPERIMENT 302 YEAR 1976

REGION - ASIA
SITE - LAHORE
LATITUDE - 31 DEG. 30 MIN. N
COOPERATOR - TECHNICAL SERVICES ASSOCIATION AGRICULTURAL PROJECT
DATE PLANTED - FEBRUARY 21, 1977
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - N 18.0, P 46.0
AMOUNT OF MOISTURE - 175 MM
NUMBER OF IRRIGATIONS - 5

COUNTRY - PAKISTAN
ELEVATION - 230 M
LONGITUDE - 74 DEG. 20 MIN. E
DATE HARVESTED - JUNE, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | CLARK 63 | 2191.22 | 40.50 | 116.00 | 0.00 | 0.00 | 0.00 | 0.00 | 63.63 | 1.00 |
| 4 | CUTLER 71 | 2135.98 | 46.25 | 121.25 | 0.00 | 0.00 | 0.00 | 0.00 | 63.88 | 1.00 |
| 5 | WILLIAMS | 2062.96 | 40.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.25 | 1.00 |
| 10 | COLUMBUS | 1930.40 | 44.00 | 128.25 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 1.00 |
| 1 | CALLAND | 1793.87 | 43.00 | 123.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.50 | 1.00 |
| 2 | WOODWORTH | 1571.62 | 41.75 | 106.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.63 | 1.00 |
| 13 | ABSOY 71 | 1494.63 | 42.00 | 110.75 | 0.00 | 0.00 | 0.00 | 0.00 | 48.38 | 1.00 |
| 14 | HODGSON | 1466.85 | 39.25 | 88.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.00 | 1.00 |
| 9 | BEESON | 1443.83 | 43.75 | 106.75 | 0.00 | 0.00 | 0.00 | 0.00 | 46.38 | 1.00 |
| 16 | STEELE | 1393.03 | 40.00 | 88.00 | 0.00 | 0.00 | 0.00 | 0.00 | 41.50 | 1.00 |
| 8 | WELLS | 1139.82 | 39.25 | 106.75 | 0.00 | 0.00 | 0.00 | 0.00 | 37.00 | 1.00 |
| 12 | CORSOY | 1135.06 | 39.75 | 101.00 | 0.00 | 0.00 | 0.00 | 0.00 | 41.00 | 1.00 |
| 15 | HARK | 885.82 | 39.75 | 108.25 | 0.00 | 0.00 | 0.00 | 0.00 | 46.38 | 1.00 |
| 11 | ESSEX | 879.47 | 48.50 | 153.00 | 0.00 | 0.00 | 0.00 | 0.00 | 73.75 | 1.00 |
| 7 | FORREST | 757.24 | 54.75 | 153.00 | 0.00 | 0.00 | 0.00 | 0.00 | 76.13 | 1.00 |
| 3 | HILL | 534.19 | 59.00 | 153.00 | 0.00 | 0.00 | 0.00 | 0.00 | 74.75 | 1.00 |
| | GRAND MEAN | 1425.38 | 43.86 | 117.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.57 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 209.11 | 1.46 | 1.18 | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 | 0.00 |
| | COEFFICIENT OF VARIATION | 29.34% | 6.64% | 2.01% | 0.00% | 0.00% | 0.00% | 0.00% | 7.55% | 0.00% |
| | 5% ISD VARIETY MEANS (********=NS) | 595.62 | 4.15 | 3.35 | 0.00 | 0.00 | 0.00 | 0.00 | 5.98 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.41** | -0.31* | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 |
| DAYS TO FLOWER | -0.41** | 1.00 | 0.77** | 0.00 | 0.00 | 0.00 | 0.00 | 0.65** | 0.00 |
| DAYS TO MATURITY | -0.31* | 0.77** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.83** | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.11 | 0.65** | 0.83** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.58** | -0.16 | -0.31* | 0.00 | 0.00 | 0.00 | 0.00 | -0.06 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | -0.42** | 0.69** | 0.81** | 0.00 | 0.00 | 0.00 | 0.00 | 0.52** | 0.00 |

TABLE 117 EXPERIMENT 302 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | CLARK 63 | 1.00 | 106.75 | 0.00 | 0.00 | 2.75 |
| 4 | CUTLER 71 | 1.00 | 134.25 | 0.00 | 0.00 | 2.75 |
| 5 | WILLIAMS | 1.00 | 127.75 | 0.00 | 0.00 | 2.00 |
| 10 | COLUMBUS | 1.00 | 94.00 | 0.00 | 0.00 | 2.50 |
| 1 | CALLAND | 1.00 | 99.50 | 0.00 | 0.00 | 3.25 |
| 2 | WOODWORTH | 1.00 | 89.50 | 0.00 | 0.00 | 1.25 |
| 13 | AMSOY 71 | 1.00 | 93.00 | 0.00 | 0.00 | 3.00 |
| 14 | HODGSON | 1.00 | 143.75 | 0.00 | 0.00 | 1.50 |
| 9 | BEESON | 1.00 | 105.50 | 0.00 | 0.00 | 3.00 |
| 16 | STEELE | 1.00 | 138.00 | 0.00 | 0.00 | 1.25 |
| 8 | WELLS | 1.00 | 94.00 | 0.00 | 0.00 | 3.25 |
| 12 | CORSOY | 1.00 | 118.00 | 0.00 | 0.00 | 2.75 |
| 15 | HARK | 1.00 | 44.25 | 0.00 | 0.00 | 2.00 |
| 11 | ESSEX | 1.00 | 77.75 | 0.00 | 0.00 | 4.25 |
| 7 | FORREST | 1.00 | 97.50 | 0.00 | 0.00 | 4.75 |
| 3 | HILL | 1.00 | 91.25 | 0.00 | 0.00 | 5.00 |
| | GRAND MEAN | 1.00 | 103.42 | 0.00 | 0.00 | 2.83 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.10 | 0.00 | 0.00 | 0.28 |
| | COEFFICIENT OF VARIATION | 0.00% | 25.33% | 0.00% | 0.00% | 19.95% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 37.31 | 0.00 | 0.00 | 0.80 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.58** | 0.00 | 0.00 | -0.42** |
| DAYS TO | FLOWER | 0.00 | -0.16 | 0.00 | 0.00 | 0.69** |
| DAYS TO | MATURITY | 0.00 | -0.31* | 0.00 | 0.00 | 0.81** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.06 | 0.00 | 0.00 | 0.52** |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | -0.20 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | -0.20 | 0.00 | 0.00 | 1.00 |

TABLE 118 EXPERIMENT 141 YEAR 1976

REGION - ASIA
SITE - LAHORE
LATITUDE - 31 DEG. 30 MIN. N
COOPERATOR - TECHNICAL SERVICES ASSOCIATION AGRICULTURAL PROJECT
DATE PLANTED - JULY 29, 1976
SOIL TYPE - CLAY
AMOUNT OF MOISTURE - 555 MM
NUMBER OF IRRIGATIONS - 4

COUNTRY - PAKISTAN
ELEVATION - 229 M
LONGITUDE - 74 DEG. 20 MIN. E
DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 221.10 | 36.50 | 93.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 11 | DAVIS | 215.35 | 37.25 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 3 | BRAGG | 193.80 | 36.00 | 93.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 9 | WILLIAMS | 119.08 | 33.25 | 88.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 8 | BOSSIER | 110.02 | 39.00 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 14 | BEESON | 100.17 | 35.00 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 1 | CALLAND | 88.01 | 34.25 | 90.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 6 | PICKETT 71 | 87.07 | 39.50 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 10 | CLARK 63 | 86.80 | 35.50 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 16 | ESSEX | 79.76 | 34.75 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 2 | WOODWORTH | 72.89 | 34.75 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 12 | FORREST | 71.49 | 36.25 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 13 | WELLS | 66.02 | 35.75 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 15 | COLUMBUS | 65.29 | 38.25 | 95.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 7 | CUTLER 71 | 50.90 | 35.50 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 5 | HILL | 30.47 | 40.25 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | GRAND MEAN | 103.64 | 36.36 | 90.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 19.41 | 1.24 | 0.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 37.46% | 6.84% | 2.08% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 55.29 | 3.54 | 2.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.18 | 0.29* | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | FLOWER | -0.18 | 1.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.29* | 0.22 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.11 | -0.25 | -0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 118 EXPERIMENT 141 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | RANSOM | 1.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| 11 | DAVIS | 1.00 | 0.00 | 0.00 | 0.00 | 1.50 |
| 3 | BRAGG | 1.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 9 | WILLIAMS | 1.00 | 0.00 | 0.00 | 0.00 | 1.25 |
| 8 | BOSSIER | 1.00 | 0.00 | 0.00 | 0.00 | 1.25 |
| 14 | BEESON | 1.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| 1 | CALLAND | 1.00 | 0.00 | 0.00 | 0.00 | 3.50 |
| 6 | PICKETT 71 | 1.00 | 0.00 | 0.00 | 0.00 | 1.25 |
| 10 | CLARK 63 | 1.00 | 0.00 | 0.00 | 0.00 | 1.50 |
| 16 | ESSEX | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 2 | WOODNORTH | 1.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| 12 | FORREST | 1.00 | 0.00 | 0.00 | 0.00 | 1.25 |
| 13 | WELLS | 1.00 | 0.00 | 0.00 | 0.00 | 2.25 |
| 15 | COLUMBUS | 1.00 | 0.00 | 0.00 | 0.00 | 1.75 |
| 7 | CUTLER 71 | 1.00 | 0.00 | 0.00 | 0.00 | 2.25 |
| 5 | HILL | 1.00 | 0.00 | 0.00 | 0.00 | 1.25 |
| | GRAND MEAN | 1.00 | 0.00 | 0.00 | 0.00 | 1.86 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.28 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 0.00% | 0.00% | 29.95% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 0.00 | 0.00 | 0.79 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | -0.25 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | -0.04 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 119 EXPERIMENT 78 YEAR 1976

REGION - ASIA
SITE - MIRWAH
LATITUDE - 25 DEG. N
COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL
DATE PLANTED - JULY 10, 1976
SOIL TYPE - SANDY LOAM
NUMBER OF IRRIGATIONS - 4
SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN
ELEVATION - 20 M
LONGITUDE - 65 DEG. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | HANSON | 2392.14 | 0.00 | 103.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.00 | 0.00 |
| 3 | BRAGG | 2228.78 | 0.00 | 100.50 | 0.00 | 0.00 | 0.00 | 0.00 | 43.30 | 0.00 |
| 8 | BOSSIER | 2077.08 | 0.00 | 96.50 | 0.00 | 0.00 | 0.00 | 0.00 | 42.05 | 0.00 |
| 6 | PICKETT 71 | 1960.39 | 0.00 | 100.50 | 0.00 | 0.00 | 0.00 | 0.00 | 28.95 | 0.00 |
| 11 | DAVIS | 1913.72 | 0.00 | 93.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.15 | 0.00 |
| 12 | FORREST | 1867.04 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.00 | 0.00 |
| 15 | HAMPTON 266A | 1727.01 | 0.00 | 103.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.90 | 0.00 |
| 16 | ESSEX | 1610.32 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.35 | 0.00 |
| 9 | WILLIAMS | 1400.28 | 0.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.50 | 0.00 |
| 5 | HILL | 1283.59 | 0.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.25 | 0.00 |
| 10 | CLARK 63 | 1225.24 | 0.00 | 84.25 | 0.00 | 0.00 | 0.00 | 0.00 | 33.10 | 0.00 |
| 1 | CALLAND | 1155.23 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.10 | 0.00 |
| 7 | CUTLER 71 | 1096.89 | 0.00 | 84.25 | 0.00 | 0.00 | 0.00 | 0.00 | 32.10 | 0.00 |
| 2 | WOODWORTH | 961.86 | 0.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.30 | 0.00 |
| 13 | WELLS | 816.83 | 0.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.25 | 0.00 |
| 14 | BEESON | 781.82 | 0.00 | 86.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.55 | 0.00 |
| | GRAND MEAN | 1531.14 | 0.00 | 89.06 | 0.00 | 0.00 | 0.00 | 0.00 | 33.43 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 167.44 | 0.00 | 1.98 | 0.00 | 0.00 | 0.00 | 0.00 | 2.15 | 0.00 |
| | COEFFICIENT OF VARIATION | 21.87% | 0.00% | 4.44% | 0.00% | 0.00% | 0.00% | 0.00% | 12.84% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 476.93 | 0.00 | 5.63 | 0.00 | 0.00 | 0.00 | 0.00 | 6.11 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.63++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.32+ | 0.00 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.63++ | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.32+ | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.26+ | 0.00 | -0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | -0.44++ | 0.00 | -0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 |
| QUALITY | OF SEED | -0.46++ | 0.00 | -0.24 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 |

TABLE 119 EXPERIMENT 78 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | BANSON | 0.00 | 134.25 | 0.00 | 15.40 | 2.00 |
| 3 | BRAGG | 0.00 | 133.00 | 0.00 | 13.51 | 2.25 |
| 8 | BOSSIER | 0.00 | 122.25 | 0.00 | 13.91 | 2.00 |
| 6 | PICKETT 71 | 0.00 | 130.75 | 0.00 | 13.94 | 2.00 |
| 11 | DAVIS | 0.00 | 136.50 | 0.00 | 15.06 | 2.00 |
| 12 | FORREST | 0.00 | 127.50 | 0.00 | 11.70 | 2.00 |
| 15 | HAMPTON 266A | 0.00 | 37.25 | 0.00 | 15.76 | 2.00 |
| 16 | ESSEX | 0.00 | 128.25 | 0.00 | 14.57 | 2.00 |
| 9 | WILLIAMS | 0.00 | 119.25 | 0.00 | 15.76 | 2.00 |
| 5 | HILL | 0.00 | 142.75 | 0.00 | 14.18 | 2.00 |
| 10 | CLARK 63 | 0.00 | 124.25 | 0.00 | 15.61 | 2.00 |
| 1 | CALLAND | 0.00 | 110.00 | 0.00 | 18.37 | 2.50 |
| 7 | CUTLER 71 | 0.00 | 125.75 | 0.00 | 18.34 | 2.00 |
| 2 | WOODWORTH | 0.00 | 115.25 | 0.00 | 15.32 | 2.00 |
| 13 | WELLS | 0.00 | 99.00 | 0.00 | 14.91 | 3.00 |
| 14 | BEESON | 0.00 | 111.00 | 0.00 | 21.91 | 3.00 |
| | GRAND MEAN | 0.00 | 118.56 | 0.00 | 15.51 | 2.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.94 | 0.00 | 0.39 | 0.09 |
| | COEFFICIENT OF VARIATION | 0.00% | 15.08% | 0.00% | 5.03% | 8.62% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 25.46 | 0.00 | 1.11 | 0.27 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.26* | 0.00 | -0.44** | -0.46** |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.16 | 0.00 | -0.18 | -0.24 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.16 | 0.00 | 0.15 | -0.01 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | -0.16 | -0.17 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | -0.16 | 0.00 | 1.00 | 0.47** |
| QUALITY | OF SEED | 0.00 | -0.17 | 0.00 | 0.47** | 1.00 |

TABLE 120 EXPERIMENT 105 YEAR 1976

REGION - ASIA
SITE - SWAT
LATITUDE - 36 DEG. 46 MIN. N
COOPERATOR - SYED BAD SHAH
DATE PLANTED - JUNE 18, 1976
SOIL TYPE - SILTY LOAM
FERTILIZER USED (KG/HA) - N 20.21, P 22.72
AMOUNT OF MOISTURE - 196 MM
NUMBER OF IRRIGATIONS - 5
SUBSTITUTE VARIETY - LEE 74

COUNTRY - PAKISTAN
ELEVATION - 904 M
LONGITUDE - 72 DEG. 21 MIN. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | SWIFT | 3650.79 | 35.50 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 108.00 | 1.00 |
| 12 | HODGSON | 3509.01 | 36.25 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 92.25 | 1.00 |
| 3 | CUTLER 71 | 3485.38 | 41.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 91.00 | 1.75 |
| 9 | LEE 74 | 3449.94 | 59.50 | 125.00 | 0.00 | 0.00 | 0.00 | 0.00 | 91.50 | 1.00 |
| 14 | STEELE | 3414.50 | 36.25 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 86.25 | 1.00 |
| 8 | BEESON | 3331.79 | 38.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 85.50 | 1.25 |
| 2 | WOODWORTH | 3326.21 | 37.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.25 | 1.75 |
| 4 | WILLIAMS | 3201.83 | 37.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 96.75 | 1.25 |
| 10 | CORSOY | 3119.12 | 38.00 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 87.00 | 1.50 |
| 16 | ALTONA | 3083.68 | 34.75 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 91.25 | 1.00 |
| 7 | WELLS | 3035.59 | 37.75 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7[illegible].00 | 1.00 |
| 11 | AMSOY 71 | 3023.77 | 36.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 94.75 | 1.50 |
| 13 | HARK | 2729.23 | 39.50 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 96.00 | 1.00 |
| 5 | CLARK 63 | 2386.60 | 40.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 102.25 | 2.00 |
| 6 | FORREST | 2150.30 | 56.25 | 125.00 | 0.00 | 0.00 | 0.00 | 0.00 | 81.25 | 1.00 |
| 1 | CALLAND | 2091.23 | 37.50 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.25 | 2.00 |
| | GRAND MEAN | 3061.81 | 40.19 | 105.56 | 0.00 | 0.00 | 0.00 | 0.00 | 92.02 | 1.31 |
| | STANDARD ERROR OF A VARIETY MEAN | 146.42 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.92 | 0.16 |
| | COEFFICIENT OF VARIATION | 9.56% | 1.88% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 6.35% | 24.43% |
| | 5% LSD VARIETY MEANS (********=NS) | 417.07 | 1.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.32 | 0.46 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.19 | -0.31* | 0.00 | 0.00 | 0.00 | 0.00 | -0.04 | -0.32** |
| DAYS TO | FLOWER | -0.19 | 1.00 | 0.80** | 0.00 | 0.00 | 0.00 | 0.00 | -0.23 | -0.14 |
| DAYS TO | MATURITY | -0.31* | 0.80** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.19 | 0.23 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.04 | -0.23 | -0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.24 |
| | LODGING | -0.32** | -0.14 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.24 | 1.00 |
| | SHATTER | 0.17 | -0.58** | -0.40** | 0.00 | 0.00 | 0.00 | 0.00 | -0.08 | 0.09 |
| PLANTS | HARVEST | 0.20 | -0.23 | -0.46** | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | -0.29* |
| PODS PER | PLANT | -0.27* | 0.19 | 0.30* | 0.00 | 0.00 | 0.00 | 0.00 | 0.26* | 0.34** |
| 100 SEED | WEIGHT | -0.01 | -0.52** | -0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.23 |
| QUALITY | OF SEED | -0.55** | 0.07 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | -0.07 | 0.09 |

TABLE 120 EXPERIMENT 105 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | SWIFT | 2.00 | 192.00 | 56.75 | 18.58 | 2.00 |
| 12 | HODGSON | 2.00 | 160.50 | 63.00 | 18.75 | 1.00 |
| 3 | CUTLER 71 | 1.50 | 157.75 | 65.75 | 21.68 | 1.00 |
| 9 | LEE 74 | 1.00 | 158.00 | 82.50 | 17.65 | 1.00 |
| 14 | STEELE | 2.00 | 195.25 | 56.75 | 20.35 | 1.00 |
| 8 | BEESON | 2.00 | 131.00 | 64.25 | 21.20 | 2.00 |
| 2 | WOODWORTH | 2.00 | 127.75 | 77.25 | 18.40 | 1.00 |
| 4 | WILLIAMS | 2.00 | 167.75 | 59.00 | 21.20 | 1.00 |
| 10 | CORSOY | 2.00 | 168.00 | 70.00 | 18.88 | 1.75 |
| 16 | ALTONA | 2.00 | 200.75 | 55.00 | 19.83 | 1.00 |
| 7 | WELLS | 2.00 | 191.00 | 59.00 | 19.38 | 3.00 |
| 11 | ANSOY 71 | 2.00 | 159.50 | 63.75 | 20.40 | 2.00 |
| 13 | HARK | 1.25 | 168.25 | 71.75 | 20.10 | 2.00 |
| 5 | CLARK 63 | 2.00 | 157.25 | 72.50 | 19.05 | 1.00 |
| 6 | FORREST | 1.50 | 141.50 | 58.50 | 16.68 | 3.00 |
| 1 | CALLAND | 1.50 | 151.00 | 89.00 | 21.63 | 4.00 |
| | GRAND MEAN | 1.80 | 164.20 | 66.55 | 19.62 | 1.73 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.14 | 12.58 | 6.25 | 0.39 | 0.06 |
| | COEFFICIENT OF VARIATION | 15.13% | 15.33% | 18.78% | 3.93% | 7.21% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.39 | 35.85 | 17.80 | 1.10 | 0.18 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.17 | 0.20 | -0.27* | -0.01 | -0.55** |
| DAYS TO | FLOWER | -0.58** | -0.23 | 0.19 | -0.52** | 0.07 |
| DAYS TO | MATURITY | -0.40** | -0.46* | 0.30* | -0.28 | 0.13 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.08 | 0.06 | 0.26* | 0.[illegible]6 | -0.07 |
| | LODGING | 0.09 | -0.29* | 0.34** | 0.23 | 0.09 |
| | SHATTER | 1.00 | 0.09 | -0.14 | 0.16 | -0.15 |
| PLANTS | HARVEST | 0.09 | 1.00 | -0.22 | 0.04 | -0.06 |
| PODS PER | PLANT | -0.14 | -0.22 | 1.00 | 0.14 | 0.14 |
| 100 SEED | WEIGHT | 0.16 | 0.04 | 0.14 | 1.00 | 0.05 |
| QUALITY | OF SEED | -0.15 | -0.06 | 0.14 | 0.05 | 1.00 |

TABLE 121 EXPERIMENT 70 YEAR 1976

REGION - ASIA
SITE - SWAT
LATITUDE - 36 DEG. 46 MIN. N
COOPERATOR - SYED BAD SHAH
DATE PLANTED - JULY 23, 1976
SOIL TYPE - SILTY LOAM
FERTILIZER USED (KG/HA) - N 20.21, P 22.72
AMOUNT OF MOISTURE - 199 MM
NUMBER OF IRRIGATIONS - 3
SUBSTITUTE VARIETY - LEE 74

COUNTRY - PAKISTAN
ELEVATION - 904 M
LONGITUDE - 72 DEG. 21 MIN. E

DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | DAVIS | 3261.03 | 47.00 | 113.25 | 0.00 | 0.00 | 0.00 | 0.00 | 48.00 | 1.00 |
| 3 | BRAGG | 3024.60 | 46.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.25 | 1.00 |
| 15 | LEE 74 | 3024.60 | 43.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.25 | 1.00 |
| 6 | PICKETT 71 | 2835.57 | 44.50 | 106.50 | 0.00 | 0.00 | 0.00 | 0.00 | 39.75 | 1.00 |
| 9 | WILLIAMS | 1134.23 | 33.00 | 103.50 | 0.00 | 0.00 | 0.00 | 0.00 | 32.75 | 1.00 |
| 12 | FORREST | 756.15 | 45.00 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.75 | 1.00 |
| 7 | CUTLER 71 | 708.89 | 36.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.50 | 1.00 |
| 2 | WOODWORTH | 661.63 | 34.50 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.75 | 1.00 |
| 16 | ESSEX | 519.85 | 37.25 | 109.75 | 0.00 | 0.00 | 0.00 | 0.00 | 23.50 | 1.00 |
| 14 | BEESON | 425.34 | 31.75 | 106.00 | 0.00 | 0.00 | 0.00 | 0.00 | 27.00 | 1.00 |
| 8 | BOSSIER | 378.08 | 46.75 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.00 | 1.00 |
| 5 | GILL | 378.08 | 44.25 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.00 | 1.00 |
| 13 | WELLS | 307.19 | 30.75 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.75 | 1.00 |
| 10 | CLARK 63 | 165.31 | 34.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.75 | 1.00 |
| 4 | RAESON | 141.78 | 44.75 | 102.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.00 | 1.00 |
| 1 | CALLAND | 94.52 | 35.25 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.00 | 1.00 |
| | GRAND MEAN | 1113.56 | 39.80 | 106.69 | 0.00 | 0.00 | 0.00 | 0.00 | 35.13 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 80.06 | 0.38 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 1.47 | 0.00 |
| | COEFFICIENT OF VARIATION | 14.38% | 1.89% | 1.58% | 0.00% | 0.00% | 0.00% | 0.00% | 8.36% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 228.04 | 1.07 | 2.40 | 0.00 | 0.00 | 0.00 | 0.00 | 4.18 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.53++ | -0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.82++ | 0.00 |
| DAYS TO | FLOWER | 0.53++ | 1.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45++ | 0.00 |
| DAYS TO | MATURITY | -0.11 | 0.07 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.28+ | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.82++ | 0.45++ | -0.28+ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | -0.20 | -0.30+ | -0.35++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.26+ | 0.00 |
| PLANTS | HARVEST | 0.77++ | 0.45++ | -0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.82++ | 0.00 |
| PODS PER | PLANT | 0.86++ | 0.37++ | -0.31+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.83++ | 0.00 |
| 100 SEED | WEIGHT | 0.08 | -0.33++ | -0.51++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 |
| QUALITY | OF SEED | -0.74++ | -0.35++ | 0.53++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.68++ | 0.00 |

TABLE 121 EXPERIMENT 70 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | DAVIS | 1.00 | 121.75 | 33.25 | 16.38 | 1.00 |
| 3 | BRAGG | 1.00 | 131.25 | 40.50 | 18.53 | 1.00 |
| 15 | LEE 74 | 1.00 | 117.25 | 36.50 | 18.20 | 1.00 |
| 6 | PICKETT 71 | 2.00 | 77.00 | 27.00 | 17.18 | 1.00 |
| 9 | WILLIAMS | 2.00 | 77.50 | 22.75 | 20.75 | 2.00 |
| 12 | FORREST | 2.00 | 80.25 | 17.25 | 14.78 | 3.00 |
| 7 | CUTLER 71 | 2.00 | 76.50 | 18.00 | 21.48 | 3.00 |
| 2 | WOODWORTH | 2.00 | 70.00 | 23.25 | 17.28 | 1.00 |
| 16 | ESSEX | 1.00 | 58.50 | 11.25 | 14.58 | 5.00 |
| 14 | BEESON | 2.00 | 65.25 | 15.25 | 20.75 | 4.00 |
| 8 | BOSSIER | 1.00 | 70.00 | 11.25 | 15.88 | 4.00 |
| 5 | HILL | 2.00 | 67.25 | 13.00 | 14.50 | 4.00 |
| 13 | WELLS | 1.00 | 62.75 | 12.25 | 14.70 | 5.00 |
| 10 | CLARK 63 | 2.00 | 76.75 | 17.50 | 17.60 | 2.00 |
| 4 | RANSOM | 1.00 | 58.75 | 13.00 | 17.38 | 3.00 |
| 1 | CALLAND | 1.00 | 66.75 | 10.75 | 18.88 | 4.00 |
| | GRAND MEAN | 1.50 | 79.84 | 20.17 | 17.42 | 2.75 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 6.15 | 2.18 | 0.57 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 15.41% | 21.63% | 6.49% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 17.52 | 6.21 | 1.61 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.20 | 0.77++ | 0.86++ | 0.08 | -0.74++ |
| DAYS TO | FLOWER | -0.30+ | 0.45++ | 0.37++ | -0.33++ | -0.35++ |
| DAYS TO | MATURITY | -0.35++ | -0.15 | -0.31+ | -0.51++ | 0.53++ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.26+ | 0.82++ | 0.83++ | 0.21 | -0.68++ |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | -0.24 | -0.09 | 0.26+ | -0.17 |
| PLANTS | HARVEST | -0.24 | 1.00 | 0.76++ | 0.10 | -0.63++ |
| PODS PER | PLANT | -0.09 | 0.76++ | 1.00 | 0.20 | -0.79++ |
| 100 SEED | WEIGHT | 0.26+ | 0.10 | 0.20 | 1.00 | -0.28+ |
| QUALITY | OF SEED | -0.17 | -0.63++ | -0.79++ | -0.28+ | 1.00 |

TABLE 122 EXPERIMENT 106 YEAR 1976

REGION - ASIA
SITE - TANDOJAM
LATITUDE - 25 DEG. N
COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL, N. AHAMED, A.H. SOOMRO
DATE PLANTED - JUNE 5, 1976
SOIL TYPE - SANDY LOAM
FERTILIZER USED (KG/HA) - N 101.1, P 84.3
AMOUNT OF MOISTURE - 63 MM
NUMBER OF IRRIGATIONS - 6
LOCAL VARIETY - LOPPA

COUNTRY - PAKISTAN
ELEVATION - 2 M
LONGITUDE - 63 DEG. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | LOPPA | 2604.69 | 26.25 | 92.00 | 0.00 | 5.50 | 0.00 | 0.11 | 78.90 | 0.00 |
| 6 | FORREST | 2521.34 | 27.75 | 110.25 | 0.00 | 20.00 | 0.00 | 0.35 | 39.68 | 0.00 |
| 5 | CLARK 63 | 2354.64 | 23.00 | 91.25 | 0.00 | 13.00 | 0.00 | 0.21 | 64.50 | 0.00 |
| 1 | CALLAND | 2208.77 | 18.50 | 90.75 | 0.00 | 7.25 | 0.00 | 0.13 | 68.23 | 0.00 |
| 4 | WILLIAMS | 2208.77 | 20.00 | 88.25 | 0.00 | 14.50 | 0.00 | 0.26 | 69.45 | 0.00 |
| 3 | CUTLER 71 | 2187.94 | 18.50 | 89.50 | 0.00 | 17.75 | 0.00 | 0.31 | 70.10 | 0.00 |
| 2 | WOODWORTH | 1854.54 | 16.25 | 83.50 | 0.00 | 14.50 | 0.00 | 0.30 | 59.78 | 0.00 |
| 7 | WELLS | 1396.11 | 17.00 | 89.75 | 0.00 | 16.50 | 0.00 | 0.33 | 47.40 | 0.00 |
| 11 | AMSOY 71 | 1312.76 | 17.00 | 92.50 | 0.00 | 5.25 | 0.00 | 0.07 | 42.85 | 0.00 |
| 13 | HARK | 1229.41 | 17.00 | 80.00 | 0.00 | 11.25 | 0.00 | 0.18 | 43.45 | 0.00 |
| 10 | CORSOY | 1125.22 | 17.00 | 85.00 | 0.00 | 17.50 | 0.00 | 0.24 | 28.68 | 0.00 |
| 15 | SWIFT | 1125.22 | 17.00 | 70.75 | 0.00 | 1.75 | 0.00 | 0.03 | 32.77 | 0.00 |
| 14 | STEELE | 1021.04 | 17.00 | 72.50 | 0.00 | 6.00 | 0.00 | 0.10 | 35.15 | 0.00 |
| 12 | HODGSON | 770.99 | 17.00 | 87.50 | 0.00 | 1.75 | 0.00 | 0.02 | 28.13 | 0.00 |
| 8 | BEESON | 687.64 | 17.00 | 104.00 | 0.00 | 5.75 | 0.00 | 0.08 | 52.90 | 0.00 |
| 16 | ALTONA | 604.29 | 17.00 | 73.00 | 0.00 | 3.50 | 0.00 | 0.11 | 24.50 | 0.00 |
| | GRAND MEAN | 1575.84 | 18.95 | 87.53 | 0.00 | 10.11 | 0.00 | 0.18 | 49.15 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 158.73 | 2.01 | 2.81 | 0.00 | 2.55 | 0.00 | 0.05 | 3.60 | 0.00 |
| | COEFFICIENT OF VARIATION | 20.15% | 21.17% | 6.42% | 0.00% | 50.43% | 0.00% | 61.70% | 14.65% | 0.00% |
| | 5% LSD VARIETY MEANS (********=25) | 452.14 | 5.71 | 8.00 | 0.00 | 7.26 | 0.00 | 0.15 | 10.26 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.44** | 0.38** | 0.00 | 0.45** | 0.00 | 0.41** | 0.76** | 0.00 |
| DAYS TO FLOWER | 0.44** | 1.00 | 0.35** | 0.00 | 0.11 | 0.00 | 0.15 | 0.24 | 0.00 |
| DAYS TO MATURITY | 0.38** | 0.35** | 1.00 | 0.00 | 0.32** | 0.00 | 0.27* | 0.34** | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.45** | 0.11 | 0.32** | 0.00 | 1.00 | 0.00 | 0.87** | 0.30* | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.41** | 0.15 | 0.27* | 0.00 | 0.87** | 0.00 | 1.00 | 0.37** | 0.00 |
| PLANT HEIGHT | 0.76** | 0.24 | 0.34** | 0.00 | 0.30* | 0.00 | 0.37** | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.09 | -0.06 | -0.02 | 0.00 | -0.00 | 0.00 | -0.11 | -0.04 | 0.00 |
| PODS PER PLANT | 0.71** | 0.45** | 0.61** | 0.00 | 0.33** | 0.00 | 0.34** | 0.63** | 0.00 |
| 100 SEED WEIGHT | -0.41** | -0.35** | 0.07 | 0.00 | -0.08 | 0.00 | -0.05 | -0.15 | 0.00 |
| QUALITY OF SEED | -0.66** | -0.42** | -0.20 | 0.00 | -0.15 | 0.00 | -0.16 | -0.59** | 0.00 |

TABLE 122 EXPERIMENT 106 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 9 | LOPPA | 0.00 | 136.25 | 61.50 | 12.98 | 2.00 |
| 6 | FORREST | 0.00 | 114.25 | 78.75 | 13.65 | 2.75 |
| 5 | CLARK 63 | 0.00 | 145.50 | 47.50 | 15.93 | 2.75 |
| 1 | CALLAND | 0.00 | 130.00 | 46.50 | 16.23 | 3.00 |
| 4 | WILLIAMS | 0.00 | 122.50 | 50.00 | 15.29 | 2.00 |
| 3 | CUTLER 71 | 0.00 | 126.25 | 50.75 | 17.80 | 3.75 |
| 2 | WOODWORTH | 0.00 | 100.00 | 55.75 | 15.07 | 3.00 |
| 7 | WELLS | 0.00 | 136.25 | 41.50 | 17.92 | 4.50 |
| 11 | AMSOY 71 | 0.00 | 130.75 | 41.00 | 17.34 | 4.50 |
| 13 | HARK | 0.00 | 146.75 | 37.50 | 15.85 | 4.25 |
| 10 | CORSOY | 0.00 | 130.00 | 22.25 | 16.04 | 4.25 |
| 15 | SWIFT | 0.00 | 143.75 | 26.50 | 13.63 | 3.00 |
| 14 | STEELE | 0.00 | 122.75 | 24.25 | 16.05 | 3.50 |
| 12 | HODGSON | 0.00 | 136.50 | 26.25 | 18.63 | 4.75 |
| 8 | BEESON | 0.00 | 114.50 | 45.25 | 19.41 | 4.00 |
| 16 | ALTONA | 0.00 | 100.00 | 18.50 | 18.70 | 4.75 |
| | GRAND MEAN | 0.00 | 127.25 | 42.11 | 16.28 | 3.55 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 11.76 | 5.66 | 0.62 | 0.25 |
| | COEFFICIENT OF VARIATION | 0.00% | 18.48% | 26.89% | 7.57% | 14.30% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 16.13 | 1.75 | 0.72 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.09 | 0.71** | -0.41** | -0.66** |
| DAYS TO | FLOWER | 0.00 | -0.06 | 0.45** | -0.35** | -0.42** |
| DAYS TO | MATURITY | 0.00 | -0.02 | 0.61** | 0.07 | -0.20 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | -0.00 | 0.33** | -0.08 | -0.15 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.11 | 0.34** | -0.05 | -0.16 |
| PLANT | HEIGHT | 0.00 | -0.04 | 0.63** | -0.15 | -0.59** |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.23 | -0.07 | 0.11 |
| PODS PER | PLANT | 0.00 | -0.23 | 1.00 | -0.33** | -0.52** |
| 100 SEED | WEIGHT | 0.00 | -0.07 | -0.33** | 1.00 | 0.61** |
| QUALITY | OF SEED | 0.00 | 0.11 | -0.52** | 0.61** | 1.00 |

TABLE 127 EXPERIMENT 46 YEAR 1976

REGION - ASIA
COUNTRY - PAKISTAN
SITE - TANDOJAM
ELEVATION - 63 M
LATITUDE - 25 DEG. N
LONGITUDE - 63 DEG. E
COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL, N. AHMED, A.H. SOOMRO
DATE PLANTED - JUNE 22, 1976
DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SANDY LOAM
FERTILIZER USED (KG/HA) - N 101.1, P 84.3
AMOUNT OF MOISTURE - 63 MM
NUMBER OF IRRIGATIONS - 5
SUBSTITUTE VARIETY - HAMPTON 266A

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | COBB | 3156.88 | 36.50 | 117.75 | 0.00 | 0.00 | 0.00 | 0.00 | 57.35 | 0.00 |
| 8 | BOSSIER | 3031.86 | 36.50 | 117.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.60 | 0.00 |
| 3 | BRAGG | 2969.34 | 35.75 | 115.25 | 0.00 | 0.00 | 0.00 | 0.00 | 51.58 | 0.00 |
| 13 | IMPROVED PELICAN | 2833.90 | 41.25 | 110.50 | 0.00 | 5.25 | 0.00 | 0.35 | 109.05 | 0.00 |
| 4 | RANSOM | 2813.05 | 35.00 | 117.25 | 0.00 | 0.00 | 0.00 | 0.00 | 46.83 | 0.00 |
| 6 | PICKETT 71 | 2667.20 | 34.25 | 115.50 | 0.00 | 0.00 | 0.00 | 0.00 | 38.25 | 0.00 |
| 12 | DAVIS | 2625.52 | 35.75 | 110.00 | 0.00 | 10.00 | 0.00 | 0.37 | 43.55 | 0.00 |
| 15 | HAMPTON 266A | 2594.27 | 41.75 | 117.75 | 0.00 | 0.00 | 0.00 | 0.00 | 47.05 | 0.00 |
| 14 | FORREST | 1969.14 | 32.00 | 95.75 | 0.00 | 18.25 | 0.00 | 0.91 | 37.35 | 0.00 |
| 10 | CLARK 63 | 1906.63 | 24.25 | 90.00 | 0.00 | 28.00 | 0.00 | 1.12 | 56.60 | 0.00 |
| 16 | ESSEX | 1896.21 | 28.00 | 95.50 | 0.00 | 22.75 | 0.00 | 0.89 | 32.48 | 0.00 |
| 9 | WILLIAMS | 1896.21 | 25.00 | 86.75 | 0.00 | 26.75 | 0.00 | 1.29 | 62.98 | 0.00 |
| 1 | CALLAND | 1771.19 | 29.25 | 97.50 | 0.00 | 20.50 | 0.00 | 1.18 | 75.70 | 0.00 |
| 7 | CUTLER 71 | 1625.32 | 24.75 | 86.25 | 0.00 | 23.50 | 0.00 | 0.84 | 47.25 | 0.00 |
| 2 | WOODWORTH | 1206.57 | 25.00 | 82.25 | 0.00 | 17.00 | 0.00 | 0.94 | 54.50 | 0.00 |
| 5 | HILL | 1187.74 | 33.25 | 89.50 | 0.00 | 13.50 | 0.00 | 0.57 | 31.08 | 0.00 |
| | GRAND MEAN | 2259.57 | 32.39 | 102.78 | 0.00 | 11.59 | 0.00 | 0.53 | 52.32 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 248.77 | 2.41 | 2.82 | 0.00 | 5.97 | 0.00 | 0.28 | 5.46 | 0.00 |
| | COEFFICIENT OF VARIATION | 22.02% | 14.86% | 5.50% | 0.00% | 102.95% | 0.00% | 106.10% | 20.85% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 708.61 | 6.85 | 8.04 | 0.00 | 17.00 | 0.00 | 0.80 | 15.54 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.51** | 0.73** | 0.00 | -0.48** | 0.00 | -0.44** | 0.20 | 0.00 |
| DAYS TO FLOWER | 0.51** | 1.00 | 0.84** | 0.00 | -0.63** | 0.00 | -0.64** | 0.34** | 0.00 |
| DAYS TO MATURITY | 0.73** | 0.84** | 1.00 | 0.00 | -0.69** | 0.00 | -0.70** | 0.17 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | -0.48** | -0.63** | -0.69** | 0.00 | 1.00 | 0.00 | 0.92** | -0.08 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | -0.44** | -0.64** | -0.70** | 0.00 | 0.92** | 0.00 | 1.00 | -0.02 | 0.00 |
| PLANT HEIGHT | 0.20 | 0.34** | 0.17 | 0.00 | -0.08 | 0.00 | -0.02 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.22 | 0.03 | -0.10 | 0.00 | 0.03 | 0.00 | 0.06 | 0.26* | 0.00 |
| PODS PER PLANT | 0.69** | 0.69** | 0.70** | 0.00 | -0.46** | 0.00 | -0.42** | 0.29* | 0.00 |
| 100 SEED WEIGHT | 0.12 | -0.10 | 0.09 | 0.00 | 0.07 | 0.00 | 0.04 | 0.02 | 0.00 |
| QUALITY OF SEED | -0.20 | -0.11 | -0.17 | 0.00 | 0.04 | 0.00 | 0.16 | 0.21 | 0.00 |

TABLE 123 EXPERIMENT 46 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | COBB | 0.00 | 101.00 | 93.00 | 13.48 | 2.25 |
| 8 | BOSSIER | 0.00 | 91.00 | 79.00 | 15.69 | 2.00 |
| 3 | BRAGG | 0.00 | 106.25 | 73.00 | 14.57 | 2.00 |
| 13 | IMPROVED PELICAN | 0.00 | 128.00 | 86.75 | 14.85 | 2.25 |
| 4 | RANSOM | 0.00 | 107.00 | 54.25 | 17.03 | 2.00 |
| 6 | PICKETT 71 | 0.00 | 105.50 | 59.25 | 13.45 | 2.00 |
| 12 | DAVIS | 0.00 | 119.75 | 65.75 | 16.44 | 2.00 |
| 15 | HAMPTON 266A | 0.00 | 86.00 | 99.50 | 16.29 | 2.00 |
| 14 | FORRES* | 0.00 | 109.25 | 54.25 | 12.28 | 2.25 |
| 10 | CLARK 63 | 0.00 | 96.00 | 51.50 | 15.15 | 2.00 |
| 16 | ESSEX | 0.00 | 85.50 | 52.00 | 14.15 | 2.00 |
| 9 | WILLIAMS | 0.00 | 121.25 | 42.50 | 15.08 | 2.00 |
| 1 | CALLAND | 0.00 | 97.00 | 49.00 | 15.58 | 2.50 |
| 7 | CUTLER 71 | 0.00 | 112.75 | 35.00 | 16.75 | 2.00 |
| 2 | WOODWORTH | 0.00 | 108.00 | 44.75 | 14.58 | 2.50 |
| 5 | HILL | 0.00 | 112.25 | 46.50 | 13.04 | 2.00 |
| | GRAND MEAN | 0.00 | 105.41 | 61.63 | 14.89 | 2.11 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.89 | 5.31 | 0.48 | 0.15 |
| | COEFFICIENT OF VARIATION | 0.00% | 18.77% | 17.25% | 6.49% | 13.83% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 15.14 | 1.38 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.22 | 0.69** | 0.12 | -0.20 |
| DAYS TO | FLOWER | 0.00 | 0.03 | 0.69** | -0.10 | -0.11 |
| DAYS TO | MATURITY | 0.00 | -0.10 | 0.70** | 0.09 | -0.17 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.03 | -0.46** | 0.07 | 0.04 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.06 | -0.42** | 0.04 | 0.16 |
| PLANT | HEIGHT | 0.00 | 0.26* | 0.29* | 0.02 | 0.21 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.04 | -0.05 | -0.10 |
| PODS PER | PLANT | 0.00 | 0.04 | 1.00 | -0.08 | 0.01 |
| 100 SEED | WEIGHT | 0.00 | -0.05 | -0.08 | 1.00 | -0.13 |
| QUALITY | OF SEED | 0.00 | -0.10 | 0.01 | -0.13 | 1.00 |

TABLE 124 EXPERIMENT 43 YEAR 1976

REGION - ASIA
SITE - UMERKOT
LATITUDE - 25 DEG. N
COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL
DATE PLANTED - JULY 4, 1976
SOIL TYPE - SANDY LOAM
FERTILIZER USED (KG/HA) - N 83.2, P 29.4
NUMBER OF IRRIGATIONS - 3
SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN
ELEVATION - 29 M
LONGITUDE - 69 DEG. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 2925.58 | 0.00 | 106.00 | 0.00 | 0.00 | 0.00 | 0.00 | 61.58 | 0.00 |
| 11 | COBB | 2813.06 | 0.00 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.60 | 0.00 |
| 3 | BRAGG | 2542.17 | 0.00 | 104.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.10 | 0.00 |
| 8 | BOSSIER | 2342.13 | 0.00 | 107.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.25 | 0.00 |
| 14 | FORREST | 2229.61 | 0.00 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 52.05 | 0.00 |
| 13 | IMPROVED PELICAN | 2229.61 | 0.00 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 105.35 | 0.00 |
| 12 | DAVIS | 2212.94 | 0.00 | 99.50 | 0.00 | 0.00 | 0.00 | 0.00 | 45.68 | 0.00 |
| 1 | CALLAND | 2158.76 | 0.00 | 88.25 | 0.00 | 0.00 | 0.00 | 0.00 | 57.73 | 0.00 |
| 10 | CLARK 63 | 1992.06 | 0.00 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.75 | 0.00 |
| 6 | PICKETT 71 | 1921.22 | 0.00 | 105.25 | 0.00 | 0.00 | 0.00 | 0.00 | 49.50 | 0.00 |
| 16 | ESSEX | 1850.37 | 0.00 | 90.75 | 0.00 | 0.00 | 0.00 | 0.00 | 40.60 | 0.00 |
| 9 | WILLIAMS | 1804.53 | 0.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 43.78 | 0.00 |
| 15 | HAMPTON 266A | 1737.85 | 0.00 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.30 | 0.00 |
| 2 | WOODWORTH | 1662.83 | 0.00 | 85.50 | 0.00 | 0.00 | 0.00 | 0.00 | 50.78 | 0.00 |
| 7 | CUTLER 71 | 1479.44 | 0.00 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.43 | 0.00 |
| 5 | BILL | 1187.74 | 0.00 | 88.25 | 0.00 | 0.00 | 0.00 | 0.00 | 39.98 | 0.00 |
| | GRAND MEAN | 2061.87 | 0.00 | 97.31 | 0.00 | 0.00 | 0.00 | 0.00 | 56.73 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 246.56 | 0.00 | 3.09 | 0.00 | 0.00 | 0.00 | 0.00 | 6.21 | 0.00 |
| | COEFFICIENT OF VARIATION | 23.92% | 0.00% | 6.35% | 0.00% | 0.00% | 0.00% | 0.00% | 21.88% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 702.29 | 0.00 | 8.80 | 0.00 | 0.00 | 0.00 | 0.00 | 17.68 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.41** | 0.00 | 0.00 | 0.00 | 0.00 | 0.42** | 0.00 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.41** | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.44** | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.42** | 0.00 | 0.44** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.31* | 0.00 | -0.24 | 0.00 | 0.00 | 0.00 | 0.00 | -0.07 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | -0.36** | 0.00 | -0.45** | 0.00 | 0.00 | 0.00 | 0.00 | -0.39** | 0.00 |
| QUALITY | OF SEED | -0.14 | 0.00 | -0.03 | 0.00 | 0.00 | 0.00 | 0.00 | -0.11 | 0.00 |

TABLE 124 EXPERIMENT 43 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | RANSOM | 0.00 | 212.25 | 0.00 | 13.62 | 2.00 |
| 11 | COBB | 0.00 | 150.00 | 0.00 | 11.30 | 2.00 |
| 3 | BRAGG | 0.00 | 187.50 | 0.00 | 11.98 | 2.00 |
| 8 | BOSSIER | 0.00 | 145.25 | 0.00 | 11.69 | 2.00 |
| 14 | FORREST | 0.00 | 142.75 | 0.00 | 11.16 | 2.00 |
| 13 | IMPROVED PELICAN | 0.00 | 140.75 | 0.00 | 11.57 | 2.00 |
| 12 | DAVIS | 0.00 | 213.75 | 0.00 | 14.47 | 2.25 |
| 1 | CALLAND | 0.00 | 198.00 | 0.00 | 17.31 | 2.25 |
| 10 | CLARK 63 | 0.00 | 184.50 | 0.00 | 13.71 | 2.00 |
| 6 | PICKETT 71 | 0.00 | 144.00 | 0.00 | 11.88 | 2.00 |
| 16 | ESSEX | 0.00 | 170.25 | 0.00 | 12.86 | 2.00 |
| 9 | WILLIAMS | 0.00 | 207.50 | 0.00 | 15.26 | 2.00 |
| 15 | HAMPTON 2o6A | 0.00 | 78.00 | 0.00 | 15.80 | 2.25 |
| 2 | WOODWORTH | 0.00 | 176.25 | 0.00 | 15.95 | 2.00 |
| 7 | CUTLER 71 | 0.00 | 132.75 | 0.00 | 17.83 | 2.25 |
| 5 | HILL | 0.00 | 158.75 | 0.00 | 14.02 | 2.00 |
| | GRAND MEAN | 0.00 | 165.14 | 0.00 | 13.77 | 2.06 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 15.94 | 0.00 | 0.43 | 0.13 |
| | COEFFICIENT OF VARIATION | 0.00% | 19.30% | 0.00% | 6.19% | 12.26% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 45.40 | 0.00 | 1.21 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.31* | 0.00 | -0.36** | -0.14 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.24 | 0.00 | -0.45** | -0.03 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.07 | 0.00 | -0.39** | -0.11 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.09 | -0.14 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.09 | 0.00 | 1.00 | 0.26* |
| QUALITY | OF SEED | 0.00 | -0.14 | 0.00 | 0.26* | 1.00 |

TABLE 125 EXPERIMENT 28 YEAR 1976

REGION - ASIA
SITE - LOS BANOS
LATITUDE - 14 DEG. 10 MIN. N
COOPERATOR - B.P.I. ECONOMIC GARDEN
DATE PLANTED - JUNE 14, 1976
SOIL TYPE - CLAY, PH 6.0
FERTILIZER USED (KG/HA) - N 49.0, P 21.0, K 42.0
AMOUNT OF MOISTURE - 856 MM
LOCAL VARIETY - L-114

COUNTRY - PHILIPPINES
ELEVATION - 15 M
LONGITUDE - 121 DEG. 15 MIN. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | WILLIAMS | 3491.11 | 23.00 | 88.00 | 83.50 | 393.25 | 0.05 | 1.56 | 80.10 | 1.00 |
| 7 | CUTLER 71 | 3481.95 | 23.00 | 88.00 | 122.50 | 460.50 | 0.10 | 1.93 | 80.60 | 1.00 |
| 12 | COBB | 3405.68 | 30.00 | 100.75 | 183.25 | 652.25 | 0.23 | 3.83 | 55.80 | 1.00 |
| 1 | CALLAND | 3381.51 | 23.00 | 89.00 | 47.50 | 355.00 | 0.04 | 2.79 | 88.60 | 1.00 |
| 16 | COLUMBUS | 3338.58 | 23.00 | 89.00 | 115.50 | 572.50 | 0.10 | 2.44 | 79.02 | 1.00 |
| 2 | WOODWORTH | 3334.83 | 23.00 | 82.00 | 84.75 | 236.25 | 0.05 | 1.18 | 79.05 | 1.00 |
| 4 | RANSOM | 3149.50 | 25.00 | 98.00 | 175.75 | 426.00 | 0.18 | 1.90 | 48.50 | 1.00 |
| 11 | CLARK 63 | 3056.44 | 23.00 | 88.00 | 115.75 | 326.00 | 0.09 | 1.48 | 80.93 | 1.25 |
| 6 | PICKETT 71 | 3033.11 | 24.50 | 94.00 | 128.00 | 320.00 | 0.14 | 1.48 | 36.90 | 1.00 |
| 15 | FORREST | 2878.91 | 26.50 | 88.00 | 150.50 | 437.25 | 0.16 | 2.12 | 46.45 | 1.25 |
| 5 | HILL | 2822.23 | 27.75 | 87.25 | 149.00 | 358.75 | 0.05 | 1.68 | 41.68 | 1.00 |
| 3 | BRAGG | 2646.78 | 25.50 | 94.00 | 56.50 | 419.75 | 0.07 | 2.45 | 49.35 | 1.00 |
| 9 | BOSSIER | 2620.52 | 25.00 | 94.00 | 122.25 | 548.50 | 0.08 | 2.25 | 40.75 | 1.00 |
| 13 | DAVIS | 2296.29 | 30.00 | 94.00 | 197.00 | 450.25 | 0.39 | 2.85 | 53.55 | 1.00 |
| 14 | IMPROVED PELICAN | 2115.01 | 37.00 | 100.00 | 285.00 | 378.75 | 0.63 | 2.03 | 131.75 | 2.75 |
| 8 | L-114 | 1921.63 | 41.00 | 116.50 | 803.50 | 651.00 | 2.77 | 3.27 | 106.78 | 3.00 |
| | GRAND MEAN | 2935.88 | 26.89 | 93.16 | 176.27 | 437.25 | 0.32 | 2.20 | 68.42 | 1.27 |
| | STANDARD ERROR OF A VARIETY MEAN | 215.29 | 0.35 | 0.54 | 24.49 | 60.09 | 0.05 | 0.33 | 2.18 | 0.11 |
| | COEFFICIENT OF VARIATION | 14.67% | 2.58% | 1.16% | 27.79% | 27.49% | 31.11% | 30.01% | 6.38% | 17.48% |
| | 5% LSD VARIETY MEANS (*********=NS) | 613.22 | 0.99 | 1.54 | 69.77 | 171.17 | 0.14 | 0.94 | 6.22 | 0.32 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.63** | -0.51** | -0.52** | -0.20 | -0.52** | -0.18 | -0.18 | -0.57** |
| DAYS TO | FLOWER | -0.63** | 1.00 | 0.83** | 0.84** | 0.31* | 0.82** | 0.40** | 0.46** | 0.84** |
| DAYS TO | MATURITY | -0.51** | 0.83** | 1.00 | 0.83** | 0.47** | 0.83** | 0.47** | 0.29* | 0.69** |
| NODULE | NUMBER 1 | -0.52** | 0.84** | 0.83** | 1.00 | 0.38** | 0.97** | 0.34** | 0.42** | 0.78** |
| NODULE | NUMBER 2 | -0.20 | 0.31* | 0.47** | 0.38** | 1.00 | 0.36** | 0.71** | -0.01 | 0.18 |
| NODULE | WEIGHT 1 | -0.52** | 0.82** | 0.83** | 0.97** | 0.36** | 1.00 | 0.36** | 0.46** | 0.79** |
| NODULE | WEIGHT 2 | -0.18 | 0.40** | 0.47** | 0.34** | 0.71** | 0.36** | 1.00 | 0.04 | 0.22 |
| PLANT | HEIGHT | -0.18 | 0.46** | 0.29* | 0.42** | -0.01 | 0.46** | 0.04 | 1.00 | 0.69** |
| | LODGING | -0.57** | 0.84** | 0.69** | 0.78** | 0.18 | 0.79** | 0.22 | 0.69** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.28* | -0.44** | -0.32** | -0.39** | -0.20 | -0.39** | -0.27* | -0.21 | -0.41** |
| PODS PER | PLANT | -0.49** | 0.82** | 0.80** | 0.87** | 0.35** | 0.90** | 0.39** | 0.47** | 0.77** |
| 100 SEED | WEIGHT | 0.46** | -0.36** | -0.21 | -0.10 | -0.17 | -0.11 | -0.20 | -0.01 | -0.24 |
| QUALITY | OF SEED | 0.21 | -0.54** | -0.37** | -0.39** | -0.06 | -0.38** | -0.18 | -0.36** | -0.47** |

TABLE 125 EXPERIMENT 28 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 10 | WILLIAMS | 1.00 | 156.25 | 27.00 | 18.50 | 2.75 | 40.7 | 27.8 |
| 7 | CUTLER 71 | 1.00 | 170.00 | 32.75 | 18.50 | 3.00 | 44.3 | 25.8 |
| 12 | COBB | 1.00 | 134.75 | 49.25 | 15.50 | 2.00 | 38.7 | 26.6 |
| 1 | CALLAND | 1.00 | 139.50 | 45.75 | 16.50 | 2.75 | 39.5 | 24.5 |
| 16 | COLUMBUS | 1.00 | 134.25 | 46.50 | 14.50 | 3.00 | 41.5 | 26.5 |
| 2 | WOODWORTH | 1.00 | 138.25 | 44.25 | 16.00 | 2.00 | 45.3 | 28.4 |
| 4 | BANSON | 1.00 | 167.75 | 43.25 | 17.75 | 3.00 | 38.4 | 28.4 |
| 11 | CLARK 63 | 1.00 | 156.50 | 31.50 | 18.00 | 2.75 | 40.1 | 26.8 |
| 6 | PICKETT 71 | 1.00 | 153.25 | 36.00 | 14.75 | 2.75 | 39.6 | 27.7 |
| 15 | FORREST | 1.00 | 140.25 | 42.75 | 13.00 | 3.00 | 38.8 | 25.1 |
| 5 | HILL | 1.00 | 136.75 | 40.25 | 16.00 | 2.75 | 39.0 | 25.3 |
| 3 | BRAGG | 1.00 | 151.00 | 46.25 | 13.00 | 2.75 | 39.1 | 25.8 |
| 9 | BOSSIER | 1.00 | 127.00 | 39.75 | 14.75 | 2.75 | 44.0 | 24.6 |
| 13 | DAVIS | 1.00 | 159.75 | 42.75 | 14.00 | 2.50 | 39.1 | 24.6 |
| 14 | IMPROVED PELICAN | 1.00 | 128.00 | 65.50 | 11.75 | 2.00 | 45.6 | 24.2 |
| 8 | L-114 | 1.00 | 109.50 | 122.50 | 15.50 | 2.00 | 48.6 | 18.6 |
| | GRAND MEAN | 1.00 | 143.92 | 47.25 | 15.50 | 2.61 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.04 | 3.72 | 0.79 | 0.18 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 12.56% | 15.75% | 10.17% | 13.79% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 25.75 | 10.60 | 2.24 | 0.51 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.28* | -0.49** | 0.46** | 0.21 |
| DAYS TO FLOWER | 0.00 | -0.44** | 0.82** | -0.36** | -0.54** |
| DAYS TO MATURITY | 0.00 | -0.32** | 0.80** | -0.21 | -0.37** |
| NODULE NUMBER 1 | 0.00 | -0.39** | 0.87** | -0.10 | -0.39** |
| NODULE NUMBER 2 | 0.00 | -0.20 | 0.35** | -0.17 | -0.06 |
| NODULE WEIGHT 1 | 0.00 | -0.39** | 0.90** | -0.11 | -0.38** |
| NODULE WEIGHT 2 | 0.00 | -0.27* | 0.39** | -0.20 | -0.18 |
| PLANT HEIGHT | 0.00 | -0.21 | 0.47** | -0.01 | -0.36** |
| LODGING | 0.00 | -0.41** | 0.77** | -0.24 | -0.47** |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.57** | 0.24 | 0.30* |
| PODS PER PLANT | 0.00 | -0.57** | 1.00 | -0.23 | -0.41** |
| 100 SEED WEIGHT | 0.00 | 0.24 | -0.23 | 1.00 | 0.09 |
| QUALITY OF SEED | 0.00 | 0.30* | -0.41** | 0.09 | 1.00 |

TABLE 126 EXPERIMENT 140 YEAR 1976

REGION - ASIA
SITE - ALUTHARAMA
LATITUDE - 7 DEG. 30 MIN. N
COOPERATOR - S.M. SANTHIRASIVAM
DATE PLANTED - APRIL 24, 1976
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
NUMBER OF IRRIGATIONS - 31
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 266 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | PB-1 | 2563.01 | 36.75 | 95.50 | 58.00 | 201.50 | 0.73 | 9.19 | 46.05 | 0.00 |
| 3 | HARDEE | 2437.99 | 35.25 | 98.75 | 61.00 | 128.25 | 1.08 | 9.00 | 30.33 | 0.00 |
| 12 | BONUS | 2292.12 | 29.75 | 99.75 | 41.25 | 83.50 | 0.46 | 3.33 | 54.80 | 0.00 |
| 5 | BOSSIER | 2208.77 | 39.50 | 102.25 | 53.00 | 182.00 | 1.43 | 9.56 | 49.15 | 0.00 |
| 7 | DAVIS | 2104.59 | 30.50 | 92.50 | 62.50 | 80.25 | 1.41 | 5.84 | 28.18 | 0.00 |
| 4 | IMPROVED PELICAN | 1854.54 | 37.25 | 100.00 | 70.50 | 144.50 | 1.01 | 5.31 | 79.45 | 0.00 |
| 6 | BRAGG | 1708.67 | 28.50 | 94.75 | 33.00 | 76.75 | 0.45 | 4.70 | 30.90 | 0.00 |
| 10 | HILL | 1687.84 | 31.75 | 89.00 | 51.50 | 62.75 | 0.54 | 2.91 | 26.63 | 0.00 |
| 15 | SJ-2 | 1604.49 | 38.25 | 99.50 | 76.75 | 130.00 | 1.07 | 8.86 | 58.40 | 0.00 |
| 9 | FORREST | 1500.30 | 28.50 | 94.50 | 47.00 | 106.00 | 1.20 | 4.38 | 32.30 | 0.00 |
| 2 | HAMPTON 266A | 1500.30 | 30.00 | 97.75 | 63.75 | 120.25 | 0.52 | 6.79 | 27.65 | 0.00 |
| 8 | TRACY | 1500.30 | 29.00 | 94.75 | 49.50 | 72.75 | 1.07 | 4.11 | 32.00 | 0.00 |
| 11 | CLARK 63 | 1229.41 | 34.75 | 89.25 | 37.25 | 70.00 | 1.19 | 4.34 | 47.13 | 0.00 |
| 13 | WILLIAMS | 1187.74 | 30.75 | 99.25 | 39.75 | 29.75 | 1.00 | 1.21 | 30.73 | 0.00 |
| 1 | JUPITER | 1104.39 | 40.00 | 125.00 | 49.50 | 106.50 | 0.45 | 3.84 | 54.38 | 0.00 |
| | GRAND MEAN | 1765.63 | 33.37 | 98.17 | 52.95 | 106.32 | 0.91 | 5.60 | 41.87 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 252.69 | 0.69 | 1.88 | 14.35 | 30.18 | 0.39 | 1.98 | 2.88 | 0.00 |
| | COEFFICIENT OF VARIATION | 28.62% | 4.11% | 3.84% | 54.19% | 56.78% | 87.14% | 70.69% | 13.74% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 721.19 | 1.96 | 5.38 | ******** | 86.15 | ******** | ******** | 8.21 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.04 | -0.13 | 0.38** | 0.33** | 0.35** | 0.30* | 0.12 | 0.00 |
| DAYS TO | FLOWER | 0.04 | 1.00 | 0.51** | 0.13 | 0.40** | 0.02 | 0.26* | 0.59** | 0.00 |
| DAYS TO | MATURITY | -0.13 | 0.51** | 1.00 | 0.12 | 0.26* | -0.06 | 0.08 | 0.36** | 0.00 |
| NODULE | NUMBER 1 | 0.38** | 0.13 | 0.12 | 1.00 | 0.55** | 0.63** | 0.52** | 0.23 | 0.00 |
| NODULE | NUMBER 2 | 0.33** | 0.40** | 0.26* | 0.55** | 1.00 | 0.23 | 0.77** | 0.34** | 0.00 |
| NODULE | WEIGHT 1 | 0.35** | 0.02 | -0.06 | 0.63** | 0.23 | 1.00 | 0.27* | 0.11 | 0.00 |
| NODULE | WEIGHT 2 | 0.30* | 0.26* | 0.08 | 0.52** | 0.77** | 0.27* | 1.00 | 0.18 | 0.00 |
| PLANT | HEIGHT | 0.12 | 0.59** | 0.36** | 0.23 | 0.34** | 0.11 | 0.18 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.17 | 0.06 | -0.17 | 0.08 | 0.01 | -0.01 | 0.13 | 0.22 | 0.00 |
| PODS PER | PLANT | 0.42** | 0.33** | 0.02 | 0.13 | 0.33* | -0.03 | 0.25* | 0.27* | 0.00 |
| 100 SEED | WEIGHT | -0.01 | -0.42** | 0.02 | 0.05 | -0.16 | 0.11 | -0.06 | -0.43** | 0.00 |
| QUALITY | OF SEED | -0.11 | -0.36** | -0.11 | -0.04 | -0.06 | 0.13 | -0.09 | -0.21 | 0.00 |

TABLE 126 EXPERIMENT 140 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 14 | PB-1 | 0.00 | 300.00 | 33.70 | 11.25 | 1.00 |
| 3 | HARDEE | 0.00 | 284.25 | 31.13 | 12.60 | 1.00 |
| 12 | BONUS | 0.00 | 300.00 | 34.13 | 12.50 | 1.00 |
| 5 | BOSSIER | 0.00 | 300.00 | 30.00 | 12.03 | 1.00 |
| 7 | DAVIS | 0.00 | 300.00 | 21.98 | 14.38 | 1.00 |
| 4 | IMPROVED PELICAN | 0.00 | 300.00 | 25.25 | 11.08 | 1.00 |
| 6 | BRAGG | 0.00 | 272.25 | 18.33 | 14.05 | 1.00 |
| 10 | HILL | 0.00 | 300.00 | 20.33 | 12.15 | 1.00 |
| 15 | SJ-2 | 0.00 | 300.00 | 37.78 | 10.18 | 1.00 |
| 9 | FORREST | 0.00 | 300.00 | 18.70 | 10.75 | 3.00 |
| 2 | HAMPTON 266A | 0.00 | 300.00 | 27.60 | 14.88 | 1.00 |
| 8 | TRACY | 0.00 | 300.00 | 18.00 | 13.90 | 1.25 |
| 11 | CLARK 63 | 0.00 | 300.00 | 17.43 | 14.10 | 1.00 |
| 13 | WILLIAMS | 0.00 | 272.25 | 12.08 | 15.33 | 1.25 |
| 1 | JUPITER | 0.00 | 293.75 | 18.35 | 12.83 | 1.00 |
| | GRAND MEAN | 0.00 | 294.83 | 24.32 | 12.80 | 1.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.69 | 2.83 | 0.47 | 0.09 |
| | COEFFICIENT OF VARIATION | 0.00% | 7.25% | 23.24% | 7.35% | 15.83% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 8.06 | 1.34 | 0.26 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.17 | 0.42** | -0.01 | -0.11 |
| DAYS TO FLOWER | 0.00 | 0.06 | 0.33** | -0.42** | -0.36** |
| DAYS TO MATURITY | 0.00 | -0.17 | 0.02 | 0.02 | -0.11 |
| NODULE NUMBER 1 | 0.00 | 0.08 | 0.13 | 0.05 | -0.04 |
| NODULE NUMBER 2 | 0.00 | 0.01 | 0.33* | -0.16 | -0.06 |
| NODULE WEIGHT 1 | 0.00 | -0.01 | -0.03 | 0.11 | 0.13 |
| NODULE WEIGHT 2 | 0.00 | 0.13 | 0.25* | -0.06 | -0.09 |
| PLANT HEIGHT | 0.00 | 0.22 | 0.27* | -0.43** | -0.21 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.06 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.08 | -0.14 | -0.09 |
| PODS PER PLANT | 0.00 | 0.08 | 1.00 | -0.40** | -0.22 |
| 100 SEED WEIGHT | 0.00 | -0.14 | -0.40** | 1.00 | -0.21 |
| QUALITY OF SEED | 0.00 | -0.09 | -0.22 | -0.21 | 1.00 |

TABLE 127 EXPERIMENT 174 YEAR 1976

REGION - ASIA
SITE - ALUTHARAMA
LATITUDE - 7 DEG. 30 MIN. N
COOPERATOR - S. KANDASAMY
DATE PLANTED - NOVEMBER 18, 1976
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 484 MM

COUNTRY - SRI LANKA
ELEVATION - 266 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - FEBRUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | COLUMBUS | 1803.12 | 25.50 | 78.50 | 119.75 | 222.50 | 0.36 | 1.85 | 44.15 | 1.00 |
| 4 | RANSOM | 1771.87 | 26.00 | 78.50 | 150.75 | 272.25 | 0.48 | 1.39 | 32.25 | 1.00 |
| 11 | COBB | 1759.37 | 26.75 | 81.00 | 127.50 | 218.00 | 0.41 | 1.20 | 29.10 | 1.00 |
| 12 | DAVIS | 1753.12 | 27.25 | 81.00 | 99.50 | 204.50 | 0.34 | 1.63 | 30.98 | 1.00 |
| 9 | WILLIAMS | 1653.12 | 24.25 | 78.50 | 129.50 | 225.50 | 0.44 | 1.71 | 39.65 | 1.00 |
| 13 | IMPROVED PELICAN | 1640.62 | 26.00 | 78.50 | 150.00 | 197.50 | 0.48 | 0.90 | 54.98 | 1.00 |
| 14 | FORREST | 1637.50 | 24.00 | 78.50 | 162.00 | 166.50 | 0.51 | 1.31 | 32.38 | 1.00 |
| 8 | BOSSIER | 1612.50 | 25.75 | 78.50 | 123.75 | 246.25 | 0.44 | 2.26 | 26.75 | 1.00 |
| 10 | CLARK 63 | 1593.75 | 26.75 | 78.50 | 163.00 | 264.75 | 0.52 | 1.85 | 43.95 | 1.00 |
| 7 | JUPITER | 1565.62 | 26.50 | 119.00 | 115.50 | 229.00 | 0.39 | 1.64 | 69.57 | 2.00 |
| 6 | PICKETT 71 | 1559.37 | 27.00 | 78.50 | 149.25 | 264.25 | 0.54 | 1.45 | 25.90 | 1.00 |
| 2 | WOODWORTH | 1537.50 | 26.25 | 78.75 | 145.00 | 137.50 | 0.43 | 1.25 | 37.35 | 1.00 |
| 3 | BRAGG | 1503.12 | 29.75 | 78.50 | 126.50 | 261.25 | 0.32 | 1.44 | 33.98 | 1.00 |
| 16 | ESSEX | 1453.12 | 25.50 | 78.50 | 141.25 | 249.50 | 0.42 | 1.89 | 26.88 | 1.00 |
| 5 | HILL | 1365.62 | 26.25 | 78.50 | 152.25 | 184.75 | 0.55 | 1.16 | 31.13 | 1.00 |
| 1 | CALLAND | 1331.25 | 26.50 | 78.50 | 126.50 | 203.75 | 0.45 | 1.57 | 40.45 | 1.00 |
| | GRAND MEAN | 1596.29 | 26.25 | 81.36 | 136.37 | 221.73 | 0.44 | 1.53 | 37.46 | 1.06 |
| | STANDARD ERROR OF A VARIETY MEAN | 152.24 | 1.17 | 0.87 | 19.79 | 32.23 | 0.07 | 0.20 | 3.25 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.07% | 8.94% | 2.13% | 29.02% | 29.07% | 31.33% | 26.40% | 17.34% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | 2.47 | ******** | ******** | ******** | 0.58 | 9.25 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.20 | 0.06 | 0.12 | -0.01 | -0.15 | 0.19 | 0.24 | -0.03 |
| DAYS TO | FLOWER | -0.20 | 1.00 | 0.03 | -0.28* | 0.17 | -0.24 | -0.06 | -0.02 | 0.03 |
| DAYS TO | MATURITY | 0.06 | 0.03 | 1.00 | -0.15 | 0.00 | -0.12 | 0.03 | 0.65** | 0.98** |
| NODULE | NUMBER 1 | 0.12 | -0.28* | -0.15 | 1.00 | 0.08 | 0.66** | 0.08 | -0.01 | -0.13 |
| NODULE | NUMBER 2 | -0.01 | 0.17 | 0.00 | 0.08 | 1.00 | 0.17 | 0.52** | 0.01 | 0.02 |
| NODULE | WEIGHT 1 | -0.15 | -0.24 | -0.12 | 0.66** | 0.17 | 1.00 | 0.12 | -0.08 | -0.09 |
| NODULE | WEIGHT 2 | 0.19 | -0.06 | 0.03 | 0.08 | 0.52** | 0.12 | 1.00 | 0.10 | 0.06 |
| PLANT | HEIGHT | 0.24 | -0.02 | 0.65** | -0.01 | 0.01 | -0.08 | 0.10 | 1.00 | 0.66** |
| | LODGING | -0.03 | 0.03 | 0.98** | -0.13 | 0.02 | -0.09 | 0.06 | 0.66** | 1.00 |
| | SHATTER | -0.03 | 0.03 | 0.98** | -0.13 | 0.02 | -0.09 | 0.06 | 0.66** | 1.00** |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.36** | -0.08 | 0.29* | 0.09 | 0.01 | -0.04 | -0.15 | 0.29* | 0.27* |
| 100 SEED | WEIGHT | 0.41** | -0.06 | -0.08 | -0.14 | -0.01 | -0.26* | 0.18 | -0.03 | -0.13 |
| QUALITY | OF SEED | -0.06 | -0.13 | 0.58** | 0.12 | -0.10 | 0.14 | -0.05 | 0.39** | 0.60** |

TABLE 127 EXPERIMENT 174 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 15 | COLUMBUS | 1.00 | 300.00 | 11.90 | 17.08 | 1.00 | 38.5 | 21.9 |
| 4 | RANSOM | 1.00 | 300.00 | 12.03 | 17.25 | 1.00 | 38.1 | 24.3 |
| 11 | COBB | 1.00 | 300.00 | 14.25 | 16.40 | 1.00 | 36.6 | 24.3 |
| 12 | DAVIS | 1.00 | 300.00 | 11.43 | 15.68 | 1.00 | 39.7 | 22.0 |
| 9 | WILLIAMS | 1.00 | 300.00 | 8.80 | 18.15 | 1.00 | 37.8 | 23.0 |
| 13 | IMPROVED PELICAN | 1.00 | 300.00 | 16.05 | 12.73 | 1.00 | 39.6 | 22.5 |
| 14 | FORREST | 1.00 | 300.00 | 11.90 | 13.38 | 3.00 | 38.4 | 21.3 |
| 8 | BOSSIER | 1.00 | 300.00 | 11.20 | 15.60 | 1.00 | 40.1 | 21.1 |
| 10 | CLARK 63 | 1.00 | 300.00 | 9.75 | 15.25 | 2.00 | 37.3 | 23.3 |
| 7 | JUPITER | 2.00 | 300.00 | 14.40 | 14.78 | 3.00 | 35.6 | 24.0 |
| 6 | PICKETT 71 | 1.00 | 300.00 | 10.65 | 14.48 | 1.00 | 39.6 | 22.6 |
| 2 | WOODWORTH | 1.00 | 300.00 | 10.13 | 15.68 | 1.00 | 38.0 | 22.5 |
| 3 | BRAGG | 1.00 | 300.00 | 10.85 | 16.18 | 1.00 | 41.1 | 21.3 |
| 16 | ESSEX | 1.00 | 300.00 | 13.18 | 15.93 | 1.00 | 39.3 | 33.7 |
| 5 | HILL | 1.00 | 300.00 | 11.08 | 14.65 | 2.00 | 36.8 | 21.3 |
| 1 | CALLAND | 1.00 | 300.00 | 8.97 | 17.63 | 1.00 | 37.3 | 21.5 |
| | GRAND MEAN | 1.06 | 300.00 | 11.66 | 15.67 | 1.38 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 1.00 | 0.59 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 17.07% | 7.51% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | 2.83 | 1.68 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.03 | 0.00 | 0.36++ | 0.41++ | -0.06 |
| DAYS TO | FLOWER | 0.03 | 0.00 | -0.08 | -0.06 | -0.13 |
| DAYS TO | MATURITY | 0.98++ | 0.00 | 0.29+ | -0.08 | 0.58++ |
| NODULE | NUMBER 1 | -0.13 | 0.00 | 0.09 | -0.14 | 0.12 |
| NODULE | NUMBER 2 | 0.02 | 0.00 | 0.01 | -0.01 | -0.10 |
| NODULE | WEIGHT 1 | -0.09 | 0.00 | -0.04 | -0.26+ | 0.14 |
| NODULE | WEIGHT 2 | 0.06 | 0.00 | -0.15 | 0.18 | -0.05 |
| PLANT | HEIGHT | 0.66++ | 0.00 | 0.29+ | -0.03 | 0.39++ |
| | LODGING | 1.00++ | 0.00 | 0.27+ | -0.13 | 0.60++ |
| | SHATTER | 1.00 | 0.00 | 0.27+ | -0.13 | 0.60++ |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.27+ | 0.00 | 1.00 | -0.19 | 0.12 |
| 100 SEED | WEIGHT | -0.13 | 0.00 | -0.19 | 1.00 | -0.39++ |
| QUALITY | OF SEED | 0.60++ | 0.00 | 0.12 | -0.39++ | 1.00 |

TABLE 128 EXPERIMENT 664 YEAR 1976

REGION - ASIA
SITE - ANGUNUKOLAPALESSA
LATITUDE - 6 DEG. N
COOPERATORS - A. SENTHINATHAN, B. RADHAKRISHNAN
DATE PLANTED - MAY 8, 1976
SOIL TYPE - SAND 58.4%, CLAY 41.6%, PH 6.0
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 961 MM
NUMBER OF IRRIGATIONS - 16
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 30 M
LONGITUDE - 81 DEG. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | HARDEE | 2540.51 | 28.00 | 88.00 | 89.25 | 248.25 | 0.56 | 3.27 | 38.65 | 1.00 |
| 4 | IMPROVED PELICAN | 2267.95 | 28.00 | 85.00 | 80.50 | 106.50 | 0.85 | 1.82 | 66.68 | 2.00 |
| 12 | WOODWORTH | 2237.53 | 19.00 | 77.00 | 103.75 | 201.00 | 0.59 | 3.57 | 46.10 | 2.00 |
| 7 | DAVIS | 2165.85 | 25.00 | 82.00 | 111.50 | 190.50 | 0.67 | 3.94 | 37.70 | 2.00 |
| 14 | PB-1 | 2101.25 | 27.00 | 79.00 | 141.25 | 177.50 | 1.15 | 2.70 | 50.70 | 2.00 |
| 15 | SJ-2 | 2096.25 | 23.00 | 84.00 | 49.75 | 78.75 | 0.69 | 1.52 | 69.82 | 2.00 |
| 2 | HAMPTON 266A | 2078.75 | 19.00 | 91.00 | 127.75 | 275.00 | 0.50 | 3.36 | 51.13 | 1.00 |
| 6 | BOSSIER | 2067.91 | 31.00 | 86.00 | 262.50 | 218.25 | 1.28 | 2.19 | 60.08 | 1.00 |
| 8 | UNKNOWN | 1949.56 | 22.00 | 85.00 | 59.25 | 118.50 | 0.41 | 2.11 | 83.75 | 2.00 |
| 13 | WILLIAMS | 1948.31 | 20.00 | 77.00 | 160.50 | 220.75 | 0.52 | 2.83 | 54.50 | 2.00 |
| 10 | COLUMBUS | 1890.79 | 23.00 | 92.00 | 86.25 | 103.25 | 0.83 | 2.17 | 54.05 | 2.00 |
| 5 | COBB | 1743.27 | 21.00 | 84.00 | 61.25 | 152.00 | 0.16 | 1.51 | 34.10 | 2.25 |
| 9 | FORREST | 1726.60 | 22.00 | 78.00 | 45.25 | 235.25 | 0.20 | 2.55 | 35.68 | 1.00 |
| 11 | CLARK 63 | 1235.66 | 19.00 | 72.00 | 111.00 | 126.00 | 0.84 | 2.37 | 55.65 | 2.00 |
| 1 | JUPITER | 873.51 | 29.00 | 116.00 | 91.25 | 105.75 | 0.63 | 1.43 | 73.18 | 2.50 |
| | GRAND MEAN | 1928.25 | 23.73 | 85.07 | 105.40 | 170.48 | 0.66 | 2.49 | 54.12 | 1.78 |
| | STANDARD ERROR OF A VARIETY MEAN | 180.93 | 0.00 | 0.00 | 13.62 | 19.90 | 0.11 | 0.36 | 2.72 | 0.10 |
| | COEFFICIENT OF VARIATION | 18.77% | 0.00% | 0.00% | 25.85% | 23.34% | 34.92% | 29.04% | 10.06% | 11.28% |
| | 5% ISD VARIETY MEANS (*********=NS) | 516.39 | 0.00 | 0.00 | 38.88 | 56.79 | 0.33 | 1.03 | 7.77 | 0.29 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.07 | -0.31* | 0.00 | 0.25 | -0.07 | 0.24 | -0.19 | -0.35** |
| DAYS TO | FLOWER | 0.07 | 1.00 | 0.48** | 0.30* | -0.09 | 0.43** | -0.18 | 0.19 | -0.10 |
| DAYS TO | MATURITY | -0.31* | 0.48** | 1.00 | -0.06 | -0.20 | -0.00 | -0.28* | 0.35** | 0.16 |
| NODULE | NUMBER 1 | 0.00 | 0.30* | -0.06 | 1.00 | 0.39** | 0.65** | 0.16 | -0.00 | -0.23 |
| NODULE | NUMBER 2 | 0.25 | -0.09 | -0.20 | 0.39** | 1.00 | -0.05 | 0.62** | -0.54** | -0.61** |
| NODULE | WEIGHT 1 | -0.07 | 0.43** | -0.00 | 0.65** | -0.05 | 1.00 | 0.06 | 0.21 | 0.00 |
| NODULE | WEIGHT 2 | 0.24 | -0.18 | -0.28* | 0.16 | 0.62** | 0.06 | 1.00 | -0.44** | -0.27* |
| PLANT | HEIGHT | -0.19 | 0.19 | 0.35** | -0.00 | -0.54** | 0.21 | -0.44** | 1.00 | 0.33** |
| | LODGING | -0.35** | -0.10 | 0.16 | -0.23 | -0.61** | 0.00 | -0.27* | 0.33** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.18 | 0.20 | -0.07 | 0.11 | -0.44** | 0.32* | -0.22 | 0.58** | 0.33* |
| PODS PER | PLANT | 0.22 | 0.05 | 0.26* | -0.18 | 0.23 | -0.28* | 0.00 | -0.26* | -0.29* |
| 100 SEED | WEIGHT | 0.28* | -0.29* | -0.26* | 0.25 | 0.47** | -0.15 | 0.48** | -0.51** | -0.17 |
| QUALITY | OF SEED | -0.21 | -0.01 | 0.55** | -0.16 | 0.00 | -0.31* | -0.24 | -0.08 | -0.14 |

TABLE 128 EXPERIMENT 664 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | HARDEE | 1.00 | 102.00 | 64.82 | 17.68 | 3.75 |
| 4 | IMPROVED PELICAN | 1.00 | 252.75 | 19.58 | 13.00 | 2.25 |
| 12 | WOODWORTH | 1.00 | 209.25 | 20.73 | 18.38 | 3.25 |
| 7 | DAVIS | 1.00 | 188.00 | 26.05 | 18.73 | 2.75 |
| 14 | PB-1 | 1.00 | 287.50 | 17.08 | 12.80 | 1.00 |
| 15 | SJ-2 | 1.00 | 280.00 | 27.78 | 12.68 | 3.00 |
| 2 | HAMPTON 266A | 1.00 | 118.75 | 42.43 | 16.10 | 4.00 |
| 6 | BOSSIER | 1.00 | 252.25 | 21.78 | 15.60 | 3.00 |
| 8 | UNKNOWN | 1.00 | 248.00 | 29.35 | 13.43 | 2.25 |
| 13 | WILLIAMS | 1.00 | 244.50 | 17.15 | 19.25 | 2.50 |
| 10 | COLUMBUS | 1.00 | 191.75 | 30.58 | 15.13 | 3.50 |
| 5 | COBB | 1.00 | 86.75 | 49.68 | 15.98 | 3.75 |
| 9 | FORREST | 1.00 | 198.25 | 20.88 | 13.73 | 4.00 |
| 11 | CLARK 63 | 1.00 | 279.75 | 15.98 | 15.78 | 2.50 |
| 1 | JUPITER | 1.00 | 265.50 | 26.23 | 13.50 | 5.00 |
| | GRAND MEAN | 1.00 | 213.67 | 28.67 | 15.45 | 3.10 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.06 | 2.86 | 0.50 | 0.29 |
| | COEFFICIENT OF VARIATION | 0.00% | 12.23% | 19.94% | 6.50% | 18.69% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 37.28 | 8.16 | 1.43 | 0.83 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.18 | 0.22 | 0.28* | -0.21 |
| DAYS TO FLOWER | 0.00 | 0.20 | 0.05 | -0.29* | -0.01 |
| DAYS TO MATURITY | 0.00 | -0.07 | 0.26* | -0.26* | 0.55** |
| NODULE NUMBER 1 | 0.00 | 0.11 | -0.18 | 0.25 | -0.16 |
| NODULE NUMBER 2 | 0.00 | -0.44** | 0.23 | 0.47** | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.32* | -0.28* | -0.15 | -0.31* |
| NODULE WEIGHT 2 | 0.00 | -0.22 | 0.00 | 0.48** | -0.24 |
| PLANT HEIGHT | 0.00 | 0.58** | -0.26* | -0.51** | -0.08 |
| LODGING | 0.00 | 0.33* | -0.29* | -0.17 | -0.14 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.77** | -0.38** | -0.43** |
| PODS PER PLANT | 0.00 | -0.77** | 1.00 | 0.21 | 0.43** |
| 100 SEED WEIGHT | 0.00 | -0.38** | 0.21 | 1.00 | 0.12 |
| QUALITY OF SEED | 0.00 | -0.43** | 0.43** | 0.12 | 1.00 |

TABLE 129 EXPERIMENT 84 YEAR 1976

REGION - ASIA
SITE - BANDARAWELA
LATITUDE - 6 DEG. 50 MIN. N
COOPERATOR - L.G. HERAT
DATE PLANTED - MAY 5, 1976
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 199 MM
NUMBER OF IRRIGATIONS - 8

COUNTRY - SRI LANKA
ELEVATION - 1220 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | ESSEX | 14[illegible]2.79 | 34.00 | 106.00 | 78.75 | 129.00 | 0.44 | 1.94 | 54.25 | 1.00 |
| 1 | CALLAND | 1262.75 | 31.00 | 90.00 | 75.25 | 71.50 | 0.56 | 1.42 | 36.50 | 1.00 |
| 9 | BERSON | 1104.39 | 34.00 | 90.00 | 53.25 | 72.50 | 0.24 | 1.13 | 36.50 | 1.00 |
| 4 | CUTLER 71 | 1071.05 | 34.00 | 90.00 | 92.75 | 100.50 | 0.45 | 1.17 | 42.00 | 1.00 |
| 13 | ANSOY 71 | 1066.88 | 31.00 | 86.75 | 49.75 | 75.25 | 0.14 | 0.69 | 30.75 | 1.00 |
| 8 | WELLS | 1004.37 | 31.00 | 86.75 | 40.25 | 65.00 | 0.14 | 0.85 | 27.50 | 1.00 |
| 6 | CLARK 63 | 975.19 | 31.00 | 90.00 | 65.00 | 67.25 | 0.45 | 1.29 | 35.50 | 1.00 |
| 10 | COLUMBUS | 933.52 | 34.00 | 95.25 | 68.50 | 101.00 | 0.33 | 1.39 | 36.00 | 1.00 |
| 2 | WOODWORTH | 929.35 | 27.00 | 87.75 | 64.50 | 64.50 | 0.41 | 1.12 | 32.75 | 1.00 |
| 5 | WILLIAMS | 908.51 | 34.00 | 91.75 | 71.75 | 75.25 | 0.35 | 0.89 | 29.00 | 1.00 |
| 12 | CORSOY | 879.34 | 31.00 | 96.00 | 60.00 | 70.00 | 0.25 | 0.81 | [illegible].25 | 1.00 |
| 15 | HARK | 875.17 | 27.00 | 86.75 | 41.75 | 74.75 | 0.24 | 0.93 | 29.25 | 1.00 |
| 14 | HODGSON | 762.65 | 31.00 | 83.50 | 60.00 | 62.25 | 0.27 | 0.57 | 20.75 | 1.00 |
| 16 | STEELE | 750.15 | 31.00 | 81.75 | 79.00 | 64.50 | 0.39 | 0.70 | 26.50 | 1.00 |
| 3 | HILL | 729.31 | 49.00 | 106.00 | 28.50 | 66.00 | 0.16 | 0.72 | 45.00 | 1.00 |
| 7 | FORREST | 654.30 | 49.00 | 106.00 | 31.50 | 57.25 | 0.19 | 0.97 | 47.75 | 1.00 |
| | GRAND MEAN | 960.51 | 33.69 | 92.14 | 60.03 | 76.03 | 0.31 | 1.04 | 34.77 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 167.53 | 0.00 | 1.51 | 16.06 | 15.90 | 0.11 | 0.27 | 3.06 | 0.00 |
| | COEFFICIENT OF VARIATION | 34.88% | 0.00% | 3.28% | 53.50% | 41.83% | 71.09% | 52.85% | 17.61% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.00 | 4.30 | ******** | ******** | ******** | ******** | 8.72 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.20 | 0.18 | 0.50** | 0.67** | 0.55** | 0.66** | 0.56** | 0.00 |
| DAYS TO | FLOWER | -0.20 | 1.00 | 0.72** | -0.24 | -0.05 | -0.19 | -0.04 | 0.51** | 0.00 |
| DAYS TO | MATURITY | 0.18 | 0.72** | 1.00 | -0.04 | 0.28* | 0.02 | 0.30* | 0.72** | 0.00 |
| NODULE | NUMBER 1 | 0.50** | -0.24 | -0.04 | 1.00 | 0.56** | 0.84** | 0.54** | 0.26* | 0.00 |
| NODULE | NUMBER 2 | 0.67** | -0.05 | 0.28* | 0.56** | 1.00 | 0.48** | 0.79** | 0.48** | 0.00 |
| NODULE | WEIGHT 1 | 0.55** | -0.19 | 0.02 | 0.84** | 0.48** | 1.00 | 0.63** | 0.38** | 0.00 |
| NODULE | WEIGHT 2 | 0.66** | -0.04 | 0.30* | 0.54** | 0.79** | 0.63** | 1.00 | 0.56** | 0.00 |
| PLANT | HEIGHT | 0.56** | 0.51** | 0.72** | 0.26* | 0.48** | 0.38** | 0.56** | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.29* | 0.04 | 0.17 | 0.05 | 0.11 | 0.11 | 0.16 | 0.21 | 0.00 |
| PODS PER | PLANT | 0.41** | 0.33** | 0.55** | 0.23 | 0.40** | 0.13 | 0.24 | 0.52** | 0.00 |
| 100 SEED | WEIGHT | 0.42** | -0.37** | -0.03 | 0.37** | 0.26* | 0.36** | 0.29* | 0.01 | 0.00 |
| QUALITY | OF SEED | -0.17 | 0.39** | 0.41** | -0.17 | -0.09 | -0.18 | -0.16 | 0.03 | 0.00 |

TABLE 129 EXPERIMENT 84 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 11 | ESSEX | 1.00 | 252.50 | 14.05 | 13.90 | 2.00 |
| 1 | CALLAND | 1.00 | 212.50 | 7.40 | 17.50 | 2.00 |
| 9 | BEESON | 1.00 | 205.00 | 8.32 | 15.30 | 2.00 |
| 4 | CUTLER 71 | 1.00 | 220.00 | 8.78 | 16.28 | 2.00 |
| 13 | ANSOY 71 | 1.00 | 175.00 | 10.20 | 13.88 | 2.00 |
| 8 | WELLS | 1.00 | 217.50 | 9.50 | 12.40 | 2.00 |
| 6 | CLARK 63 | 1.00 | 205.00 | 7.30 | 14.53 | 2.00 |
| 10 | COLUMBUS | 1.00 | 206.75 | 9.13 | 15.15 | 2.00 |
| 2 | WOODWORTH | 1.00 | 202.50 | 9.15 | 13.53 | 2.00 |
| 5 | WILLIAMS | 1.00 | 206.25 | 7.85 | 15.98 | 2.00 |
| 12 | CORSOY | 1.00 | 201.25 | 11.93 | 17.05 | 3.00 |
| 15 | HARK | 1.00 | 180.00 | 8.50 | 13.73 | 2.00 |
| 14 | HODGSON | 1.00 | 186.25 | 10.33 | 13.53 | 2.00 |
| 16 | STEELE | 1.00 | 187.50 | 9.85 | 12.30 | 2.00 |
| 3 | HILL | 1.00 | 209.25 | 14.18 | 11.70 | 3.00 |
| 7 | FORREST | 1.00 | 187.00 | 11.38 | 11.65 | 2.00 |
| | GRAND MEAN | 1.00 | 203.39 | 9.86 | 14.27 | 2.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.69 | 1.47 | 0.48 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 13.46% | 29.86% | 6.69% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 4.19 | 1.36 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.29* | 0.41** | 0.42** | -0.17 |
| DAYS TO | FLOWER | 0.00 | 0.04 | 0.33** | -0.37** | 0.39** |
| DAYS TO | MATURITY | 0.00 | 0.17 | 0.55** | -0.03 | 0.41** |
| NODULE | NUMBER 1 | 0.00 | 0.05 | 0.23 | 0.37** | -0.17 |
| NODULE | NUMBER 2 | 0.00 | 0.11 | 0.40** | 0.26* | -0.09 |
| NODULE | WEIGHT 1 | 0.00 | 0.11 | 0.13 | 0.36** | -0.18 |
| NODULE | WEIGHT 2 | 0.00 | 0.16 | 0.24 | 0.29* | -0.16 |
| PLANT | HEIGHT | 0.00 | 0.21 | 0.52** | 0.01 | 0.03 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.04 | 0.08 | 0.02 |
| PODS PER | PLANT | 0.00 | -0.04 | 1.00 | -0.07 | 0.36** |
| 100 SEED | WEIGHT | 0.00 | 0.08 | -0.07 | 1.00 | 0.02 |
| QUALITY | OF SEED | 0.00 | 0.02 | 0.36** | 0.02 | 1.00 |

TABLE 130 EXPERIMENT 129 YEAR 1976

REGION - ASIA
SITE - BANDARAWELA
LATITUDE - 6 DEG. 50 MIN. N
COOPERATOR - G.R. ALOYSIUS
DATE PLANTED - NOVEMBER 9, 1976
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 452 MM
NUMBER OF IRRIGATIONS - 1
SUBSTITUTE VARIETIES - CUTLER 71, WELLS, BEESON, CORSOY, ANSOY 71, HODGSON, HARK, STEELE

COUNTRY - SRI LANKA
ELEVATION - 1220 M
LONGITUDE - 81 DEG. E
DATE HARVESTED - FEBRUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | FOREST | 1850.37 | 33.50 | 101.75 | 0.00 | 185.50 | 0.00 | 1.57 | 40.38 | 1.50 |
| 8 | ESSEX | 1750.35 | 32.00 | 100.50 | 0.00 | 193.50 | 0.00 | 2.01 | 40.05 | 1.50 |
| 7 | COLUMBUS | 1748.27 | 32.00 | 111.50 | 0.00 | 164.75 | 0.00 | 1.74 | 37.08 | 1.00 |
| 3 | HILL | 1625.32 | 45.00 | 101.75 | 0.00 | 105.00 | 0.00 | 1.28 | 43.18 | 2.00 |
| 4 | WILLIAMS | 1437.79 | 33.50 | 96.50 | 0.00 | 207.50 | 0.00 | 1.76 | 28.43 | 1.00 |
| 5 | CLARK 63 | 1399.45 | 32.00 | 110.00 | 0.00 | 166.25 | 0.00 | 1.91 | 33.88 | 1.00 |
| 1 | CALLAND | 1379.44 | 32.00 | 110.25 | 0.00 | 101.50 | 0.00 | 1.68 | 32.25 | 1.00 |
| 9 | CUTLER 71 | 1373.19 | 35.00 | 112.50 | 0.00 | 134.00 | 0.00 | 1.54 | 31.30 | 1.00 |
| 13 | ANSOY 71 | 1248.17 | 32.00 | 95.75 | 0.00 | 176.75 | 0.00 | 1.33 | 23.78 | 1.00 |
| 2 | WOODWORTH | 1177.32 | 32.00 | 93.50 | 0.00 | 136.00 | 0.00 | 1.52 | 25.05 | 1.00 |
| 10 | WELLS | 1127.31 | 32.00 | 93.00 | 0.00 | 109.00 | 0.00 | 1.06 | 20.15 | 1.00 |
| 15 | HARK | 1118.97 | 33.50 | 96.25 | 0.00 | 182.75 | 0.00 | 1.44 | 25.30 | 1.00 |
| 16 | STEELE | 960.61 | 32.00 | 93.00 | 0.00 | 137.00 | 0.00 | 1.31 | 24.25 | 1.00 |
| 14 | HODGSON | 568.86 | 35.00 | 119.00 | 0.00 | 102.50 | 0.00 | 0.83 | 21.30 | 1.00 |
| 11 | BEESON | 339.65 | 36.50 | 119.00 | 0.00 | 132.75 | 0.00 | 1.64 | 28.98 | 1.00 |
| 12 | CORSOY | 75.01 | 38.25 | 119.00 | 0.00 | 153.25 | 0.00 | 1.34 | 21.68 | 1.00 |
| | GRAND MEAN | 1198.76 | 34.14 | 104.58 | 0.00 | 149.25 | 0.00 | 1.50 | 29.81 | 1.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 187.90 | 1.16 | 3.18 | 0.00 | 25.97 | 0.00 | 0.17 | 1.72 | 0.10 |
| | COEFFICIENT OF VARIATION | 31.35% | 6.81% | 6.08% | 0.00% | 34.80% | 0.00% | 23.16% | 11.52% | 17.53% |
| | 5% LSD VARIETY MEANS (********=NS) | 535.23 | 3.31 | 9.06 | 0.00 | ******** | 0.00 | 0.49 | 4.89 | 0.28 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.07 | -0.12 | 0.00 | 0.04 | 0.00 | 0.51** | 0.75** | 0.44** |
| DAYS TO FLOWER | -0.07 | 1.00 | 0.26* | 0.00 | -0.18 | 0.00 | -0.05 | 0.26* | 0.42** |
| DAYS TO MATURITY | -0.12 | 0.26* | 1.00 | 0.00 | -0.01 | 0.00 | 0.18 | 0.13 | -0.13 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.04 | -0.18 | -0.01 | 0.00 | 1.00 | 0.00 | 0.48** | 0.09 | -0.16 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.51** | -0.05 | 0.18 | 0.00 | 0.48** | 0.00 | 1.00 | 0.60** | 0.06 |
| PLANT HEIGHT | 0.75** | 0.26* | 0.13 | 0.00 | 0.09 | 0.00 | 0.60** | 1.00 | 0.59** |
| LODGING | 0.44** | 0.42** | -0.13 | 0.00 | -0.16 | 0.00 | 0.06 | 0.59** | 1.00 |
| SHATTER | -0.12 | -0.07 | -0.19 | 0.00 | -0.21 | 0.00 | -0.27* | -0.21 | -0.05 |
| PLANTS HARVEST | 0.20 | 0.12 | 0.23 | 0.00 | -0.07 | 0.00 | 0.02 | 0.22 | 0.08 |
| PODS PER PLANT | 0.80** | -0.05 | -0.11 | 0.00 | 0.01 | 0.00 | 0.46** | 0.59** | 0.34** |
| 100 SEED WEIGHT | 0.04 | -0.05 | 0.41** | 0.00 | -0.09 | 0.00 | 0.20 | 0.12 | -0.21 |
| QUALITY OF SEED | -0.19 | 0.09 | 0.35** | 0.00 | 0.08 | 0.00 | 0.09 | -0.05 | -0.16 |

TABLE 130 EXPERIMENT 129 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | FORREST | 1.00 | 472.50 | 9.32 | 16.95 | 3.00 |
| 8 | ESSEX | 1.00 | 530.25 | 9.28 | 15.88 | 2.25 |
| 7 | COLUMBUS | 1.00 | 470.75 | 9.52 | 18.00 | 2.25 |
| 3 | HILL | 1.00 | 439.25 | 9.40 | 14.25 | 1.75 |
| 4 | WILLIAMS | 1.00 | 439.50 | 6.75 | 19.55 | 1.25 |
| 5 | CLARK 63 | 1.00 | 454.25 | 8.32 | 15.75 | 2.00 |
| 1 | CALLAND | 1.00 | 496.75 | 7.42 | 19.08 | 2.25 |
| 9 | CUTLER 71 | 1.00 | 474.00 | 9.80 | 18.38 | 2.00 |
| 13 | AMSOY 71 | 1.00 | 384.00 | 8.55 | 17.40 | 3.00 |
| 2 | WOODWORTH | 1.00 | 470.50 | 7.65 | 15.75 | 2.50 |
| 10 | WELLS | 1.25 | 481.00 | 8.02 | 13.38 | 2.25 |
| 15 | HARK | 1.00 | 446.50 | 7.45 | 16.20 | 2.75 |
| 16 | STEELE | 1.00 | 376.00 | 5.65 | 16.78 | 2.50 |
| 14 | HODGSON | 1.00 | 451.00 | 5.43 | 19.60 | 3.25 |
| 11 | BEESON | 1.00 | 430.25 | 4.40 | 20.00 | 3.25 |
| 12 | CORSOY | 1.00 | 549.00 | 1.48 | 16.08 | 4.00 |
| | GRAND MEAN | 1.02 | 460.34 | 7.47 | 17.06 | 2.52 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.06 | 30.95 | 1.10 | 0.72 | 0.32 |
| | COEFFICIENT OF VARIATION | 12.31% | 13.45% | 29.55% | 8.41% | 25.80% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 88.15 | 3.14 | 2.04 | 0.92 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.12 | 0.20 | 0.80** | 0.04 | -0.19 |
| DAYS TO | FLOWER | -0.07 | 0.12 | -0.05 | -0.05 | 0.09 |
| DAYS TO | MATURITY | -0.19 | 0.23 | -0.11 | 0.41** | 0.35** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | -0.21 | -0.07 | 0.01 | -0.09 | 0.08 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | -0.27* | 0.02 | 0.46** | 0.20 | 0.09 |
| PLANT | HEIGHT | -0.21 | 0.22 | 0.59** | 0.12 | -0.05 |
| | LODGING | -0.05 | 0.08 | 0.34** | -0.21 | -0.16 |
| | SHATTER | 1.00 | -0.10 | -0.08 | -0.17 | -0.07 |
| PLANTS | HARVEST | -0.10 | 1.00 | -0.05 | -0.11 | 0.17 |
| PODS PER | PLANT | -0.08 | -0.05 | 1.00 | -0.01 | -0.14 |
| 100 SEED | WEIGHT | -0.17 | -0.11 | -0.01 | 1.00 | 0.11 |
| QUALITY | OF SEED | -0.07 | 0.17 | -0.14 | 0.11 | 1.00 |

TABLE 131 EXPERIMENT 175 YEAR 1976

REGION - ASIA
SITE - BANDABAWELA
LATITUDE - 6 DEG. 51 MIN. N
COOPERATOR - J.B. ALOYSIUS
DATE PLANTED - DECEMBER 27, 1976
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 150 MM

COUNTRY - SRI LANKA
ELEVATION - 1220 M
LONGITUDE - 81 DEG. E
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | ESSEX | 1578.12 | 51.00 | 109.00 | 114.50 | 140.25 | 1.04 | 2.38 | 23.22 | 1.00 |
| 5 | HILL | 1490.62 | 57.00 | 109.00 | 59.50 | 97.25 | 0.65 | 1.73 | 28.32 | 1.00 |
| 11 | DAVIS | 1487.50 | 57.00 | 109.00 | 71.25 | 142.00 | 1.05 | 2.22 | 22.95 | 1.00 |
| 12 | IMPROVED PELICAN | 1487.50 | 57.00 | 109.00 | 49.00 | 123.00 | 0.59 | 2.30 | 36.40 | 1.00 |
| 13 | FORREST | 1484.37 | 49.00 | 109.00 | 45.75 | 111.50 | 0.52 | 1.99 | 29.07 | 1.00 |
| 14 | COLUMBUS | 1387.50 | 49.00 | 109.00 | 70.00 | 89.00 | 0.71 | 1.54 | 24.27 | 1.00 |
| 1 | CALLAND | 1353.12 | 42.00 | 109.00 | 69.75 | 86.25 | 0.92 | 1.48 | 24.10 | 1.00 |
| 10 | COBB | 1293.75 | 49.00 | 109.00 | 74.75 | 106.50 | 1.04 | 1.93 | 21.22 | 1.00 |
| 4 | BANSOM | 1212.50 | 42.00 | 109.00 | 121.25 | 135.50 | 1.23 | 1.61 | 19.76 | 1.00 |
| 8 | WILLIAMS | 1190.62 | 45.00 | 109.00 | 124.75 | 102.50 | 1.02 | 1.24 | 21.30 | 1.00 |
| 9 | CLARK 63 | 1184.37 | 45.00 | 109.00 | 97.50 | 113.50 | 1.12 | 1.62 | 24.34 | 1.00 |
| 7 | BOSSIER | 1150.00 | 42.00 | 109.00 | 99.75 | 94.00 | 1.16 | 1.55 | 18.56 | 1.00 |
| 6 | PICKETT 71 | 1068.75 | 42.00 | 109.00 | 59.50 | 97.25 | 0.72 | 1.51 | 18.45 | 1.00 |
| 2 | WOODWORTH | 1062.50 | 42.00 | 109.00 | 72.50 | 102.50 | 0.82 | 1.11 | 21.10 | 1.00 |
| 3 | BRAGG | 843.75 | 45.00 | 109.00 | 93.50 | 134.00 | 1.00 | 2.14 | 23.85 | 1.00 |
| | GRAND MEAN | 1285.00 | 47.60 | 109.00 | 81.55 | 111.67 | 0.91 | 1.76 | 23.79 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 126.97 | 0.52 | 0.00 | 14.32 | 16.89 | 0.16 | 0.31 | 1.87 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.76% | 2.17% | 0.00% | 35.12% | 30.24% | 35.65% | 34.67% | 15.72% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 362.39 | 1.47 | 0.00 | 40.87 | ******** | ******** | ******** | 5.34 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.33++ | 0.00 | -0.35++ | 0.24 | 0.07 | 0.56++ | 0.51++ | 0.00 |
| DAYS TO | FLOWER | 0.33++ | 1.00 | 0.00 | -0.27+ | 0.13 | -0.27+ | 0.32+ | 0.51++ | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | -0.35++ | -0.27+ | 0.00 | 1.00 | -0.03 | 0.68++ | -0.26+ | -0.40++ | 0.00 |
| NODULE | NUMBER 2 | 0.24 | 0.13 | 0.00 | -0.03 | 1.00 | 0.25 | 0.71++ | 0.20 | 0.00 |
| NODULE | WEIGHT 1 | 0.07 | -0.27+ | 0.00 | 0.68++ | 0.25 | 1.00 | 0.07 | -0.26+ | 0.00 |
| NODULE | WEIGHT 2 | 0.56++ | 0.32+ | 0.00 | -0.26+ | 0.71++ | 0.07 | 1.00 | 0.50++ | 0.00 |
| PLANT | HEIGHT | 0.51++ | 0.51++ | 0.00 | -0.40++ | 0.20 | -0.26+ | 0.50++ | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.30+ | -0.19 | 0.00 | -0.06 | 0.26+ | 0.24 | 0.26+ | 0.08 | 0.00 |
| PODS PER | PLANT | 0.54++ | 0.65++ | 0.00 | -0.37++ | 0.08 | -0.28+ | 0.40++ | 0.61++ | 0.00 |
| 100 SEED | WEIGHT | 0.04 | -0.48++ | 0.00 | 0.11 | 0.18 | 0.28+ | 0.16 | -0.27+ | 0.00 |
| QUALITY | OF SEED | 0.12 | -0.04 | 0.00 | -0.11 | 0.05 | 0.08 | 0.02 | 0.17 | 0.00 |

TABLE 131 EXPERIMENT 175 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | ESSEX | 1.00 | 142.50 | 14.43 | 17.15 | 2.25 |
| 5 | HILL | 1.00 | 109.75 | 19.13 | 13.48 | 2.00 |
| 11 | DAVIS | 1.00 | 135.00 | 20.15 | 16.50 | 2.50 |
| 12 | IMPROVED PELICAN | 1.00 | 131.50 | 22.80 | 12.68 | 2.25 |
| 13 | FORREST | 1.00 | 111.25 | 18.65 | 15.43 | 2.50 |
| 14 | COLUMBUS | 1.00 | 123.25 | 21.63 | 10.53 | 2.00 |
| 1 | CALLAND | 1.00 | 161.75 | 13.20 | 17.68 | 2.75 |
| 10 | COBB | 1.00 | 107.75 | 15.28 | 16.80 | 2.00 |
| 4 | RANSOM | 1.00 | 131.25 | 11.43 | 17.28 | 2.25 |
| 8 | WILLIAMS | 1.00 | 135.50 | 11.23 | 18.03 | 2.00 |
| 9 | CLARK 63 | 1.00 | 139.00 | 14.38 | 17.38 | 2.00 |
| 7 | BOSSIER | 1.00 | 119.25 | 13.53 | 15.43 | 2.00 |
| 6 | PICKETT 71 | 1.00 | 122.25 | 10.10 | 17.53 | 2.50 |
| 2 | WOODWORTH | 1.00 | 134.75 | 12.80 | 16.45 | 2.00 |
| 3 | BRAGG | 1.00 | 136.25 | 10.23 | 21.03 | 2.50 |
| | GRAND MEAN | 1.00 | 129.40 | 15.26 | 16.62 | 2.23 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 7.43 | 1.58 | 0.62 | 0.20 |
| | COEFFICIENT OF VARIATION | 0.00% | 11.48% | 20.74% | 7.40% | 17.48% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 21.20 | 4.52 | 1.76 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.30* | 0.54** | 0.04 | 0.12 |
| DAYS TO | FLOWER | 0.00 | -0.19 | 0.65** | -0.48** | -0.04 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | -0.06 | -0.37** | 0.11 | -0.11 |
| NODULE | NUMBER 2 | 0.00 | 0.26* | 0.08 | 0.18 | 0.05 |
| NODULE | WEIGHT 1 | 0.00 | 0.24 | -0.28* | 0.28* | 0.08 |
| NODULE | WEIGHT 2 | 0.00 | 0.26* | 0.40** | 0.16 | 0.02 |
| PLANT | HEIGHT | 0.00 | 0.08 | 0.61** | -0.27* | 0.17 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.17 | 0.30* | 0.26* |
| PODS PER | PLANT | 0.00 | -0.17 | 1.00 | -0.39** | -0.01 |
| 100 SEED | WEIGHT | 0.00 | 0.30* | -0.39** | 1.00 | 0.20 |
| QUALITY | OF SEED | 0.00 | 0.26* | -0.01 | 0.20 | 1.00 |

TABLE 132 EXPERIMENT 133 YEAR 1976

REGION - ASIA
SITE - GANNOROWA
LATITUDE - 7 DEG. 15 MIN. N
COOPERATOR - C.D. DHARMASENA
DATE PLANTED - JUNE 29, 1976
SOIL TYPE - CLAY LOAM, PH 6.6
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 586 MM
NUMBER OF IRRIGATIONS - 33
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 457 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | HARDEE | 2598.44 | 34.00 | 98.25 | 200.75 | 293.75 | 0.37 | 1.18 | 38.95 | 1.00 |
| 4 | IMPROVED PELICAN | 2566.35 | 35.00 | 95.00 | 130.00 | 363.75 | 0.25 | 1.03 | 69.82 | 1.00 |
| 15 | SJ-2 | 2454.66 | 36.00 | 97.25 | 147.00 | 315.75 | 0.28 | 0.92 | 69.10 | 1.00 |
| 13 | WILLIAMS | 2246.28 | 25.00 | 88.00 | 167.75 | 312.75 | 0.24 | 1.23 | 43.98 | 1.00 |
| 7 | DAVIS | 2208.77 | 34.00 | 101.25 | 115.00 | 210.75 | 0.23 | 1.03 | 30.00 | 1.00 |
| 9 | FORREST | 2208.77 | 30.75 | 92.00 | 99.75 | 276.75 | 0.25 | 1.00 | 36.93 | 1.00 |
| 14 | PB-1 | 2175.43 | 34.00 | 88.00 | 189.75 | 305.00 | 0.40 | 1.28 | 53.08 | 1.00 |
| 6 | BRAGG | 2162.10 | 28.00 | 89.75 | 79.75 | 360.00 | 0.15 | 1.44 | 36.15 | 1.00 |
| 5 | BOSSIER | 2097.50 | 33.50 | 95.00 | 164.00 | 281.25 | 0.40 | 0.90 | 43.75 | 1.00 |
| 1 | JUPITER | 2054.58 | 44.00 | 113.50 | 169.50 | 319.25 | 0.34 | 1.10 | 78.85 | 2.00 |
| 12 | BONUS | 2035.82 | 25.00 | 79.00 | 87.50 | 318.75 | 0.13 | 1.12 | 40.28 | 1.00 |
| 11 | CLARK 63 | 1973.31 | 25.00 | 79.00 | 83.00 | 154.00 | 0.12 | 0.52 | 41.35 | 1.00 |
| 2 | HAMPTON 266A | 1914.13 | 31.25 | 90.25 | 154.25 | 314.50 | 0.29 | 1.27 | 33.15 | 1.00 |
| 10 | HILL | 1864.96 | 33.00 | 88.00 | 125.00 | 296.00 | 0.26 | 1.34 | 41.23 | 1.00 |
| 8 | TRACY | 1754.52 | 26.00 | 79.00 | 213.50 | 301.75 | 0.27 | 1.28 | 35.63 | 1.00 |
| | GRAND MEAN | 2154.38 | 31.63 | 91.55 | 141.77 | 294.93 | 0.26 | 1.11 | 46.48 | 1.07 |
| | STANDARD ERROR OF A VARIETY MEAN | 291.97 | 0.39 | 0.91 | 26.23 | 51.87 | 0.07 | 0.24 | 3.42 | 0.00 |
| | COEFFICIENT OF VARIATION | 27.10% | 2.46% | 1.99% | 37.00% | 35.17% | 50.12% | 43.79% | 14.71% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.11 | 2.60 | 74.86 | ******** | ******** | ******** | 9.76 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.14 | 0.20 | 0.18 | 0.24 | 0.19 | 0.29* | 0.40** | -0.05 |
| DAYS TO FLOWER | 0.14 | 1.00 | 0.88** | 0.18 | 0.09 | 0.30* | -0.00 | 0.61** | 0.65** |
| DAYS TO MATURITY | 0.20 | 0.88** | 1.00 | 0.15 | 0.05 | 0.28* | -0.01 | 0.47** | 0.65** |
| NODULE NUMBER 1 | 0.18 | 0.18 | 0.15 | 1.00 | 0.46** | 0.83** | 0.62** | 0.19 | 0.11 |
| NODULE NUMBER 2 | 0.24 | 0.09 | 0.05 | 0.46** | 1.00 | 0.43** | 0.75** | 0.23 | 0.06 |
| NODULE WEIGHT 1 | 0.19 | 0.30* | 0.28* | 0.83** | 0.43** | 1.00 | 0.61** | 0.26* | 0.11 |
| NODULE WEIGHT 2 | 0.29* | -0.00 | -0.01 | 0.62** | 0.75** | 0.61** | 1.00 | 0.05 | -0.01 |
| PLANT HEIGHT | 0.40** | 0.61** | 0.47** | 0.19 | 0.23 | 0.26* | 0.05 | 1.00 | 0.54** |
| LODGING | -0.05 | 0.65** | 0.65** | 0.11 | 0.06 | 0.11 | -0.01 | 0.54** | 1.00 |
| SHATTER | 0.16 | 0.09 | 0.23 | 0.01 | -0.12 | 0.09 | 0.03 | -0.18 | -0.05 |
| PLANTS HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER PLANT | 0.47** | 0.35** | 0.18 | 0.27* | 0.20 | 0.28* | 0.19 | 0.66** | 0.24 |
| 100 SEED WEIGHT | 0.28* | -0.38** | -0.07 | -0.08 | -0.08 | -0.20 | 0.11 | -0.34** | -0.06 |
| QUALITY OF SEED | 0.03 | 0.19 | 0.33** | -0.06 | 0.02 | -0.06 | 0.03 | 0.14 | 0.66** |

TABLE 132 EXPERIMENT 133 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | HARDEE | 1.00 | 300.00 | 19.25 | 15.80 | 1.50 |
| 4 | IMPROVED PELICAN | 1.00 | 300.00 | 20.20 | 13.33 | 1.00 |
| 15 | SJ-2 | 1.00 | 300.00 | 23.35 | 13.60 | 1.00 |
| 13 | WILLIAMS | 1.00 | 300.00 | 10.00 | 19.88 | 2.25 |
| 7 | DAVIS | 1.50 | 300.00 | 13.33 | 18.78 | 2.75 |
| 9 | FORREST | 1.00 | 300.00 | 14.75 | 14.28 | 1.25 |
| 14 | PB-1 | 1.00 | 300.00 | 24.10 | 11.13 | 1.00 |
| 6 | BRAGG | 1.00 | 300.00 | 13.20 | 17.70 | 2.00 |
| 5 | BOSSIER | 1.00 | 300.00 | 12.70 | 14.93 | 1.25 |
| 1 | JUPITER | 1.00 | 300.00 | 22.08 | 15.20 | 4.50 |
| 12 | BONUS | 1.00 | 300.00 | 18.65 | 16.83 | 3.00 |
| 11 | CLARK 63 | 1.00 | 300.00 | 17.35 | 16.13 | 1.75 |
| 2 | HAMPTON 266A | 1.00 | 300.00 | 14.83 | 18.00 | 1.50 |
| 10 | HILL | 1.00 | 300.00 | 14.33 | 14.88 | 1.25 |
| 8 | TRACY | 1.00 | 300.00 | 16.85 | 16.38 | 1.50 |
| | GRAND MEAN | 1.03 | 300.00 | 17.00 | 15.79 | 1.83 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.07 | 0.00 | 1.76 | 0.76 | 0.31 |
| | COEFFICIENT OF VARIATION | 14.43% | 0.00% | 20.68% | 9.67% | 34.26% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.21 | 0.00 | 5.02 | 2.18 | 0.90 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.16 | 0.00 | 0.47** | 0.28* | 0.03 |
| DAYS TO | FLOWER | 0.09 | 0.00 | 0.35** | -0.38** | 0.19 |
| DAYS TO | MATURITY | 0.23 | 0.00 | 0.18 | -0.07 | 0.33** |
| NODULE | NUMBER 1 | 0.01 | 0.00 | 0.27* | -0.08 | -0.06 |
| NODULE | NUMBER 2 | -0.12 | 0.00 | 0.20 | -0.08 | 0.02 |
| NODULE | WEIGHT 1 | 0.09 | 0.00 | 0.28* | -0.20 | -0.06 |
| NODULE | WEIGHT 2 | 0.03 | 0.00 | 0.19 | 0.11 | 0.03 |
| PLANT | HEIGHT | -0.18 | 0.00 | 0.66** | -0.34** | 0.14 |
| | LODGING | -0.05 | 0.00 | 0.24 | -0.06 | 0.66** |
| | SHATTER | 1.00 | 0.00 | -0.05 | 0.20 | 0.29* |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | -0.05 | 0.00 | 1.00 | -0.29* | 0.03 |
| 100 SEED | WEIGHT | 0.20 | 0.00 | -0.29* | 1.00 | 0.35** |
| QUALITY | OF SEED | 0.29* | 0.00 | 0.03 | 0.35** | 1.00 |

TABLE 135 EXPERIMENT 12 YEAR 1976

REGION - ASIA
SITE - GANNOROWA
LATITUDE - 7 DEG. 15 MIN. N
COOPERATOR - C.D. DHARMASENA
DATE PLANTED - JULY 1, 1976
SOIL TYPE - CLAY LOAM, PH 6.6
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 585 MM
NUMBER OF IRRIGATIONS - 33

COUNTRY - SRI LANKA
ELEVATION - 457 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | DAVIS | 3803.12 | 31.50 | 99.50 | 144.00 | 265.75 | 0.25 | 1.47 | 38.65 | 1.50 |
| 14 | FORREST | 3728.12 | 31.25 | 94.75 | 134.25 | 198.50 | 0.17 | 1.03 | 44.20 | 1.00 |
| 11 | COBB | 3543.75 | 30.00 | 99.25 | 128.50 | 255.50 | 0.20 | 1.39 | 39.38 | 1.25 |
| 16 | ESSEX | 3331.25 | 29.50 | 94.50 | 186.50 | 277.00 | 0.32 | 0.97 | 37.28 | 1.00 |
| 6 | PICKETT 71 | 3281.25 | 30.50 | 94.25 | 198.25 | 312.25 | 0.34 | 1.39 | 30.78 | 1.25 |
| 13 | IMPROVED PELICAN | 3203.12 | 38.00 | 95.50 | 184.75 | 296.75 | 0.31 | 1.27 | 77.98 | 1.00 |
| 1 | CALLAND | 3153.12 | 30.25 | 94.00 | 62.00 | 197.00 | 0.11 | 1.62 | 47.98 | 1.25 |
| 15 | COLUMBUS | 3081.25 | 31.00 | 92.50 | 106.75 | 246.25 | 0.19 | 1.11 | 49.85 | 1.00 |
| 5 | HILL | 3015.62 | 35.25 | 93.50 | 122.00 | 188.50 | 0.17 | 1.04 | 40.60 | 1.00 |
| 3 | BRAGG | 3000.00 | 30.00 | 95.25 | 122.00 | 278.50 | 0.20 | 0.90 | 37.25 | 2.00 |
| 9 | WILLIAMS | 2984.37 | 28.00 | 86.00 | 104.75 | 191.75 | 0.15 | 0.99 | 48.65 | 1.00 |
| 8 | BOSSIER | 2900.00 | 33.00 | 97.75 | 127.25 | 307.25 | 0.27 | 1.27 | 36.85 | 1.25 |
| 4 | RANSOM | 2856.25 | 30.00 | 101.75 | 196.50 | 292.00 | 0.19 | 0.95 | 31.65 | 1.75 |
| 10 | CLARK 63 | 2750.00 | 30.25 | 86.00 | 73.00 | 151.50 | 0.11 | 0.72 | 43.40 | 1.00 |
| 2 | WOODWORTH | 2415.62 | 28.50 | 77.00 | 77.50 | 144.25 | 0.11 | 0.55 | 39.70 | 1.00 |
| 7 | JUPITER | 2140.62 | 42.00 | 109.00 | 203.50 | 298.25 | 0.27 | 1.09 | 77.95 | 3.25 |
| | GRAND MEAN | 3074.22 | 31.81 | 94.41 | 135.72 | 243.81 | 0.21 | 1.11 | 45.13 | 1.34 |
| | STANDARD ERROR OF A VARIETY MEAN | 200.91 | 1.06 | 0.98 | 20.04 | 30.47 | 0.03 | 0.20 | 2.61 | 0.39 |
| | COEFFICIENT OF VARIATION | 13.07% | 6.64% | 2.08% | 29.53% | 24.99% | 32.10% | 36.71% | 11.55% | 58.11% |
| | 5% LSD VARIETY MEANS (********=NS) | 572.28 | 3.01 | 2.79 | 57.08 | 86.79 | 0.10 | 0.58 | 7.42 | 1.11 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.27+ | 0.12 | 0.06 | 0.18 | 0.28+ | 0.17 | 0.05 | -0.17 |
| DAYS TO | FLOWER | -0.27+ | 1.00 | 0.51++ | 0.35++ | 0.14 | 0.25+ | 0.06 | 0.59++ | 0.33++ |
| DAYS TO | MATURITY | 0.12 | 0.51++ | 1.00 | 0.50++ | 0.50++ | 0.39++ | 0.26+ | 0.26+ | 0.44++ |
| NODULE | NUMBER 1 | 0.06 | 0.35++ | 0.50++ | 1.00 | 0.48++ | 0.75++ | 0.16 | 0.19 | 0.28+ |
| NODULE | NUMBER 2 | 0.18 | 0.14 | 0.50++ | 0.48++ | 1.00 | 0.58++ | 0.56++ | 0.12 | 0.15 |
| NODULE | WEIGHT 1 | 0.28+ | 0.25+ | 0.39++ | 0.75++ | 0.58++ | 1.00 | 0.37++ | 0.22 | 0.07 |
| NODULE | WEIGHT 2 | 0.17 | 0.06 | 0.26+ | 0.16 | 0.56++ | 0.37++ | 1.00 | 0.07 | -0.05 |
| PLANT | HEIGHT | 0.05 | 0.59++ | 0.26+ | 0.19 | 0.12 | 0.22 | 0.07 | 1.00 | 0.23 |
| | LODGING | -0.17 | 0.33++ | 0.44++ | 0.28+ | 0.15 | 0.07 | -0.05 | 0.23 | 1.00 |
| | SHATTER | 0.31+ | -0.08 | 0.20 | -0.01 | 0.07 | 0.06 | 0.22 | -0.04 | -0.03 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.14 | 0.38++ | 0.19 | 0.35++ | 0.24 | 0.46++ | 0.23 | 0.44++ | -0.03 |
| 100 SEED | WEIGHT | 0.39++ | -0.47++ | 0.16 | -0.25+ | 0.03 | -0.10 | 0.17 | -0.39++ | 0.01 |
| QUALITY | OF SEED | -0.36++ | 0.26+ | 0.48++ | 0.17 | 0.17 | -0.08 | 0.01 | 0.15 | 0.48++ |

TABLE 133 EXPERIMENT 12 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 12 | DAVIS | 1.25 | 200.00 | 18.93 | 21.25 | 1.25 |
| 14 | FORREST | 1.00 | 200.00 | 20.98 | 17.85 | 1.00 |
| 11 | COBB | 1.75 | 200.00 | 22.75 | 21.30 | 1.75 |
| 16 | ESSEX | 1.00 | 200.00 | 21.77 | 18.15 | 1.00 |
| 6 | PICKETT 71 | 1.00 | 200.00 | 16.68 | 19.45 | 1.00 |
| 13 | IMPROVED PELICAN | 1.00 | 200.00 | 20.73 | 15.58 | 1.00 |
| 1 | CALLAND | 1.00 | 200.00 | 16.83 | 22.20 | 3.00 |
| 15 | COLUMBUS | 1.00 | 200.00 | 16.35 | 18.43 | 1.00 |
| 5 | HILL | 1.00 | 200.00 | 19.00 | 18.03 | 1.00 |
| 3 | BRAGG | 1.00 | 200.00 | 14.83 | 20.83 | 2.00 |
| 9 | WILLIAMS | 1.00 | 200.00 | 13.68 | 20.55 | 1.00 |
| 8 | BOSSIER | 1.00 | 200.00 | 17.55 | 19.65 | 2.00 |
| 4 | RANSOM | 1.00 | 200.00 | 16.80 | 21.28 | 4.00 |
| 10 | CLARK 63 | 1.00 | 200.00 | 16.73 | 18.78 | 1.00 |
| 2 | WOODWORTH | 1.00 | 200.00 | 20.45 | 17.23 | 2.00 |
| 7 | JUPITER | 1.00 | 200.00 | 22.78 | 16.58 | 4.00 |
| | GRAND MEAN | 1.06 | 200.00 | 18.93 | 19.19 | 1.75 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.09 | 0.00 | 1.24 | 0.61 | 0.09 |
| | COEFFICIENT OF VARIATION | 16.45% | 0.00% | 13.13% | 6.30% | 10.43% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.25 | 0.00 | 3.54 | 1.72 | 0.26 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.31* | 0.00 | 0.14 | 0.39** | -0.36** |
| DAYS TO | FLOWER | -0.08 | 0.00 | 0.38** | -0.47** | 0.26* |
| DAYS TO | MATURITY | 0.20 | 0.00 | 0.19 | 0.16 | 0.48** |
| NODULE | NUMBER 1 | -0.01 | 0.00 | 0.35** | -0.25* | 0.17 |
| NODULE | NUMBER 2 | 0.07 | 0.00 | 0.24 | 0.03 | 0.17 |
| NODULE | WEIGHT 1 | 0.06 | 0.00 | 0.46** | -0.10 | -0.08 |
| NODULE | WEIGHT 2 | 0.22 | 0.00 | 0.23 | 0.17 | 0.03 |
| PLANT | HEIGHT | -0.04 | 0.00 | 0.44** | -0.39** | 0.15 |
| | LODGING | -0.03 | 0.00 | -0.03 | 0.01 | 0.48** |
| | SHATTER | 1.00 | 0.00 | 0.19 | 0.32** | 0.0 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.19 | 0.00 | 1.00 | -0.43** | -0.01 |
| 100 SEED | WEIGHT | 0.32** | 0.00 | -0.43** | 1.00 | 0.18 |
| QUALITY | OF SEED | 0.0 | 0.00 | -0.01 | 0.18 | 1.00 |

TABLE 134 EXPERIMENT 127 YEAR 1976

REGION - ASIA
SITE - GANNOROWA
LATITUDE - 7 DEG. 15 MIN. N
COOPERATOR - CECIL D. DHARMASENA
DATE PLANTED - DECEMBER 17, 1976
SOIL TYPE - CLAY LOAM, PH 6.6
FERTILIZER USED - N 20.0, P 80.0, K 80.0
AMOUNT OF MOISTURE - 127 MM
LOCAL VARIETIES - PB-1, LOCAL

COUNTRY - SRI LANKA
ELEVATION - 457 M
LONGITUDE - 81 DEG. E

DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | FORREST | 5375.62 | 29.25 | 98.00 | 174.25 | 499.50 | 0.53 | 3.88 | 42.87 | 1.00 |
| 12 | DAVIS | 4729.37 | 31.75 | 103.75 | 132.25 | 341.75 | 0.50 | 2.41 | 38.09 | 1.00 |
| 6 | PICKETT 71 | 4334.37 | 28.75 | 90.50 | 191.50 | 285.50 | 0.77 | 2.53 | 34.29 | 1.50 |
| 1 | CALLAND | 4320.00 | 28.00 | 91.25 | 96.75 | 303.25 | 0.30 | 3.32 | 40.03 | 1.75 |
| 11 | COBB | 4258.12 | 28.25 | 108.00 | 141.75 | 346.75 | 0.52 | 3.41 | 31.24 | 1.00 |
| 13 | IMPROVED PELICAN | 4202.50 | 34.75 | 92.00 | 186.75 | 394.75 | 0.68 | 2.61 | 53.43 | 1.50 |
| 10 | CLARK 63 | 4088.75 | 28.00 | 86.00 | 142.00 | 337.50 | 0.42 | 2.90 | 41.90 | 1.75 |
| 16 | LOCAL | 4042.50 | 52.25 | 116.00 | 360.50 | 520.75 | 2.12 | 1.89 | 106.37 | 3.50 |
| 7 | JUPITER | 4025.00 | 49.50 | 116.00 | 279.50 | 630.00 | 0.99 | 2.70 | 77.15 | 2.25 |
| 8 | BOSSIER | 3991.87 | 28.00 | 101.00 | 142.75 | 394.75 | 0.62 | 3.96 | 28.74 | 1.00 |
| 5 | HILL | 3910.00 | 32.75 | 90.50 | 245.00 | 441.75 | 0.58 | 2.65 | 44.34 | 2.00 |
| 9 | WILLIAMS | 3823.12 | 28.00 | 85.00 | 233.00 | 443.75 | 0.66 | 3.40 | 38.46 | 1.50 |
| 15 | PB-1 | 3693.75 | 31.25 | 86.00 | 185.00 | 611.75 | 0.78 | 3.48 | 47.47 | 1.75 |
| 4 | RANSOM | 3560.62 | 28.00 | 108.00 | 125.75 | 441.00 | 0.56 | 2.92 | 27.40 | 1.00 |
| 3 | BRAGG | 3547.50 | 28.00 | 94.25 | 133.50 | 554.50 | 0.46 | 4.36 | 33.70 | 1.00 |
| 2 | WOODWORTH | 3050.00 | 28.00 | 81.00 | 141.75 | 277.50 | 0.38 | 2.24 | 33.06 | 1.00 |
| | GRAND MEAN | 4059.57 | 32.16 | 96.70 | 182.00 | 426.55 | 0.68 | 3.04 | 44.91 | 1.53 |
| | STANDARD ERROR OF A VARIETY MEAN | 234.63 | 0.37 | 0.87 | 27.46 | 59.64 | 0.13 | 0.32 | 2.43 | 0.27 |
| | COEFFICIENT OF VARIATION | 11.56% | 2.31% | 1.81% | 30.17% | 27.97% | 37.32% | 21.14% | 10.81% | 34.68% |
| | 5% LSD VARIETY MEANS (********=NS) | 668.32 | 1.06 | 2.49 | 78.21 | 169.89 | 0.36 | 0.92 | 6.91 | 0.76 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.05 | 0.20 | 0.02 | 0.02 | 0.04 | 0.23 | 0.10 | 0.00 |
| DAYS TO FLOWER | 0.05 | 1.00 | 0.64** | 0.69** | 0.37** | 0.74** | -0.33** | 0.93** | 0.68** |
| DAYS TO MATURITY | 0.20 | 0.64** | 1.00 | 0.31* | 0.26* | 0.48** | -0.08 | 0.50** | 0.27* |
| NODULE NUMBER 1 | 0.02 | 0.69** | 0.31* | 1.00 | 0.27* | 0.81** | -0.22 | 0.69** | 0.48** |
| NODULE NUMBER 2 | 0.02 | 0.37** | 0.26* | 0.27* | 1.00 | 0.35** | 0.52** | 0.34** | 0.12 |
| NODULE WEIGHT 1 | 0.04 | 0.74** | 0.48** | 0.81** | 0.35** | 1.00 | -0.13 | 0.78** | 0.56** |
| NODULE WEIGHT 2 | 0.23 | -0.33** | -0.08 | -0.22 | 0.52** | -0.13 | 1.00 | -0.31* | -0.36** |
| PLANT HEIGHT | 0.10 | 0.93** | 0.50** | 0.69** | 0.34** | 0.78** | -0.31* | 1.00 | 0.78** |
| LODGING | 0.00 | 0.68** | 0.27* | 0.48** | 0.12 | 0.56** | -0.36** | 0.78** | 1.00 |
| SHATTER | 0.01 | -0.16 | -0.11 | -0.15 | 0.06 | -0.08 | -0.01 | -0.16 | -0.22 |
| PLANTS HARVEST | -0.33** | 0.01 | -0.22 | 0.13 | 0.03 | 0.05 | -0.02 | 0.04 | 0.15 |
| PODS PER PLANT | 0.16 | 0.72** | 0.53** | 0.59** | 0.26* | 0.83** | -0.20 | 0.81** | 0.60** |
| 100 SEED WEIGHT | 0.24 | -0.45** | 0.00 | -0.47** | -0.18 | -0.63** | 0.28* | -0.56** | -0.47** |
| QUALITY OF SEED | 0.13 | 0.03 | 0.33** | -0.15 | -0.07 | -0.14 | 0.12 | -0.00 | 0.01 |

TABLE 134 EXPERIMENT 127 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | FORREST | 1.25 | 275.50 | 20.10 | 18.59 | 1.25 | 37.5 | 21.5 |
| 12 | DAVIS | 1.25 | 227.50 | 16.20 | 21.80 | 1.00 | 36.1 | 23.0 |
| 6 | PICKETT 71 | 1.25 | 300.00 | 16.45 | 17.84 | 1.00 | 36.6 | 22.9 |
| 1 | CALLAND | 1.00 | 300.00 | 12.98 | 21.09 | 2.25 | 37.2 | 21.5 |
| 11 | COBB | 1.25 | 281.75 | 19.38 | 20.68 | 2.75 | 36.9 | 22.6 |
| 13 | IMPROVED PELICAN | 1.25 | 299.50 | 19.15 | 14.94 | 1.00 | 38.8 | 22.7 |
| 10 | CLARK 63 | 1.00 | 300.00 | 14.08 | 16.00 | 1.00 | 36.0 | 23.2 |
| 16 | LOCAL | 1.00 | 297.50 | 47.60 | 9.20 | 1.25 | 42.9 | 16.6 |
| 7 | JUPITER | 1.00 | 290.00 | 18.30 | 20.73 | 1.75 | 38.2 | 23.7 |
| 8 | BOSSIER | 1.25 | 296.25 | 13.85 | 19.10 | 1.25 | 37.4 | 22.5 |
| 5 | HILL | 1.25 | 297.75 | 14.85 | 18.11 | 1.00 | 35.4 | 21.9 |
| 9 | WILLIAMS | 1.00 | 300.00 | 13.40 | 19.49 | 1.00 | 36.8 | 23.5 |
| 15 | PB-1 | 1.50 | 296.00 | 20.38 | 13.06 | 1.00 | 39.4 | 18.2 |
| 4 | RANSOM | 1.25 | 298.50 | 15.58 | 17.88 | 1.00 | 34.7 | 25.7 |
| 3 | BRAGG | 1.25 | 298.75 | 13.03 | 21.15 | 1.50 | 38.7 | 22.2 |
| 2 | WOODWORTH | 1.25 | 300.00 | 11.73 | 16.41 | 1.00 | 34.4 | 22.4 |
| | GRAND MEAN | 1.19 | 291.19 | 17.94 | 18.00 | 1.31 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.21 | 7.38 | 1.40 | 0.52 | 0.17 | | |
| | COEFFICIENT OF VARIATION | 38.66% | 5.07% | 15.60% | 5.83% | 26.64% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 21.03 | 3.99 | 1.50 | 0.50 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.01 | -0.33** | 0.16 | 0.24 | 0.13 |
| DAYS TO FLOWER | -0.16 | 0.01 | 0.72** | -0.45** | 0.03 |
| DAYS TO MATURITY | -0.11 | -0.22 | 0.53** | 0.00 | 0.33** |
| NODULE NUMBER 1 | -0.15 | 0.13 | 0.59** | -0.47** | -0.15 |
| NODULE NUMBER 2 | 0.06 | 0.03 | 0.26* | -0.18 | -0.07 |
| NODULE WEIGHT 1 | -0.08 | 0.05 | 0.83** | -0.63** | -0.14 |
| NODULE WEIGHT 2 | -0.01 | -0.02 | -0.20 | 0.28* | 0.12 |
| PLANT HEIGHT | -0.16 | 0.04 | 0.81** | -0.56** | -0.00 |
| LODGING | -0.22 | 0.15 | 0.60** | -0.47** | 0.01 |
| SHATTER | 1.00 | -0.23 | -0.01 | 0.00 | -0.05 |
| PLANTS HARVEST | -0.23 | 1.00 | -0.03 | -0.28* | 0.00 |
| PODS PER PLANT | -0.01 | -0.03 | 1.00 | -0.68** | -0.02 |
| 100 SEED WEIGHT | 0.00 | -0.28* | -0.68** | 1.00 | 0.37** |
| QUALITY OF SEED | -0.05 | 0.00 | -0.02 | 0.37** | 1.00 |

TABLE 135 EXPERIMENT 665 YEAR 1976

REGION - ASIA
SITE - KILINOCHCHI
LATITUDE - 9 DEG. N
COOPERATOR - N. KANAGANAYAGAM
DATE PLANTED - MAY 20, 1976
SOIL TYPE - SAND
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 80 MM
NUMBER OF IRRIGATIONS - SEVERAL
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 9 M
LONGITUDE - 80 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | WILLIAMS | 4542.78 | 24.00 | 99.00 | 10.75 | 54.50 | 0.51 | 2.24 | 60.25 | 1.00 |
| 6 | BRAGG | 4512.95 | 28.00 | 112.00 | 3.50 | 69.25 | 0.28 | 2.31 | 58.25 | 1.50 |
| 15 | SJ-2 | 4418.97 | 37.00 | 117.00 | 26.50 | 412.50 | 0.56 | 2.43 | 67.00 | 3.00 |
| 7 | DAVIS | 4381.42 | 29.00 | 121.00 | 19.25 | 183.50 | 1.00 | 3.66 | 43.00 | 1.00 |
| 14 | PB-1 | 4193.82 | 35.00 | 103.00 | 42.50 | 527.00 | 0.65 | 2.51 | 70.75 | 3.00 |
| 1 | JUPITER | 3902.34 | 43.00 | 134.00 | 61.00 | 332.25 | 0.97 | 4.42 | 82.75 | 3.50 |
| 3 | HARDEE | 3886.36 | 32.00 | 120.00 | 44.50 | 366.75 | 0.71 | 3.37 | 50.25 | 1.00 |
| 11 | CLARK 63 | 3816.12 | 33.00 | 96.75 | 24.00 | 200.50 | 1.14 | 3.34 | 61.25 | 1.50 |
| 8 | TRACY | 3671.71 | 25.00 | 104.00 | 18.75 | 168.00 | 0.44 | 2.38 | 37.25 | 1.00 |
| 5 | BOSSIER | 3561.15 | 37.00 | 116.00 | 17.50 | 281.50 | 0.80 | 4.38 | 40.75 | 1.00 |
| 9 | FORREST | 3459.21 | 26.00 | 105.00 | 7.25 | 45.25 | 0.43 | 2.16 | 35.25 | 1.00 |
| 4 | IMPROVED PELICAN | 3387.01 | 35.00 | 117.00 | 2.25 | 191.25 | 0.60 | 2.47 | 105.00 | 4.00 |
| 2 | HAMPTON 266A | 2930.17 | 28.00 | 119.00 | 7.75 | 166.00 | 0.34 | 3.09 | 37.75 | 1.00 |
| 12 | BONUS | 2777.04 | 25.00 | 99.00 | 14.50 | 46.25 | 0.25 | 2.14 | 44.75 | 1.00 |
| 10 | HILL | 2538.07 | 29.00 | 104.00 | 18.50 | 22.00 | 0.50 | 2.20 | 35.50 | 1.00 |
| | GRAND MEAN | 3731.94 | 31.07 | 111.12 | 21.23 | 204.43 | 0.61 | 2.87 | 55.32 | 1.70 |
| | STANDARD ERROR OF A VARIETY MEAN | 233.14 | 0.00 | 0.16 | 12.06 | 79.09 | 0.10 | 0.34 | 2.50 | 0.19 |
| | COEFFICIENT OF VARIATION | 12.49% | 0.00% | 0.29% | 113.61% | 77.37% | 34.07% | 23.38% | 9.03% | 21.98% |
| | 5% LSD VARIETY MEANS (********=NS) | 665.38 | 0.00 | 0.46 | ******** | 225.72 | 0.30 | 0.96 | 7.13 | 0.53 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.15 | 0.13 | 0.15 | 0.37++ | 0.25 | 0.13 | 0.29+ | 0.16 |
| DAYS TO | FLOWER | 0.15 | 1.00 | 0.63++ | 0.38++ | 0.53++ | 0.49++ | 0.49++ | 0.59++ | 0.69++ |
| DAYS TO | MATURITY | 0.13 | 0.63++ | 1.00 | 0.24 | 0.29+ | 0.25 | 0.49++ | 0.29+ | 0.38++ |
| NODULE | NUMBER 1 | 0.15 | 0.38++ | 0.24 | 1.00 | 0.35++ | 0.28+ | 0.26+ | 0.13 | 0.16 |
| NODULE | NUMBER 2 | 0.37++ | 0.53++ | 0.29+ | 0.35++ | 1.00 | 0.34++ | 0.27+ | 0.30+ | 0.37++ |
| NODULE | WEIGHT 1 | 0.25 | 0.49++ | 0.25 | 0.28+ | 0.34++ | 1.00 | 0.59++ | 0.23 | 0.11 |
| NODULE | WEIGHT 2 | 0.13 | 0.49++ | 0.49++ | 0.26+ | 0.27+ | 0.59++ | 1.00 | 0.05 | 0.05 |
| PLANT | HEIGHT | 0.29+ | 0.59++ | 0.29+ | 0.13 | 0.30+ | 0.23 | 0.05 | 1.00 | 0.85++ |
| | LODGING | 0.16 | 0.69++ | 0.38++ | 0.16 | 0.37++ | 0.11 | 0.05 | 0.85++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.42++ | 0.04 | -0.32+ | 0.20 | 0.20 | 0.29+ | -0.06 | 0.35++ | 0.24 |
| PODS PER | PLANT | -0.12 | 0.15 | -0.12 | 0.08 | 0.02 | 0.02 | -0.12 | 0.53++ | 0.39++ |
| 100 SEED | WEIGHT | -0.02 | -0.17 | 0.32+ | 0.03 | -0.21 | -0.00 | 0.27+ | -0.26+ | -0.28+ |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 135 EXPERIMENT 665 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 13 | WILLIAMS | 1.00 | 274.00 | 29.15 | 20.08 | 1.00 |
| 6 | BRAGG | 1.00 | 201.50 | 17.33 | 21.44 | 1.00 |
| 15 | SJ-2 | 1.00 | 225.25 | 28.20 | 15.79 | 1.00 |
| 7 | DAVIS | 1.00 | 210.25 | 18.13 | 21.38 | 1.00 |
| 14 | PB-1 | 1.00 | 268.50 | 27.05 | 13.08 | 1.00 |
| 1 | JUPITER | 1.00 | 222.25 | 29.20 | 23.22 | 1.00 |
| 3 | HARDEE | 1.00 | 211.00 | 26.63 | 17.04 | 1.00 |
| 11 | CLARK 63 | 1.00 | 289.25 | 30.03 | 17.33 | 1.00 |
| 8 | TRACY | 1.00 | 273.75 | 19.40 | 23.27 | 1.00 |
| 5 | BOSSIER | 1.00 | 153.00 | 17.95 | 19.77 | 1.00 |
| 9 | FORREST | 1.00 | 213.25 | 16.93 | 15.04 | 1.00 |
| 4 | IMPROVED PELICAN | 1.00 | 252.50 | 39.95 | 15.80 | 1.00 |
| 2 | HAMPTON 266A | 1.00 | 129.75 | 21.53 | 24.16 | 1.00 |
| 12 | BONDS | 1.00 | 157.25 | 40.15 | 19.36 | 1.00 |
| 10 | HILL | 1.00 | 226.00 | 25.83 | 17.56 | 1.00 |
| | GRAND MEAN | 1.00 | 220.50 | 25.83 | 18.95 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.61 | 2.92 | 0.69 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 13.25% | 22.58% | 7.24% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 41.71 | 8.32 | 1.96 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.42** | -0.12 | -0.02 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.04 | 0.15 | -0.17 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.32* | -0.12 | 0.32* | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.20 | 0.08 | 0.03 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.20 | 0.02 | -0.21 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.29* | 0.02 | -0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.06 | -0.12 | 0.27* | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.35** | 0.53** | -0.26* | 0.00 |
| | LODGING | 0.00 | 0.24 | 0.39** | -0.28* | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.14 | -0.24 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.14 | 1.00 | -0.25 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | -0.24 | -0.25 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 136 EXPERIMENT 177 YEAR 1976

REGION - ASIA
SITE - KILINOCHCHI
LATITUDE - 9 DEG. 2 MIN. N
COOPERATOR - N. KANAGANAYAGAM
DATE PLANTED - JANUARY 12, 1977
SOIL TYPE - SAND
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 97 MM

COUNTRY - SRI LANKA
ELEVATION - 9 M
LONGITUDE - 80 DEG. 5 MIN. E
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 3796.33 | 39.25 | 114.00 | 211.00 | 468.00 | 0.00 | 0.00 | 85.50 | 1.00 |
| 12 | DAVIS | 3488.46 | 31.50 | 106.50 | 209.50 | 426.75 | 0.00 | 0.00 | 42.00 | 1.00 |
| 5 | WILLIAMS | 3415.42 | 27.50 | 100.25 | 268.75 | 418.50 | 0.00 | 0.00 | 59.00 | 1.00 |
| 10 | CLARK 63 | 3157.35 | 27.00 | 97.50 | 179.50 | 228.00 | 0.00 | 0.00 | 55.50 | 1.00 |
| 4 | HANSON | 3121.88 | 28.00 | 111.50 | 209.25 | 426.75 | 0.00 | 0.00 | 32.25 | 1.00 |
| 14 | FORREST | 3119.79 | 30.00 | 103.50 | 218.75 | 381.00 | 0.00 | 0.00 | 38.50 | 1.00 |
| 1 | CALLAND | 3062.95 | 26.75 | 101.00 | 163.25 | 239.00 | 0.00 | 0.00 | 54.00 | 1.00 |
| 3 | BRAGG | 3061.08 | 27.50 | 104.00 | 131.75 | 281.75 | 0.00 | 0.00 | 37.00 | 1.00 |
| 13 | IMPROVED PELICAN | 3027.27 | 34.75 | 111.25 | 170.00 | 382.75 | 0.00 | 0.00 | 93.50 | 1.00 |
| 15 | COLUMBUS | 2920.35 | 27.00 | 100.00 | 183.25 | 253.25 | 0.00 | 0.00 | 51.00 | 1.00 |
| 2 | WOODWORTH | 2743.47 | 26.50 | 97.00 | 178.00 | 183.75 | 0.00 | 0.00 | 45.50 | 1.00 |
| 11 | COBB | 2726.48 | 28.00 | 104.00 | 167.50 | 221.25 | 0.00 | 0.00 | 32.75 | 1.00 |
| 16 | ESSEX | 2660.69 | 27.25 | 108.00 | 243.75 | 447.25 | 0.00 | 0.00 | 28.50 | 1.00 |
| 8 | BOSSIER | 2617.87 | 27.00 | 99.75 | 291.50 | 402.75 | 0.00 | 0.00 | 48.50 | 1.00 |
| 6 | PICKETT 71 | 2577.91 | 26.75 | 101.25 | 165.50 | 314.00 | 0.00 | 0.00 | 28.75 | 1.00 |
| 9 | HILL | 2270.45 | 32.50 | 98.75 | 198.75 | 275.50 | 0.00 | 0.00 | 34.25 | 1.00 |
| | GRAND MEAN | 2985.52 | 29.20 | 103.64 | 199.38 | 334.39 | 0.00 | 0.00 | 47.91 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 201.89 | 0.39 | 0.73 | 26.02 | 53.98 | 0.00 | 0.00 | 1.59 | 0.00 |
| | COEFFICIENT OF VARIATION | 13.52% | 2.67% | 1.42% | 26.10% | 32.29% | 0.00% | 0.00% | 6.62% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 575.07 | 1.11 | 2.09 | 74.11 | 153.77 | 0.00 | 0.00 | 4.52 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.32* | 0.32* | 0.03 | 0.26* | 0.00 | 0.00 | 0.40** | 0.00 |
| DAYS TO FLOWER | 0.32* | 1.00 | 0.61** | 0.04 | 0.36** | 0.00 | 0.00 | 0.62** | 0.00 |
| DAYS TO MATURITY | 0.32* | 0.61** | 1.00 | 0.01 | 0.46** | 0.00 | 0.00 | 0.33** | 0.00 |
| NODULE NUMBER 1 | 0.03 | 0.04 | 0.01 | 1.00 | 0.64** | 0.00 | 0.00 | 0.01 | 0.00 |
| NODULE NUMBER 2 | 0.26* | 0.36** | 0.46** | 0.64** | 1.00 | 0.00 | 0.00 | 0.14 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.40** | 0.62** | 0.33** | 0.01 | 0.14 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.26* | -0.14 | 0.07 | 0.26* | 0.32* | 0.00 | 0.00 | -0.04 | 0.00 |
| PODS PER PLANT | 0.28* | 0.59** | 0.48** | -0.07 | 0.20 | 0.00 | 0.00 | 0.75** | 0.00 |
| 100 SEED WEIGHT | 0.32** | -0.19 | 0.03 | 0.07 | 0.03 | 0.00 | 0.00 | -0.20 | 0.00 |
| QUALITY OF SEED | -0.19 | -0.10 | 0.09 | 0.00 | -0.03 | 0.00 | 0.00 | -0.40** | 0.00 |

TABLE 136 EXPERIMENT 177 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 7 | JUPITER | 1.00 | 192.75 | 34.15 | 23.34 | 1.00 |
| 12 | DAVIS | 1.00 | 194.75 | 28.45 | 22.23 | 1.50 |
| 9 | WILLIAMS | 1.00 | 198.75 | 25.35 | 22.40 | 1.00 |
| 10 | CLARK 63 | 1.00 | 193.00 | 26.73 | 21.73 | 1.00 |
| 4 | RANSOM | 1.00 | 199.00 | 22.70 | 23.46 | 2.00 |
| 14 | FORREST | 1.00 | 198.75 | 26.25 | 18.99 | 2.00 |
| 1 | CALLAND | 1.00 | 199.50 | 24.63 | 21.64 | 1.50 |
| 3 | BRAGG | 1.00 | 196.75 | 23.73 | 22.62 | 2.00 |
| 13 | IMPROVED PELICAN | 1.00 | 191.25 | 50.10 | 17.30 | 1.00 |
| 15 | COLUMBUS | 1.00 | 196.00 | 29.90 | 21.96 | 1.00 |
| 2 | WOODWORTH | 1.00 | 191.00 | 22.58 | 21.06 | 1.00 |
| 11 | COBB | 1.00 | 185.00 | 25.68 | 22.09 | 4.00 |
| 16 | ESSEX | 1.00 | 198.25 | 24.48 | 21.48 | 2.00 |
| 8 | BOSSIER | 1.00 | 193.50 | 21.93 | 22.27 | 2.00 |
| 6 | PICKETT 71 | 1.00 | 191.25 | 22.10 | 21.30 | 1.00 |
| 5 | HILL | 1.00 | 190.75 | 24.00 | 20.08 | 2.00 |
| | GRAND MEAN | 1.00 | 194.39 | 27.05 | 21.50 | 1.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 2.29 | 1.68 | 0.56 | 0.37 |
| | COEFFICIENT OF VARIATION | 0.00% | 2.35% | 12.44% | 5.24% | 46.10% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 6.52 | 4.79 | 1.60 | 1.07 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.26* | 0.28* | 0.32** | -0.19 |
| DAYS TO | FLOWER | 0.00 | -0.14 | 0.59** | -0.19 | -0.10 |
| DAYS TO | MATURITY | 0.00 | 0.07 | 0.48** | 0.03 | 0.09 |
| NODULE | NUMBER 1 | 0.00 | 0.26* | -0.07 | 0.07 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.32* | 0.20 | 0.03 | -0.03 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.04 | 0.75** | -0.20 | -0.40** |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.15 | 0.06 | -0.19 |
| PODS PER | PLANT | 0.00 | -0.15 | 1.00 | -0.38** | -0.19 |
| 100 SEED | WEIGHT | 0.00 | 0.06 | -0.38** | 1.00 | 0.05 |
| QUALITY | OF SEED | 0.00 | -0.19 | -0.19 | 0.05 | 1.00 |

TABLE 137 EXPERIMENT 173 YEAR 1976

REGION - ASIA
SITE - MAHA ILLUPPALLAMA
LATITUDE - 8 DEG. 5 MIN. N
COOPERATOR - P. WEERASINGHE
DATE PLANTED - DECEMBER 17, 1976
SOIL TYPE - SANDY CLAY LOAM, PH 6.4
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 312 MM
NUMBER OF IRRIGATIONS - 5

COUNTRY - SRI LANKA
ELEVATION - 138 M
LONGITUDE - 80 DEG. 28 MIN. E

DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | DAVIS | 2465.62 | 28.25 | 91.00 | 101.50 | 182.25 | 0.11 | 1.59 | 26.08 | 1.00 |
| 5 | HILL | 2128.12 | 28.50 | 79.00 | 113.00 | 115.50 | 0.48 | 1.18 | 27.90 | 1.00 |
| 9 | WILLIAMS | 2103.12 | 22.25 | 79.00 | 94.25 | 126.75 | 0.17 | 1.09 | 29.63 | 1.00 |
| 11 | COBB | 2056.25 | 24.25 | 88.00 | 110.00 | 135.00 | 0.20 | 1.14 | 27.13 | 1.00 |
| 13 | IMPROVED PELICAN | 2043.75 | 29.50 | 85.00 | 85.25 | 199.75 | 0.11 | 1.78 | 45.63 | 1.00 |
| 14 | FORREST | 2034.37 | 28.00 | 79.00 | 107.75 | 134.50 | 0.33 | 1.17 | 34.45 | 1.00 |
| 16 | ESSEX | 2031.25 | 25.00 | 91.00 | 80.00 | 130.25 | 0.11 | 1.18 | 27.25 | 1.00 |
| 1 | CALLAND | 1971.87 | 23.00 | 79.00 | 93.75 | 143.75 | 0.14 | 1.17 | 32.78 | 1.00 |
| 3 | BRAGG | 1921.87 | 25.25 | 79.00 | 113.50 | 159.75 | 0.37 | 1.29 | 33.23 | 1.00 |
| 4 | RANSOM | 1828.12 | 24.75 | 88.00 | 130.50 | 170.75 | 0.33 | 1.50 | 27.43 | 1.00 |
| 10 | CLARK 63 | 1628.12 | 22.50 | 79.00 | 114.00 | 132.25 | 0.38 | 0.79 | 33.25 | 1.00 |
| 15 | COLUMBUS | 1409.37 | 23.00 | 83.00 | 119.00 | 116.50 | 0.12 | 1.09 | 25.95 | 1.00 |
| 2 | WOODWORTH | 1403.12 | 23.75 | 79.00 | 105.25 | 152.00 | 0.21 | 1.31 | 33.50 | 1.00 |
| 8 | BOSSIER | 1359.37 | 23.00 | 90.00 | 87.00 | 192.75 | 0.04 | 1.57 | 21.18 | 1.00 |
| 7 | JUPITER | 1196.87 | 24.25 | 95.00 | 128.75 | 204.00 | 0.39 | 1.83 | 62.05 | 1.00 |
| 6 | PICKETT 71 | 950.00 | 26.50 | 63.00 | 93.50 | 155.00 | 0.19 | 1.42 | 24.25 | 1.00 |
| | GRAND MEAN | 1783.20 | 25.11 | 82.94 | 104.81 | 153.17 | 0.23 | 1.32 | 31.98 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 195.53 | 2.04 | 6.25 | 14.87 | 15.48 | 0.09 | 0.13 | 1.02 | 0.00 |
| | COEFFICIENT OF VARIATION | 21.93% | 16.28% | 15.07% | 28.37% | 20.21% | 79.44% | 21.78% | 6.36% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 556.96 | ******** | ******** | ******** | 44.09 | 0.26 | 0.41 | 2.90 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.05 | 0.20 | -0.17 | -0.19 | -0.05 | -0.12 | -0.10 | 0.00 |
| DAYS TO | FLOWER | 0.05 | 1.00 | -0.03 | 0.08 | 0.07 | 0.17 | 0.13 | 0.05 | 0.00 |
| DAYS TO | MATURITY | 0.20 | -0.03 | 1.00 | 0.02 | -0.07 | -0.02 | -0.02 | 0.17 | 0.00 |
| NODULE | NUMBER 1 | -0.17 | 0.08 | 0.02 | 1.00 | -0.06 | 0.18 | -0.04 | 0.14 | 0.00 |
| NODULE | NUMBER 2 | -0.19 | 0.07 | -0.07 | -0.06 | 1.00 | -0.09 | 0.84++ | 0.32++ | 0.00 |
| NODULE | WEIGHT 1 | -0.05 | 0.17 | -0.02 | 0.18 | -0.09 | 1.00 | -0.23 | 0.23 | 0.00 |
| NODULE | WEIGHT 2 | -0.12 | 0.13 | -0.02 | -0.04 | 0.84++ | -0.23 | 1.00 | 0.32+ | 0.00 |
| PLANT | HEIGHT | -0.10 | 0.05 | 0.17 | 0.14 | 0.32++ | 0.23 | 0.32+ | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.59++ | 0.04 | 0.26+ | 0.14 | -0.03 | 0.20 | -0.06 | 0.13 | 0.00 |
| PODS PER | PLANT | -0.01 | 0.12 | -0.13 | -0.09 | 0.19 | -0.12 | 0.24 | -0.03 | 0.00 |
| 100 SEED | WEIGHT | 0.05 | -0.17 | 0.13 | 0.00 | 0.13 | -0.12 | 0.09 | -0.03 | 0.00 |
| QUALITY | OF SEED | 0.01 | -0.05 | 0.06 | -0.03 | -0.08 | 0.31+ | -0.33++ | -0.12 | 0.00 |

TABLE 137 EXPERIMENT 173 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 12 | DAVIS | 1.00 | 300.50 | 15.18 | 18.91 | 1.00 | 38.2 | 22.2 |
| 5 | HILL | 1.00 | 274.75 | 18.58 | 13.62 | 1.00 | 35.3 | 23.3 |
| 9 | WILLIAMS | 1.00 | 251.25 | 12.20 | 17.33 | 1.00 | 36.0 | 25.2 |
| 11 | COBB | 1.00 | 279.00 | 17.85 | 16.38 | 1.75 | 35.9 | 23.1 |
| 13 | IMPROVED PELICAN | 1.00 | 229.25 | 21.63 | 13.08 | 1.00 | 37.5 | 23.8 |
| 14 | FORREST | 1.00 | 227.75 | 15.38 | 12.36 | 1.25 | 37.2 | 22.5 |
| 16 | ESSEX | 1.00 | 256.75 | 11.30 | 15.45 | 1.00 | 38.5 | 22.6 |
| 1 | CALLAND | 1.00 | 248.00 | 11.70 | 19.12 | 1.00 | 35.5 | 23.6 |
| 3 | BRAGG | 1.00 | 306.00 | 10.03 | 16.70 | 1.00 | 36.7 | 24.3 |
| 4 | RANSOM | 1.00 | 310.25 | 12.78 | 16.37 | 1.00 | 35.4 | 25.4 |
| 10 | CLARK 63 | 1.00 | 240.25 | 12.65 | 15.22 | 1.25 | 35.6 | 24.2 |
| 15 | COLUMBUS | 1.00 | 175.75 | 15.75 | 16.55 | 1.00 | 37.1 | 23.8 |
| 2 | WOODWORTH | 1.00 | 219.25 | 14.95 | 14.92 | 1.00 | 35.1 | 25.0 |
| 8 | BOSSIER | 1.00 | 155.75 | 19.95 | 15.42 | 1.25 | 37.5 | 23.1 |
| 7 | JUPITER | 1.00 | 264.75 | 14.63 | 17.38 | 1.00 | 38.2 | 23.8 |
| 6 | PICKETT 71 | 1.00 | 143.25 | 18.63 | 15.93 | 1.00 | 36.0 | 25.0 |
| | GRAND MEAN | 1.00 | 242.66 | 15.20 | 15.92 | 1.09 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 26.30 | 1.91 | 0.77 | 0.13 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 21.68% | 25.16% | 9.66% | 23.36% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 74.92 | 5.44 | 2.19 | 0.36 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.59** | -0.01 | 0.05 | 0.01 |
| DAYS TO FLOWER | 0.00 | 0.04 | 0.12 | -0.17 | -0.05 |
| DAYS TO MATURITY | 0.00 | 0.26* | -0.13 | 0.13 | 0.06 |
| NODULE NUMBER 1 | 0.00 | 0.14 | -0.09 | 0.00 | -0.03 |
| NODULE NUMBER 2 | 0.00 | -0.03 | 0.19 | 0.13 | -0.08 |
| NODULE WEIGHT 1 | 0.00 | 0.20 | -0.12 | -0.12 | 0.31* |
| NODULE WEIGHT 2 | 0.00 | -0.06 | 0.24 | 0.09 | -0.33** |
| PLANT HEIGHT | 0.00 | 0.13 | -0.03 | -0.03 | -0.12 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.34** | 0.02 | 0.00 |
| PODS PER PLANT | 0.00 | -0.34** | 1.00 | -0.24 | 0.17 |
| 100 SEED WEIGHT | 0.00 | 0.02 | -0.24 | 1.00 | -0.12 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.17 | -0.12 | 1.00 |

TABLE 138 EXPERIMENT 132 YEAR 1976

REGION - ASIA
SITE - MAHA ILLUPPALLAMA
LATITUDE - 8 DEG. 5 MIN. N
COOPERATOR - P.W.S.M. WEERASINGHE
DATE PLANTED - MAY 24, 1976
SOIL TYPE - SANDY CLAY LOAM, PH 6.4
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 4 MM
NUMBER OF IRRIGATIONS - 13
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 138 M
LONGITUDE - 80 DEG. 28 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | IMPROVED PELICAN | 1800.36 | 32.75 | 99.00 | 66.75 | 136.50 | 0.33 | 1.24 | 60.08 | 1.00 |
| 3 | HARDEE | 1712.84 | 29.50 | 98.25 | 72.50 | 187.25 | 0.50 | 1.54 | 29.15 | 1.00 |
| 15 | SJ-2 | 1571.15 | 32.00 | 91.75 | 84.75 | 169.25 | 0.70 | 1.34 | 52.38 | 1.00 |
| 12 | BONUS | 1544.06 | 35.00 | 92.75 | 67.25 | 182.75 | 0.53 | 1.76 | 36.13 | 1.00 |
| 1 | JUPITER | 1473.21 | 38.50 | 110.25 | 93.00 | 128.25 | 0.62 | 1.12 | 58.35 | 1.00 |
| 7 | DAVIS | 1458.62 | 28.00 | 95.25 | 73.00 | 173.25 | 0.48 | 1.52 | 28.60 | 1.00 |
| 6 | BRAGG | 1423.20 | 33.00 | 88.50 | 98.25 | 169.50 | 0.69 | 1.50 | 37.45 | 1.00 |
| 5 | BOSSIER | 1406.53 | 28.00 | 93.25 | 71.25 | 124.75 | 0.58 | 1.06 | 26.15 | 1.00 |
| 14 | PB-1 | 1366.94 | 32.00 | 88.50 | 64.00 | 177.25 | 0.45 | 1.67 | 33.88 | 1.00 |
| 13 | WILLIAMS | 1289.84 | 28.00 | 81.00 | 36.25 | 146.75 | 0.24 | 1.28 | 36.33 | 1.00 |
| 9 | FORREST | 1214.93 | 29.00 | 84.00 | 51.75 | 117.50 | 0.29 | 0.97 | 28.00 | 1.00 |
| 11 | CLARK 63 | 1179.40 | 30.00 | 84.25 | 46.50 | 152.00 | 0.40 | 1.35 | 46.68 | 1.00 |
| 8 | TRACY | 1114.81 | 28.00 | 80.00 | 31.50 | 146.50 | 0.58 | 1.39 | 26.73 | 1.00 |
| 10 | HILL | 1068.96 | 28.00 | 82.00 | 50.00 | 178.25 | 0.36 | 1.52 | 27.08 | 1.00 |
| 2 | HAMPTON 266A | 881.43 | 29.75 | 83.75 | 76.75 | 156.75 | 0.53 | 1.40 | 23.30 | 1.00 |
| | GRAND MEAN | 1367.08 | 30.77 | 90.17 | 68.90 | 156.43 | 0.49 | 1.38 | 36.68 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 149.68 | 0.17 | 2.65 | 11.70 | 15.89 | 0.08 | 0.16 | 2.46 | 0.00 |
| | COEFFICIENT OF VARIATION | 21.90% | 1.11% | 5.87% | 33.98% | 20.32% | 32.49% | 22.55% | 13.40% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 427.18 | 0.49 | 7.55 | 33.41 | 45.35 | 0.23 | 0.44 | 7.02 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.26* | 0.52** | 0.20 | -0.02 | 0.09 | -0.05 | 0.47** | 0.00 |
| DAYS TO FLOWER | 0.26* | 1.00 | 0.58** | 0.32* | 0.01 | 0.29* | 0.07 | 0.64** | 0.00 |
| DAYS TO MATURITY | 0.52** | 0.58** | 1.00 | 0.20 | -0.07 | 0.13 | -0.11 | 0.50** | 0.00 |
| NODULE NUMBER 1 | 0.20 | 0.32* | 0.20 | 1.00 | 0.02 | 0.89** | -0.02 | 0.08 | 0.00 |
| NODULE NUMBER 2 | -0.02 | 0.01 | -0.07 | 0.02 | 1.00 | -0.03 | 0.90** | -0.14 | 0.00 |
| NODULE WEIGHT 1 | 0.09 | 0.29* | 0.13 | 0.89** | -0.03 | 1.00 | -0.07 | 0.01 | 0.00 |
| NODULE WEIGHT 2 | -0.05 | 0.07 | -0.11 | -0.02 | 0.90** | -0.07 | 1.00 | -0.11 | 0.00 |
| PLANT HEIGHT | 0.47** | 0.64** | 0.50** | 0.08 | -0.14 | 0.01 | -0.11 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.17 | 0.16 | 0.03 | -0.04 | -0.16 | -0.00 | -0.18 | 0.46** | 0.00 |
| PODS PER PLANT | 0.17 | -0.15 | 0.00 | -0.09 | 0.28* | -0.16 | 0.20 | -0.14 | 0.00 |
| 100 SEED WEIGHT | 0.06 | 0.02 | 0.33* | 0.09 | -0.05 | 0.06 | -0.09 | 0.12 | 0.00 |
| QUALITY OF SEED | 0.07 | -0.36** | 0.17 | 0.05 | -0.08 | 0.09 | -0.10 | -0.29* | 0.00 |

TABLE 138 EXPERIMENT 132 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | IMPROVED PELICAN | 1.00 | 199.00 | 27.[illegible] | 14.20 | 1.00 |
| 3 | HARDEE | 1.00 | 116.25 | 28.[illegible] | 17.40 | 1.00 |
| 15 | SJ-2 | 1.00 | 179.25 | 28.[illegible] | 12.85 | 1.00 |
| 12 | BONUS | 1.00 | 158.75 | 24.00 | 13.48 | 1.00 |
| 1 | JUPITER | 1.00 | 141.75 | 15.25 | 18.25 | 1.00 |
| 7 | DAVIS | 1.00 | 155.50 | 24.50 | 16.38 | 2.00 |
| 6 | BRAGG | 1.00 | 144.[illegible] | 22.50 | 14.30 | 1.00 |
| 5 | BOSSIER | 1.00 | 146.50 | 25.50 | 14.88 | 2.00 |
| 14 | PB-1 | 1.00 | 148.50 | 39.75 | 10.83 | 1.00 |
| 13 | WILLIAMS | 1.00 | 124.75 | 25.00 | 16.40 | 1.00 |
| 9 | FORREST | 1.00 | 139.00 | 23.75 | 11.83 | 1.00 |
| 11 | CLARK 63 | 1.00 | 244.75 | 20.25 | 15.93 | 1.00 |
| 8 | TRACY | 1.00 | 142.50 | 17.00 | 15.60 | 1.00 |
| 10 | HILL | 1.00 | 108.50 | 31.25 | 14.55 | 1.00 |
| 2 | HAMPTON 266A | 1.00 | 89.75 | 32.00 | 14.55 | 1.00 |
| | GRAND MEAN | 1.00 | 149.28 | 25.65 | 14.76 | 1.13 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.78 | 3.54 | 0.11 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 17.12% | 27.58% | 1.43% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 36.47 | 10.09 | 0.30 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.17 | 0.17 | 0.06 | 0.07 |
| DAYS TO | FLOWER | 0.00 | 0.16 | -0.15 | 0.02 | -0.36** |
| DAYS TO | MATURITY | 0.00 | 0.03 | 0.00 | 0.33* | 0.17 |
| NODULE | NUMBER 1 | 0.00 | -0.04 | -0.09 | 0.09 | 0.05 |
| NODULE | NUMBER 2 | 0.00 | -0.16 | 0.28* | -0.05 | -0.08 |
| NODULE | WEIGHT 1 | 0.00 | -0.00 | -0.16 | 0.06 | 0.09 |
| NODULE | WEIGHT 2 | 0.00 | -0.18 | 0.20 | -0.09 | -0.10 |
| PLANT | HEIGHT | 0.00 | 0.46** | -0.14 | 0.12 | -0.29* |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.31* | -0.08 | 0.02 |
| PODS PER | PLANT | 0.00 | -0.31* | 1.00 | -0.38** | -0.03 |
| 100 SEED | WEIGHT | 0.00 | -0.08 | -0.38** | 1.00 | 0.17 |
| QUALITY | OF SEED | 0.00 | 0.02 | -0.03 | 0.17 | 1.00 |

TABLE 139 EXPERIMENT 135 YEAR 1976

REGION - ASIA
SITE - OKKAMPITIYA
LATITUDE - 6 DEG. 45 MIN. N
COOPERATOR - L.G. HERAT
DATE PLANTED - MAY 11, 1976
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - N 22.4, P 29.3, K 37.3
AMOUNT OF MOISTURE - 91 MM
NUMBER OF IRRIGATIONS - 12
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 184 M
LONGITUDE - 81 DEG. 15 MIN. E

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | BOSSIER | 3271.99 | 25.00 | 104.00 | 102.25 | 206.75 | 1.76 | 4.76 | 66.75 | 1.00 |
| 3 | HARDEE | 3171.47 | 29.00 | 110.00 | 12[illegible].00 | 247.50 | 1.96 | 5.31 | 64.00 | 1.00 |
| 14 | PB-1 | 3125.62 | 25.00 | 89.00 | 95.00 | 166.25 | 1.78 | 4.13 | 68.25 | 2.00 |
| 7 | DAVIS | 2929.75 | 25.00 | 102.00 | 70.50 | 197.50 | 1.80 | 4.87 | 50.50 | 1.00 |
| 6 | BRAGG | 2429.65 | 29.00 | 96.00 | 62.25 | 116.25 | 1.22 | 3.42 | 48.00 | 1.00 |
| 13 | WILLIAMS | 2229.61 | 22.00 | 80.00 | 97.50 | 92.50 | 1.51 | 2.89 | 37.50 | 1.00 |
| 2 | HAMPTON 266A | 2175.43 | 22.00 | 94.25 | 95.25 | 128.00 | 1.70 | 3.46 | 37.50 | 1.00 |
| 9 | FORREST | 2162.93 | 25.00 | 96.00 | 72.50 | 124.75 | 1.57 | 3.59 | 51.50 | 1.00 |
| 10 | HILL | 2146.26 | 29.00 | 80.00 | 77.00 | 66.75 | 1.36 | 2.08 | 54.25 | 1.50 |
| 12 | BONUS | 2133.76 | 22.00 | 87.25 | 68.00 | 87.50 | 1.38 | 2.69 | 47.00 | 1.00 |
| 8 | TRACY | 2100.42 | 22.00 | 82.25 | 76.50 | 85.25 | 1.36 | 2.61 | 41.25 | 1.00 |
| 4 | IMPROVED PELICAN | 2025.40 | 25.00 | 111.75 | 36.25 | 71.25 | 0.70 | 1.51 | 80.00 | 1.75 |
| 1 | JUPITER | 1912.88 | 46.00 | 117.00 | 71.50 | 225.00 | 1.42 | 4.44 | 101.25 | 1.25 |
| 11 | UNKNOWN | 1883.71 | 25.00 | 80.00 | 64.00 | 97.00 | 1.37 | 2.53 | 65.00 | 2.00 |
| 15 | SJ-2 | 1858.70 | 25.00 | 117.00 | 48.75 | 90.00 | 1.17 | 2.35 | 83.75 | 2.25 |
| | GRAND MEAN | 2370.47 | 26.40 | 96.10 | 77.28 | 133.48 | 1.47 | 3.38 | 59.77 | 1.32 |
| | STANDARD ERROR OF A VARIETY MEAN | 212.79 | 0.00 | 1.17 | 13.92 | 20.36 | 0.23 | 0.45 | 2.39 | 0.14 |
| | COEFFICIENT OF VARIATION | 17.95% | 0.00% | 2.43% | 36.02% | 30.50% | 31.89% | 2[illegible].68% | 8.00% | 20.96% |
| | 5% LSD VARIETY MEANS (********=NS) | 607.32 | 0.00 | 3.34 | 39.73 | 58.10 | ******** | 1.29 | 6.82 | 0.39 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.09 | 0.06 | 0.43** | 0.49** | 0.48** | 0.48** | -0.02 | -0.11 |
| DAYS TO | FLOWER | -0.09 | 1.00 | 0.49** | -0.03 | 0.42** | -0.02 | 0.27* | 0.67** | 0.01 |
| DAYS TO | MATURITY | 0.06 | 0.49** | 1.00 | -0.12 | 0.43** | -0.07 | 0.29* | 0.69** | 0.10 |
| NODULE | NUMBER 1 | 0.43** | -0.03 | -0.12 | 1.00 | 0.40** | 0.63** | 0.37** | -0.17 | -0.22 |
| NODULE | NUMBER 2 | 0.49** | 0.42** | 0.43** | 0.40** | 1.00 | 0.29* | 0.92** | 0.28* | -0.21 |
| NODULE | WEIGHT 1 | 0.48** | -0.02 | -0.07 | 0.63** | 0.29* | 1.00 | 0.29* | -0.11 | -0.20 |
| NODULE | WEIGHT 2 | 0.48** | 0.27* | 0.29* | 0.37** | 0.92** | 0.29* | 1.00 | 0.06 | -0.30* |
| PLANT | HEIGHT | -0.02 | 0.67** | 0.69** | -0.17 | 0.28* | -0.11 | 0.06 | 1.00 | 0.52** |
| | LODGING | -0.11 | 0.01 | 0.10 | -0.22 | -0.21 | -0.20 | -0.30* | 0.52** | 1.00 |
| | SHATTER | -0.26* | -0.12 | -0.37** | -0.07 | -0.32* | -0.08 | -0.35** | 0.11 | 0.59** |
| PLANTS | HARVEST | 0.39** | 0.07 | 0.07 | 0.17 | 0.15 | 0.02 | 0.07 | 0.32* | 0.26* |
| PODS PER | PLANT | 0.23 | 0.42** | 0.73** | 0.01 | 0.43** | -0.03 | 0.28* | 0.61** | 0.23 |
| 100 SEED | WEIGHT | 0.09 | 0.06 | 0.06 | 0.12 | 0.22 | 0.17 | 0.27* | -0.37** | -0.62** |
| QUALITY | OF SEED | -0.23 | 0.37** | 0.25 | -0.17 | 0.01 | -0.13 | -0.11 | 0.54** | 0.40** |

TABLE 139 EXPERIMENT 135 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 5 | BOSSIER | 1.00 | 308.75 | 25.55 | 20.00 | 2.00 |
| 3 | HARDEE | 1.00 | 320.00 | 20.88 | 19.15 | 3.00 |
| 14 | PB-1 | 1.75 | 332.50 | 19.95 | 12.98 | 3.00 |
| 7 | DAVIS | 1.00 | 310.25 | 16.50 | 22.05 | 3.00 |
| 6 | BRAGG | 1.00 | 292.00 | 18.88 | 22.15 | 2.00 |
| 13 | WILLIAMS | 1.50 | 303.00 | 10.48 | 19.10 | 3.00 |
| 2 | HAMPTON 266A | 1.00 | 244.75 | 18.98 | 22.98 | 2.00 |
| 9 | FORREST | 1.25 | 310.50 | 15.20 | 16.75 | 2.00 |
| 10 | HILL | 2.00 | 305.50 | 11.93 | 16.33 | 3.00 |
| 12 | BONUS | 1.25 | 298.75 | 11.55 | 20.03 | 4.00 |
| 8 | TRACY | 1.00 | 304.25 | 11.30 | 19.03 | 2.00 |
| 4 | IMPROVED PELICAN | 1.00 | 314.25 | 22.68 | 16.50 | 3.00 |
| 1 | JUPITER | 1.00 | 302.25 | 26.00 | 19.93 | 3.00 |
| 11 | UNKNOWN | 3.00 | 305.00 | 13.43 | 16.53 | 3.00 |
| 15 | SJ-2 | 2.00 | 313.00 | 22.55 | 15.20 | 4.00 |
| | GRAND MEAN | 1.38 | 304.32 | 17.85 | 18.58 | 2.87 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.13 | 10.58 | 1.98 | 0.37 | 0.00 |
| | COEFFICIENT OF VARIATION | 19.10% | 6.95% | 22.20% | 3.94% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.38 | 30.19 | 5.66 | 1.04 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.26* | 0.39** | 0.23 | 0.09 | -0.23 |
| DAYS TO | FLOWER | -0.12 | 0.07 | 0.42** | 0.06 | 0.37** |
| DAYS TO | MATURITY | -0.37** | 0.07 | 0.73** | 0.06 | 0.25 |
| NODULE | NUMBER 1 | -0.07 | 0.17 | 0.01 | 0.12 | -0.17 |
| NODULE | NUMBER 2 | -0.32* | 0.15 | 0.43** | 0.22 | 0.01 |
| NODULE | WEIGHT 1 | -0.08 | 0.02 | -0.03 | 0.17 | -0.13 |
| NODULE | WEIGHT 2 | -0.35** | 0.07 | 0.28* | 0.27* | -0.11 |
| PLANT | HEIGHT | 0.11 | 0.32* | 0.61** | -0.37** | 0.58** |
| | LODGING | 0.59** | 0.26* | 0.23 | -0.62** | 0.40** |
| | SHATTER | 1.00 | 0.11 | -0.23 | -0.52** | 0.27* |
| PLANTS | HARVEST | 0.11 | 1.00 | -0.03 | -0.43** | 0.21 |
| PODS PER | PLANT | -0.23 | -0.03 | 1.00 | 0.07 | 0.09 |
| 100 SEED | WEIGHT | -0.52** | -0.43** | 0.07 | 1.00 | -0.28* |
| QUALITY | OF SEED | 0.27* | 0.21 | 0.09 | -0.28* | 1.00 |

TABLE 140 EXPERIMENT 134 YEAR 1976

REGION - ASIA
SITE - PUTTALAM
LATITUDE - 8 DEG. 15 MIN. N
COOPERATORS - I.S. PADMASIRI, S. THIRIANATHAN
DATE PLANTED - APRIL 30, 1976
SOIL TYPE - SAND 60%, SILT 20%, CLAY 20%, PH 6.9
FERTILIZER USED (KG/HA) - P 60.0, K 40.0
AMOUNT OF MOISTURE - 390 MM
NUMBER OF IRRIGATIONS - 18 (360 MM)
LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 24 M
LONGITUDE - 79 DEG. 55 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | PB-1 | 2954.76 | 29.00 | 93.00 | 57.50 | 64.00 | 0.00 | 0.00 | 45.78 | 1.00 |
| 9 | FORREST | 2763.05 | 26.00 | 95.00 | 39.75 | 56.25 | 0.00 | 0.00 | 24.78 | 1.00 |
| 10 | HILL | 2287.96 | 26.00 | 94.75 | 38.00 | 72.50 | 0.00 | 0.00 | 41.48 | 1.00 |
| 15 | SJ-2 | 2283.79 | 33.00 | 132.25 | 30.75 | 42.75 | 0.00 | 0.00 | 43.45 | 1.50 |
| 11 | CLARK 63 | 2162.93 | 29.00 | 92.00 | 52.00 | 69.25 | 0.00 | 0.00 | 38.85 | 1.50 |
| 5 | BRAGG | 2150.43 | 26.00 | 12[illegible].75 | 75.50 | 93.25 | 0.00 | 0.00 | 29.65 | 1.50 |
| 1 | JUPITER | 2021.24 | 35.00 | 123.00 | 28.50 | 48.25 | 0.00 | 0.00 | 44.85 | 1.00 |
| 4 | IMPROVED PELICAN | 1946.22 | 29.00 | 118.25 | 34.50 | 49.75 | 0.00 | 0.00 | 60.78 | 1.25 |
| 3 | HARDEE | 1879.54 | 29.00 | 114.00 | 45.00 | 84.50 | 0.00 | 0.00 | 27.63 | 2.50 |
| 13 | WILLIAMS | 1877.46 | 23.00 | 92.00 | 53.00 | 75.00 | 0.00 | 0.00 | 33.58 | 1.50 |
| 7 | DAVIS | 1829.53 | 29.00 | 124.75 | 45.00 | 66.75 | 0.00 | 0.00 | 19.95 | 1.50 |
| 6 | BOSSIER | 1792.02 | 26.00 | 93.00 | 24.75 | 44.00 | 0.00 | 0.00 | 29.25 | 1.50 |
| 8 | TRACY | 1783.69 | 23.00 | 93.00 | 50.00 | 57.75 | 0.00 | 0.00 | 22.83 | 1.00 |
| 12 | BONUS | 1687.84 | 23.00 | 92.00 | 39.75 | 51.25 | 0.00 | 0.00 | 26.93 | 1.00 |
| 2 | HAMPTON 266A | 1625.32 | 26.00 | 122.50 | 39.00 | 65.50 | 0.00 | 0.00 | 25.88 | 1.00 |
| | GRAND MEAN | 2069.72 | 27.47 | 106.75 | 43.53 | 62.72 | 0.00 | 0.00 | 34.37 | 1.32 |
| | STANDARD ERROR OF A VARIETY MEAN | 240.15 | 0.00 | 2.34 | 10.25 | 14.03 | 0.00 | 0.00 | 2.14 | 0.25 |
| | COEFFICIENT OF VARIATION | 23.21% | 0.00% | 4.38% | 47.07% | 44.74% | 0.00% | 0.00% | 12.46% | 37.49% |
| | 5% LSD VARIETY MEANS (********=NS) | 685.39 | 0.00 | 6.67 | ******** | ******** | 0.00 | 0.00 | 6.11 | 0.70 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.18 | -0.17 | -0.09 | -0.20 | 0.00 | 0.00 | 0.31* | -0.26* |
| DAYS TO FLOWER | 0.18 | 1.00 | 0.61** | -0.15 | -0.11 | 0.00 | 0.00 | 0.[illegible]9** | 0.11 |
| DAYS TO MATURITY | -0.17 | 0.61** | 1.00 | -0.09 | -0.02 | 0.00 | 0.00 | 0.12 | 0.13 |
| NODULE NUMBER 1 | -0.09 | -0.15 | -0.09 | 1.00 | 0.84** | 0.00 | 0.00 | -0.09 | 0.15 |
| NODULE NUMBER 2 | -0.20 | -0.11 | -0.02 | 0.84** | 1.00 | 0.00 | 0.00 | -0.09 | 0.20 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.31* | 0.49** | 0.12 | -0.09 | -0.09 | 0.00 | 0.00 | 1.00 | -0.17 |
| LODGING | -0.26* | 0.11 | 0.13 | 0.15 | 0.20 | 0.00 | 0.00 | -0.17 | 1.00 |
| SHATTER | -0.15 | 0.09 | 0.43** | -0.05 | -0.03 | 0.00 | 0.00 | 0.07 | 0.17 |
| PLANTS HARVEST | 0.51** | 0.05 | -0.28* | -0.19 | -0.30* | 0.00 | 0.00 | 0.23 | -0.26* |
| PODS PER PLANT | 0.05 | 0.28* | 0.22 | 0.04 | 0.16 | 0.00 | 0.00 | 0.41** | 0.05 |
| 100 SEED WEIGHT | -0.35** | -0.11 | 0.29* | 0.04 | 0.07 | 0.00 | 0.00 | -0.37** | -0.14 |
| QUALITY OF SEED | -0.14 | -0.19 | -0.08 | -0.20 | -0.12 | 0.00 | 0.00 | -0.33* | -0.18 |

TABLE 140 EXPERIMENT 134 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 14 | PB-1 | 1.00 | 332.00 | 24.30 | 12.24 | 1.00 |
| 9 | FORREST | 1.00 | 317.25 | 19.05 | 14.46 | 4.00 |
| 10 | HILL | 1.00 | 314.00 | 44.23 | 13.39 | 1.50 |
| 15 | SJ-2 | 1.50 | 298.00 | 27.37 | 13.61 | 1.00 |
| 11 | CLARK 63 | 1.00 | 320.00 | 33.68 | 17.69 | 1.00 |
| 5 | BRAGG | 1.25 | 300.75 | 22.15 | 17.42 | 1.00 |
| 1 | JUPITER | 1.00 | 296.50 | 27.92 | 18.28 | 2.75 |
| 4 | IMPROVED PELICAN | 1.50 | 302.75 | 32.23 | 14.57 | 2.25 |
| 3 | HARDEE | 1.00 | 292.75 | 33.67 | 14.47 | 2.25 |
| 13 | WILLIAMS | 1.25 | 299.25 | 18.85 | 16.32 | 2.00 |
| 7 | DAVIS | 1.25 | 296.25 | 24.37 | 19.31 | 2.00 |
| 6 | BOSSIER | 1.00 | 312.25 | 19.85 | 14.82 | 2.00 |
| 8 | TRACY | 1.00 | 296.75 | 18.33 | 18.14 | 2.75 |
| 12 | BONUS | 1.00 | 289.25 | 20.38 | 16.25 | 2.25 |
| 2 | HAMPTON 266A | 1.50 | 278.75 | 23.50 | 23.19 | 3.00 |
| | GRAND MEAN | 1.15 | 303.10 | 24.99 | 16.28 | 2.05 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.17 | 10.28 | 2.94 | 0.51 | 0.23 |
| | COEFFICIENT OF VARIATION | 30.20% | 6.78% | 23.54% | 6.26% | 22.20% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | 8.40 | 1.45 | 0.65 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.15 | 0.51** | 0.05 | -0.35** | -0.14 |
| DAYS TO | FLOWER | 0.09 | 0.05 | 0.28* | -0.11 | -0.19 |
| DAYS TO | MATURITY | 0.43** | -0.28* | 0.22 | 0.29* | -0.08 |
| NODULE | NUMBER 1 | -0.05 | -0.19 | 0.04 | 0.04 | -0.20 |
| NODULE | NUMBER 2 | -0.03 | -0.30* | 0.16 | 0.07 | -0.12 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.07 | 0.23 | 0.41** | -0.37** | -0.33* |
| | LODGING | 0.17 | -0.26* | 0.05 | -0.14 | -0.18 |
| | SHATTER | 1.00 | -0.22 | 0.02 | 0.10 | -0.07 |
| PLANTS | HARVEST | -0.22 | 1.00 | 0.02 | -0.32* | -0.06 |
| PODS PER | PLANT | 0.02 | 0.02 | 1.00 | -0.24 | -0.14 |
| 100 SEED | WEIGHT | 0.10 | -0.32* | -0.24 | 1.00 | 0.27* |
| QUALITY | OF SEED | -0.07 | -0.06 | -0.14 | 0.27* | 1.00 |

TABLE 141 EXPERIMENT 666 YEAR 1976

REGION - ASIA
COUNTRY - SRI LANKA
SITE - THIRUNELVELY
ELEVATION - 1 M
LATITUDE - 10 DEG. N
LONGITUDE - 80 DEG. E
COOPERATORS - J.S. SELVARATNAM, S. BALASUNDERAM, R. MANOKARAN
DATE PLANTED - MAY 21, 1976
DATE HARVESTED - AUGUST, 1976
SOIL TYPE - SANDY LOAM, PH 7.0
FERTILIZER USED (KG/HA) - N 22.0, P 66.0, K 44.0
AMOUNT OF MOISTURE - 14 MM
NUMBER OF IRRIGATIONS - 21
LOCAL VARIETIES - PB-1, SJ-2

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | HARDEE | 4856.80 | 35.25 | 111.25 | 19.50 | 65.50 | 0.15 | 0.63 | 60.68 | 2.00 |
| 2 | HAMPTON 266A | 4673.43 | 27.25 | 112.75 | 23.75 | 44.50 | 0.17 | 0.57 | 73.62 | 2.25 |
| 10 | HILL | 4647.60 | 27.25 | 110.00 | 13.50 | 48.00 | 0.12 | 0.62 | 69.12 | 2.00 |
| 6 | BOSSIER | 4625.92 | 34.75 | 98.75 | 3.75 | 30.00 | 0.02 | 0.35 | 42.98 | 1.25 |
| 9 | FORREST | 4438.39 | 26.75 | 85.50 | 4.00 | 15.75 | 0.03 | 0.13 | 44.00 | 1.00 |
| 1[illegible] | WILLIAMS | 4071.65 | 27.25 | 84.50 | 17.25 | 59.00 | 0.15 | 0.69 | 74.05 | 1.00 |
| [illegible] | CLARK 63 | 4021.64 | 26.75 | 84.25 | 12.25 | 118.75 | 0.15 | 0.83 | 67.68 | 1.00 |
| [illegible] | DAVIS | 3763.25 | 26.75 | 99.25 | 18.00 | 60.00 | 0.14 | 0.63 | 49.88 | 1.00 |
| [illegible] | TRACY | 3667.40 | 26.75 | 90.50 | 6.00 | 30.00 | 0.05 | 0.30 | 50.30 | 1.00 |
| | BRAGG | 3330.67 | 38.00 | 109.50 | 37.50 | 116.25 | 0.18 | 0.94 | 72.35 | 1.75 |
| 14 | PB-1 | 3296.49 | 35.00 | 97.00 | 25.00 | 208.75 | 0.19 | 1.64 | 74.05 | 2.00 |
| 12 | BONUS | 3238.15 | 26.75 | 90.50 | 19.00 | 91.25 | 0.20 | 0.54 | 74.60 | 1.00 |
| 4 | IMPROVED PELICAN | 2683.87 | 37.25 | 96.25 | 18.25 | 27.25 | 0.06 | 0.33 | 104.88 | 3.00 |
| 15 | SJ-2 | 2513.00 | 35.00 | 97.50 | 2.50 | 26.00 | 0.01 | 0.24 | 79.73 | 2.25 |
| 1 | JUPITER | 2456.74 | 43.75 | 124.25 | 22.00 | 24.00 | 0.29 | 0.34 | 74.90 | 1.75 |
| | GRAND MEAN | 3752.33 | 31.63 | 99.45 | 16.15 | 64.33 | 0.13 | 0.58 | 67.52 | 1.62 |
| | STANDARD ERROR OF A VARIETY MEAN | 309.92 | 0.52 | 2.69 | 6.40 | 37.21 | 0.05 | 0.25 | 2.30 | 0.13 |
| | COEFFICIENT OF VARIATION | 16.52% | 3.28% | 5.40% | 79.23% | 115.68% | 76.00% | 86.95% | 6.82% | 16.25% |
| | 5% LSD VARIETY MEANS (*********=NS) | 884.52 | 1.48 | 7.67 | 18.26 | ******** | 0.14 | 0.73 | 6.57 | 0.37 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.47** | -0.01 | 0.02 | -0.02 | -0.03 | 0.05 | -0.48** | -0.20 |
| DAYS TO FLOWER | -0.47** | 1.00 | 0.51** | 0.12 | 0.01 | 0.11 | 0.01 | 0.37** | 0.50** |
| DAYS TO MATURITY | -0.01 | 0.51** | 1.00 | 0.26* | -0.07 | 0.28* | 0.03 | 0.15 | 0.43** |
| NODULE NUMBER 1 | 0.02 | 0.12 | 0.26* | 1.00 | 0.48** | 0.81** | 0.62** | 0.15 | 0.15 |
| NODULE NUMBER 2 | -0.02 | 0.01 | -0.07 | 0.48** | 1.00 | 0.39** | 0.88** | 0.08 | 0.03 |
| NODULE WEIGHT 1 | -0.03 | 0.11 | 0.28* | 0.81** | 0.39** | 1.00 | 0.57** | 0.11 | -0.01 |
| NODULE WEIGHT 2 | 0.05 | 0.01 | 0.03 | 0.62** | 0.88** | 0.57** | 1.00 | 0.06 | 0.04 |
| PLANT HEIGHT | -0.48** | 0.37** | 0.15 | 0.15 | 0.08 | 0.11 | 0.06 | 1.00 | 0.63** |
| LODGING | -0.20 | 0.50** | 0.43** | 0.15 | 0.03 | -0.01 | 0.04 | 0.63** | 1.00 |
| SHATTER | 0.02 | -0.17 | -0.24 | 0.02 | 0.33* | 0.08 | 0.22 | -0.01 | -0.17 |
| PLANTS HARVEST | 0.16 | -0.73** | -0.57** | -0.13 | -0.00 | -0.06 | -0.07 | -0.20 | -0.51** |
| PODS PER PLANT | -0.14 | 0.30* | 0.06 | 0.15 | 0.29* | 0.16 | 0.25 | 0.08 | 0.28* |
| 100 SEED WEIGHT | 0.28* | -0.50** | -0.15 | 0.05 | -0.12 | 0.20 | -0.06 | -0.42** | -0.62** |
| QUALITY OF SEED | -0.06 | 0.32* | 0.40** | 0.08 | -0.17 | 0.18 | -0.17 | 0.03 | 0.05 |

TABLE 141 EXPERIMENT 666 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | HARDEE | 1.00 | 228.25 | 41.25 | 17.56 | 2.75 |
| 2 | HAMPTON 266A | 1.00 | 264.75 | 37.00 | 17.93 | 2.75 |
| 10 | HILL | 1.00 | 249.50 | 28.25 | 17.59 | 2.50 |
| 6 | BOSSIER | 1.00 | 248.75 | 42.00 | 18.46 | 2.50 |
| 9 | FORREST | 1.00 | 293.00 | 44.00 | 16.18 | 2.50 |
| 13 | WILLIAMS | 1.00 | 292.50 | 30.00 | 19.90 | 2.00 |
| 11 | CLARK 63 | 1.50 | 289.00 | 48.50 | 18.48 | 2.25 |
| 7 | DAVIS | 1.00 | 290.25 | 29.75 | 20.04 | 2.00 |
| 8 | TRACY | 1.00 | 239.75 | 30.75 | 21.04 | 2.25 |
| 5 | BRAGG | 1.00 | 233.75 | 27.00 | 15.65 | 3.00 |
| 14 | PB-1 | 1.00 | 248.00 | 60.75 | 14.30 | 2.00 |
| 12 | BONUS | 1.00 | 297.00 | 26.50 | 19.61 | 3.00 |
| 4 | IMPROVED PELICAN | 1.00 | 258.25 | 43.25 | 15.57 | 2.25 |
| 15 | SJ-2 | 1.00 | 253.50 | 45.50 | 13.98 | 2.25 |
| 1 | JUPITER | 1.00 | 237.50 | 48.50 | 18.09 | 3.25 |
| | GRAND MEAN | 1.03 | 265.58 | 38.87 | 17.62 | 2.48 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.07 | 8.16 | 5.44 | 0.24 | 0.19 |
| | COEFFICIENT OF VARIATION | 14.43% | 6.14% | 27.97% | 2.72% | 15.47% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.21 | 23.28 | 15.51 | 0.68 | 0.55 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.02 | 0.16 | -0.14 | 0.28* | -0.06 |
| DAYS TO | FLOWER | -0.17 | -0.73** | 0.30* | -0.50** | 0.32* |
| DAYS TO | MATURITY | -0.24 | -0.57** | 0.06 | -0.15 | 0.40** |
| NODULE | NUMBER 1 | 0.02 | -0.13 | 0.15 | 0.05 | 0.08 |
| NODULE | NUMBER 2 | 0.33* | -0.00 | 0.29* | -0.12 | -0.17 |
| NODULE | WEIGHT 1 | 0.08 | -0.06 | 0.16 | 0.20 | 0.18 |
| NODULE | WEIGHT 2 | 0.22 | -0.07 | 0.25 | -0.06 | -0.17 |
| PLANT | HEIGHT | -0.01 | -0.20 | 0.08 | -0.42** | 0.03 |
| | LODGING | -0.17 | -0.51** | 0.28* | -0.62** | 0.05 |
| | SHATTER | 1.00 | 0.16 | 0.05 | 0.08 | -0.17 |
| PLANTS | HARVEST | 0.16 | 1.00 | -0.16 | 0.49** | -0.31* |
| PODS PER | PLANT | 0.05 | -0.16 | 1.00 | -0.38** | -0.17 |
| 100 SEED | WEIGHT | 0.08 | 0.49** | -0.38** | 1.00 | -0.01 |
| QUALITY | OF SEED | -0.17 | -0.31* | -0.17 | -0.01 | 1.00 |

TABLE 142 EXPERIMENT 33 YEAR 1976

REGION - ASIA
SITE - KHON KAEN
LATITUDE - 16 DEG. 36 MIN. N
COOPERATOR - PAISAN LAOSUWAN
DATE PLANTED - JUNE 26, 1976
SOIL TYPE - SAND, PH 6.5
FERTILIZER USED (KG/HA) - N 18.75, P 32.25, K 62.25
AMOUNT OF MOISTURE - 693 MM
LOCAL VARIETY - S.J.2

COUNTRY - THAILAND
ELEVATION - 180 M

DATE HARVESTED - NOVEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 2651.78 | 32.50 | 116.00 | 255.50 | 694.25 | 0.88 | 6.71 | 43.75 | 1.00 |
| 12 | COBB | 2560.51 | 31.00 | 133.00 | 183.75 | 474.50 | 0.67 | 5.05 | 45.00 | 1.00 |
| 6 | PICKETT 71 | 2417.57 | 30.50 | 124.75 | 96.75 | 295.75 | 0.43 | 4.07 | 30.75 | 1.00 |
| 8 | JUPITER | 2246.70 | 49.25 | 127.00 | 240.75 | 499.25 | 1.59 | 5.24 | 73.75 | 1.00 |
| 3 | BRAGG | 2227.53 | 29.50 | 121.00 | 221.25 | 547.50 | 0.83 | 6.75 | 44.75 | 1.00 |
| 14 | IMPROVED PELICAN | 1802.86 | 41.50 | 125.00 | 232.00 | 443.50 | 1.86 | 3.80 | 82.75 | 1.00 |
| 9 | BOSSIER | 1650.75 | 28.50 | 129.00 | 134.00 | 451.00 | 0.99 | 4.99 | 34.25 | 1.00 |
| 15 | FORREST | 1624.07 | 30.00 | 132.50 | 178.25 | 561.75 | 0.49 | 4.15 | 41.00 | 1.00 |
| 16 | S.J.2 | 1589.48 | 43.00 | 122.75 | 172.50 | 396.50 | 1.28 | 4.27 | 63.25 | 1.50 |
| 1 | CALLAND | 1528.21 | 26.00 | 123.00 | 81.00 | 509.00 | 0.11 | 4.28 | 65.25 | 1.00 |
| 4 | RAMSOM | 1457.79 | 28.75 | 126.50 | 139.75 | 710.00 | 0.48 | 4.75 | 36.75 | 1.00 |
| 5 | HILL | 983.53 | 32.50 | 133.50 | 94.75 | 335.25 | 0.31 | 3.11 | 33.25 | 1.00 |
| 10 | WILLIAMS | 831.42 | 24.25 | 126.00 | 158.25 | 556.25 | 0.34 | 5.48 | 58.25 | 1.00 |
| 11 | CLARK 63 | 643.88 | 25.75 | 127.00 | 83.00 | 517.25 | 0.16 | 5.29 | 59.25 | 1.00 |
| 7 | CUTLER 71 | 404.23 | 24.25 | 126.00 | 76.75 | 513.75 | 0.18 | 4.77 | 63.75 | 1.00 |
| 2 | WOODWORTH | 133.36 | 24.00 | 123.00 | 81.00 | 482.25 | 0.17 | 4.90 | 55.00 | 1.00 |
| | GRAND MEAN | 1547.11 | 31.33 | 126.13 | 148.83 | 517.98 | 0.67 | 4.85 | 51.92 | 1.03 |
| | STANDARD ERROR OF A VARIETY MEAN | 194.02 | 0.64 | 1.20 | 35.25 | 71.74 | 0.27 | 0.76 | 3.38 | 0.07 |
| | COEFFICIENT OF VARIATION | 25.06% | 4.09% | 1.90% | 47.37% | 27.70% | 79.70% | 31.23% | 13.02% | 14.00% |
| | 5% LSD VARIETY MEANS (**********ES) | 552.65 | 1.82 | 3.41 | 100.42 | 204.34 | 0.76 | ******** | 9.63 | 0.21 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.43** | -0.14 | 0.45** | 0.17 | 0.38** | 0.21 | -0.18 | 0.04 |
| DAYS TO | FLOWER | 0.43** | 1.00 | -0.07 | 0.43** | -0.19 | 0.61** | -0.13 | 0.35** | 0.29* |
| DAYS TO | MATURITY | -0.14 | -0.07 | 1.00 | -0.07 | -0.21 | -0.08 | -0.25* | -0.27* | -0.27* |
| NODULE | NUMBER 1 | 0.45** | 0.43** | -0.07 | 1.00 | 0.36** | 0.81** | 0.35** | 0.19 | 0.01 |
| NODULE | NUMBER 2 | 0.17 | -0.19 | -0.21 | 0.36** | 1.00 | 0.11 | 0.78** | 0.08 | -0.06 |
| NODULE | WEIGHT 1 | 0.38** | 0.61** | -0.08 | 0.81** | 0.11 | 1.00 | 0.13 | 0.40** | 0.13 |
| NODULE | WEIGHT 2 | 0.21 | -0.13 | -0.25* | 0.35** | 0.78** | 0.13 | 1.00 | 0.08 | -0.12 |
| PLANT | HEIGHT | -0.18 | 0.35** | -0.27* | 0.19 | 0.08 | 0.40** | 0.06 | 1.00 | 0.08 |
| | LODGING | 0.04 | 0.29* | -0.27* | 0.01 | -0.06 | 0.13 | -0.12 | 0.08 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.01 | -0.48** | 0.03 | 0.04 | 0.32** | -0.12 | 0.21 | -0.07 | -0.35** |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | -0.17 | -0.75** | 0.22 | -0.07 | 0.21 | -0.26* | 0.12 | -0.35** | -0.37** |

TABLE 142 EXPERIMENT 33 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.00 | 130.25 | 0.00 | 0.00 | 5.00 |
| 12 | COBB | 1.00 | 132.75 | 0.00 | 0.00 | 5.00 |
| 6 | PICKETT 71 | 1.00 | 141.50 | 0.00 | 0.00 | 5.00 |
| 8 | JUPITER | 1.00 | 110.50 | 0.00 | 0.00 | 2.50 |
| 3 | BRAGG | 1.00 | 144.75 | 0.00 | 0.00 | 5.00 |
| 14 | IMPROVED PELICAN | 1.00 | 119.00 | 0.00 | 0.00 | 3.50 |
| 9 | BOSSIER | 1.00 | 114.50 | 0.00 | 0.00 | 5.00 |
| 15 | FORREST | 1.00 | 141.75 | 0.00 | 0.00 | 5.00 |
| 16 | S.J.2 | 1.00 | 56.75 | 0.00 | 0.00 | 3.00 |
| : | CALLAND | 1.00 | 115.75 | 0.00 | 0.00 | 5.00 |
| 4 | RANSOM | 1.00 | 134.50 | 0.00 | 0.00 | 5.00 |
| 5 | HILL | 1.00 | 95.00 | 0.00 | 0.00 | 5.00 |
| 10 | WILLIAMS | 1.00 | 137.25 | 0.00 | 0.00 | 5.00 |
| 11 | CLARK 63 | 1.00 | 140.75 | 0.00 | 0.00 | 5.00 |
| 7 | CUTLER 71 | 1.00 | 146.50 | 0.00 | 0.00 | 5.00 |
| 2 | WOODWORTH | 1.00 | 141.50 | 0.00 | 0.00 | 5.00 |
| | GRAND MEAN | 1.00 | 125.19 | 0.00 | 0.00 | 4.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 11.60 | 0.00 | 0.00 | 0.36 |
| | COEFFICIENT OF VARIATION | 0.00% | 18.53% | 0.00% | 0.00% | 15.62% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 33.04 | 0.00 | 0.00 | 1.03 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.01 | 0.00 | 0.00 | -0.17 |
| DAYS TO | FLOWER | 0.00 | -0.48** | 0.00 | 0.00 | -0.75** |
| DAYS TO | MATURITY | 0.00 | 0.03 | 0.00 | 0.00 | 0.22 |
| NODULE | NUMBER 1 | 0.00 | 0.04 | 0.00 | 0.00 | -0.07 |
| NODULE | NUMBER 2 | 0.00 | 0.32** | 0.00 | 0.00 | 0.21 |
| NODULE | WEIGHT 1 | 0.00 | -0.12 | 0.00 | 0.00 | -0.26* |
| NODULE | WEIGHT 2 | 0.00 | 0.21 | 0.00 | 0.00 | 0.12 |
| PLANT | HEIGHT | 0.00 | -0.07 | 0.00 | 0.00 | -0.35** |
| | LODGING | 0.00 | -0.35** | 0.00 | 0.00 | -0.37** |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.34** |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.34** | 0.00 | 0.00 | 1.00 |

TABLE 145 EXPERIMENT 30 YEAR 1976

REGION - ASIA
SITE - SARABURI
LATITUDE - 14 DEG. 47 MIN. N
COOPERATOR - PHAPUTTABAT AGRICULTURAL EXPERIMENT STATION
DATE PLANTED - AUGUST 4, 1976
SOIL TYPE - SAND 40.3%, SILT 26.6%, CLAY 33.1%
AMOUNT OF MOISTURE - 832 MM
NUMBER OF IRRIGATIONS - 1
LOCAL VARIETY - SJ-4

COUNTRY - THAILAND
ELEVATION - 100 M
LONGITUDE - 100 DEG. 57 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | COBB | 2084.17 | 24.00 | 82.25 | 0.00 | 0.00 | 0.00 | 0.00 | 61.08 | 1.25 |
| 4 | RAMSON | 1937.05 | 24.25 | 77.75 | 0.00 | 0.00 | 0.00 | 0.00 | 48.38 | 1.00 |
| 10 | WILLIAMS | 1924.55 | 22.00 | 71.50 | 0.00 | 0.00 | 0.00 | 0.00 | 69.25 | 1.25 |
| 3 | BRAGG | 1924.13 | 24.00 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 52.28 | 1.75 |
| 13 | DAVIS | 1872.04 | 25.75 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.45 | 1.25 |
| 15 | FORREST | 1867.87 | 24.00 | 78.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.88 | 1.50 |
| 6 | PICKETT 71 | 1855.37 | 24.00 | 80.25 | 0.00 | 0.00 | 0.00 | 0.00 | 42.93 | 1.00 |
| 9 | BOSSIER | 1838.28 | 24.00 | 78.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.00 | 1.75 |
| 2 | WOODWORTH | 1791.19 | 22.00 | 68.00 | 0.00 | 0.00 | 0.00 | 0.00 | 65.15 | 3.00 |
| 11 | CLARK 63 | 1682.84 | 22.00 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 78.12 | 3.25 |
| 7 | CUTLER 71 | 1668.25 | 22.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 76.75 | 3.25 |
| 1 | CALLAND | 1644.50 | 22.00 | 72.50 | 0.00 | 0.00 | 0.00 | 0.00 | 79.50 | 2.75 |
| 16 | SJ-4 | 1585.73 | 32.00 | 88.00 | 0.00 | 0.00 | 0.00 | 0.00 | 85.10 | 3.50 |
| 14 | IMPROVED PELICAN | 1517.80 | 32.00 | 85.75 | 0.00 | 0.00 | 0.00 | 0.00 | 98.90 | 3.50 |
| 5 | HILL | 1476.96 | 24.25 | 70.00 | 0.00 | 0.00 | 0.00 | 0.00 | 49.65 | 2.75 |
| 8 | JUPITER | 1182.74 | 42.50 | 96.00 | 0.00 | 0.00 | 0.00 | 0.00 | 92.82 | 3.00 |
| | GRAND MEAN | 1740.84 | 25.67 | 78.19 | 0.00 | 0.00 | 0.00 | 0.00 | 65.45 | 2.23 |
| | STANDARD ERROR OF A VARIETY MEAN | 92.15 | 1.87 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 | 2.84 | 0.30 |
| | COEFFICIENT OF VARIATION | 10.59% | 14.60% | 2.46% | 0.00% | 0.00% | 0.00% | 0.00% | 8.69% | 27.06% |
| | 5% LSD VARIETY MEANS (*********=NS) | 262.48 | 5.34 | 2.74 | 0.00 | 0.00 | 0.00 | 0.00 | 8.10 | 0.86 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.61** | -0.28* | 0.00 | 0.00 | 0.00 | 0.00 | -0.50** | -0.55** |
| DAYS TO | FLOWER | -0.61** | 1.00 | 0.73** | 0.00 | 0.00 | 0.00 | 0.00 | 0.46** | 0.33** |
| DAYS TO | MATURITY | -0.28* | 0.73** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33** | 0.07 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.50** | 0.46** | 0.33** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.65** |
| | LODGING | -0.55** | 0.33** | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.28* | -0.63** | -0.64** | 0.00 | 0.00 | 0.00 | 0.00 | -0.39** | -0.12 |
| PODS PER | PLANT | -0.36** | 0.64** | 0.79** | 0.00 | 0.00 | 0.00 | 0.00 | 0.50** | 0.31* |
| 100 SEED | WEIGHT | 0.27* | -0.38** | -0.29* | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | -0.16 |
| QUALITY | OF SEED | 0.07 | -0.28* | -0.24 | 0.00 | 0.00 | 0.00 | 0.00 | -0.36** | -0.13 |

TABLE 143 EXPERIMENT 30 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 12 | COBB | 1.00 | 226.00 | 35.03 | 14.48 | 3.25 |
| 4 | BANSON | 1.00 | 238.00 | 21.30 | 15.03 | 3.00 |
| 10 | WILLIAMS | 1.00 | 237.75 | 24.63 | 16.38 | 3.00 |
| 3 | BRAGG | 1.00 | 219.25 | 29.45 | 14.88 | 4.25 |
| 13 | DAVIS | 1.00 | 249.25 | 32.73 | 13.93 | 3.00 |
| 15 | FORREST | 1.00 | 245.50 | 31.58 | 11.63 | 4.00 |
| 6 | PICKETT 71 | 1.00 | 208.50 | 25.20 | 14.53 | 3.75 |
| 9 | BOSSIER | 1.00 | 210.75 | 27.58 | 14.55 | 3.50 |
| 2 | WOODWORTH | 1.00 | 236.50 | 20.08 | 13.88 | 4.00 |
| 11 | CLARK 63 | 1.00 | 234.00 | 20.53 | 15.20 | 3.25 |
| 7 | CUTLER 71 | 1.00 | 226.50 | 23.35 | 17.40 | 3.00 |
| 1 | CALLAND | 1.00 | 252.75 | 23.78 | 15.33 | 3.75 |
| 16 | SJ-4 | 1.00 | 210.50 | 54.95 | 12.70 | 3.00 |
| 14 | IMPROVED PELICAN | 1.00 | 199.00 | 56.55 | 11.30 | 3.00 |
| 5 | HILL | 1.00 | 281.25 | 27.63 | 12.45 | 3.50 |
| 8 | JUPITER | 1.00 | 153.50 | 58.35 | 14.48 | 3.00 |
| | GRAND MEAN | 1.00 | 226.81 | 32.04 | 14.26 | 3.39 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.95 | 3.80 | 0.36 | 0.17 |
| | COEFFICIENT OF VARIATION | 0.00% | 9.66% | 23.73% | 5.11% | 9.78% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 31.20 | 10.83 | 1.04 | 0.47 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.28* | -0.36** | 0.27* | 0.07 |
| DAYS TO FLOWER | 0.00 | -0.63** | 0.64** | -0.38** | -0.28* |
| DAYS TO MATURITY | 0.00 | -0.64** | 0.79** | -0.29* | -0.28 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.39** | 0.50** | -0.03 | -0.36** |
| LODGING | 0.00 | -0.12 | 0.31* | -0.16 | -0.13 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.55** | -0.02 | 0.12 |
| PODS PER PLANT | 0.00 | -0.55** | 1.00 | -0.39** | -0.26* |
| 100 SEED WEIGHT | 0.00 | -0.02 | -0.39** | 1.00 | -0.18 |
| QUALITY OF SEED | 0.00 | 0.12 | -0.26* | -0.18 | 1.00 |

TABLE 144 EXPERIMENT 32 YEAR 1976

REGION - ASIA
SITE - SUKOTHAI
LATITUDE - 17 DEG. 12 MIN. N
COOPERATOR - ARWOOTH NA LAMPANG
DATE PLANTED - MAY 21, 1976
SOIL TYPE - CLAY LOAM, PH 6.4
FERTILIZER USED (KG/HA) - N 18.75, P 56.25, K 37.50
NUMBER OF IRRIGATIONS - 4
LOCAL VARIETIES - SJ-1, SJ-4

COUNTRY - THAILAND
ELEVATION - 56 M
LONGITUDE - 99 DEG. 40 MIN. E

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | FORREST | 3326.50 | 31.00 | 96.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 16 | SJ-4 | 3202.31 | 41.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 |
| 9 | BOSSIER | 2733.48 | 30.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 13 | DAVIS | 2756.38 | 32.75 | 106.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 4 | RANSOM | 2632.61 | 31.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 7 | SJ-1 | 2572.00 | 41.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.25 |
| 11 | CLARK 63 | 2428.82 | 27.00 | 91.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 8 | JUPITER | 2295.46 | 50.00 | 134.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| 10 | WILLIAMS | 2211.69 | 27.00 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 14 | IMPROVED PELICAN | 2180.35 | 41.00 | 123.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.25 |
| 6 | PICKETT 71 | 2078.33 | 31.25 | 109.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 1 | CALLAND | 2070.00 | 27.25 | 96.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 2 | WOODWORTH | 2057.91 | 26.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 3 | BRAGG | 2006.65 | 32.50 | 109.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 5 | HILL | 2001.23 | 32.25 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 12 | COBB | 1971.04 | 32.50 | 117.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | GRAND MEAN | 2412.12 | 33.41 | 105.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.52 |
| | STANDARD ERROR OF A VARIETY MEAN | 437.67 | 0.53 | 1.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| | COEFFICIENT OF VARIATION | 36.29% | 3.18% | 2.14% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 32.55% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.52 | 3.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.70 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.09 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| DAYS TO FLOWER | 0.09 | 1.00 | 0.80** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.71** |
| DAYS TO MATURITY | 0.01 | 0.80** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.46** |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.02 | 0.71** | 0.46** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.04 | 0.11 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 |
| PLANTS HARVEST | 0.09 | -0.34** | -0.36** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.12 |
| PODS PER PLANT | 0.48** | 0.67** | 0.44** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.52** |
| 100 SEED WEIGHT | 0.19 | -0.36** | -0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.36** |
| QUALITY OF SEED | 0.09 | 0.12 | -0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.28* |

TABLE 144 EXPERIMENT 32 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | FORREST | 1.25 | 177.00 | 48.50 | 14.25 | 2.00 |
| 16 | SJ-4 | 1.00 | 245.00 | 64.50 | 15.25 | 2.50 |
| 9 | BOSSIER | 1.00 | 200.75 | 42.25 | 14.25 | 2.25 |
| 13 | DAVIS | 2.25 | 214.25 | 31.00 | 16.50 | 2.00 |
| 4 | BANSOM | 1.25 | 193.75 | 31.00 | 16.25 | 2.00 |
| 7 | SJ-1 | 1.75 | 213.00 | 58.00 | 13.50 | 2.75 |
| 11 | CLARK 63 | 1.00 | 191.50 | 32.50 | 13.75 | 2.25 |
| 8 | JUPITER | 1.00 | 121.25 | 60.25 | 12.25 | 2.00 |
| 10 | WILLIAMS | 1.00 | 188.25 | 37.50 | 15.25 | 2.00 |
| 14 | IMPROVED PELICAN | 1.50 | 155.50 | 74.00 | 13.25 | 2.00 |
| 6 | PICKETT 71 | 1.75 | 223.25 | 28.25 | 15.25 | 2.25 |
| 1 | CALLAND | 1.00 | 208.50 | 31.00 | 16.50 | 2.00 |
| 2 | WOODWORTH | 1.00 | 204.25 | 25.75 | 13.00 | 2.25 |
| 3 | BRAGG | 1.25 | 182.75 | 33.75 | 15.25 | 2.25 |
| 5 | HILL | 1.00 | 193.50 | 35.75 | 14.00 | 2.00 |
| 12 | COBB | 1.25 | 161.50 | 32.00 | 13.75 | 2.00 |
| | GRAND MEAN | 1.27 | 193.38 | 41.63 | 14.52 | 2.16 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.19 | 11.76 | 6.23 | 0.52 | 0.17 |
| | COEFFICIENT OF VARIATION | 29.34% | 12.16% | 29.94% | 7.21% | 15.36% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.53 | 33.50 | 17.75 | 1.49 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.04 | 0.09 | 0.48** | 0.19 | 0.09 |
| DAYS TO FLOWER | 0.11 | -0.34** | 0.67** | -0.36** | 0.12 |
| DAYS TO MATURITY | 0.19 | -0.36** | 0.44** | -0.17 | -0.03 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LODGING | 0.13 | -0.12 | 0.52** | -0.36** | 0.28* |
| SHATTER | 1.00 | 0.08 | 0.02 | 0.16 | -0.06 |
| PLANTS HARVEST | 0.08 | 1.00 | -0.25* | 0.39** | 0.28* |
| PODS PER PLANT | 0.02 | -0.25* | 1.00 | -0.25* | 0.11 |
| 100 SEED WEIGHT | 0.16 | 0.39** | -0.25* | 1.00 | -0.03 |
| QUALITY OF SEED | -0.06 | 0.28* | 0.11 | -0.03 | 1.00 |

TABLE 145 EXPERIMENT 444 YEAR 1976

REGION - ASIA
SITE - SUKOTHAI
LATITUDE - 17 DEG. 12 MIN. N
COOPERATOR - ARWOOTH NA LAMPANG
DATE PLANTED - MAY 28, 1976
SOIL TYPE - CLAY LOAM, PH 6.4
FERTILIZER USED (KG/HA) - N 18.75, P 56.25, K 37.50
AMOUNT OF MOISTURE - 799 MM
NUMBER OF IRRIGATIONS - 4
LOCAL VARIETY - SJ-4

COUNTRY - THAILAND
ELEVATION - 56 M
LONGITUDE - 99 DEG. 40 MIN. E
DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 2860.99 | 27.50 | 95.75 | 0.00 | 0.00 | 0.00 | 0.00 | 64.25 | 1.25 |
| 7 | COLUMBUS | 2691.79 | 27.50 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 63.25 | 1.75 |
| 3 | FORREST | 2632.19 | 31.00 | 100.75 | 0.00 | 0.00 | 0.00 | 0.00 | 43.00 | 1.25 |
| 9 | MULTIVAR 80 | 2543.43 | 26.75 | 89.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.50 | 2.00 |
| 12 | CLARK 63 | 2245.03 | 38.25 | 97.00 | 0.00 | 0.00 | 0.00 | 0.00 | 63.00 | 2.75 |
| 2 | WILLIAMS | 2208.36 | 27.25 | 89.75 | 0.00 | 0.00 | 0.00 | 0.00 | 56.00 | 1.50 |
| 5 | ANSOY 71 | 2124.59 | 26.00 | 91.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.50 | 1.50 |
| 13 | TK-5 | 2094.59 | 38.00 | 98.25 | 0.00 | 0.00 | 0.00 | 0.00 | 73.00 | 3.50 |
| 8 | LINCOLN | 2037.91 | 27.75 | 95.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.50 | 2.25 |
| 15 | SJ-4 | 1874.54 | 40.25 | 112.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.25 | 2.00 |
| 11 | TAINUNG 4 | 1768.69 | 39.75 | 104.50 | 0.00 | 0.00 | 0.00 | 0.00 | 58.00 | 2.75 |
| 4 | BEPSON | 1618.24 | 25.25 | 93.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.25 | 1.50 |
| 14 | GEBA | 1517.39 | 42.75 | 117.00 | 0.00 | 0.00 | 0.00 | 0.00 | 64.50 | 5.00 |
| 6 | ALTONA | 1466.54 | 26.75 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.50 | 1.50 |
| 10 | KAOHSIUNG E-32 | 1169.40 | 39.75 | 90.50 | 0.00 | 0.00 | 0.00 | 0.00 | 118.00 | 5.00 |
| | GRAND MEAN | 2056.91 | 32.37 | 96.90 | 0.00 | 0.00 | 0.00 | 0.00 | 63.70 | 2.37 |
| | STANDARD ERROR OF A VARIETY MEAN | 435.30 | 0.36 | 1.37 | 0.00 | 0.00 | 0.00 | 0.00 | 8.10 | 0.41 |
| | COEFFICIENT OF VARIATION | 42.33% | 2.24% | 2.83% | 0.00% | 0.00% | 0.00% | 0.00% | 25.44% | 34.48% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.04 | 3.91 | 0.00 | 0.00 | 0.00 | 0.00 | 23.12 | 1.16 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.22 | -0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37++ | 0.17 |
| DAYS TO | FLOWER | -0.22 | 1.00 | 0.70++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.40++ | 0.62++ |
| DAYS TO | MATURITY | -0.12 | 0.70++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.28+ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.37++ | 0.40++ | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.64++ |
| | LODGING | 0.17 | 0.62++ | 0.28+ | 0.00 | 0.00 | 0.00 | 0.00 | 0.64++ | 1.00 |
| | SHATTER | -0.09 | 0.20 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | -0.13 | 0.04 |
| PLANTS | HARVEST | 0.19 | 0.14 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 | 0.29+ |
| PODS PER | PLANT | 0.25 | 0.42++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65++ | 0.46++ |
| 100 SEED | WEIGHT | 0.44++ | -0.54++ | -0.32+ | 0.00 | 0.00 | 0.00 | 0.00 | -0.18 | -0.41++ |
| QUALITY | OF SEED | 0.01 | -0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | -0.05 | -0.13 |

TABLE 145 EXPERIMENT 444 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 1 | CALLAND | 1.50 | 112.50 | 58.00 | 17.75 | 2.00 |
| 7 | COLUMBUS | 1.00 | 197.75 | 34.00 | 17.00 | 2.00 |
| 3 | FORREST | 1.50 | 147.25 | 51.75 | 15.00 | 1.75 |
| 9 | MULTIVAR 80 | 1.00 | 229.00 | 27.50 | 16.25 | 2.00 |
| 12 | CLARK 63 | 1.50 | 205.50 | 67.25 | 13.00 | 1.75 |
| 2 | WILLIAMS | 1.00 | 98.00 | 43.50 | 17.50 | 2.00 |
| 5 | AMSOY 71 | 1.25 | 164.25 | 36.75 | 14.50 | 1.25 |
| 13 | TK-5 | 3.00 | 223.25 | 50.25 | 16.50 | 1.25 |
| 8 | LINCOLN | 1.00 | 214.75 | 25.25 | 14.50 | 1.50 |
| 15 | SJ-4 | 1.00 | 195.25 | 55.75 | 14.00 | 1.50 |
| 11 | TAINUNG 4 | 1.75 | 148.00 | 44.50 | 16.50 | 1.75 |
| 4 | BEESON | 1.50 | 218.25 | 19.75 | 17.25 | 1.75 |
| 14 | OBBA | 1.00 | 200.50 | 38.00 | 10.50 | 2.00 |
| 6 | ALTONA | 1.25 | 136.25 | 30.00 | 13.75 | 1.75 |
| 10 | KAOHSIUNG E-32 | 1.00 | 159.50 | 96.25 | 10.75 | 1.75 |
| | GRAND MEAN | 1.35 | 176.67 | 45.23 | 14.98 | 1.73 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.19 | 20.65 | 7.36 | 0.59 | 0.22 |
| | COEFFICIENT OF VARIATION | 27.53% | 23.38% | 32.54% | 7.82% | 28.97% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.53 | 58.94 | 21.00 | 1.67 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.09 | 0.19 | 0.25 | 0.44** | 0.01 |
| DAYS TO | FLOWER | 0.20 | 0.14 | 0.42** | -0.54** | -0.05 |
| DAYS TO | MATURITY | 0.06 | 0.15 | 0.00 | -0.32* | 0.05 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.13 | 0.23 | 0.65** | -0.18 | -0.05 |
| | LODGING | 0.04 | 0.29* | 0.46** | -0.41** | -0.13 |
| | SHATTER | 1.00 | 0.07 | -0.00 | 0.23 | -0.21 |
| PLANTS | HARVEST | 0.07 | 1.00 | -0.21 | 0.02 | -0.11 |
| PODS PER | PLANT | -0.00 | -0.21 | 1.00 | -0.22 | -0.03 |
| 100 SEED | WEIGHT | 0.23 | 0.02 | -0.22 | 1.00 | -0.02 |
| QUALITY | OF SEED | -0.21 | -0.11 | -0.03 | -0.02 | 1.00 |

TABLE 146 EXPERIMENT 34 YEAR 1976

REGION - ASIA COUNTRY - THAILAND
SITE - SURAT THANI ELEVATION - 10 M
LATITUDE - 9 DEG. 7 MIN. N LONGITUDE - 99 DEG. 18 MIN. E
COOPERATORS - W. BURANATHAN, P. JEWTRAKOOL, P. WONGSUKON
DATE PLANTED - MAY 22, 1976 DATE HARVESTED - AUGUST, 1976
SOIL TYPE - SAND 79%, SILT 9%, CLAY 9%, PH 5.1
FERTILIZER USED (KG/HA) - N 30.0, P 12.0, K 24.0
AMOUNT OF MOISTURE - 534 MM
LOCAL VARIETY - S.J.2

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 687.85 | 34.00 | 116.50 | 28.75 | 164.75 | 0.05 | 1.33 | 48.25 | 1.00 |
| 16 | COLUMBUS | 655.76 | 23.75 | 86.75 | 64.75 | 193.00 | 0.11 | 1.15 | 29.33 | 1.00 |
| 9 | BOSSIER | 612.83 | 26.00 | 85.25 | 79.25 | 274.75 | 0.18 | 1.55 | 22.60 | 1.00 |
| 14 | IMPROVED PELICAN | 591.37 | 33.00 | 93.75 | 30.00 | 136.25 | 0.12 | 1.51 | 42.08 | 1.00 |
| 5 | HILL | 571.36 | 25.00 | 83.00 | 41.00 | 109.50 | 0.10 | 0.89 | 25.15 | 1.00 |
| 11 | CLARK 63 | 541.77 | 25.00 | 81.00 | 50.00 | 80.00 | 0.12 | 0.48 | 24.63 | 1.00 |
| 13 | DAVIS | 538.23 | 26.75 | 88.75 | 34.75 | 143.00 | 0.12 | 0.85 | 22.13 | 1.00 |
| 6 | PICKETT 71 | 514.48 | 25.00 | 91.00 | 34.00 | 102.50 | 0.09 | 0.70 | 19.50 | 1.00 |
| 15 | FORREST | 469.68 | 26.00 | 89.25 | 63.00 | 173.25 | 0.43 | 1.04 | 25.33 | 1.00 |
| 4 | RANSOM | 444.05 | 25.50 | 82.50 | 45.25 | 147.25 | 0.07 | 0.51 | 21.55 | 1.00 |
| 7 | S.J.2 | 433.63 | 33.00 | 94.00 | 41.50 | 149.00 | 0.17 | 1.59 | 40.03 | 1.00 |
| 12 | COBB | 419.25 | 26.50 | 105.00 | 65.25 | 203.00 | 0.23 | 1.89 | 24.08 | 1.00 |
| 1 | CALLAND | 395.08 | 26.50 | 90.00 | 73.00 | 195.00 | 0.18 | 0.83 | 29.93 | 1.00 |
| 10 | WILLIAMS | 379.03 | 25.75 | 82.75 | 69.75 | 125.50 | 0.22 | 0.84 | 23.35 | 1.00 |
| 3 | BRAGG | 271.30 | 26.75 | 102.25 | 40.50 | 323.00 | 0.09 | 1.91 | 26.93 | 1.00 |
| 2 | WOODWORTH | 270.68 | 25.25 | 69.00 | 13.50 | 40.25 | 0.03 | 0.19 | 19.80 | 1.00 |
| | GRAND MEAN | 487.27 | 27.11 | 90.05 | 46.39 | 160.00 | 0.14 | 1.08 | 27.79 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 120.47 | 0.76 | 2.54 | 15.32 | 38.35 | 0.08 | 0.30 | 2.02 | 0.00 |
| | COEFFICIENT OF VARIATION | 49.45% | 5.62% | 5.64% | 63.30% | 47.94% | 109.50% | 55.55% | 14.53% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 2.17 | 7.24 | ******** | 109.25 | ******** | 0.85 | 5.75 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.09 | 0.11 | 0.20 | 0.25* | 0.11 | 0.37** | 0.39** | 0.00 |
| DAYS TO | FLOWER | 0.09 | 1.00 | 0.50** | -0.24 | -0.02 | -0.12 | 0.18 | 0.75** | 0.00 |
| DAYS TO | MATURITY | 0.11 | 0.50** | 1.00 | 0.14 | 0.42** | 0.10 | 0.49** | 0.57** | 0.00 |
| NODULE | NUMBER 1 | 0.20 | -0.24 | 0.14 | 1.00 | 0.56** | 0.51** | 0.51** | 0.03 | 0.00 |
| NODULE | NUMBER 2 | 0.25* | -0.02 | 0.42** | 0.56** | 1.00 | 0.27* | 0.83** | 0.24 | 0.00 |
| NODULE | WEIGHT 1 | 0.11 | -0.12 | 0.10 | 0.51** | 0.27* | 1.00 | 0.3[illegible] | -0.01 | 0.00 |
| NODULE | WEIGHT 2 | 0.37** | 0.18 | 0.49** | 0.51** | 0.83** | 0.32* | 1.00 | 0.43** | 0.00 |
| PLANT | HEIGHT | 0.39** | 0.75** | 0.57** | 0.03 | 0.24 | -0.01 | 0.43** | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.12 | -0.60** | -0.35** | 0.18 | -0.02 | 0.16 | -0.12 | -0.50** | 0.00 |
| PODS PER | PLANT | 0.39** | 0.69** | 0.62** | -0.06 | 0.16 | -0.05 | 0.40** | 0.73** | 0.00 |
| 100 SEED | WEIGHT | 0.20 | -0.17 | 0.37** | 0.36** | 0.43** | 0.13 | 0.20 | 0.08 | 0.00 |
| QUALITY | OF SEED | -0.25* | -0.09 | 0.22 | -0.02 | -0.01 | 0.00 | -0.12 | -0.15 | 0.00 |

TABLE 146 EXPERIMENT 34 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 1.00 | 194.50 | 19.50 | 18.25 | 3.25 | 43.1 | 24.1 |
| 16 | COLUMBUS | 1.00 | 267.75 | 7.78 | 18.25 | 2.00 | 44.6 | 23.3 |
| 9 | BOSSIER | 1.00 | 236.75 | 10.10 | 16.88 | 3.00 | 44.2 | 24.0 |
| 14 | IMPROVED PELICAN | 1.00 | 217.25 | 13.75 | 13.75 | 1.75 | 43.9 | 23.9 |
| 5 | HILL | 1.00 | 315.00 | 7.28 | 15.50 | 2.00 | 40.9 | 22.5 |
| 11 | CLARK 63 | 1.00 | 318.00 | 5.83 | 16.00 | 2.75 | 41.1 | 25.4 |
| 13 | DAVIS | 1.00 | 295.50 | 6.97 | 16.88 | 2.50 | 43.5 | 22.4 |
| 6 | PICKETT 71 | 1.00 | 231.75 | 9.90 | 15.50 | 3.25 | 42.8 | 24.1 |
| 15 | FORREST | 1.00 | 285.25 | 10.03 | 15.75 | 2.25 | 42.9 | 22.3 |
| 4 | RANSOM | 1.00 | 261.50 | 6.25 | 17.00 | 2.25 | 40.5 | 26.3 |
| 7 | S.J.2 | 1.00 | 193.75 | 14.80 | 13.00 | 2.25 | 42.4 | 23.7 |
| 12 | COBB | 1.00 | 284.75 | 10.58 | 17.50 | 3.00 | 39.7 | 24.5 |
| 1 | CALLAND | 1.00 | 267.00 | 5.20 | 22.38 | 3.00 | 41.4 | 22.8 |
| 10 | WILLIAMS | 1.00 | 283.25 | 4.73 | 17.63 | 3.00 | 44.3 | 22.7 |
| 3 | BRAGG | 1.00 | 278.50 | 7.55 | 18.88 | 2.75 | 43.7 | 22.8 |
| 2 | WOODWORTH | 1.00 | 256.50 | 4.93 | 14.13 | 3.00 | 43.4 | 22.9 |
| | GRAND MEAN | 1.00 | 261.69 | 9.07 | 16.70 | 2.63 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.14 | 1.14 | 0.95 | 0.27 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.28% | 25.13% | 11.43% | 20.28% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 34.57 | 3.25 | 2.72 | 0.76 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.12 | 0.39** | 0.20 | -0.25* |
| DAYS TO FLOWER | 0.00 | -0.60** | 0.69** | -0.17 | -0.09 |
| DAYS TO MATURITY | 0.00 | -0.35** | 0.62** | 0.37** | 0.22 |
| NODULE NUMBER 1 | 0.00 | 0.18 | -0.06 | 0.36** | -0.02 |
| NODULE NUMBER 2 | 0.00 | -0.02 | 0.16 | 0.43** | -0.01 |
| NODULE WEIGHT 1 | 0.00 | 0.16 | -0.05 | 0.13 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | -0.12 | 0.40** | 0.20 | -0.12 |
| PLANT HEIGHT | 0.00 | -0.50** | 0.73** | 0.08 | -0.15 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.59** | 0.19 | -0.07 |
| PODS PER PLANT | 0.00 | -0.59** | 1.00 | -0.14 | -0.00 |
| 100 SEED WEIGHT | 0.00 | 0.19 | -0.14 | 1.00 | 0.25* |
| QUALITY OF SEED | 0.00 | -0.07 | -0.00 | 0.25* | 1.00 |

TABLE 147 EXPERIMENT 31 YEAR 1976

REGION - ASIA
COUNTRY - THAILAND
SITE - SUWAN FARM
ELEVATION - 367 M
LATITUDE - 14 DEG. 30 MIN. N
LONGITUDE - 102 DEG. E
COOPERATORS - P. YINGCHOL, J. VERAWUCH, E. SABOBOL
DATE PLANTED - AUGUST 4, 1976
DATE HARVESTED - OCTOBER, 1976
FERTILIZER USED (KG/HA) - N 40.0, P 21.8
AMOUNT OF MOISTURE - 593 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 736.89 | 23.00 | 65.00 | 55.75 | 177.75 | 0.13 | 1.40 | 52.50 | 2.50 |
| 7 | CUTLER 71 | 650.57 | 23.00 | 65.00 | 80.25 | 164.00 | 0.29 | 1.20 | 62.00 | 4.00 |
| 10 | WILLIAMS | 623.74 | 23.00 | 65.00 | 83.00 | 228.75 | 0.32 | 1.62 | 53.00 | 4.00 |
| 12 | COBB | 605.20 | 23.00 | 68.25 | 38.50 | 146.25 | 0.21 | 1.52 | 47.75 | 2.25 |
| 1 | CALLAND | 589.17 | 23.00 | 65.75 | 62.25 | 161.00 | 0.23 | 1.09 | 63.75 | 3.75 |
| 11 | CLARK 63 | 520.81 | 23.00 | 65.00 | 72.50 | 159.75 | 0.23 | 0.98 | 56.25 | 4.25 |
| 16 | COLUMBUS | 513.73 | 23.00 | 65.00 | 87.50 | 244.00 | 0.25 | 1.56 | 57.50 | 2.25 |
| 6 | PICKETT 71 | 460.13 | 23.00 | 65.00 | 36.00 | 178.25 | 0.13 | 1.64 | 35.50 | 1.50 |
| 4 | RANSOM | 439.25 | 23.00 | 65.00 | 90.00 | 240.75 | 0.33 | 1.60 | 38.50 | 2.00 |
| 5 | HILL | 411.22 | 30.00 | 66.50 | 63.50 | 130.00 | 0.37 | 0.87 | 52.00 | 3.00 |
| 13 | DAVIS | 326.86 | 28.25 | 67.50 | 115.25 | 202.50 | 0.55 | 1.55 | 45.75 | 1.50 |
| 3 | BRAGG | 278.11 | 23.00 | 65.25 | 115.25 | 445.00 | 0.26 | 1.94 | 48.50 | 2.50 |
| 9 | BOSSIER | 271.07 | 23.00 | 65.00 | 82.00 | 270.75 | 0.36 | 2.33 | 40.25 | 1.75 |
| 15 | FORREST | 252.00 | 23.00 | 66.00 | 57.50 | 207.75 | 0.14 | 1.35 | 45.75 | 2.25 |
| 14 | IMPROVED PELICAN | 123.31 | 30.00 | 97.00 | 117.75 | 200.00 | 0.39 | 1.18 | 71.75 | 3.00 |
| 8 | JUPITER | 38.76 | 44.00 | 97.00 | 237.00 | 286.00 | 1.32 | 1.30 | 75.25 | 3.00 |
| | GRAND MEAN | 427.55 | 25.52 | 69.53 | 88.38 | 215.16 | 0.34 | 1.44 | 52.88 | 2.72 |
| | STANDARD ERROR OF A VARIETY MEAN | 55.30 | 0.44 | 0.37 | 13.45 | 30.46 | 0.06 | 0.17 | 2.00 | 0.41 |
| | COEFFICIENT OF VARIATION | 25.87% | 3.43% | 1.07% | 30.44% | 28.31% | 33.47% | 23.71% | 7.55% | 30.19% |
| | 5% LSD VARIETY MEANS (********=NS) | 157.53 | 1.25 | 1.06 | 38.32 | 86.75 | 0.16 | 0.49 | 5.68 | 1.17 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.58** | -0.60** | -0.61** | -0.35** | -0.60** | -0.08 | -0.11 | 0.20 |
| DAYS TO FLOWER | -0.58** | 1.00 | 0.81** | 0.80** | 0.11 | 0.89** | -0.19 | 0.57** | 0.04 |
| DAYS TO MATURITY | -0.60** | 0.81** | 1.00 | 0.65** | 0.10 | 0.67** | -0.16 | 0.68** | 0.06 |
| NODULE NUMBER 1 | -0.61** | 0.80** | 0.65** | 1.00 | 0.38** | 0.90** | -0.03 | 0.51** | 0.08 |
| NODULE NUMBER 2 | -0.35** | 0.11 | 0.10 | 0.38** | 1.00 | 0.25 | 0.67** | -0.01 | -0.22 |
| NODULE WEIGHT 1 | -0.60** | 0.89** | 0.67** | 0.90** | 0.25 | 1.00 | -0.01 | 0.46** | 0.03 |
| NODULE WEIGHT 2 | -0.08 | -0.19 | -0.16 | -0.03 | 0.67** | -0.01 | 1.00 | -0.51** | -0.30* |
| PLANT HEIGHT | -0.11 | 0.57** | 0.68** | 0.51** | -0.01 | 0.46** | -0.41** | 1.00 | 0.48** |
| LODGING | 0.20 | 0.04 | 0.06 | 0.08 | -0.22 | 0.03 | -0.30* | 0.44** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.47** | -0.41** | -0.70** | -0.41** | -0.12 | -0.39** | -0.01 | -0.39** | 0.02 |
| PODS PER PLANT | 0.16 | -0.28* | 0.00 | -0.29* | -0.03 | -0.35** | 0.08 | 0.00 | -0.13 |
| 100 SEED WEIGHT | -0.02 | 0.32* | 0.49** | 0.37** | -0.08 | 0.34** | -0.23 | 0.74** | 0.30* |
| QUALITY OF SEED | -0.50** | 0.42** | 0.42** | 0.36** | 0.09 | 0.36** | -0.21 | 0.26* | -0.22 |

TABLE 147 EXPERIMENT 31 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 1.00 | 247.75 | 14.78 | 10.58 | 3.25 | 46.7 | 18.7 |
| 7 | CUTLER 71 | 1.00 | 240.50 | 11.28 | 13.28 | 3.00 | -- | -- |
| 10 | WILLIAMS | 1.00 | 241.25 | 12.48 | 9.93 | 3.50 | 48.1 | 17.9 |
| 12 | COBB | 1.00 | 246.50 | 19.65 | 8.95 | 3.00 | 45.2 | 19.3 |
| 1 | CALLAND | 1.00 | 242.75 | 12.88 | 12.45 | 4.75 | 44.3 | 19.1 |
| 11 | CLARK 63 | 1.00 | 249.75 | 14.58 | 10.38 | 3.00 | 46.4 | 19.1 |
| 16 | COLUMBUS | 1.00 | 243.75 | 15.33 | 11.88 | 3.75 | 48.6 | 18.5 |
| 6 | PICKETT 71 | 1.00 | 218.25 | 13.00 | 7.75 | 3.00 | 48.4 | 17.4 |
| 4 | RANSOM | 1.00 | 246.00 | 14.55 | 9.45 | 4.50 | -- | -- |
| 5 | HILL | 1.00 | 270.00 | 11.20 | 8.97 | 4.25 | -- | -- |
| 13 | DAVIS | 1.00 | 262.00 | 11.43 | 9.57 | 4.50 | 50.3 | 16.1 |
| 3 | BRAGG | 1.00 | 242.00 | 13.38 | 9.00 | 3.75 | 47.5 | 16.4 |
| 9 | BOSSIER | 1.00 | 230.00 | 14.65 | 7.93 | 3.25 | 49.1 | 15.6 |
| 15 | FORREST | 1.00 | 265.25 | 16.28 | 7.27 | 5.00 | 48.6 | 16.3 |
| 14 | IMPROVED PELICAN | 1.00 | 158.00 | 17.55 | 13.73 | 4.75 | -- | -- |
| 8 | JUPITER | 1.00 | 192.25 | 9.97 | 12.30 | 5.00 | -- | -- |
| | GRAND MEAN | 1.00 | 237.25 | 13.93 | 10.21 | 3.89 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.27 | 1.35 | 0.49 | 0.28 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 8.65% | 19.38% | 9.51% | 14.18% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 29.24 | 3.85 | 1.38 | 0.79 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.47++ | 0.16 | -0.02 | -0.50++ |
| DAYS TO FLOWER | 0.00 | -0.41++ | -0.28+ | 0.32+ | 0.42++ |
| DAYS TO MATURITY | 0.00 | -0.70++ | 0.00 | 0.49++ | 0.42++ |
| NODULE NUMBER 1 | 0.00 | -0.41++ | -0.29+ | 0.37++ | 0.36++ |
| NODULE NUMBER 2 | 0.00 | -0.12 | -0.03 | -0.04 | 0.09 |
| NODULE WEIGHT 1 | 0.00 | -0.39++ | -0.35++ | 0.34++ | 0.36++ |
| NODULE WEIGHT 2 | 0.00 | -0.01 | 0.06 | -0.23 | -0.21 |
| PLANT HEIGHT | 0.00 | -0.39++ | 0.00 | 0.74++ | 0.26+ |
| LODGING | 0.00 | 0.02 | -0.13 | 0.30+ | -0.22 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.17 | -0.45++ | -0.21 |
| PODS PER PLANT | 0.00 | -0.17 | 1.00 | -0.13 | -0.02 |
| 100 SEED WEIGHT | 0.00 | -0.45++ | -0.13 | 1.00 | 0.17 |
| QUALITY OF SEED | 0.00 | -0.21 | -0.02 | 0.17 | 1.00 |

TABLE 148 EXPERIMENT 102 YEAR 1976

REGION - EUROPE COUNTRY - HUNGARY
SITE - GODOLLO
LATITUDE - 47 DEG. N LONGITUDE - 19 DEG. E
COOPERATOR - ANDOR BALINT
DATE PLANTED - MAY 3, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - BLACKEARTH CLAY
FERTILIZER USED (KG/HA) - N 50.0, P 150.0, K 100.0
AMOUNT OF MOISTURE - 398 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | HODGSON | 2172.00 | 66.00 | 156.00 | 47.00 | 0.00 | 0.00 | 0.00 | 70.35 | 1.00 |
| 14 | SWIFT | 1614.00 | 54.00 | 145.00 | 28.50 | 0.00 | 0.00 | 0.00 | 84.65 | 1.25 |
| 13 | STEELE | 1601.50 | 73.00 | 163.00 | 33.75 | 0.00 | 0.00 | 0.00 | 72.75 | 1.25 |
| 10 | ANSOY 71 | 1392.00 | 60.00 | 145.00 | 35.75 | 0.00 | 0.00 | 0.00 | 88.90 | 1.00 |
| 7 | BELSOY | 1379.00 | 57.00 | 145.00 | 45.25 | 0.00 | 0 | 0.00 | 86.37 | 1.25 |
| 12 | HARK | 1164.50 | 59.00 | 145.00 | 79.75 | 0.00 | 0.00 | 0.00 | 79.00 | 1.00 |
| 9 | CORSOY | 1112.00 | 60.00 | 145.00 | 56.75 | 0.00 | 0.00 | 0.00 | 86.87 | 1.25 |
| 2 | WOODWORTH | 1093.00 | 68.00 | 143.00 | 36.00 | 0.00 | 0.00 | 0.00 | 78.12 | 1.25 |
| 4 | WILLIAMS | 1073.50 | 56.00 | 140.00 | 45.50 | 0.00 | 0.00 | 0.00 | 84.52 | 2.50 |
| 3 | CUTLER 71 | 1048.50 | 56.00 | 142.00 | 50.25 | 0.00 | 0.00 | 0.00 | 92.90 | 1.25 |
| 5 | CLARK 63 | 994.00 | 55.00 | 149.00 | 41.25 | 0.00 | 0.00 | 0.00 | 80.18 | 1.50 |
| 15 | ALTONA | 839.50 | 54.00 | 116.00 | 27.50 | 0.00 | 0.00 | 0.00 | 46.98 | 1.00 |
| 1 | CALLAND | 804.00 | 56.00 | 129.00 | 31.75 | 0.00 | 0.00 | 0.00 | 84.98 | 1.00 |
| 6 | WELLS | 631.50 | 73.00 | 146.75 | 30.75 | 0.00 | 0.00 | 0.00 | 70.60 | 1.00 |
| 8 | COLUMBUS | 565.50 | 73.00 | 163.00 | 103.25 | 0.00 | 0.00 | 0.00 | 84.70 | 2.00 |
| | GRAND MEAN | 1166.03 | 61.33 | 144.85 | 46.20 | 0.00 | 0.00 | 0.00 | 79.46 | 1.30 |
| | STANDARD ERROR OF A VARIETY MEAN | 151.99 | 0.00 | 0.27 | 7.65 | 0.00 | 0.00 | 0.00 | 3.42 | 0.25 |
| | COEFFICIENT OF VARIATION | 26.07% | 0.00% | 0.37% | 33.11% | 0.00% | 0.00% | 0.00% | 8.60% | 38.34% |
| | 5% LSD VARIETY MEANS (********=NS) | 433.80 | 0.00 | 0.76 | 21.83 | 0.00 | 0.00 | 0.00 | 9.75 | 0.71 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.04 | 0.28* | -0.22 | 0.00 | 0.00 | 0.00 | 0.05 | -0.11 |
| DAYS TO FLOWER | -0.04 | 1.00 | 0.67** | 0.22 | 0.00 | 0.00 | 0.00 | -0.12 | 0.01 |
| DAYS TO MATURITY | 0.28* | 0.67** | 1.00 | 0.38** | 0.00 | 0.00 | 0.00 | 0.31* | 0.16 |
| NODULE NUMBER 1 | -0.22 | 0.22 | 0.38** | 1.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.17 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.05 | -0.12 | 0.31* | 0.21 | 0.00 | 0.00 | 0.00 | 1.00 | 0.21 |
| LODGING | -0.11 | 0.01 | 0.16 | 0.17 | 0.00 | 0.00 | 0.00 | 0.21 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.19 | 0.03 | -0.06 | -0.48** | 0.00 | 0.00 | 0.00 | -0.14 | 0.07 |
| PODS PER PLANT | 0.31* | 0.09 | 0.43** | 0.22 | 0.00 | 0.00 | 0.00 | 0.39** | 0.19 |
| 100 SEED WEIGHT | 0.40** | -0.19 | -0.28* | -0.40** | 0.00 | 0.00 | 0.00 | -0.48** | -0.37** |
| QUALITY OF SEED | -0.41** | 0.33** | 0.38** | 0.45** | 0.00 | 0.00 | 0.00 | 0.35** | 0.35** |

TABLE 148 EXPERIMENT 102 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 11 | HODGSON | 1.00 | 245.50 | 18.03 | 16.63 | 3.00 | 38.7 | 19.9 |
| 14 | SWIFT | 1.00 | 293.75 | 15.35 | 19.20 | 1.75 | 39.9 | 18.3 |
| 13 | STEELE | 1.00 | 276.00 | 15.33 | 18.88 | 2.25 | 42.8 | 16.6 |
| 10 | AMSOY 71 | 1.00 | 260.25 | 16.18 | 16.15 | 2.75 | 41.2 | 18.2 |
| 7 | BEESON | 1.00 | 272.00 | 17.88 | 17.65 | 3.00 | 41.2 | 17.7 |
| 12 | HARK | 1.00 | 221.50 | 15.18 | 15.55 | 3.00 | 43.3 | 17.0 |
| 9 | CORSOY | 1.00 | 260.50 | 16.30 | 13.48 | 4.00 | 41.6 | 17.7 |
| 2 | WOODWORTH | 1.00 | 282.25 | 15.63 | 11.75 | 4.00 | 42.1 | 17.0 |
| 4 | WILLIAMS | 1.00 | 280.75 | 18.25 | 12.45 | 4.00 | 40.1 | 19.2 |
| 3 | CUTLER 71 | 1.00 | 256.25 | 21.18 | 11.53 | 4.00 | 40.8 | 18.3 |
| 5 | CLARK 63 | 1.00 | 290.75 | 15.53 | 11.15 | 4.00 | 39.6 | 19.0 |
| 15 | ALTONA | 1.00 | 271.00 | 9.70 | 21.58 | 1.75 | 40.5 | 18.0 |
| 1 | CALLAND | 1.00 | 267.25 | 10.90 | 13.20 | 3.00 | 39.9 | 18.6 |
| 6 | WELLS | 1.00 | 302.25 | 11.15 | 14.28 | 4.00 | 42.3 | 18.5 |
| 8 | COLUMBUS | 1.00 | 256.00 | 21.63 | 8.83 | 5.00 | 41.5 | 17.8 |
| | GRAND MEAN | 1.00 | 269.07 | 15.88 | 14.82 | 3.30 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.23 | 1.79 | 0.81 | 0.16 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.09% | 22.56% | 10.87% | 9.66% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 34.90 | 5.11 | 2.30 | 0.45 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.19 | 0.31* | 0.40** | -0.41** |
| DAYS TO | FLOWER | 0.00 | 0.03 | 0.09 | -0.19 | 0.33** |
| DAYS TO | MATURITY | 0.00 | -0.06 | 0.43** | -0.28* | 0.34** |
| NODULE | NUMBER 1 | 0.00 | -0.48** | 0.22 | -0.40** | 0.45** |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.14 | 0.39** | -0.48** | 0.38** |
| | LODGING | 0.00 | 0.07 | 0.19 | -0.37** | 0.35** |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.08 | 0.08 | -0.01 |
| PODS PER | PLANT | 0.00 | -0.08 | 1.00 | -0.32* | 0.30* |
| 100 SEED | WEIGHT | 0.00 | 0.08 | -0.32* | 1.00 | -0.87** |
| QUALITY | OF SEED | 0.00 | -0.01 | 0.30* | -0.87** | 1.00 |

TABLE 149 EXPERIMENT 101 YEAR 1976

REGION - EUROPE
SITE - SZABVAS
LATITUDE - 46 DEG. 51 MIN. N
COOPERATOR - ELEMER POSGAY
DATE PLANTED - MAY 7, 1976
SOIL TYPE - SAND 18.0%, SILT 38.1%, CLAY 43.9%, PH 6.8
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 339 MM
NUMBER OF IRRIGATIONS - 3 (120 MM)
SUBSTITUTE VARIETY - MERIT
LOCAL VARIETY - GSZ-3

COUNTRY - HUNGARY
ELEVATION - 84 M
LONGITUDE - 20 DEG. 35 MIN. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | HODGSON | 3021.00 | 43.50 | 147.00 | 38.00 | 176.50 | 0.12 | 0.85 | 114.25 | 3.50 |
| 2 | GSZ-3 | 2789.50 | 44.00 | 148.00 | 24.00 | 28.00 | 0.15 | 0.26 | 126.60 | 4.75 |
| 5 | SWIFT | 2594.00 | 45.25 | 151.00 | 72.50 | 212.00 | 0.24 | 1.17 | 121.60 | 4.50 |
| 4 | STEELE | 2413.50 | 44.50 | 156.00 | 96.50 | 209.50 | 0.43 | 1.25 | 115.70 | 4.75 |
| 1 | MERIT | 2367.50 | 44.50 | 137.00 | 57.00 | 67.50 | 0.24 | 0.67 | 103.60 | 3.75 |
| 6 | ALTONA | 1537.50 | 42.50 | 121.00 | 47.50 | 27.50 | 0.14 | 0.24 | 77.10 | 2.25 |
| | GRAND MEAN | 2453.83 | 44.04 | 143.33 | 55.92 | 120.17 | 0.22 | 0.74 | 109.81 | 3.92 |
| | STANDARD ERROR OF A VARIETY MEAN | 101.00 | 0.63 | 0.00 | 24.78 | 45.75 | 0.11 | 0.33 | 8.01 | 0.41 |
| | COEFFICIENT OF VARIATION | 8.23% | 2.87% | 0.00% | 88.63% | 76.15% | 102.22% | 88.15% | 14.59% | 21.02% |
| | 5% LSD VARIETY MEANS (********=NS) | 304.46 | ******** | 0.00 | ******** | 137.91 | ******** | ******** | 24.14 | 1.24 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.31 | 0.74** | -0.10 | 0.24 | 0.02 | 0.14 | 0.68** | 0.56** |
| DAYS TO FLOWER | 0.31 | 1.00 | 0.43* | -0.07 | 0.27 | 0.05 | 0.30 | 0.19 | 0.30 |
| DAYS TO MATURITY | 0.74** | 0.43* | 1.00 | 0.15 | 0.46* | 0.25 | 0.37 | 0.72** | 0.72** |
| NODULE NUMBER 1 | -0.10 | -0.07 | 0.16 | 1.00 | 0.48* | 0.83** | 0.51** | 0.02 | 0.22 |
| NODULE NUMBER 2 | 0.24 | 0.27 | 0.46* | 0.48* | 1.00 | 0.27 | 0.94** | 0.16 | 0.24 |
| NODULE WEIGHT 1 | 0.02 | 0.05 | 0.25 | 0.83** | 0.27 | 1.00 | 0.31 | 0.08 | 0.32 |
| NODULE WEIGHT 2 | 0.14 | 0.30 | 0.37 | 0.51** | 0.94** | 0.31 | 1.00 | 0.09 | 0.24 |
| PLANT HEIGHT | 0.68** | 0.19 | 0.72** | 0.02 | 0.16 | 0.08 | 0.09 | 1.00 | 0.78** |
| LODGING | 0.56** | 0.30 | 0.72** | 0.22 | 0.24 | 0.32 | 0.24 | 0.78** | 1.00 |
| SHATTER | 0.09 | 0.40 | -0.02 | -0.04 | -0.17 | -0.01 | -0.09 | -0.05 | -0.11 |
| PLANTS HARVEST | 0.01 | -0.30 | 0.03 | 0.04 | 0.15 | -0.02 | 0.01 | 0.12 | 0.16 |
| PODS PER PLANT | -0.01 | 0.23 | -0.19 | -0.16 | -0.16 | -0.08 | -0.01 | -0.21 | -0.23 |
| 100 SEED WEIGHT | -0.16 | -0.03 | 0.02 | -0.08 | 0.22 | -0.07 | 0.18 | -0.01 | -0.04 |
| QUALITY OF SEED | 0.14 | 0.12 | 0.48* | 0.28 | 0.49* | 0.36 | 0.41* | 0.10 | 0.22 |

TABLE 149 EXPERIMENT 101 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 3 | HODGSON | 1.00 | 185.50 | 30.00 | 17.80 | 1.25 | 41.8 | 18.7 |
| 2 | GSZ-3 | 1.25 | 141.50 | 33.25 | 17.90 | 1.00 | 42.0 | 18.0 |
| 5 | SWIFT | 1.00 | 170.50 | 24.25 | 18.50 | 1.00 | 41.1 | 17.9 |
| 4 | STEELE | 1.00 | 185.25 | 26.75 | 19.40 | 2.00 | 43.5 | 17.5 |
| 1 | MERIT | 1.25 | 115.25 | 62.00 | 16.35 | 1.00 | 41.7 | 18.8 |
| 6 | ALTONA | 1.00 | 187.00 | 26.75 | 19.28 | 1.00 | 43.6 | 16.7 |
| | GRAND MEAN | 1.08 | 164.17 | 33.83 | 18.20 | 1.21 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.13 | 16.16 | 5.06 | 0.62 | 0.10 | | |
| | COEFFICIENT OF VARIATION | 23.83% | 19.69% | 29.90% | 6.84% | 16.89% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 48.72 | 15.25 | 1.88 | 0.31 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.09 | 0.01 | -0.01 | -0.16 | 0.14 |
| DAYS TO FLOWER | 0.40 | -0.30 | 0.23 | -0.03 | 0.12 |
| DAYS TO MATURITY | -0.02 | 0.03 | -0.19 | 0.02 | 0.48* |
| NODULE NUMBER 1 | -0.04 | 0.04 | -0.16 | -0.08 | 0.28 |
| NODULE NUMBER 2 | -0.17 | 0.15 | -0.16 | 0.22 | 0.49* |
| NODULE WEIGHT 1 | -0.01 | -0.02 | -0.08 | -0.07 | 0.36 |
| NODULE WEIGHT 2 | -0.09 | 0.01 | -0.01 | 0.18 | 0.41* |
| PLANT HEIGHT | -0.05 | 0.12 | -0.21 | -0.01 | 0.10 |
| LODGING | -0.11 | 0.16 | -0.23 | -0.04 | 0.22 |
| SHATTER | 1.00 | -0.49* | 0.55** | -0.12 | -0.15 |
| PLANTS HARVEST | -0.49* | 1.00 | -0.64** | 0.43* | 0.27 |
| PODS PER PLANT | 0.55** | -0.64** | 1.00 | -0.45* | -0.19 |
| 100 SEED WEIGHT | -0.12 | 0.43* | -0.45* | 1.00 | 0.40 |
| QUALITY OF SEED | -0.15 | 0.27 | -0.19 | 0.40 | 1.00 |

TABLE 150 EXPERIMENT 97 YEAR 1976

REGION - EUROPE
SITE - SASSARI, SARDINIA
LATITUDE - 40 DEG. 43 MIN. N
COOPERATOR - G. RIVOIRA
DATE PLANTED - JUNE 8, 1976
SOIL TYPE - SAND 55.4%, SILT 19.6%, CLAY 25.0%, PH 7.9
FERTILIZER USED (KG/HA) - P 50.0
AMOUNT OF MOISTURE - 675 MM
NUMBER OF IRRIGATIONS - 7

COUNTRY - ITALY
ELEVATION - 80 M
LONGITUDE - 8 DEG. 33 MIN. E

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | WELLS | 4139.99 | 35.00 | 129.00 | 0.00 | 0.00 | 0.00 | 0.00 | 121.75 | 2.00 |
| 13 | AMSOY 71 | 4092.48 | 35.25 | 133.50 | 0.00 | 0.00 | 0.00 | 0.00 | 120.25 | 2.75 |
| 14 | HODGSON | 3994.13 | 33.00 | 114.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.75 | 1.75 |
| 12 | CORSOY | 3967.46 | 35.75 | 121.50 | 0.00 | 0.00 | 0.00 | 0.00 | 115.00 | 1.75 |
| 5 | WILLIAMS | 3817.85 | 43.00 | 135.25 | 0.00 | 0.00 | 0.00 | 0.00 | 125.00 | 2.00 |
| 9 | BEESON | 3674.07 | 35.00 | 132.75 | 0.00 | 0.00 | 0.00 | 0.00 | 115.00 | 2.50 |
| 2 | WOODWORTH | 3589.47 | 43.00 | 114.00 | 0.00 | 0.00 | 0.00 | 0.00 | 107.00 | 2.75 |
| 1 | CALLAND | 3429.44 | 43.00 | 133.50 | 0.00 | 0.00 | 0.00 | 0.00 | 130.00 | 3.75 |
| 6 | CLARK 63 | 3223.98 | 45.00 | 136.75 | 0.00 | 0.00 | 0.00 | 0.00 | 133.75 | 3.00 |
| 15 | HARK | 3215.64 | 33.75 | 134.50 | 0.00 | 0.00 | 0.00 | 0.00 | 105.50 | 2.00 |
| 16 | STEELE | 2890.16 | 33.00 | 114.00 | 0.00 | 0.00 | 0.00 | 0.00 | 91.25 | 2.00 |
| 4 | CUTLER 71 | 2865.16 | 45.00 | 149.00 | 0.00 | 0.00 | 0.00 | 0.00 | 118.50 | 2.00 |
| 10 | COLUMBUS | 2697.21 | 47.00 | 145.75 | 0.00 | 0.00 | 0.00 | 0.00 | 119.25 | 3.50 |
| 11 | ESSEX | 2633.44 | 77.50 | 192.00 | 0.00 | 0.00 | 0.00 | 0.00 | 120.25 | 4.25 |
| 7 | FORREST | 1833.70 | 76.00 | 192.00 | 0.00 | 0.00 | 0.00 | 0.00 | 141.25 | 4.25 |
| 3 | HILL | 1587.82 | 77.50 | 192.00 | 0.00 | 0.00 | 0.00 | 0.00 | 112.75 | 3.50 |
| | GRAND MEAN | 3228.25 | 46.11 | 141.84 | 0.00 | 0.00 | 0.00 | 0.00 | 117.33 | 2.73 |
| | STANDARD ERROR OF A VARIETY MEAN | 322.62 | 0.24 | 2.72 | 0.00 | 0.00 | 0.00 | 0.00 | 7.82 | 0.56 |
| | COEFFICIENT OF VARIATION | 19.99% | 1.05% | 3.84% | 0.00% | 0.00% | 0.00% | 0.00% | 13.45% | 40.60% |
| | 5% LSD VARIETY MEANS (********=NS) | 918.97 | 0.69 | 7.76 | 0.00 | 0.00 | 0.00 | 0.00 | 22.48 | 1.58 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.57++ | -0.50++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.41++ | -0.11 |
| DAYS TO | FLOWER | -0.57++ | 1.00 | 0.93++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.25+ | 0.54++ |
| DAYS TO | MATURITY | -0.50++ | 0.93++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33++ | 0.55++ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.41++ | 0.25+ | 0.33++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.54++ |
| | LODGING | -0.11 | 0.54++ | 0.55++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.54++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.08 | -0.17 | -0.33++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.43++ | -0.27+ |
| PODS PER | PLANT | 0.14 | 0.35++ | 0.39++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.59++ | 0.45++ |
| 100 SEED | WEIGHT | 0.52++ | -0.73++ | -0.64++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.00 | -0.28+ |
| QUALITY | OF SEED | -0.04 | 0.54++ | 0.46++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.44++ | 0.52++ |

TABLE 150 EXPERIMENT 97 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | WELLS | 1.00 | 264.75 | 31.85 | 20.48 | 2.50 |
| 13 | ANSOY 71 | 1.00 | 233.25 | 29.43 | 23.50 | 1.75 |
| 14 | HODGSON | 1.00 | 241.00 | 35.03 | 21.65 | 1.75 |
| 12 | COBSOY | 1.00 | 236.25 | 32.80 | 19.40 | 2.00 |
| 5 | WILLIAMS | 1.00 | 241.00 | 24.95 | 24.80 | 1.75 |
| 9 | BEESON | 1.00 | 227.75 | 28.88 | 23.00 | 1.75 |
| 2 | WOODWORTH | 1.00 | 270.50 | 26.18 | 20.28 | 3.00 |
| 1 | CALLAND | 1.00 | 219.50 | 27.33 | 21.77 | 2.75 |
| 6 | CLARK 63 | 1.00 | 235.25 | 36.93 | 20.95 | 2.25 |
| 15 | HARK | 1.00 | 212.75 | 25.95 | 20.80 | 2.00 |
| 16 | STEELE | 1.00 | 257.25 | 19.25 | 21.80 | 1.50 |
| 4 | CUTLER 71 | 1.00 | 194.00 | 30.88 | 24.00 | 2.75 |
| 10 | COLUMBUS | 1.00 | 197.00 | 45.00 | 19.33 | 2.50 |
| 11 | ESSEX | 1.00 | 239.50 | 38.75 | 16.00 | 3.25 |
| 7 | FORREST | 1.00 | 207.75 | 46.03 | 15.75 | 2.75 |
| 3 | HILL | 1.00 | 225.75 | 32.05 | 15.10 | 3.00 |
| | GRAND MEAN | 1.00 | 231.45 | 31.95 | 20.54 | 2.33 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.70 | 4.42 | 0.75 | 0.27 |
| | COEFFICIENT OF VARIATION | 0.00% | 10.97% | 27.70% | 7.35% | 23.04% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 36.17 | 12.60 | 2.15 | 0.76 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.08 | 0.14 | 0.52++ | -0.04 |
| DAYS TO | FLOWER | 0.00 | -0.17 | 0.35++ | -0.73++ | 0.54++ |
| DAYS TO | MATURITY | 0.00 | -0.33++ | 0.39++ | -0.64++ | 0.46++ |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.43++ | 0.59++ | -0.00 | 0.44++ |
| | LODGING | 0.00 | -0.27+ | 0.45++ | -0.28+ | 0.52++ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.48++ | 0.04 | -0.29+ |
| PODS PER | PLANT | 0.00 | -0.48++ | 1.00 | -0.21 | 0.47++ |
| 100 SEED | WEIGHT | 0.00 | 0.04 | -0.21 | 1.00 | -0.34++ |
| QUALITY | OF SEED | 0.00 | -0.29+ | 0.47++ | -0.34++ | 1.00 |

TABLE 151 EXPERIMENT 99 YEAR 1976

REGION - EUROPE COUNTRY - ITALY
SITE - USSANA, SARDINIA ELEVATION - 89 M
LATITUDE - 39 DEG. 25 MIN. N LONGITUDE - 9 DEG. 5 MIN. E
COOPERATOR - CENTRO REGIONALE AGRARIO SPERIMENTALE
DATE PLANTED - JUNE 16, 1976 DATE HARVESTED - NOVEMBER, 1976
SOIL TYPE - SAND 42.6%, SILT 23.7%, CLAY 33.7%, PH 8.4
FERTILIZER USED (KG/HA) - N 25.0, P 25.0
AMOUNT OF MOISTURE - 684 MM
NUMBER OF IRRIGATIONS - 15

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 2352.55 | 44.00 | 123.00 | 0.00 | 0.00 | 0.00 | 0.00 | 83.80 | 1.50 |
| 12 | CORSOY | 2306.71 | 36.00 | 132.00 | 0.00 | 0.00 | 0.00 | 0.00 | 78.00 | 1.75 |
| 13 | ANSOY 71 | 2242.11 | 36.00 | 133.75 | 0.00 | 0.00 | 0.00 | 0.00 | 89.10 | 2.75 |
| 5 | WILLIAMS | 2208.77 | 44.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 93.87 | 1.25 |
| 9 | BEESON | 2169.18 | 38.00 | 129.00 | 0.00 | 0.00 | 0.00 | 0.00 | 98.10 | 2.50 |
| 14 | RODGSON | 2167.10 | 36.00 | 129.00 | 0.00 | 0.00 | 0.00 | 0.00 | 72.98 | 1.00 |
| 6 | CLARK 63 | 2154.60 | 44.00 | 129.00 | 0.00 | 0.00 | 0.00 | 0.00 | 98.37 | 2.00 |
| 1 | CALLAND | 2090.00 | 38.00 | 130.75 | 0.00 | 0.00 | 0.00 | 0.00 | 106.45 | 2.00 |
| 15 | HARF | 1994.15 | 36.00 | 123.00 | 0.00 | 0.00 | 0.00 | 0.00 | 86.40 | 2.00 |
| 16 | STEELE | 1742.01 | 44.25 | 129.00 | 0.00 | 0.00 | 0.00 | 0.00 | 72.70 | 1.75 |
| 4 | CUTLER 71 | 1739.93 | 44.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 109.48 | 1.75 |
| 8 | WELLS | 1596.15 | 40.00 | 135.00 | 0.00 | 0.00 | 0.00 | 0.00 | 86.07 | 1.50 |
| 7 | FORREST | 1414.87 | 59.00 | 151.00 | 0.00 | 0.00 | 0.00 | 0.00 | 123.80 | 4.25 |
| 10 | COLUMBUS | 1383.61 | 56.75 | 130.00 | 0.00 | 0.00 | 0.00 | 0.00 | 104.85 | 3.50 |
| 3 | HILL | 1373.19 | 69.00 | 151.00 | 0.00 | 0.00 | 0.00 | 0.00 | 94.07 | 3.25 |
| 11 | ESSEX | 1256.50 | 59.00 | 148.50 | 0.00 | 0.00 | 0.00 | 0.00 | 92.23 | 2.00 |
| | GRAND MEAN | 1886.97 | 45.25 | 133.00 | 0.00 | 0.00 | 0.00 | 0.00 | 93.14 | 2.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 185.30 | 2.27 | 2.07 | 0.00 | 0.00 | 0.00 | 0.00 | 3.68 | 0.44 |
| | COEFFICIENT OF VARIATION | 19.64% | 10.05% | 3.11% | 0.00% | 0.00% | 0.00% | 0.00% | 7.91% | 40.07% |
| | 5% LSD VARIETY MEANS (********=NS) | 527.81 | 6.47 | 5.89 | 0.00 | 0.00 | 0.00 | 0.00 | 10.49 | 1.24 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.57** | -0.45** | 0.00 | 0.00 | 0.00 | 0.00 | -0.19 | -0.14 |
| DAYS TO | FLOWER | -0.57** | 1.00 | 0.67** | 0.00 | 0.00 | 0.00 | 0.00 | 0.35** | 0.43** |
| DAYS TO | MATURITY | -0.45** | 0.67** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27* | 0.45** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.19 | 0.35** | 0.27* | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.46** |
| | LODGING | -0.14 | 0.43** | 0.45** | 0.00 | 0.00 | 0.00 | 0.00 | 0.46** | 1.00 |
| | SHATTER | 0.26* | -0.09 | -0.38** | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.08 |
| PLANTS | HARVEST | 0.17 | -0.38** | -0.39** | 0.00 | 0.00 | 0.00 | 0.00 | -0.28* | -0.51** |
| PODS PER | PLANT | -0.16 | 0.46** | 0.69** | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.56** |
| 100 SEED | WEIGHT | 0.54** | -0.38** | -0.16 | 0.00 | 0.00 | 0.00 | 0.00 | -0.21 | -0.06 |
| QUALITY | OF SEED | 0.22 | -0.52** | -0.26* | 0.00 | 0.00 | 0.00 | 0.00 | -0.65** | -0.39** |

TABLE 151 EXPERIMENT 99 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 2 | WOODWORTH | 2.00 | 247.75 | 23.53 | 18.80 | 3.00 |
| 12 | CORSOY | 1.25 | 227.00 | 32.90 | 19.88 | 3.50 |
| 13 | ANSOY 71 | 1.25 | 247.75 | 30.50 | 20.93 | 3.25 |
| 5 | WILLIAMS | 2.00 | 272.25 | 21.30 | 20.08 | 3.00 |
| 9 | BEESON | 1.50 | 263.00 | 23.38 | 19.23 | 3.00 |
| 14 | HODGSON | 1.00 | 266.50 | 27.70 | 18.33 | 3.25 |
| 6 | CLARK 63 | 2.00 | 245.50 | 24.43 | 16.53 | 2.50 |
| 1 | CALLAND | 1.25 | 259.00 | 27.00 | 19.30 | 3.00 |
| 15 | HARK | 1.25 | 222.00 | 33.10 | 20.60 | 3.25 |
| 16 | STEELE | 1.00 | 262.00 | 26.25 | 20.13 | 4.00 |
| 4 | CUTLER 71 | 1.75 | 239.00 | 22.23 | 18.48 | 2.00 |
| 8 | WELLS | 1.00 | 270.75 | 25.08 | 16.58 | 4.00 |
| 7 | FORREST | 1.00 | 174.25 | 46.65 | 17.73 | 2.00 |
| 10 | COLUMBUS | 2.00 | 235.50 | 24.35 | 15.38 | 2.00 |
| 3 | HILL | 1.00 | 180.00 | 44.30 | 17.28 | 2.00 |
| 11 | ESSEX | 1.00 | 268.50 | 30.03 | 16.18 | 3.00 |
| | GRAND MEAN | 1.39 | 242.55 | 28.88 | 18.46 | 2.92 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.16 | 10.33 | 1.78 | 1.08 | 0.18 |
| | COEFFICIENT OF VARIATION | 22.94% | 8.52% | 12.31% | 11.66% | 12.18% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.45 | 29.42 | 5.07 | 3.06 | 0.51 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.26* | 0.17 | -0.16 | 0.54** | 0.22 |
| DAYS TO | FLOWER | -0.09 | -0.38** | 0.46** | -0.38** | -0.52** |
| DAYS TO | MATURITY | -0.38** | -0.39** | 0.69** | -0.16 | -0.26* |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.15 | -0.28* | 0.21 | -0.21 | -0.65** |
| | LODGING | 0.08 | -0.51** | 0.56** | -0.06 | -0.39** |
| | SHATTER | 1.00 | 0.12 | -0.40** | 0.04 | -0.27* |
| PLANTS | HARVEST | 0.12 | 1.00 | -0.74** | -0.01 | 0.44** |
| PODS PER | PLANT | -0.40** | -0.74** | 1.00 | 0.02 | -0.29* |
| 100 SEED | WEIGHT | 0.04 | -0.01 | 0.02 | 1.00 | 0.24 |
| QUALITY | OF SEED | -0.27* | 0.44** | -0.29* | 0.24 | 1.00 |

TABLE 152 EXPERIMENT 120 YEAR 1976

REGION - EUROPE
SITE - BADZIKOW
LATITUDE - 52 DEG. 13 B.M. N
COOPERATOR - SOYBEAN LABORATORY, PLANT BREEDING AND ACCLIMATIZATION INSTITUTE
DATE PLANTED - MAY 25, 1976
SOIL TYPE - LIGHT CLAY PODSOL, PH 5.8
FERTILIZER USED (KG/HA) - N 25.0, P 35.2, K 83.0
AMOUNT OF MOISTURE - 227 MM
LOCAL VARIETY - WARSZAWSKA

COUNTRY - POLAND
ELEVATION - 85.- 92 M
LONGITUDE - 20 DEG. 39 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | NORMAN | 1371.94 | 43.50 | 124.75 | 42.75 | 81.00 | 0.29 | 0.91 | 73.32 | 1.50 |
| 5 | WARSZAWSKA | 1292.34 | 42.50 | 125.75 | 47.75 | 53.00 | 0.43 | 1.31 | 61.05 | 2.50 |
| 2 | PORTAGE | 1204.41 | 42.75 | 123.50 | 25.00 | 62.25 | 0.14 | 0.63 | 71.43 | 1.00 |
| 3 | ACME | 1181.49 | 42.50 | 124.00 | 24.25 | 68.25 | 0.14 | 0.88 | 73.73 | 1.25 |
| 1 | ALTONA | 1166.07 | 42.25 | 122.00 | 18.00 | 27.25 | 0.13 | 0.47 | 73.60 | 1.75 |
| | GRAND MEAN | 1243.25 | 42.70 | 124.00 | 31.75 | 58.35 | 0.22 | 0.84 | 70.62 | 1.60 |
| | STANDARD ERROR OF A VARIETY MEAN | 96.45 | 0.34 | 1.00 | 11.33 | 9.76 | 0.08 | 0.22 | 2.96 | 0.30 |
| | COEFFICIENT OF VARIATION | 15.52% | 1.59% | 1.61% | 71.37% | 33.46% | 68.83% | 52.65% | 8.38% | 37.41% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | ******** | ******** | 30.08 | ******** | ******** | 9.12 | 0.92 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.09 | -0.47* | 0.26 | 0.18 | 0.42 | 0.38 | -0.13 | 0.10 |
| DAYS TO FLOWER | 0.09 | 1.00 | -0.09 | 0.44 | 0.40 | 0.32 | 0.31 | 0.12 | -0.04 |
| DAYS TO MATURITY | -0.47* | -0.09 | 1.00 | -0.18 | 0.09 | -0.25 | -0.04 | 0.06 | 0.12 |
| NODULE NUMBER 1 | 0.26 | 0.44 | -0.18 | 1.00 | 0.29 | 0.92** | 0.57** | -0.23 | 0.07 |
| NODULE NUMBER 2 | 0.18 | 0.40 | 0.09 | 0.29 | 1.00 | 0.17 | 0.49* | 0.39 | -0.20 |
| NODULE WEIGHT 1 | 0.42 | 0.32 | -0.25 | 0.92** | 0.17 | 1.00 | 0.62** | -0.34 | 0.23 |
| NODULE WEIGHT 2 | 0.38 | 0.31 | -0.04 | 0.57** | 0.49* | 0.62** | 1.00 | 0.03 | 0.03 |
| PLANT HEIGHT | -0.13 | 0.12 | 0.06 | -0.23 | 0.39 | -0.24 | 0.03 | 1.00 | -0.28 |
| LODGING | 0.10 | -0.24 | 0.12 | 0.07 | -0.20 | 0.23 | 0.03 | -0.28 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.13 | 0.13 | 0.26 | -0.32 | -0.20 | -0.48* | -0.42 | 0.11 | -0.17 |
| PODS PER PLANT | 0.42 | -0.24 | 0.08 | 0.20 | 0.13 | 0.38 | 0.17 | -0.38 | 0.42 |
| 100 SEED WEIGHT | -0.58** | -0.16 | 0.06 | -0.37 | -0.43 | -0.45* | -0.44 | 0.22 | -0.29 |
| QUALITY OF SEED | -0.14 | 0.09 | 0.41 | -0.14 | 0.26 | -0.17 | 0.12 | -0.11 | -0.18 |

TABLE 152 EXPERIMENT 120 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 4 | NORMAN | 1.00 | 303.00 | 19.15 | 18.05 | 1.50 | 44.8 | 14.1 |
| 5 | WARSZAWSKA | 1.00 | 290.75 | 26.25 | 17.75 | 2.00 | 43.8 | 15.3 |
| 2 | PORTAGE | 1.00 | 303.00 | 18.78 | 19.95 | 2.50 | 45.2 | 16.0 |
| 3 | ACME | 1.00 | 302.00 | 21.67 | 20.35 | 2.00 | 45.6 | 14.5 |
| 1 | ALTONA | 1.00 | 299.75 | 14.80 | 20.70 | 1.00 | 44.0 | 17.5 |
| | GRAND MEAN | 1.00 | 299.70 | 20.13 | 19.36 | 1.80 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 2.96 | 2.13 | 0.61 | 0.18 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 1.98% | 21.16% | 6.31% | 20.29% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 6.56 | 1.88 | 0.56 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.13 | 0.42 | -0.58** | -0.14 |
| DAYS TO FLOWER | 0.00 | 0.13 | -0.24 | -0.16 | 0.09 |
| DAYS TO MATURITY | 0.00 | 0.26 | 0.08 | 0.06 | 0.41 |
| NODULE NUMBER 1 | 0.00 | -0.32 | 0.20 | -0.37 | -0.14 |
| NODULE NUMBER 2 | 0.00 | -0.20 | 0.13 | -0.43 | 0.26 |
| NODULE WEIGHT 1 | 0.00 | -0.48* | 0.38 | -0.45* | -0.17 |
| NODULE WEIGHT 2 | 0.00 | -0.42 | 0.17 | -0.44 | 0.12 |
| PLANT HEIGHT | 0.00 | 0.11 | -0.38 | 0.22 | -0.11 |
| LODGING | 0.00 | -0.17 | 0.42 | -0.29 | -0.18 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.31 | 0.45* | 0.19 |
| PODS PER PLANT | 0.00 | -0.31 | 1.00 | -0.50* | 0.22 |
| 100 SEED WEIGHT | 0.00 | 0.45* | -0.50* | 1.00 | 0.01 |
| QUALITY OF SEED | 0.00 | 0.19 | 0.22 | 0.01 | 1.00 |

TABLE 153 EXPERIMENT 74 YEAR 1976

REGION - EUROPE
COUNTRY - PORTUGAL
SITE - PORTO
ELEVATION - 29 M
LATITUDE - 41 DEG. 20 MIN. N
LONGITUDE - 8 DEG. 40 MIN. W
COOPERATORS - A. SILVA, D.S. SOUSA, A.D. ANGELICO
DATE PLANTED - MAY 18-19, 1976
DATE HARVESTED - OCTOBER, 1976
SOIL PH 5.7
FERTILIZER USED (KG/HA) - N 40.0, P 90.0, K 90.0
AMOUNT OF MOISTURE - 628 MM
NUMBER OF IRRIGATIONS - 4

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | WELLS | 2306.71 | 48.50 | 124.50 | 0.00 | 0.00 | 0.00 | 0.00 | 87.50 | 1.50 |
| 1 | CALLAND | 2221.28 | 59.75 | 140.25 | 0.00 | 0.00 | 0.00 | 0.00 | 98.75 | 2.00 |
| 2 | WOODWORTH | 2202.52 | 51.25 | 164.50 | 0.00 | 0.00 | 0.00 | 0.00 | 89.25 | 2.00 |
| 8 | BEESON | 2194.19 | 53.50 | 127.25 | 0.00 | 0.00 | 0.00 | 0.00 | 97.02 | 2.50 |
| 4 | WILLIAMS | 2192.10 | 61.25 | 135.50 | 0.00 | 0.00 | 0.00 | 0.00 | 97.47 | 1.75 |
| 5 | CLARK 63 | 2144.18 | 64.00 | 140.75 | 0.00 | 0.00 | 0.00 | 0.00 | 108.13 | 3.75 |
| 3 | CUTLER 71 | 2075.41 | 64.50 | 155.00 | 0.00 | 0.00 | 0.00 | 0.00 | 118.00 | 3.25 |
| 9 | COLUMBUS | 1041.87 | 55.25 | 187.25 | 0.00 | 0.00 | 0.00 | 0.00 | 107.83 | 3.75 |
| 10 | ESSEX | 754.32 | 90.00 | 181.50 | 0.00 | 0.00 | 0.00 | 0.00 | 116.05 | 4.00 |
| 6 | FORREST | 581.37 | 94.25 | 186.00 | 0.00 | 0.00 | 0.00 | 0.00 | 127.50 | 5.00 |
| | GRAND MEAN | 1771.40 | 64.23 | 154.25 | 0.00 | 0.00 | 0.00 | 0.00 | 104.75 | 2.95 |
| | STANDARD ERROR OF A VARIETY MEAN | 221.96 | 0.63 | 5.07 | 0.00 | 0.00 | 0.00 | 0.00 | 3.11 | 0.61 |
| | COEFFICIENT OF VARIATION | 25.06% | 1.95% | 6.57% | 0.00% | 0.00% | 0.00% | 0.00% | 5.94% | 41.31% |
| | 5% ISD VARIETY MEANS (********=NS) | 644.07 | 1.82 | 14.70 | 0.00 | 0.00 | 0.00 | 0.00 | 9.02 | 1.77 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.68++ | -0.77++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.67++ | -0.71++ |
| DAYS TO FLOWER | -0.68++ | 1.00 | 0.57++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.76++ | 0.53++ |
| DAYS TO MATURITY | -0.77++ | 0.57++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56++ | 0.54++ |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.67++ | 0.76++ | 0.56++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.73++ |
| LODGING | -0.71++ | 0.53++ | 0.54++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.73++ | 1.00 |
| SHATTER | 0.08 | -0.29 | -0.13 | 0.00 | 0.00 | 0.00 | 0.00 | -0.26 | -0.04 |
| PLANTS HARVEST | 0.03 | 0.01 | -0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.09 |
| PODS PER PLANT | 0.43++ | -0.25 | -0.33+ | 0.00 | 0.00 | 0.00 | 0.00 | -0.33+ | -0.31 |
| 100 SEED WEIGHT | 0.54++ | -0.44++ | -0.50++ | 0.00 | 0.00 | 0.00 | 0.00 | -0.10 | -0.06 |
| QUALITY OF SEED | -0.20 | 0.05 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | -0.02 | 0.20 |

TABLE 153 EXPERIMENT 74 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | WELLS | 2.25 | 145.75 | 58.23 | 18.50 | 5.00 | 44.3 | 19.4 |
| 1 | CALLAND | 1.25 | 161.75 | 41.58 | 23.25 | 4.75 | 42.4 | 20.2 |
| 2 | WOODWORTH | 1.50 | 154.75 | 46.13 | 17.25 | 5.00 | 41.1 | 19.9 |
| 8 | BEESON | 2.00 | 165.75 | 56.25 | 21.25 | 4.75 | 43.8 | 19.1 |
| 4 | WILLIAMS | 1.25 | 117.00 | 45.55 | 22.00 | 3.75 | 41.1 | 19.9 |
| 5 | CLARK 63 | 1.25 | 145.75 | 47.25 | 20.75 | 3.50 | 41.9 | 20.2 |
| 3 | CUTLER 71 | 1.00 | 182.25 | 43.70 | 23.00 | 4.00 | 41.4 | 20.0 |
| 9 | COLUMBUS | 1.75 | 134.50 | 33.00 | 18.25 | 4.25 | 41.8 | 21.8 |
| 10 | ESSEX | 1.50 | 164.00 | 38.73 | 15.75 | 4.75 | 43.2 | 18.8 |
| 6 | FORREST | 1.00 | 143.50 | 37.83 | 15.25 | 5.00 | 40.7 | 17.3 |
| | GRAND MEAN | 1.48 | 151.50 | 44.82 | 19.53 | 4.48 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.37 | 16.87 | 7.73 | 0.90 | 0.37 | | |
| | COEFFICIENT OF VARIATION | 50.32% | 22.27% | 34.49% | 9.24% | 16.47% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | ******** | 2.62 | 1.07 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 0.08 | 0.03 | 0.43** | 0.54** | -0.20 | | | | | | | | | |
| DAYS TO FLOWER | -0.29 | 0.01 | -0.25 | -0.44** | 0.05 | | | | | | | | | |
| DAYS TO MATURITY | -0.13 | -0.08 | -0.33* | -0.50** | 0.13 | | | | | | | | | |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | |
| PLANT HEIGHT | -0.26 | 0.20 | -0.33* | -0.10 | -0.02 | | | | | | | | | |
| LODGING | -0.04 | 0.09 | -0.31 | -0.06 | 0.20 | | | | | | | | | |
| SHATTER | 1.00 | -0.17 | 0.07 | -0.02 | 0.27 | | | | | | | | | |
| PLANTS HARVEST | -0.17 | 1.00 | -0.44** | 0.17 | 0.17 | | | | | | | | | |
| PODS PER PLANT | 0.07 | -0.44** | 1.00 | 0.11 | -0.09 | | | | | | | | | |
| 100 SEED WEIGHT | -0.02 | 0.17 | 0.11 | 1.00 | -0.07 | | | | | | | | | |
| QUALITY OF SEED | 0.27 | 0.17 | -0.09 | -0.07 | 1.00 | | | | | | | | | |

TABLE 154 EXPERIMENT 301 YEAR 1976

REGION - EUROPE
SITE - SEVILLE
LATITUDE - 37 DEG. 30 MIN. N
COOPERATOR - I.N.I.A.
DATE PLANTED - JUNE 18, 1976
SOIL TYPE - SILTY CLAY, PH 7.25
FERTILIZER USED (KG/HA) - N 25.0, P 55.0, K 105.0
AMOUNT OF MOISTURE - 677 MM
NUMBER OF IRRIGATIONS - 9 (450 MM)

COUNTRY - SPAIN
ELEVATION - 20 M
LONGITUDE - 5 DEG. 57 MIN. W
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | BEESON | 4385.00 | 26.75 | 102.25 | 112.50 | 175.25 | 0.45 | 1.66 | 107.50 | 2.75 |
| 4 | WILLIAMS | 4216.25 | 27.00 | 105.25 | 122.75 | 262.75 | 0.29 | 1.72 | 103.75 | 2.00 |
| 9 | CORSOY | 3989.37 | 26.50 | 98.75 | 149.25 | 316.00 | 0.30 | 3.03 | 92.25 | 4.00 |
| 10 | AMSOY 71 | 3928.12 | 26.50 | 101.75 | 110.25 | 255.50 | 0.18 | 1.77 | 115.00 | 3.75 |
| 2 | WOODWORTH | 3920.00 | 28.00 | 100.50 | 98.25 | 191.00 | 0.19 | 1.13 | 96.75 | 1.50 |
| 1 | CALLAND | 3866.87 | 26.50 | 114.75 | 116.50 | 174.00 | 0.30 | 1.06 | 117.00 | 2.75 |
| 6 | WELLS | 3840.00 | 25.50 | 97.75 | 95.75 | 242.50 | 0.33 | 2.17 | 101.25 | 1.75 |
| 5 | CLARK 63 | 3831.25 | 27.25 | 113.75 | 140.00 | 263.25 | 0.28 | 1.50 | 106.25 | 2.75 |
| 12 | HARK | 3784.37 | 23.25 | 96.50 | 73.75 | 278.75 | 0.09 | 1.63 | 105.50 | 2.00 |
| 3 | CUTLER 71 | 3634.37 | 27.50 | 114.25 | 202.75 | 322.25 | 0.57 | 1.59 | 114.25 | 3.25 |
| 13 | STEELE | 3570.62 | 23.00 | 84.25 | 83.75 | 262.00 | 0.12 | 1.68 | 96.25 | 2.75 |
| 8 | COLUMBUS | 3563.12 | 28.75 | 119.00 | 138.50 | 308.75 | 0.33 | 1.66 | 107.75 | 2.75 |
| 11 | HODGSON | 3560.00 | 23.00 | 34.75 | 102.00 | 186.50 | 0.10 | 1.16 | 90.50 | 2.00 |
| | GRAND MEAN | 3853.03 | 26.12 | 102.58 | 118.92 | 248.35 | 0.27 | 1.67 | 104.15 | 2.62 |
| | STANDARD ERROR OF A VARIETY MEAN | 163.48 | 0.24 | 1.25 | 18.45 | 35.50 | 0.06 | 0.27 | 3.04 | 0.31 |
| | COEFFICIENT OF VARIATION | 8.49% | 1.85% | 2.44% | 31.03% | 28.59% | 40.66% | 31.80% | 5.83% | 23.51% |
| | 5% LSD VARIETY MEANS (********=NS) | 468.90 | 0.69 | 3.58 | 52.92 | 101.83 | 0.16 | 0.76 | 8.71 | 0.88 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.12 | 0.16 | 0.11 | 0.12 | 0.38++ | 0.39++ | 0.06 | -0.06 |
| DAYS TO | FLOWER | 0.12 | 1.00 | 0.79++ | 0.36++ | 0.10 | 0.42++ | 0.04 | 0.33+ | 0.21 |
| DAYS TO | MATURITY | 0.16 | 0.79++ | 1.00 | 0.42++ | 0.15 | 0.52++ | -0.02 | 0.60++ | 0.21 |
| NODULE | NUMBER 1 | 0.11 | 0.36++ | 0.42++ | 1.00 | 0.36++ | 0.70++ | 0.18 | 0.19 | 0.22 |
| NODULE | NUMBER 2 | 0.12 | 0.10 | 0.15 | 0.36++ | 1.00 | 0.20 | 0.66++ | -0.15 | 0.15 |
| NODULE | WEIGHT 1 | 0.38++ | 0.42++ | 0.52++ | 0.70++ | 0.20 | 1.00 | 0.22 | 0.34+ | 0.13 |
| NODULE | WEIGHT 2 | 0.39++ | 0.04 | -0.02 | 0.18 | 0.66++ | 0.22 | 1.00 | -0.24 | 0.17 |
| PLANT | HEIGHT | 0.06 | 0.33+ | 0.60++ | 0.19 | -0.15 | 0.34+ | -0.24 | 1.00 | 0.29+ |
| | LODGING | -0.06 | 0.21 | 0.21 | 0.22 | 0.15 | 0.13 | 0.17 | 0.29+ | 1.00 |
| | SHATTER | -0.28+ | 0.07 | 0.14 | 0.10 | -0.12 | 0.05 | -0.17 | 0.16 | 0.06 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.42++ | 0.38++ | 0.49++ | 0.29+ | -0.04 | 0.50++ | -0.05 | 0.42++ | 0.11 |
| QUALITY | OF SEED | -0.14 | -0.34+ | -0.29+ | -0.17 | -0.04 | -0.17 | 0.10 | -0.04 | 0.30+ |

TABLE 154 EXPERIMENT 301 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | BEESON | 1.00 | 0.00 | 0.00 | 22.35 | 3.00 | 41.1 | 20.2 |
| 4 | WILLIAMS | 1.00 | 0.00 | 0.00 | 22.88 | 1.75 | 40.1 | 21.9 |
| 9 | CORSOY | 1.00 | 0.00 | 0.00 | 18.13 | 3.00 | 40.4 | 21.1 |
| 10 | AMSOY 71 | 1.00 | 0.00 | 0.00 | 19.68 | 2.75 | 39.0 | 22.3 |
| 2 | WOODWORTH | 1.00 | 0.00 | 0.00 | 19.73 | 2.00 | 39.7 | 21.1 |
| 1 | CALLAND | 1.00 | 0.00 | 0.00 | 22.10 | 3.00 | 41.2 | 20.4 |
| 6 | WELLS | 1.00 | 0.00 | 0.00 | 17.40 | 3.00 | 41.1 | 20.8 |
| 5 | CLARK 63 | 1.00 | 0.00 | 0.00 | 19.93 | 2.75 | 41.1 | 21.0 |
| 12 | HARK | 1.00 | 0.00 | 0.00 | 17.85 | 2.75 | 40.6 | 20.9 |
| 3 | CUTLER 71 | 1.50 | 0.00 | 0.00 | 22.60 | 2.50 | 40.9 | 20.1 |
| 13 | STEELE | 1.00 | 0.00 | 0.00 | 19.73 | 2.75 | 40.9 | 21.2 |
| 8 | COLUMBUS | 1.00 | 0.00 | 0.00 | 18.83 | 1.75 | 40.4 | 20.8 |
| 11 | HODGSON | 1.00 | 0.00 | 0.00 | 17.53 | 2.75 | 39.1 | 22.4 |
| | GRAND MEAN | 1.04 | 0.00 | 0.00 | 19.90 | 2.60 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.14 | 0.00 | 0.00 | 0.41 | 0.14 | | |
| | COEFFICIENT OF VARIATION | 26.71% | 0.00% | 0.00% | 4.09% | 10.76% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.00 | 0.00 | 1.17 | 0.40 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.28+ | 0.00 | 0.00 | 0.42++ | -0.14 |
| DAYS TO | FLOWER | 0.07 | 0.00 | 0.00 | 0.38++ | -0.34+ |
| DAYS TO | MATURITY | 0.14 | 0.00 | 0.00 | 0.49++ | -0.29+ |
| MODULE | NUMBER 1 | 0.10 | 0.00 | 0.00 | 0.29+ | -0.17 |
| MODULE | NUMBER 2 | -0.12 | 0.00 | 0.00 | -0.04 | -0.04 |
| MODULE | WEIGHT 1 | 0.05 | 0.00 | 0.00 | 0.50++ | -0.17 |
| MODULE | WEIGHT 2 | -0.17 | 0.00 | 0.00 | -0.05 | 0.10 |
| PLANT | HEIGHT | 0.16 | 0.00 | 0.00 | 0.42++ | -0.04 |
| | LODGING | 0.06 | 0.00 | 0.00 | 0.11 | 0.30+ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.19 | 0.10 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.19 | 0.00 | 0.00 | 1.00 | -0.20 |
| QUALITY | OF SEED | 0.10 | 0.00 | 0.00 | -0.20 | 1.00 |

TABLE 155 EXPERIMENT 998 YEAR 1976

REGION - EUROPE
SITE - NOVI SAD
LATITUDE - 45 DEG. 20 MIN. N
COOPERATOR - BOGDAN BELIC
DATE PLANTED - APRIL 23, 1976
SOIL TYPE - SILT, PH 8.1
FERTILIZER USED (KG/HA) - N 30.0, P 60.0, K 50.0
AMOUNT OF MOISTURE - 410 MM
LOCAL VARIETIES - BELI FOUR, KASNA

COUNTRY - YUGOSLAVIA
ELEVATION - 80 M
LONGITUDE - 19 DEG. 51 MIN. E

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | HODGSON | 3551.96 | 46.00 | 137.00 | 26.00 | 46.50 | 0.27 | 0.38 | 90.25 | 0.25 |
| 5 | WELLS | 3180.22 | 51.00 | 167.00 | 7.00 | 18.00 | 0.10 | 0.24 | 102.50 | 0.00 |
| 10 | AMSOY 71 | 2964.76 | 58.00 | 167.00 | 14.25 | 32.00 | 0.20 | 0.38 | 122.25 | 0.00 |
| 6 | BEESON | 2770.97 | 55.00 | 169.00 | 0.00 | 0.75 | 0.00 | 0.01 | 115.25 | 1.00 |
| 12 | HARK | 2762.64 | 53.00 | 162.00 | 3.50 | 20.00 | 0.04 | 0.24 | 95.75 | 0.00 |
| 4 | CLARK 63 | 2675.12 | 70.00 | 172.00 | 12.00 | 5.25 | 0.16 | 0.08 | 111.75 | 2.50 |
| 9 | CORSOY | 2507.58 | 59.00 | 168.00 | 24.00 | 16.75 | 0.21 | 0.20 | 110.25 | 0.75 |
| 7 | BELI FOUR | 2420.48 | 50.00 | 166.00 | 4.00 | 9.50 | 0.05 | 0.14 | 113.50 | 1.00 |
| 1 | CALLAND | 2186.27 | 62.00 | 172.00 | 8.25 | 9.50 | 0.10 | 0.13 | 106.00 | 2.00 |
| 8 | KASNA | 2154.60 | 73.00 | 162.00 | 26.75 | 12.00 | 0.26 | 0.14 | 89.25 | 0.50 |
| 2 | WOODWORTH | 2077.08 | 69.00 | 165.00 | 3.25 | 6.50 | 0.04 | 0.09 | 116.50 | 0.00 |
| 3 | WILLIAMS | 1796.61 | 68.00 | 172.00 | 11.25 | 17.00 | 0.13 | 0.22 | 106.00 | 0.25 |
| | GRAND MEAN | 2587.36 | 59.50 | 164.92 | 11.69 | 16.15 | 0.13 | 0.19 | 106.60 | 0.69 |
| | STANDARD ERROR OF A VARIETY MEAN | 197.84 | 0.00 | 0.00 | 8.37 | 11.06 | 0.08 | 0.12 | 1.76 | 0.17 |
| | COEFFICIENT OF VARIATION | 15.29% | 0.00% | 0.00% | 143.23% | 136.99% | 124.52% | 123.54% | 3.30% | 50.77% |
| | 5% LSD VARIETY MEANS (********=NS) | 569.24 | 0.00 | 0.00 | ******** | ******** | ******** | ******** | 5.07 | 0.50 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.61** | -0.50** | 0.15 | 0.27 | 0.18 | 0.24 | -0.18 | -0.08 |
| DAYS TO FLOWER | -0.61** | 1.00 | 0.50** | 0.08 | -0.27 | 0.07 | -0.22 | 0.10 | 0.26 |
| DAYS TO MATURITY | -0.50** | 0.50** | 1.00 | -0.26 | -0.41** | -0.25 | -0.27 | 0.56** | 0.36* |
| NODULE NUMBER 1 | 0.15 | 0.08 | -0.26 | 1.00 | 0.61** | 0.96** | 0.58** | -0.30* | -0.02 |
| NODULE NUMBER 2 | 0.27 | -0.27 | -0.41** | 0.61** | 1.00 | 0.65** | 0.92** | -0.23 | -0.27 |
| NODULE WEIGHT 1 | 0.18 | 0.07 | -0.25 | 0.96** | 0.65** | 1.00 | 0.63** | -0.26 | 0.02 |
| NODULE WEIGHT 2 | 0.24 | -0.22 | -0.27 | 0.58** | 0.92** | 0.63** | 1.00 | -0.15 | -0.24 |
| PLANT HEIGHT | -0.18 | 0.10 | 0.56** | -0.30* | -0.23 | -0.26 | -0.15 | 1.00 | 0.12 |
| LODGING | -0.08 | 0.26 | 0.36* | -0.02 | -0.27 | 0.02 | -0.24 | 0.12 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.45** | -0.54** | -0.15 | 0.02 | 0.15 | -0.02 | 0.14 | 0.10 | -0.31* |
| PODS PER PLANT | -0.52** | 0.64** | 0.35* | 0.04 | -0.24 | 0.01 | -0.20 | -0.12 | 0.39** |
| 100 SEED WEIGHT | 0.02 | -0.44** | 0.05 | -0.35* | -0.07 | -0.37** | -0.04 | 0.18 | -0.19 |
| QUALITY OF SEED | 0.21 | -0.29* | 0.15 | 0.00 | 0.12 | 0.00 | 0.18 | 0.19 | -0.24 |

TABLE 155 EXPERIMENT 998 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 11 | HODGSON | 0.00 | 179.75 | 25.50 | 15.09 | 1.00 | 36.1 | 22.3 |
| 5 | WELLS | 0.00 | 196.75 | 30.25 | 15.67 | 2.00 | 41.8 | 19.5 |
| 10 | AMSOY 71 | 0.00 | 194.75 | 21.00 | 15.97 | 4.00 | 35.6 | 20.4 |
| 6 | BEESON | 0.00 | 202.00 | 23.00 | 17.16 | 2.00 | 37.1 | 21.4 |
| 12 | HARK | 0.00 | 197.25 | 25.00 | 16.76 | 4.00 | 41.6 | 20.2 |
| 4 | CLARK 63 | 0.00 | 157.00 | 40.25 | 12.30 | 1.00 | 35.8 | 21.7 |
| 9 | CORSOY | 0.00 | 200.00 | 29.00 | 14.41 | 4.00 | 40.6 | 18.0 |
| 7 | BELT FOUR | 0.00 | 166.75 | 25.75 | 15.73 | 1.00 | 37.8 | 20.4 |
| 1 | CALLAND | 0.00 | 154.50 | 61.00 | 18.00 | 2.00 | 36.8 | 21.7 |
| 8 | KASMA | 0.00 | 161.00 | 43.50 | 13.52 | 1.00 | 39.8 | 18.9 |
| 2 | WOODWORTH | 0.00 | 165.25 | 41.00 | 15.96 | 1.00 | 38.3 | 21.2 |
| 3 | WILLIAMS | 0.00 | 144.50 | 49.00 | 14.73 | 1.00 | 36.5 | 21.0 |
| | GRAND MEAN | 0.00 | 176.63 | 34.52 | 15.44 | 2.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 5.44 | 2.08 | 0.19 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 6.16% | 12.08% | 2.50% | 0.00% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 15.64 | 6.00 | 0.55 | 0.00 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.45++ | -0.52++ | 0.02 | 0.21 |
| DAYS TO FLOWER | 0.00 | -0.54++ | 0.54++ | -0.44++ | -0.29+ |
| DAYS TO MATURITY | 0.00 | -0.15 | 0.35+ | 0.05 | 0.15 |
| NODULE NUMBER 1 | 0.00 | 0.02 | 0.04 | -0.35+ | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.15 | -0.24 | -0.07 | 0.12 |
| NODULE WEIGHT 1 | 0.00 | -0.02 | 0.01 | -0.37++ | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.14 | -0.20 | -0.04 | 0.18 |
| PLANT HEIGHT | 0.00 | 0.10 | -0.12 | 0.18 | 0.19 |
| LODGING | 0.00 | -0.31+ | 0.39++ | -0.19 | -0.24 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.63++ | 0.25 | 0.62++ |
| PODS PER PLANT | 0.00 | -0.63++ | 1.00 | -0.02 | -0.41++ |
| 100 SEED WEIGHT | 0.00 | 0.25 | -0.02 | 1.00 | 0.31+ |
| QUALITY OF SEED | 0.00 | 0.62++ | -0.41++ | 0.31+ | 1.00 |

TABLE 156 EXPERIMENT 60 YEAR 1976

REGION - MESOAMERICA
SITE - SAN ANDROS
LATITUDE - 24 DEG. 57 MIN. N
COOPERATOR - JOHN R. THOMPSON
DATE PLANTED - JUNE 11, 1976
SOIL PH - 7.6
FERTILIZER USED (KG/HA) - N 45.0, P 113.0, K 45.0
AMOUNT OF MOISTURE - 674 MM

COUNTRY - BAHAMAS
ELEVATION - 2 M
LONGITUDE - 78 DEG. 1 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 3970.43 | 0.00 | 124.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.25 | 1.75 |
| 11 | COBB | 3231.39 | 0.00 | 125.25 | 0.00 | 0.00 | 0.00 | 0.00 | 84.50 | 2.00 |
| 12 | DAVIS | 3224.81 | 0.00 | 119.75 | 0.00 | 0.00 | 0.00 | 0.00 | 68.00 | 1.25 |
| 7 | CUTLER 71 | 3188.99 | 0.00 | 89.00 | 0.00 | 0.00 | 0.00 | 0.00 | 82.75 | 2.25 |
| 9 | WILLIAMS | 2889.64 | 0.00 | 91.00 | 0.00 | 0.00 | 0.00 | 0.00 | 74.00 | 2.00 |
| 14 | FORREST | 2654.26 | 0.00 | 107.75 | 0.00 | 0.00 | 0.00 | 0.00 | 73.50 | 2.00 |
| 15 | COLUMBUS | 2629.77 | 0.00 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 88.00 | 2.00 |
| 10 | CLARK 63 | 2431.31 | 0.00 | 88.00 | 0.00 | 0.00 | 0.00 | 0.00 | 61.00 | 1.25 |
| 5 | HILL | 2406.82 | 0.00 | 97.50 | 0.00 | 0.00 | 0.00 | 0.00 | 63.50 | 2.00 |
| 3 | BRAGG | 2252.94 | 0.00 | 124.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.25 | 1.75 |
| 13 | IMPROVED PELICAN | 2023.41 | 0.00 | 131.00 | 0.00 | 0.00 | 0.00 | 0.00 | 156.00 | 3.25 |
| 16 | ESSEX | 1934.96 | 0.00 | 116.50 | 0.00 | 0.00 | 0.00 | 0.00 | 45.75 | 1.00 |
| 8 | BOSSIER | 1922.16 | 0.00 | 117.75 | 0.00 | 0.00 | 0.00 | 0.00 | 75.25 | 1.75 |
| 1 | CALLAND | 1905.35 | 0.00 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 82.75 | 2.00 |
| 2 | WOODWORTH | 1845.77 | 0.00 | 90.00 | 0.00 | 0.00 | 0.00 | 0.00 | 60.75 | 1.50 |
| 6 | PICKETT 71 | 1689.71 | 0.00 | 113.00 | 0.00 | 0.00 | 0.00 | 0.00 | 48.00 | 1.25 |
| | GRAND MEAN | 2512.61 | 0.00 | 107.14 | 0.00 | 0.00 | 0.00 | 0.00 | 74.77 | 1.81 |
| | STANDARD ERROR OF A VARIETY MEAN | 167.13 | 0.00 | 1.65 | 0.00 | 0.00 | 0.00 | 0.00 | 4.95 | 0.22 |
| | COEFFICIENT OF VARIATION | 13.30% | 0.00% | 3.08% | 0.00% | 0.00% | 0.00% | 0.00% | 13.25% | 24.50% |
| | 5% LSD VARIETY MEANS (*********=NS) | 476.05 | 0.00 | 3.70 | 0.00 | 0.00 | 0.00 | 0.00 | 14.11 | 0.63 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.18 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.12 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.07 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.03 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.79** |
| | LODGING | 0.18 | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.79** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.28* | 0.00 | -0.27* | 0.00 | 0.00 | 0.00 | 0.00 | -0.38** | -0.36** |
| PODS PER | PLANT | -0.11 | 0.00 | 0.41** | 0.00 | 0.00 | 0.00 | 0.00 | 0.59** | 0.46** |
| 100 SEED | WEIGHT | 0.48** | 0.00 | -0.28* | 0.00 | 0.00 | 0.00 | 0.00 | -0.22 | -0.18 |
| QUALITY | OF SEED | -0.41** | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | -0.32* | -0.29* |

TABLE 156 EXPERIMENT 60 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 1.00 | 227.00 | 27.00 | 18.68 | 2.25 | 39.7 | 26.7 |
| 11 | COBB | 1.00 | 201.25 | 34.90 | 14.75 | 1.50 | 40.6 | 23.8 |
| 12 | DAVIS | 1.00 | 281.00 | 25.83 | 18.93 | 1.25 | 42.2 | 23.2 |
| 7 | CUTLER 71 | 1.00 | 236.75 | 24.90 | 18.38 | 1.00 | 44.9 | 21.8 |
| 9 | WILLIAMS | 1.00 | 233.25 | 23.63 | 19.33 | 1.00 | 43.6 | 23.3 |
| 14 | FORREST | 1.00 | 251.75 | 31.80 | 12.23 | 3.00 | 42.7 | 22.5 |
| 15 | COLUMBUS | 1.00 | 211.25 | 25.45 | 16.13 | 1.00 | 45.7 | 21.9 |
| 10 | CLARK 63 | 1.00 | 260.50 | 22.18 | 17.95 | 1.50 | 43.6 | 23.7 |
| 5 | HILL | 1.00 | 250.00 | 26.40 | 13.65 | 1.75 | 43.0 | 22.7 |
| 3 | BRAGG | 1.00 | 254.00 | 31.23 | 14.58 | 3.50 | 43.5 | 23.5 |
| 13 | IMPROVED PELICAN | 1.00 | 160.50 | 109.88 | 13.18 | 1.50 | 44.3 | 21.8 |
| 16 | ESSEX | 1.00 | 233.00 | 49.40 | 15.33 | 5.00 | 44.6 | 23.7 |
| 8 | BOSSIER | 1.00 | 166.00 | 36.10 | 13.10 | 2.75 | 45.0 | 21.2 |
| 1 | CALLAND | 1.00 | 237.25 | 20.20 | 14.95 | 4.75 | 43.8 | 22.3 |
| 2 | WOODWORTH | 1.00 | 201.25 | 21.83 | 16.70 | 2.25 | 42.6 | 25.3 |
| 6 | PICKETT 71 | 1.00 | 216.00 | 28.80 | 13.35 | 3.25 | 41.6 | 23.8 |
| | GRAND MEAN | 1.00 | 226.30 | 33.72 | 15.70 | 2.33 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.62 | 10.44 | 0.56 | 0.29 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.39% | 61.95% | 7.12% | 24.76% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 30.26 | 29.75 | 1.59 | 0.82 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.28+ | -0.11 | 0.48++ | -0.31++ |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.27+ | 0.41++ | -0.28+ | 0.14 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.38++ | 0.59++ | -0.22 | -0.32+ |
| | LODGING | 0.00 | -0.36++ | 0.46++ | -0.18 | -0.29+ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.42++ | 0.31+ | 0.02 |
| PODS PER | PLANT | 0.00 | -0.42++ | 1.00 | -0.36++ | -0.02 |
| 100 SEED | WEIGHT | 0.00 | 0.31+ | -0.36++ | 1.00 | -0.38++ |
| QUALITY | OF SEED | 0.00 | 0.02 | -0.02 | -0.38++ | 1.00 |

TABLE 157 EXPERIMENT 38 YEAR 1976

REGION - MESOAMERICA
SITE - SAN CRISTOBAL
LATITUDE - 18 DEG. 30 MIN. N
COOPERATORS - J. DIAZ, N. ROSARIO
DATE PLANTED - MAY 4, 1976
SOIL TYPE - CLAY, PH 7.8
NUMBER OF IRRIGATIONS - 3

COUNTRY - DOMINICAN REPUBLIC
ELEVATION - 43 M
LONGITUDE - 70 DEG. W

DATE HARVESTED - AUGUST, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | FORREST | 2128.34 | 27.25 | 92.25 | 88.25 | 148.00 | 0.85 | 2.45 | 51.75 | 1.00 |
| 15 | COLUMBUS | 2093.34 | 22.00 | 86.50 | 82.75 | 154.00 | 0.27 | 2.69 | 67.75 | 1.00 |
| 1 | CALLAND | 2069.58 | 22.00 | 89.25 | 75.25 | 162.25 | 0.31 | 2.60 | 64.25 | 1.25 |
| 9 | WILLIAMS | 1832.87 | 22.00 | 78.00 | 127.25 | 150.75 | 0.44 | 2.33 | 59.25 | 1.00 |
| 12 | DAVIS | 1714.93 | 29.25 | 95.50 | 73.00 | 110.75 | 0.80 | 2.00 | 55.25 | 1.00 |
| 6 | PICKETT 71 | 1655.75 | 29.00 | 99.00 | 88.75 | 69.00 | 1.20 | 2.08 | 34.75 | 1.00 |
| 5 | HILL | 1608.24 | 29.50 | 90.00 | 70.00 | 88.50 | 0.75 | 1.78 | 51.25 | 1.00 |
| 10 | CLARK 63 | 1602.40 | 22.00 | 82.50 | 110.75 | 134.00 | 0.43 | 2.46 | 61.75 | 1.00 |
| 7 | CUTLER 71 | 1549.48 | 22.00 | 80.50 | 124.75 | 143.50 | 0.78 | 2.55 | 59.50 | 1.00 |
| 13 | IMPROVED PELICAN | 1238.58 | 43.50 | 126.50 | 60.75 | 133.50 | 0.72 | 1.80 | 99.75 | 3.00 |
| 4 | RANSOM | 1153.56 | 29.00 | 104.00 | 76.25 | 111.75 | 0.80 | 1.55 | 41.75 | 1.00 |
| 2 | WOODWORTH | 1123.56 | 22.00 | 78.75 | 75.75 | 82.75 | 0.34 | 1.89 | 48.00 | 1.00 |
| 8 | BOSSIER | 968.94 | 29.00 | 121.25 | 103.75 | 117.75 | 1.05 | 1.95 | 51.50 | 1.00 |
| 3 | BRAGG | 851.94 | 29.00 | 114.75 | 79.50 | 155.25 | 0.77 | 2.30 | 49.50 | 1.00 |
| 11 | COBB | 626.79 | 29.00 | 119.00 | 76.00 | 108.00 | 0.90 | 1.90 | 50.50 | 1.00 |
| | GRAND MEAN | 1481.21 | 27.10 | 97.18 | 87.52 | 124.65 | 0.69 | 2.15 | 56.43 | 1.15 |
| | STANDARD ERROR OF A VARIETY MEAN | 217.76 | 2.19 | 3.52 | 15.79 | 19.31 | 0.17 | 0.29 | 1.84 | 0.12 |
| | COEFFICIENT OF VARIATION | 29.40% | 16.13% | 7.24% | 36.09% | 30.98% | 48.80% | 26.69% | 6.51% | 21.50% |
| | 5% LSD VARIETY MEANS (********=NS) | 621.51 | 6.24 | 10.04 | ******** | 55.11 | 0.48 | ******** | 5.24 | 0.35 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.04 | -0.38++ | 0.11 | 0.29+ | -0.24 | 0.36++ | 0.08 | 0.06 |
| DAYS TO FLOWER | -0.04 | 1.00 | 0.61++ | -0.29+ | -0.13 | 0.28+ | -0.28+ | 0.31+ | 0.71++ |
| DAYS TO MATURITY | -0.38++ | 0.61++ | 1.00 | -0.22 | -0.04 | 0.34++ | -0.28+ | 0.18 | 0.41++ |
| NODULE NUMBER 1 | 0.11 | -0.29+ | -0.22 | 1.00 | 0.20 | 0.50++ | 0.20 | -0.03 | -0.19 |
| NODULE NUMBER 2 | 0.29+ | -0.13 | -0.04 | 0.20 | 1.00 | -0.14 | 0.68++ | 0.27+ | 0.05 |
| NODULE WEIGHT 1 | -0.24 | 0.28+ | 0.34++ | 0.50++ | -0.14 | 1.00 | -0.16 | -0.22 | -0.03 |
| NODULE WEIGHT 2 | 0.36++ | -0.28+ | -0.28+ | 0.20 | 0.68++ | -0.16 | 1.00 | 0.07 | -0.11 |
| PLANT HEIGHT | 0.08 | 0.31+ | 0.18 | -0.03 | 0.27+ | -0.22 | 0.07 | 1.00 | 0.73++ |
| LODGING | 0.06 | 0.71++ | 0.41++ | -0.19 | 0.05 | -0.03 | -0.11 | 0.73++ | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.24 | -0.09 | -0.31+ | -0.09 | -0.10 | -0.19 | -0.08 | -0.15 | -0.20 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | -0.07 | -0.34++ | -0.12 | 0.31+ | 0.18 | -0.14 | 0.08 | 0.03 | -0.10 |
| QUALITY OF SEED | -0.41++ | 0.35++ | 0.57++ | -0.03 | 0.04 | 0.08 | -0.16 | 0.31+ | 0.36++ |

TABLE 157 EXPERIMENT 38 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | FORREST | 0.00 | 307.25 | 0.00 | 12.63 | 1.75 | 42.3 | 22.3 |
| 15 | COLUMBUS | 0.00 | 269.25 | 0.00 | 14.93 | 1.50 | 44.6 | 22.2 |
| 1 | CALLAND | 0.00 | 325.00 | 0.00 | 18.40 | 2.00 | 43.3 | 22.3 |
| 9 | WILLIAMS | 0.00 | 302.00 | 0.00 | 17.48 | 1.75 | 45.3 | 22.3 |
| 12 | DAVIS | 0.00 | 332.75 | 0.00 | 13.83 | 1.00 | 42.4 | 22.3 |
| 6 | PICKETT 71 | 0.00 | 265.50 | 0.00 | 13.95 | 1.25 | 42.6 | 22.9 |
| 5 | HILL | 0.00 | 357.00 | 0.00 | 14.18 | 1.50 | 42.1 | 22.5 |
| 10 | CLARK 63 | 0.00 | 313.50 | 0.00 | 18.00 | 2.50 | 46.8 | 22.6 |
| 7 | CUTLER 71 | 0.00 | 279.00 | 0.00 | 19.98 | 2.00 | 45.7 | 22.8 |
| 13 | IMPROVED PELICAN | 0.00 | 269.75 | 0.00 | 14.45 | 4.00 | 42.8 | 23.5 |
| 4 | RANSOM | 0.00 | 303.00 | 0.00 | 15.58 | 1.00 | 42.8 | 22.7 |
| 2 | WOODWORTH | 0.00 | 305.25 | 0.00 | 18.00 | 2.50 | 41.5 | 24.3 |
| 8 | BOSSIER | 0.00 | 262.75 | 0.00 | 16.38 | 3.75 | 44.7 | 23.0 |
| 3 | BRAGG | 0.00 | 292.75 | 0.00 | 15.38 | 3.75 | 44.6 | 23.2 |
| 11 | COBB | 0.00 | 297.25 | 0.00 | 18.23 | 3.75 | 41.5 | 24.7 |
| | GRAND MEAN | 0.00 | 298.80 | 0.00 | 16.09 | 2.27 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.74 | 0.00 | 0.68 | 0.40 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 5.85% | 0.00% | 8.42% | 35.22% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 24.94 | 0.00 | 1.93 | 1.14 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.24 | 0.00 | -0.07 | -0.41++ |
| DAYS TO | FLOWER | 0.00 | -0.09 | 0.00 | -0.34++ | 0.35++ |
| DAYS TO | MATURITY | 0.00 | -0.31+ | 0.00 | -0.12 | 0.57++ |
| NODULE | NUMBER 1 | 0.00 | -0.09 | 0.00 | 0.31+ | -0.03 |
| NODULE | NUMBER 2 | 0.00 | -0.10 | 0.00 | 0.18 | 0.04 |
| NODULE | WEIGHT 1 | 0.00 | -0.19 | 0.00 | -0.14 | 0.08 |
| NODULE | WEIGHT 2 | 0.00 | -0.08 | 0.00 | 0.08 | -0.16 |
| PLANT | HEIGHT | 0.00 | -0.15 | 0.00 | 0.03 | 0.31+ |
| | LODGING | 0.00 | -0.20 | 0.00 | -0.10 | 0.36++ |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | -0.01 | -0.28+ |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | -0.01 | 0.00 | 1.00 | 0.30+ |
| QUALITY | OF SEED | 0.00 | -0.28+ | 0.00 | 0.30+ | 1.00 |

TABLE 158 EXPERIMENT 22 YEAR 1976

REGION - MESOAMERICA
SITE - CAYMANAS
LATITUDE - 18 DEG. N
COOPERATOR - HAROLD E. WILSON
DATE PLANTED - MAY 14, 1976
SOIL TYPE - SAND 22%, SILT 22%, CLAY 28%, PH 6.8
AMOUNT OF MOISTURE - 336 MM
NUMBER OF IRRIGATIONS - 7 (320 MM)

COUNTRY - JAMAICA
ELEVATION - 2 M
LONGITUDE - 77 DEG. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 2211.33 | 32.25 | 84.75 | 85.00 | 102.00 | 0.00 | 0.00 | 40.00 | 1.00 |
| 1 | CALLAND | 2096.01 | 29.00 | 85.50 | 108.00 | 87.25 | 0.00 | 0.00 | 43.00 | 2.25 |
| 15 | FORREST | 2031.61 | 28.75 | 81.50 | 74.50 | 139.75 | 0.00 | 0.00 | 34.25 | 1.25 |
| 16 | COLUMBUS | 1922.22 | 30.50 | 82.50 | 108.75 | 133.75 | 0.00 | 0.00 | 39.75 | 1.25 |
| 5 | HILL | 1867.52 | 30.50 | 81.50 | 52.75 | 77.75 | 0.00 | 0.00 | 28.00 | 1.25 |
| 7 | CUTLER 71 | 1828.45 | 31.00 | 86.00 | 50.25 | 73.00 | 0.00 | 0.00 | 39.25 | 2.00 |
| 9 | BOSSIER | 1794.13 | 30.75 | 92.00 | 59.50 | 104.25 | 0.00 | 0.00 | 28.00 | 1.00 |
| 4 | RANSOM | 1789.45 | 30.00 | 81.75 | 140.75 | 183.75 | 0.00 | 0.00 | 30.00 | 1.00 |
| 12 | COBB | 1725.45 | 31.75 | 86.00 | 43.75 | 109.75 | 0.00 | 0.00 | 37.75 | 1.00 |
| 10 | WILLIAMS | 1672.17 | 30.50 | 82.75 | 131.50 | 64.75 | 0.00 | 0.00 | 44.00 | 1.50 |
| 11 | CLARK 63 | 1570.45 | 30.75 | 81.00 | 67.00 | 66.25 | 0.00 | 0.00 | 37.25 | 2.50 |
| 3 | BRAGG | 1563.02 | 29.25 | 81.00 | 63.75 | 115.00 | 0.00 | 0.00 | 33.75 | 1.25 |
| 6 | PICKETT 71 | 1400.83 | 31.25 | 93.25 | 66.75 | 84.75 | 0.00 | 0.00 | 21.00 | 1.00 |
| 14 | IMPROVED PELICAN | 1337.62 | 40.00 | 111.00 | 39.25 | 86.25 | 0.00 | 0.00 | 85.25 | 2.75 |
| 2 | WOODWORTH | 1070.50 | 28.75 | 83.50 | 41.25 | 25.50 | 0.00 | 0.00 | 36.75 | 1.50 |
| 8 | JUPITER | 436.69 | 62.75 | 96.00 | 60.25 | 66.25 | 0.00 | 0.00 | 66.25 | 1.00 |
| | GRAND MEAN | 1644.84 | 32.98 | 86.88 | 74.55 | 95.00 | 0.00 | 0.00 | 40.27 | 1.47 |
| | STANDARD ERROR OF A VARIETY MEAN | 145.32 | 0.59 | 0.75 | 25.95 | 22.01 | 0.00 | 0.00 | 3.21 | 0.22 |
| | COEFFICIENT OF VARIATION | 17.67% | 3.58% | 1.72% | 69.61% | 46.34% | 0.00% | 0.00% | 15.94% | 29.48% |
| | 5% LSD VARIETY MEANS (********=NS) | 413.92 | 1.68 | 2.12 | ******** | 62.70 | 0.00 | 0.00 | 9.14 | 0.62 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.64** | -0.37** | 0.15 | 0.32** | 0.00 | 0.00 | -0.35** | 0.03 |
| DAYS TO | FLOWER | -0.64** | 1.00 | 0.54** | -0.12 | -0.12 | 0.00 | 0.00 | 0.60** | -0.05 |
| DAYS TO | MATURITY | -0.37** | 0.54** | 1.00 | -0.22 | -0.13 | 0.00 | 0.00 | 0.69** | 0.27* |
| NODULE | NUMBER 1 | 0.15 | -0.12 | -0.22 | 1.00 | 0.41** | 0.00 | 0.00 | -0.11 | -0.22 |
| NODULE | NUMBER 2 | 0.32** | -0.12 | -0.13 | 0.41** | 1.00 | 0.00 | 0.00 | -0.12 | -0.24 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.35** | 0.60** | 0.69** | -0.11 | -0.12 | 0.00 | 0.00 | 1.00 | 0.39** |
| | LODGING | 0.03 | -0.05 | 0.27* | -0.22 | -0.24 | 0.00 | 0.00 | 0.39** | 1.00 |
| | SHATTER | -0.07 | -0.22 | -0.21 | 0.04 | -0.29* | 0.00 | 0.00 | -0.16 | 0.04 |
| PLANTS | HARVEST | 0.34** | -0.33** | -0.48** | 0.26* | 0.18 | 0.00 | 0.00 | -0.30* | -0.07 |
| PODS PER | PLANT | 0.31* | -0.22 | 0.41** | -0.14 | 0.21 | 0.00 | 0.00 | 0.31* | 0.23 |
| 100 SEED | WEIGHT | 0.39** | -0.59** | -0.59** | 0.19 | -0.16 | 0.00 | 0.00 | -0.46** | 0.20 |
| QUALITY | OF SEED | -0.46** | 0.47** | 0.47** | -0.11 | -0.09 | 0.00 | 0.00 | 0.41** | 0.06 |

TABLE 158 EXPERIMENT 22 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.00 | 215.50 | 50.65 | 23.50 | 2.00 | 42.4 | 22.4 |
| 1 | CALLAND | 1.25 | 227.50 | 30.92 | 27.25 | 2.50 | 41.5 | 23.0 |
| 15 | FORREST | 1.50 | 196.00 | 46.55 | 22.25 | 2.25 | 42.2 | 21.9 |
| 16 | COLUMBUS | 1.00 | 191.25 | 42.87 | 24.00 | 2.00 | 41.9 | 24.4 |
| 5 | HILL | 1.50 | 250.50 | 36.78 | 24.50 | 1.50 | 42.9 | 21.9 |
| 7 | CUTLER 71 | 1.25 | 233.75 | 28.25 | 28.00 | 2.25 | 42.4 | 23.4 |
| 9 | BOSSIER | 1.00 | 168.00 | 43.70 | 15.75 | 2.25 | 43.4 | 22.9 |
| 4 | RANSOM | 1.00 | 232.25 | 33.97 | 19.50 | 3.50 | 42.0 | 23.5 |
| 12 | COBB | 1.00 | 216.50 | 49.82 | 13.00 | 2.25 | 39.9 | 23.7 |
| 10 | WILLIAMS | 1.25 | 214.00 | 25.90 | 27.50 | 1.50 | 42.7 | 23.2 |
| 11 | CLARK 63 | 1.50 | 194.75 | 32.40 | 27.00 | 2.00 | 40.5 | 24.9 |
| 3 | BRAGG | 1.00 | 246.25 | 43.65 | 15.50 | 2.50 | 43.5 | 22.3 |
| 6 | PICKETT 71 | 1.25 | 162.00 | 36.23 | 23.00 | 2.50 | 42.6 | 23.4 |
| 14 | IMPROVED PELICAN | 1.00 | 136.25 | 83.07 | 10.50 | 3.75 | 42.5 | 23.5 |
| 2 | WOODWORTH | 2.25 | 181.50 | 21.03 | 26.25 | 3.00 | 40.6 | 24.8 |
| 8 | JUPITER | 1.00 | 162.75 | 9.25 | 9.00 | 4.00 | 43.6 | 19.5 |
| | GRAND MEAN | 1.23 | 201.80 | 38.44 | 21.03 | 2.48 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.21 | 15.37 | 3.47 | 1.01 | 0.32 | | |
| | COEFFICIENT OF VARIATION | 33.79% | 15.23% | 18.03% | 9.62% | 26.12% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.59 | 43.77 | 9.87 | 2.88 | 0.92 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.07 | 0.34** | 0.31* | 0.39** | -0.36** |
| DAYS TO | FLOWER | -0.22 | -0.33** | -0.22 | -0.59** | 0.47** |
| DAYS TO | MATURITY | -0.21 | -0.48** | 0.41** | -0.59** | 0.47** |
| NODULE | NUMBER 1 | 0.04 | 0.26* | -0.14 | 0.19 | -0.11 |
| NODULE | NUMBER 2 | -0.29* | 0.18 | 0.21 | -0.16 | -0.09 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.16 | -0.30* | 0.31* | -0.46** | 0.41** |
| | LODGING | 0.04 | -0.07 | 0.23 | 0.20 | 0.06 |
| | SHATTER | 1.00 | -0.02 | -0.20 | 0.27* | -0.08 |
| PLANTS | HARVEST | -0.02 | 1.00 | -0.19 | 0.28* | -0.33** |
| PODS PER | PLANT | -0.20 | -0.19 | 1.00 | -0.31* | 0.01 |
| 100 SEED | WEIGHT | 0.27* | 0.28* | -0.31* | 1.00 | -0.43** |
| QUALITY | OF SEED | -0.08 | -0.33** | 0.01 | -0.43** | 1.00 |

TABLE 159 EXPERIMENT 827 YEAR 1976

REGION - MESOAMERICA
SITE - APATZINGAN
LATITUDE - 19 DEG. N
COOPERATOR - BENITO CAZARES ENRIQUEZ
DATE PLANTED - JULY 6, 1976
SOIL TYPE - CLAY, PH 8.1
AMOUNT OF MOISTURE - 554 MM
NUMBER OF IRRIGATIONS - 2
LOCAL VARIETY - R.A.D.

COUNTRY - MEXICO
ELEVATION - 337 M
LONGITUDE - 102 DEG. 12 MIN. W

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | R.A.D. | 3196.47 | 28.75 | 80.25 | 213.25 | 235.25 | 1.58 | 6.03 | 57.25 | 1.75 |
| 1 | JUPITER | 2646.36 | 51.00 | 104.50 | 217.25 | 292.25 | 6.68 | 9.25 | 85.00 | 1.00 |
| 7 | DAVIS | 2621.36 | 31.00 | 89.50 | 172.75 | 168.00 | 1.75 | 7.00 | 31.25 | 1.00 |
| 2 | HAMPTON 266 A | 2604.69 | 28.25 | 86.75 | 211.25 | 127.50 | 2.00 | 5.30 | 30.00 | 1.00 |
| 5 | COBB | 2500.50 | 30.25 | 88.75 | 107.00 | 176.25 | 1.48 | 6.32 | 46.00 | 1.00 |
| 4 | IMPROVED PELICAN | 2296.29 | 34.00 | 90.75 | 210.50 | 329.50 | 0.70 | 5.18 | 81.25 | 1.00 |
| 10 | COLUMBUS | 2094.17 | 23.00 | 83.50 | 99.00 | 169.00 | 1.20 | 5.00 | 54.25 | 1.00 |
| 8 | TRACY | 2067.08 | 24.25 | 80.00 | 119.25 | 192.50 | 1.52 | 5.42 | 37.00 | 1.00 |
| 6 | BOSSIER | 2000.40 | 28.00 | 85.25 | 133.00 | 259.25 | 1.20 | 7.88 | 24.25 | 1.00 |
| 14 | CALLAND | 1904.55 | 23.00 | 81.50 | 110.25 | 164.00 | 1.75 | 5.87 | 51.00 | 1.00 |
| 9 | FORREST | 1800.36 | 28.75 | 87.00 | 107.25 | 200.50 | 1.00 | 6.10 | 27.25 | 1.25 |
| 3 | HARDEE | 1785.77 | 32.75 | 91.00 | 181.50 | 298.50 | 1.65 | 8.85 | 33.00 | 1.00 |
| 11 | CLARK 63 | 1735.76 | 23.00 | 83.00 | 102.50 | 117.50 | 0.88 | 2.90 | 45.00 | 1.00 |
| 13 | WILLIAMS | 1598.24 | 26.25 | 82.50 | 80.50 | 152.25 | 0.65 | 3.65 | 42.75 | 1.25 |
| 12 | WOODWORTH | 670.97 | 29.00 | 83.75 | 50.25 | 106.75 | 0.40 | 2.45 | 28.25 | 1.00 |
| | GRAND MEAN | 2101.53 | 29.42 | 86.53 | 141.03 | 199.27 | 1.63 | 5.81 | 44.90 | 1.08 |
| | STANDARD ERROR OF A VARIETY MEAN | 260.67 | 0.88 | 1.75 | 45.62 | 56.18 | 0.72 | 1.24 | 3.21 | 0.15 |
| | COEFFICIENT OF VARIATION | 24.81% | 5.99% | 4.04% | 64.69% | 56.38% | 88.88% | 42.81% | 14.30% | 28.25% |
| | 5% LSD VARIETY MEANS (********=NS) | 743.96 | 2.51 | 4.98 | ******** | ******** | 2.07 | 3.55 | 9.16 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.20 | 0.07 | 0.51** | 0.39** | 0.34** | 0.48** | 0.43** | 0.16 |
| DAYS TO FLOWER | 0.20 | 1.00 | 0.83** | 0.27* | 0.30* | 0.59** | 0.36** | 0.48** | -0.09 |
| DAYS TO MATURITY | 0.07 | 0.83** | 1.00 | 0.14 | 0.24 | 0.38** | 0.38** | 0.29* | -0.23 |
| NODULE NUMBER 1 | 0.51** | 0.27* | 0.14 | 1.00 | 0.73** | 0.43** | 0.61** | 0.33* | 0.08 |
| NODULE NUMBER 2 | 0.39** | 0.30* | 0.24 | 0.73** | 1.00 | 0.28* | 0.78** | 0.30* | 0.02 |
| NODULE WEIGHT 1 | 0.34** | 0.59** | 0.38** | 0.43** | 0.28* | 1.00 | 0.46** | 0.46** | -0.04 |
| NODULE WEIGHT 2 | 0.48** | 0.36** | 0.38** | 0.61** | 0.78** | 0.46** | 1.00 | 0.13 | -0.05 |
| PLANT HEIGHT | 0.43** | 0.48** | 0.29* | 0.33* | 0.30* | 0.46** | 0.13 | 1.00 | 0.11 |
| LODGING | 0.16 | -0.09 | -0.23 | 0.08 | 0.02 | -0.04 | -0.05 | 0.11 | 1.00 |
| SHATTER | -0.32* | -0.53** | -0.57** | -0.22 | -0.22 | -0.31* | -0.34** | -0.24 | 0.07 |
| PLANTS HARVEST | 0.52** | 0.05 | -0.19 | 0.27* | 0.07 | 0.22 | 0.06 | 0.36** | 0.21 |
| PODS PER PLANT | 0.51** | 0.38** | 0.17 | 0.22 | 0.20 | 0.42** | 0.26* | 0.48** | 0.15 |
| 100 SEED WEIGHT | 0.13 | -0.21 | -0.20 | -0.01 | -0.17 | 0.05 | 0.06 | -0.32* | -0.03 |
| QUALITY OF SEED | -0.66** | -0.43** | -0.37** | -0.45** | -0.34** | -0.41** | -0.48** | -0.49** | -0.01 |

TABLE 159 EXPERIMENT 427 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 15 | R.A.D. | 2.25 | 182.25 | 38.32 | 16.75 | 2.00 | 38.4 | 23.2 |
| 1 | JUPITER | 1.00 | 141.75 | 46.42 | 16.88 | 1.25 | 39.8 | 24.1 |
| 7 | DAVIS | 2.75 | 127.50 | 25.13 | 16.60 | 1.50 | 39.8 | 24.4 |
| 2 | HAMPTON 266 A | 2.00 | 118.75 | 26.75 | 20.13 | 2.25 | -- | -- |
| 5 | COBB | 1.50 | 114.75 | 33.57 | 17.00 | 2.00 | 37.7 | 25.7 |
| 4 | IMPROVED PELICAN | 2.25 | 115.25 | 24.17 | 11.25 | 2.00 | 40.2 | 24.0 |
| 10 | COLUMBUS | 2.75 | 137.25 | 26.78 | 16.30 | 2.50 | 40.1 | 23.5 |
| 8 | TRACY | 4.25 | 132.50 | 29.75 | 19.28 | 3.50 | 38.9 | 21.4 |
| 6 | BOSSIER | 2.75 | 122.00 | 26.45 | 17.73 | 2.75 | 39.8 | 24.5 |
| 14 | CALLAND | 3.75 | 123.50 | 35.07 | 18.28 | 3.25 | 40.6 | 23.4 |
| 9 | FORREST | 2.00 | 125.50 | 25.23 | 14.95 | 4.25 | -- | -- |
| 3 | HARDEE | 1.50 | 91.25 | 25.12 | 16.08 | 2.75 | -- | -- |
| 11 | CLARK 63 | 2.00 | 119.25 | 20.20 | 15.98 | 2.75 | 36.9 | 25.8 |
| 13 | WILLIAMS | 3.00 | 94.25 | 22.75 | 18.33 | 3.25 | -- | -- |
| 12 | WOODWORTH | 4.00 | 109.50 | 20.55 | 16.08 | 3.75 | -- | -- |
| | GRAND MEAN | 2.52 | 123.68 | 28.42 | 16.77 | 2.65 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.32 | 9.57 | 3.86 | 0.69 | 0.36 | | |
| | COEFFICIENT OF VARIATION | 25.13% | 15.48% | 27.15% | 8.20% | 27.37% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.90 | 27.33 | 11.01 | 1.96 | 1.04 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.32* | 0.52** | 0.51** | 0.13 | -0.66** |
| DAYS TO | FLOWER | -0.53** | 0.05 | 0.38** | -0.21 | -0.43** |
| DAYS TO | MATURITY | -0.57** | -0.19 | 0.17 | -0.20 | -0.37** |
| NODULE | NUMBER 1 | -0.22 | 0.27* | 0.22 | -0.01 | -0.45** |
| NODULE | NUMBER 2 | -0.22 | 0.07 | 0.20 | -0.17 | -0.38** |
| NODULE | WEIGHT 1 | -0.31* | 0.22 | 0.42** | 0.05 | -0.41** |
| NODULE | WEIGHT 2 | -0.34** | 0.06 | 0.26* | 0.06 | -0.48** |
| PLANT | HEIGHT | -0.24 | 0.36** | 0.48** | -0.32* | -0.49** |
| | LODGING | 0.07 | 0.21 | 0.15 | -0.03 | -0.01 |
| | SHATTER | 1.00 | 0.01 | -0.15 | 0.23 | 0.40** |
| PLANTS | HARVEST | 0.01 | 1.00 | 0.51** | 0.03 | -0.25* |
| PODS PER | PLANT | -0.15 | 0.51** | 1.00 | 0.10 | -0.36** |
| 100 SEED | WEIGHT | 0.23 | 0.03 | 0.10 | 1.00 | 0.02 |
| QUALITY | OF SEED | 0.40** | -0.25* | -0.36** | 0.02 | 1.00 |

TABLE 160 EXPERIMENT 296 YEAR 1976

REGION - MESOAMERICA
SITE - APATZINGAN
LATITUDE - 19 DEG. N
COOPERATOR - BENITO CAZARES ENRIQUEZ
DATE PLANTED - JULY 20, 1976
SOIL TYPE - CLAY, PH 8.1
AMOUNT OF MOISTURE - 490 MM
NUMBER OF IRRIGATIONS - 2

COUNTRY - MEXICO
ELEVATION - 337 M
LONGITUDE - 102 DEG. 12 MIN. W

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 3156.88 | 38.00 | 95.75 | 168.00 | 222.00 | 1.78 | 5.68 | 63.25 | 1.00 |
| 1 | CALLAND | 2267.12 | 19.25 | 61.75 | 34.75 | 118.50 | 0.23 | 3.95 | 49.50 | 1.00 |
| 13 | DAVIS | 2142.09 | 28.00 | 63.75 | 57.00 | 86.50 | 0.47 | 3.90 | 30.50 | 1.00 |
| 16 | COLUMBUS | 1969.14 | 21.00 | 62.00 | 44.75 | 104.00 | 0.38 | 3.30 | 45.50 | 1.00 |
| 4 | RANSOM | 1960.81 | 24.50 | 65.00 | 40.25 | 181.25 | 0.33 | 4.78 | 23.00 | 1.00 |
| 12 | COBB | 1900.38 | 28.00 | 63.25 | 47.25 | 55.25 | 0.50 | 3.13 | 39.25 | 1.00 |
| 11 | CLARK 63 | 1896.21 | 20.50 | 61.25 | 22.00 | 96.00 | 0.28 | 2.58 | 46.50 | 1.00 |
| 3 | BRAGG | 1879.54 | 23.50 | 63.25 | 28.75 | 187.50 | 0.28 | 5.12 | 29.75 | 1.00 |
| 14 | IMPROVED PELICAN | 1650.33 | 38.00 | 67.00 | 123.75 | 90.00 | 1.20 | 2.10 | 80.50 | 1.00 |
| 9 | BOSSIER | 1612.82 | 23.75 | 65.25 | 34.75 | 117.25 | 0.28 | 2.95 | 20.75 | 1.00 |
| 5 | HILL | 1550.31 | 28.75 | 61.75 | 30.00 | 71.25 | 0.25 | 1.63 | 29.00 | 1.00 |
| 7 | CUTLER 71 | 1473.21 | 20.25 | 62.00 | 27.00 | 33.75 | 0.25 | 2.88 | 40.00 | 1.00 |
| 6 | PICKETT 71 | 1400.28 | 24.50 | 68.25 | 14.00 | 61.75 | 0.20 | 2.13 | 17.50 | 1.00 |
| 2 | WOODWORTH | 1316.93 | 19.75 | 60.75 | 9.50 | 73.00 | 0.13 | 2.65 | 37.75 | 1.00 |
| 10 | WILLIAMS | 1288.17 | 20.50 | 63.00 | 34.00 | 108.50 | 0.25 | 3.23 | 40.75 | 1.00 |
| 15 | FORREST | 1258.58 | 25.00 | 63.75 | 6.50 | 87.50 | 0.05 | 2.05 | 23.25 | 1.00 |
| | GRAND MEAN | 1795.18 | 25.20 | 65.48 | 44.77 | 109.00 | 0.43 | 3.25 | 39.80 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 227.39 | 0.46 | 2.45 | 26.70 | 36.37 | 0.24 | 0.82 | 2.64 | 0.00 |
| | COEFFICIENT OF VARIATION | 25.33% | 3.67% | 7.47% | 119.30% | 66.74% | 110.70% | 50.33% | 13.26% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 647.72 | 1.32 | 6.97 | 76.06 | ******** | 0.67 | 2.33 | 7.51 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.32* | 0.10 | 0.56** | 0.57** | 0.51** | 0.53** | 0.46** | 0.00 |
| DAYS TO FLOWER | 0.32* | 1.00 | 0.21 | 0.55** | 0.11 | 0.61** | 0.05 | 0.55** | 0.00 |
| DAYS TO MATURITY | 0.10 | 0.21 | 1.00 | 0.00 | 0.05 | -0.02 | 0.03 | 0.12 | 0.00 |
| NODULE NUMBER 1 | 0.56** | 0.55** | 0.00 | 1.00 | 0.50** | 0.74** | 0.32** | 0.58** | 0.00 |
| NODULE NUMBER 2 | 0.57** | 0.11 | 0.05 | 0.50** | 1.00 | 0.42** | 0.82** | 0.22 | 0.00 |
| NODULE WEIGHT 1 | 0.51** | 0.61** | -0.02 | 0.74** | 0.42** | 1.00 | 0.42** | 0.64** | 0.00 |
| NODULE WEIGHT 2 | 0.53** | 0.05 | 0.03 | 0.32** | 0.82** | 0.42** | 1.00 | 0.20 | 0.00 |
| PLANT HEIGHT | 0.46** | 0.55** | 0.12 | 0.58** | 0.22 | 0.64** | 0.20 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | -0.29* | -0.34** | -0.10 | -0.24 | -0.33** | -0.25 | -0.28* | -0.13 | 0.00 |
| PLANTS HARVEST | 0.24 | 0.00 | -0.10 | -0.06 | -0.01 | -0.05 | 0.01 | -0.05 | 0.00 |
| PODS PER PLANT | 0.57** | 0.43** | 0.11 | 0.55** | 0.45** | 0.50** | 0.36** | 0.51** | 0.00 |
| 100 SEED WEIGHT | 0.48** | -0.30* | -0.03 | 0.04 | 0.35** | 0.04 | 0.41** | -0.05 | 0.00 |
| QUALITY OF SEED | -0.39** | -0.44** | -0.12 | -0.44** | -0.09 | -0.45** | -0.04 | -0.37** | 0.00 |

TABLE 160 EXPERIMENT 296 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 1.00 | 145.50 | 40.40 | 17.05 | 1.00 | 40.8 | 23.9 |
| 1 | CALLAND | 4.50 | 156.50 | 27.42 | 17.53 | 3.25 | 40.7 | 22.4 |
| 13 | DAVIS | 2.25 | 158.00 | 24.58 | 15.03 | 2.00 | 41.4 | 23.0 |
| 16 | COLUMBUS | 1.75 | 154.00 | 25.70 | 15.13 | 2.25 | 42.0 | 23.4 |
| 4 | RANSOM | 1.25 | 146.50 | 24.35 | 16.38 | 2.00 | 37.9 | 26.4 |
| 12 | COBB | 1.00 | 146.25 | 23.48 | 13.43 | 2.00 | 37.4 | 24.9 |
| 11 | CLARK 63 | 1.25 | 147.75 | 23.25 | 15.98 | 2.75 | 40.1 | 25.0 |
| 3 | BRAGG | 1.00 | 146.75 | 26.13 | 15.13 | 4.50 | 42.6 | 22.5 |
| 14 | IMPROVED PELICAN | 1.75 | 127.25 | 28.88 | 8.83 | 1.75 | 40.3 | 23.0 |
| 9 | BOSSIER | 1.00 | 134.25 | 22.68 | 14.40 | 1.75 | 43.9 | 22.9 |
| 5 | HILL | 3.50 | 188.75 | 23.83 | 12.60 | 2.75 | 36.7 | 24.1 |
| 7 | CUTLER 71 | 4.00 | 126.00 | 25.20 | 14.08 | 3.00 | 38.5 | 23.8 |
| 6 | PICKETT 71 | 4.00 | 126.50 | 22.00 | 14.85 | 2.75 | 40.8 | 23.7 |
| 2 | WOODWORTH | 4.50 | 135.25 | 23.13 | 12.30 | 2.75 | 35.3 | 26.2 |
| 10 | WILLIAMS | 2.00 | 140.00 | 20.85 | 16.78 | 2.50 | 39.5 | 24.1 |
| 15 | FORREST | 1.50 | 141.75 | 23.95 | 10.80 | 4.25 | 39.5 | 23.6 |
| | GRAND MEAN | 2.27 | 145.06 | 25.36 | 14.39 | 2.58 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.24 | 8.51 | 2.83 | 0.82 | 0.33 | | |
| | COEFFICIENT OF VARIATION | 21.15% | 11.73% | 22.28% | 11.36% | 25.34% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.68 | 24.24 | 8.05 | 2.33 | 0.93 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.29+ | 0.24 | 0.57++ | 0.48++ | -0.39++ |
| DAYS TO | FLOWER | -0.34++ | 0.00 | 0.43++ | -0.30+ | -0.44++ |
| DAYS TO | MATURITY | -0.10 | -0.10 | 0.11 | -0.03 | -0.12 |
| NODULE | NUMBER 1 | -0.24 | -0.06 | 0.55++ | 0.04 | -0.44++ |
| NODULE | NUMBER 2 | -0.33++ | -0.01 | 0.45++ | 0.35++ | -0.09 |
| NODULE | WEIGHT 1 | -0.25 | -0.05 | 0.50++ | 0.04 | -0.45++ |
| NODULE | WEIGHT 2 | -0.28+ | 0.01 | 0.36++ | 0.41++ | -0.04 |
| PLANT | HEIGHT | -0.13 | -0.05 | 0.51++ | -0.05 | -0.37++ |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | -0.01 | -0.21 | -0.08 | 0.22 |
| PLANTS | HARVEST | -0.01 | 1.00 | 0.02 | 0.17 | 0.10 |
| PODS PER | PLANT | -0.21 | 0.02 | 1.00 | 0.14 | -0.25+ |
| 100 SEED | WEIGHT | -0.08 | 0.17 | 0.14 | 1.00 | -0.09 |
| QUALITY | OF SEED | 0.22 | 0.10 | -0.25+ | -0.09 | 1.00 |

TABLE 161 EXPERIMENT 297 YEAR 1976

REGION - MESOAMERICA COUNTRY - MEXICO
SITE - TEPALCATEPEC
COOPERATOR - BENITO CAZARES ENRIQUEZ
DATE PLANTED - JULY 24, 1976 DATE HARVESTED - OCTOBER, 1976
SOIL TYPE - CLAY
AMOUNT OF MOISTURE - 447 MM
LOCAL VARIETIES - CAJENE, TROPICANA

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 3594.47 | 39.00 | 99.00 | 4.00 | 3.50 | 0.18 | 0.10 | 69.00 | 1.00 |
| 16 | CAJENE | 2719.29 | 26.00 | 90.25 | 2.25 | 6.75 | 0.20 | 0.25 | 46.75 | 1.00 |
| 15 | COLUMBUS | 2650.53 | 21.25 | 82.75 | 24.25 | 25.75 | 0.23 | 0.33 | 40.75 | 1.00 |
| 11 | COBB | 2646.36 | 24.50 | 91.50 | 2.50 | 4.75 | 0.10 | 0.10 | 31.50 | 1.00 |
| 14 | FORREST | 2642.19 | 24.00 | 86.75 | 3.50 | 8.75 | 0.03 | 0.23 | 35.50 | 1.00 |
| 1 | CALLAND | 2535.92 | 18.50 | 82.50 | 28.25 | 5.00 | 0.30 | 0.18 | 40.25 | 1.00 |
| 6 | CUTLER 71 | 2469.24 | 18.50 | 78.75 | 0.00 | 14.25 | 0.00 | 0.30 | 42.00 | 1.00 |
| 12 | DAVIS | 2400.48 | 26.00 | 91.50 | 7.50 | 8.75 | 0.15 | 0.23 | 38.25 | 1.00 |
| 8 | BOSSIER | 2375.47 | 22.00 | 89.00 | 13.75 | 4.50 | 0.13 | 0.15 | 28.25 | 1.00 |
| 13 | IMPROVED PELICAN | 2346.30 | 39.00 | 84.75 | 1.50 | 4.50 | 0.15 | 0.60 | 73.50 | 1.00 |
| 9 | WILLIAMS | 2196.27 | 18.00 | 79.75 | 11.50 | 1.50 | 0.13 | 0.05 | 45.00 | 1.00 |
| 17 | TROPICANA | 2083.75 | 42.00 | 85.00 | 5.00 | 3.00 | 0.25 | 0.13 | 81.25 | 2.50 |
| 3 | RANSOM | 2046.24 | 17.00 | 89.50 | 11.50 | 1.50 | 0.20 | 0.05 | 25.50 | 1.00 |
| 4 | HILL | 2029.57 | 26.00 | 78.75 | 2.75 | 5.50 | 0.03 | 0.13 | 30.25 | 1.00 |
| 10 | CLARK 63 | 1996.23 | 18.00 | 80.25 | 4.50 | 0.75 | 0.08 | 0.08 | 38.50 | 1.00 |
| 5 | PICKETT 71 | 1810.78 | 21.00 | 84.50 | 6.00 | 19.50 | 0.15 | 0.52 | 26.50 | 1.00 |
| 2 | WOODWORTH | 1789.94 | 18.00 | 78.75 | 18.50 | 13.00 | 0.23 | 0.40 | 35.00 | 1.00 |
| | GRAND MEAN | 2372.53 | 24.63 | 85.49 | 8.66 | 7.72 | 0.15 | 0.22 | 42.81 | 1.09 |
| | STANDARD ERROR OF A VARIETY MEAN | 307.56 | 1.25 | 2.00 | 5.90 | 8.80 | 0.09 | 0.23 | 3.43 | 0.07 |
| | COEFFICIENT OF VARIATION | 25.93% | 10.13% | 4.67% | 136.21% | 227.88% | 121.80% | 205.50% | 16.04% | 12.87% |
| | 5% LSD VARIETY MEANS (********=NS) | 874.56 | 3.55 | 5.68 | 16.77 | ******** | ******** | ******** | 9.76 | 0.20 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.17 | 0.50** | 0.22 | 0.16 | 0.28* | 0.14 | 0.32** | -0.04 |
| DAYS TO | FLOWER | 0.17 | 1.00 | 0.35** | -0.33** | -0.13 | 0.03 | 0.02 | 0.76** | 0.51** |
| DAYS TO | MATURITY | 0.50** | 0.35** | 1.00 | 0.05 | -0.05 | 0.20 | -0.03 | 0.19 | -0.02 |
| NODULE | NUMBER 1 | 0.22 | -0.33** | 0.05 | 1.00 | 0.33** | 0.66** | 0.22 | -0.03 | -0.04 |
| NODULE | NUMBER 2 | 0.16 | -0.13 | -0.05 | 0.33** | 1.00 | 0.24 | 0.80** | -0.05 | -0.06 |
| NODULE | WEIGHT 1 | 0.28* | 0.03 | 0.20 | 0.66** | 0.24 | 1.00 | 0.26* | 0.24 | 0.25* |
| NODULE | WEIGHT 2 | 0.14 | 0.02 | -0.03 | 0.22 | 0.80** | 0.26* | 1.00 | 0.08 | -0.06 |
| PLANT | HEIGHT | 0.32** | 0.76** | 0.19 | -0.03 | -0.05 | 0.24 | 0.08 | 1.00 | 0.54** |
| | LODGING | -0.04 | 0.51** | -0.02 | -0.04 | -0.06 | 0.25* | -0.06 | 0.54** | 1.00 |
| | SHATTER | -0.50** | 0.15 | -0.48** | -0.18 | -0.18 | -0.13 | -0.19 | 0.15 | 0.34** |
| PLANTS | HARVEST | 0.33** | 0.12 | 0.28* | 0.24 | 0.13 | 0.31* | 0.13 | 0.14 | 0.26* |
| PODS PER | PLANT | 0.54** | 0.42** | 0.44** | -0.21 | 0.02 | 0.01 | 0.12 | 0.43** | 0.00 |
| 100 SEED | WEIGHT | 0.23 | -0.62** | 0.01 | 0.34** | 0.13 | 0.18 | 0.03 | -0.44** | -0.49** |
| QUALITY | OF SEED | -0.44** | -0.64** | -0.45** | 0.20 | -0.02 | -0.05 | -0.06 | -0.52** | -0.29* |

TABLE 161 EXPERIMENT 297 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OF CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 7 | JUPITER | 1.00 | 130.50 | 48.67 | 16.75 | 1.00 |
| 16 | CAJEME | 1.50 | 96.50 | 42.12 | 18.35 | 3.00 |
| 15 | COLUMBUS | 1.50 | 128.00 | 24.50 | 17.40 | 3.25 |
| 11 | COBB | 1.50 | 123.00 | 27.92 | 15.48 | 2.75 |
| 14 | FORREST | 1.00 | 131.50 | 32.30 | 15.65 | 3.75 |
| 1 | CALLAND | 1.75 | 116.50 | 24.90 | 20.63 | 3.75 |
| 6 | CUTLER 71 | 2.00 | 104.25 | 27.22 | 19.78 | 3.75 |
| 12 | DAVIS | 1.50 | 143.00 | 27.05 | 16.18 | 2.50 |
| 8 | BOSSIER | 1.00 | 115.75 | 27.97 | 18.18 | 3.00 |
| 13 | IMPROVED PELICAN | 1.75 | 112.00 | 34.80 | 12.33 | 1.75 |
| 9 | WILLIAMS | 1.50 | 113.50 | 29.55 | 18.60 | 3.25 |
| 17 | TROPICANA | 2.75 | 142.50 | 28.40 | 10.13 | 1.75 |
| 3 | RANSOM | 1.00 | 134.75 | 22.92 | 18.45 | 3.75 |
| 4 | HILL | 2.00 | 122.75 | 23.63 | 16.50 | 3.50 |
| 10 | CLARK 63 | 1.50 | 109.25 | 22.70 | 16.30 | 3.25 |
| 5 | PICKETT 71 | 1.50 | 137.00 | 24.45 | 16.68 | 3.50 |
| 2 | WOODWORTH | 2.25 | 114.25 | 25.47 | 17.30 | 5.00 |
| | GRAND MEAN | 1.59 | 122.06 | 29.09 | 16.74 | 3.09 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.35 | 9.27 | 3.43 | 0.93 | 0.43 |
| | COEFFICIENT OF VARIATION | 44.19% | 15.20% | 23.61% | 11.06% | 27.99% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 26.37 | 9.77 | 2.63 | 1.23 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.50** | 0.33** | 0.54** | 0.23 | -0.44** |
| DAYS TO | FLOWER | 0.15 | 0.12 | 0.42** | -0.62** | -0.64** |
| DAYS TO | MATURITY | -0.48** | 0.28* | 0.44** | 0.01 | -0.45** |
| NODULE | NUMBER 1 | -0.18 | 0.24 | -0.21 | 0.34** | 0.20 |
| NODULE | NUMBER 2 | -0.18 | 0.13 | 0.02 | 0.13 | -0.02 |
| NODULE | WEIGHT 1 | -0.13 | 0.31* | 0.01 | 0.18 | -0.05 |
| NODULE | WEIGHT 2 | -0.19 | 0.13 | 0.12 | 0.03 | -0.06 |
| PLANT | HEIGHT | 0.15 | 0.14 | 0.43** | -0.44** | -0.52** |
| | LODGING | 0.34** | 0.26* | 0.00 | -0.49** | -0.29* |
| | SHATTER | 1.00 | -0.17 | -0.32** | -0.37** | 0.16 |
| PLANTS | HARVEST | -0.17 | 1.00 | 0.06 | -0.05 | -0.19 |
| PODS PER | PLANT | -0.32** | 0.06 | 1.00 | -0.04 | -0.45** |
| 100 SEED | WEIGHT | -0.37** | -0.05 | -0.04 | 1.00 | 0.41** |
| QUALITY | OF SEED | 0.16 | -0.19 | -0.45** | 0.41** | 1.00 |

TABLE 162 EXPERIMENT 365 YEAR 1976

REGION - MESOAMERICA
SITE - MANAGUA
LATITUDE - 12 DEG. 33 MIN. N
COOPERATOR - MANUEL VANEGAS

COUNTRY - NICARAGUA
ELEVATION - 60 M
LONGITUDE - 86 DEG. 59 MIN. W

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | COLUMBUS | 2993.52 | 26.00 | 90.00 | 11.00 | 0.00 | 0.60 | 0.00 | 46.00 | 1.00 |
| 10 | WILLIAMS | 2907.25 | 26.00 | 90.00 | 11.25 | 0.00 | 0.57 | 0.00 | 51.25 | 1.00 |
| 13 | DAVIS | 2906.00 | 30.00 | 93.00 | 10.25 | 0.00 | 0.58 | 0.00 | 27.50 | 1.00 |
| 11 | CLARK 63 | 2751.38 | 25.00 | 90.00 | 6.25 | 0.00 | 0.33 | 0.00 | 49.50 | 1.00 |
| 3 | BRAGG | 2722.21 | 30.00 | 93.00 | 9.00 | 0.00 | 0.47 | 0.00 | 36.50 | 1.00 |
| 1 | CALLAND | 2618.44 | 26.00 | 90.00 | 12.75 | 0.00 | 0.67 | 0.00 | 48.75 | 1.00 |
| 15 | FORREST | 2528.42 | 28.00 | 90.00 | 12.75 | 0.00 | 0.68 | 0.00 | 27.50 | 1.00 |
| 4 | RANSON | 2461.33 | 30.00 | 93.00 | 9.00 | 0.00 | 0.50 | 0.00 | 28.75 | 1.00 |
| 6 | PICKETT 71 | 2368.81 | 30.00 | 93.00 | 4.25 | 0.00 | 0.28 | 0.00 | 19.75 | 1.00 |
| 12 | COBB | 2252.12 | 30.00 | 93.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 1.00 |
| 7 | CUTLER 71 | 2204.61 | 25.00 | 90.00 | 10.75 | 0.00 | 0.55 | 0.00 | 45.00 | 1.00 |
| 2 | WOODWORTH | 2099.17 | 26.00 | 90.00 | 3.75 | 0.00 | 0.18 | 0.00 | 46.25 | 1.00 |
| 9 | BOSSIER | 2035.42 | 26.00 | 90.00 | 6.50 | 0.00 | 0.38 | 0.00 | 22.75 | 1.00 |
| 14 | IMPROVED PELICAN | 2044.16 | 40.00 | 93.00 | 7.75 | 0.00 | 0.40 | 0.00 | 83.25 | 2.25 |
| 5 | HILL | 1962.06 | 30.00 | 93.00 | 7.25 | 0.00 | 0.38 | 0.00 | 22.75 | 1.00 |
| 8 | JUPITER | 1171.07 | 40.00 | 96.00 | 6.75 | 0.00 | 0.40 | 0.00 | 57.50 | 1.00 |
| | GRAND MEAN | 2379.75 | 29.25 | 91.69 | 8.08 | 0.00 | 0.43 | 0.00 | 39.53 | 1.08 |
| | STANDARD ERROR OF A VARIETY MEAN | 282.38 | 0.00 | 0.00 | 2.88 | 0.00 | 0.15 | 0.00 | 3.06 | 0.06 |
| | COEFFICIENT OF VARIATION | 23.71% | 0.00% | 0.00% | 71.35% | 0.00% | 68.33% | 0.00% | 15.48% | 11.59% |
| | 5% LSD VARIETY MEANS (********=NS) | 803.49 | 0.00 | 0.00 | ******** | 0.00 | ******** | 0.00 | 8.72 | 0.18 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.40++ | -0.35++ | 0.27+ | 0.00 | 0.27+ | 0.00 | 0.07 | -0.09 |
| DAYS TO FLOWER | -0.40++ | 1.00 | 0.83++ | -0.11 | 0.00 | -0.09 | 0.00 | 0.39++ | 0.58++ |
| DAYS TO MATURITY | -0.35++ | 0.84++ | 1.00 | -0.19 | 0.00 | -0.16 | 0.00 | -0.02 | 0.17 |
| NODULE NUMBER 1 | 0.27+ | -0.11 | -0.19 | 1.00 | 0.00 | 0.99++ | 0.00 | 0.18 | 0.12 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.27+ | -0.09 | -0.16 | 0.99++ | 0.00 | 1.00 | 0.00 | 0.17 | 0.10 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.07 | 0.39++ | -0.02 | 0.18 | 0.00 | 0.17 | 0.00 | 1.00 | 0.60++ |
| LODGING | -0.09 | 0.58++ | 0.17 | 0.12 | 0.00 | 0.10 | 0.00 | 0.60++ | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.52++ | -0.21 | -0.08 | 0.17 | 0.00 | 0.13 | 0.00 | 0.09 | -0.15 |
| PODS PER PLANT | 0.28+ | -0.12 | -0.20 | 0.84++ | 0.00 | 0.81++ | 0.00 | 0.08 | 0.16 |
| 100 SEED WEIGHT | 0.15 | -0.53++ | -0.16 | -0.03 | 0.00 | -0.04 | 0.00 | -0.55++ | -0.69++ |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 162 EXPERIMENT 365 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 16 | COLUMBUS | 1.00 | 132.50 | 13.50 | 14.38 | 0.00 |
| 10 | WILLIAMS | 1.00 | 163.00 | 13.75 | 15.13 | 0.00 |
| 13 | DAVIS | 1.00 | 173.50 | 10.25 | 14.75 | 0.00 |
| 11 | CLARK 63 | 1.00 | 178.50 | 6.25 | 13.75 | 0.00 |
| 3 | BRAGG | 1.00 | 149.00 | 9.00 | 13.88 | 0.00 |
| 1 | CALLAND | 1.00 | 152.00 | 12.75 | 14.85 | 0.00 |
| 15 | FORREST | 1.00 | 130.00 | 12.75 | 13.63 | 0.00 |
| 4 | RANSOM | 1.00 | 152.00 | 9.00 | 15.58 | 0.00 |
| 6 | PICKETT 71 | 1.00 | 142.00 | 4.25 | 14.60 | 0.00 |
| 12 | COBB | 1.00 | 133.50 | 10.00 | 16.68 | 0.00 |
| 7 | CUTLER 71 | 1.00 | 131.50 | 10.75 | 15.80 | 0.00 |
| 2 | WOODWORTH | 1.00 | 149.00 | 3.75 | 14.28 | 0.00 |
| 9 | BOSSIER | 1.00 | 83.00 | 6.50 | 15.15 | 0.00 |
| 14 | IMPROVED PELICAN | 1.00 | 120.00 | 10.00 | 10.18 | 0.00 |
| 5 | HILL | 1.00 | 127.50 | 7.25 | 13.80 | 0.00 |
| 8 | JUPITER | 1.00 | 116.25 | 5.25 | 13.83 | 0.00 |
| | GRAND MEAN | 1.00 | 139.58 | 9.06 | 14.39 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 11.58 | 2.61 | 0.35 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 16.60% | 57.69% | 4.83% | 0.00% |
| | 5% LSD VARIETY MEANS (*********NS) | 0.00 | 32.99 | ******** | 0.99 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.52** | 0.28* | 0.15 | 0.00 |
| DAYS TO FLOWER | 0.00 | -0.21 | -0.12 | -0.53** | 0.00 |
| DAYS TO MATURITY | 0.00 | -0.08 | -0.20 | -0.16 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.17 | 0.84** | -0.03 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.13 | 0.81** | -0.04 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | 0.09 | 0.08 | -0.55** | 0.00 |
| LODGING | 0.00 | -0.15 | 0.16 | -0.69** | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.17 | 0.16 | 0.00 |
| PODS PER PLANT | 0.00 | 0.17 | 1.00 | 0.07 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.16 | 0.07 | 1.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 163 EXPERIMENT 364 YEAR 1976

REGION - MESOAMERICA
SITE - POSOLTEGA
LATITUDE - 12 DEG. 33 MIN. N
COOPERATOR - MANUEL VANEGAS

COUNTRY - NICARAGUA
ELEVATION - 60 M
LONGITUDE - 86 DEG. 59 MIN. W

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 2323.38 | 31.00 | 91.75 | 54.25 | 239.75 | 0.62 | 1.75 | 67.50 | 1.75 |
| 1 | CALLAND | 2249.62 | 24.00 | 88.00 | 45.00 | 180.25 | 0.20 | 1.54 | 66.00 | 1.00 |
| 16 | COLUMBUS | 2235.86 | 26.00 | 89.25 | 48.25 | 170.75 | 0.34 | 1.23 | 54.00 | 1.00 |
| 15 | FORREST | 2207.52 | 27.50 | 89.50 | 37.00 | 283.75 | 0.24 | 1.78 | 37.50 | 1.00 |
| 12 | COBB | 2204.61 | 27.00 | 89.75 | 49.00 | 195.00 | 0.35 | 1.58 | 30.75 | 1.00 |
| 7 | CUTLER 71 | 2196.27 | 26.25 | 89.50 | 48.00 | 242.00 | 0.36 | 2.53 | 53.25 | 1.00 |
| 2 | WOODWORTH | 2123.34 | 24.00 | 88.00 | 37.75 | 150.50 | 0.28 | 1.75 | 46.75 | 1.00 |
| 3 | BRAGG | 2088.33 | 27.50 | 89.50 | 45.00 | 247.25 | 0.34 | 1.73 | 36.75 | 1.00 |
| 5 | HILL | 2072.50 | 29.00 | 90.00 | 50.50 | 123.50 | 0.53 | 1.03 | 36.50 | 1.00 |
| 6 | PICKETT 71 | 2060.00 | 27.00 | 90.25 | 51.75 | 233.00 | 0.45 | 1.23 | 26.75 | 1.00 |
| 9 | BOSSIER | 2059.16 | 25.75 | 89.00 | 81.50 | 246.25 | 0.65 | 2.20 | 28.25 | 1.00 |
| 13 | DAVIS | 2049.16 | 28.50 | 90.00 | 77.50 | 183.00 | 0.73 | 1.78 | 31.00 | 1.25 |
| 10 | WILLIAMS | 2023.74 | 24.75 | 88.50 | 66.25 | 243.00 | 0.48 | 2.98 | 53.50 | 1.00 |
| 14 | IMPROVED PELICAN | 1987.06 | 31.00 | 92.25 | 33.00 | 277.00 | 0.49 | 1.43 | 80.25 | 2.75 |
| 11 | CLARK 63 | 1962.06 | 26.00 | 89.00 | 36.00 | 172.25 | 0.21 | 1.68 | 50.25 | 1.00 |
| 4 | RANSOM | 1915.80 | 27.00 | 90.00 | 49.00 | 238.75 | 0.33 | 1.55 | 27.00 | 1.00 |
| | GRAND MEAN | 2109.90 | 27.02 | 89.64 | 50.61 | 214.13 | 0.41 | 1.73 | 45.38 | 1.17 |
| | STANDARD ERROR OF A VARIETY MEAN | 144.02 | 0.63 | 0.42 | 6.85 | 29.11 | 0.12 | 0.32 | 1.92 | 0.11 |
| | COEFFICIENT OF VARIATION | 13.65% | 4.64% | 0.95% | 27.09% | 27.19% | 60.17% | 36.68% | 8.48% | 18.88% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.79 | 1.21 | 19.53 | 82.93 | ******** | 0.91 | 5.48 | 0.37 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.15 | -0.07 | 0.25* | 0.06 | 0.11 | 0.26* | 0.19 | -0.05 |
| DAYS TO FLOWER | -0.15 | 1.00 | 0.85** | -0.05 | 0.09 | 0.31* | -0.27* | 0.13 | 0.59** |
| DAYS TO MATURITY | -0.07 | 0.85** | 1.00 | -0.06 | 0.22 | 0.21 | -0.20 | 0.16 | 0.55** |
| NODULE NUMBER 1 | 0.25* | -0.05 | -0.06 | 1.00 | 0.02 | 0.55** | 0.36** | -0.24 | -0.18 |
| NODULE NUMBER 2 | 0.06 | 0.09 | 0.22 | 0.02 | 1.00 | 0.07 | 0.51** | 0.11 | 0.22 |
| NODULE WEIGHT 1 | 0.11 | 0.31* | 0.21 | 0.55** | 0.07 | 1.00 | 0.29* | -0.04 | 0.23 |
| NODULE WEIGHT 2 | 0.26* | -0.27* | -0.20 | 0.36** | 0.51** | 0.29* | 1.00 | 0.11 | -0.09 |
| PLANT HEIGHT | 0.19 | 0.13 | 0.16 | -0.24 | 0.11 | -0.04 | 0.11 | 1.00 | 0.59** |
| LODGING | -0.05 | 0.59** | 0.55** | -0.18 | 0.22 | 0.23 | -0.09 | 0.59** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.09 | -0.15 | -0.26* | 0.05 | -0.39** | 0.10 | -0.03 | -0.06 | -0.23 |
| PODS PER PLANT | 0.16 | 0.34** | 0.37** | -0.21 | 0.22 | 0.08 | 0.04 | 0.82** | 0.75** |
| 100 SEED WEIGHT | 0.44** | -0.37** | -0.23 | 0.45** | 0.14 | 0.03 | 0.33** | -0.12 | -0.36** |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 163 EXPERIMENT 364 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | JUPITER | 0.00 | 243.25 | 36.83 | 15.86 | 0.00 |
| 1 | CALLAND | 0.00 | 276.75 | 29.83 | 17.40 | 0.00 |
| 16 | COLUMBUS | 0.00 | 240.00 | 23.55 | 15.20 | 0.00 |
| 15 | FORREST | 0.00 | 248.00 | 19.60 | 13.40 | 0.00 |
| 12 | COBB | 0.00 | 227.00 | 21.55 | 17.63 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 225.25 | 24.50 | 17.35 | 0.00 |
| 2 | WOODWORTH | 0.00 | 264.25 | 20.90 | 14.03 | 0.00 |
| 3 | BRAGG | 0.00 | 255.00 | 18.08 | 14.40 | 0.00 |
| 5 | HILL | 0.00 | 280.25 | 17.93 | 13.54 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 231.50 | 17.18 | 16.93 | 0.00 |
| 9 | BOSSIER | 0.00 | 189.00 | 15.93 | 17.33 | 0.00 |
| 13 | DAVIS | 0.00 | 306.00 | 16.65 | 14.51 | 0.00 |
| 10 | WILLIAMS | 0.00 | 256.75 | 23.83 | 16.05 | 0.00 |
| 14 | IMPROVED PELICAN | 0.00 | 202.50 | 42.85 | 11.93 | 0.00 |
| 11 | CLARK 63 | 0.00 | 275.50 | 20.93 | 13.45 | 0.00 |
| 4 | RANSOM | 0.00 | 246.00 | 17.45 | 14.79 | 0.00 |
| | GRAND MEAN | 0.00 | 247.94 | 22.97 | 15.24 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.97 | 1.84 | 0.65 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 10.54% | 15.98% | 8.59% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 37.23 | 5.23 | 1.86 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.09 | 0.16 | 0.48** | 0.00 |
| DAYS TO | FLOWER | 0.00 | -0.15 | 0.34** | -0.37** | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.26* | 0.37** | -0.23 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.05 | -0.21 | 0.45** | 0.00 |
| NODULE | NUMBER 2 | 0.00 | -0.39** | 0.22 | 0.14 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.10 | 0.08 | 0.03 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.33 | 0.04 | 0.33** | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.06 | 0.82** | -0.12 | 0.00 |
| | LODGING | 0.00 | -0.23 | 0.75** | -0.36** | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.17 | -0.23 | 0.00 |
| PODS PER | PLANT | 0.00 | -0.17 | 1.00 | -0.10 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | -0.23 | -0.10 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 164 EXPERIMENT 40 YEAR 1976

REGION - MESOAMERICA
SITE - ISABELA
LATITUDE - 18 DEG. 28 MIN. N
COOPERATOR - E.H. PASCHAL
DATE PLANTED - JULY 6, 1976
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - P 65.0
AMOUNT OF MOISTURE - 394 MM
NUMBER OF IRRIGATIONS - 1 (25 MM)

COUNTRY - PUERTO RICO
ELEVATION - 140 M
LONGITUDE - 67 DEG. W

DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | COBB | 2546.54 | 32.00 | 102.25 | 224.50 | 269.50 | 2.71 | 3.72 | 58.00 | 1.25 |
| 8 | JUPITER | 2268.93 | 54.25 | 111.00 | 253.00 | 302.00 | 3.22 | 3.35 | 93.75 | 2.50 |
| 13 | DAVIS | 2260.09 | 34.00 | 98.25 | 225.50 | 279.75 | 2.97 | 3.90 | 59.50 | 1.00 |
| 9 | BOSSIER | 2170.89 | 32.00 | 104.75 | 326.50 | 343.25 | 3.04 | 3.88 | 44.75 | 1.00 |
| 16 | COLUMBUS | 2145.51 | 30.00 | 89.75 | 297.00 | 250.50 | 3.10 | 3.99 | 63.75 | 1.25 |
| 15 | FORREST | 2134.36 | 30.00 | 100.00 | 233.50 | 263.25 | 2.74 | 3.60 | 49.25 | 1.00 |
| 4 | RANSOM | 2097.83 | 31.00 | 104.00 | 286.00 | 351.25 | 2.81 | 3.27 | 40.50 | 1.00 |
| 6 | PICKETT 71 | 2076.68 | 30.00 | 98.50 | 229.00 | 283.50 | 2.77 | 3.60 | 37.75 | 1.00 |
| 7 | CUTLER 71 | 2025.16 | 26.00 | 88.50 | 279.25 | 236.50 | 3.43 | 3.61 | 56.50 | 1.25 |
| 10 | WILLIAMS | 1987.48 | 26.00 | 90.75 | 238.75 | 223.75 | 2.85 | 3.37 | 53.00 | 1.75 |
| 5 | HILL | 1967.87 | 32.00 | 99.00 | 224.75 | 246.75 | 2.58 | 3.54 | 51.00 | 1.75 |
| 14 | IMPROVED PELICAN | 1952.49 | 42.00 | 100.00 | 167.25 | 227.50 | 2.87 | 2.89 | 91.50 | 1.25 |
| 1 | CALLAND | 1927.11 | 29.00 | 89.75 | 232.25 | 275.50 | 3.29 | 4.77 | 56.25 | 1.00 |
| 3 | BRAGG | 1774.47 | 32.00 | 102.25 | 210.75 | 301.50 | 2.68 | 3.84 | 45.75 | 1.00 |
| 11 | CLARK 63 | 1696.72 | 28.00 | 89.75 | 182.50 | 160.00 | 2.58 | 3.33 | 49.50 | 2.00 |
| 2 | WOODWORTH | 1572.22 | 26.00 | 96.00 | 180.25 | 156.25 | 2.96 | 3.44 | 48.25 | 1.75 |
| | GRAND MEAN | 2037.90 | 32.14 | 97.78 | 238.17 | 260.67 | 2.91 | 3.63 | 56.19 | 1.36 |
| | STANDARD ERROR OF A VARIETY MEAN | 133.56 | 0.19 | 1.81 | 18.75 | 24.22 | 0.15 | 0.27 | 3.95 | 0.23 |
| | COEFFICIENT OF VARIATION | 13.11% | 1.16% | 3.70% | 15.75% | 18.58% | 10.13% | 14.89% | 14.04% | 34.38% |
| | 5% LSD VARIETY MEANS (********=NS) | 380.44 | 0.53 | 5.16 | 53.41 | 68.98 | 0.42 | 0.77 | 11.24 | 0.67 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.24 | 0.30+ | 0.24 | 0.38++ | 0.11 | 0.14 | 0.29+ | -0.08 |
| DAYS TO | FLOWER | 0.24 | 1.00 | 0.63++ | -0.00 | 0.23 | 0.10 | -0.17 | 0.73++ | 0.31+ |
| DAYS TO | MATURITY | 0.30+ | 0.63++ | 1.00 | 0.09 | 0.38++ | -0.11 | -0.15 | 0.17 | -0.07 |
| NODULE | NUMBER 1 | 0.24 | -0.00 | 0.09 | 1.00 | 0.51++ | 0.52++ | 0.30+ | -0.08 | -0.19 |
| NODULE | NUMBER 2 | 0.38++ | 0.23 | 0.38++ | 0.51++ | 1.00 | 0.21 | 0.52++ | -0.05 | -0.25+ |
| NODULE | WEIGHT 1 | 0.11 | 0.10 | -0.11 | 0.52++ | 0.21 | 1.00 | 0.43++ | 0.21 | -0.12 |
| NODULE | WEIGHT 2 | 0.14 | -0.17 | -0.15 | 0.30+ | 0.52++ | 0.43++ | 1.00 | -0.14 | -0.17 |
| PLANT | HEIGHT | 0.29+ | 0.73++ | 0.17 | -0.08 | -0.05 | 0.21 | -0.14 | 1.00 | 0.40++ |
| | LODGING | -0.08 | 0.31+ | -0.07 | -0.19 | -0.25+ | -0.12 | -0.17 | 0.40++ | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.12 | -0.58++ | -0.49++ | -0.15 | -0.16 | -0.07 | 0.13 | -0.42++ | -0.19 |
| PODS PER | PLANT | 0.47++ | 0.79++ | 0.63++ | 0.01 | 0.30+ | 0.01 | -0.09 | 0.67++ | 0.09 |
| 100 SEED | WEIGHT | -0.14 | -0.43++ | -0.31+ | 0.20 | -0.17 | 0.17 | 0.10 | -0.37++ | 0.13 |
| QUALITY | OF SEED | -0.34++ | -0.50++ | -0.09 | -0.02 | -0.22 | -0.05 | 0.01 | -0.51++ | -0.04 |

TABLE 164 EXPERIMENT 40 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 12 | COBB | 0.00 | 176.00 | 39.23 | 16.70 | 2.50 | 38.8 | 24.4 |
| 8 | JUPITER | 0.00 | 124.75 | 50.23 | 16.40 | 2.25 | 40.2 | 24.1 |
| 13 | DAVIS | 0.00 | 231.00 | 30.33 | 14.03 | 2.00 | 40.0 | 23.9 |
| 9 | BOSSIER | 0.00 | 161.75 | 32.25 | 16.90 | 3.75 | 45.8 | 22.3 |
| 16 | COLUMBUS | 0.00 | 195.50 | 27.45 | 16.55 | 2.25 | 41.9 | 23.6 |
| 15 | FORREST | 0.00 | 184.25 | 34.93 | 13.90 | 3.50 | 42.9 | 22.6 |
| 4 | RANSOM | 0.00 | 196.00 | 26.38 | 17.28 | 3.00 | 41.2 | 25.2 |
| 6 | PICKETT 71 | 0.00 | 211.25 | 28.60 | 16.48 | 2.75 | 41.8 | 22.8 |
| 7 | CUTLER 71 | 0.00 | 200.50 | 18.83 | 18.58 | 3.25 | 42.5 | 23.6 |
| 10 | WILLIAMS | 0.00 | 200.25 | 19.15 | 18.80 | 3.75 | 43.4 | 23.0 |
| 5 | HILL | 0.00 | 213.75 | 25.98 | 14.85 | 3.25 | 44.2 | 22.1 |
| 14 | IMPROVED PELICAN | 0.00 | 166.25 | 47.65 | 11.15 | 1.00 | 41.4 | 22.8 |
| 1 | CALLAND | 0.00 | 211.25 | 21.75 | 18.93 | 3.50 | 43.1 | 21.9 |
| 3 | BRAGG | 0.00 | 180.25 | 27.15 | 16.33 | 4.00 | 43.8 | 22.7 |
| 11 | CLARK 63 | 0.00 | 185.50 | 17.80 | 18.15 | 3.75 | 43.1 | 23.7 |
| 2 | WOODWORTH | 0.00 | 205.50 | 19.63 | 17.33 | 4.75 | 42.9 | 23.7 |
| | GRAND MEAN | 0.00 | 190.23 | 29.21 | 16.40 | 3.08 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.97 | 2.37 | 0.37 | 0.35 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 10.48% | 16.20% | 4.52% | 22.43% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 28.39 | 6.74 | 1.05 | 0.98 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.12 | 0.47** | -0.14 | -0.34** |
| DAYS TO FLOWER | 0.00 | -0.58** | 0.79** | -0.43** | -0.50** |
| DAYS TO MATURITY | 0.00 | -0.49** | 0.63** | -0.31* | -0.09 |
| NODULE NUMBER 1 | 0.00 | -0.15 | 0.01 | 0.20 | -0.02 |
| NODULE NUMBER 2 | 0.00 | -0.16 | 0.30* | -0.17 | -0.22 |
| NODULE WEIGHT 1 | 0.00 | -0.07 | 0.01 | 0.17 | -0.05 |
| NODULE WEIGHT 2 | 0.00 | 0.13 | -0.09 | 0.10 | 0.01 |
| PLANT HEIGHT | 0.00 | -0.42** | 0.67** | -0.37** | -0.51** |
| LODGING | 0.00 | -0.19 | 0.09 | 0.13 | -0.04 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.57** | 0.10 | 0.04 |
| PODS PER PLANT | 0.00 | -0.57** | 1.00 | -0.60** | -0.58** |
| 100 SEED WEIGHT | 0.00 | 0.10 | -0.60** | 1.00 | 0.51** |
| QUALITY OF SEED | 0.00 | 0.04 | -0.58** | 0.51** | 1.00 |

TABLE 165 EXPERIMENT 373 YEAR 1976

REGION - MESOAMERICA
SITE - PORT-OF-SPAIN
LATITUDE - 11 DEG. N
COOPERATOR - DAVID C. MARTIN
DATE PLANTED - NOVEMBER 26, 1976
SOIL TYPE - SAND 42%, SILT 46%, CLAY 12%
FERTILIZER USED (KG/HA) - N 25.0, P 21.0, K 41.0
AMOUNT OF MOISTURE - 210 MM
NUMBER OF IRRIGATIONS - 1

COUNTRY - TRINIDAD AND TOBAGO
ELEVATION - 6 M
LONGITUDE - 61 DEG. W
DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 2952.67 | 33.75 | 88.75 | 317.25 | 458.50 | 1.05 | 3.43 | 62.05 | 3.00 |
| 1 | CALLAND | 2696.37 | 24.50 | 83.25 | 137.00 | 230.50 | 0.65 | 2.77 | 40.70 | 1.25 |
| 13 | DAVIS | 2548.83 | 29.50 | 86.25 | 127.75 | 336.75 | 0.49 | 2.27 | 28.05 | 1.00 |
| 16 | COLUMBUS | 2494.25 | 24.50 | 83.75 | 136.25 | 315.75 | 0.56 | 2.56 | 43.80 | 1.75 |
| 6 | PICKETT 71 | 2454.66 | 25.50 | 77.00 | 231.25 | 268.25 | 0.74 | 1.68 | 28.95 | 1.00 |
| 11 | CLARK 63 | 2273.37 | 23.00 | 82.50 | 138.75 | 270.25 | 0.42 | 2.14 | 37.80 | 2.25 |
| 10 | WILLIAMS | 2269.62 | 25.75 | 77.25 | 161.25 | 328.50 | 0.41 | 1.68 | 38.70 | 1.00 |
| 15 | FORREST | 2212.94 | 27.75 | 76.75 | 154.00 | 308.75 | 0.38 | 1.74 | 35.10 | 2.00 |
| 4 | RANSOM | 2067.08 | 26.25 | 86.00 | 128.50 | 271.75 | 0.37 | 1.66 | 28.85 | 1.00 |
| 12 | COBB | 2002.48 | 26.75 | 81.50 | 111.75 | 318.25 | 0.39 | 2.09 | 24.05 | 1.00 |
| 7 | CUTLER 71 | 1919.13 | 25.00 | 82.25 | 206.75 | 258.00 | 0.56 | 1.99 | 40.30 | 2.00 |
| 3 | BRAGG | 1892.04 | 25.75 | 81.25 | 173.00 | 331.25 | 0.44 | 1.72 | 32.45 | 1.00 |
| 14 | IMPROVED PELICAN | 1794.11 | 32.50 | 83.00 | 211.50 | 326.00 | 0.93 | 2.50 | 37.05 | 1.50 |
| 2 | WOODWORTH | 1558.64 | 25.50 | 71.75 | 120.50 | 193.50 | 0.32 | 1.46 | 32.60 | 2.25 |
| 9 | BOSSIER | 1552.39 | 24.50 | 75.25 | 106.75 | 279.00 | 0.25 | 1.74 | 23.25 | 1.00 |
| 5 | HILL | 1521.14 | 30.50 | 73.25 | 130.00 | 238.00 | 0.35 | 1.66 | 28.25 | 1.50 |
| | GRAND MEAN | 2138.08 | 27.00 | 80.61 | 162.02 | 295.31 | 0.52 | 2.07 | 35.12 | 1.53 |
| | STANDARD ERROR OF A VARIETY MEAN | 325.29 | 0.46 | 1.58 | 27.99 | 30.55 | 0.12 | 0.38 | 3.93 | 0.27 |
| | COEFFICIENT OF VARIATION | 30.43% | 3.38% | 3.92% | 34.56% | 20.65% | 46.01% | 36.49% | 22.39% | 34.68% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 1.30 | 4.50 | 79.73 | 87.02 | 0.34 | 1.07 | 11.20 | 0.76 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.01 | 0.54** | 0.38** | 0.32* | 0.34** | 0.35** | 0.63** | 0.23 |
| DAYS TO FLOWER | -0.01 | 1.00 | 0.24 | 0.38** | 0.39** | 0.37** | 0.26* | 0.24 | 0.16 |
| DAYS TO MATURITY | 0.54** | 0.24 | 1.00 | 0.25* | 0.29* | 0.24 | 0.25* | 0.46** | 0.13 |
| NODULE NUMBER 1 | 0.38** | 0.38** | 0.25* | 1.00 | 0.62** | 0.77** | 0.56** | 0.57** | 0.32** |
| NODULE NUMBER 2 | 0.32* | 0.39** | 0.29* | 0.62** | 1.00 | 0.58** | 0.74** | 0.43** | 0.20 |
| NODULE WEIGHT 1 | 0.34** | 0.37** | 0.24 | 0.77** | 0.58** | 1.00 | 0.74** | 0.49** | 0.21 |
| NODULE WEIGHT 2 | 0.35** | 0.26* | 0.25* | 0.56** | 0.74** | 0.74** | 1.00 | 0.49** | 0.26* |
| PLANT HEIGHT | 0.63** | 0.24 | 0.46** | 0.57** | 0.43** | 0.49** | 0.49** | 1.00 | 0.61** |
| LODGING | 0.23 | 0.16 | 0.13 | 0.32** | 0.20 | 0.21 | 0.26* | 0.61** | 1.00 |
| SHATTER | -0.05 | -0.07 | -0.10 | 0.06 | 0.03 | 0.07 | -0.10 | -0.19 | -0.16 |
| PLANTS HARVEST | 0.36** | 0.04 | 0.10 | -0.03 | 0.09 | -0.11 | 0.13 | 0.23 | 0.01 |
| PODS PER PLANT | 0.40** | 0.31* | 0.26* | 0.34** | 0.44** | 0.37** | 0.35** | 0.39** | 0.03 |
| 100 SEED WEIGHT | 0.44** | -0.43** | 0.38** | 0.13 | 0.07 | 0.09 | 0.14 | 0.36** | -0.02 |
| QUALITY OF SEED | -0.17 | -0.50** | -0.05 | -0.23 | -0.37** | -0.23 | -0.18 | -0.11 | 0.01 |

TABLE 165 EXPERIMENT 373 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 1.00 | 278.75 | 16.15 | 21.01 | 2.00 | 39.8 | 26.2 |
| 1 | CALLAND | 1.00 | 304.00 | 10.90 | 23.68 | 3.50 | 43.0 | 20.4 |
| 13 | DAVIS | 1.00 | 303.75 | 12.78 | 20.41 | 2.25 | 42.6 | 22.5 |
| 16 | COLUMBUS | 1.00 | 277.25 | 14.28 | 21.82 | 2.75 | 44.6 | 21.1 |
| 6 | PICKETT 71 | 1.50 | 244.00 | 13.75 | 20.21 | 2.25 | 43.4 | 22.7 |
| 11 | CLARK 63 | 1.00 | 281.75 | 11.60 | 19.55 | 2.75 | 42.3 | 21.7 |
| 10 | WILLIAMS | 1.00 | 290.25 | 12.20 | 22.51 | 2.50 | 43.5 | 22.8 |
| 15 | FORREST | 1.00 | 262.00 | 15.63 | 17.70 | 1.75 | 41.9 | 22.6 |
| 4 | RANSOM | 1.00 | 261.25 | 11.05 | 19.88 | 2.75 | 42.1 | 23.9 |
| 12 | COBB | 1.25 | 249.25 | 14.40 | 19.67 | 2.00 | 40.9 | 22.5 |
| 7 | CUTLER 71 | 1.00 | 223.75 | 10.65 | 23.09 | 3.25 | 44.2 | 21.5 |
| 3 | BRAGG | 1.00 | 283.50 | 12.58 | 22.42 | 2.50 | 43.0 | 22.4 |
| 14 | IMPROVED PELICAN | 1.00 | 230.75 | 17.47 | 16.51 | 1.50 | 45.1 | 22.0 |
| 2 | WOODWORTH | 1.00 | 270.00 | 9.57 | 18.92 | 3.00 | 42.4 | 22.4 |
| 9 | BOSSIER | 1.00 | 239.25 | 12.40 | 19.11 | 2.75 | 44.5 | 22.0 |
| 5 | HILL | 1.00 | 303.00 | 9.72 | 17.52 | 2.75 | 41.0 | 22.0 |
| | GRAND MEAN | 1.05 | 268.91 | 12.82 | 20.24 | 2.52 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.10 | 15.52 | 1.57 | 0.47 | 0.2[illegible] | | |
| | COEFFICIENT OF VARIATION | 18.58% | 11.54% | 24.44% | 4.66% | 18.93% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.28 | 44.21 | 4.46 | 1.34 | 0.68 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.05 | 0.36** | 0.40** | 0.44** | -0.17 |
| DAYS TO FLOWER | -0.07 | 0.04 | 0.31* | -0.43** | -0.50** |
| DAYS TO MATURITY | -0.10 | 0.10 | 0.26* | 0.38** | -0.05 |
| NODULE NUMBER 1 | 0.06 | -0.03 | 0.34** | 0.13 | -0.23 |
| NODULE NUMBER 2 | 0.03 | 0.09 | 0.44** | 0.07 | -0.37** |
| NODULE WEIGHT 1 | 0.07 | -0.11 | 0.37** | 0.09 | -0.23 |
| NODULE WEIGHT 2 | -0.10 | 0.13 | 0.35** | 0.14 | -0.18 |
| PLANT HEIGHT | -0.19 | 0.23 | 0.33** | 0.36** | -0.11 |
| LODGING | -0.16 | 0.01 | 0.0[illegible] | -0.02 | 0.01 |
| SHATTER | 1.00 | -0.11 | 0.10 | -0.01 | -0.06 |
| PLANTS HARVEST | -0.11 | 1.00 | -0.03 | 0.20 | 0.02 |
| PODS PER PLANT | 0.10 | -0.03 | 1.00 | -0.11 | -0.55** |
| 100 SEED WEIGHT | -0.01 | 0.20 | -0.11 | 1.00 | 0.42** |
| QUALITY OF SEED | -0.06 | 0.02 | -0.55** | 0.42** | 1.00 |

TABLE 166 EXPERIMENT 48 YEAR 1976

REGION - MIDDLE EAST
SITE - DEZFUL
LATITUDE - 32 DEG. 16 MIN. N
COOPERATORS - E.K. VAUGHAN, M. HODJATI
DATE PLANTED - MAY 26, 1976
SOIL TYPE - SILTY CLAY, PH 7.66
FERTILIZER USED (KG/HA) - N 13.5, P 7.2
AMOUNT OF MOISTURE - 1200 MM
NUMBER OF IRRIGATIONS - 12 (1200 MM)

COUNTRY - IRAN
ELEVATION - 81 M
LONGITUDE - 48 DEG. 25 MIN. E
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 2719.32 | 80.00 | 155.00 | 35.50 | 78.25 | 0.94 | 1.97 | 70.75 | 1.00 |
| 8 | BOSSIER | 2682.66 | 80.00 | 159.00 | 22.50 | 19.00 | 0.26 | 0.57 | 92.25 | 1.00 |
| 1 | CALLAND | 2192.78 | 31.00 | 127.00 | 28.50 | 87.50 | 0.77 | 3.24 | 79.25 | 1.00 |
| 12 | DAVIS | 2179.45 | 80.00 | 146.00 | 32.50 | 56.75 | 0.76 | 1.99 | 81.50 | 1.00 |
| 16 | ESSEX | 2141.13 | 56.00 | 146.50 | 23.50 | 64.75 | 0.76 | 1.81 | 44.25 | 1.00 |
| 3 | BRAGG | 2109.47 | 80.00 | 155.00 | 18.75 | 41.00 | 0.31 | 0.99 | 91.50 | 1.00 |
| 14 | FORREST | 1979.50 | 56.00 | 139.00 | 39.25 | 29.25 | 1.03 | 1.09 | 61.00 | 1.00 |
| 15 | COLUMBUS | 1969.51 | 36.00 | 127.00 | 12.00 | 39.25 | 0.30 | 1.34 | 67.25 | 1.00 |
| 6 | PICKETT 71 | 1926.18 | 85.00 | 159.00 | 17.50 | 28.25 | 0.42 | 0.91 | 65.00 | 1.00 |
| 10 | CLARK 63 | 1896.19 | 34.00 | 119.00 | 13.75 | 104.00 | 0.38 | 2.28 | 74.00 | 1.00 |
| 13 | IMPROVED PELICAN | 1872.86 | 95.00 | 159.00 | 10.25 | 1.50 | 0.20 | 0.09 | 161.25 | 1.00 |
| 5 | HILL | 1776.22 | 62.00 | 127.00 | 4.25 | 43.50 | 0.08 | 1.01 | 48.75 | 1.00 |
| 7 | CUTLER 71 | 1612.93 | 34.00 | 127.00 | 26.25 | 80.00 | 0.74 | 2.75 | 70.25 | 1.00 |
| 2 | WOODWORTH | 1569.61 | 34.00 | 116.00 | 24.50 | 79.25 | 0.76 | 2.67 | 74.75 | 1.00 |
| 9 | WILLIAMS | 1562.94 | 31.00 | 116.00 | 27.50 | 92.25 | 0.72 | 2.51 | 73.75 | 1.00 |
| 11 | COBB | 1196.37 | 80.00 | 166.00 | 10.75 | 22.75 | 0.37 | 0.72 | 78.00 | 1.00 |
| | GRAND MEAN | 1961.70 | 59.75 | 140.22 | 21.70 | 54.20 | 0.55 | 1.62 | 77.09 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 156.44 | 0.00 | 0.82 | 9.96 | 28.64 | 0.29 | 0.66 | 3.78 | 0.00 |
| | COEFFICIENT OF VARIATION | 15.95% | 0.00% | 1.17% | 91.76% | 105.69% | 106.98% | 80.93% | 9.80% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 445.61 | 0.00 | 2.33 | ******** | ******** | ******** | 1.87 | 10.77 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.25+ | 0.26+ | 0.13 | -0.03 | 0.06 | -0.04 | 0.01 | 0.00 |
| DAYS TO FLOWER | 0.25+ | 1.00 | 0.92++ | -0.07 | -0.37++ | -0.15 | -0.46++ | 0.42++ | 0.00 |
| DAYS TO MATURITY | 0.26+ | 0.92++ | 1.00 | -0.02 | -0.36++ | -0.09 | -0.43++ | 0.34++ | 0.00 |
| NODULE NUMBER 1 | 0.13 | -0.07 | -0.02 | 1.00 | 0.22 | 0.92++ | 0.35++ | -0.08 | 0.00 |
| NODULE NUMBER 2 | -0.03 | -0.37++ | -0.36++ | 0.22 | 1.00 | 0.25+ | 0.93++ | -0.16 | 0.00 |
| NODULE WEIGHT 1 | 0.06 | -0.15 | -0.09 | 0.92++ | 0.25+ | 1.00 | 0.41++ | -0.17 | 0.00 |
| NODULE WEIGHT 2 | -0.04 | -0.45++ | -0.43++ | 0.35++ | 0.93++ | 0.41++ | 1.00 | -0.19 | 0.00 |
| PLANT HEIGHT | 0.01 | 0.42++ | 0.34++ | -0.08 | -0.16 | -0.17 | -0.19 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | -0.05 | 0.41++ | 0.29+ | -0.13 | -0.23 | -0.14 | -0.26+ | 0.84++ | 0.00 |
| PLANTS HARVEST | 0.20 | 0.06 | 0.12 | -0.04 | -0.05 | 0.00 | -0.04 | -0.06 | 0.00 |
| PODS PER PLANT | 0.29+ | 0.54++ | 0.47++ | -0.12 | -0.24 | -0.16 | -0.30+ | 0.36++ | 0.00 |
| 100 SEED WEIGHT | 0.14 | -0.40++ | -0.18 | 0.18 | 0.37++ | 0.21 | 0.48++ | -0.13 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 166 EXPERIMENT 48 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | RANSOM | 1.00 | 77.50 | 64.75 | 18.85 | 0.00 |
| 8 | BOSSIER | 1.00 | 69.50 | 83.25 | 15.83 | 0.00 |
| 1 | CALLAND | 1.00 | 65.50 | 53.25 | 21.08 | 0.00 |
| 12 | DAVIS | 1.00 | 71.00 | 92.50 | 14.23 | 0.00 |
| 16 | ESSEX | 1.00 | 98.50 | 91.25 | 13.48 | 0.00 |
| 3 | BRAGG | 1.00 | 81.50 | 119.50 | 14.75 | 0.00 |
| 14 | FORREST | 1.00 | 57.00 | 95.00 | 12.30 | 0.00 |
| 15 | COLUMBUS | 1.00 | 65.00 | 68.50 | 16.05 | 0.00 |
| 6 | PICKETT 71 | 1.00 | 64.25 | 64.00 | 13.65 | 0.00 |
| 10 | CLARK 63 | 1.00 | 62.50 | 51.25 | 16.10 | 0.00 |
| 13 | IMPROVED PELICAN | 2.00 | 70.25 | 117.50 | 11.63 | 0.00 |
| 5 | HILL | 1.00 | 61.00 | 69.75 | 12.15 | 0.00 |
| 7 | CUTLER 71 | 1.00 | 62.00 | 55.00 | 19.60 | 0.00 |
| 2 | WOODWORTH | 1.00 | 75.50 | 49.25 | 15.18 | 0.00 |
| 9 | WILLIAMS | 1.00 | 79.50 | 58.50 | 15.18 | 0.00 |
| 11 | COBB | 1.00 | 65.00 | 59.50 | 16.58 | 0.00 |
| | GRAND MEAN | 1.06 | 70.34 | 74.55 | 15.41 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 5.54 | 7.87 | 0.49 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 15.74% | 21.11% | 6.32% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 15.77 | 22.41 | 1.39 | 0.00 |

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.05 | 0.20 | 0.29* | 0.14 | 0.00 |
| DAYS TO | FLOWER | 0.41** | 0.06 | 0.54** | -0.40** | 0.00 |
| DAYS TO | MATURITY | 0.29* | 0.12 | 0.47** | -0.18 | 0.00 |
| NODULE | NUMBER 1 | -0.13 | -0.04 | -0.12 | 0.18 | 0.00 |
| NODULE | NUMBER 2 | -0.23 | -0.05 | -0.24 | 0.37** | 0.00 |
| NODULE | WEIGHT 1 | -0.14 | 0.00 | -0.16 | 0.21 | 0.00 |
| NODULE | WEIGHT 2 | -0.25* | -0.04 | -0.30* | 0.48** | 0.00 |
| PLANT | HEIGHT | 0.84** | -0.06 | 0.36** | -0.13 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | -0.00 | 0.43** | -0.36** | 0.00 |
| PLANTS | HARVEST | -0.00 | 1.00 | 0.25* | -0.07 | 0.00 |
| PODS PER | PLANT | 0.43** | 0.25* | 1.00 | -0.45** | 0.00 |
| 100 SEED | WEIGHT | -0.36** | -0.07 | -0.45** | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 167 EXPERIMENT 87 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
SITE - GORGAN ELEVATION - 120 M
LATITUDE - 36 DEG. 51 MIN. N LONGITUDE - 54 DEG. 28 MIN. E
COOPERATORS - H. POURDAVAI, A. SHARIATI, S. GHONY
DATE PLANTED - MAY 2, 1976 DATE HARVESTED - AUGUST, 1976
SOIL TYPE - CLAY, PH 7.7
FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0
AMOUNT OF MOISTURE - 110 MM
NUMBER OF IRRIGATIONS - 5

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | WELLS | 5491.51 | 0.00 | 0.00 | 35.75 | 107.25 | 0.19 | 2.15 | 45.75 | 0.00 |
| 11 | ESSEX | 5277.72 | 0.00 | 0.00 | 29.75 | 119.25 | 0.17 | 1.40 | 57.50 | 0.00 |
| 2 | WOODWORTH | 5216.04 | 0.00 | 0.00 | 43.00 | 83.25 | 0.19 | 1.57 | 67.00 | 0.00 |
| 13 | AMSOY 71 | 4868.47 | 0.00 | 0.00 | 56.25 | 129.25 | 0.34 | 2.50 | 47.00 | 0.00 |
| 1 | CALLAND | 4648.85 | 0.00 | 0.00 | 37.25 | 112.25 | 0.21 | 3.09 | 67.00 | 0.00 |
| 5 | WILLIAMS | 4600.50 | 0.00 | 0.00 | 65.50 | 145.50 | 0.34 | 2.22 | 59.00 | 0.00 |
| 9 | BEESON | 4479.65 | 0.00 | 0.00 | 32.75 | 72.25 | 0.23 | 2.52 | 53.00 | 0.00 |
| 12 | COBSOY | 4426.72 | 0.00 | 0.00 | 49.25 | 75.75 | 0.17 | 1.10 | 41.25 | 0.00 |
| 10 | COLUMBUS | 4310.45 | 0.00 | 0.00 | 44.75 | 101.75 | 0.16 | 1.82 | 39.00 | 0.00 |
| 14 | HODGSON | 4231.68 | 0.00 | 0.00 | 29.25 | 97.25 | 0.20 | 2.04 | 59.75 | 0.00 |
| 4 | CUTLER 71 | 4109.15 | 0.00 | 0.00 | 53.75 | 123.25 | 0.23 | 1.74 | 88.75 | 0.00 |
| 6 | CLARK 63 | 3904.11 | 0.00 | 0.00 | 44.00 | 160.75 | 0.22 | 2.38 | 89.25 | 0.00 |
| 16 | STEELE | 3251.90 | 0.00 | 0.00 | 58.75 | 111.25 | 0.54 | 2.54 | 70.50 | 0.00 |
| 15 | HARK | 2522.59 | 0.00 | 0.00 | 51.75 | 148.00 | 0.25 | 1.58 | 87.00 | 0.00 |
| 7 | FORBEST | 2178.35 | 0.00 | 0.00 | 42.25 | 44.50 | 0.10 | 0.42 | 81.25 | 0.00 |
| 3 | HILL | 2045.83 | 0.00 | 0.00 | 86.75 | 31.25 | 1.25 | 0.47 | 71.75 | 0.00 |
| | GRAND MEAN | 4097.72 | 0.00 | 0.00 | 47.55 | 103.92 | 0.30 | 1.85 | 64.05 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 321.70 | 0.00 | 0.00 | 16.92 | 31.00 | 0.21 | 0.87 | 3.29 | 0.00 |
| | COEFFICIENT OF VARIATION | 15.70% | 0.00% | 0.00% | 71.16% | 59.66% | 143.82% | 94.56% | 10.26% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 916.33 | 0.00 | 0.00 | ******** | ******** | ******** | ******** | 9.36 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.00 | -0.24 | 0.25* | -0.32** | 0.23 | -0.41** | 0.00 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | -0.24 | 0.00 | 0.00 | 1.00 | 0.41** | 0.77** | 0.29* | 0.22 | 0.00 |
| NODULE | NUMBER 2 | 0.25* | 0.00 | 0.00 | 0.41** | 1.00 | 0.10 | 0.74** | 0.22 | 0.00 |
| NODULE | WEIGHT 1 | -0.32** | 0.00 | 0.00 | 0.77** | 0.10 | 1.00 | 0.06 | 0.14 | 0.00 |
| NODULE | WEIGHT 2 | 0.23 | 0.00 | 0.00 | 0.29* | 0.74** | 0.06 | 1.00 | 0.02 | 0.00 |
| PLANT | HEIGHT | -0.41** | 0.00 | 0.00 | 0.22 | 0.22 | 0.14 | 0.02 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.20 | 0.00 | 0.00 | 0.15 | 0.19 | 0.20 | 0.30* | -0.24 | 0.00 |
| PODS PER | PLANT | -0.06 | 0.00 | 0.00 | 0.18 | 0.18 | 0.11 | 0.16 | 0.32** | 0.00 |
| 100 SEED | WEIGHT | 0.51** | 0.00 | 0.00 | -0.27* | 0.04 | -0.37** | 0.11 | -0.47** | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 167 EXPERIMENT 87 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | WELLS | 0.00 | 171.00 | 34.50 | 14.45 | 0.00 |
| 11 | ESSEX | 0.00 | 172.25 | 27.75 | 14.63 | 0.00 |
| 2 | WOODWORTH | 0.00 | 148.50 | 37.00 | 13.78 | 0.00 |
| 13 | ANSOY 71 | 0.00 | 150.00 | 32.25 | 14.43 | 0.00 |
| 1 | CALLAND | 0.00 | 167.75 | 24.50 | 13.73 | 0.00 |
| 5 | WILLIAMS | 0.00 | 175.25 | 27.75 | 13.95 | 0.00 |
| 9 | BEESON | 0.00 | 179.50 | 25.75 | 15.43 | 0.00 |
| 12 | CORSOY | 0.00 | 157.25 | 30.75 | 15.95 | 0.00 |
| 10 | COLUMBUS | 0.00 | 182.75 | 27.00 | 16.20 | 0.00 |
| 14 | HODGSON | 0.00 | 195.75 | 29.00 | 17.25 | 0.00 |
| 4 | CUTLER 71 | 0.00 | 154.50 | 39.75 | 14.80 | 0.00 |
| 6 | CLARK 63 | 0.00 | 163.75 | 41.00 | 13.43 | 0.00 |
| 16 | STEELE | 0.00 | 169.00 | 40.25 | 12.58 | 0.00 |
| 15 | HARK | 0.00 | 120.25 | 40.75 | 11.75 | 0.00 |
| 7 | FORREST | 0.00 | 157.00 | 25.00 | 13.23 | 0.00 |
| 3 | HILL | 0.00 | 160.75 | 34.75 | 10.66 | 0.00 |
| | GRAND MEAN | 0.00 | 164.08 | 32.36 | 14.13 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.99 | 4.29 | 0.58 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 13.40% | 26.52% | 8.15% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 31.31 | 12.22 | 1.64 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.20 | -0.05 | 0.51** | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.15 | 0.18 | -0.27* | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.19 | 0.18 | 0.04 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.20 | 0.11 | -0.37** | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.30* | 0.16 | 0.11 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.24 | 0.32** | -0.47** | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.24 | 0.33** | 0.00 |
| PODS PER | PLANT | 0.00 | -0.24 | 1.00 | -0.12 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.33** | -0.12 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 168 EXPERIMENT 83 YEAR 1976

REGION - MIDDLE EAST
COUNTRY - IRAN
SITE - KARAJ
ELEVATION - 1300 M
LATITUDE - 37 DEG. 47 MIN. N
LONGITUDE - 50 DEG. E
COOPERATORS - M.C. AMIRSHAHI, B.Y. SAMADI
DATE PLANTED - MAY 17, 1976
DATE HARVESTED - NOVEMBER, 1976
SOIL TYPE - SILT PH 7.5 - 8.0
AMOUNT OF MOISTURE - 20 MM
NUMBER OF IRRIGATIONS - 12
SUBSTITUTE VARIETIES - LINDARIN, HAROSOY

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 1835.78 | 55.75 | 138.75 | 106.50 | 185.00 | 0.00 | 0.00 | 57.98 | 1.25 |
| 3 | HILL | 1667.00 | 77.00 | 148.50 | 48.50 | 147.00 | 0.00 | 0.00 | 75.45 | 1.00 |
| 9 | BEESON | 1645.75 | 51.25 | 138.00 | 94.50 | 206.00 | 0.00 | 0.00 | 53.10 | 1.00 |
| 1 | CALLAND | 1583.65 | 55.00 | 140.75 | 115.75 | 341.50 | 0.00 | 0.00 | 52.05 | 1.50 |
| 6 | CLARK 63 | 1566.98 | 56.00 | 140.00 | 78.75 | 104.75 | 0.00 | 0.00 | 60.95 | 1.50 |
| 7 | FORREST | 1546.14 | 75.50 | 148.75 | 103.75 | 186.75 | 0.00 | 0.00 | 89.82 | 1.75 |
| 13 | AMSOY 71 | 1524.89 | 51.25 | 138.75 | 104.75 | 165.50 | 0.00 | 0.00 | 46.70 | 1.50 |
| 16 | STEELE | 1452.37 | 46.75 | 130.50 | 149.50 | 160.00 | 0.00 | 0.00 | 41.98 | 1.00 |
| 11 | HAROSOY | 1389.86 | 50.00 | 136.75 | 130.25 | 294.25 | 0.00 | 0.00 | 49.80 | 1.25 |
| 4 | CUTLER 71 | 1338.18 | 58.00 | 140.00 | 104.00 | 220.75 | 0.00 | 0.00 | 60.45 | 1.50 |
| 8 | WELLS | 1265.25 | 49.50 | 139.75 | 116.25 | 232.25 | 0.00 | 0.00 | 43.85 | 1.50 |
| 2 | WOODWORTH | 1264.84 | 54.25 | 139.00 | 75.50 | 160.50 | 0.00 | 0.00 | 53.58 | 1.50 |
| 12 | CORSOY | 1089.80 | 50.50 | 140.50 | 111.50 | 114.25 | 0.00 | 0.00 | 40.03 | 1.25 |
| 10 | LINDARIN | 958.52 | 51.00 | 138.00 | 84.75 | 139.75 | 0.00 | 0.00 | 46.53 | 1.00 |
| 15 | HARK | 941.85 | 49.75 | 137.75 | 134.75 | 299.75 | 0.00 | 0.00 | 45.70 | 1.50 |
| 14 | HODGSON | 873.09 | 45.25 | 140.75 | 111.25 | 120.75 | 0.00 | 0.00 | 40.90 | 1.25 |
| | GRAND MEAN | 1371.50 | 54.80 | 139.78 | 104.39 | 192.42 | 0.00 | 0.00 | 53.80 | 1.33 |
| | STANDARD ERROR OF A VARIETY MEAN | 152.09 | 1.03 | 2.32 | 17.69 | 49.74 | 0.00 | 0.00 | 2.64 | 0.24 |
| | COEFFICIENT OF VARIATION | 22.18% | 3.75% | 3.32% | 33.88% | 51.70% | 0.00% | 0.00% | 9.81% | 36.07% |
| | 5% LSD VARIETY MEANS (********=NS) | 433.22 | 2.92 | 6.62 | 50.38 | 141.68 | 0.00 | 0.00 | 7.51 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.30* | 0.04 | 0.04 | 0.21 | 0.00 | 0.00 | 0.55** | 0.24 |
| DAYS TO | FLOWER | 0.30* | 1.00 | 0.57** | -0.36** | -0.08 | 0.00 | 0.00 | 0.84** | 0.07 |
| DAYS TO | MATURITY | 0.04 | 0.57** | 1.00 | -0.31* | -0.09 | 0.00 | 0.00 | 0.43** | 0.08 |
| NODULE | NUMBER 1 | 0.04 | -0.36** | -0.31* | 1.00 | 0.24 | 0.00 | 0.00 | -0.23 | -0.03 |
| NODULE | NUMBER 2 | 0.21 | -0.08 | -0.09 | 0.24 | 1.00 | 0.00 | 0.00 | 0.01 | 0.21 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.55** | 0.84** | 0.43** | -0.23 | 0.01 | 0.00 | 0.00 | 1.00 | 0.23 |
| | LODGING | 0.24 | 0.07 | 0.08 | -0.03 | 0.21 | 0.00 | 0.00 | 0.23 | 1.00 |
| | SHATTER | -0.52** | -0.43** | -0.29* | 0.15 | -0.05 | 0.00 | 0.00 | -0.44** | -0.00 |
| PLANTS | HARVEST | 0.32* | 0.20 | 0.11 | -0.31* | -0.19 | 0.00 | 0.00 | 0.20 | -0.09 |
| PODS PER | PLANT | 0.25* | 0.50** | 0.32** | 0.01 | 0.11 | 0.00 | 0.00 | 0.60** | 0.18 |
| 100 SEED | WEIGHT | 0.31* | -0.50** | -0.21 | 0.22 | 0.19 | 0.00 | 0.00 | -0.30* | -0.13 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 168 EXPERIMENT 83 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 1.00 | 200.00 | 15.73 | 17.45 | 0.00 |
| 3 | HILL | 1.00 | 200.00 | 23.05 | 14.95 | 0.00 |
| 9 | BEESON | 1.75 | 199.75 | 14.40 | 19.08 | 0.00 |
| 1 | CALLAND | 1.75 | 198.75 | 13.08 | 17.70 | 0.00 |
| 6 | CLARK 63 | 1.25 | 199.00 | 16.48 | 16.30 | 0.00 |
| 7 | FORREST | 1.25 | 199.25 | 24.33 | 13.65 | 0.00 |
| 13 | AMSOY 71 | 1.75 | 200.00 | 13.88 | 16.53 | 0.00 |
| 16 | STEELE | 2.00 | 198.50 | 12.18 | 18.30 | 0.00 |
| 11 | HAROSOY | 2.00 | 196.50 | 16.63 | 16.43 | 0.00 |
| 4 | CUTLER 71 | 1.50 | 200.00 | 16.95 | 15.75 | 0.00 |
| 8 | WELLS | 1.50 | 191.50 | 13.90 | 15.33 | 0.00 |
| 2 | WOODWORTH | 2.50 | 197.00 | 15.03 | 15.50 | 0.00 |
| 12 | CORSOY | 2.25 | 196.00 | 13.93 | 16.13 | 0.00 |
| 10 | LINDARN | 3.25 | 192.25 | 15.80 | 15.83 | 0.00 |
| 15 | HARK | 2.25 | 126.50 | 21.83 | 16.15 | 0.00 |
| 14 | HODGSON | 2.00 | 195.25 | 14.50 | 17.73 | 0.00 |
| | GRAND MEAN | 1.81 | 193.14 | 16.35 | 16.42 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.26 | 4.06 | 2.34 | 0.60 | 0.00 |
| | COEFFICIENT OF VARIATION | 29.22% | 4.20% | 28.56% | 7.27% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.75 | 11.55 | 6.65 | 1.70 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.52** | 0.32* | 0.25* | 0.31* | 0.00 |
| DAYS TO | FLOWER | -0.43** | 0.20 | 0.50** | -0.50** | 0.00 |
| DAYS TO | MATURITY | -0.29* | 0.11 | 0.32** | -0.21 | 0.00 |
| NODULE | NUMBER 1 | 0.15 | -0.31* | 0.01 | 0.22 | 0.00 |
| NODULE | NUMBER 2 | -0.05 | -0.19 | 0.11 | 0.19 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.44** | 0.20 | 0.60** | -0.30* | 0.00 |
| | LODGING | -0.00 | -0.09 | 0.18 | -0.13 | 0.00 |
| | SHATTER | 1.00 | -0.27* | -0.20 | -0.02 | 0.00 |
| PLANTS | HARVEST | -0.27* | 1.00 | -0.27* | 0.04 | 0.00 |
| PODS PER | PLANT | -0.20 | -0.27* | 1.00 | -0.20 | 0.00 |
| 100 SEED | WEIGHT | -0.02 | 0.04 | -0.20 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 169 EXPERIMENT 108 YEAR 1976

REGION - MIDDLE EAST
SITE - REZAIYEH
LATITUDE - 37 DEG. N
COOPERATOR - J. CARAPETIAN

COUNTRY - IRAN
ELEVATION - 1300 M
LONGITUDE - 45 DEG. E

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | BEESON | 2021.74 | 54.00 | 145.75 | 47.75 | 41.00 | 0.19 | 0.45 | 59.75 | 1.00 |
| 11 | AMSOY 71 | 1963.48 | 54.00 | 143.75 | 40.75 | 42.75 | 0.13 | 0.48 | 65.57 | 1.25 |
| 3 | CUTLER 71 | 1877.54 | 83.00 | 156.50 | 95.25 | 113.25 | 0.61 | 2.10 | 78.68 | 1.25 |
| 2 | WOODWORTH | 1726.76 | 70.00 | 141.00 | 57.25 | 40.00 | 0.27 | 1.05 | 54.48 | 1.00 |
| 9 | COLUMBUS | 1672.63 | 83.00 | 164.00 | 66.50 | 78.25 | 0.70 | 1.34 | 68.77 | 1.00 |
| 14 | STEELE | 1607.07 | 52.00 | 135.50 | 57.75 | 76.75 | 0.24 | 0.98 | 43.48 | 1.00 |
| 7 | WELLS | 1605.74 | 54.00 | 150.75 | 35.00 | 51.00 | 0.12 | 0.59 | 48.98 | 1.00 |
| 1 | CALLAND | 1552.69 | 54.00 | 155.50 | 32.00 | 45.50 | 0.10 | 0.43 | 60.05 | 1.25 |
| 4 | WILLIAMS | 1389.24 | 70.00 | 151.75 | 83.75 | 85.25 | 0.40 | 1.27 | 54.00 | 1.00 |
| 13 | BABK | 1359.81 | 54.00 | 141.75 | 46.75 | 54.00 | 0.16 | 0.44 | 50.50 | 1.00 |
| 5 | CLARK 63 | 1342.19 | 70.00 | 153.00 | 52.50 | 55.75 | 0.17 | 0.86 | 57.98 | 1.00 |
| 10 | COESOY | 1249.21 | 54.00 | 140.75 | 43.75 | 71.50 | 0.09 | 0.43 | 37.23 | 1.00 |
| 15 | SWIFT | 1167.11 | 54.00 | 121.00 | 48.50 | 49.00 | 0.16 | 0.45 | 37.30 | 1.00 |
| 12 | HODGSON | 1156.61 | 52.00 | 139.25 | 59.00 | 61.75 | 0.16 | 0.46 | 39.53 | 1.00 |
| 16 | ALTONA | 1087.13 | 52.00 | 114.00 | 54.25 | 39.25 | 0.16 | 0.44 | 31.00 | 1.00 |
| 6 | FORREST | 663.01 | 103.00 | 193.00 | 36.75 | 29.75 | 0.31 | 0.46 | 67.70 | 1.00 |
| | GRAND MEAN | 1465.12 | 63.31 | 146.70 | 53.59 | 58.42 | 0.25 | 0.76 | 53.44 | 1.05 |
| | STANDARD ERROR OF A VARIETY MEAN | 268.89 | 0.00 | 2.97 | 10.37 | 15.63 | 0.11 | 0.35 | 6.20 | 0.11 |
| | COEFFICIENT OF VARIATION | 36.71% | 0.00% | 4.05% | 38.70% | 53.50% | 85.12% | 91.97% | 23.22% | 20.53% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.00 | 8.46 | 29.54 | 44.51 | 0.30 | ******** | 17.67 | ******** |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.14 | -0.06 | 0.34++ | 0.47++ | 0.41++ | 0.53++ | 0.67++ | 0.45++ |
| DAYS TO | FLOWER | -0.14 | 1.00 | 0.77++ | 0.22 | 0.11 | 0.48++ | 0.30+ | 0.52++ | 0.01 |
| DAYS TO | MATURITY | -0.06 | 0.77++ | 1.00 | -0.01 | 0.03 | 0.27+ | 0.13 | 0.55++ | 0.07 |
| NODULE | NUMBER 1 | 0.34++ | 0.22 | -0.01 | 1.00 | 0.68++ | 0.74++ | 0.69++ | 0.34++ | 0.10 |
| NODULE | NUMBER 2 | 0.47++ | 0.11 | 0.03 | 0.68++ | 1.00 | 0.68++ | 0.84++ | 0.40++ | 0.10 |
| NODULE | WEIGHT 1 | 0.41++ | 0.48++ | 0.27+ | 0.74++ | 0.68++ | 1.00 | 0.83++ | 0.61++ | 0.06 |
| NODULE | WEIGHT 2 | 0.53++ | 0.30+ | 0.13 | 0.69++ | 0.84++ | 0.83++ | 1.00 | 0.56++ | 0.11 |
| PLANT | HEIGHT | 0.67++ | 0.52++ | 0.55++ | 0.34++ | 0.40++ | 0.61++ | 0.56++ | 1.00 | 0.49++ |
| | LODGING | 0.45++ | 0.01 | 0.07 | 0.10 | 0.10 | 0.06 | 0.11 | 0.49++ | 1.00 |
| | SHATTER | -0.29+ | -0.31+ | -0.19 | -0.14 | -0.17 | -0.23 | -0.21 | -0.39++ | -0.10 |
| PLANTS | HARVEST | 0.17 | -0.16 | -0.15 | -0.01 | 0.03 | -0.00 | 0.02 | -0.03 | -0.03 |
| PODS PER | PLANT | 0.76++ | 0.08 | 0.10 | 0.19 | 0.34++ | 0.28+ | 0.34++ | 0.66++ | 0.39++ |
| 100 SEED | WEIGHT | 0.65++ | -0.41++ | -0.32++ | 0.23 | 0.33++ | 0.11 | 0.28+ | 0.18 | 0.23 |
| QUALITY | OF SEED | -0.56++ | -0.53++ | -0.40++ | -0.45++ | -0.50++ | -0.62++ | -0.65++ | -0.70++ | -0.30+ |

TABLE 169 EXPERIMENT 108 YEAR 1976 (CONTINUED)

| ENTRY NUMBERS | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | BEESON | 1.25 | 191.75 | 24.35 | 17.13 | 3.00 | 40.0 | 21.3 |
| 11 | AMSOY 71 | 1.00 | 196.75 | 26.13 | 14.43 | 3.00 | 38.4 | 22.0 |
| 3 | CUTLER 71 | 1.00 | 188.50 | 27.28 | 16.28 | 1.50 | 41.5 | 20.5 |
| 2 | WOODWORTH | 1.00 | 199.75 | 21.70 | 14.20 | 2.25 | 39.5 | 22.8 |
| 9 | COLUMBUS | 1.00 | 191.25 | 19.83 | 14.65 | 1.25 | 39.9 | 20.9 |
| 14 | STEELE | 1.25 | 194.75 | 19.43 | 17.03 | 2.75 | 43.7 | 21.8 |
| 7 | WELLS | 1.25 | 198.75 | 19.73 | 15.08 | 2.50 | 40.5 | 21.9 |
| 1 | CALLAND | 1.25 | 187.50 | 19.00 | 16.63 | 3.25 | 42.7 | 20.8 |
| 4 | WILLIAMS | 1.00 | 188.50 | 19.75 | 15.25 | 1.50 | 42.2 | 20.7 |
| 13 | HARK | 1.00 | 196.25 | 22.40 | 13.80 | 3.50 | 39.2 | 22.6 |
| 5 | CLARK 63 | 1.00 | 195.25 | 19.68 | 14.40 | 2.25 | 41.7 | 21.5 |
| 10 | CORSOY | 1.25 | 198.00 | 18.83 | 13.25 | 3.50 | 42.3 | 20.7 |
| 15 | SWIFT | 1.25 | 198.25 | 17.20 | 13.55 | 3.50 | 39.2 | 22.4 |
| 12 | HODGSON | 2.00 | 199.00 | 18.48 | 14.93 | 3.75 | 40.0 | 23.4 |
| 16 | ALTONA | 1.75 | 187.00 | 17.93 | 16.93 | 3.75 | 43.5 | 17.3 |
| 6 | FORREST | 1.00 | 191.75 | 19.68 | 10.15 | 2.50 | 42.8 | 16.4 |
| | GRAND MEAN | 1.20 | 193.94 | 20.70 | 14.85 | 2.73 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.22 | 4.28 | 2.77 | 0.79 | 0.38 | | |
| | COEFFICIENT OF VARIATION | 36.02% | 4.42% | 26.75% | 10.69% | 28.11% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | ******** | 2.26 | 1.09 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.29* | 0.17 | 0.76** | 0.65** | -0.56** |
| DAYS TO | FLOWER | -0.31* | -0.16 | 0.08 | -0.41** | -0.53** |
| DAYS TO | MATURITY | -0.19 | -0.15 | 0.10 | -0.32** | -0.80** |
| NODULE | NUMBER 1 | -0.14 | -0.01 | 0.19 | 0.23 | -0.45** |
| NODULE | NUMBER 2 | -0.17 | 0.03 | 0.34** | 0.33** | -0.50** |
| NODULE | WEIGHT 1 | -0.23 | -0.00 | 0.28* | 0.11 | -0.62** |
| NODULE | WEIGHT 2 | -0.21 | 0.02 | 0.34** | 0.28* | -0.65** |
| PLANT | HEIGHT | -0.39** | -0.03 | 0.66** | 0.18 | -0.70** |
| | LODGING | -0.10 | -0.03 | 0.39** | 0.23 | -0.30* |
| | SHATTER | 1.00 | -0.08 | -0.16 | 0.04 | 0.46** |
| PLANTS | HARVEST | -0.08 | 1.00 | 0.15 | -0.18 | 0.03 |
| PODS PER | PLANT | -0.16 | 0.15 | 1.00 | 0.38** | -0.41** |
| 100 SEED | WEIGHT | 0.04 | -0.16 | 0.38** | 1.00 | -0.25* |
| QUALITY | OF SEED | 0.46** | 0.03 | -0.41** | -0.25* | 1.00 |

TABLE 170 EXPERIMENT 89 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
SITE - SARI ELEVATION - 28 M
LATITUDE - 36 DEG. 41 MIN. N LONGITUDE - 53 DEG. 10 MIN. E
COOPERATORS - H. POURDAVAI, B. GHAFFARI
DATE PLANTED - MAY 1, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - CLAY, PH 7.4
FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 4210.84 | 0.00 | 0.00 | 209.00 | 213.00 | 1.80 | 2.89 | 81.75 | 0.00 |
| 2 | WOODWORTH | 4159.16 | 0.00 | 0.00 | 174.75 | 138.75 | 1.24 | 1.76 | 91.75 | 0.00 |
| 8 | WELLS | 4154.58 | 0.00 | 0.00 | 111.50 | 142.25 | 1.12 | 2.76 | 93.75 | 0.00 |
| 12 | CORSOY | 3961.21 | 0.00 | 0.00 | 178.50 | 139.50 | 1.67 | 1.42 | 73.75 | 0.00 |
| 11 | ESSEX | 3948.29 | 0.00 | 0.00 | 137.75 | 146.00 | 1.09 | 1.65 | 95.00 | 0.00 |
| 9 | BEESON | 3904.11 | 0.00 | 0.00 | 164.00 | 172.25 | 1.40 | 1.88 | 90.50 | 0.00 |
| 10 | COLUMBUS | 3791.59 | 0.00 | 0.00 | 126.75 | 168.25 | 0.97 | 1.67 | 72.25 | 0.00 |
| 16 | STEELE | 3697.41 | 0.00 | 0.00 | 342.25 | 341.25 | 2.71 | 3.40 | 88.00 | 0.00 |
| 1 | CALLAND | 3647.40 | 0.00 | 0.00 | 105.25 | 140.75 | 1.25 | 1.63 | 85.00 | 0.00 |
| 13 | AMSOY 71 | 3544.04 | 0.00 | 0.00 | 243.00 | 201.00 | 1.68 | 2.31 | 72.25 | 0.00 |
| 3 | HILL | 3478.20 | 0.00 | 0.00 | 132.75 | 135.25 | 0.89 | 1.00 | 138.00 | 0.00 |
| 7 | FORREST | 3438.19 | 0.00 | 0.00 | 172.75 | 163.25 | 1.79 | 1.15 | 75.00 | 0.00 |
| 14 | HODGSON | 3339.42 | 0.00 | 0.00 | 128.00 | 175.00 | 1.38 | 2.12 | 68.75 | 0.00 |
| 6 | CLARK 63 | 3201.06 | 0.00 | 0.00 | 151.50 | 175.25 | 1.40 | 1.95 | 93.75 | 0.00 |
| 4 | CUTLER 71 | 3023.10 | 0.00 | 0.00 | 213.50 | 269.75 | 1.95 | 2.26 | 86.50 | 0.00 |
| 15 | HARK | 2565.51 | 0.00 | 0.00 | 147.50 | 239.25 | 1.57 | 1.67 | 90.00 | 0.00 |
| | GRAND MEAN | 3629.01 | 0.00 | 0.00 | 171.17 | 185.05 | 1.49 | 1.97 | 87.25 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 282.54 | 0.00 | 0.00 | 29.41 | 32.34 | 0.37 | 0.47 | 7.10 | 0.00 |
| | COEFFICIENT OF VARIATION | 15.57% | 0.00% | 0.00% | 34.37% | 34.95% | 48.98% | 47.57% | 16.28% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS, | 804.79 | 0.00 | 0.00 | 83.78 | 92.11 | ******** | ******** | 20.23 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | 0.00 | -0.05 | -0.10 | -0.09 | 0.04 | -0.13 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | -0.05 | 0.00 | 0.00 | 1.00 | 0.66** | 0.79** | 0.46** | -0.11 | 0.00 |
| NODULE | NUMBER 2 | -0.10 | 0.00 | 0.00 | 0.66** | 1.00 | 0.62** | 0.57** | -0.13 | 0.00 |
| NODULE | WEIGHT 1 | -0.09 | 0.00 | 0.00 | 0.79** | 0.62** | 1.00 | 0.41** | -0.15 | 0.00 |
| NODULE | WEIGHT 2 | 0.04 | 0.00 | 0.00 | 0.46** | 0.57** | 0.41** | 1.00 | -0.05 | 0.00 |
| PLANT | HEIGHT | -0.13 | 0.00 | 0.00 | -0.11 | -0.13 | -0.15 | -0.05 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.17 | 0.00 | 0.00 | 0.14 | 0.07 | -0.08 | 0.27* | 0.22 | 0.00 |
| 100 SEED | WEIGHT | 0.32** | 0.00 | 0.00 | -0.02 | -0.06 | 0.05 | 0.11 | -0.32* | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 170 EXPERIMENT 89 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 0.00 | 0.00 | 46.25 | 18.30 | 0.00 |
| 2 | WOODWORTH | 0.00 | 0.00 | 44.25 | 17.23 | 0.00 |
| 8 | WELLS | 0.00 | 0.00 | 42.25 | 16.48 | 0.00 |
| 12 | CORSOY | 0.00 | 0.00 | 38.25 | 18.13 | 0.00 |
| 11 | ESSEX | 0.00 | 0.00 | 46.75 | 18.63 | 0.00 |
| 9 | BEESON | 0.00 | 0.00 | 54.75 | 19.38 | 0.00 |
| 10 | COLUMBUS | 0.00 | 0.00 | 46.50 | 16.63 | 0.00 |
| 16 | STEELE | 0.00 | 0.00 | 56.25 | 14.15 | 0.00 |
| 1 | CALLAND | 0.00 | 0.00 | 32.75 | 16.68 | 0.00 |
| 13 | ANSOY 71 | 0.00 | 0.00 | 43.00 | 17.15 | 0.00 |
| 3 | HILL | 0.00 | 0.00 | 47.75 | 12.80 | 0.00 |
| 7 | FORREST | 0.00 | 0.00 | 42.25 | 13.63 | 0.00 |
| 14 | HODGSON | 0.00 | 0.00 | 37.25 | 17.25 | 0.00 |
| 6 | CLARK 63 | 0.00 | 0.00 | 41.75 | 17.13 | 0.00 |
| 4 | CUTLER 71 | 0.00 | 0.00 | 41.25 | 17.10 | 0.00 |
| 15 | HARK | 0.00 | 0.00 | 38.75 | 14.85 | 0.00 |
| | GRAND MEAN | 0.00 | 0.00 | 43.75 | 16.59 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.00 | 5.55 | 0.53 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.00% | 25.37% | 6.41% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.00 | ******** | 1.51 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.00 | 0.17 | 0.32** | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.14 | -0.02 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.07 | -0.06 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | -0.08 | 0.05 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.27* | 0.11 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.00 | 0.22 | -0.32* | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | -0.10 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | -0.10 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 171 EXPERIMENT 72 YEAR 1976

REGION - MIDDLE EAST
SITE - ABU-GHRAIB
LATITUDE 33 DEG. N
COOPERATOR - SALIH M. DABIRGI
DATE PLANTED - MAY 19, 1976
SOIL TYPE - SAND 17.6%, SILT 72.2%, CLAY 10.2%, PH 7.9
FERTILIZER USED (KG/HA) - N 25.0, P 25.0
NUMBER OF IRRIGATIONS - 18
SUBSTITUTE VARIETY - LEE

COUNTRY - IRAQ
ELEVATION - 300 M
LONGITUDE - 44 DEG. 15 MIN. E

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | FANSON | 1874.96 | 70.00 | 161.00 | 54.75 | 48.00 | 1.01 | 0.94 | 54.25 | 1.75 |
| 11 | DAVIS | 1627.83 | 66.00 | 144.00 | 64.25 | 83.25 | 2.01 | 2.99 | 67.50 | 1.25 |
| 15 | COLUMBUS | 1595.32 | 33.00 | 125.50 | 23.50 | 44.50 | 0.16 | 0.92 | 73.75 | 1.25 |
| 1 | CALLAND | 1473.63 | 35.00 | 118.25 | 26.25 | 38.75 | 0.48 | 0.98 | 70.25 | 1.25 |
| 7 | CUTLER 71 | 1391.11 | 35.00 | 115.75 | 22.75 | 40.25 | 0.23 | 0.73 | 60.50 | 1.75 |
| 8 | BOSSIER | 1337.77 | 70.00 | 165.75 | 21.25 | 22.25 | 0.42 | 0.58 | 60.00 | 1.75 |
| 9 | WILLIAMS | 1216.91 | 33.00 | 109.50 | 31.75 | 29.75 | 0.22 | 0.35 | 60.00 | 1.50 |
| 6 | PICKETT 71 | 1194.82 | 66.00 | 163.50 | 44.75 | 39.00 | 0.63 | 0.57 | 56.25 | 1.50 |
| 5 | HILL | 947.27 | 52.00 | 131.50 | 15.00 | 46.75 | 0.48 | 1.22 | 46.00 | 1.00 |
| 12 | FORREST | 858.09 | 52.00 | 133.50 | 14.75 | 27.75 | 0.27 | 0.46 | 46.75 | 1.00 |
| 16 | LEE | 858.09 | 66.00 | 156.75 | 11.25 | 42.50 | 0.33 | 1.04 | 45.00 | 1.50 |
| 10 | CLARK 63 | 785.57 | 33.00 | 118.50 | 13.75 | 23.50 | 0.13 | 0.39 | 59.25 | 1.00 |
| 3 | BRAGG | 690.97 | 70.00 | 158.75 | 14.75 | 10.75 | 0.19 | 0.32 | 75.25 | 1.25 |
| 2 | WOODWORTH | 515.10 | 35.00 | 115.75 | 11.25 | 10.75 | 0.13 | 0.15 | 61.25 | 1.00 |
| 13 | WELLS | 413.00 | 33.00 | 116.25 | 34.50 | 49.00 | 0.38 | 1.10 | 46.00 | 1.00 |
| 14 | BEESON | 205.04 | 33.00 | 111.00 | 11.25 | 14.00 | 0.06 | 0.32 | 36.00 | 1.00 |
| | GRAND MEAN | 1061.59 | 48.88 | 134.20 | 25.98 | 36.05 | 0.45 | 0.82 | 57.38 | 1.30 |
| | STANDARD ERROR OF A VARIETY MEAN | 198.42 | 0.00 | 2.53 | 13.47 | 16.20 | 0.36 | 0.54 | 4.82 | 0.23 |
| | COEFFICIENT OF VARIATION | 37.38% | 0.00% | 3.77% | 103.70% | 89.87% | 163.85% | 131.26% | 16.82% | 35.81% |
| | 5% LSD VARIETY MEANS (********=NS) | 565.17 | 0.00 | 7.20 | ******** | ******** | ******** | ******** | 13.74 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.25* | 0.25* | 0.40** | 0.35** | 0.35** | 0.28* | 0.48** | 0.42** |
| DAYS TO | FLOWER | 0.25* | 1.00 | 0.94** | 0.20 | 0.10 | 0.30* | 0.16 | 0.04 | 0.26* |
| DAYS TO | MATURITY | 0.25* | 0.94** | 1.00 | 0.17 | 0.05 | 0.22 | 0.09 | 0.07 | 0.31* |
| NODULE | NUMBER 1 | 0.40** | 0.20 | 0.17 | 1.00 | 0.74** | 0.85** | 0.65** | 0.21 | 0.07 |
| NODULE | NUMBER 2 | 0.35** | 0.10 | 0.05 | 0.74** | 1.00 | 0.77** | 0.92** | 0.23 | 0.11 |
| NODULE | WEIGHT 1 | 0.35** | 0.30* | 0.22 | 0.85** | 0.77** | 1.00 | 0.84** | 0.19 | -0.01 |
| NODULE | WEIGHT 2 | 0.28* | 0.16 | 0.09 | 0.65** | 0.92** | 0.84** | 1.00 | 0.21 | 0.01 |
| PLANT | HEIGHT | 0.48** | 0.04 | 0.07 | 0.21 | 0.23 | 0.19 | 0.21 | 1.00 | 0.17 |
| | LODGING | 0.42** | 0.26* | 0.31* | 0.07 | 0.11 | -0.01 | 0.01 | 0.17 | 1.00 |
| | SHATTER | -0.59** | -0.42** | -0.40** | -0.10 | -0.15 | -0.16 | -0.12 | -0.31* | -0.33** |
| PLANTS | HARVEST | 0.25* | 0.94** | 0.98** | 0.18 | 0.06 | 0.22 | 0.09 | 0.07 | 0.29* |
| PODS PER | PLANT | 0.53** | 0.53** | 0.60** | 0.12 | 0.07 | 0.16 | 0.10 | 0.43** | 0.47** |
| 100 SEED | WEIGHT | 0.55** | -0.09 | -0.01 | 0.29* | 0.24 | 0.26* | 0.24 | 0.46** | 0.30* |
| QUALITY | OF SEED | -0.57** | -0.45** | -0.44** | -0.22 | -0.09 | -0.18 | -0.04 | -0.11 | -0.35** |

TABLE 171 EXPERIMENT 72 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 4 | RANSOM | 1.00 | 254.00 | 7.70 | 16.40 | 1.25 | 39.5 | 22.0 |
| 11 | DAVIS | 1.00 | 233.00 | 9.95 | 15.50 | 2.00 | 41.4 | 21.0 |
| 15 | COLUMBUS | 1.00 | 216.00 | 8.57 | 15.43 | 3.25 | 41.5 | 20.8 |
| 1 | CALLAND | 1.00 | 210.00 | 8.62 | 15.70 | 3.50 | 43.7 | 19.7 |
| 7 | CUTLER 71 | 1.00 | 205.00 | 6.00 | 14.55 | 2.25 | 39.9 | 22.2 |
| 8 | BOSSIER | 1.00 | 256.75 | 11.48 | 13.43 | 1.75 | 43.3 | 18.0 |
| 9 | WILLIAMS | 1.00 | 209.50 | 4.90 | 13.53 | 1.00 | 42.1 | 21.1 |
| 6 | PICKETT 71 | 1.00 | 254.00 | 10.10 | 13.80 | 1.00 | 42.8 | 19.1 |
| 5 | HILL | 1.00 | 224.50 | 5.10 | 12.20 | 2.75 | 40.7 | 19.0 |
| 12 | FORREST | 1.25 | 223.00 | 4.95 | 9.62 | 3.00 | 41.0 | 20.4 |
| 16 | LEE | 1.00 | 250.00 | 8.05 | 12.25 | 2.00 | 42.7 | 19.6 |
| 10 | CLARK 63 | 2.00 | 209.50 | 4.82 | 13.98 | 2.25 | 43.9 | 20.7 |
| 3 | BRAGG | 1.50 | 250.00 | 8.45 | 11.78 | 3.50 | 37.4 | 22.7 |
| 2 | WOODWORTH | 2.00 | 206.75 | 6.45 | 13.60 | 3.75 | 43.0 | 19.9 |
| 13 | WELLS | 3.25 | 208.25 | 3.43 | 12.63 | 4.75 | 42.1 | 21.7 |
| 14 | BERSON | 3.25 | 202.25 | 3.33 | 14.03 | 4.00 | 39.1 | 19.9 |
| | GRAND MEAN | 1.45 | 225.78 | 7.02 | 13.66 | 2.63 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.20 | 2.23 | 1.03 | 0.96 | 0.26 | | |
| | COEFFICIENT OF VARIATION | 27.05% | 1.98% | 29.20% | 13.98% | 19.57% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.56 | 6.36 | 2.92 | 2.72 | 0.73 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.59** | 0.25* | 0.53** | 0.55** | -0.57** |
| DAYS TO | FLOWER | -0.42** | 0.94** | 0.53** | -0.09 | -0.45** |
| DAYS TO | MATURITY | -0.40** | 0.98** | 0.60** | -0.01 | -0.44** |
| NODULE | NUMBER 1 | -0.10 | 0.18 | 0.12 | 0.29* | -0.22 |
| NODULE | NUMBER 2 | -0.15 | 0.06 | 0.07 | 0.24 | -0.09 |
| NODULE | WEIGHT 1 | -0.16 | 0.22 | 0.16 | 0.26* | -0.18 |
| NODULE | WEIGHT 2 | -0.12 | 0.09 | 0.10 | 0.24 | -0.04 |
| PLANT | HEIGHT | -0.31* | 0.07 | 0.43** | 0.46** | -0.11 |
| | LODGING | -0.33** | 0.29* | 0.47** | 0.30* | -0.35** |
| | SHATTER | 1.00 | -0.42** | -0.51** | -0.17 | 0.58** |
| PLANTS | HARVEST | -0.42** | 1.00 | 0.56** | -0.03 | -0.47** |
| PODS PER | PLANT | -0.51** | 0.56** | 1.00 | 0.41** | -0.36** |
| 100 SEED | WEIGHT | -0.17 | -0.03 | 0.41** | 1.00 | -0.20 |
| QUALITY | OF SEED | 0.58** | -0.47** | -0.36** | -0.20 | 1.00 |

TABLE 172 EXPERIMENT 81 YEAR 1976

REGION - MIDDLE EAST COUNTRY - ISRAEL
SITE - BET-DAGAN ELEVATION - 80 M
LATITUDE - 32 DEG. N LONGITUDE - 34 DEG. 50 MIN. E
COOPERATORS - B. BETIG, V. LEHRER
DATE PLANTED - APRIL 4, 1976 DATE HARVESTED - AUGUST, 1976
SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, PH 7.6
FERTILIZER USED (KG/HA) - N 41.0, P 55.0, K 100.0
AMOUNT OF MOISTURE - 420 MM
NUMBER OF IRRIGATIONS - 8 (420 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 4721.78 | 44.25 | 123.00 | 0.00 | 0.00 | 0.00 | 0.00 | 94.25 | 1.25 |
| 13 | ANSOY 71 | 4446.72 | 43.00 | 116.50 | 0.00 | 0.00 | 0.00 | 0.00 | 94.65 | 3.50 |
| 15 | HARK | 4446.72 | 43.00 | 115.75 | 0.00 | 0.00 | 0.00 | 0.00 | 88.87 | 2.50 |
| 9 | BEESON | 4417.55 | 43.00 | 120.25 | 0.00 | 0.00 | 0.00 | 0.00 | 80.32 | 1.75 |
| 1 | CALLAND | 4413.38 | 43.75 | 131.00 | 0.00 | 0.00 | 0.00 | 0.00 | 105.75 | 4.75 |
| 4 | CUTLER 71 | 4325.86 | 45.00 | 128.75 | 0.00 | 0.00 | 0.00 | 0.00 | 117.83 | 3.50 |
| 8 | WELLS | 4250.85 | 43.00 | 115.75 | 0.00 | 0.00 | 0.00 | 0.00 | 70.77 | 1.50 |
| 2 | WOODWORTH | 3959.12 | 44.00 | 115.00 | 0.00 | 0.00 | 0.00 | 0.00 | 80.75 | 1.50 |
| 6 | CLARK 63 | 3838.27 | 45.00 | 127.50 | 0.00 | 0.00 | 0.00 | 0.00 | 104.63 | 3.75 |
| 16 | STEELE | 3804.93 | 43.00 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.27 | 1.25 |
| 12 | CORSOY | 3454.86 | 43.00 | 1[illegible].25 | 0.00 | 0.00 | 0.00 | 0.00 | 70.27 | 1.50 |
| 14 | HODGSON | 2692.20 | 42.00 | 105.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.25 | 1.00 |
| 11 | ESSEX | 2568.02 | 51.00 | 158.25 | 0.00 | 0.00 | 0.00 | 0.00 | 101.38 | 1.50 |
| 10 | COLUMBUS | 2567.18 | 45.00 | 133.75 | 0.00 | 0.00 | 0.00 | 0.00 | 110.38 | 2.50 |
| 7 | FORREST | 2542.17 | 64.25 | 160.50 | 0.00 | 0.00 | 0.00 | 0.00 | 111.88 | 2.00 |
| 3 | HILL | 2533.84 | 84.00 | 158.50 | 0.00 | 0.00 | 0.00 | 0.00 | 107.98 | 1.75 |
| | GRAND MEAN | 3[illegible]87.72 | 51.02 | 126.47 | 0.00 | 0.00 | 0.00 | 0.00 | 92.01 | 2.22 |
| | STANDARD ERROR OF A VARIETY MEAN | 240.07 | 0.27 | 1.43 | 0.00 | 0.00 | 0.00 | 0.00 | 4.45 | 0.44 |
| | COEFFICIENT OF VARIATION | 13.02% | 1.07% | 2.26% | 0.00% | 0.00% | 0.00% | 0.00% | 9.66% | 39.28% |
| | 5% LSD VARIETY MEANS (********=NS) | 683.82 | 0.78 | 4.08 | 0.00 | 0.00 | 0.00 | 0.00 | 12.67 | 1.24 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.59** | -0.45** | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | 0.40** |
| DAYS TO | FLOWER | -0.59** | 1.00 | 0.89** | 0.00 | 0.00 | 0.00 | 0.00 | 0.43** | -0.15 |
| DAYS TO | MATURITY | -0.45** | 0.89** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69** | 0.13 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.03 | 0.43** | 0.69** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.58** |
| | LODGING | 0.40** | -0.15 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.52** | -0.58** | -0.59** | 0.00 | 0.00 | 0.00 | 0.00 | -0.32* | 0.03 |
| PODS PER | PLANT | -0.06 | 0.31* | 0.38** | 0.00 | 0.00 | 0.00 | 0.00 | 0.24 | 0.08 |
| 100 SEED | WEIGHT | 0.80** | -0.67** | -0.59** | 0.00 | 0.00 | 0.00 | 0.00 | -0.21 | 0.29* |
| QUALITY | OF SEED | 0.45** | -0.24 | -0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.36** |

TABLE 172 EXPERIMENT 81 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 5 | WILLIAMS | 1.00 | 199.50 | 40.05 | 19.68 | 1.75 | 41.1 | 22.9 |
| 13 | ANSOY 71 | 1.00 | 179.25 | 43.20 | 18.58 | 3.50 | 38.6 | 22.2 |
| 15 | HARK | 1.00 | 207.50 | 45.85 | 17.88 | 2.25 | 40.4 | 22.3 |
| 9 | BEESON | 1.00 | 201.00 | 43.03 | 17.90 | 3.75 | 40.1 | 21.9 |
| 1 | CALLAND | 1.00 | 197.50 | 47.35 | 17.68 | 3.00 | 39.2 | 21.8 |
| 4 | CUTLER 71 | 1.00 | 199.75 | 46.35 | 18.20 | 3.25 | 41.1 | 22.6 |
| 8 | WELLS | 1.00 | 221.00 | 49.80 | 15.20 | 3.25 | 40.5 | 23.2 |
| 2 | WOODWORTH | 1.00 | 222.50 | 40.58 | 15.68 | 2.00 | 38.1 | 22.7 |
| 6 | CLARK 63 | 1.00 | 189.75 | 40.53 | 16.48 | 2.25 | 40.4 | 22.1 |
| 16 | STEELE | 1.00 | 200.50 | 39.43 | 16.58 | 2.00 | 39.9 | 22.4 |
| 12 | CORSOY | 1.00 | 186.25 | 54.20 | 17.10 | 2.00 | 40.6 | 22.2 |
| 14 | HODGSON | 1.00 | 190.25 | 34.88 | 17.00 | 1.75 | 40.5 | 23.8 |
| 11 | ESSEX | 1.00 | 134.25 | 61.70 | 12.93 | 1.50 | 42.3 | 20.5 |
| 10 | COLUMBUS | 1.00 | 165.00 | 51.45 | 12.43 | 1.75 | 41.0 | 20.8 |
| 7 | FORREST | 1.00 | 160.50 | 45.95 | 12.83 | 2.50 | 42.8 | 19.8 |
| 3 | HILL | 1.00 | 166.50 | 51.03 | 12.30 | 2.00 | 42.4 | 19.4 |
| | GRAND MEAN | 1.00 | 180.81 | 45.96 | 16.15 | 2.41 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.70 | 4.73 | 0.51 | 0.24 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 10.27% | 20.61% | 6.29% | 20.01% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 27.62 | 13.49 | 1.45 | 0.69 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.52** | -0.08 | 0.80** | 0.35** |
| DAYS TO FLOWER | 0.00 | -0.58** | 0.31* | -0.67** | -0.24 |
| DAYS TO MATURITY | 0.00 | -0.59** | 0.38** | -0.59** | -0.13 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.32* | 0.24 | -0.21 | 0.03 |
| LODGING | 0.00 | 0.03 | 0.08 | 0.29* | 0.36** |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.43** | 0.41** | 0.23 |
| PODS PER PLANT | 0.00 | -0.43** | 1.00 | -0.24 | -0.11 |
| 100 SEED WEIGHT | 0.00 | 0.41** | -0.24 | 1.00 | 0.33** |
| QUALITY OF SEED | 0.00 | 0.23 | -0.11 | 0.33** | 1.00 |

TABLE 173 EXPERIMENT 82 YEAR 1976

REGION - MIDDLE EAST
SITE - BET-DAGAN
LATITUDE - 32 DEG. N
COOPERATORS - B. BETIG, V. LEHRER
DATE PLANTED - JUNE 7, 1976
SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, PH 7.6
FERTILIZER USED (KG/HA) - P 26.0, K 25.0
AMOUNT OF MOISTURE - 540 MM
NUMBER OF IRRIGATIONS - 9 (540 MM)

COUNTRY - ISRAEL
ELEVATION - 80 M
LONGITUDE - 34 DEG. 50 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 4155.00 | 27.00 | 104.50 | 0.00 | 0.00 | 0.00 | 0.00 | 108.25 | 5.00 |
| 13 | AMSOY 71 | 4054.98 | 28.50 | 96.25 | 0.00 | 0.00 | 0.00 | 0.00 | 87.00 | 2.50 |
| 8 | WELLS | 3984.13 | 25.75 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 80.75 | 1.00 |
| 9 | BEESON | 3779.92 | 26.75 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 90.50 | 3.75 |
| 5 | WILLIAMS | 3775.75 | 29.25 | 99.50 | 0.00 | 0.00 | 0.00 | 0.00 | 91.25 | 1.50 |
| 14 | HODGSON | 3729.91 | 25.25 | 91.25 | 0.00 | 0.00 | 0.00 | 0.00 | 69.75 | 1.00 |
| 4 | CUTLER 71 | 3709.07 | 32.75 | 100.25 | 0.00 | 0.00 | 0.00 | 0.00 | 103.50 | 3.00 |
| 2 | WOODWORTH | 3654.90 | 29.50 | 94.50 | 0.00 | 0.00 | 0.00 | 0.00 | 84.25 | 1.75 |
| 6 | CLARK 63 | 3596.55 | 32.50 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 91.75 | 3.25 |
| 12 | CORSOY | 3525.70 | 26.25 | 95.50 | 0.00 | 0.00 | 0.00 | 0.00 | 74.25 | 2.00 |
| 15 | HARK | 3521.54 | 25.25 | 96.50 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 2.75 |
| 10 | COLUMBUS | 3500.70 | 32.25 | 106.50 | 0.00 | 0.00 | 0.00 | 0.00 | 107.50 | 2.25 |
| 16 | STEELE | 3421.52 | 26.00 | 89.50 | 0.00 | 0.00 | 0.00 | 0.00 | 70.75 | 1.00 |
| 11 | ESSEX | 2654.70 | 52.75 | 112.25 | 0.00 | 0.00 | 0.00 | 0.00 | 91.50 | 2.00 |
| 3 | HILL | 2467.16 | 54.75 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 109.00 | 3.25 |
| 7 | FORREST | 2196.27 | 55.00 | 114.50 | 0.00 | 0.00 | 0.00 | 0.00 | 105.25 | 3.25 |
| | GRAND MEAN | 3482.99 | 33.09 | 100.31 | 0.00 | 0.00 | 0.00 | 0.00 | 90.17 | 2.45 |
| | STANDARD ERROR OF A VARIETY MEAN | 137.63 | 0.71 | 1.17 | 0.00 | 0.00 | 0.00 | 0.00 | 5.81 | 0.57 |
| | COEFFICIENT OF VARIATION | 7.90% | 4.27% | 2.33% | 0.00% | 0.00% | 0.00% | 0.00% | 12.88% | 46.26% |
| | 5% LSD VARIETY MEANS (********=NS) | 392.03 | 2.01 | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 16.54 | 1.62 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.83** | -0.60** | 0.00 | 0.00 | 0.00 | 0.00 | -0.13 | 0.08 |
| DAYS TO | FLOWER | -0.83** | 1.00 | 0.82** | 0.00 | 0.00 | 0.00 | 0.00 | 0.41** | 0.15 |
| DAYS TO | MATURITY | -0.60** | 0.82** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.60** | 0.40** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.13 | 0.41** | 0.60** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.54** |
| | LODGING | 0.08 | 0.15 | 0.40** | 0.00 | 0.00 | 0.00 | 0.00 | 0.54** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.77** | -0.53** | -0.48** | 0.00 | 0.00 | 0.00 | 0.00 | -0.07 | 0.09 |
| PODS PER | PLANT | -0.70** | 0.74** | 0.63** | 0.00 | 0.00 | 0.00 | 0.00 | 0.30* | 0.24 |
| 100 SEED | WEIGHT | 0.82** | -0.85** | -0.63** | 0.00 | 0.00 | 0.00 | 0.00 | -0.19 | 0.09 |
| QUALITY | OF SEED | 0.13 | -0.08 | -0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 |

TABLE 173 EXPERIMENT 82 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 1.00 | 207.25 | 47.50 | 17.23 | 2.00 | 39.7 | 21.0 |
| 13 | AMSOY 71 | 1.00 | 205.25 | 42.50 | 17.33 | 2.50 | 37.7 | 23.3 |
| 8 | WELLS | 1.00 | 212.00 | 33.25 | 15.85 | 2.75 | 41.3 | 22.3 |
| 9 | BEESON | 1.00 | 192.25 | 41.50 | 19.28 | 3.25 | 42.6 | 24.5 |
| 5 | WILLIAMS | 1.00 | 189.00 | 40.00 | 17.00 | 1.25 | 40.6 | 22.5 |
| 14 | HODGSON | 1.00 | 194.00 | 40.75 | 16.00 | 1.50 | 37.9 | 23.6 |
| 4 | CUTLER 71 | 1.00 | 185.75 | 50.50 | 17.78 | 2.25 | 41.6 | 23.5 |
| 2 | WOODWORTH | 1.00 | 206.75 | 47.00 | 15.20 | 1.25 | 38.9 | 22.7 |
| 6 | CLARK 63 | 1.00 | 202.00 | 47.50 | 16.18 | 1.25 | 42.1 | 22.3 |
| 12 | CORSOY | 1.00 | 189.50 | 53.25 | 14.63 | 2.25 | 39.2 | 20.8 |
| 15 | HARK | 1.00 | 170.00 | 49.00 | 16.40 | 1.75 | 39.9 | 21.6 |
| 10 | COLUMBUS | 1.00 | 182.50 | 57.25 | 13.00 | 1.00 | 40.7 | 21.4 |
| 16 | STEELE | 1.00 | 196.25 | 45.75 | 16.88 | 2.00 | 41.5 | 21.8 |
| 11 | ESSEX | 1.00 | 172.00 | 69.50 | 8.97 | 1.25 | 39.7 | 20.1 |
| 3 | HILL | 1.00 | 166.75 | 72.25 | 9.45 | 2.00 | 41.2 | 19.7 |
| 7 | FORREST | 1.00 | 150.25 | 73.25 | 8.90 | 2.50 | 38.3 | 21.2 |
| | GRAND MEAN | 1.00 | 188.84 | 50.67 | 15.00 | 1.92 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.00 | 4.70 | 0.55 | 0.22 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.53% | 18.57% | 7.36% | 23.05% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 25.63 | 13.40 | 1.57 | 0.63 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.77** | -0.70** | 0.82** | 0.13 |
| DAYS TO FLOWER | 0.00 | -0.53** | 0.74** | -0.85** | -0.08 |
| DAYS TO MATURITY | 0.00 | -0.48** | 0.63** | -0.63** | -0.02 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.00 | -0.07 | 0.30* | -0.19 | 0.00 |
| LODGING | 0.00 | 0.09 | 0.24 | 0.09 | 0.23 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.54** | 0.49** | 0.07 |
| PODS PER PLANT | 0.00 | -0.54** | 1.00 | -0.68** | -0.12 |
| 100 SEED WEIGHT | 0.00 | 0.49** | -0.68** | 1.00 | 0.28* |
| QUALITY OF SEED | 0.00 | 0.07 | -0.12 | 0.28* | 1.00 |

TABLE 174 EXPERIMENT 103 YEAR 1976

REGION - MIDDLE EAST COUNTRY - JORDAN
SITE - DEIR ALLA ELEVATION - -68 M
LATITUDE - 35 DEG. 12 MIN. N LONGITUDE - 35 DEG. 36 MIN. E
COOPERATORS - N. KATKHUDA, A. HAMMUDA
DATE PLANTED - MARCH 3, 1977 DATE HARVESTED - JULY, 1977
SOIL TYPE - SAND 25%, SILT 35%, CLAY 40%, PH 8.0
FERTILIZER USED (KG/HA) - N 40.0, P 40.0
NUMBER OF IRRIGATIONS - 25

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 6534.64 | 51.25 | 183.75 | 0.00 | 0.00 | 0.00 | 0.00 | 49.50 | 0.00 |
| 15 | COLUMBUS | 6051.21 | 35.25 | 135.50 | 0.00 | 0.00 | 0.00 | 0.00 | 38.75 | 0.00 |
| 7 | CUTLER 71 | 5726.14 | 40.00 | 135.50 | 0.00 | 0.00 | 0.00 | 0.00 | 42.75 | 0.00 |
| 9 | WILLIAMS | 5346.90 | 35.75 | 105.50 | 0.00 | 0.00 | 0.00 | 0.00 | 41.00 | 0.00 |
| 3 | BRAGG | 4975.99 | 45.00 | 184.50 | 0.00 | 0.00 | 0.00 | 0.00 | 81.00 | 0.00 |
| 11 | DAVIS | 4967.66 | 55.50 | 156.75 | 0.00 | 0.00 | 0.00 | 0.00 | 43.25 | 0.00 |
| 4 | RANSOM | 4596.75 | 46.75 | 185.25 | 0.00 | 0.00 | 0.00 | 0.00 | 80.00 | 0.00 |
| 10 | CLARK 63 | 4555.08 | 35.00 | 135.75 | 0.00 | 0.00 | 0.00 | 0.00 | 39.50 | 0.00 |
| 8 | BOSSIER | 4121.66 | 78.75 | 188.00 | 0.00 | 0.00 | 0.00 | 0.00 | 82.50 | 0.00 |
| 13 | WELLS | 3959.12 | 55.75 | 135.75 | 0.00 | 0.00 | 0.00 | 0.00 | 45.00 | 0.00 |
| 12 | FORREST | 3784.09 | 45.00 | 125.50 | 0.00 | 0.00 | 0.00 | 0.00 | 62.50 | 0.00 |
| 14 | BEESON | 3634.06 | 35.25 | 135.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.75 | 0.00 |
| 16 | ESSEX | 3629.89 | 45.75 | 125.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.50 | 0.00 |
| 5 | HILL | 3559.04 | 59.75 | 187.50 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 |
| 2 | WOODWORTH | 3548.63 | 40.50 | 136.00 | 0.00 | 0.00 | 0.00 | 0.00 | 43.25 | 0.00 |
| 1 | CALLAND | 3065.20 | 39.75 | 135.75 | 0.00 | 0.00 | 0.00 | 0.00 | 41.75 | 0.00 |
| | GRAND MEAN | 4503.50 | 46.56 | 149.44 | 0.00 | 0.00 | 0.00 | 0.00 | 54.16 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 508.12 | 0.82 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 2.73 | 0.00 |
| | COEFFICIENT OF VARIATION | 22.57% | 3.51% | 0.54% | 0.00% | 0.00% | 0.00% | 0.00% | 10.09% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | 1447.34 | 2.33 | 1.15 | 0.00 | 0.00 | 0.00 | 0.00 | 7.78 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | -0.12 | 0.00 |
| DAYS TO FLOWER | -0.10 | 1.00 | 0.64** | 0.00 | 0.00 | 0.00 | 0.00 | 0.62** | 0.00 |
| DAYS TO MATURITY | 0.10 | 0.64** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.70** | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.12 | 0.62** | 0.70** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.65** | 0.05 | 0.29* | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 174 EXPERIMENT 143 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 0.00 | 171.25 | 0.00 | 0.00 | 0.00 |
| 15 | COLUMBUS | 0.00 | 162.00 | 0.00 | 0.00 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 155.00 | 0.00 | 0.00 | 0.00 |
| 9 | WILLIAMS | 0.00 | 153.00 | 0.00 | 0.00 | 0.00 |
| 3 | BRAGG | 0.00 | 167.50 | 0.00 | 0.00 | 0.00 |
| 11 | DAVIS | 0.00 | 152.75 | 0.00 | 0.00 | 0.00 |
| 4 | RANSOM | 0.00 | 164.75 | 0.00 | 0.00 | 0.00 |
| 10 | CLARK 63 | 0.00 | 162.25 | 0.00 | 0.00 | 0.00 |
| 8 | BOSSIER | 0.00 | 158.25 | 0.00 | 0.00 | 0.00 |
| 13 | WELLS | 0.00 | 155.25 | 0.00 | 0.00 | 0.00 |
| 12 | FORREST | 0.00 | 147.50 | 0.00 | 0.00 | 0.00 |
| 14 | BEESON | 0.00 | 138.25 | 0.00 | 0.00 | 0.00 |
| 16 | ESSEX | 0.00 | 133.75 | 0.00 | 0.00 | 0.00 |
| 5 | HILL | 0.00 | 144.25 | 0.00 | 0.00 | 0.00 |
| 2 | WOODWORTH | 0.00 | 161.00 | 0.00 | 0.00 | 0.00 |
| 1 | CALLAND | 0.00 | 132.75 | 0.00 | 0.00 | 0.00 |
| | GRAND MEAN | 0.00 | 153.72 | 0.00 | 0.00 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 7.29 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 9.48% | 0.00% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 20.75 | 0.00 | 0.00 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/dA | 0.00 | 0.65** | 0.00 | 0.00 | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.29* | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| PODS PER | PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.[illegible] | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 175 EXPERIMENT 142 YEAR 1976

REGION - MIDDLE EAST COUNTRY - JORDAN
SITE - WADI DHULEIL ELEVATION - 580 M
LATITUDE - 32 DEG. 9 MIN. N
COOPERATORS - N. KATKHUDA, M. KHUADARE
DATE PLANTED - MARCH 9, 1977 DATE HARVESTED - JULY, 1977
SOIL TYPE - SAND 36%, SILT 19%, CLAY 45%, PH 8.0
FERTILIZER USED (KG/HA) - N 80.0, P 30.0
NUMBER OF IRRIGATIONS - 26

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 3567.38 | 101.25 | 209.00 | 0.00 | 0.00 | 0.00 | 0.00 | 75.00 | 0.00 |
| 12 | FORREST | 2525.50 | 92.00 | 179.75 | 0.00 | 0.00 | 0.00 | 0.00 | 87.50 | 0.00 |
| 4 | RANSOM | 2442.15 | 86.00 | 204.50 | 0.00 | 0.00 | 0.00 | 0.00 | 66.25 | 0.00 |
| 8 | BOSSIER | 2287.96 | 109.50 | 205.00 | 0.00 | 0.00 | 0.00 | 0.00 | 92.50 | 0.00 |
| 5 | HILL | 2142.09 | 88.50 | 163.25 | 0.00 | 0.00 | 0.00 | 0.00 | 72.50 | 0.00 |
| 16 | ESSEX | 1956.64 | 92.00 | 179.00 | 0.00 | 0.00 | 0.00 | 0.00 | 76.25 | 0.00 |
| 15 | COLUMBUS | 1758.68 | 60.00 | 142.00 | 0.00 | 0.00 | 0.00 | 0.00 | 68.25 | 0.00 |
| 9 | WILLIAMS | 1677.42 | 56.50 | 126.00 | 0.00 | 0.00 | 0.00 | 0.00 | 53.75 | 0.00 |
| 11 | DAVIS | 1556.56 | 122.00 | 188.75 | 0.00 | 0.00 | 0.00 | 0.00 | 121.25 | 0.00 |
| 7 | CUTLER 71 | 1533.64 | 68.50 | 142.00 | 0.00 | 0.00 | 0.00 | 0.00 | 62.50 | 0.00 |
| 10 | CLARK 63 | 1235.66 | 59.00 | 124.50 | 0.00 | 0.00 | 0.00 | 0.00 | 57.50 | 0.00 |
| 1 | CALLAND | 1218.99 | 58.50 | 130.75 | 0.00 | 0.00 | 0.00 | 0.00 | 53.75 | 0.00 |
| 3 | BRAGG | 1183.57 | 112.00 | 207.00 | 0.00 | 0.00 | 0.00 | 0.00 | 88.25 | 0.00 |
| 2 | WOODWORTH | 1121.06 | 56.25 | 114.25 | 0.00 | 0.00 | 0.00 | 0.00 | 42.50 | 0.00 |
| 13 | WELLS | 950.19 | 51.75 | 112.75 | 0.00 | 0.00 | 0.00 | 0.00 | 33.75 | 0.00 |
| 14 | BEESON | 627.21 | 51.50 | 110.50 | 0.00 | 0.00 | 0.00 | 0.00 | 31.25 | 0.00 |
| | GRAND MEAN | 1736.55 | 79.08 | 158.69 | 0.00 | 0.00 | 0.00 | 0.00 | 67.67 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 365.48 | 4.89 | 4.99 | 0.00 | 0.00 | 0.00 | 0.00 | 5.33 | 0.00 |
| | COEFFICIENT OF VARIATION | 42.09% | 12.36% | 6.29% | 0.00% | 0.00% | 0.00% | 0.00% | 15.76% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 1041.05 | 13.92 | 14.21 | 0.00 | 0.00 | 0.00 | 0.00 | 15.19 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.49++ | 0.58++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.49++ | 0.00 |
| DAYS TO | FLOWER | 0.49++ | 1.00 | 0.89++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.86++ | 0.00 |
| DAYS TO | MATURITY | 0.58++ | 0.89++ | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.74++ | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.49++ | 0.86++ | 0.74++ | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.10 | -0.22 | -0.23 | 0.00 | 0.00 | 0.00 | 0.00 | -0.10 | 0.00 |
| PODS PER | PLANT | 0.60++ | 0.73++ | 0.78++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.58++ | 0.00 |
| 100 SEED | WEIGHT | 0.67++ | 0.27+ | 0.41++ | 0.00 | 0.00 | 0.00 | 0.00 | 0.34++ | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 175 EXPERIMENT 142 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 0.00 | 200.00 | 58.75 | 13.00 | 0.00 |
| 12 | FORREST | 0.00 | 200.00 | 56.75 | 12.00 | 0.00 |
| 4 | RANSOM | 0.00 | 200.00 | 45.75 | 15.00 | 0.00 |
| 8 | BOSSIER | 0.00 | 200.00 | 65.25 | 11.00 | 0.00 |
| 5 | HILL | 0.00 | 200.00 | 28.50 | 11.50 | 0.00 |
| 16 | ESSEX | 0.00 | 200.00 | 61.00 | 9.00 | 0.00 |
| 15 | COLUMBUS | 0.00 | 200.00 | 24.75 | 9.75 | 0.00 |
| 9 | WILLIAMS | 0.00 | 200.00 | 19.50 | 11.75 | 0.00 |
| 11 | DAVIS | 0.00 | 200.00 | 44.00 | 12.00 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 200.00 | 24.25 | 10.25 | 0.00 |
| 10 | CLARK 63 | 0.00 | 200.00 | 20.00 | 8.75 | 0.00 |
| 1 | CALLAND | 0.00 | 200.00 | 19.00 | 10.25 | 0.00 |
| 3 | BRAGG | 0.00 | 198.25 | 49.75 | 7.75 | 0.00 |
| 2 | WOODWORTH | 0.00 | 200.00 | 20.25 | 10.00 | 0.00 |
| 13 | WELLS | 0.00 | 200.00 | 18.50 | 9.25 | 0.00 |
| 14 | BEESON | 0.00 | 200.00 | 19.50 | 8.75 | 0.00 |
| | GRAND MEAN | 0.00 | 199.89 | 35.97 | 10.63 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 0.30 | 6.40 | 0.83 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 0.30% | 35.56% | 15.60% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 0.84 | 18.22 | 2.36 | 0.00 |
| | C O R R E L A T I O N S | | (* - PROB=.05 | | ** - PROB=.01) | |
| | YIELD KG/HA | 0.00 | 0.10 | 0.60** | 0.67** | 0.00 |
| | DAYS TO FLOWER | 0.00 | -0.22 | 0.73** | 0.27* | 0.00 |
| | DAYS TO MATURITY | 0.00 | -0.23 | 0.78** | 0.41** | 0.00 |
| | NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | PLANT HEIGHT | 0.00 | -0.10 | 0.58** | 0.34** | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | PLANTS HARVEST | 0.00 | 1.00 | -0.14 | 0.29* | 0.00 |
| | PODS PER PLANT | 0.00 | -0.14 | 1.00 | 0.29* | 0.00 |
| | 100 SEED WEIGHT | 0.00 | 0.29* | 0.29* | 1.00 | 0.00 |
| | QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 176 EXPERIMENT 184 YEAR 1976

REGION - MIDDLE EAST
SITE - WADI JIZAN
LATITUDE - 17 DEG. 55 MIN. N
COOPERATOR - M.N. BOUKHARI
DATE PLANTED - NOVEMBER 10, 1976
SOIL TYPE - SILTY LOAM, PH 7.7
FERTILIZER USED (KG/HA) - N 30.0, P 44.0, K 83.0
AMOUNT OF MOISTURE - 3 MM
NUMBER OF IRRIGATIONS - 6

COUNTRY - SAUDI ARABIA
ELEVATION - 83 M
LONGITUDE - 55 DEG. 43 MIN. E
DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 1723.26 | 0.00 | 67.00 | 30.25 | 55.00 | 0.00 | 0.00 | 28.25 | 2.00 |
| 1 | CALLAND | 1644.50 | 0.00 | 81.00 | 49.75 | 37.00 | 0.00 | 0.00 | 25.40 | 1.75 |
| 15 | COLUMBUS | 1505.72 | 0.00 | 81.50 | 39.50 | 46.75 | 0.00 | 0.00 | 25.25 | 2.00 |
| 10 | CLARK 63 | 1447.37 | 0.00 | 80.00 | 36.25 | 43.75 | 0.00 | 0.00 | 26.00 | 1.75 |
| 11 | COBB | 1289.01 | 0.00 | 79.00 | 34.50 | 23.00 | 0.00 | 0.00 | 19.50 | 1.75 |
| 12 | DAVIS | 1163.98 | 0.00 | 79.00 | 39.00 | 26.25 | 0.00 | 0.00 | 19.25 | 1.75 |
| 16 | ESSEX | 1137.73 | 0.00 | 76.25 | 59.50 | 42.00 | 0.00 | 0.00 | 19.00 | 1.50 |
| 14 | FORREST | 1094.39 | 0.00 | 72.00 | 23.00 | 34.50 | 0.00 | 0.00 | 20.75 | 1.00 |
| 7 | CUTLER 71 | 1062.71 | 0.00 | 80.75 | 30.25 | 35.25 | 0.00 | 0.00 | 24.50 | 2.00 |
| 5 | HILL | 1062.30 | 0.00 | 68.75 | 19.75 | 25.50 | 0.00 | 0.00 | 18.75 | 1.50 |
| 13 | IMPROVED PELICAN | 1050.21 | 0.00 | 75.75 | 21.00 | 39.00 | 0.00 | 0.00 | 26.75 | 1.00 |
| 3 | BRAGG | 1049.38 | 0.00 | 65.50 | 33.00 | 17.75 | 0.00 | 0.00 | 20.25 | 1.25 |
| 4 | RANSOM | 914.35 | 0.00 | 74.50 | 34.50 | 49.00 | 0.00 | 0.00 | 20.25 | 1.50 |
| 2 | WOODWORTH | 843.50 | 0.00 | 70.00 | 20.00 | 21.50 | 0.00 | 0.00 | 20.75 | 2.00 |
| 8 | BOSSIER | 789.32 | 0.00 | 74.50 | 41.50 | 40.25 | 0.00 | 0.00 | 17.75 | 1.50 |
| 6 | PICKETT 71 | 625.12 | 0.00 | 74.75 | 25.25 | 18.00 | 0.00 | 0.00 | 16.75 | 2.00 |
| | GRAND MEAN | 1150.18 | 0.00 | 75.02 | 33.56 | 34.16 | 0.00 | 0.00 | 21.82 | 1.64 |
| | STANDARD ERROR OF A VARIETY MEAN | 120.95 | 0.00 | 3.23 | 10.97 | 9.88 | 0.00 | 0.00 | 1.46 | 0.20 |
| | COEFFICIENT OF VARIATION | 21.05% | 0.00% | 8.61% | 65.40% | 57.86% | 0.00% | 0.00% | 13.40% | 24.39% |
| | 5% LSD VARIETY MEANS (********=NS) | 344.52 | 0.00 | 9.20 | ******** | ******** | 0.00 | 0.00 | 4.16 | 0.57 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.30* | 0.16 | 0.40** | 0.00 | 0.00 | 0.70** | 0.19 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.30* | 0.00 | 1.00 | 0.19 | 0.30* | 0.00 | 0.00 | 0.28* | 0.22 |
| NODULE NUMBER 1 | 0.16 | 0.00 | 0.19 | 1.00 | 0.46** | 0.00 | 0.00 | 0.10 | 0.07 |
| NODULE NUMBER 2 | 0.40** | 0.00 | 0.30* | 0.46** | 1.00 | 0.00 | 0.00 | 0.47** | 0.20 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.70** | 0.00 | 0.28* | 0.10 | 0.47** | 0.00 | 0.00 | 1.00 | 0.06 |
| LODGING | 0.19 | 0.00 | 0.22 | 0.07 | 0.20 | 0.00 | 0.00 | 0.06 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.43** | 0.00 | -0.19 | -0.03 | -0.22 | 0.00 | 0.00 | 0.19 | -0.15 |
| PODS PER PLANT | 0.45** | 0.00 | 0.21 | 0.03 | 0.57** | 0.00 | 0.00 | 0.54** | 0.21 |
| 100 SEED WEIGHT | 0.39** | 0.00 | 0.26* | 0.09 | 0.20 | 0.00 | 0.00 | 0.16 | 0.33** |
| QUALITY OF SEED | -0.35** | 0.00 | -0.07 | 0.04 | 0.01 | 0.00 | 0.00 | -0.35** | -0.27* |

TABLE 176 EXPERIMENT 184 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 1.00 | 254.00 | 16.15 | 19.50 | 1.00 | 43.1 | 20.3 |
| 1 | CALLAND | 1.00 | 268.75 | 11.33 | 23.00 | 1.00 | 41.6 | 19.3 |
| 15 | COLUMBUS | 1.00 | 215.75 | 16.85 | 19.75 | 1.25 | 43.3 | 20.3 |
| 10 | CLARK 63 | 1.00 | 222.75 | 13.70 | 18.75 | 1.00 | 42.8 | 19.3 |
| 11 | COBB | 1.00 | 189.00 | 12.50 | 20.00 | 2.00 | 41.9 | 20.7 |
| 12 | DAVIS | 1.00 | 208.25 | 9.40 | 19.25 | 1.50 | 41.3 | 20.6 |
| 16 | ESSEX | 1.00 | 234.25 | 12.30 | 17.25 | 2.00 | 42.8 | 20.0 |
| 14 | FORREST | 1.00 | 209.00 | 10.15 | 16.25 | 2.00 | 40.6 | 21.6 |
| 7 | CUTLER 71 | 1.00 | 146.75 | 15.58 | 21.00 | 1.00 | 42.4 | 21.0 |
| 5 | HILL | 1.00 | 241.75 | 10.08 | 18.25 | 1.00 | 40.7 | 20.3 |
| 13 | IMPROVED PELICAN | 1.00 | 212.25 | 13.73 | 15.25 | 2.00 | 43.2 | 21.8 |
| 3 | BRAGG | 1.00 | 248.25 | 11.00 | 18.75 | 2.00 | 42.5 | 19.6 |
| 4 | HANSON | 1.00 | 155.75 | 13.65 | 21.25 | 2.25 | 41.1 | 24.8 |
| 2 | WOODWORTH | 1.00 | 211.25 | 11.53 | 17.00 | 1.00 | 41.2 | 20.2 |
| 8 | BOSSIER | 1.00 | 130.00 | 14.20 | 18.50 | 1.75 | 44.3 | 20.5 |
| 6 | PICKETT 71 | 1.00 | 166.50 | 7.35 | 18.00 | 2.00 | 42.1 | 20.0 |
| | GRAND MEAN | 1.00 | 207.14 | 12.47 | 18.86 | 1.55 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 16.00 | 1.50 | 0.82 | 0.13 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 15.45% | 24.09% | 8.70% | 17.25% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 45.57 | 4.28 | 2.34 | 0.38 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.43** | 0.45** | 0.39** | -0.35** |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.19 | 0.21 | 0.26* | -0.07 |
| NODULE | NUMBER 1 | 0.00 | -0.03 | 0.03 | 0.09 | 0.04 |
| NODULE | NUMBER 2 | 0.00 | -0.22 | 0.57** | 0.20 | 0.01 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.19 | 0.54** | 0.16 | -0.35** |
| | LODGING | 0.00 | -0.15 | 0.21 | 0.33** | -0.27* |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.26* | -0.07 | -0.33** |
| PODS PER | PLANT | 0.00 | -0.26* | 1.00 | 0.35** | -0.05 |
| 100 SEED | WEIGHT | 0.00 | -0.07 | 0.35** | 1.00 | -0.15 |
| QUALITY | OF SEED | 0.00 | -0.33** | -0.05 | -0.15 | 1.00 |

TABLE 177 EXPERIMENT 110 YEAR 1976

REGION - NORTH AMERICA
SITE - URBANA, ILLINOIS
LATITUDE - 40 DEG. 7 MIN. N
COOPERATOR - BOB DUNKER
DATE PLANTED - MAY 24, 1976
FERTILIZER USED (KG/HA) - P 35.0, K 66.0
AMOUNT OF MOISTURE - 494 MM

COUNTRY - U.S.A.
ELEVATION - 226 M
LONGITUDE - 88 DEG. 13 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 3636.43 | 40.00 | 123.00 | 0.00 | 0.00 | 0.00 | 0.00 | 99.25 | 2.00 |
| 3 | CUTLER 71 | 3590.40 | 48.00 | 130.00 | 0.00 | 0.00 | 0.00 | 0.00 | 97.25 | 2.00 |
| 2 | WOODWORTH | 3259.07 | 39.00 | 119.00 | 0.00 | 0.00 | 0.00 | 0.00 | 102.75 | 1.50 |
| 6 | WELLS | 3008.86 | 37.00 | 106.00 | 0.00 | 0.00 | 0.00 | 0.00 | 95.00 | 1.00 |
| 11 | HODGSON | 2960.55 | 32.00 | 99.00 | 0.00 | 0.00 | 0.00 | 0.00 | 80.00 | 1.00 |
| 13 | STEELE | 2904.04 | 30.00 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 82.50 | 1.25 |
| 12 | HARK | 2888.09 | 33.00 | 111.75 | 0.00 | 0.00 | 0.00 | 0.00 | 94.75 | 1.25 |
| 8 | COLUMBUS | 2742.70 | 54.00 | 131.50 | 0.00 | 0.00 | 0.00 | 0.00 | 97.00 | 2.00 |
| 1 | CAPLAND | 2661.12 | 42.00 | 116.25 | 0.00 | 0.00 | 0.00 | 0.00 | 94.50 | 2.00 |
| 10 | AMSOY 71 | 2608.26 | 38.00 | 111.00 | 0.00 | 0.00 | 0.00 | 0.00 | 97.25 | 1.50 |
| 5 | CLARK 63 | 2597.77 | 43.00 | 128.00 | 0.00 | 0.00 | 0.00 | 0.00 | 98.75 | 2.00 |
| 7 | BEESON | 2563.59 | 37.00 | 112.00 | 0.00 | 0.00 | 0.00 | 0.00 | 99.75 | 1.75 |
| 9 | COBSOY | 2507.54 | 37.00 | 106.50 | 0.00 | 0.00 | 0.00 | 0.00 | 88.00 | 1.75 |
| 14 | SWIFT | 2359.87 | 31.00 | 95.00 | 0.00 | 0.00 | 0.00 | 0.00 | 79.75 | 2.25 |
| 15 | ALTONA | 2089.16 | 26.00 | 92.00 | 0.00 | 0.00 | 0.00 | 0.00 | 64.50 | 2.00 |
| | GRAND MEAN | 2825.16 | 37.80 | 111.93 | 0.00 | 0.00 | 0.00 | 0.00 | 91.40 | 1.68 |
| | STANDARD ERROR OF A VARIETY MEAN | 140.05 | 0.00 | 0.75 | 0.00 | 0.00 | 0.00 | 0.00 | 2.02 | 0.17 |
| | COEFFICIENT OF VARIATION | 9.91% | 0.00% | 1.34% | 0.00% | 0.00% | 0.00% | 0.00% | 4.43% | 20.29% |
| | 5% LSD VARIETY MEANS (********=NS) | 399.71 | 0.00 | 2.14 | 0.00 | 0.00 | 0.00 | 0.00 | 5.78 | 0.49 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.34** | 0.46** | 0.00 | 0.00 | 0.00 | 0.00 | 0.47** | -0.16 |
| DAYS TO FLOWER | 0.34** | 1.00 | 0.92** | 0.00 | 0.00 | 0.00 | 0.00 | 0.65** | 0.27* |
| DAYS TO MATURITY | 0.46** | 0.92** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.74** | 0.26* |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.47** | 0.65** | 0.74** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | -0.01 |
| LODGING | -0.16 | 0.27* | 0.26* | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | 1.00 |
| SHATTER | -0.31* | -0.30* | -0.34** | 0.00 | 0.00 | 0.00 | 0.00 | -0.34** | 0.30* |
| PLANTS HARVEST | -0.08 | 0.02 | -0.06 | 0.00 | 0.00 | 0.00 | 0.00 | -0.33* | 0.22 |
| PODS PER PLANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | 0.33** | -0.11 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | -0.04 |
| QUALITY OF SEED | -0.53** | -0.50** | -0.51** | 0.00 | 0.00 | 0.00 | 0.00 | -0.28* | -0.12 |

TABLE 177 EXPERIMENT 110 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 1.00 | 199.75 | 0.00 | 17.00 | 1.00 | 39.8 | 19.9 |
| 3 | CUTLER 71 | 1.00 | 203.50 | 0.00 | 16.75 | 1.25 | 43.4 | 20.3 |
| 2 | WOODWORTH | 1.00 | 185.50 | 0.00 | 14.88 | 1.00 | 40.7 | 20.2 |
| 6 | WELLS | 1.00 | 210.50 | 0.00 | 15.50 | 2.00 | 39.3 | 20.0 |
| 11 | HODGSON | 1.00 | 198.50 | 0.00 | 15.63 | 1.75 | 41.8 | 21.4 |
| 13 | STEELE | 1.00 | 204.75 | 0.00 | 15.88 | 1.75 | 42.8 | 20.6 |
| 12 | HARK | 1.00 | 177.00 | 0.00 | 15.63 | 2.00 | 39.2 | 19.4 |
| 8 | COLUMBUS | 1.00 | 198.25 | 0.00 | 13.98 | 1.00 | 45.4 | 18.3 |
| 1 | CALLAND | 1.00 | 201.25 | 0.00 | 16.38 | 2.00 | 41.6 | 19.4 |
| 10 | AMSOY 71 | 1.00 | 201.00 | 0.00 | 15.13 | 2.00 | 40.4 | 19.6 |
| 5 | CLARK 63 | 1.00 | 210.50 | 0.00 | 13.63 | 2.00 | 43.6 | 19.9 |
| 7 | BEESON | 1.00 | 182.75 | 0.00 | 17.38 | 2.00 | 41.8 | 19.5 |
| 9 | DORSOY | 1.25 | 213.25 | 0.00 | 14.13 | 1.75 | 40.9 | 19.7 |
| 14 | SWIFT | 1.25 | 207.00 | 0.00 | 13.50 | 2.00 | 41.2 | 20.9 |
| 15 | ALTONA | 1.50 | 203.50 | 0.00 | 16.38 | 2.00 | 43.2 | 19.9 |
| | GRAND MEAN | 1.07 | 199.80 | 0.00 | 15.44 | 1.70 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.12 | 7.96 | 0.00 | 0.62 | 0.13 | | |
| | COEFFICIENT OF VARIATION | 21.62% | 7.97% | 0.00% | 7.97% | 15.55% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | 0.00 | 1.76 | 0.38 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.31* | -0.08 | 0.00 | 0.33** | -0.53** |
| DAYS TO FLOWER | -0.30* | 0.02 | 0.00 | -0.11 | -0.50** |
| DAYS TO MATURITY | -0.34** | -0.06 | 0.00 | -0.01 | -0.51** |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.34** | -0.33* | 0.00 | 0.11 | -0.28* |
| LODGING | 0.30* | 0.22 | 0.00 | -0.04 | -0.12 |
| SHATTER | 1.00 | -0.03 | 0.00 | -0.05 | 0.17 |
| PLANTS HARVEST | -0.03 | 1.00 | 0.00 | -0.23 | 0.09 |
| PODS PER PLANT | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 100 SEED WEIGHT | -0.05 | -0.23 | 0.00 | 1.00 | 0.06 |
| QUALITY OF SEED | 0.17 | 0.09 | 0.00 | 0.06 | 1.00 |

TABLE 178 EXPERIMENT 192 YEAR 1976

REGION - OCEANIA
SITE - BOURAIL
LATITUDE - 21 DEG. S
COOPERATOR - ROBERT ARRIGHI
DATE PLANTED - DECEMBER 7, 1976
SOIL TYPE - SAND, PH 6.8
FERTILIZER USED (KG/HA) - N 35.0, P 76.5, K 51.5
AMOUNT OF MOISTURE - 609 MM
NUMBER OF IRRIGATIONS - 7

COUNTRY - NEW CALEDONIA
ELEVATION - 0 M
LONGITUDE - 166 DEG. E

DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | ESSEX | 3770.34 | 25.00 | 114.00 | 31.50 | 220.75 | 0.10 | 1.67 | 50.10 | 1.00 |
| 1 | CALLAND | 3301.51 | 19.00 | 103.25 | 10.75 | 94.25 | 0.02 | 0.75 | 60.35 | 1.25 |
| 10 | CLARK 63 | 3327.75 | 20.00 | 92.00 | 35.25 | 102.50 | 0.04 | 0.94 | 57.75 | 1.25 |
| 9 | WILLIAMS | 3271.90 | 19.00 | 87.25 | 30.00 | 103.75 | 0.05 | 1.03 | 54.60 | 1.25 |
| 7 | CUTLER 71 | 3121.46 | 19.00 | 87.50 | 49.75 | 144.00 | 0.09 | 1.43 | 62.80 | 1.25 |
| 14 | COLUMBUS | 3059.36 | 20.75 | 95.50 | 45.25 | 135.25 | 0.07 | 1.08 | 66.27 | 1.50 |
| 2 | WOODWORTH | 2950.59 | 19.00 | 72.50 | 15.75 | 68.50 | 0.03 | 0.70 | 53.40 | 2.00 |
| 5 | HILL | 2946.01 | 31.50 | 92.00 | 21.25 | 60.75 | 0.05 | 0.69 | 47.55 | 2.00 |
| 4 | RANSOM | 2941.00 | 27.25 | 128.00 | 27.75 | 280.00 | 0.10 | 2.22 | 50.55 | 1.00 |
| 6 | PICKETT 71 | 2880.99 | 29.00 | 131.00 | 19.75 | 79.00 | 0.06 | 1.04 | 45.30 | 1.00 |
| 13 | FORREST | 2776.39 | 29.00 | 114.00 | 53.00 | 142.25 | 0.19 | 2.00 | 52.05 | 1.00 |
| 12 | DAVIS | 2739.30 | 32.25 | 127.00 | 72.25 | 229.25 | 0.25 | 2.84 | 59.10 | 1.00 |
| 8 | BOSSIER | 1939.97 | 29.00 | 127.00 | 50.75 | 145.25 | 0.17 | 1.92 | 52.45 | 1.00 |
| 3 | BRAGG | 1652.00 | 28.00 | 131.00 | 39.50 | 165.75 | 0.08 | 1.41 | 51.35 | 1.25 |
| 11 | COBB | 641.79 | 34.00 | 132.00 | 40.50 | 131.50 | 0.16 | 2.52 | 59.85 | 1.00 |
| | GRAND MEAN | 2761.36 | 25.45 | 108.93 | 36.20 | 140.18 | 0.10 | 1.48 | 54.90 | 1.25 |
| | STANDARD ERROR OF A VARIETY MEAN | 218.01 | 0.13 | 1.38 | 8.07 | 22.10 | 0.04 | 0.27 | 1.30 | 0.16 |
| | COEFFICIENT OF VARIATION | 15.79% | 1.01% | 2.53% | 44.56% | 31.52% | 89.13% | 36.82% | 4.73% | 25.99% |
| | 5% LSD VARIETY MEANS (********=NS) | 622.20 | 0.37 | 3.93 | 23.02 | 63.08 | 0.12 | 0.78 | 3.71 | 0.46 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.52** | -0.44** | -0.15 | 0.05 | -0.33** | -0.24 | -0.04 | 0.24 |
| DAYS TO | FLOWER | -0.52** | 1.00 | 0.75** | 0.26* | 0.21 | 0.43** | 0.48** | -0.38** | -0.24 |
| DAYS TO | MATURITY | -0.44** | 0.75** | 1.00 | 0.24 | 0.42** | 0.37** | 0.52** | -0.26* | -0.57** |
| NODULE | NUMBER 1 | -0.15 | 0.26* | 0.24 | 1.00 | 0.43** | 0.77** | 0.65** | 0.25 | -0.26* |
| NODULE | NUMBER 2 | 0.05 | 0.21 | 0.42** | 0.43** | 1.00 | 0.32* | 0.74** | 0.01 | -0.37** |
| NODULE | WEIGHT 1 | -0.33** | 0.43** | 0.37** | 0.77** | 0.32* | 1.00 | 0.54** | 0.04 | -0.29* |
| NODULE | WEIGHT 2 | -0.24 | 0.48** | 0.52** | 0.65** | 0.74** | 0.54** | 1.00 | 0.03 | -0.41** |
| PLANT | HEIGHT | -0.04 | -0.38** | -0.26* | 0.25 | 0.01 | 0.04 | 0.03 | 1.00 | -0.03 |
| | LODGING | 0.24 | -0.24 | -0.57** | -0.26* | -0.37** | -0.29* | -0.41** | -0.03 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.16 | -0.52** | -0.31* | -0.23 | 0.07 | -0.21 | -0.27* | 0.21 | 0.20 |
| PODS PER | PLANT | -0.35** | 0.78** | 0.58** | 0.10 | 0.07 | 0.23 | 0.28* | -0.50** | -0.18 |
| 100 SEED | WEIGHT | 0.75** | -0.62** | -0.38** | -0.22 | 0.12 | -0.29* | -0.29* | 0.12 | 0.13 |
| QUALITY | OF SEED | -0.56** | 0.73** | 0.83** | 0.32* | 0.20 | 0.36** | 0.43** | -0.03 | -0.41** |

TABLE 178 EXPERIMENT 192 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 15 | ESSEX | 1.00 | 276.00 | 29.90 | 18.25 | 2.00 | 40.1 | 22.1 |
| 1 | CALLAND | 1.00 | 282.75 | 18.35 | 21.50 | 2.00 | 39.5 | 22.6 |
| 10 | CLARK 63 | 1.00 | 262.00 | 20.28 | 19.00 | 2.00 | 39.8 | 23.3 |
| 9 | WILLIAMS | 1.00 | 270.25 | 16.10 | 20.75 | 1.00 | 39.2 | 23.8 |
| 7 | CUTLER 71 | 1.00 | 237.00 | 18.75 | 17.00 | 2.00 | 40.4 | 23.2 |
| 14 | COLUMBUS | 1.00 | 250.25 | 16.53 | 17.75 | 2.00 | 42.3 | 22.3 |
| 2 | WOODWORTH | 1.00 | 303.50 | 17.20 | 17.25 | 1.00 | 36.7 | 23.9 |
| 5 | HILL | 1.00 | 177.75 | 42.58 | 15.75 | 2.00 | 35.5 | 24.0 |
| 4 | RANSOM | 1.00 | 268.75 | 27.08 | 19.50 | 2.00 | 37.1 | 25.0 |
| 6 | PICKETT 71 | 1.00 | 212.25 | 37.65 | 16.25 | 3.00 | 39.3 | 24.0 |
| 13 | FORREST | 1.00 | 186.75 | 44.53 | 15.50 | 2.00 | 38.8 | 22.9 |
| 12 | DAVIS | 1.00 | 237.25 | 25.88 | 18.00 | 3.00 | 40.6 | 22.8 |
| 8 | BOSSIER | 1.00 | 141.75 | 41.88 | 12.75 | 3.00 | 42.3 | 21.5 |
| 3 | BRAGG | 1.00 | 281.00 | 37.18 | 15.50 | 3.00 | 40.1 | 22.6 |
| 11 | COBB | 1.00 | 202.00 | 40.65 | 11.00 | 3.25 | 37.5 | 24.3 |
| | GRAND MEAN | 1.00 | 239.28 | 28.97 | 17.05 | 2.22 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 13.22 | 2.55 | 0.61 | 0.06 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 11.05% | 17.58% | 7.17% | 5.82% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 37.72 | 7.27 | 1.74 | 0.18 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.16 | -0.35** | 0.75** | -0.56** |
| DAYS TO FLOWER | 0.00 | -0.52** | 0.78** | -0.62** | 0.73** |
| DAYS TO MATURITY | 0.00 | -0.31* | 0.58** | -0.38** | 0.83** |
| NODULE NUMBER 1 | 0.00 | -0.23 | 0.10 | -0.22 | 0.32* |
| NODULE NUMBER 2 | 0.00 | 0.07 | 0.07 | 0.12 | 0.20 |
| NODULE WEIGHT 1 | 0.00 | -0.21 | 0.23 | -0.29* | 0.36** |
| NODULE WEIGHT 2 | 0.00 | -0.27* | 0.28* | -0.29* | 0.43** |
| PLANT HEIGHT | 0.00 | 0.21 | -0.50** | 0.12 | -0.03 |
| LODGING | 0.00 | 0.20 | -0.18 | 0.13 | -0.41** |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.60** | 0.53** | -0.39** |
| PODS PER PLANT | 0.00 | -0.60** | 1.00 | -0.60** | 0.56** |
| 100 SEED WEIGHT | 0.00 | 0.53** | -0.60** | 1.00 | -0.58** |
| QUALITY OF SEED | 0.00 | -0.39** | 0.56** | -0.58** | 1.00 |

TABLE 179 EXPERIMENT 293 YEAR 1976

REGION - OCEANIA
SITE - PORT VILA
LATITUDE - 17 DEG. 45 MIN. S
COOPERATOR - CONDOMINIUM DEPARTMENT OF AGRICULTURE
DATE PLANTED - JUNE 25, 1976
SOIL TYPE - SAND 10%, SILT 60%, CLAY 20%, PH 6.4
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 30.0
AMOUNT OF MOISTURE - 462 MM

COUNTRY - NEW HEBRIDES
ELEVATION - 15 M
LONGITUDE - 168 DEG. 20 MIN. E
DATE HARVESTED - OCTOBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 2580.93 | 24.00 | 102.00 | 0.00 | 137.00 | 0.00 | 3.13 | 41.10 | 1.00 |
| 8 | JUPITER | 2490.50 | 38.00 | 109.00 | 0.00 | 474.50 | 0.00 | 9.13 | 74.10 | 4.00 |
| 13 | DAVIS | 2478.83 | 38.00 | 109.00 | 0.00 | 245.25 | 0.00 | 4.52 | 44.50 | 1.00 |
| 10 | WILLIAMS | 2470.49 | 24.00 | 94.00 | 0.00 | 258.50 | 0.00 | 3.02 | 36.53 | 1.00 |
| 16 | COLUMBUS | 2379.23 | 24.00 | 106.50 | 0.00 | 222.00 | 0.00 | 4.91 | 50.60 | 1.00 |
| 11 | CLARK 63 | 2345.47 | 24.00 | 99.00 | 0.00 | 187.25 | 0.00 | 3.12 | 39.10 | 1.00 |
| 14 | IMPROVED PELICAN | 2322.96 | 38.00 | 102.00 | 0.00 | 299.00 | 0.00 | 4.53 | 55.70 | 1.00 |
| 15 | FORREST | 2310.88 | 38.00 | 102.00 | 0.00 | 254.00 | 0.00 | 4.09 | 36.95 | 1.00 |
| 3 | BRAGG | 2231.28 | 31.00 | 97.00 | 0.00 | 212.00 | 0.00 | 2.85 | 40.40 | 1.00 |
| 4 | RANSOM | 2105.84 | 31.00 | 109.00 | 0.00 | 264.50 | 0.00 | 4.18 | 43.45 | 1.00 |
| 9 | BOSSIER | 2100.42 | 24.00 | 102.00 | 0.00 | 315.75 | 0.00 | 5.79 | 30.30 | 1.00 |
| 7 | CUTLER 71 | 2094.59 | 24.00 | 108.00 | 0.00 | 211.75 | 0.00 | 3.03 | 42.00 | 1.00 |
| 6 | PICKETT 71 | 1977.48 | 31.00 | 102.00 | 0.00 | 223.50 | 0.00 | 3.19 | 28.45 | 1.00 |
| 2 | WOODWORTH | 1924.55 | 24.00 | 90.00 | 0.00 | 172.00 | 0.00 | 2.20 | 35.05 | 1.00 |
| 5 | HILL | 1903.71 | 38.00 | 88.00 | 0.00 | 174.50 | 0.00 | 2.79 | 30.40 | 1.00 |
| 12 | COBB | 1413.62 | 31.00 | 102.00 | 0.00 | 211.75 | 0.00 | 4.35 | 37.90 | 1.00 |
| | GRAND MEAN | 2195.67 | 30.13 | 101.34 | 0.00 | 241.85 | 0.00 | 4.05 | 41.03 | 1.19 |
| | STANDARD ERROR OF A VARIETY MEAN | 81.19 | 0.00 | 0.38 | 0.00 | 27.53 | 0.00 | 0.47 | 1.99 | 0.00 |
| | COEFFICIENT OF VARIATION | 7.40% | 0.00% | 0.74% | 0.00% | 22.80% | 0.00% | 23.38% | 9.70% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 231.25 | 0.00 | 1.07 | 0.00 | 78.41 | 0.00 | 1.35 | 5.67 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.24 | 0.00 | 0.23 | 0.00 | 0.22 | 0.41** | 0.23 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.13 | 0.00 | 0.34** | 0.00 | 0.32** | 0.38** | 0.34** |
| DAYS TO MATURITY | 0.24 | 0.13 | 1.00 | 0.00 | 0.38** | 0.00 | 0.51** | 0.47** | 0.31* |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.23 | 0.34** | 0.38** | 0.00 | 1.00 | 0.00 | 0.88** | 0.64** | 0.67** |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.22 | 0.32** | 0.51** | 0.00 | 0.88** | 0.00 | 1.00 | 0.67** | 0.72** |
| PLANT HEIGHT | 0.41** | 0.38** | 0.47** | 0.00 | 0.64** | 0.00 | 0.67** | 1.00 | 0.76** |
| LODGING | 0.23 | 0.34** | 0.31* | 0.00 | 0.67** | 0.00 | 0.72** | 0.76** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.47** | -0.02 | 0.14 | 0.00 | 0.09 | 0.00 | -0.01 | 0.06 | 0.02 |
| PODS PER PLANT | 0.18 | 0.35** | 0.23 | 0.00 | 0.39** | 0.00 | 0.44** | 0.58** | 0.34** |
| 100 SEED WEIGHT | 0.21 | -0.40** | 0.30* | 0.00 | 0.03 | 0.00 | 0.08 | 0.06 | 0.13 |
| QUALITY OF SEED | -0.06 | 0.24 | 0.59** | 0.00 | 0.21 | 0.00 | 0.37** | 0.31* | 0.20 |

TABLE 179 EXPERIMENT 293 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 1 | CALLAND | 1.00 | 293.00 | 13.20 | 22.91 | 2.00 | 45.8 | 19.9 |
| 8 | JUPITER | 1.00 | 267.00 | 21.25 | 20.89 | 3.25 | 44.5 | 21.6 |
| 13 | DAVIS | 1.00 | 281.50 | 15.68 | 20.42 | 4.75 | 45.6 | 23.3 |
| 10 | WILLIAMS | 1.00 | 296.50 | 12.45 | 21.90 | 1.00 | 45.9 | 21.7 |
| 16 | COLUMBUS | 1.00 | 278.75 | 19.65 | 19.96 | 3.00 | 46.3 | 21.4 |
| 11 | CLARK 63 | 1.00 | 195.50 | 14.43 | 18.75 | 1.00 | 45.1 | 20.3 |
| 14 | IMPROVED PELICAN | 1.00 | 242.50 | 24.25 | 16.45 | 1.00 | 45.8 | 21.5 |
| 15 | FORREST | 1.00 | 272.25 | 15.20 | 18.43 | 1.00 | 41.9 | 25.1 |
| 3 | BRAGG | 1.00 | 290.25 | 15.70 | 22.19 | 1.00 | 44.6 | 21.0 |
| 4 | RANSOM | 1.00 | 289.50 | 15.03 | 20.36 | 5.00 | 44.5 | 26.2 |
| 9 | BOSSIER | 1.00 | 254.50 | 15.23 | 20.27 | 1.00 | 45.9 | 21.5 |
| 7 | CUTLER 71 | 1.00 | 275.00 | 13.25 | 21.47 | 2.50 | 45.4 | 22.4 |
| 6 | PICKETT 71 | 1.00 | 253.00 | 13.40 | 19.91 | 1.00 | 45.5 | 22.3 |
| 2 | WOODWORTH | 1.00 | 258.75 | 14.23 | 18.13 | 1.00 | 42.5 | 21.7 |
| 5 | HILL | 1.00 | 251.75 | 14.80 | 17.38 | 2.00 | 41.7 | 21.3 |
| 12 | COBB | 1.00 | 218.75 | 13.55 | 20.53 | 3.75 | 44.8 | 22.8 |
| | GRAND MEAN | 1.00 | 263.66 | 15.70 | 19.98 | 2.14 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 12.94 | 1.66 | 0.28 | 0.25 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.81% | 21.15% | 2.80% | 23.18% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 36.85 | 4.73 | 0.80 | 0.71 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.47** | 0.18 | 0.21 | -0.06 |
| DAYS TO | FLOWER | 0.00 | -0.02 | 0.35** | -0.40** | 0.24 |
| DAYS TO | MATURITY | 0.00 | 0.14 | 0.23 | 0.30* | 0.59** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.09 | 0.39** | 0.03 | 0.21 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.01 | 0.44** | 0.08 | 0.37** |
| PLANT | HEIGHT | 0.00 | 0.06 | 0.58** | 0.06 | 0.31* |
| | LODGING | 0.00 | 0.02 | 0.34** | 0.12 | 0.20 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.23 | 0.38** | 0.17 |
| PODS PER | PLANT | 0.00 | -0.23 | 1.00 | -0.31* | 0.08 |
| 100 SEED | WEIGHT | 0.00 | 0.38** | -0.31* | 1.00 | 0.22 |
| QUALITY | OF SEED | 0.00 | 0.17 | 0.08 | 0.22 | 1.00 |

TABLE 180 EXPERIMENT 366 YEAR 1976

REGION - OCEANIA
SITE - PAPEETE
LATITUDE - 17 DEG. 30 MIN. S
COOPERATORS - J.L. REBOUL, B. YAU-AKOI
DATE PLANTED - OCTOBER 15, 1976
SOIL TYPE - SAND 43.2%, SILT 6.5%, CLAY 36.5%, PH 6.6
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 763 MM

COUNTRY - TAHITI
ELEVATION - 2 M
LONGITUDE - 149 DEG. 30 MIN. W
DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 5286.14 | 37.00 | 113.25 | 150.25 | 351.75 | 0.58 | 0.00 | 62.55 | 4.50 |
| 3 | BRAGG | 5158.95 | 31.00 | 119.00 | 200.75 | 368.75 | 0.59 | 0.00 | 54.90 | 2.25 |
| 4 | RANSON | 4833.47 | 30.25 | 119.00 | 169.25 | 368.75 | 0.69 | 0.00 | 48.15 | 1.25 |
| 16 | COLUMBUS | 4682.19 | 27.00 | 94.00 | 200.50 | 343.50 | 0.47 | 0.00 | 76.35 | 1.75 |
| 15 | FORREST | 4681.35 | 35.00 | 104.50 | 173.00 | 376.75 | 0.46 | 0.00 | 65.30 | 1.25 |
| 9 | BOSSIER | 4360.46 | 31.00 | 127.00 | 153.00 | 351.50 | 0.58 | 0.00 | 43.40 | 1.25 |
| 1 | CALLAND | 4164.17 | 26.50 | 95.75 | 149.50 | 212.75 | 0.52 | 0.00 | 88.35 | 2.75 |
| 6 | PICKETT 71 | 3926.62 | 31.00 | 115.50 | 59.25 | 208.25 | 0.33 | 0.00 | 47.05 | 1.00 |
| 7 | CUTLER 71 | 3901.20 | 27.00 | 90.50 | 158.25 | 218.00 | 0.33 | 0.00 | 80.20 | 3.00 |
| 11 | CLARK 63 | 3768.67 | 27.00 | 88.75 | 125.00 | 186.50 | 0.28 | 0.00 | 79.35 | 3.00 |
| 5 | HILL | 3694.49 | 38.00 | 94.00 | 151.75 | 256.75 | 0.45 | 0.00 | 57.90 | 2.25 |
| 10 | WILLIAMS | 3627.81 | 27.00 | 67.00 | 198.00 | 232.75 | 0.59 | 0.00 | 70.65 | 1.50 |
| 2 | WOODWORTH | 3245.23 | 26.00 | 82.00 | 201.25 | 208.00 | 0.51 | 0.00 | 66.55 | 2.75 |
| 12 | COBB | 3158.96 | 32.50 | 128.00 | 191.75 | 364.75 | 0.65 | 0.00 | 48.10 | 1.75 |
| 8 | JUPITER | 2131.68 | 52.00 | 159.00 | 182.00 | 313.00 | 0.45 | 0.00 | 90.45 | 3.75 |
| 14 | IMPROVED PELICAN | 1278.59 | 45.00 | 148.50 | 181.75 | 414.75 | 0.40 | 0.00 | 141.85 | 5.00 |
| | GRAND MEAN | 3870.12 | 32.70 | 110.36 | 165.33 | 298.53 | 0.49 | 0.00 | 70.07 | 2.44 |
| | STANDARD ERROR OF A VARIETY MEAN | 227.07 | 0.55 | 1.93 | 36.96 | 60.49 | 0.11 | 0.00 | 3.34 | 0.49 |
| | COEFFICIENT OF VARIATION | 11.73% | 3.38% | 3.49% | 44.72% | 40.52% | 44.04% | 0.00% | 9.55% | 40.10% |
| | 5% LSD VARIETY MEANS (********=NS) | 646.78 | 1.57 | 5.49 | ******** | ******** | ******** | 0.00 | 9.53 | 1.39 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.51** | -0.41** | 0.03 | 0.09 | 0.21 | 0.00 | -0.61** | -0.38** |
| DAYS TO | FLOWER | -0.51** | 1.00 | 0.79** | 0.03 | 0.27* | -0.01 | 0.00 | 0.40** | 0.41** |
| DAYS TO | MATURITY | -0.41** | 0.79** | 1.00 | 0.06 | 0.39** | 0.10 | 0.00 | 0.23 | 0.25* |
| NODULE | NUMBER 1 | 0.03 | 0.03 | 0.06 | 1.00 | 0.69** | 0.81** | 0.00 | 0.05 | 0.09 |
| NODULE | NUMBER 2 | 0.09 | 0.27* | 0.39** | 0.69** | 1.00 | 0.61** | 0.00 | 0.01 | 0.06 |
| NODULE | WEIGHT 1 | 0.21 | -0.01 | 0.10 | 0.81** | 0.61** | 1.00 | 0.00 | -0.21 | -0.04 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.61** | 0.40** | 0.23 | 0.05 | 0.01 | -0.21 | 0.00 | 1.00 | 0.62** |
| | LODGING | -0.38** | 0.41** | 0.25* | 0.09 | 0.06 | -0.04 | 0.00 | 0.62** | 1.00 |
| | SHATTER | -0.32** | 0.13 | 0.33** | 0.13 | 0.21 | 0.16 | 0.00 | -0.11 | -0.01 |
| PLANTS | HARVEST | 0.59** | 0.59** | -0.53** | -0.07 | -0.17 | 0.08 | 0.00 | -0.42** | -0.17 |
| PODS PER | PLANT | 0.09 | -0.08 | -0.27* | -0.05 | -0.05 | -0.11 | 0.00 | -0.07 | -0.36** |
| 100 SEED | WEIGHT | 0.51** | -0.61** | -0.71** | 0.16 | -0.18 | 0.12 | 0.00 | -0.24 | -0.19 |
| QUALITY | OF SEED | -0.20 | 0.01 | 0.25* | 0.08 | 0.15 | 0.16 | 0.00 | -0.10 | -0.12 |

TABLE 180 EXPERIMENT 366 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.00 | 282.25 | 16.53 | 20.45 | 2.00 | 42.5 | 21.3 |
| 3 | BRAGG | 1.00 | 272.50 | 18.78 | 20.85 | 3.25 | 43.8 | 21.7 |
| 4 | BANSON | 1.00 | 284.50 | 17.93 | 21.98 | 3.50 | 43.5 | 21.5 |
| 16 | COLUMBUS | 1.00 | 233.50 | 28.02 | 23.93 | 1.75 | 45.9 | 19.2 |
| 15 | FORREST | 1.00 | 251.75 | 28.65 | 18.95 | 4.25 | 43.8 | 19.3 |
| 9 | BOSSIER | 1.00 | 235.00 | 24.70 | 19.45 | 4.25 | 45.6 | 19.2 |
| 1 | CALLAND | 1.00 | 274.75 | 28.03 | 23.95 | 3.00 | 44.6 | 20.5 |
| 6 | PICKETT 71 | 1.00 | 266.75 | 16.20 | 19.83 | 3.75 | 45.2 | 21.2 |
| 7 | CUTLER 71 | 1.00 | 228.75 | 25.80 | 25.10 | 2.50 | 43.8 | 20.5 |
| 11 | CLARK 63 | 1.00 | 262.75 | 19.88 | 21.40 | 2.50 | 45.4 | 21.2 |
| 5 | HILL | 1.00 | 243.00 | 35.03 | 21.75 | 2.00 | 43.3 | 20.8 |
| 10 | WILLIAMS | 1.00 | 270.50 | 20.53 | 24.70 | 2.50 | 43.9 | 23.1 |
| 2 | WOODWORTH | 1.00 | 271.50 | 18.68 | 22.00 | 4.00 | 42.2 | 21.9 |
| 12 | COBB | 3.00 | 218.25 | 25.38 | 15.85 | 3.25 | 39.2 | 21.7 |
| 8 | JUPITER | 1.25 | 146.50 | 18.88 | 18.65 | 2.75 | 45.1 | 20.8 |
| 14 | IMPROVED PELICAN | 1.25 | 167.25 | 18.35 | 13.00 | 3.75 | 45.4 | 23.1 |
| | GRAND MEAN | 1.16 | 248.34 | 22.58 | 20.71 | 3.06 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.09 | 18.76 | 2.53 | 0.79 | 0.41 | | |
| | COEFFICIENT OF VARIATION | 14.77% | 15.35% | 22.42% | 7.62% | 26.94% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.24 | 53.43 | 7.21 | 2.25 | 1.17 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.32** | 0.59** | 0.09 | 0.51** | -0.20 |
| DAYS TO | FLOWER | 0.13 | -0.59** | -0.08 | -0.61** | 0.01 |
| DAYS TO | MATURITY | 0.33** | -0.53** | -0.27* | -0.71** | 0.25* |
| NODULE | NUMBER 1 | 0.13 | -0.07 | -0.05 | 0.16 | 0.08 |
| NODULE | NUMBER 2 | 0.21 | -0.17 | -0.05 | -0.16 | 0.15 |
| NODULE | WEIGHT 1 | 0.16 | 0.08 | -0.11 | 0.12 | 0.16 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.11 | -0.42** | -0.07 | -0.24 | -0.10 |
| | LODGING | -0.01 | -0.17 | -0.36** | -0.19 | -0.12 |
| | SHATTER | 1.00 | -0.25* | 0.03 | -0.44** | 0.13 |
| PLANTS | HARVEST | -0.25* | 1.00 | -0.23 | 0.37** | 0.03 |
| PODS PER | PLANT | 0.03 | -0.23 | 1.00 | 0.13 | -0.12 |
| 100 SEED | WEIGHT | -0.44** | 0.37** | 0.13 | 1.00 | -0.39** |
| QUALITY | OF SEED | 0.13 | 0.03 | -0.12 | -0.39** | 1.00 |

TABLE 181 EXPERIMENT 35 YEAR 1976

REGION - OCEANIA
SITE - KAPAA, HAWAII
LATITUDE - 21 DEG. N
COOPERATOR - T. SEKIOKA
DATE PLANTED - MAY 13, 1976
SOIL TYPE - CLAY, PH 6.8
FERTILIZER USED (KG/HA) - P 25.0, K 25.0
AMOUNT OF MOISTURE - 722 MM

COUNTRY - UNITED STATES
ELEVATION - 168 M
LONGITUDE - 160 DEG. W

DATE HARVESTED - JULY, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | BOSSIER | 4771.37 | 73.50 | 145.00 | 159.75 | 133.75 | 1.26 | 2.08 | 48.75 | 2.00 |
| 3 | BRAGG | 4562.58 | 72.00 | 139.50 | 109.25 | 219.00 | 0.72 | 2.23 | 48.00 | 2.00 |
| 15 | FORREST | 4175.00 | 73.50 | 125.00 | 108.75 | 199.25 | 0.69 | 2.56 | 56.00 | 2.25 |
| 13 | DAVIS | 3674.90 | 56.00 | 143.00 | 124.25 | 152.75 | 1.41 | 2.27 | 63.25 | 2.25 |
| 5 | HILL | 3436.60 | 60.50 | 125.00 | 74.00 | 89.50 | 0.55 | 1.66 | 54.00 | 2.75 |
| 6 | PICKETT 71 | 3192.72 | 66.50 | 141.75 | 93.00 | 116.50 | 0.53 | 1.56 | 40.25 | 2.00 |
| 12 | COBB | 3078.95 | 57.75 | 160.00 | 77.00 | 101.75 | 0.71 | 1.53 | 65.25 | 2.00 |
| 1 | CALLAND | 2967.68 | 36.00 | 102.00 | 80.00 | 102.50 | 0.47 | 1.36 | 42.75 | 2.00 |
| 7 | CUTLER 71 | 2890.58 | 42.50 | 102.00 | 132.75 | 197.50 | 1.35 | 1.92 | 40.50 | 2.50 |
| 16 | COLUMBUS | 2944.74 | 36.00 | 108.75 | 81.25 | 159.25 | 0.31 | 1.31 | 51.50 | 2.00 |
| 10 | WILLIAMS | 2652.61 | 41.00 | 102.00 | 90.00 | 156.50 | 0.42 | 1.56 | 39.25 | 2.00 |
| 14 | IMPROVED PELICAN | 2606.77 | 65.25 | 160.00 | 64.75 | 112.00 | 1.54 | 1.12 | 66.75 | 2.75 |
| 11 | CLARK 63 | 2594.69 | 36.00 | 102.00 | 103.25 | 124.00 | 0.31 | 1.64 | 41.00 | 2.00 |
| 8 | JUPITER | 2263.79 | 77.00 | 165.00 | 104.50 | 158.75 | 1.04 | 3.80 | 74.75 | 4.00 |
| 4 | RANSOM | 1747.43 | 65.50 | 141.25 | 142.00 | 206.75 | 0.66 | 1.91 | 39.25 | 2.00 |
| 2 | WOODWORTH | 1572.81 | 36.00 | 102.00 | 66.00 | 109.75 | 0.20 | 1.59 | 33.00 | 2.00 |
| | GRAND MEAN | 3064.70 | 55.94 | 129.02 | 100.66 | 146.22 | 0.76 | 1.88 | 50.27 | 2.28 |
| | STANDARD ERROR OF A VARIETY MEAN | 267.23 | 3.69 | 1.59 | 19.64 | 31.31 | 0.30 | 0.40 | 3.86 | 0.15 |
| | COEFFICIENT OF VARIATION | 17.44% | 13.18% | 2.46% | 39.03% | 42.82% | 77.90% | 42.98% | 15.34% | 12.97% |
| | 5% LSD VARIETY MEANS (********=NS) | 761.19 | 10.50 | 4.51 | 55.95 | ******** | 0.84 | 1.15 | 10.99 | 0.42 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.35** | 0.15 | 0.24 | 0.11 | 0.19 | 0.04 | 0.20 | -0.21 |
| DAYS TO | FLOWER | 0.35** | 1.00 | 0.75** | 0.25* | 0.25* | 0.42** | 0.38** | 0.42** | 0.31* |
| DAYS TO | MATURITY | 0.15 | 0.75** | 1.00 | 0.07 | -0.02 | 0.35** | 0.26* | 0.64** | 0.39** |
| NODULE | NUMBER 1 | 0.24 | 0.25* | 0.07 | 1.00 | 0.49** | 0.47** | 0.19 | -0.15 | -0.16 |
| NODULE | NUMBER 2 | 0.11 | 0.25* | -0.02 | 0.49** | 1.00 | 0.26* | 0.58** | -0.15 | -0.08 |
| NODULE | WEIGHT 1 | 0.19 | 0.42** | 0.35** | 0.47** | 0.26* | 1.00 | 0.22 | 0.22 | 0.07 |
| NODULE | WEIGHT 2 | 0.04 | 0.38** | 0.26* | 0.19 | 0.58** | 0.22 | 1.00 | 0.18 | 0.30* |
| PLANT | HEIGHT | 0.20 | 0.42** | 0.64** | -0.15 | -0.15 | 0.22 | 0.18 | 1.00 | 0.55** |
| | LODGING | -0.21 | 0.31* | 0.39** | -0.16 | -0.08 | 0.07 | 0.30* | 0.55** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.33** | -0.05 | -0.33** | -0.00 | 0.04 | -0.23 | -0.07 | -0.38** | -0.37** |
| PODS PER | PLANT | 0.59** | 0.27* | 0.03 | 0.29* | 0.06 | 0.26* | -0.07 | 0.06 | -0.22 |
| 100 SEED | WEIGHT | 0.33** | -0.24 | -0.34** | 0.27* | 0.22 | 0.10 | 0.12 | -0.27* | -0.29* |
| QUALITY | OF SEED | 0.14 | -0.34** | -0.44** | 0.21 | 0.19 | -0.21 | -0.14 | -0.53** | -0.74** |

TABLE 182 EXPERIMENT 35 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | BOSSIER | 1.00 | 207.75 | 26.10 | 22.85 | 3.00 | 42.6 | 20.6 |
| 3 | BRAGG | 1.00 | 283.50 | 17.65 | 24.29 | 3.00 | 41.6 | 21.2 |
| 15 | FORREST | 1.00 | 256.25 | 27.75 | 18.30 | 3.00 | 39.4 | 22.9 |
| 13 | DAVIS | 1.00 | 218.75 | 18.50 | 22.04 | 3.00 | 39.8 | 23.0 |
| 5 | HILL | 1.00 | 321.50 | 20.55 | 19.45 | 2.00 | 40.5 | 20.3 |
| 6 | PICKETT 71 | 1.00 | 251.50 | 17.43 | 19.67 | 3.00 | 41.7 | 21.8 |
| 12 | COBB | 1.00 | 185.00 | 17.15 | 21.29 | 3.00 | 38.8 | 22.4 |
| 1 | CALLAND | 1.00 | 212.50 | 13.88 | 24.26 | 3.00 | 45.1 | 20.1 |
| 7 | CUTLER 71 | 1.00 | 232.00 | 20.00 | 23.75 | 3.00 | 45.5 | 21.0 |
| 16 | COLUMBUS | 1.00 | 210.50 | 19.80 | 21.13 | 3.00 | 42.6 | 22.1 |
| 10 | WILLIAMS | 1.00 | 228.00 | 10.85 | 23.70 | 3.00 | 43.7 | 21.0 |
| 14 | IMPROVED PELICAN | 1.00 | 145.50 | 14.65 | 16.00 | 2.00 | 43.5 | 20.8 |
| 11 | CLARK 63 | 1.00 | 250.50 | 16.47 | 21.95 | 3.00 | 45.1 | 21.4 |
| 8 | JUPITER | 1.00 | 106.75 | 10.15 | 20.41 | 2.00 | 43.2 | 21.3 |
| 4 | RANSOM | 1.00 | 246.00 | 19.05 | 19.34 | 3.00 | 39.7 | 23.4 |
| 2 | WOODWORTH | 1.00 | 194.75 | 11.43 | 19.13 | 3.00 | 44.6 | 21.5 |
| | GRAND MEAN | 1.00 | 222.55 | 17.59 | 21.10 | 2.81 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 17.46 | 2.08 | 0.69 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 15.69% | 30.45% | 6.50% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 49.72 | 7.63 | 1.95 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.33** | 0.59** | 0.33** | 0.18 |
| DAYS TO FLOWER | 0.00 | -0.05 | 0.27* | -0.24 | -0.34** |
| DAYS TO MATURITY | 0.00 | -0.33** | 0.03 | -0.34** | -0.88** |
| NODULE NUMBER 1 | 0.00 | -0.00 | 0.29* | 0.27* | 0.21 |
| NODULE NUMBER 2 | 0.00 | 0.04 | 0.06 | 0.22 | 0.19 |
| NODULE WEIGHT 1 | 0.00 | -0.23 | 0.26* | 0.10 | -0.21 |
| NODULE WEIGHT 2 | 0.00 | -0.07 | -0.07 | 0.12 | -0.14 |
| PLANT HEIGHT | 0.00 | -0.38** | 0.06 | -0.27* | -0.53** |
| LODGING | 0.00 | -0.37** | -0.22 | -0.29* | -0.74** |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.27* | 0.13 | 0.26* |
| PODS PER PLANT | 0.00 | 0.27* | 1.00 | 0.04 | 0.18 |
| 100 SEED WEIGHT | 0.00 | 0.13 | 0.04 | 1.00 | 0.36** |
| QUALITY OF SEED | 0.00 | 0.26* | 0.18 | 0.46** | 1.00 |

TABLE 182 EXPERIMENT 298 YEAR 1976

REGION - OCEANIA
SITE - KAPAA, HAWAII
LATITUDE - 21 DEG. N
COOPERATOR - TERRY T. SEKIOKA
DATE PLANTED - SEPTEMBER 1, 1976
SOIL TYPE - CLAY, PH 6.7
FERTILIZER USED (KG/HA) - P 25.0, K 25.0
AMOUNT OF MOISTURE - 403 MM

COUNTRY - UNITED STATES
ELEVATION - 550 M
LONGITUDE - 160 DEG. E

DATE HARVESTED - DECEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | IMPROVED PELICAN | 1959.98 | 45.00 | 99.00 | 62.00 | 114.00 | 0.12 | 0.67 | 44.00 | 2.25 |
| 5 | HILL | 1665.33 | 48.00 | 89.25 | 102.50 | 111.25 | 0.12 | 0.54 | 28.75 | 2.00 |
| 8 | JUPITER | 1644.08 | 44.75 | 103.00 | 118.75 | 216.25 | 0.16 | 0.94 | 55.50 | 4.00 |
| 15 | FORREST | 1389.86 | 46.75 | 90.25 | 91.00 | 134.50 | 0.10 | 0.55 | 26.25 | 2.00 |
| 11 | CLARK 63 | 1316.93 | 41.25 | 89.25 | 74.00 | 71.25 | 0.08 | 0.45 | 28.00 | 3.00 |
| 13 | DAVIS | 1308.59 | 48.50 | 92.00 | 73.25 | 120.25 | 0.10 | 0.46 | 25.25 | 1.75 |
| 1 | CALLAND | 1218.58 | 42.25 | 91.50 | 64.50 | 92.50 | 0.09 | 0.68 | 30.25 | 3.00 |
| 9 | BOSSIER | 1194.82 | 41.25 | 90.00 | 71.75 | 124.25 | 0.08 | 0.80 | 23.00 | 1.50 |
| 6 | PICKETT 71 | 1141.48 | 40.75 | 91.50 | 74.25 | 160.00 | 0.09 | 0.82 | 21.75 | 1.50 |
| 3 | BRAGG | 1120.22 | 40.75 | 90.00 | 25.00 | 121.50 | 0.03 | 0.48 | 24.00 | 1.50 |
| 16 | COLUMBUS | 1113.14 | 40.50 | 90.50 | 47.75 | 97.50 | 0.05 | 0.44 | 24.50 | 2.75 |
| 10 | WILLIAMS | 1103.97 | 40.75 | 89.50 | 89.75 | 106.50 | 0.08 | 0.58 | 23.75 | 2.75 |
| 2 | WOODWORTH | 1086.47 | 41.25 | 86.50 | 48.00 | 47.25 | 0.04 | 0.23 | 25.75 | 3.00 |
| 7 | CUTLER 71 | 995.20 | 41.00 | 89.50 | 76.25 | 71.25 | 0.05 | 0.21 | 24.75 | 3.25 |
| 4 | RANSOM | 992.26 | 41.00 | 90.25 | 42.00 | 151.00 | 0.03 | 0.49 | 21.00 | 1.50 |
| 12 | COBB | 903.93 | 44.50 | 92.00 | 54.50 | 62.25 | 0.09 | 0.45 | 20.25 | 1.25 |
| | GRAND MEAN | 1259.68 | 43.02 | 91.50 | 69.70 | 112.59 | 0.08 | 0.55 | 27.92 | 2.31 |
| | STANDARD ERROR OF A VARIETY MEAN | 122.81 | 0.98 | 0.77 | 13.55 | 20.88 | 0.03 | 0.14 | 1.99 | 0.21 |
| | COEFFICIENT OF VARIATION | 19.50% | 4.54% | 1.68% | 38.87% | 37.09% | 63.87% | 50.31% | 14.23% | 18.37% |
| | 5% LSD VARIETY MEANS (********=NS) | 349.82 | 2.78 | 2.19 | 38.59 | 59.48 | ******** | 0.39 | 5.66 | 0.61 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.44** | 0.49** | 0.54** | 0.43** | 0.51** | 0.42** | 0.58** | 0.17 |
| DAYS TO | FLOWER | 0.44** | 1.00 | 0.27* | 0.43** | 0.26* | 0.50** | 0.23 | 0.29* | -0.10 |
| DAYS TO | MATURITY | 0.49** | 0.27* | 1.00 | 0.29* | 0.40** | 0.40** | 0.28* | 0.80** | 0.25* |
| NODULE | NUMBER 1 | 0.54** | 0.43** | 0.29* | 1.00 | 0.50** | 0.78** | 0.45** | 0.36** | 0.26* |
| NODULE | NUMBER 2 | 0.43** | 0.26* | 0.40** | 0.50** | 1.00 | 0.55** | 0.83** | 0.34** | -0.01 |
| NODULE | WEIGHT 1 | 0.51** | 0.50** | 0.40** | 0.78** | 0.55** | 1.00 | 0.63** | 0.41** | 0.13 |
| NODULE | WEIGHT 2 | 0.42** | 0.23 | 0.23* | 0.45** | 0.83** | 0.63** | 1.00 | 0.26* | -0.05 |
| PLANT | HEIGHT | 0.58** | 0.29* | 0.80** | 0.36** | 0.34** | 0.41** | 0.26* | 1.00 | 0.46** |
| | LODGING | 0.17 | -0.10 | 0.25* | 0.26* | -0.01 | 0.13 | -0.05 | 0.46** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.50** | 0.24 | 0.03 | 0.37** | 0.23 | 0.27* | 0.27* | 0.30* | 0.25* |
| PODS PER | PLANT | 0.56** | 0.39** | 0.45** | 0.26* | 0.26* | 0.24 | 0.14 | 0.39** | 0.06 |
| 100 SEED | WEIGHT | -0.10 | -0.35** | -0.10 | 0.04 | 0.02 | -0.05 | 0.11 | -0.09 | 0.11 |
| QUALITY | OF SEED | -0.30* | -0.10 | -0.29* | 0.08 | -0.01 | -0.03 | 0.04 | -0.21 | 0.16 |

TABLE 182 EXPERIMENT 298 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 14 | IMPROVED PELICAN | 1.00 | 231.25 | 13.48 | 15.35 | 2.00 | 45.4 | 19.7 |
| 5 | HILL | 1.00 | 319.00 | 9.02 | 16.80 | 3.00 | 41.7 | 21.6 |
| 8 | JUPITER | 1.00 | 276.00 | 12.28 | 19.61 | 3.00 | 45.5 | 20.8 |
| 15 | FORREST | 1.00 | 232.50 | 10.95 | 16.62 | 3.00 | 41.6 | 21.5 |
| 11 | CLARK 63 | 1.00 | 293.75 | 7.82 | 17.91 | 3.00 | 45.2 | 22.2 |
| 13 | DAVIS | 1.00 | 246.75 | 10.85 | 17.81 | 3.00 | 45.9 | 21.4 |
| 1 | CALLAND | 1.00 | 257.25 | 5.12 | 20.86 | 4.00 | 45.5 | 20.2 |
| 9 | BOSSIER | 1.00 | 209.00 | 9.02 | 20.04 | 3.00 | 45.6 | 20.6 |
| 6 | PICKETT 71 | 1.00 | 215.25 | 7.95 | 18.83 | 3.00 | 45.2 | 21.5 |
| 3 | BRAGG | 1.00 | 240.75 | 9.15 | 19.87 | 2.75 | 42.4 | 22.7 |
| 16 | COLUMBUS | 1.00 | 230.75 | 7.77 | 17.37 | 3.00 | 44.4 | 21.6 |
| 10 | WILLIAMS | 1.00 | 249.75 | 5.92 | 20.65 | 3.00 | 45.5 | 22.1 |
| 2 | WOODWORTH | 1.00 | 254.25 | 8.12 | 19.57 | 3.00 | 45.5 | 21.5 |
| 7 | CUTLER 71 | 1.00 | 203.00 | 8.92 | 20.40 | 3.00 | 44.4 | 21.6 |
| 4 | RANSOM | 1.00 | 232.75 | 7.20 | 17.45 | 3.00 | 41.8 | 22.8 |
| 12 | COBB | 1.00 | 210.75 | 8.97 | 19.43 | 3.00 | 42.4 | 21.6 |
| | GRAND MEAN | 1.00 | 243.92 | 8.91 | 18.66 | 2.98 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.35 | 1.12 | 0.77 | 0.06 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 6.85% | 25.22% | 8.26% | 4.19% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 23.78 | 3.20 | 2.19 | 0.18 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.50** | 0.56** | -0.10 | -0.30* |
| DAYS TO FLOWER | 0.00 | 0.24 | 0.39** | -0.35** | -0.10 |
| DAYS TO MATURITY | 0.00 | 0.03 | 0.45** | -0.10 | -0.29* |
| NODULE NUMBER 1 | 0.00 | 0.37** | 0.26* | 0.04 | 0.08 |
| NODULE NUMBER 2 | 0.00 | 0.23 | 0.26* | 0.02 | -0.01 |
| NODULE WEIGHT 1 | 0.00 | 0.27* | 0.24 | -0.05 | -0.03 |
| NODULE WEIGHT 2 | 0.00 | 0.27* | 0.14 | 0.11 | 0.04 |
| PLANT HEIGHT | 0.00 | 0.30* | 0.39** | -0.09 | -0.21 |
| LODGING | 0.00 | 0.25* | 0.06 | 0.11 | 0.16 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.08 | -0.04 | 0.18 |
| PODS PER PLANT | 0.00 | 0.08 | 1.00 | -0.15 | -0.48** |
| 100 SEED WEIGHT | 0.00 | -0.04 | -0.15 | 1.00 | 0.41** |
| QUALITY OF SEED | 0.00 | 0.18 | -0.48** | 0.41** | 1.00 |

TABLE 183 EXPERIMENT 378 YEAR 1976

REGION - OCEANIA
SITE - KAUAI, HAWAII
LATITUDE - 22 DEG. N
COOPERATOR - UNIVERSITY OF HAWAII, KAUAI BRANCH STATION
DATE PLANTED - JANUARY 6, 1977
FERTILIZER USED (KG/HA) - P 25.0, K 25.0

COUNTRY - UNITED STATES
ELEVATION - 550 M
LONGITUDE - 159 DEG. 30 MIN. W
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 1737.43 | 40.00 | 107.00 | 87.75 | 217.25 | 0.35 | 1.00 | 49.00 | 2.50 |
| 1 | CALLAND | 1365.69 | 41.25 | 95.75 | 48.75 | 86.25 | 0.32 | 0.65 | 26.50 | 3.00 |
| 5 | HILL | 1269.84 | 39.00 | 92.50 | 33.75 | 120.00 | 0.18 | 0.59 | 20.75 | 2.50 |
| 13 | DAVIS | 1030.21 | 39.75 | 92.25 | 54.25 | 108.50 | 0.26 | 0.45 | 27.00 | 2.25 |
| 15 | FORREST | 932.27 | 39.00 | 92.50 | 61.75 | 119.00 | 0.29 | 0.54 | 19.25 | 2.25 |
| 10 | WILLIAMS | 895.60 | 40.50 | 92.25 | 52.75 | 140.25 | 0.25 | 0.56 | 20.50 | 2.75 |
| 11 | CLARK 63 | 843.09 | 39.25 | 92.25 | 72.50 | 126.50 | 0.34 | 0.74 | 20.50 | 2.75 |
| 14 | IMPROVED PELICAN | 833.08 | 41.25 | 92.25 | 19.50 | 77.25 | 0.07 | 0.46 | 23.25 | 2.50 |
| 4 | RANSOM | 723.06 | 40.25 | 92.25 | 68.25 | 151.25 | 0.34 | 0.81 | 20.25 | 2.25 |
| 3 | BRAGG | 713.06 | 39.50 | 92.25 | 39.00 | 98.50 | 0.15 | 0.61 | 21.50 | 3.00 |
| 6 | PICKETT 71 | 700.97 | 40.75 | 92.25 | 43.75 | 118.25 | 0.18 | 0.55 | 16.50 | 2.75 |
| 2 | WOODWORTH | 694.72 | 40.75 | 92.25 | 44.00 | 95.00 | 0.23 | 0.40 | 19.50 | 2.50 |
| 16 | COLUMBUS | 681.39 | 41.00 | 92.25 | 51.00 | 111.75 | 0.29 | 0.68 | 21.50 | 2.50 |
| 7 | CUTLER 71 | 624.29 | 41.25 | 92.50 | 43.00 | 101.50 | 0.16 | 0.46 | 21.50 | 3.00 |
| 9 | BOSSIER | 535.11 | 40.50 | 92.25 | 47.75 | 105.00 | 0.21 | 0.36 | 21.00 | 2.75 |
| 12 | COBB | 511.35 | 40.50 | 92.25 | 56.25 | 97.75 | 0.15 | 0.36 | 19.75 | 2.75 |
| | GRAND MEAN | 880.70 | 40.28 | 93.44 | 51.50 | 117.13 | 0.23 | 0.58 | 23.02 | 2.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 164.04 | 0.60 | 0.89 | 9.00 | 14.37 | 0.05 | 0.11 | 1.18 | 0.24 |
| | COEFFICIENT OF VARIATION | 37.25% | 2.99% | 1.91% | 34.97% | 24.54% | 40.05% | 37.33% | 10.26% | 18.07% |
| | 5% LSD VARIETY MEANS (********=NS) | 467.26 | ******** | 2.54 | 25.65 | 40.94 | 0.13 | 0.31 | 3.36 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.33** | 0.67** | 0.47** | 0.34** | 0.48** | 0.47** | 0.51** | 0.04 |
| DAYS TO | FLOWER | -0.33** | 1.00 | -0.14 | -0.44** | 0.01 | -0.40** | -0.07 | 0.03 | 0.04 |
| DAYS TO | MATURITY | 0.67** | -0.14 | 1.00 | 0.39** | 0.51** | 0.31* | 0.46** | 0.85** | 0.00 |
| NODULE | NUMBER 1 | 0.47** | -0.44** | 0.39** | 1.00 | 0.19 | 0.74** | 0.19 | 0.30* | -0.06 |
| NODULE | NUMBER 2 | 0.34** | 0.01 | 0.51** | 0.19 | 1.00 | 0.30* | 0.76** | 0.47** | -0.03 |
| NODULE | WEIGHT 1 | 0.48** | -0.40** | 0.31* | 0.74** | 0.30* | 1.00 | 0.46** | 0.22 | 0.00 |
| NODULE | WEIGHT 2 | 0.47** | -0.07 | 0.46** | 0.19 | 0.76** | 0.46** | 1.00 | 0.37** | 0.12 |
| PLANT | HEIGHT | 0.51** | 0.03 | 0.85** | 0.30* | 0.47** | 0.22 | 0.37** | 1.00 | -0.17 |
| | LODGING | 0.04 | 0.04 | 0.00 | -0.06 | -0.03 | 0.00 | 0.12 | -0.17 | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.53** | -0.16 | 0.19 | 0.30* | 0.12 | 0.30* | 0.22 | 0.28* | -0.03 |
| PODS PER | PLANT | 0.64** | -0.31* | 0.31* | 0.26* | 0.28* | 0.24 | 0.37** | 0.23 | 0.03 |
| 100 SEED | WEIGHT | 0.24 | 0.14 | 0.12 | 0.21 | -0.05 | 0.14 | 0.07 | 0.09 | 0.37** |
| QUALITY | OF SEED | 0.06 | 0.31* | 0.01 | -0.27* | -0.32** | -0.20 | -0.09 | 0.05 | 0.21 |

TABLE 183 EXPERIMENT 378 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 3.00 | 278.75 | 10.05 | 19.10 | 3.00 | 44.9 | 19.4 |
| 1 | CALLAND | 3.00 | 298.00 | 7.55 | 22.21 | 4.00 | 44.4 | 15.5 |
| 5 | HILL | 3.00 | 276.75 | 10.63 | 17.22 | 3.00 | 41.5 | 17.8 |
| 13 | DAVIS | 3.00 | 272.25 | 9.72 | 16.82 | 3.00 | 43.3 | 16.9 |
| 15 | FORREST | 3.00 | 250.00 | 8.57 | 16.88 | 3.00 | 42.7 | 17.6 |
| 10 | WILLIAMS | 3.00 | 285.50 | 6.02 | 20.47 | 3.00 | 44.0 | 18.1 |
| 11 | CLARK 63 | 3.00 | 289.00 | 6.70 | 18.06 | 3.00 | 42.6 | 18.0 |
| 14 | IMPROVED PELICAN | 3.00 | 231.25 | 8.35 | 17.19 | 4.00 | 45.9 | 16.8 |
| 4 | RANSOM | 3.00 | 239.25 | 7.05 | 17.43 | 3.00 | 40.7 | 22.0 |
| 3 | BRAGG | 3.00 | 249.00 | 6.02 | 21.04 | 3.00 | 42.6 | 18.1 |
| 6 | PICKETT 71 | 3.00 | 216.75 | 8.45 | 17.60 | 3.00 | 44.1 | 16.8 |
| 2 | WOODWORTH | 3.00 | 248.75 | 6.12 | 17.47 | 3.00 | 42.0 | 17.5 |
| 16 | COLUMBUS | 3.00 | 211.75 | 6.97 | 20.10 | 3.00 | 44.4 | 17.5 |
| 7 | CUTLER 71 | 3.00 | 211.75 | 5.62 | 21.69 | 4.00 | 44.5 | 16.6 |
| 9 | BOSSIER | 3.00 | 188.75 | 6.72 | 19.08 | 3.00 | 45.9 | 16.5 |
| 12 | COBB | 3.00 | 215.75 | 4.97 | 20.01 | 3.00 | 42.6 | 17.3 |
| | GRAND MEAN | 3.00 | 247.45 | 7.47 | 18.90 | 3.19 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.45 | 1.08 | 0.69 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 11.68% | 28.96% | 7.30% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 41.17 | 3.08 | 1.96 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.53** | 0.64** | 0.24 | 0.06 |
| DAYS TO FLOWER | 0.00 | -0.16 | -0.31* | 0.14 | 0.31* |
| DAYS TO MATURITY | 0.00 | 0.19 | 0.31* | 0.12 | 0.01 |
| NODULE NUMBER 1 | 0.00 | 0.30* | 0.26* | 0.21 | -0.27* |
| NODULE NUMBER 2 | 0.00 | 0.12 | 0.28* | -0.05 | -0.32** |
| NODULE WEIGHT 1 | 0.00 | 0.30* | 0.24 | 0.14 | -0.20 |
| NODULE WEIGHT 2 | 0.00 | 0.22 | 0.37** | 0.07 | -0.09 |
| PLANT HEIGHT | 0.00 | 0.28* | 0.23 | 0.09 | 0.05 |
| LODGING | 0.00 | -0.03 | 0.03 | 0.37** | 0.21 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.32** | 0.13 | -0.01 |
| PODS PER PLANT | 0.00 | 0.32** | 1.00 | -0.12 | -0.06 |
| 100 SEED WEIGHT | 0.00 | 0.13 | -0.12 | 1.00 | 0.32** |
| QUALITY OF SEED | 0.00 | -0.01 | -0.06 | 0.32** | 1.00 |

TABLE 184 EXPERIMENT 147 YEAR 1976

REGION - SOUTH AMERICA
SITE - PABANA
LATITUDE - 31 DEG. 50 MIN. S
COOPERATOR - RAUL VICENTINI
DATE PLANTED - NOVEMBER 12, 1976
SOIL PH - 6.3
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 716 MM

COUNTRY - ARGENTINA
ELEVATION - 111 M
LONGITUDE - 60 DEG. 31 MIN. W
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 3404.85 | 25.00 | 111.25 | 74.75 | 162.75 | 0.05 | 0.23 | 63.75 | 1.00 |
| 1 | CALLAND | 3400.68 | 26.75 | 121.75 | 38.50 | 126.50 | 0.02 | 0.21 | 63.75 | 1.00 |
| 5 | CLARK 63 | 3359.00 | 25.00 | 117.75 | 49.75 | 146.25 | 0.02 | 0.19 | 70.00 | 1.00 |
| 2 | WOODWORTH | 2967.26 | 25.00 | 109.00 | 41.50 | 117.25 | 0.01 | 0.12 | 57.50 | 1.00 |
| 3 | CUTLER 71 | 2646.36 | 32.00 | 133.50 | 149.50 | 252.50 | 0.13 | 1.21 | 68.75 | 1.00 |
| 6 | WELLS | 2646.36 | 25.00 | 98.00 | 87.75 | 125.00 | 0.07 | 0.27 | 48.75 | 1.00 |
| 7 | BEESON | 2546.34 | 25.00 | 103.50 | 70.00 | 118.50 | 0.04 | 0.22 | 48.75 | 1.00 |
| 8 | COLUMBUS | 1683.67 | 32.00 | 141.00 | 101.75 | 210.00 | 0.08 | 0.47 | 75.00 | 1.00 |
| | GRAND MEAN | 2831.82 | 26.97 | 116.97 | 76.69 | 157.34 | 0.05 | 0.37 | 62.03 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 190.43 | 0.62 | 2.85 | 11.60 | 28.23 | 0.01 | 0.28 | 2.09 | 0.00 |
| | COEFFICIENT OF VARIATION | 13.45% | 4.59% | 4.88% | 30.25% | 35.88% | 28.51% | 153.02% | 6.73% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 560.06 | 1.82 | 8.39 | 34.11 | 83.03 | 0.02 | ******** | 6.14 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.46** | -0.40* | -0.36* | -0.10 | -0.33 | -0.07 | 0.02 | 0.00 |
| DAYS TO FLOWER | -0.46** | 1.00 | 0.73** | 0.61** | 0.57** | 0.68** | 0.43* | 0.59** | 0.00 |
| DAYS TO MATURITY | -0.40* | 0.73** | 1.00 | 0.34 | 0.55** | 0.43* | 0.40* | 0.75** | 0.00 |
| NODULE NUMBER 1 | -0.36* | 0.61** | 0.34 | 1.00 | 0.50** | 0.94** | 0.32 | 0.19 | 0.00 |
| NODULE NUMBER 2 | -0.10 | 0.57** | 0.55** | 0.50** | 1.00 | 0.64** | 0.89** | 0.50** | 0.00 |
| NODULE WEIGHT 1 | -0.33 | 0.68** | 0.43* | 0.94** | 0.64** | 1.00 | 0.53** | 0.28 | 0.00 |
| NODULE WEIGHT 2 | -0.07 | 0.43* | 0.40* | 0.32 | 0.89** | 0.53** | 1.00 | 0.31 | 0.00 |
| PLANT HEIGHT | 0.02 | 0.59** | 0.75** | 0.19 | 0.50** | 0.28 | 0.31 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.55** | -0.68** | -0.50** | -0.59** | -0.32 | -0.57** | -0.21 | -0.19 | 0.00 |
| PODS PER PLANT | -0.26 | 0.54** | 0.71** | 0.11 | 0.36* | 0.16 | 0.19 | 0.56** | 0.00 |
| 100 SEED WEIGHT | 0.13 | 0.13 | 0.13 | 0.11 | 0.05 | 0.13 | 0.10 | -0.10 | 0.00 |
| QUALITY OF SEED | -0.29 | 0.49** | 0.60** | 0.07 | 0.16 | 0.13 | 0.07 | 0.57** | 0.00 |

TABLE 184 EXPERIMENT 147 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 4 | WILLIAMS | 1.00 | 193.75 | 36.03 | 18.50 | 3.00 |
| 1 | CALLAND | 1.00 | 212.50 | 39.97 | 19.80 | 3.50 |
| 5 | CLARK 63 | 1.00 | 220.25 | 31.45 | 17.88 | 2.50 |
| 2 | WOODWORTH | 1.00 | 188.75 | 37.10 | 17.20 | 3.00 |
| 3 | CUTLER 71 | 1.00 | 148.50 | 39.35 | 20.23 | 3.50 |
| 6 | WELLS | 1.00 | 203.25 | 26.12 | 17.08 | 2.00 |
| 7 | BEESON | 1.00 | 204.00 | 23.97 | 18.60 | 2.00 |
| 8 | COLUMBUS | 1.00 | 155.00 | 50.75 | 16.58 | 4.00 |
| | GRAND MEAN | 1.00 | 190.75 | 35.59 | 18.23 | 2.94 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.41 | 3.57 | 1.17 | 0.30 |
| | COEFFICIENT OF VARIATION | 0.00% | 9.86% | 20.07% | 12.83% | 20.51% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 27.66 | 10.51 | ******** | 0.89 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.55++ | -0.26 | 0.13 | -0.29 |
| DAYS TO FLOWER | 0.00 | -0.68++ | 0.54++ | 0.13 | 0.49++ |
| DAYS TO MATURITY | 0.00 | -0.50++ | 0.71++ | 0.13 | 0.60++ |
| NODULE NUMBER 1 | 0.00 | -0.59++ | 0.11 | 0.11 | 0.07 |
| NODULE NUMBER 2 | 0.00 | -0.32 | 0.36+ | 0.05 | 0.16 |
| NODULE WEIGHT 1 | 0.00 | -0.57++ | 0.16 | 0.13 | 0.13 |
| NODULE WEIGHT 2 | 0.00 | -0.21 | 0.19 | 0.10 | 0.07 |
| PLANT HEIGHT | 0.00 | -0.19 | 0.56++ | -0.10 | 0.57++ |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.44+ | -0.22 | -0.41+ |
| PODS PER PLANT | 0.00 | -0.44+ | 1.00 | 0.02 | 0.55++ |
| 100 SEED WEIGHT | 0.00 | -0.22 | 0.02 | 1.00 | -0.16 |
| QUALITY OF SEED | 0.00 | -0.41+ | 0.55++ | -0.16 | 1.00 |

TABLE 185 EXPERIMENT 26 YEAR 1976

REGION - SOUTH AMERICA
SITE - SANTA CRUZ
LATITUDE - 18 DEG. 39 MIN. S
COOPERATOR - ALBERTO CASTILLO
DATE PLANTED - NOVEMBER 11, 1976
SOIL TYPE - SAND 23%, SILT 54%, CLAY 23%, PH 7.0
AMOUNT OF MOISTURE - 531 MM
NUMBER OF IRRIGATIONS - 2
LOCAL VARIETY - PELICANO

COUNTRY - BOLIVIA
ELEVATION - 389 M
LONGITUDE - 63 DEG. 1 MIN. W
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 5152.70 | 37.75 | 103.25 | 0.00 | 0.00 | 0.00 | 0.00 | 53.00 | 1.00 |
| 12 | COBB | 4983.08 | 40.00 | 107.75 | 0.00 | 0.00 | 0.00 | 0.00 | 70.00 | 1.25 |
| 7 | PELICANO | 4157.91 | 60.75 | 140.25 | 0.00 | 0.00 | 0.00 | 0.00 | 89.50 | 1.75 |
| 15 | FORREST | 3995.38 | 35.50 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 62.00 | 1.25 |
| 14 | IMPROVED PELICAN | 3951.21 | 36.00 | 105.25 | 0.00 | 0.00 | 0.00 | 0.00 | 60.25 | 1.00 |
| 1 | CALLAND | 3694.07 | 35.50 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.25 | 1.50 |
| 11 | CLARK 63 | 3681.39 | 35.50 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.00 | 1.00 |
| 4 | RANSOM | 3627.39 | 38.75 | 106.25 | 0.00 | 0.00 | 0.00 | 0.00 | 56.00 | 1.50 |
| 13 | DAVIS | 3367.34 | 59.00 | 123.75 | 0.00 | 0.00 | 0.00 | 0.00 | 130.50 | 2.50 |
| 5 | HILL | 3302.33 | 36.00 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.25 | 1.50 |
| 16 | COLUMBUS | 3131.04 | 65.25 | 134.25 | 0.00 | 0.00 | 0.00 | 0.00 | 117.50 | 3.00 |
| 8 | JUPITER | 3075.61 | 34.75 | 105.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.75 | 1.00 |
| 10 | WILLIAMS | 2808.06 | 34.25 | 96.75 | 0.00 | 0.00 | 0.00 | 0.00 | 59.50 | 1.00 |
| 9 | BOSSIER | 2625.94 | 34.50 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.00 | 1.25 |
| 6 | PICKETT 71 | 2515.92 | 35.00 | 97.50 | 0.00 | 0.00 | 0.00 | 0.00 | 35.50 | 1.00 |
| 2 | WOODWORTH | 1754.10 | 34.00 | 93.50 | 0.00 | 0.00 | 0.00 | 0.00 | 44.25 | 1.50 |
| | GRAND MEAN | 3489.00 | 40.66 | 107.55 | 0.00 | 0.00 | 0.00 | 0.00 | 66.14 | 1.44 |
| | STANDARD ERROR OF A VARIETY MEAN | 199.27 | 0.71 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 | 4.16 | 0.20 |
| | COEFFICIENT OF VARIATION | 11.42% | 3.49% | 3.23% | 0.00% | 0.00% | 0.00% | 0.00% | 12.58% | 28.16% |
| | 5% LSD VARIETY MEANS (********=NS) | 567.61 | 2.02 | 4.94 | 0.00 | 0.00 | 0.00 | 0.00 | 11.85 | 0.58 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.12 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | -0.10 |
| DAYS TO | FLOWER | 0.12 | 1.00 | 0.94** | 0.00 | 0.00 | 0.00 | 0.00 | 0.86** | 0.72** |
| DAYS TO | MATURITY | 0.23 | 0.94** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.78** | 0.61** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.16 | 0.86** | 0.78** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.68** |
| | LODGING | -0.10 | 0.72** | 0.61** | 0.00 | 0.00 | 0.00 | 0.00 | 0.68** | 1.00 |
| | SHATTER | -0.02 | 0.87** | 0.78** | 0.00 | 0.00 | 0.00 | 0.00 | 0.78** | 0.77** |
| PLANTS | HARVEST | 0.23 | -0.11 | -0.11 | 0.00 | 0.00 | 0.00 | 0.00 | -0.04 | -0.09 |
| PODS PER | PLANT | 0.29* | 0.66** | 0.61** | 0.00 | 0.00 | 0.00 | 0.00 | 0.72** | 0.44** |
| 100 SEED | WEIGHT | -0.22 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.12 | -0.03 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 185 EXPERIMENT 26 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 1.00 | 91.50 | 57.00 | 21.25 | 0.00 | 40.9 | 22.6 |
| 12 | COBB | 1.25 | 113.25 | 55.25 | 20.25 | 0.00 | 36.1 | 24.2 |
| 7 | PELICANO | 2.00 | 75.50 | 36.75 | 22.85 | 0.00 | -- | -- |
| 15 | FORREST | 1.00 | 128.25 | 48.50 | 22.23 | 0.00 | 38.5 | 22.8 |
| 14 | IMPROVED PELICAN | 1.00 | 94.25 | 63.50 | 18.18 | 0.00 | 39.8 | 24.4 |
| 1 | CALLAND | 1.00 | 97.00 | 36.50 | 24.95 | 0.00 | 41.4 | 21.5 |
| 11 | CLARK 63 | 1.00 | 98.00 | 63.50 | 19.88 | 0.00 | 42.3 | 22.6 |
| 4 | BANSOM | 1.00 | 99.00 | 38.50 | 22.45 | 0.00 | 35.8 | 23.4 |
| 13 | DAVIS | 2.00 | 96.00 | 114.25 | 19.10 | 0.00 | 40.3 | 21.8 |
| 5 | HILL | 1.25 | 97.50 | 49.75 | 19.45 | 0.00 | 38.2 | 21.4 |
| 16 | COLUMBUS | 3.00 | 90.50 | 73.00 | 22.85 | 0.00 | 38.5 | 23.5 |
| 8 | JUPITER | 1.00 | 92.25 | 51.25 | 22.48 | 0.00 | -- | -- |
| 10 | WILLIAMS | 1.00 | 86.50 | 37.00 | 21.63 | 0.00 | 42.6 | 22.0 |
| 9 | BOSSIER | 1.25 | 78.75 | 32.50 | 25.60 | 0.00 | 43.8 | 21.2 |
| 6 | PICKETT 71 | 1.00 | 88.75 | 36.50 | 22.83 | 0.00 | 41.0 | 22.5 |
| 2 | WOODWORTH | 1.00 | 83.75 | 37.75 | 21.75 | 0.00 | 41.6 | 22.3 |
| | GRAND MEAN | 1.30 | 94.42 | 55.09 | 21.73 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.11 | 13.51 | 7.33 | 0.65 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 16.57% | 28.62% | 26.59% | 6.00% | 0.00% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.31 | ******** | 20.87 | 1.86 | 0.00 | | |

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.02 | 0.23 | 0.29* | -0.22 | 0.00 |
| DAYS TO | FLOWER | 0.87** | -0.11 | 0.66** | -0.05 | 0.00 |
| DAYS TO | MATURITY | 0.78** | -0.11 | 0.61** | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.78** | -0.04 | 0.72** | -0.12 | 0.00 |
| | LODGING | 0.77** | -0.09 | 0.44** | -0.03 | 0.00 |
| | SHATTER | 1.00 | -0.14 | 0.52** | 0.03 | 0.00 |
| PLANTS | HARVEST | -0.14 | 1.00 | -0.06 | -0.10 | 0.00 |
| PODS PER | PLANT | 0.52** | -0.06 | 1.00 | -0.35** | 0.00 |
| 100 SEED | WEIGHT | 0.03 | -0.10 | -0.35** | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 186 EXPERIMENT 375 YEAR 1976

REGION - SOUTH AMERICA
SITE - SANTA CRUZ
LATITUDE - 17 DEG. 14 MIN. S
COOPERATORS - H. ZURITA O., Z. HUNEZY, W. FISHER
DATE PLANTED - DECEMBER 7, 1976
SOIL TYPE - CLAY, PH 6.0
AMOUNT OF MOISTURE - 958 MM
SUBSTITUTE VARIETY - ACADIAN
LOCAL VARIETY - PELICANO

COUNTRY - BOLIVIA
ELEVATION - 320 M
LONGITUDE - 63 DEG. 10 MIN. W
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 3366.92 | 35.00 | 98.00 | 336.50 | 438.50 | 0.00 | 0.00 | 68.50 | 1.00 |
| 9 | BOSSIER | 3057.69 | 29.00 | 104.00 | 191.00 | 204.00 | 0.00 | 0.00 | 48.75 | 1.00 |
| 8 | JUPITER | 3042.27 | 54.00 | 123.00 | 324.00 | 449.25 | 0.00 | 0.00 | 114.00 | 2.00 |
| 4 | RAMSON | 3011.44 | 29.00 | 104.00 | 220.25 | 364.75 | 0.00 | 0.00 | 47.00 | 1.00 |
| 12 | COBB | 2990.60 | 33.00 | 113.00 | 193.00 | 449.75 | 0.00 | 0.00 | 56.75 | 1.00 |
| 15 | FORREST | 2797.64 | 29.50 | 104.00 | 162.25 | 200.25 | 0.00 | 0.00 | 59.25 | 1.00 |
| 6 | PICKETT 71 | 2795.98 | 29.00 | 91.00 | 69.50 | 100.50 | 0.00 | 0.00 | 45.50 | 1.00 |
| 1 | CALLAND | 2613.44 | 25.50 | 82.00 | 169.25 | 243.25 | 0.00 | 0.00 | 67.50 | 1.00 |
| 5 | HILL | 2569.68 | 31.50 | 92.50 | 171.75 | 221.50 | 0.00 | 0.00 | 58.00 | 1.00 |
| 14 | IMPROVED PELICAN | 2560.93 | 55.00 | 113.00 | 176.25 | 189.75 | 0.00 | 0.00 | 116.25 | 1.25 |
| 11 | CLARK 63 | 2469.6[illegible] | 25.75 | 82.00 | 249.50 | 352.75 | 0.00 | 0.00 | 64.00 | 1.00 |
| 16 | ACADIAN | 2336.72 | 47.50 | 113.00 | 251.75 | 381.50 | 0.00 | 0.00 | 119.50 | 1.75 |
| 3 | BRAGG | 2281.29 | 29.00 | 104.00 | 148.25 | 171.50 | 0.00 | 0.00 | 54.25 | 1.00 |
| 10 | WILLIAMS | 2273.37 | 33.50 | 90.50 | 266.25 | 369.50 | 0.00 | 0.00 | 66.50 | 1.00 |
| 2 | WOODWORTH | 2215.86 | 27.00 | 91.25 | 221.75 | 249.75 | 0.00 | 0.00 | 56.00 | 1.00 |
| 7 | PELICANO | 2067.07 | 42.50 | 108.00 | 190.00 | 298.50 | 0.00 | 0.00 | 123.25 | 2.50 |
| | GRAND MEAN | 2649.41 | 34.73 | 100.83 | 208.95 | 292.81 | 0.00 | 0.00 | 72.81 | 1.22 |
| | STANDARD ERROR OF A VARIETY MEAN | 195.61 | 2.75 | 1.51 | 40.84 | 50.31 | 0.00 | 0.00 | 3.05 | 0.11 |
| | COEFFICIENT OF VARIATION | 14.77% | 15.82% | 3.00% | 39.09% | 34.37% | 0.00% | 0.00% | 8.37% | 18.09% |
| | 5% LSD VARIETY MEANS (********=NS) | 557.19 | 7.82 | 4.31 | 116.32 | 143.31 | 0.00 | 0.00 | 8.68 | 0.31 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.01 | 0.14 | 0.08 | 0.17 | 0.00 | 0.00 | -0.19 | -0.20 |
| DAYS TO | FLOWER | -0.01 | 1.00 | 0.66** | 0.21 | 0.20 | 0.00 | 0.00 | 0.78** | 0.54** |
| DAYS TO | MATURITY | 0.14 | 0.66** | 1.0 | 0.11 | 0.15 | 0.00 | 0.00 | 0.54** | 0.50** |
| NODULE | NUMBER 1 | 0.08 | 0.21 | 0.11 | 1.00 | 0.66** | 0.00 | 0.00 | 0.20 | 0.18 |
| NODULE | NUMBER 2 | 0.17 | 0.20 | 0.15 | 0.66** | 1.00 | 0.00 | 0.00 | 0.17 | 0.21 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.19 | 0.78** | 0.54** | 0.20 | 0.17 | 0.00 | 0.00 | 1.00 | 0.79** |
| | LODGING | -0.20 | 0.54** | 0.50** | 0.18 | 0.21 | 0.00 | 0.00 | 0.79** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.21 | -0.27* | -0.26* | -0.02 | -0.17 | 0.00 | 0.00 | -0.01 | 0.04 |
| PODS PER | PLANT | 0.32* | 0.38** | 0.59** | -0.04 | 0.10 | 0.00 | 0.00 | 0.40** | 0.47** |
| 100 SEED | WEIGHT | 0.40** | -0.24 | -0.16 | 0.11 | 0.10 | 0.00 | 0.00 | -0.28* | -0.22 |
| QUALITY | OF SEED | 0.19 | -0.16 | -0.13 | 0.07 | 0.07 | 0.00 | 0.00 | -0.14 | -0.05 |

TABLE 186 EXPERIMENT 375 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.00 | 189.25 | 37.23 | 16.00 | 2.00 |
| 9 | BOSSIER | 1.00 | 151.00 | 38.78 | 16.75 | 1.00 |
| 8 | JUPITER | 1.00 | 158.50 | 38.10 | 17.75 | 2.00 |
| 4 | RANSOM | 1.00 | 181.75 | 32.33 | 17.50 | 2.00 |
| 12 | COBB | 1.00 | 149.00 | 46.10 | 14.75 | 2.00 |
| 15 | FORREST | 1.00 | 162.50 | 40.93 | 15.00 | 1.25 |
| 6 | PICKETT 71 | 1.00 | 176.25 | 32.85 | 15.75 | 2.00 |
| 1 | CALLAND | 1.00 | 169.75 | 28.63 | 17.00 | 2.00 |
| 5 | HILL | 1.00 | 177.75 | 33.68 | 14.50 | 1.75 |
| 14 | IMPROVED PELICAN | 1.00 | 160.50 | 39.30 | 13.75 | 1.50 |
| 11 | CLARK 63 | 1.00 | 179.25 | 26.33 | 15.75 | 1.75 |
| 16 | ACADIAN | 1.00 | 169.75 | 38.08 | 14.75 | 1.25 |
| 3 | BRAGG | 1.00 | 183.00 | 29.40 | 16.75 | 1.25 |
| 10 | WILLIAMS | 1.00 | 173.25 | 27.25 | 16.75 | 1.00 |
| 2 | WOODWORTH | 1.00 | 183.25 | 26.83 | 16.75 | 2.00 |
| 7 | PELICANO | 1.00 | 192.50 | 47.15 | 13.75 | 1.25 |
| | GRAND MEAN | 1.00 | 172.14 | 35.19 | 15.83 | 1.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 10.15 | 2.74 | 0.52 | 0.15 |
| | COEFFICIENT OF VARIATION | 0.00% | 11.79% | 15.58% | 6.57% | 18.91% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 7.81 | 1.48 | 0.44 |
| | C O R R E L A T I O N S | | (* - PROB=.05 | | ** - PROB=.01) | |
| | YIELD KG/HA | 0.00 | -0.21 | 0.32* | 0.40** | 0.19 |
| | DAYS TO FLOWER | 0.00 | -0.27* | 0.33** | -0.24 | -0.16 |
| | DAYS TO MATURITY | 0.00 | -0.26* | 0.59** | -0.16 | -0.13 |
| | NODULE NUMBER 1 | 0.00 | -0.02 | -0.04 | 0.11 | 0.07 |
| | NODULE NUMBER 2 | 0.00 | -0.17 | 0.10 | 0.10 | 0.07 |
| | NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | PLANT HEIGHT | 0.00 | -0.01 | 0.40** | -0.28* | -0.14 |
| | LODGING | 0.00 | 0.04 | 0.47** | -0.22 | -0.05 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | PLANTS HARVEST | 0.00 | 1.00 | -0.33** | -0.07 | 0.05 |
| | PODS PER PLANT | 0.00 | -0.38** | 1.00 | -0.32** | -0.06 |
| | 100 SEED WEIGHT | 0.00 | -0.07 | -0.32** | 1.00 | 0.08 |
| | QUALITY OF SEED | 0.00 | 0.05 | -0.06 | 0.08 | 1.00 |

TABLE 187 EXPERIMENT 363 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - BRAZIL
SITE - JANAUBA ELEVATION - 510 M
LATITUDE - 15 DEG. S LONGITUDE - 44 DEG. W
COOPERATOR - BENCHMARK SOILS PROJECT
DATE PLANTED - NOVEMBER 25, 1976 DATE HARVESTED - MARCH, 1977
SOIL TYPE - SAND 20%, SILT 17%, CLAY 63%, PH 5.8
FERTILIZER USED (KG/HA) - N 25.0, P 130.0, K 50.0
AMOUNT OF MOISTURE - 717 MM
NUMBER OF IRRIGATIONS - 11 (331 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 4473.39 | 30.75 | 105.50 | 0.00 | 0.00 | 0.00 | 0.00 | 64.25 | 1.00 |
| 3 | BRAGG | 4002.88 | 26.25 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 49.75 | 1.00 |
| 4 | RANSOM | 3814.93 | 24.25 | 100.50 | 0.00 | 0.00 | 0.00 | 0.00 | 37.75 | 1.00 |
| 9 | BOSSIER | 3512.79 | 25.50 | 100.75 | 0.00 | 0.00 | 0.00 | 0.00 | 31.50 | 1.00 |
| 15 | FORREST | 3476.11 | 29.00 | 99.25 | 0.00 | 0.00 | 0.00 | 0.00 | 54.25 | 1.00 |
| 16 | COLUMBUS | 3397.35 | 24.75 | 85.00 | 0.00 | 0.00 | 0.00 | 0.00 | 56.25 | 1.00 |
| 11 | CLARK 63 | 3261.90 | 24.25 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.75 | 1.50 |
| 12 | COBB | 2941.00 | 28.75 | 122.50 | 0.00 | 0.00 | 0.00 | 0.00 | 54.50 | 1.00 |
| 7 | CUTLER 71 | 2879.33 | 26.50 | 82.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.75 | 1.00 |
| 1 | CALLAND | 2766.39 | 24.50 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 52.75 | 1.00 |
| 6 | PICKETT 71 | 2698.04 | 27.25 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.25 | 1.00 |
| 2 | WOODWORTH | 2654.70 | 25.00 | 82.00 | 0.00 | 0.00 | 0.00 | 0.00 | 48.75 | 1.00 |
| 5 | HILL | 2640.94 | 30.75 | 90.25 | 0.00 | 0.00 | 0.00 | 0.00 | 48.25 | 1.00 |
| 10 | WILLIAMS | 2597.60 | 26.00 | 82.50 | 0.00 | 0.00 | 0.00 | 0.00 | 51.50 | 1.00 |
| 14 | IMPROVED PELICAN | 1178.15 | 40.75 | 144.25 | 0.00 | 0.00 | 0.00 | 0.00 | 120.75 | 2.50 |
| 8 | JUPITER | 153.36 | 47.75 | 157.00 | 0.00 | 0.00 | 0.00 | 0.00 | 101.50 | 4.00 |
| | GRAND MEAN | 2903.05 | 28.88 | 101.05 | 0.00 | 0.00 | 0.00 | 0.00 | 57.34 | 1.31 |
| | STANDARD ERROR OF A VARIETY MEAN | 278.58 | 0.95 | 2.14 | 0.00 | 0.00 | 0.00 | 0.00 | 3.07 | 0.21 |
| | COEFFICIENT OF VARIATION | 19.19% | 6.58% | 4.23% | 0.00% | 0.00% | 0.00% | 0.00% | 10.72% | 31.62% |
| | 5% LSD VARIETY MEANS (*********=NS) | 793.52 | 2.71 | 6.09 | 0.00 | 0.00 | 0.00 | 0.00 | 8.76 | 0.59 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | -0.67** | -0.58** | 0.00 | 0.00 | 0.00 | 0.00 | -0.55** | -0.67** |
| DAYS TO | FLOWER | -0.67** | 1.00 | 0.86** | 0.00 | 0.00 | 0.00 | 0.00 | 0.78** | 0.85** |
| DAYS TO | MATURITY | -0.58** | 0.86** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69** | 0.73** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.55** | 0.78** | 0.69** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.75** |
| | LODGING | -0.67** | 0.85** | 0.73** | 0.00 | 0.00 | 0.00 | 0.00 | 0.75** | 1.00 |
| | SHATTER | -0.30* | 0.31* | 0.34** | 0.00 | 0.00 | 0.00 | 0.00 | 0.27* | 0.16 |
| PLANTS | HARVEST | 0.36** | -0.06 | -0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | -0.04 |
| PODS PER | PLANT | -0.51** | 0.63** | 0.61** | 0.00 | 0.00 | 0.00 | 0.00 | 0.49** | 0.45** |
| 100 SEED | WEIGHT | 0.82** | -0.84** | -0.78** | 0.00 | 0.00 | 0.00 | 0.00 | -0.76** | -0.78** |
| QUALITY | OF SEED | -0.39** | 0.58** | 0.75** | 0.00 | 0.00 | 0.00 | 0.00 | 0.46** | 0.46** |

TABLE 187 EXPERIMENT 363 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.75 | 305.50 | 20.06 | 19.70 | 3.25 | 39.6 | 23.4 |
| 3 | BRAGG | 1.00 | 280.50 | 21.33 | 19.43 | 2.50 | 40.1 | 23.3 |
| 4 | RANSOM | 1.00 | 258.50 | 15.[illegible] | 19.70 | 2.75 | 37.9 | 25.6 |
| 9 | BOSSIER | 1.00 | 157.25 | 27.[illegible] | 14.50 | 3.50 | 42.6 | 22.1 |
| 15 | FORREST | 1.00 | 233.25 | 32.0[illegible] | 14.33 | 3.50 | 39.3 | 22.8 |
| 16 | COLUMBUS | 1.00 | 202.25 | 25.30 | 17.78 | 2.25 | 42.0 | 23.1 |
| 11 | CLARK 63 | 1.00 | 273.75 | 17.12 | 16.35 | 2.25 | 39.9 | 23.3 |
| 12 | COBB | 2.25 | 198.75 | 26.65 | 16.15 | 4.50 | 38.7 | 24.9 |
| 7 | CUTLER 71 | 1.00 | 177.[illegible] | 25.40 | 17.83 | 2.25 | 39.6 | 23.2 |
| 1 | CALLAND | 1.50 | 246.25 | 16.75 | 13.98 | 3.00 | 41.0 | 22.3 |
| 6 | PICKETT 71 | 1.25 | 164.25 | 25.30 | 17.63 | 1.50 | 39.8 | 24.3 |
| 2 | WOODWORTH | 1.25 | 234.75 | 19.72 | 15.75 | 1.50 | 37.4 | 24.3 |
| 5 | HILL | 1.50 | 228.50 | 26.45 | 15.25 | 2.50 | 39.0 | 22.3 |
| 10 | WILLIAMS | 1.00 | 252.75 | 17.53 | 19.55 | 1.25 | 42.0 | 22.8 |
| 14 | IMPROVED PELICAN | 2.25 | 190.50 | 38.12 | 8.00 | 4.25 | 42.2 | 18.8 |
| 8 | JUPITER | 1.25 | 234.00 | 38.05 | 4.00 | 5.00 | 43.9 | 12.6 |
| | GRAND MEAN | 1.31 | 227.38 | 24.56 | 16.21 | 2.86 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.28 | 14.95 | 3.24 | 0.66 | 0.35 | | |
| | COEFFICIENT OF VARIATION | 41.92% | 13.15% | 26.35% | 8.20% | 24.22% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.78 | 42.57 | 9.22 | 1.89 | 0.99 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.30* | 0.36** | -0.51** | 0.82** | -0.39** |
| DAYS TO | FLOWER | 0.31* | -0.06 | 0.63** | -0.84** | 0.58** |
| DAYS TO | MATURITY | 0.34** | -0.12 | 0.61** | -0.78** | 0.75** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.27* | 0.08 | 0.49** | -0.76** | 0.36** |
| | LODGING | 0.16 | -0.04 | 0.45** | -0.78** | 0.46** |
| | SHATTER | 1.00 | -0.21 | 0.23 | -0.21 | 0.44** |
| PLANTS | HARVEST | -0.21 | 1.00 | -0.43** | 0.18 | -0.18 |
| PODS PER | PLANT | 0.23 | -0.43** | 1.00 | -0.65** | 0.52** |
| 100 SEED | WEIGHT | -0.21 | 0.18 | -0.65** | 1.00 | -0.56** |
| QUALITY | OF SEED | 0.44** | -0.18 | 0.52** | -0.56** | 1.00 |

TABLE 188 EXPERIMENT 646 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - BRAZIL
SITE - MANAUS
LATITUDE - 3 DEG. 8 MIN. S LONGITUDE - 60 DEG. 2 MIN. W
COOPERATOR - F. RAHMAN
DATE PLANTED - JUNE 30, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SILT
FERTILIZER USED (KG/HA) - P 35.0, K 66.0

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | HAMPTON 266A | 562.86 | 24.25 | 79.75 | 0.00 | 0.00 | 0.00 | 0.00 | 20.85 | 1.00 |
| 14 | CALLAND | 543.86 | 24.00 | 82.50 | 0.00 | 0.00 | 0.00 | 0.00 | 27.80 | 1.00 |
| 6 | BOSSIER | 539.07 | 24.00 | 81.25 | 0.00 | 0.00 | 0.00 | 0.00 | 20.13 | 1.00 |
| 13 | WILLIAMS | 538.86 | 24.50 | 76.75 | 0.00 | 0.00 | 0.00 | 0.00 | 24.03 | 1.00 |
| 7 | DAVIS | 507.39 | 29.75 | 80.75 | 0.00 | 0.00 | 0.00 | 0.00 | 20.05 | 1.00 |
| 9 | FORREST | 498.14 | 24.25 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 23.80 | 1.00 |
| 10 | COLUMBUS | 493.22 | 24.50 | 78.75 | 0.00 | 0.00 | 0.00 | 0.00 | 21.58 | 1.00 |
| 12 | WOODWORTH | 457.38 | 25.00 | 73.50 | 0.00 | 0.00 | 0.00 | 0.00 | 27.80 | 1.00 |
| 15 | SEMMES | 438.42 | 26.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 17.38 | 1.00 |
| 8 | TRACY | 399.87 | 24.25 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.60 | 1.00 |
| 1 | JUPITER | 399.58 | 32.00 | 84.25 | 0.00 | 0.00 | 0.00 | 0.00 | 50.30 | 1.00 |
| 3 | HARDEE | 373.41 | 29.75 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.13 | 1.00 |
| 11 | CLARK 63 | 360.78 | 24.75 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.00 | 1.00 |
| 5 | COBB | 359.11 | 26.25 | 81.75 | 0.00 | 0.00 | 0.00 | 0.00 | 17.63 | 1.00 |
| 4 | IMPROVED PELICAN | 309.44 | 24.25 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 17.45 | 1.00 |
| | GRAND MEAN | 452.09 | 25.83 | 78.78 | 0.00 | 0.00 | 0.00 | 0.00 | 23.63 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 72.01 | 0.78 | 2.02 | 0.00 | 0.00 | 0.00 | 0.00 | 1.98 | 0.00 |
| | COEFFICIENT OF VARIATION | 31.85% | 6.07% | 5.14% | 0.00% | 0.00% | 0.00% | 0.00% | 16.77% | 0.00% |
| | 5% LSD VARIETY MEANS (*********=NS) | ******** | 2.24 | 5.78 | 0.00 | 0.00 | 0.00 | 0.00 | 5.66 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.19 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 |
| DAYS TO FLOWER | -0.19 | 1.00 | 0.30* | 0.00 | 0.00 | 0.00 | 0.00 | 0.41** | 0.00 |
| DAYS TO MATURITY | 0.04 | 0.30* | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42** | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.10 | 0.41** | 0.42** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.25 | 0.04 | -0.22 | 0.00 | 0.00 | 0.00 | 0.00 | -0.15 | 0.00 |
| PODS PER PLANT | -0.05 | 0.12 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33** | 0.00 |
| 100 SEED WEIGHT | 0.23 | -0.48** | -0.07 | 0.00 | 0.00 | 0.00 | 0.00 | -0.13 | 0.00 |
| QUALITY OF SEED | -0.09 | -0.22 | -0.26* | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 |

TABLE 188 EXPERIMENT 646 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 2 | HAMPTON 266A | 0.00 | 107.75 | 16.65 | 16.70 | 2.50 |
| 14 | CALLAND | 0.00 | 132.00 | 12.35 | 20.25 | 2.00 |
| 6 | BOSSIER | 0.00 | 112.00 | 15.58 | 15.75 | 1.75 |
| 13 | WILLIAMS | 0.00 | 93.50 | 17.03 | 18.83 | 1.25 |
| 7 | DAVIS | 0.00 | 144.25 | 13.90 | 15.13 | 1.50 |
| 9 | FORREST | 0.00 | 141.25 | 12.30 | 15.25 | 2.75 |
| 10 | COLUMBUS | 0.00 | 129.50 | 13.20 | 16.88 | 2.00 |
| 12 | WOODWORTH | 0.00 | 42.50 | 23.00 | 15.83 | 1.75 |
| 15 | SEMMES | 0.00 | 132.25 | 12.63 | 15.75 | 1.50 |
| 8 | TRACY | 0.00 | 141.75 | 10.55 | 15.63 | 2.50 |
| 1 | JUPITER | 0.00 | 117.00 | 19.70 | 13.13 | 2.00 |
| 3 | HARDEE | 0.00 | 98.00 | 24.25 | 13.63 | 1.00 |
| 11 | CLARK 63 | 0.00 | 23.50 | 27.83 | 16.63 | 2.00 |
| 5 | COBB | 0.00 | 27.50 | 24.45 | 16.25 | 1.50 |
| 4 | IMPROVED PELICAN | 0.00 | 137.75 | 9.77 | 14.90 | 1.75 |
| | GRAND MEAN | 0.00 | 105.37 | 16.88 | 16.03 | 1.85 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 14.09 | 2.62 | 0.62 | 0.30 |
| | COEFFICIENT OF VARIATION | 0.00% | 26.74% | 31.05% | 7.80% | 32.70% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 40.20 | 7.48 | 1.78 | 0.86 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.25 | -0.05 | 0.23 | -0.09 |
| DAYS TO | FLOWER | 0.00 | 0.04 | 0.12 | -0.48** | -0.22 |
| DAYS TO | MATURITY | 0.00 | -0.22 | 0.21 | -0.07 | -0.26* |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | -0.15 | 0.33** | -0.13 | 0.05 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.65** | -0.07 | 0.28* |
| PODS PER | PLANT | 0.00 | -0.65** | 1.00 | -0.13 | -0.26* |
| 100 SEED | WEIGHT | 0.00 | -0.07 | -0.13 | 1.00 | -0.00 |
| QUALITY | OF SEED | 0.00 | 0.28* | -0.26* | -0.00 | 1.00 |

TABLE 189 EXPERIMENT 1 YEAR 1976

REGION - SOUTH AMERICA
SITE - MANAUS
LATITUDE - 3 DEG. 8 MIN. S
COOPERATOR - PAZAL BAHNAR
DATE PLANTED - NOVEMBER 23, 1976
SOIL TYPE - CLAY
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
LOCAL VARIETY - MANAUS-1

COUNTRY - BRAZIL
ELEVATION - 30 M
LONGITUDE - 60 DEG. 2 MIN. W
DATE HARVESTED - FEBRUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | MANAUS-1 | 2217.11 | 30.00 | 119.00 | 69.00 | 106.00 | 0.77 | 1.18 | 95.12 | 3.25 |
| 7 | JUPITER | 1373.19 | 38.00 | 110.50 | 79.25 | 52.50 | 0.55 | 0.70 | 66.45 | 3.00 |
| 5 | HILL | 1264.88 | 26.75 | 74.50 | 37.25 | 36.25 | 0.63 | 0.67 | 36.18 | 1.00 |
| 14 | FORREST | 1100.72 | 26.00 | 87.00 | 39.75 | 66.00 | 0.60 | 1.10 | 38.80 | 1.00 |
| 9 | WILLIAMS | 936.65 | 25.25 | 85.25 | 77.50 | 44.00 | 1.08 | 0.38 | 73.27 | 1.50 |
| 4 | RANSOM | 816.54 | 26.75 | 90.50 | 57.25 | 39.75 | 0.65 | 0.67 | 35.25 | 1.00 |
| 2 | WOODWORTH | 776.20 | 23.00 | 75.00 | 41.75 | 34.75 | 0.78 | 0.63 | 65.37 | 1.00 |
| 3 | BRAGG | 745.27 | 26.00 | 89.50 | 62.50 | 66.50 | 0.80 | 0.80 | 36.78 | 1.00 |
| 12 | DAVIS | 728.27 | 26.00 | 88.75 | 40.75 | 46.25 | 0.90 | 1.05 | 34.70 | 1.00 |
| 6 | PICKETT 71 | 641.09 | 26.00 | 87.75 | 31.75 | 46.25 | 0.50 | 0.83 | 28.30 | 1.00 |
| 8 | BOSSIER | 559.32 | 25.25 | 90.75 | 45.25 | 45.25 | 0.70 | 0.55 | 33.08 | 1.00 |
| 16 | ESSEX | 530.90 | 23.75 | 87.00 | 81.75 | 42.50 | 0.82 | 0.80 | 29.65 | 1.00 |
| 10 | CLARK 63 | 476.60 | 23.75 | 86.00 | 72.25 | 33.50 | 0.95 | 0.60 | 71.98 | 1.50 |
| 13 | IMPROVED PELICAN | 320.73 | 33.00 | 98.25 | 34.25 | 54.50 | 0.65 | 0.90 | 90.42 | 2.00 |
| 1 | CALLAND | 271.76 | 23.75 | 84.50 | 56.50 | 42.00 | 0.93 | 0.83 | 73.98 | 1.50 |
| 11 | COBB | 230.50 | 27.75 | 93.75 | 32.50 | 53.00 | 0.55 | 0.60 | 39.75 | 1.00 |
| | GRAND MEAN | 811.86 | 28.19 | 90.50 | 53.70 | 50.56 | 0.74 | 0.80 | 53.07 | 1.42 |
| | STANDARD ERROR OF A VARIETY MEAN | 251.41 | 0.58 | 1.48 | 13.68 | 13.67 | 0.15 | 0.15 | 2.61 | 0.13 |
| | COEFFICIENT OF VARIATION | 61.93% | 4.08% | 3.27% | 50.96% | 54.07% | 39.22% | 37.86% | 9.84% | 18.02% |
| | 5% LSD VARIETY MEANS (********=NS) | 716.12 | 1.64 | 4.22 | ******** | ******** | ******** | ******** | 7.44 | 0.36 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.53** | 0.36** | 0.08 | 0.23 | -0.04 | 0.15 | 0.18 | 0.44** |
| DAYS TO | FLOWER | 0.53** | 1.00 | 0.86** | 0.14 | 0.44** | -0.11 | 0.24 | 0.54** | 0.84** |
| DAYS TO | MATURITY | 0.36** | 0.86** | 1.00 | 0.21 | 0.47** | -0.13 | 0.19 | 0.44** | 0.79** |
| NODULE | NUMBER 1 | 0.08 | 0.14 | 0.21 | 1.00 | -0.02 | 0.49** | -0.09 | 0.17 | 0.26* |
| NODULE | NUMBER 2 | 0.23 | 0.44** | 0.47** | -0.02 | 1.00 | 0.05 | 0.57** | 0.19 | 0.38** |
| NODULE | WEIGHT 1 | -0.04 | -0.11 | -0.13 | 0.49** | 0.05 | 1.00 | 0.07 | 0.15 | -0.07 |
| NODULE | WEIGHT 2 | 0.15 | 0.24 | 0.19 | -0.09 | 0.57** | 0.07 | 1.00 | 0.16 | 0.26* |
| PLANT | HEIGHT | 0.18 | 0.54** | 0.44** | 0.17 | 0.19 | 0.15 | 0.16 | 1.00 | 0.71** |
| | LODGING | 0.44** | 0.38** | 0.79** | 0.26* | 0.38** | -0.07 | 0.26* | 0.71** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.05 | -0.37** | -0.42** | -0.10 | -0.10 | 0.23 | 0.05 | -0.29* | -0.44** |
| PODS PER | PLANT | 0.51** | 0.85** | 0.70** | 0.13 | 0.46** | -0.02 | 0.23 | 0.57** | 0.71** |
| 100 SEED | WEIGHT | -0.32* | -0.35** | -0.05 | 0.22 | -0.01 | 0.10 | -0.04 | -0.33** | -0.19 |
| QUALITY | OF SEED | -0.20 | -0.04 | 0.18 | 0.09 | 0.12 | 0.14 | -0.01 | -0.23 | -0.14 |

TABLE 189 EXPERIMENT 1 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 15 | MANTUS-1 | 1.00 | 133.50 | 119.38 | 14.53 | 3.00 |
| 7 | JUPITER | 1.00 | 104.25 | 51.43 | 21.25 | 2.75 |
| 5 | HILL | 1.00 | 140.75 | 36.45 | 16.00 | 1.75 |
| 14 | FORREST | 1.00 | 142.25 | 48.03 | 17.05 | 3.00 |
| 9 | WILLIAMS | 1.00 | 139.75 | 39.50 | 20.13 | 2.25 |
| 4 | RANSOM | 1.00 | 143.75 | 36.25 | 22.00 | 3.75 |
| 2 | WOODWORTH | 1.00 | 138.75 | 43.63 | 16.63 | 2.50 |
| 3 | BRAGG | 1.00 | 136.50 | 35.03 | 21.13 | 3.25 |
| 12 | DAVIS | 1.00 | 147.25 | 40.65 | 19.88 | 3.25 |
| 6 | PICKETT 71 | 1.00 | 135.25 | 33.05 | 19.75 | 2.50 |
| 8 | BOSSIER | 1.00 | 140.75 | 40.33 | 20.68 | 3.75 |
| 16 | ESSEX | 1.00 | 136.25 | 33.35 | 19.00 | 3.25 |
| 10 | CLARK 63 | 1.00 | 144.25 | 37.93 | 19.38 | 2.75 |
| 13 | IMPROVED PELICAN | 1.00 | 115.00 | 52.73 | 16.45 | 2.25 |
| 1 | CALLAND | 1.00 | 146.25 | 39.23 | 20.00 | 3.00 |
| 11 | COBB | 1.00 | 135.75 | 43.43 | 16.75 | 3.25 |
| | GRAND MEAN | 1.00 | 136.27 | 45.65 | 18.95 | 2.89 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 6.03 | 3.86 | 0.76 | 0.33 |
| | COEFFICIENT OF VARIATION | 0.00% | 8.86% | 16.93% | 8.21% | 22.75% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 17.19 | 11.01 | 2.21 | 0.94 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.05 | 0.51** | -0.32* | -0.20 |
| DAYS TO FLOWER | 0.00 | -0.37** | 0.85** | -0.35** | -0.04 |
| DAYS TO MATURITY | 0.00 | -0.42** | 0.70** | -0.05 | 0.18 |
| NODULE NUMBER 1 | 0.00 | -0.10 | 0.13 | 0.22 | 0.09 |
| NODULE NUMBER 2 | 0.00 | -0.10 | 0.46** | -0.01 | 0.12 |
| NODULE WEIGHT 1 | 0.00 | 0.23 | -0.02 | 0.10 | 0.14 |
| NODULE WEIGHT 2 | 0.00 | 0.05 | 0.23 | -0.04 | -0.01 |
| PLANT HEIGHT | 0.00 | -0.29* | 0.57** | -0.33** | -0.23 |
| LODGING | 0.00 | -0.44** | 0.71** | -0.19 | -0.14 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.15 | -0.03 | 0.16 |
| PODS PER PLANT | 0.00 | -0.15 | 1.00 | -0.53** | 0.03 |
| 100 SEED WEIGHT | 0.00 | -0.03 | -0.53** | 1.00 | 0.32** |
| QUALITY OF SEED | 0.00 | 0.16 | 0.03 | 0.32** | 1.00 |

TABLE 190 EXPERIMENT 995 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - BRAZIL
SITE - MANAUS ELEVATION - 30 M
LATITUDE - 3 DEG. 8 MIN. S LONGITUDE - 60 DEG. 2 MIN. W
COOPERATOR - FAZAL RAHMAN
DATE PLANTED - NOVEMBER 24, 1976 DATE HARVESTED - MARCH, 1977
SOIL TYPE - CLAY, PH 4.8
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 602 MM

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | TGM 256-1-B | 1145.02 | 40.00 | 94.00 | 42.50 | 40.50 | 0.28 | 0.50 | 73.37 | 1.75 |
| 5 | TGM 294-4-2371 | 977.61 | 40.75 | 94.00 | 52.75 | 108.25 | 0.30 | 0.62 | 70.18 | 1.25 |
| 4 | TGM 220-1-2205 | 763.94 | 42.00 | 110.00 | 28.00 | 51.75 | 0.30 | 0.55 | 57.90 | 2.75 |
| 1 | TGM 255-2-4341 | 705.93 | 33.50 | 101.75 | 37.50 | 64.50 | 0.28 | 0.63 | 87.50 | 2.00 |
| 6 | TGM 249-4-B | 701.89 | 33.75 | 101.75 | 55.00 | 74.75 | 0.30 | 0.65 | 95.65 | 1.25 |
| 3 | TGX 66-5100 | 511.81 | 40.00 | 92.50 | 32.25 | 52.50 | 0.40 | 0.57 | 100.38 | 2.50 |
| 2 | TGM 210-1-2363 | 381.91 | 40.00 | 103.00 | 47.75 | 73.00 | 0.25 | 0.52 | 65.73 | 1.75 |
| 7 | TGX 13-3-2644 | 301.81 | 33.75 | 107.00 | 39.00 | 70.00 | 0.25 | 0.78 | 95.23 | 1.25 |
| | GRAND MEAN | 686.24 | 37.97 | 100.50 | 41.84 | 66.91 | 0.29 | 0.60 | 80.74 | 1.81 |
| | STANDARD ERROR OF A VARIETY MEAN | 209.07 | 0.18 | 0.94 | 8.00 | 22.34 | 0.06 | 0.16 | 3.34 | 0.21 |
| | COEFFICIENT OF VARIATION | 60.93% | 0.94% | 1.86% | 38.69% | 66.78% | 38.51% | 54.29% | 8.29% | 23.70% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 0.52 | 2.76 | ******** | ******** | ******** | ******** | 9.84 | 0.63 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.18 | -0.27 | 0.32 | 0.04 | 0.44* | -0.10 | -0.32 | -0.06 |
| DAYS TO FLOWER | 0.18 | 1.00 | -0.25 | -0.06 | -0.01 | 0.10 | -0.15 | -0.65** | 0.39* |
| DAYS TO MATURITY | -0.27 | -0.25 | 1.00 | -0.03 | -0.05 | -0.12 | 0.12 | -0.19 | 0.02 |
| NODULE NUMBER 1 | 0.32 | -0.06 | -0.03 | 1.00 | 0.31 | 0.54** | 0.16 | 0.06 | -0.36* |
| NODULE NUMBER 2 | 0.04 | -0.01 | -0.05 | 0.31 | 1.00 | 0.06 | 0.73** | 0.02 | -0.31 |
| NODULE WEIGHT 1 | 0.44* | 0.10 | -0.12 | 0.54** | 0.06 | 1.00 | 0.19 | 0.06 | -0.08 |
| NODULE WEIGHT 2 | -0.10 | -0.15 | 0.12 | 0.16 | 0.73** | 0.19 | 1.00 | 0.21 | -0.26 |
| PLANT HEIGHT | -0.32 | -0.65** | -0.19 | 0.06 | 0.02 | 0.06 | 0.21 | 1.00 | -0.20 |
| LODGING | -0.06 | 0.39* | 0.02 | -0.36* | -0.31 | -0.08 | -0.26 | -0.20 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.12 | 0.34 | -0.41* | 0.03 | -0.17 | 0.12 | -0.30 | -0.14 | -0.06 |
| PODS PER PLANT | -0.08 | -0.20 | 0.22 | -0.29 | -0.11 | -0.05 | -0.02 | 0.15 | 0.46** |
| 100 SEED WEIGHT | -0.40* | -0.29 | 0.42* | -0.00 | 0.12 | -0.22 | 0.13 | 0.19 | -0.24 |
| QUALITY OF SEED | -0.32 | -0.32 | 0.18 | -0.30 | -0.36* | -0.31 | -0.20 | 0.24 | -0.20 |

TABLE 190 EXPERIMENT 995 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | TGM 256-1-B | 1.00 | 136.50 | 51.18 | 11.00 | 3.00 |
| 5 | TGM 294-4-2371 | 1.00 | 157.25 | 42.00 | 16.38 | 2.50 |
| 1 | TGM 220-1-2205 | 1.00 | 134.75 | 87.70 | 15.13 | 2.50 |
| 3 | TGM 255-2-4341 | 1.00 | 136.50 | 95.55 | 13.38 | 3.50 |
| 4 | TGM 249-4-B | 1.00 | 136.00 | 78.18 | 17.25 | 3.25 |
| 6 | TGX 66-5100 | 1.00 | 144.00 | 76.25 | 14.25 | 2.75 |
| 2 | TGM 210-1-2363 | 1.00 | 140.75 | 50.83 | 16.88 | 3.50 |
| 7 | TGX 13-3-2644 | 1.00 | 131.00 | 48.35 | 19.13 | 3.25 |
| | GRAND MEAN | 1.00 | 139.59 | 66.25 | 15.42 | 3.03 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 4.77 | 5.64 | 0.66 | 0.47 |
| | COEFFICIENT OF VARIATION | 0.00% | 6.83% | 17.02% | 8.52% | 30.89% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 14.03 | 16.58 | 1.93 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.12 | -0.08 | -0.40* | -0.32 |
| DAYS TO | FLOWER | 0.00 | 0.34 | -0.20 | -0.29 | -0.32 |
| DAYS TO | MATURITY | 0.00 | -0.41* | 0.22 | 0.42* | 0.18 |
| NODULE | NUMBER 1 | 0.00 | 0.03 | -0.29 | -0.00 | -0.30 |
| NODULE | NUMBER 2 | 0.00 | -0.17 | -0.11 | 0.12 | -0.36* |
| NODULE | WEIGHT 1 | 0.00 | 0.12 | -0.05 | -0.22 | -0.31 |
| NODULE | WEIGHT 2 | 0.00 | -0.30 | -0.02 | 0.13 | -0.20 |
| PLANT | HEIGHT | 0.00 | -0.14 | 0.15 | 0.19 | 0.24 |
| | LODGING | 0.00 | -0.06 | 0.46** | -0.24 | -0.20 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.12 | 0.06 | 0.15 |
| PODS PER | PLANT | 0.00 | -0.12 | 1.00 | -0.19 | 0.08 |
| 100 SEED | WEIGHT | 0.00 | 0.06 | -0.19 | 1.00 | 0.18 |
| QUALITY | OF SEED | 0.00 | 0.15 | 0.08 | 0.18 | 1.00 |

TABLE 191 EXPERIMENT 303 YEAR 1976

REGION - SOUTH AMERICA
SITE - LA PLATINA
LATITUDE - 33 DEG. 27 MIN. S
COOPERATOR - H. GELDRES
DATE PLANTED - OCTOBER 14, 1976
SOIL TYPE - CLAY LOAM, PH 8.1
FERTILIZER USED (KG/HA) - P 75.2
AMOUNT OF MOISTURE - 44 MM
NUMBER OF IRRIGATIONS - 8

COUNTRY - CHILE
ELEVATION - 625 M
LONGITUDE - 70 DEG. 41 MIN. W

DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | WELLS | 4717.19 | 0.00 | 134.00 | 113.00 | 209.50 | 1.53 | 3.26 | 101.25 | 0.00 |
| 2 | WOODWORTH | 4517.15 | 0.00 | 136.50 | 60.25 | 118.75 | 0.43 | 1.40 | 102.50 | 0.00 |
| 7 | BEESON | 4399.63 | 0.00 | 134.00 | 52.00 | 94.50 | 0.76 | 1.67 | 96.25 | 0.00 |
| 10 | AMSOY 71 | 4164.58 | 0.00 | 134.00 | 75.75 | 145.25 | 0.79 | 1.74 | 110.00 | 0.00 |
| 13 | STEELE | 3883.69 | 0.00 | 128.00 | 86.75 | 118.50 | 1.37 | 1.56 | 86.25 | 0.00 |
| 9 | CORSOY | 3864.94 | 0.00 | 131.00 | 180.00 | 219.00 | 2.02 | 2.80 | 100.00 | 0.00 |
| 1 | CALLAND | 3819.10 | 0.00 | 142.25 | 67.50 | 112.50 | 1.24 | 1.95 | 112.50 | 0.00 |
| 4 | WILLIAMS | 3678.24 | 0.00 | 139.50 | 74.25 | 99.50 | 0.77 | 1.05 | 110.00 | 0.00 |
| 11 | HODGSON | 3329.00 | 0.00 | 130.75 | 91.00 | 113.75 | 0.92 | 1.18 | 75.00 | 0.00 |
| 12 | HARK | 3171.05 | 0.00 | 130.75 | 111.50 | 173.50 | 1.08 | 1.92 | 103.75 | 0.00 |
| 5 | CLARK 63 | 2971.01 | 0.00 | 142.25 | 80.00 | 117.00 | 0.67 | 1.39 | 120.00 | 0.00 |
| 3 | CUTLER 71 | 2743.05 | 0.00 | 142.25 | 128.25 | 158.25 | 1.22 | 1.73 | 108.75 | 0.00 |
| 8 | COLUMBUS | 1748.27 | 0.00 | 157.00 | 107.00 | 134.25 | 1.09 | 1.60 | 110.00 | 0.00 |
| | GRAND MEAN | 3615.92 | 0.00 | 137.10 | 94.40 | 139.56 | 1.07 | 1.79 | 102.79 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 236.18 | 0.00 | 2.79 | 16.12 | 26.63 | 0.22 | 0.35 | 2.97 | 0.00 |
| | COEFFICIENT OF VARIATION | 13.06% | 0.00% | 4.08% | 34.15% | 38.16% | 40.77% | 39.19% | 5.79% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 677.40 | 0.00 | 8.01 | 46.23 | 76.37 | 0.62 | 1.00 | 8.53 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | -0.46** | -0.17 | 0.17 | -0.02 | 0.29* | -0.13 | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | -0.46** | 0.00 | 1.00 | -0.07 | -0.12 | -0.16 | -0.10 | 0.44** | 0.00 |
| NODULE NUMBER 1 | -0.17 | 0.00 | -0.07 | 1.00 | 0.64** | 0.82** | 0.53** | 0.01 | 0.00 |
| NODULE NUMBER 2 | 0.17 | 0.00 | -0.12 | 0.64** | 1.00 | 0.48** | 0.83** | 0.13 | 0.00 |
| NODULE WEIGHT 1 | -0.02 | 0.00 | -0.16 | 0.82** | 0.48** | 1.00 | 0.57** | -0.08 | 0.00 |
| NODULE WEIGHT 2 | 0.29* | 0.00 | -0.10 | 0.53** | 0.83** | 0.57** | 1.00 | 0.13 | 0.00 |
| PLANT HEIGHT | -0.13 | 0.00 | 0.44** | 0.01 | 0.13 | -0.08 | 0.13 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.49** | 0.00 | -0.09 | -0.28* | -0.06 | -0.28* | 0.06 | -0.01 | 0.00 |
| PODS PER PLANT | 0.11 | 0.00 | -0.39** | 0.23 | -0.01 | 0.41** | 0.18 | -0.31* | 0.00 |
| 100 SEED WEIGHT | 0.62** | 0.00 | -0.59** | -0.23 | -0.11 | -0.06 | -0.07 | -0.43** | 0.00 |
| QUALITY OF SEED | -0.43** | 0.00 | 0.51** | 0.11 | 0.17 | 0.01 | 0.04 | 0.48** | 0.00 |

TABLE 191 EXPERIMENT 303 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 6 | WELLS | 0.00 | 205.50 | 34.50 | 16.75 | 1.50 | 40.7 | 21.2 |
| 2 | WOODWORTH | 0.00 | 202.75 | 33.23 | 16.98 | 2.00 | 38.8 | 21.0 |
| 7 | BEESON | 0.00 | 209.75 | 31.65 | 18.75 | 1.50 | 41.8 | 18.9 |
| 10 | ANSOY 71 | 0.00 | 192.25 | 31.80 | 18.35 | 2.25 | 38.3 | 20.6 |
| 13 | STEELE | 0.00 | 193.00 | 36.62 | 19.26 | 1.25 | 41.7 | 19.9 |
| 9 | COBSOY | 0.00 | 186.50 | 41.92 | 17.08 | 1.25 | 41.8 | 18.9 |
| 1 | CALLAND | 0.00 | 204.25 | 28.58 | 18.95 | 2.25 | 41.2 | 20.3 |
| 4 | WILLIAMS | 0.00 | 204.25 | 28.08 | 17.98 | 1.75 | 41.0 | 20.8 |
| 11 | HODGSON | 0.00 | 180.00 | 36.55 | 20.00 | 1.00 | 40.5 | 20.9 |
| 12 | HARK | 0.00 | 180.75 | 30.75 | 17.80 | 2.50 | 41.1 | 19.5 |
| 5 | CLARK 63 | 0.00 | 189.00 | 28.42 | 15.23 | 2.25 | 41.8 | 20.3 |
| 3 | CUTLER 71 | 0.00 | 161.25 | 28.10 | 16.35 | 2.50 | 39.9 | 21.0 |
| 8 | COLUMBUS | 0.00 | 184.25 | 32.07 | 19.83 | 3.75 | 43.4 | 17.5 |
| | GRAND MEAN | 0.00 | 191.81 | 32.48 | 17.18 | 1.98 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 9.56 | 3.02 | 0.46 | 0.34 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 9.97% | 18.60% | 5.30% | 34.73% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | ******** | 1.31 | 0.99 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.49** | 0.11 | 0.62** | -0.43** |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | -0.09 | -0.39** | -0.59** | 0.51** |
| NODULE | NUMBER 1 | 0.00 | -0.28* | 0.23 | -0.23 | 0.11 |
| NODULE | NUMBER 2 | 0.00 | -0.06 | -0.01 | -0.11 | 0.17 |
| NODULE | WEIGHT 1 | 0.00 | -0.28* | 0.41** | -0.06 | 0.01 |
| NODULE | WEIGHT 2 | 0.00 | 0.06 | 0.18 | -0.07 | 0.04 |
| PLANT | HEIGHT | 0.00 | -0.01 | -0.31* | -0.43** | 0.48** |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.12 | 0.21 | -0.13 |
| PODS PER | PLANT | 0.00 | -0.12 | 1.00 | 0.03 | -0.14 |
| 100 SEED | WEIGHT | 0.00 | 0.21 | 0.03 | 1.00 | -0.55** |
| QUALITY | OF SEED | 0.00 | -0.13 | -0.14 | -0.55** | 1.00 |

TABLE 192 EXPERIMENT 165 YEAR 1976

REGION - SOUTH AMERICA
COUNTRY - COLOMBIA
SITE - PALMIRA
ELEVATION - 1008 M
LATITUDE - 3 DEG. 32 MIN. N
LONGITUDE - 76 DEG. 17 MIN. W
COOPERATOR - PROGRAMA LEGUMINOSAS DE GRANO Y OLEAGINOSAS ANUALES
DATE PLANTED - OCTOBER 19, 1976
DATE HARVESTED - FEBRUARY, 1977
SOIL TYPE - CLAY, PH 6.8
AMOUNT OF MOISTURE - 2.4 MM
NUMBER OF IRRIGATIONS - 3 (35 MM)
LOCAL VARIETIES - ICA LILY, ICA TUNIA

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | FORREST | 2400.48 | 26.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.25 | 1.00 |
| 12 | DAVIS | 2383.81 | 26.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.00 | 1.00 |
| 16 | ICA TUNIA | 2150.43 | 26.00 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.00 | 1.00 |
| 11 | COBB | 1987.90 | 25.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.00 | 1.00 |
| 13 | IMPROVED PELICAN | 1967.06 | 30.00 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.00 | 1.50 |
| 5 | HILL | 1950.39 | 29.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.25 | 2.50 |
| 3 | BRAGG | 1892.04 | 26.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.50 | 1.00 |
| 6 | PICKETT 71 | 1842.03 | 24.00 | 80.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30.50 | 1.00 |
| 1 | CALLAND | 1821.20 | 23.00 | 78.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.50 | 1.00 |
| 15 | ICA LILY | 1796.19 | 29.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.75 | 3.00 |
| 8 | BOSSIER | 1629.49 | 23.00 | 79.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.25 | 1.00 |
| 10 | CLARK 63 | 1579.46 | 23.00 | 76.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.75 | 1.25 |
| 4 | RANSOM | 1504.47 | 24.00 | 81.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.00 | 1.00 |
| 9 | WILLIAMS | 1487.80 | 24.00 | 76.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.50 | 1.25 |
| 7 | JUPITER | 1325.26 | 30.00 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 74.00 | 3.00 |
| 2 | WOODWORTH | 1108.55 | 24.00 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.25 | 1.25 |
| | GRAND MEAN | 1801.66 | 25.75 | 79.25 | 0.00 | 0.00 | 0.00 | 0.00 | 41.97 | 1.42 |
| | STANDARD ERROR OF A VARIETY MEAN | 150.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.16 |
| | COEFFICIENT OF VARIATION | 16.75% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 11.20% | 22.74% |
| | 5% LSD VARIETY MEANS (*********=NS) | 429.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.70 | 0.46 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.15 | 0.32** | 0.00 | 0.00 | 0.00 | 0.00 | -0.02 | -0.12 |
| DAYS TO | FLOWER | 0.15 | 1.00 | 0.52** | 0.00 | 0.00 | 0.00 | 0.00 | 0.73** | 0.69** |
| DAYS TO | MATURITY | 0.32** | 0.52** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.46** | 0.27* |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.02 | 0.73** | 0.46** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.59** |
| | LODGING | -0.12 | 0.69** | 0.27* | 0.00 | 0.00 | 0.00 | 0.00 | 0.59** | 1.00 |
| | SHATTER | -0.29* | 0.00 | -0.10 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | -0.08 |
| PLANTS | HARVEST | 0.07 | 0.29* | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.27* |
| PODS PER | PLANT | 0.25* | 0.20 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.05 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| QUALITY | OF SEED | 0.23 | -0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | -0.43** | -0.20 |

TABLE 192 EXPERIMENT 165 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 14 | FORREST | 1.25 | 254.00 | 24.50 | 0.00 | 3.00 |
| 12 | DAVIS | 1.25 | 296.75 | 24.75 | 0.00 | 4.00 |
| 16 | ICA TONIA | 1.25 | 262.25 | 19.50 | 0.00 | 3.00 |
| 11 | COBB | 1.50 | 261.75 | 23.00 | 0.00 | 3.00 |
| 13 | IMPROVED PELICAN | 2.00 | 245.00 | 30.00 | 0.00 | 3.00 |
| 5 | HILL | 1.00 | 306.25 | 16.00 | 0.00 | 3.00 |
| 3 | BRAGG | 1.50 | 283.50 | 18.75 | 0.00 | 4.00 |
| 6 | PICKETT 71 | 2.25 | 227.50 | 25.00 | 0.00 | 3.00 |
| 1 | CALLAND | 1.50 | 270.75 | 16.00 | 0.00 | 3.00 |
| 15 | ICA LILY | 1.75 | 281.25 | 21.50 | 0.00 | 4.00 |
| 8 | BOSSIER | 1.00 | 221.75 | 24.50 | 0.00 | 3.00 |
| 10 | CLARK 63 | 1.50 | 272.75 | 18.25 | 0.00 | 3.00 |
| 4 | RANSOM | 1.50 | 252.50 | 21.00 | 0.00 | 4.00 |
| 9 | WILLIAMS | 1.00 | 252.00 | 16.75 | 0.00 | 3.00 |
| 7 | JUPITER | 1.25 | 268.75 | 23.75 | 0.00 | 2.00 |
| 2 | WOODWORTH | 2.00 | 261.50 | 20.00 | 0.00 | 3.00 |
| | GRAND MEAN | 1.47 | 263.64 | 21.45 | 0.00 | 3.19 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.32 | 12.09 | 2.89 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIATION | 43.58% | 9.17% | 26.91% | 0.00% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 34.45 | ******** | 0.00 | 0.00 |

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.29* | 0.07 | 0.25* | 0.00 | 0.23 |
| DAYS TO | FLOWER | 0.00 | 0.29* | 0.20 | 0.00 | -0.11 |
| DAYS TO | MATURITY | -0.10 | 0.04 | 0.21 | 0.00 | 0.01 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.01 | 0.16 | 0.15 | 0.00 | -0.43** |
| | LODGING | -0.08 | 0.27* | 0.05 | 0.00 | -0.20 |
| | SHATTER | 1.00 | -0.01 | -0.03 | 0.00 | 0.06 |
| PLANTS | HARVEST | -0.01 | 1.00 | -0.17 | 0.00 | 0.22 |
| PODS PER | PLANT | -0.03 | -0.17 | 1.00 | 0.00 | -0.04 |
| 100 SEED | WEIGHT | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.06 | 0.22 | -0.04 | 0.00 | 1.00 |

TABLE 193 EXPERIMENT 10 YEAR 1976

REGION - SOUTH AMERICA
COUNTRY - ECUADOR
SITE - BOLICHE
ELEVATION - 17 M
LATITUDE - 2 DEG. 21 MIN. S
LONGITUDE - 79 DEG. 49 MIN. W
COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
DATE PLANTED - JUNE 18, 1976
DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SAND 10%, SILT 10%, CLAY 80%, PH 6.9
AMOUNT OF MOISTURE - 100 MM
NUMBER OF IRRIGATIONS - 5
LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 4121.12 | 46.00 | 116.00 | 148.75 | 173.25 | 1.08 | 1.49 | 93.20 | 1.75 |
| 16 | I.N.I.A.P.-JUPITER | 3760.50 | 46.00 | 116.00 | 150.25 | 151.75 | 1.06 | 1.42 | 92.30 | 2.25 |
| 12 | DAVIS | 3646.02 | 30.00 | 107.00 | 125.00 | 254.25 | 0.83 | 2.14 | 37.55 | 1.00 |
| 15 | MANABI | 3450.36 | 30.00 | 105.00 | 119.00 | 196.50 | 0.65 | 1.76 | 90.50 | 2.75 |
| 1 | CALLAND | 3405.47 | 25.50 | 97.75 | 83.50 | 171.25 | 0.30 | 1.79 | 54.30 | 1.00 |
| 13 | IMPROVED PELICAN | 3396.05 | 31.25 | 103.00 | 79.25 | 193.00 | 0.47 | 1.23 | 98.15 | 3.00 |
| 4 | RANSOM | 3341.13 | 29.50 | 109.00 | 82.50 | 165.75 | 0.29 | 1.14 | 38.00 | 1.00 |
| 3 | BRAGG | 3338.21 | 29.50 | 98.25 | 61.00 | 101.50 | 0.19 | 0.66 | 36.90 | 1.00 |
| 8 | BOSSIER | 3253.98 | 27.00 | 98.25 | 149.25 | 157.50 | 0.43 | 1.18 | 32.30 | 1.00 |
| 11 | COBB | 3224.14 | 30.25 | 109.00 | 98.00 | 148.50 | 0.40 | 1.18 | 40.10 | 1.00 |
| 10 | CLARK 63 | 3179.43 | 25.50 | 95.50 | 80.50 | 122.00 | 0.21 | 1.35 | 52.00 | 1.25 |
| 9 | WILLIAMS | 3175.01 | 25.50 | 94.00 | 122.50 | 143.75 | 0.32 | 1.27 | 49.30 | 1.00 |
| 14 | FORREST | 3155.05 | 31.00 | 96.00 | 79.50 | 134.00 | 0.28 | 0.80 | 37.95 | 1.00 |
| 6 | PICKETT 71 | 2986.14 | 30.75 | 96.00 | 115.75 | 159.00 | 0.34 | 1.03 | 31.20 | 1.00 |
| 5 | HILL | 2842.19 | 30.50 | 95.25 | 92.75 | 133.75 | 0.36 | 0.99 | 38.00 | 1.00 |
| 2 | WOODWORTH | 2554.93 | 25.00 | 90.00 | 92.00 | 104.75 | 0.34 | 1.41 | 44.85 | 1.00 |
| | GRAND MEAN | 3301.86 | 30.83 | 101.63 | 105.34 | 156.91 | 0.47 | 1.30 | 54.16 | 1.38 |
| | STANDARD ERROR OF A VARIETY MEAN | 124.55 | 0.79 | 1.09 | 12.61 | 29.72 | 0.07 | 0.26 | 2.30 | 0.13 |
| | COEFFICIENT OF VARIATION | 7.57% | 5.11% | 2.15% | 23.94% | 37.88% | 29.07% | 39.23% | 8.49% | 18.38% |
| | 5% LSD VARIETY MEANS (********=NS) | 355.91 | 2.24 | 3.12 | 35.92 | ******** | 0.20 | 0.73 | 6.55 | 0.36 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.59** | 0.68** | 0.33** | 0.25* | 0.53** | 0.18 | 0.51** | 0.33** |
| DAYS TO FLOWER | 0.59** | 1.00 | 0.76** | 0.40** | 0.07 | 0.77** | 0.01 | 0.58** | 0.40** |
| DAYS TO MATURITY | 0.68** | 0.76** | 1.00 | 0.32** | 0.24 | 0.68** | 0.14 | 0.53** | 0.41** |
| NODULE NUMBER 1 | 0.33** | 0.40** | 0.32** | 1.00 | 0.40** | 0.70** | 0.45** | 0.24 | 0.10 |
| NODULE NUMBER 2 | 0.25* | 0.07 | 0.24 | 0.40** | 1.00 | 0.36** | 0.78** | 0.17 | 0.19 |
| NODULE WEIGHT 1 | 0.53** | 0.77** | 0.68** | 0.70** | 0.36** | 1.00 | 0.43** | 0.58** | 0.44** |
| NODULE WEIGHT 2 | 0.18 | 0.01 | 0.14 | 0.45** | 0.78** | 0.43** | 1.00 | 0.22 | 0.12 |
| PLANT HEIGHT | 0.51** | 0.58** | 0.53** | 0.24 | 0.17 | 0.58** | 0.22 | 1.00 | 0.87** |
| LODGING | 0.33** | 0.40** | 0.41** | 0.10 | 0.19 | 0.44** | 0.12 | 0.87** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | -0.33** | -0.67** | -0.48** | -0.37** | -0.05 | -0.63** | -0.10 | -0.67** | -0.57** |
| PODS PER PLANT | 0.55** | 0.64** | 0.59** | 0.36** | 0.30* | 0.67** | 0.25* | 0.83** | 0.78** |
| 100 SEED WEIGHT | 0.47** | 0.32* | 0.52** | 0.25* | 0.06 | 0.28* | 0.10 | 0.10 | -0.05 |
| QUALITY OF SEED | 0.01 | -0.23 | 0.03 | 0.09 | 0.20 | -0.07 | 0.24 | -0.17 | -0.19 |

TABLE 193 EXPERIMENT 10 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 1.00 | 161.75 | 55.25 | 24.95 | 1.75 | 41.3 | 22.7 |
| 16 | I.N.I.A.P.-JUPITER | 1.00 | 152.00 | 58.50 | 25.33 | 1.50 | 39.6 | 23.3 |
| 12 | DAVIS | 1.00 | 196.25 | 26.48 | 23.03 | 2.00 | 43.2 | 21.6 |
| 15 | MANABI | 1.00 | 177.00 | 52.33 | 24.90 | 2.25 | 45.7 | 19.9 |
| 1 | CALLAND | 1.00 | 191.00 | 24.70 | 24.18 | 3.50 | 43.1 | 20.6 |
| 13 | IMPROVED PELICAN | 1.00 | 169.75 | 55.90 | 18.63 | 1.00 | 45.1 | 21.8 |
| 4 | RANSOM | 1.00 | 200.00 | 25.60 | 23.95 | 3.00 | 41.7 | 23.6 |
| 3 | BRAGG | 1.00 | 190.25 | 27.68 | 25.65 | 1.75 | 43.9 | 22.6 |
| 8 | BOSSIER | 1.00 | 186.00 | 28.78 | 22.90 | 2.50 | 44.9 | 22.2 |
| 11 | COBB | 1.00 | 190.25 | 26.23 | 23.60 | 1.50 | 40.9 | 22.9 |
| 10 | CLARK 63 | 1.00 | 193.25 | 26.40 | 21.75 | 2.50 | 42.5 | 22.6 |
| 9 | WILLIAMS | 1.00 | 189.25 | 22.38 | 23.75 | 2.00 | 42.5 | 22.4 |
| 14 | FORREST | 1.00 | 191.00 | 30.48 | 19.10 | 1.00 | 41.8 | 22.1 |
| 6 | PICKETT 71 | 1.00 | 184.25 | 23.40 | 22.60 | 2.00 | 45.1 | 21.5 |
| 5 | HILL | 1.00 | 189.50 | 24.35 | 21.15 | 2.00 | 41.6 | 21.8 |
| 2 | WOODWORTH | 1.00 | 185.50 | 23.15 | 19.43 | 1.00 | 40.2 | 23.7 |
| | GRAND MEAN | 1.00 | 184.38 | 33.35 | 22.83 | 1.95 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 4.67 | 3.83 | 0.43 | 0.26 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 5.06% | 22.95% | 3.73% | 26.93% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 13.29 | 10.90 | 1.21 | 0.75 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | -0.33** | 0.55** | 0.47** | 0.01 |
| DAYS TO FLOWER | 0.00 | -0.67** | 0.64** | 0.32* | -0.23 |
| DAYS TO MATURITY | 0.00 | -0.48** | 0.59** | 0.52** | 0.03 |
| NODULE NUMBER 1 | 0.00 | -0.37** | 0.36** | 0.25* | 0.09 |
| NODULE NUMBER 2 | 0.00 | -0.05 | 0.30* | 0.06 | 0.20 |
| NODULE WEIGHT 1 | 0.00 | -0.63** | 0.67** | 0.28* | -0.07 |
| NODULE WEIGHT 2 | 0.00 | -0.10 | 0.25* | 0.10 | 0.24 |
| PLANT HEIGHT | 0.00 | -0.67** | 0.83** | 0.10 | -0.17 |
| LODGING | 0.00 | -0.57** | 0.78** | -0.05 | -0.19 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.67** | -0.13 | 0.18 |
| PODS PER PLANT | 0.00 | -0.67** | 1.00 | 0.10 | -0.12 |
| 100 SEED WEIGHT | 0.00 | -0.13 | 0.10 | 1.00 | 0.36** |
| QUALITY OF SEED | 0.00 | 0.18 | -0.12 | 0.36** | 1.00 |

TABLE 194 EXPERIMENT 44 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - ECUADOR
SITE - PALLATANGA ELEVATION - 1 M
LATITUDE - 1 DEG. 59 MIN. S LONGITUDE - 78 DEG. 58 MIN. W
COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
DATE PLANTED - JUNE 1, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SAND 31%, SILT 45%, CLAY 24%, PH 6.7
LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | ESSEX | 1389.24 | 43.00 | 101.00 | 82.75 | 134.75 | 0.67 | 1.53 | 26.30 | 1.00 |
| 14 | FORREST | 1241.83 | 44.00 | 107.00 | 37.00 | 73.75 | 0.32 | 0.93 | 32.55 | 1.00 |
| 8 | BOSSIER | 1192.74 | 43.00 | 101.00 | 68.25 | 64.50 | 0.64 | 1.05 | 25.20 | 1.00 |
| 1 | CALLAND | 1165.45 | 45.00 | 105.00 | 30.25 | 59.00 | 0.44 | 0.96 | 27.30 | 1.00 |
| 11 | COBB | 1140.56 | 45.75 | 101.00 | 35.00 | 45.00 | 0.42 | 0.80 | 25.53 | 1.00 |
| 13 | IMPROVED PELICAN | 1144.02 | 47.00 | 109.00 | 63.25 | 49.00 | 0.51 | 0.81 | 46.73 | 1.00 |
| 5 | HILL | 1096.84 | 47.00 | 101.00 | 39.00 | 43.75 | 0.41 | 0.63 | 33.70 | 1.00 |
| 10 | CLARK 63 | 1020.95 | 43.00 | 101.00 | 74.75 | 65.25 | 0.63 | 1.09 | 27.45 | 1.00 |
| 12 | DAVIS | 968.11 | 47.00 | 103.00 | 63.50 | 87.25 | 0.63 | 1.07 | 25.30 | 1.00 |
| 2 | WOODWORTH | 939.73 | 43.00 | 98.25 | 55.00 | 36.25 | 0.48 | 0.78 | 27.13 | 1.00 |
| 6 | PICKETT 71 | 932.56 | 43.00 | 97.00 | 48.75 | 49.25 | 0.43 | 0.91 | 22.90 | 1.00 |
| 4 | RANSOM | 873.72 | 43.00 | 98.25 | 84.25 | 75.25 | 0.69 | 0.72 | 20.93 | 1.00 |
| 3 | BRAGG | 827.58 | 43.00 | 103.00 | 67.25 | 80.25 | 0.48 | 1.04 | 26.25 | 1.00 |
| 9 | WILLIAMS | 769.74 | 44.00 | 99.00 | 68.75 | 96.25 | 0.59 | 1.22 | 19.55 | 1.00 |
| 15 | MANABI | 724.31 | 45.75 | 106.25 | 81.00 | 106.75 | 0.82 | 1.43 | 30.00 | 1.00 |
| 7 | I.N.I.A.P.-JUPITER | 623.92 | 47.00 | 141.00 | 67.75 | 111.75 | 0.63 | 1.30 | 67.60 | 1.00 |
| | GRAND MEAN | 1004.83 | 44.59 | 104.48 | 60.41 | 73.63 | 0.55 | 1.02 | 30.27 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 123.06 | 0.55 | 1.38 | 7.01 | 14.20 | 0.07 | 0.16 | 1.85 | 0.00 |
| | COEFFICIENT OF VARIATION | 24.49% | 2.45% | 2.65% | 23.22% | 38.57% | 25.63% | 32.36% | 12.22% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 350.52 | 1.56 | 3.94 | 19.98 | 40.44 | 0.20 | 0.47 | 5.27 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.14 | -0.23 | -0.22 | -0.11 | -0.23 | -0.02 | -0.02 | 0.00 |
| DAYS TO FLOWER | -0.14 | 1.00 | 0.48** | -0.13 | -0.00 | 0.06 | -0.05 | 0.49** | 0.00 |
| DAYS TO MATURITY | -0.23 | 0.48** | 1.00 | 0.09 | 0.31* | 0.12 | 0.24 | 0.87** | 0.00 |
| NODULE NUMBER 1 | -0.22 | -0.13 | 0.09 | 1.00 | 0.40** | 0.79** | 0.32** | 0.01 | 0.00 |
| NODULE NUMBER 2 | -0.11 | -0.00 | 0.31* | 0.40** | 1.00 | 0.44** | 0.84** | 0.13 | 0.00 |
| NODULE WEIGHT 1 | -0.23 | 0.06 | 0.12 | 0.79** | 0.44** | 1.00 | 0.38** | 0.01 | 0.00 |
| NODULE WEIGHT 2 | -0.02 | -0.05 | 0.24 | 0.32** | 0.84** | 0.38** | 1.00 | 0.14 | 0.00 |
| PLANT HEIGHT | -0.02 | 0.49** | 0.87** | 0.01 | 0.13 | 0.01 | 0.14 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.60** | -0.19 | -0.35** | -0.28* | -0.35** | -0.33** | -0.22 | 0.01 | 0.00 |
| PODS PER PLANT | 0.14 | 0.14 | 0.32** | 0.30* | 0.20 | 0.34** | 0.09 | 0.23 | 0.00 |
| 100 SEED WEIGHT | -0.20 | -0.23 | 0.15 | 0.01 | 0.21 | 0.04 | 0.31* | -0.04 | 0.00 |
| QUALITY OF SEED | -0.08 | 0.04 | 0.07 | -0.09 | 0.26* | 0.01 | 0.22 | -0.08 | 0.00 |

TABLE 194 EXPERIMENT 44 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | ESSEX | 1.00 | 156.75 | 20.00 | 12.88 | 2.00 | 39.8 | 20.2 |
| 14 | FORREST | 1.00 | 172.75 | 16.53 | 13.45 | 1.75 | 37.6 | 20.7 |
| 8 | BOSSIER | 1.00 | 143.00 | 19.85 | 13.55 | 1.25 | 41.2 | 19.2 |
| 1 | CALLAND | 1.00 | 163.75 | 15.33 | 16.40 | 2.75 | 41.3 | 19.7 |
| 11 | COBB | 1.00 | 169.00 | 19.40 | 14.38 | 2.25 | 37.2 | 20.3 |
| 13 | IMPROVED PELICAN | 1.00 | 188.75 | 17.83 | 11.98 | 1.00 | 40.3 | 20.2 |
| 5 | HILL | 1.00 | 184.25 | 15.68 | 10.30 | 1.50 | 35.7 | 19.9 |
| 10 | CLARK 63 | 1.00 | 191.00 | 17.30 | 14.85 | 1.75 | 39.7 | 21.1 |
| 12 | DAVIS | 1.00 | 168.25 | 19.03 | 12.58 | 2.25 | 39.4 | 21.1 |
| 2 | WOODWORTH | 1.00 | 186.75 | 15.38 | 15.48 | 1.25 | 41.0 | 20.0 |
| 6 | PICKETT 71 | 1.00 | 165.75 | 14.70 | 13.68 | 1.75 | 37.9 | 21.2 |
| 4 | BANSOM | 1.00 | 160.30 | 19.00 | 13.00 | 2.00 | 38.5 | 21.4 |
| 3 | BRAGG | 1.00 | 156.25 | 12.53 | 16.95 | 2.25 | 40.8 | 19.6 |
| 9 | WILLIAMS | 1.00 | 138.00 | 13.68 | 16.90 | 1.50 | 41.8 | 21.0 |
| 15 | NANABI | 1.00 | 102.75 | 17.13 | 15.28 | 2.75 | 45.5 | 17.5 |
| 7 | I.N.I.A.P.-JUPITER | 1.00 | 113.25 | 21.88 | 15.63 | 2.00 | 35.1 | 22.2 |
| | GRAND MEAN | 1.00 | 160.02 | 17.24 | 14.20 | 1.88 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 19.00 | 1.90 | 0.55 | 0.38 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 23.75% | 22.00% | 7.78% | 40.25% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | ******** | 5.40 | 1.57 | ******** | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.60** | 0.14 | -0.20 | -0.08 |
| DAYS TO FLOWER | 0.00 | -0.19 | 0.14 | -0.23 | 0.04 |
| DAYS TO MATURITY | 0.00 | -0.35** | 0.32** | 0.15 | 0.07 |
| NODULE NUMBER 1 | 0.00 | -0.28* | 0.30* | 0.01 | -0.09 |
| NODULE NUMBER 2 | 0.00 | -0.35** | 0.20 | 0.21 | 0.26* |
| NODULE WEIGHT 1 | 0.00 | -0.33** | 0.34** | 0.04 | 0.01 |
| NODULE WEIGHT 2 | 0.00 | -0.22 | 0.09 | 0.31* | 0.22 |
| PLANT HEIGHT | 0.00 | 0.01 | 0.23 | -0.04 | -0.08 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | -0.29* | -0.27* | -0.22 |
| PODS PER PLANT | 0.00 | -0.29* | 1.00 | -0.20 | -0.01 |
| 100 SEED WEIGHT | 0.00 | -0.27* | -0.20 | 1.00 | 0.34** |
| QUALITY OF SEED | 0.00 | -0.22 | -0.01 | 0.34** | 1.00 |

TABLE 195 EXPERIMENT 7 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - ECUADOR
SITE - PICHILINGUE ELEVATION - 73 M
LATITUDE - 1 DEG. 5 MIN. S LONGITUDE - 79 DEG. 27 MIN. W
COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
DATE PLANTED - JUNE 4, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SAND 90%, SILT 5%, CLAY 5%
LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 3062.78 | 32.00 | 113.00 | 53.50 | 165.75 | 0.20 | 1.86 | 87.65 | 2.75 |
| 1 | CALLAND | 3058.82 | 32.00 | 89.00 | 80.25 | 134.25 | 0.37 | 2.17 | 67.65 | 1.25 |
| 6 | PICKETT 71 | 2946.88 | 32.00 | 95.00 | 45.50 | 132.75 | 0.15 | 1.35 | 33.15 | 1.00 |
| 3 | BRAGG | 2867.70 | 32.00 | 93.00 | 72.50 | 225.75 | 0.27 | 1.99 | 38.85 | 1.25 |
| 16 | I.N.I.A.P.-JUPITER | 2861.70 | 42.00 | 113.00 | 111.25 | 295.25 | 0.42 | 2.17 | 90.75 | 2.50 |
| 12 | DAVIS | 2849.32 | 32.00 | 97.00 | 92.75 | 178.25 | 0.45 | 2.16 | 33.60 | 1.00 |
| 4 | BANSOM | 2801.73 | 32.00 | 97.00 | 105.00 | 180.00 | 0.38 | 1.93 | 33.45 | 1.00 |
| 14 | FORREST | 2756.18 | 32.00 | 89.00 | 53.25 | 127.25 | 0.24 | 1.97 | 42.45 | 1.25 |
| 11 | COBB | 2660.41 | 32.00 | 95.00 | 86.75 | 118.50 | 0.37 | 1.78 | 43.10 | 1.00 |
| 13 | IMPROVED PELICAN | 2301.75 | 32.00 | 89.00 | 48.00 | 116.25 | 0.18 | 1.64 | 81.35 | 1.75 |
| 15 | MANABI | 2218.24 | 32.00 | 91.00 | 76.75 | 155.25 | 0.27 | 1.59 | 76.20 | 2.00 |
| 5 | HILL | 2111.01 | 32.00 | 89.00 | 36.[illegible] | 98.75 | 0.16 | 1.29 | 42.90 | 1.00 |
| 9 | WILLIAMS | 2064.91 | 32.00 | 89.00 | 104.75 | 108.75 | 0.39 | 1.67 | 49.10 | 1.00 |
| 2 | WOODWORTH | 2024.86 | 32.00 | 89.00 | 82.25 | 97.75 | 0.36 | 1.43 | 53.35 | 1.00 |
| 8 | BOSSIER | 2000.23 | 32.00 | 91.00 | 76.50 | 130.50 | 0.41 | 1.89 | 34.45 | 1.00 |
| 10 | CLARK 63 | 1647.83 | 32.00 | 89.00 | 73.00 | 122.75 | 0.31 | 1.45 | 44.70 | 1.00 |
| | GRAND MEAN | 2514.65 | 32.63 | 94.25 | 75.05 | 149.23 | 0.31 | 1.77 | 53.29 | 1.36 |
| | STANDARD ERROR OF A VARIETY MEAN | 231.61 | 0.00 | 1.09 | 10.02 | 39.58 | 0.05 | 0.30 | 3.16 | 0.25 |
| | COEFFICIENT OF VARIATION | 18.42% | 0.00% | 2.30% | 26.69% | 53.04% | 34.70% | 33.94% | 11.84% | 36.70% |
| | 5% LSD VARIETY MEANS (********=NS) | 659.71 | 0.00 | 3.09 | 28.53 | ******** | 0.15 | ******** | 8.[illegible] | 0.71 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.15 | 0.48** | -0.14 | 0.05 | -0.30* | 0.09 | 0.16 | 0.27* |
| DAYS TO | FLOWER | 0.15 | 1.00 | 0.61** | 0.30* | 0.44** | 0.19 | 0.17 | 0.47** | 0.40** |
| DAYS TO | MATURITY | 0.48** | 0.61** | 1.00 | 0.09 | 0.41** | 0.01 | 0.23 | 0.45** | 0.56** |
| NODULE | NUMBER 1 | -0.14 | 0.30* | 0.09 | 1.00 | 0.35** | 0.84** | 0.26* | 0.01 | -0.20 |
| NODULE | NUMBER 2 | 0.05 | 0.44** | 0.41** | 0.35** | 1.00 | 0.38** | 0.[illegible]** | 0.11 | 0.09 |
| NODULE | WEIGHT 1 | -0.30* | 0.19 | 0.01 | 0.84** | 0.38** | 1.00 | 0.43** | -0.17 | -0.34** |
| NODULE | WEIGHT 2 | 0.09 | 0.17 | 0.23 | 0.26* | 0.69** | 0.48** | 1.00 | -0.04 | -0.16 |
| PLANT | HEIGHT | 0.16 | 0.47** | 0.45** | 0.01 | 0.11 | -0.17 | -0.04 | 1.00 | 0.69** |
| | LODGING | 0.27* | 0.40** | 0.56** | -0.20 | 0.08 | -0.34** | -0.16 | 0.69** | 1.00 |
| | SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | -0.04 | -0.30* | -0.43** | -0.07 | -0.25* | -0.02 | -0.11 | -0.43** | -0.40** |
| PODS PER | PLANT | 0.54** | 0.46** | 0.70** | -0.16 | 0.14 | -0.35** | -0.03 | 0.62** | 0.80** |
| 100 SEED | WEIGHT | 0.57** | 0.07 | 0.28* | 0.05 | 0.12 | -0.05 | 0.09 | -0.01 | 0.23 |
| QUALITY | OF SEED | 0.09 | -0.21 | -0.19 | 0.07 | -0.17 | 0.00 | -0.09 | -0.15 | -0.11 |

TABLE 195 EXPERIMENT 7 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 7 | JUPITER | 1.00 | 172.50 | 41.58 | 19.28 | 1.50 | 38.3 | 24.6 |
| 1 | CALLAND | 1.00 | 199.50 | 20.15 | 20.70 | 2.75 | 41.4 | 22.1 |
| 6 | PICKETT 71 | 1.00 | 189.00 | 23.30 | 19.38 | 2.00 | 39.3 | 24.4 |
| 3 | BRAGG | 1.00 | 196.75 | 24.38 | 21.00 | 2.00 | 41.5 | 23.8 |
| 16 | I.N.I.A.P.-JUPITER | 1.00 | 171.25 | 39.70 | 19.15 | 1.25 | 39.2 | 23.7 |
| 12 | DAVIS | 1.00 | 186.00 | 21.95 | 18.95 | 1.25 | 39.5 | 23.9 |
| 4 | BANSON | 1.00 | 192.50 | 22.60 | 19.60 | 2.50 | 39.1 | 25.2 |
| 14 | FORREST | 1.00 | 191.00 | 27.20 | 16.98 | 1.25 | 38.7 | 22.8 |
| 11 | COBB | 1.00 | 186.75 | 25.53 | 19.15 | 2.00 | 40.9 | 23.2 |
| 13 | IMPROVED PELICAN | 1.00 | 188.50 | 28.60 | 13.68 | 1.00 | 38.7 | 23.9 |
| 15 | MANABI | 1.00 | 166.00 | 28.88 | 21.30 | 2.25 | 45.7 | 19.8 |
| 5 | HILL | 1.00 | 191.25 | 21.10 | 17.13 | 1.50 | 36.4 | 23.3 |
| 9 | WILLIAMS | 1.00 | 195.25 | 17.35 | 18.35 | 2.00 | 40.0 | 23.1 |
| 2 | WOODWORTH | 1.00 | 186.00 | 19.40 | 17.23 | 2.25 | 37.3 | 24.3 |
| 8 | BOSSIER | 1.00 | 187.25 | 21.45 | 16.98 | 1.75 | 43.8 | 22.1 |
| 10 | CLARK 63 | 1.00 | 193.75 | 18.18 | 16.95 | 1.75 | 41.6 | 22.2 |
| | GRAND MEAN | 1.00 | 187.08 | 25.08 | 18.49 | 1.81 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 5.69 | 2.57 | 0.78 | 0.29 | | |
| | COEFFICIENT OF VARIATION | 0.00% | 6.08% | 20.49% | 9.40% | 31.59% | | |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 16.21 | 7.32 | 2.21 | 0.82 | | |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | -0.04 | 0.54++ | 0.57++ | 0.09 |
| DAYS TO | FLOWER | 0.00 | -0.30+ | 0.46++ | 0.07 | -0.21 |
| DAYS TO | MATURITY | 0.00 | -0.43++ | 0.70++ | 0.28+ | -0.19 |
| NODULE | NUMBER 1 | 0.00 | -0.07 | -0.16 | 0.05 | 0.07 |
| NODULE | NUMBER 2 | 0.00 | -0.25+ | 0.14 | 0.12 | -0.17 |
| NODULE | WEIGHT 1 | 0.00 | -0.02 | -0.35++ | -0.05 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | -0.11 | -0.03 | 0.09 | -0.09 |
| PLANT | HEIGHT | 0.00 | -0.43++ | 0.62++ | -0.01 | -0.15 |
| | LODGING | 0.00 | -0.40++ | 0.80++ | 0.23 | -0.11 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.41++ | -0.18 | 0.12 |
| PODS PER | PLANT | 0.00 | -0.41++ | 1.00 | 0.26+ | -0.21 |
| 100 SEED | WEIGHT | 0.00 | -0.18 | 0.26+ | 1.00 | 0.40++ |
| QUALITY | OF SEED | 0.00 | 0.12 | -0.21 | 0.40++ | 1.00 |

TABLE 196 EXPERIMENT 11 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - ECUADOR
SITE - PORTOVIEJO ELEVATION - 30 M
LATITUDE - 1 DEG. 4 MIN. S LONGITUDE - 80 DEG. 27 MIN. W
COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
DATE PLANTED - SEPTEMBER 8, 1976 DATE HARVESTED - DECEMBER, 1976
SOIL PH 7.0
AMOUNT OF MOISTURE - 280 MM
LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | IMPROVED PELICAN | 3671.23 | 35.50 | 110.50 | 81.25 | 212.75 | 0.32 | 1.75 | 85.45 | 3.00 |
| 16 | I.N.I.A.P.-JUPITER | 3513.79 | 47.00 | 125.00 | 93.75 | 238.25 | 0.43 | 1.59 | 68.25 | 2.25 |
| 7 | JUPITER | 3395.18 | 47.50 | 125.00 | 131.50 | 326.25 | 0.60 | 2.16 | 66.55 | 1.75 |
| 12 | DAVIS | 3334.17 | 31.50 | 112.00 | 88.75 | 287.75 | 0.45 | 2.23 | 36.50 | 1.00 |
| 1 | CALLAND | 3333.29 | 28.25 | 110.00 | 72.25 | 167.50 | 0.26 | 1.30 | 52.10 | 1.25 |
| 15 | MANABI | 2867.70 | 33.50 | 110.00 | 68.00 | 270.00 | 0.16 | 2.79 | 65.40 | 2.75 |
| 3 | BRAGG | 2727.21 | 27.75 | 112.00 | 49.50 | 170.00 | 0.06 | 0.90 | 31.65 | 1.00 |
| 14 | FORREST | 2620.98 | 32.75 | 104.00 | 57.50 | 279.25 | 0.17 | 1.68 | 33.05 | 1.00 |
| 5 | HILL | 2578.14 | 33.75 | 103.50 | 46.25 | 141.75 | 0.11 | 0.67 | 28.90 | 1.00 |
| 10 | CLARK 63 | 2531.55 | 29.50 | 102.75 | 63.25 | 77.75 | 0.11 | 0.41 | 48.95 | 1.50 |
| 9 | WILLIAMS | 2369.47 | 28.50 | 99.00 | 101.50 | 129.25 | 0.13 | 0.88 | 38.05 | 1.00 |
| 4 | RAMSON | 2231.40 | 28.25 | 112.00 | 86.75 | 187.25 | 0.13 | 1.11 | 28.35 | 1.00 |
| 11 | COBB | 2034.12 | 30.00 | 112.00 | 38.00 | 69.50 | 0.05 | 0.45 | 25.35 | 1.00 |
| 8 | BOSSIER | 1822.61 | 28.75 | 106.00 | 51.25 | 170.25 | 0.18 | 1.33 | 21.95 | 1.00 |
| 2 | WOODWORTH | 1779.73 | 27.50 | 101.00 | 45.00 | 52.00 | 0.04 | 0.31 | 38.25 | 1.50 |
| 6 | PICKETT 71 | 1455.33 | 29.75 | 104.00 | 47.00 | 172.50 | 0.09 | 0.82 | 21.80 | 1.00 |
| | GRAND MEAN | 2641.62 | 32.48 | 109.30 | 71.97 | 184.50 | 0.21 | 1.27 | 43.16 | 1.44 |
| | STANDARD ERROR OF A VARIETY MEAN | 189.94 | 0.52 | 0.68 | 18.48 | 42.39 | 0.09 | 0.27 | 2.45 | 0.20 |
| | COEFFICIENT OF VARIATION | 14.38% | 3.22% | 1.25% | 51.36% | 45.95% | 84.47% | 41.87% | 11.36% | 27.68% |
| | 5% LSD VARIETY MEANS (********=NS) | 541.04 | 1.49 | 1.95 | ******** | 120.75 | 0.25 | 0.76 | 6.98 | 0.57 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.52** | 0.53** | 0.35** | 0.34** | 0.54** | 0.37** | 0.71** | 0.48** |
| DAYS TO FLOWER | 0.52** | 1.00 | 0.77** | 0.31* | 0.33** | 0.56** | 0.32** | 0.59** | 0.43** |
| DAYS TO MATURITY | 0.53** | 0.77** | 1.00 | 0.29* | 0.34** | 0.52** | 0.34** | 0.47** | 0.33** |
| NODULE NUMBER 1 | 0.35** | 0.31* | 0.29* | 1.00 | 0.47** | 0.80** | 0.51** | 0.31* | 0.10 |
| NODULE NUMBER 2 | 0.34** | 0.33** | 0.34** | 0.47** | 1.00 | 0.53** | 0.80** | 0.26* | 0.21 |
| NODULE WEIGHT 1 | 0.54** | 0.56** | 0.52** | 0.80** | 0.53** | 1.00 | 0.55** | 0.43** | 0.21 |
| NODULE WEIGHT 2 | 0.37** | 0.32** | 0.34** | 0.51** | 0.86** | 0.55** | 1.00 | 0.39** | 0.34** |
| PLANT HEIGHT | 0.71** | 0.59** | 0.47** | 0.31* | 0.26* | 0.43** | 0.39** | 1.00 | 0.78** |
| LODGING | 0.48** | 0.43** | 0.33** | 0.10 | 0.21 | 0.21 | 0.34** | 0.78** | 1.00 |
| SHATTER | -0.16 | -0.27* | -0.16 | -0.15 | -0.20 | -0.05 | -0.35 | -0.05 | 0.05 |
| PLANTS HARVEST | 0.20 | -0.43** | -0.29* | -0.00 | -0.25* | -0.10 | -0.26* | -0.13 | -0.23 |
| PODS PER PLANT | 0.47** | 0.79** | 0.67** | 0.22 | 0.43** | 0.44** | 0.49** | 0.68** | 0.65** |
| 100 SEED WEIGHT | 0.30* | 0.38** | 0.69** | 0.21 | 0.27* | 0.32** | 0.33** | 0.17 | 0.12 |
| QUALITY OF SEED | -0.11 | -0.42** | -0.15 | -0.10 | -0.17 | -0.17 | -0.11 | -0.27* | -0.23 |

TABLE 196 EXPERIMENT 11 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 13 | IMPROVED PELICAN | 1.75 | 170.00 | 55.35 | 18.93 | 2.00 |
| 16 | I.N.I.A.P.-JUPITER | 1.25 | 87.50 | 85.55 | 25.63 | 2.25 |
| 7 | JUPITER | 1.00 | 107.25 | 80.85 | 26.88 | 2.25 |
| 12 | DAVIS | 1.75 | 164.50 | 39.30 | 24.78 | 3.25 |
| 1 | CALLAND | 2.00 | 154.00 | 36.80 | 23.45 | 5.00 |
| 15 | HANABI | 2.00 | 106.00 | 69.00 | 24.88 | 3.75 |
| 3 | BRAGG | 1.25 | 172.25 | 28.85 | 24.68 | 3.00 |
| 14 | FORREST | 1.25 | 150.00 | 33.55 | 18.55 | 2.00 |
| 5 | HILL | 1.25 | 158.50 | 34.80 | 19.23 | 3.50 |
| 10 | CLARK 63 | 1.75 | 155.00 | 33.85 | 19.73 | 3.25 |
| 9 | WILLIAMS | 1.00 | 154.75 | 29.95 | 21.03 | 2.75 |
| 4 | RANSOM | 1.25 | 161.75 | 33.40 | 22.28 | 3.75 |
| 11 | COBB | 2.00 | 157.50 | 32.60 | 24.38 | 3.00 |
| 8 | DOSSIER | 1.75 | 107.00 | 30.85 | 22.10 | 4.00 |
| 2 | WOODWORTH | 1.75 | 145.75 | 34.75 | 19.03 | 2.50 |
| 6 | PICKETT 71 | 2.00 | 96.75 | 28.90 | 21.58 | 3.00 |
| | GRAND MEAN | 1.56 | 141.16 | 43.02 | 22.32 | 3.08 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.20 | 10.44 | 5.28 | 0.72 | 0.19 |
| | COEFFICIENT OF VARIATION | 25.47% | 14.79% | 24.57% | 6.49% | 12.18% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.57 | 29.73 | 15.05 | 2.06 | 0.53 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.16 | 0.20 | 0.47++ | 0.30+ | -0.11 |
| DAYS TO | FLOWER | -0.27+ | -0.43++ | 0.79++ | 0.38++ | -0.42++ |
| DAYS TO | MATURITY | -0.16 | -0.25+ | 0.67++ | 0.69++ | -0.15 |
| NODULE | NUMBER 1 | -0.15 | -0.00 | 0.22 | 0.21 | -0.10 |
| NODULE | NUMBER 2 | -0.20 | -0.25+ | 0.43++ | 0.27+ | -0.17 |
| NODULE | WEIGHT 1 | -0.05 | -0.10 | 0.44++ | 0.32++ | -0.17 |
| NODULE | WEIGHT 2 | -0.05 | -0.26+ | 0.49++ | 0.33++ | -0.11 |
| PLANT | HEIGHT | -0.05 | -0.13 | 0.68++ | 0.17 | -0.27+ |
| | LODGING | 0.05 | -0.23 | 0.65++ | 0.12 | -0.23 |
| | SHATTER | 1.00 | 0.03 | -0.10 | -0.10 | 0.34++ |
| PLANTS | HARVEST | 0.03 | 1.00 | -0.55++ | -0.35++ | 0.12 |
| PODS PER | PLANT | -0.10 | -0.55++ | 1.00 | 0.45++ | -0.25+ |
| 100 SEED | WEIGHT | -0.10 | -0.35++ | 0.45++ | 1.00 | 0.12 |
| QUALITY | OF SEED | 0.34++ | 0.12 | -0.25+ | 0.12 | 1.00 |

TABLE 197 EXPERIMENT 8 YEAR 1976

REGION - SOUTH AMERICA
SITE - QUITO
LATITUDE - 0 DEG. 22 MIN. S
COOPERATOR - I.N.I.A.P.
DATE PLANTED - APRIL 20, 1976
SOIL TYPE - CLAY, PH 6.2
AMOUNT OF MOISTURE - 808 MM
NUMBER OF IRRIGATIONS - 3
LOCAL VARIETIES - AMERICANA SELEC(T), JUPITER SELEC(T)

COUNTRY - ECUADOR
ELEVATION - 2650 M
LONGITUDE - 78 DEG. 33 MIN. W
DATE HARVESTED - SEPTEMBER, 1976

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 247.97 | 0.00 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.25 | 1.75 |
| 2 | WOODWORTH | 241.05 | 0.00 | 91.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.90 | 1.25 |
| 10 | CLARK 63 | 160.41 | 0.00 | 98.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.80 | 1.00 |
| 6 | PICKETT 71 | 142.57 | 0.00 | 107.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 1.00 |
| 8 | BOSSIER | 123.07 | 0.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.90 | 1.00 |
| 1 | CALLAND | 122.73 | 0.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.40 | 1.50 |
| 14 | FORREST | 78.14 | 0.00 | 188.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.55 | 1.00 |
| 12 | DAVIS | 72.01 | 0.00 | 188.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.95 | 1.00 |
| 4 | RANSOM | 70.97 | 0.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.00 | 1.00 |
| 11 | COBB | 56.93 | 0.00 | 127.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.50 | 1.00 |
| 3 | BRAGG | 42.84 | 0.00 | 142.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.70 | 1.00 |
| 7 | JUPITER | 36.55 | 0.00 | 156.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.95 | 1.00 |
| 16 | JUPITER SELEC(T) | 33.01 | 0.00 | 157.50 | 0.00 | 0.00 | 0.00 | 0.00 | 37.00 | 1.00 |
| 13 | IMPROVED PELICAN | 13.13 | 0.00 | 142.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.10 | 1.00 |
| 5 | HILL | 11.17 | 0.00 | 198.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.80 | 1.00 |
| 15 | AMERICANA SELEC(T) | 7.08 | 0.00 | 188.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.95 | 1.00 |
| | GRAND MEAN | 91.23 | 0.00 | 140.72 | 0.00 | 0.00 | 0.00 | 0.00 | 21.89 | 1.09 |
| | STANDARD ERROR OF A VARIETY MEAN | 25.43 | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.12 |
| | COEFFICIENT OF VARIATION | 55.75% | 0.00% | 0.53% | 0.00% | 0.00% | 0.00% | 0.00% | 16.97% | 21.28% |
| | 5% LSD VARIETY MEANS (*********=NS) | 72.44 | 0.00 | 1.07 | 0.00 | 0.00 | 0.00 | 0.00 | 5.29 | 0.33 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.00 | -0.66** | 0.00 | 0.00 | 0.00 | 0.00 | -0.27* | 0.38** |
| DAYS TO | FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | -0.66** | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55** | -0.33** |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.27* | 0.00 | 0.55** | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | -0.22 |
| | LODGING | 0.38** | 0.00 | -0.33** | 0.00 | 0.00 | 0.00 | 0.00 | -0.22 | 1.00 |
| | SHATTER | -0.16 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | -0.08 |
| PLANTS | HARVEST | 0.80** | 0.00 | -0.77** | 0.00 | 0.00 | 0.00 | 0.00 | -0.41** | 0.32* |
| PODS PER | PLANT | 0.54** | 0.00 | -0.48** | 0.00 | 0.00 | 0.00 | 0.00 | -0.18 | -0.03 |
| 100 SEED | WEIGHT | 0.58** | 0.00 | -0.47** | 0.00 | 0.00 | 0.00 | 0.00 | -0.19 | 0.44** |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 197 EXPERIMENT 8 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 1.75 | 207.75 | 4.25 | 15.20 | 0.00 | 43.9 | 17.8 |
| 2 | WOODWORTH | 2.00 | 207.00 | 6.95 | 10.95 | 0.00 | 44.7 | 15.8 |
| 10 | CLARK 63 | 1.00 | 203.50 | 5.47 | 12.48 | 0.00 | 43.2 | 17.9 |
| 6 | PICKETT 71 | 3.00 | 183.50 | 7.35 | 9.13 | 0.00 | 46.0 | 15.6 |
| 8 | BOSSIER | 3.00 | 169.25 | 7.25 | 9.40 | 0.00 | 48.0 | 14.0 |
| 1 | CALLAND | 3.25 | 183.50 | 4.15 | 14.78 | 0.00 | 44.5 | 15.6 |
| 14 | FORREST | 2.25 | 114.00 | 3.58 | 11.13 | 0.00 | 42.0 | 16.7 |
| 12 | DAVIS | 2.50 | 86.50 | 4.62 | 9.55 | 0.00 | 44.0 | 14.5 |
| 4 | RANSOM | 2.75 | 122.75 | 4.55 | 10.83 | 0.00 | 43.6 | 15.3 |
| 11 | COBB | 4.00 | 169.25 | 8.40 | 8.75 | 0.00 | 47.4 | 15.2 |
| 3 | BRAGG | 1.25 | 109.25 | 3.58 | 11.10 | 0.00 | 46.6 | 15.1 |
| 7 | JUPITER | 2.00 | 56.75 | 4.30 | 9.47 | 0.00 | 46.5 | 14.3 |
| 16 | JUPITER SELEC(T) | 2.25 | 63.75 | 3.10 | 9.67 | 0.00 | 46.5 | 15.2 |
| 13 | IMPROVED PELICAN | 2.25 | 61.25 | 4.00 | 10.53 | 0.00 | 47.8 | 16.2 |
| 5 | HILL | 3.00 | 35.50 | 2.40 | 7.62 | 0.00 | 43.8 | 15.7 |
| 15 | AMERICANA SELEC(T) | 2.50 | 13.25 | 0.67 | 7.50 | 0.00 | -- | -- |
| | GRAND MEAN | 2.42 | 124.17 | 4.66 | 10.50 | 0.00 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.37 | 17.98 | 1.06 | 0.74 | 0.00 | | |
| | COEFFICIENT OF VARIATION | 30.82% | 28.96% | 45.60% | 14.09% | 0.00% | | |
| | 5% LSD VARIETY MEANS (*********=NS) | 1.06 | 51.21 | 3.03 | 2.11 | 0.00 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.16 | 0.80** | 0.54** | 0.58** | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.12 | -0.77** | -0.48** | -0.47** | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | -0.03 | -0.41** | -0.18 | -0.19 | 0.00 |
| | LODGING | -0.08 | 0.32* | -0.03 | 0.44** | 0.00 |
| | SHATTER | 1.00 | 0.07 | 0.19 | -0.23 | 0.00 |
| PLANTS | HARVEST | 0.07 | 1.00 | 0.65** | 0.57** | 0.00 |
| PODS PER | PLANT | 0.19 | 0.65** | 1.00 | 0.19 | 0.00 |
| 100 SEED | WEIGHT | -0.23 | 0.57** | 0.19 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 198 EXPERIMENT 155 YEAR 1976

REGION - SOUTH AMERICA
SITE - CAACUPE
LATITUDE - 25 DEG. 24 MIN. S
COOPERATORS - R. CASCCIA, O. AGUILERA, J. LOPEZ
DATE PLANTED - DECEMBER 10, 1976
SOIL TYPE - SAND 52.4%, SILT 25.6%, CLAY 22%, PH 5.7
FERTILIZER USED (KG/HA) - P 35.0, K 66.0
AMOUNT OF MOISTURE - 771 MM
NUMBER OF IRRIGATIONS - 1 (8 MM)
LOCAL VARIETIES - GALAXIA, VISOJA

COUNTRY - PARAGUAY
ELEVATION - 226 M
LONGITUDE - 57 DEG. 6 MIN. W
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | VISOJA | 2835.98 | 56.00 | 157.75 | 167.25 | 272.25 | 1.08 | 1.24 | 98.75 | 1.00 |
| 15 | GALAXIA | 2508.83 | 42.00 | 124.00 | 162.25 | 298.25 | 1.41 | 1.60 | 70.50 | 1.00 |
| 11 | DAVIS | 2410.90 | 46.00 | 142.75 | 248.25 | 211.50 | 1.27 | 0.94 | 78.25 | 1.00 |
| 3 | BRAGG | 2383.81 | 40.50 | 157.00 | 174.50 | 321.75 | 1.29 | 0.76 | 75.00 | 1.00 |
| 8 | BOSSIER | 2340.05 | 41.00 | 150.75 | 179.00 | 323.50 | 1.96 | 1.21 | 72.50 | 1.00 |
| 12 | FORREST | 2206.69 | 39.00 | 130.25 | 131.00 | 180.75 | 0.58 | 0.74 | 68.50 | 1.25 |
| 5 | HILL | 2102.50 | 41.00 | 128.50 | 133.00 | 193.50 | 0.68 | 0.80 | 72.50 | 1.00 |
| 6 | PICKETT 71 | 1994.15 | 41.00 | 157.00 | 116.75 | 197.00 | 1.08 | 0.80 | 53.25 | 1.25 |
| 4 | RANSOM | 1960.81 | 39.00 | 157.00 | 197.25 | 289.75 | 0.72 | 1.08 | 54.75 | 1.00 |
| 1 | CALLAND | 1856.62 | 27.00 | 128.25 | 67.50 | 142.75 | 0.12 | 1.12 | 76.25 | 1.00 |
| 7 | CUTLER 71 | 1373.19 | 31.00 | 140.50 | 120.25 | 161.00 | 0.30 | 1.14 | 77.00 | 1.00 |
| 10 | CLARK 63 | 1348.19 | 31.00 | 118.00 | 63.75 | 207.50 | 0.10 | 1.25 | 65.00 | 1.00 |
| 9 | WILLIAMS | 1323.18 | 27.00 | 126.75 | 116.00 | 155.75 | 0.12 | 0.67 | 67.00 | 1.00 |
| 2 | WOODWORTH | 993.95 | 27.00 | 98.00 | 88.25 | 98.00 | 0.08 | 0.64 | 70.50 | 1.00 |
| 14 | BEESON | 766.82 | 27.00 | 140.00 | 75.00 | 69.50 | 0.08 | 0.67 | 60.50 | 1.25 |
| 13 | WELLS | 718.39 | 27.00 | 125.50 | 73.75 | 165.50 | 0.13 | 0.78 | 53.50 | 1.00 |
| | GRAND MEAN | 1820.29 | 36.41 | 136.38 | 132.11 | 205.52 | 0.69 | 0.97 | 69.61 | 1.05 |
| | STANDARD ERROR OF A VARIETY MEAN | 207.01 | 0.13 | 6.11 | 27.42 | 38.59 | 0.22 | 0.20 | 3.64 | 0.11 |
| | COEFFICIENT OF VARIATION | 22.74% | 0.69% | 8.96% | 41.51% | 37.55% | 63.98% | 42.06% | 10.46% | 21.14% |
| | 5% LSD VARIETY MEANS (********=NS) | 589.64 | 0.36 | 17.41 | 78.11 | 109.92 | 0.63 | ******** | 10.37 | ******** |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.77** | 0.35** | 0.55** | 0.55** | 0.63** | 0.41** | 0.51** | 0.03 |
| DAYS TO | FLOWER | 0.77** | 1.00 | 0.51** | 0.52** | 0.47** | 0.62** | 0.21 | 0.45** | -0.02 |
| DAYS TO | MATURITY | 0.35** | 0.51** | 1.00 | 0.40** | 0.40** | 0.43** | 0.10 | 0.12 | 0.02 |
| NODULE | NUMBER 1 | 0.55** | 0.52** | 0.40** | 1.00 | 0.70** | 0.69** | 0.42** | 0.29* | 0.02 |
| NODULE | NUMBER 2 | 0.55** | 0.47** | 0.40** | 0.70** | 1.00 | 0.72** | 0.57** | 0.20 | -0.11 |
| NODULE | WEIGHT 1 | 0.63** | 0.62** | 0.43** | 0.69** | 0.72** | 1.00 | 0.40** | 0.25* | 0.13 |
| NODULE | WEIGHT 2 | 0.41** | 0.21 | 0.10 | 0.42** | 0.57** | 0.40** | 1.00 | 0.23 | -0.06 |
| PLANT | HEIGHT | 0.51** | 0.45** | 0.12 | 0.29* | 0.20 | 0.25* | 0.23 | 1.00 | -0.03 |
| | LODGING | 0.03 | -0.02 | 0.02 | 0.02 | -0.11 | 0.13 | -0.06 | -0.03 | 1.00 |
| | SHATTER | -0.19 | -0.27* | 0.11 | -0.14 | -0.15 | -0.20 | 0.06 | -0.21 | 0.19 |
| PLANTS | HARVEST | 0.19 | 0.12 | 0.15 | 0.21 | 0.11 | 0.14 | 0.14 | 0.16 | 0.17 |
| PODS PER | PLANT | 0.59** | 0.59** | 0.04 | 0.18 | 0.23 | 0.38** | 0.29* | 0.44** | -0.07 |
| 100 SEED | WEIGHT | 0.18 | -0.02 | 0.24 | 0.20 | 0.20 | 0.09 | 0.27* | 0.07 | -0.17 |
| QUALITY | OF SEED | -0.58** | -0.43** | 0.01 | -0.46** | -0.55** | -0.52** | -0.42** | -0.46** | 0.09 |

TABLE 198 EXPERIMENT 155 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED | PERCENT PROTEIN | PERCENT OIL |
|---|---|---|---|---|---|---|---|---|
| 16 | VISOJA | 1.00 | 193.25 | 48.90 | 16.05 | 2.00 | 44.3 | 20.2 |
| 15 | GALAXIA | 1.00 | 164.25 | 41.32 | 16.41 | 2.25 | 43.7 | 21.1 |
| 11 | DAVIS | 1.25 | 258.25 | 29.83 | 19.55 | 2.50 | 42.1 | 22.1 |
| 3 | BRAGG | 1.00 | 257.00 | 25.28 | 18.64 | 2.25 | 43.0 | 22.2 |
| 8 | BOSSIER | 1.25 | 163.75 | 36.09 | 18.15 | 2.25 | 44.9 | 20.7 |
| 12 | FORREST | 1.25 | 163.00 | 35.87 | 13.85 | 3.50 | 42.0 | 21.7 |
| 5 | HILL | 1.00 | 236.75 | 25.87 | 15.95 | 2.25 | 42.0 | 20.7 |
| 6 | PICKETT 71 | 1.50 | 179.75 | 25.97 | 17.91 | 3.25 | 44.0 | 22.3 |
| 4 | RANSOM | 1.50 | 218.25 | 18.40 | 18.98 | 3.00 | 42.2 | 24.6 |
| 1 | CALLAND | 1.50 | 189.75 | 23.35 | 21.41 | 3.25 | 42.7 | 20.9 |
| 7 | CUTLER 71 | 1.25 | 188.25 | 25.58 | 19.05 | 3.00 | 43.7 | 21.7 |
| 10 | CLARK 63 | 1.25 | 217.25 | 21.72 | 17.37 | 2.75 | 39.5 | 23.2 |
| 9 | WILLIAMS | 1.50 | 179.25 | 24.50 | 17.80 | 3.00 | 42.9 | 21.2 |
| 2 | WOODWORTH | 1.00 | 184.75 | 23.17 | 14.78 | 2.50 | 41.2 | 22.2 |
| 14 | BEESON | 1.75 | 200.75 | 17.40 | 16.72 | 4.50 | 43.5 | 21.0 |
| 13 | WELLS | 1.50 | 189.50 | 22.83 | 15.81 | 4.50 | 42.1 | 22.9 |
| | GRAND MEAN | 1.28 | 198.98 | 27.89 | 17.53 | 2.92 | | |
| | STANDARD ERROR OF A VARIETY MEAN | 0.22 | 22.36 | 3.85 | 0.66 | 0.41 | | |
| | COEFFICIENT OF VARIATION | 33.80% | 22.98% | 27.61% | 7.52% | 28.21% | | |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | ******** | 10.96 | 1.88 | 1.17 | | |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.19 | 0.19 | 0.59** | 0.18 | -0.58** |
| DAYS TO FLOWER | -0.27* | 0.12 | 0.59** | -0.02 | -0.43** |
| DAYS TO MATURITY | 0.11 | 0.15 | 0.04 | 0.24 | 0.01 |
| NODULE NUMBER 1 | -0.14 | 0.21 | 0.18 | 0.20 | -0.46** |
| NODULE NUMBER 2 | -0.15 | 0.11 | 0.23 | 0.20 | -0.55** |
| NODULE WEIGHT 1 | -0.20 | 0.14 | 0.38** | 0.09 | -0.52** |
| NODULE WEIGHT 2 | 0.06 | 0.14 | 0.29* | 0.27* | -0.42** |
| PLANT HEIGHT | -0.21 | 0.16 | 0.44** | 0.07 | -0.46** |
| LODGING | 0.19 | 0.17 | -0.07 | -0.17 | 0.09 |
| SHATTER | 1.00 | 0.10 | -0.25* | 0.06 | 0.31* |
| PLANTS HARVEST | 0.10 | 1.00 | -0.27* | 0.02 | -0.12 |
| PODS PER PLANT | -0.25* | -0.27* | 1.00 | -0.04 | -0.47** |
| 100 SEED WEIGHT | 0.06 | 0.02 | -0.04 | 1.00 | -0.09 |
| QUALITY OF SEED | 0.31* | -0.12 | -0.47** | -0.09 | 1.00 |

TABLE 199 EXPERIMENT 156 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PARAGUAY
SITE - CAPITAN-MIRANDA
COOPERATOR - S. PANIAGUA S.

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 1671.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 62.00 | 0.00 |
| 1 | CALLAND | 1667.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 70.00 | 0.00 |
| 8 | BOSSIER | 1629.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.00 | 0.00 |
| 4 | RANSOM | 1600.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.00 | 0.00 |
| 10 | CLARK 63 | 1537.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 62.75 | 0.00 |
| 6 | PICKETT 71 | 1487.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.75 | 0.00 |
| 2 | GOODWORTH | 1452.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 65.25 | 0.00 |
| 7 | CUTLER 71 | 1433.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.25 | 0.00 |
| 3 | BRAGG | 1425.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.25 | 0.00 |
| 16 | ESSEX | 1391.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 75.50 | 0.00 |
| 15 | COLUMBUS | 1346.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.75 | 0.00 |
| 11 | DAVIS | 1346.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.50 | 0.00 |
| 14 | BEESON | 1339.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 |
| 12 | FORREST | 1308.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 58.00 | 0.00 |
| 5 | HILL | 1202.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 62.75 | 0.00 |
| 13 | WELLS | 1175.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 46.00 | 0.00 |
| | GRAND MEAN | 1438.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 61.92 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 55.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.12 | 0.00 |
| | COEFFICIENT OF VARIATION | 7.67% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 6.85% | 0.00% |
| | 5% LSD VARIETY MEANS (****-***=NS) | 157.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.04 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 |
| DAYS TO FLOWER | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO MATURITY | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 |
| PODS PER PLANT | -0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.05 | 0.00 |
| 100 SEED WEIGHT | 0.31* | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45** | 0.00 |
| QUALITY OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE 199 EXPERIMENT 156 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 9 | WILLIAMS | 0.00 | 176.75 | 18.60 | 15.00 | 0.00 |
| 1 | CALLAND | 0.00 | 173.25 | 17.33 | 14.75 | 0.00 |
| 8 | BOSSIER | 0.00 | 73.75 | 44.28 | 14.25 | 0.00 |
| 4 | RANSOM | 0.00 | 152.00 | 21.30 | 13.13 | 0.00 |
| 10 | CLARK 63 | 0.00 | 167.50 | 18.23 | 13.13 | 0.00 |
| 6 | PICKETT 71 | 0.00 | 106.25 | 32.10 | 12.75 | 0.00 |
| 2 | WOODWORTH | 0.00 | 176.75 | 20.43 | 12.50 | 0.00 |
| 7 | CUTLER 71 | 0.00 | 154.25 | 21.05 | 14.00 | 0.00 |
| 3 | BRAGG | 0.00 | 192.25 | 23.10 | 13.75 | 0.00 |
| 16 | ESSEX | 0.00 | 138.50 | 31.60 | 14.63 | 0.00 |
| 15 | COLUMBUS | 0.00 | 84.00 | 38.68 | 14.75 | 0.00 |
| 11 | DAVIS | 0.00 | 181.50 | 22.75 | 14.75 | 0.00 |
| 14 | BEESON | 0.00 | 175.50 | 18.28 | 14.50 | 0.00 |
| 12 | FORREST | 0.00 | 91.75 | 52.00 | 10.50 | 0.00 |
| 5 | HILL | 0.00 | 100.50 | 27.13 | 13.13 | 0.00 |
| 13 | WELLS | 0.00 | 156.75 | 19.50 | 10.00 | 0.00 |
| | GRAND MEAN | 0.00 | 143.83 | 26.65 | 13.47 | 0.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.01 | 3.09 | 0.54 | 0.00 |
| | COEFFICIENT OF VARIATION | 0.00% | 11.14% | 23.18% | 7.99% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 22.81 | 8.80 | 1.53 | 0.00 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | 0.00 | 0.16 | -0.06 | 0.31* | 0.00 |
| DAYS TO | FLOWER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DAYS TO | MATURITY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.00 | 0.19 | -0.05 | 0.45** | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS | HARVEST | 0.00 | 1.00 | -0.73** | 0.12 | 0.00 |
| PODS PER | PLANT | 0.00 | -0.73** | 1.00 | -0.13 | 0.00 |
| 100 SEED | WEIGHT | 0.00 | 0.12 | -0.13 | 1.00 | 0.00 |
| QUALITY | OF SEED | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

TABLE 200 EXPERIMENT 291 YEAR 1976

REGION - SOUTH AMERICA
SITE - DAGUA
LATITUDE - 5 DEG. 40 MIN. S
COOPERATOR - CESAR ARCAYA MACEDA
DATE PLANTED - SEPTEMBER 23, 1976
SOIL TYPE - CLAY, PH 8.3
AMOUNT OF MOISTURE - 118 MM
NUMBER OF IRRIGATIONS - 3
SUBSTITUTE VARIETY - IMPROVED PELICAN

COUNTRY - PERU
ELEVATION - 517 M
LONGITUDE - 78 DEG. 36 MIN. W

DATE HARVESTED - JANUARY, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 2989.50 | 22.75 | 95.25 | 6.75 | 17.75 | 0.40 | 1.48 | 58.25 | 1.25 |
| 8 | JUPITER | 2888.75 | 27.25 | 109.75 | 9.25 | 17.00 | 0.72 | 2.00 | 34.00 | 1.00 |
| 14 | IMPROVED PELICAN | 2658.25 | 20.50 | 94.00 | 6.75 | 15.00 | 0.42 | 1.55 | 39.00 | 1.00 |
| 9 | BOSSIER | 2635.25 | 27.00 | 98.50 | 7.00 | 13.75 | 0.43 | 1.50 | 42.50 | 1.25 |
| 11 | CLARK 63 | 2629.25 | 24.50 | 94.00 | 7.50 | 12.00 | 0.72 | 1.33 | 37.00 | 1.00 |
| 1 | CALLAND | 2612.50 | 22.75 | 98.00 | 7.75 | 15.50 | 0.77 | 2.20 | 36.00 | 1.00 |
| 3 | BRAGG | 2605.50 | 27.75 | 94.50 | 6.50 | 14.00 | 0.48 | 1.70 | 50.00 | 1.25 |
| 15 | FORREST | 2546.00 | 24.75 | 98.50 | 8.75 | 15.75 | 0.65 | 1.25 | 35.00 | 1.00 |
| 2 | WOODWORTH | 2508.25 | 21.75 | 99.50 | 7.75 | 15.50 | 0.35 | 2.08 | 36.00 | 2.00 |
| 4 | RANSOM | 2441.75 | 24.25 | 106.00 | 8.75 | 12.75 | 0.48 | 1.63 | 32.25 | 1.25 |
| 5 | HILL | 2393.75 | 24.75 | 95.25 | 9.25 | 16.25 | 0.50 | 2.60 | 46.00 | 1.25 |
| 16 | IMPROVED PELICAN (PERU) | 2375.25 | 35.25 | 94.75 | 7.00 | 14.00 | 0.25 | 0.75 | 40.75 | 1.00 |
| 7 | CUTLER 71 | 2316.75 | 28.50 | 101.00 | 8.50 | 22.25 | 0.72 | 1.85 | 50.25 | 1.25 |
| 10 | WILLIAMS | 2283.50 | 22.00 | 95.00 | 8.00 | 12.25 | 0.53 | 1.18 | 36.25 | 2.00 |
| 12 | COBB | 2144.25 | 23.25 | 101.50 | 11.00 | 17.75 | 0.60 | 1.60 | 35.00 | 1.00 |
| 13 | DAVIS | 2141.00 | 21.50 | 95.25 | 6.00 | 10.25 | 0.43 | 1.55 | 40.50 | 1.00 |
| | GRAND MEAN | 2510.55 | 24.9[illegible] | 98.17 | 7.91 | 15.11 | 0.53 | 1.64 | 40.55 | 1.22 |
| | STANDARD ERROR OF A VARIETY MEAN | 420.18 | 0.95 | 0.87 | 1.72 | 3.13 | 0.18 | 0.47 | 8.50 | 0.13 |
| | COEFFICIENT OF VARIATION | 33.47% | 7.65% | 1.77% | 43.54% | 41.49% | 69.04% | 56.98% | 41.93% | 20.51% |
| | 5% LSD VARIETY MEANS (********=NS) | ******** | 2.71 | 2.48 | ******** | ******** | ******** | ******** | ******** | 0.36 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.04 | 0.08 | 0.33** | 0.34** | 0.28* | 0.20 | 0.27* | -0.06 |
| DAYS TO FLOWER | -0.04 | 1.00 | 0.13 | 0.02 | 0.13 | -0.09 | -0.08 | 0.05 | -0.17 |
| DAYS TO MATURITY | 0.08 | 0.13 | 1.00 | 0.28* | 0.22 | 0.16 | 0.16 | -0.16 | -0.04 |
| NODULE NUMBER 1 | 0.33** | 0.02 | 0.28* | 1.00 | 0.44** | 0.51** | 0.13 | -0.05 | -0.01 |
| NODULE NUMBER 2 | 0.34** | 0.13 | 0.22 | 0.44** | 1.00 | 0.35** | 0.40** | 0.23 | -0.05 |
| NODULE WEIGHT 1 | 0.28* | -0.09 | 0.16 | 0.51** | 0.35** | 1.00 | 0.34** | 0.04 | -0.13 |
| NODULE WEIGHT 2 | 0.20 | -0.08 | 0.16 | 0.13 | 0.40** | 0.34** | 1.00 | 0.24 | 0.06 |
| PLANT HEIGHT | 0.27* | 0.05 | -0.16 | -0.05 | 0.23 | 0.04 | 0.24 | 1.00 | -0.14 |
| LODGING | -0.06 | -0.17 | -0.04 | -0.01 | -0.05 | -0.13 | 0.06 | -0.14 | 1.00 |
| SHATTER | 0.04 | 0.25* | 0.03 | -0.01 | 0.10 | -0.02 | 0.03 | 0.24 | -0.38** |
| PLANTS HARVEST | -0.27* | -0.11 | -0.27* | -0.03 | -0.17 | 0.13 | -0.03 | -0.09 | 0.07 |
| PODS PER PLANT | 0.49** | 0.11 | 0.14 | -0.01 | 0.34** | -0.13 | 0.09 | 0.28* | -0.10 |
| 100 SEED WEIGHT | 0.32** | -0.20 | 0.25* | 0.18 | 0.26* | 0.15 | 0.21 | -0.04 | -0.25* |
| QUALITY OF SEED | -0.05 | -0.22 | -0.25 | 0.03 | -0.13 | 0.02 | -0.05 | -0.10 | 0.27* |

TABLE 200 EXPERIMENT 291 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 6 | PICKETT 71 | 1.75 | 166.50 | 32.50 | 19.75 | 2.00 |
| 8 | JUPITER | 1.00 | 131.00 | 40.00 | 20.00 | 1.00 |
| 14 | IMPROVED PELICAN | 1.00 | 172.25 | 36.75 | 19.00 | 1.00 |
| 9 | BOSSIER | 1.75 | 201.00 | 21.25 | 17.50 | 2.00 |
| 11 | CLARK 63 | 1.00 | 215.25 | 22.75 | 17.75 | 4.00 |
| 1 | CALLAND | 2.00 | 166.50 | 17.50 | 18.25 | 2.00 |
| 3 | BRAGG | 1.00 | 177.25 | 25.00 | 16.50 | 1.75 |
| 15 | FORREST | 1.00 | 210.25 | 17.25 | 19.50 | 3.00 |
| 2 | WOODWORTH | 1.00 | 177.00 | 18.25 | 18.25 | 4.00 |
| 4 | RANSOM | 1.75 | 158.25 | 25.75 | 18.75 | 2.00 |
| 5 | HILL | 1.75 | 196.00 | 17.50 | 18.25 | 2.00 |
| 16 | IMPROVED PELICAN (PERU) | 1.75 | 158.25 | 27.25 | 17.50 | 2.00 |
| 7 | CUTLER 71 | 1.75 | 177.25 | 33.75 | 17.75 | 2.00 |
| 10 | WILLIAMS | 1.00 | 180.00 | 25.50 | 16.00 | 3.00 |
| 12 | COBB | 1.00 | 192.00 | 19.75 | 19.25 | 2.50 |
| 13 | DAVIS | 1.00 | 190.75 | 18.00 | 19.00 | 3.00 |
| | GRAND MEAN | 1.34 | 178.72 | 24.92 | 18.31 | 2.33 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.14 | 15.93 | 8.92 | 1.20 | 0.14 |
| | COEFFICIENT OF VARIATION | 20.57% | 17.82% | 71.58% | 13.12% | 12.22% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.39 | ******** | ******** | ******** | 0.41 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.04 | -0.27* | 0.49** | 0.32** | -0.05 |
| DAYS TO FLOWER | 0.25* | -0.11 | 0.11 | -0.20 | -0.22 |
| DAYS TO MATURITY | 0.03 | -0.27* | 0.14 | 0.25* | -0.25 |
| NODULE NUMBER 1 | -0.01 | -0.03 | -0.01 | 0.18 | 0.03 |
| NODULE NUMBER 2 | 0.10 | -0.17 | 0.34** | 0.26* | -0.13 |
| NODULE WEIGHT 1 | -0.02 | 0.13 | -0.13 | 0.15 | 0.02 |
| NODULE WEIGHT 2 | 0.03 | -0.03 | 0.09 | 0.21 | -0.05 |
| PLANT HEIGHT | 0.24 | -0.09 | 0.28* | -0.04 | -0.10 |
| LODGING | -0.38** | 0.07 | -0.10 | -0.25* | 0.27* |
| SHATTER | 1.00 | -0.20 | 0.05 | 0.03 | -0.27* |
| PLANTS HARVEST | -0.20 | 1.00 | -0.68** | -0.25* | 0.36** |
| PODS PER PLANT | 0.05 | -0.68** | 1.00 | 0.22 | -0.25* |
| 100 SEED WEIGHT | 0.03 | -0.25* | 0.22 | 1.00 | -0.11 |
| QUALITY OF SEED | -0.27* | 0.36** | -0.25* | -0.11 | 1.00 |

TABLE 201 EXPERIMENT 372 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PERU
SITE - LA VINA ELEVATION - 251 M
LATITUDE - 12 DEG. 5 MIN. S LONGITUDE - 76 DEG. 57 MIN. W
COOPERATOR - F. SOPLIN V.
DATE PLANTED - FEBRUARY 12, 1977 DATE HARVESTED - JUNE, 1977
SOIL TYPE - SAND 69.8%, SILT 17.8%, CLAY 12.4%, PH 8.0
FERTILIZER USED (KG/HA) - N 25.0, P 80.0, K 30.0
NUMBER OF IRRIGATIONS - 10

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | JUPITER | 3063.11 | 41.00 | 113.50 | 69.50 | 66.25 | 0.34 | 0.78 | 71.37 | 2.75 |
| 13 | DAVIS | 2435.90 | 31.00 | 102.00 | 24.75 | 24.75 | 0.21 | 1.19 | 26.10 | 1.00 |
| 16 | COLUMBUS | 2077.50 | 32.50 | 105.00 | 16.00 | 74.25 | 0.17 | 1.47 | 43.20 | 1.75 |
| 11 | CLARK 63 | 2060.83 | 30.75 | 103.50 | 30.75 | 43.50 | 0.30 | 1.18 | 44.35 | 1.00 |
| 10 | WILLIAMS | 1850.37 | 34.00 | 89.75 | 14.75 | 116.25 | 0.12 | 1.60 | 40.43 | 1.00 |
| 1 | CALLAND | 1842.03 | 34.00 | 90.00 | 11.25 | 79.00 | 0.09 | 1.10 | 46.25 | 1.25 |
| 7 | CUTLER 71 | 1738.27 | 36.25 | 101.00 | 23.75 | 50.75 | 0.18 | 1.55 | 43.90 | 1.50 |
| 3 | BRAGG | 1733.68 | 29.00 | 98.00 | 7.75 | 25.75 | 0.08 | 0.56 | 28.00 | 1.00 |
| 14 | IMPROVED PELICAN | 1652.41 | 43.50 | 100.25 | 12.25 | 19.50 | 0.08 | 0.44 | 63.60 | 1.00 |
| 15 | FORREST | 1529.47 | 28.50 | 92.00 | 16.00 | 47.50 | 0.10 | 0.77 | 28.60 | 1.50 |
| 4 | RANSOM | 1475.29 | 40.00 | 108.00 | 19.50 | 39.00 | 0.23 | 0.98 | 23.38 | 1.00 |
| 2 | GOODWORTH | 1111.06 | 34.00 | 90.00 | 9.25 | 39.50 | 0.11 | 0.55 | 38.60 | 1.00 |
| 5 | HILL | 1081.47 | 35.00 | 106.00 | 23.25 | 35.50 | 0.18 | 0.57 | 26.23 | 1.00 |
| 12 | COBB | 806.41 | 32.00 | 111.00 | 21.75 | 45.75 | 0.12 | 0.87 | 21.60 | 1.00 |
| 6 | PICKETT 71 | 798.08 | 33.75 | 110.00 | 15.75 | 35.25 | 0.06 | 1.99 | 19.53 | 1.00 |
| 9 | BOSSIER | 754.32 | 40.50 | 110.00 | 23.50 | 37.00 | 0.16 | 1.15 | 18.53 | 1.00 |
| | GRAND MEAN | 1626.26 | 34.73 | 102.38 | 21.17 | 48.72 | 0.16 | 1.05 | 36.48 | 1.23 |
| | STANDARD ERROR OF A VARIETY MEAN | 198.50 | 0.85 | 1.57 | 2.60 | 8.74 | 0.02 | 0.23 | 1.54 | 0.15 |
| | COEFFICIENT OF VARIATION | 24.41% | 4.92% | 3.07% | 24.59% | 35.87% | 30.03% | 44.23% | 8.42% | 23.63% |
| | 5% LSD VARIETY MEANS (********=NS) | 565.41 | 2.43 | 4.47 | 7.41 | 24.89 | 0.07 | 0.66 | 4.38 | 0.42 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.02 | -0.03 | 0.57** | 0.29* | 0.55** | 0.06 | 0.61** | 0.44** |
| DAYS TO FLOWER | 0.02 | 1.00 | 0.35** | 0.28* | -0.04 | 0.15 | -0.12 | 0.38** | 0.16 |
| DAYS TO MATURITY | -0.03 | 0.35** | 1.00 | 0.51** | -0.21 | 0.39** | 0.08 | -0.10 | 0.27* |
| NODULE NUMBER 1 | 0.57** | 0.28* | 0.51** | 1.00 | 0.10 | 0.82** | 0.02 | 0.43** | 0.59** |
| NODULE NUMBER 2 | 0.29* | -0.04 | -0.21 | 0.10 | 1.00 | 0.00 | 0.47** | 0.26* | 0.18 |
| NODULE WEIGHT 1 | 0.55** | 0.15 | 0.39** | 0.82** | 0.00 | 1.00 | 0.00 | 0.28* | 0.37** |
| NODULE WEIGHT 2 | 0.06 | -0.12 | 0.08 | 0.02 | 0.47** | 0.00 | 1.00 | -0.13 | -0.02 |
| PLANT HEIGHT | 0.61** | 0.38** | -0.10 | 0.43** | 0.26* | 0.28* | -0.13 | 1.00 | 0.55** |
| LODGING | 0.44** | 0.16 | 0.27* | 0.59** | 0.18 | 0.37** | -0.02 | 0.55** | 1.00 |
| SHATTER | -0.10 | -0.10 | -0.24 | -0.26* | 0.31* | -0.26* | 0.42** | -0.16 | -0.12 |
| PLANTS HARVEST | 0.72** | -0.23 | -0.29* | 0.34** | 0.25* | 0.43** | 0.06 | 0.47** | 0.23 |
| PODS PER PLANT | 0.42** | 0.33** | 0.03 | 0.40** | -0.14 | 0.36** | -0.34** | 0.76** | 0.33** |
| 100 SEED WEIGHT | 0.35** | 0.01 | 0.15 | 0.47** | 0.37** | 0.34** | 0.34** | 0.19 | 0.16 |
| QUALITY OF SEED | 0.09 | -0.13 | 0.11 | 0.15 | -0.13 | 0.25* | 0.16 | -0.21 | 0.15 |

TABLE 201 EXPERIMENT 372 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 8 | JUPITER | 1.00 | 134.25 | 66.90 | 22.08 | 2.25 |
| 13 | DAVIS | 1.75 | 121.50 | 34.98 | 20.73 | 2.00 |
| 16 | COLUMBUS | 2.25 | 88.00 | 42.70 | 16.14 | 2.00 |
| 11 | CLARK 63 | 1.00 | 142.25 | 63.13 | 20.73 | 2.00 |
| 10 | WILLIAMS | 2.00 | 131.00 | 25.05 | 21.50 | 1.50 |
| 1 | CALLAND | 1.75 | 96.50 | 43.58 | 22.46 | 1.50 |
| 7 | CUTLER 71 | 2.00 | 114.00 | 34.15 | 19.96 | 2.75 |
| 3 | BRAGG | 1.25 | 108.25 | 29.45 | 14.44 | 2.50 |
| 14 | IMPROVED PELICAN | 1.00 | 82.25 | 72.23 | 15.89 | 1.00 |
| 15 | FORREST | 1.25 | 98.00 | 42.53 | 16.82 | 2.25 |
| 4 | RANSOM | 1.00 | 74.50 | 30.00 | 16.10 | 2.50 |
| 2 | WOODWORTH | 2.00 | 101.50 | 44.80 | 16.46 | 1.75 |
| 5 | HILL | 1.25 | 70.00 | 47.53 | 21.24 | 1.75 |
| 12 | COBB | 1.25 | 62.50 | 24.05 | 17.63 | 1.50 |
| 6 | PICKETT 71 | 2.00 | 61.75 | 27.15 | 21.08 | 2.25 |
| 9 | BOSSIER | 2.00 | 48.50 | 29.43 | 17.59 | 2.00 |
| | GRAND MEAN | 1.55 | 95.92 | 41.10 | 18.80 | 1.97 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.17 | 12.50 | 1.65 | 0.46 | 0.30 |
| | COEFFICIENT OF VARIATION | 21.72% | 26.06% | 8.01% | 4.84% | 30.11% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.48 | 35.60 | 4.69 | 1.30 | 0.84 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.10 | 0.72** | 0.42** | 0.35** | 0.09 |
| DAYS TO | FLOWER | -0.10 | -0.23 | 0.33** | 0.01 | -0.13 |
| DAYS TO | MATURITY | -0.24 | -0.29* | 0.03 | 0.15 | 0.11 |
| NODULE | NUMBER 1 | -0.26* | 0.34** | 0.40** | 0.47** | 0.15 |
| NODULE | NUMBER 2 | 0.31* | 0.25* | -0.14 | 0.37** | -0.13 |
| NODULE | WEIGHT 1 | -0.26* | 0.43** | 0.36** | 0.34** | 0.25* |
| NODULE | WEIGHT 2 | 0.42** | 0.06 | -0.34** | 0.34** | 0.16 |
| PLANT | HEIGHT | -0.16 | 0.47** | 0.76** | 0.19 | -0.21 |
| | LODGING | -0.12 | 0.23 | 0.33** | 0.16 | 0.15 |
| | SHATTER | 1.00 | -0.03 | -0.42** | 0.09 | 0.00 |
| PLANTS | HARVEST | -0.03 | 1.00 | 0.30* | 0.31* | 0.05 |
| PODS PER | PLANT | -0.42** | 0.30* | 1.00 | 0.10 | -0.18 |
| 100 SEED | WEIGHT | 0.09 | 0.31* | 0.10 | 1.00 | -0.0[illegible] |
| QUALITY | OF SEED | 0.00 | 0.05 | -0.18 | -0.01 | 1.00 |

TABLE 202 EXPERIMENT 370 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PERU
SITE - LIMA ELEVATION - 238 M
LATITUDE - 12 DEG. 5 MIN. S LONGITUDE - 76 DEG. 57 MIN. W
COOPERATORS - JOSE BRUNO, RUFINO MONTALVO
DATE PLANTED - JANUARY 27, 1977 DATE HARVESTED - JUNE, 1977
SOIL TYPE - SAND 50.2%, SILT 26%, CLAY 23.8%, PH 7.8
AMOUNT OF MOISTURE - 302 MM
NUMBER OF IRRIGATIONS - 5 (300 MM)

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | DAVIS | 3358.59 | 31.00 | 95.00 | 0.00 | 186.75 | 0.00 | 2.75 | 29.25 | 1.00 |
| 8 | JUPITER | 3283.99 | 35.50 | 123.00 | 0.00 | 165.50 | 0.00 | 2.75 | 67.25 | 1.50 |
| 15 | FORREST | 2847.24 | 31.50 | 91.50 | 0.00 | 164.25 | 0.00 | 2.50 | 29.50 | 1.00 |
| 14 | IMPROVED PELICAN | 2774.30 | 37.00 | 96.25 | 0.00 | 104.00 | 0.00 | 1.25 | 67.75 | 1.00 |
| 1 | CALLAND | 2627.61 | 30.00 | 93.50 | 0.00 | 168.50 | 0.00 | 2.50 | 34.00 | 1.00 |
| 11 | CLARK 63 | 2511.75 | 31.00 | 88.00 | 0.00 | 118.50 | 0.00 | 1.50 | 39.50 | 1.00 |
| 6 | PICKETT 71 | 2400.90 | 30.00 | 90.00 | 0.00 | 152.25 | 0.00 | 2.50 | 23.00 | 1.00 |
| 5 | HILL | 2262.54 | 33.50 | 89.75 | 0.00 | 98.25 | 0.00 | 1.50 | 29.50 | 1.00 |
| 4 | RANSOM | 2226.70 | 30.00 | 89.75 | 0.00 | 217.25 | 0.00 | 2.75 | 25.75 | 1.00 |
| 7 | COTLER 71 | 2120.42 | 31.50 | 90.00 | 0.00 | 171.50 | 0.00 | 2.25 | 40.50 | 1.00 |
| 12 | COBB | 2031.66 | 31.50 | 92.50 | 0.00 | 123.25 | 0.00 | 1.50 | 29.50 | 1.00 |
| 16 | COLUMBUS | 1995.40 | 31.00 | 76.25 | 0.00 | 144.75 | 0.00 | 2.00 | 31.25 | 1.00 |
| 10 | WILLIAMS | 1984.56 | 30.50 | 88.00 | 0.00 | 157.25 | 0.00 | 2.00 | 35.75 | 1.00 |
| 2 | WOODWORTH | 1680.34 | 31.00 | 82.00 | 0.00 | 131.75 | 0.00 | 1.75 | 33.50 | 1.00 |
| 3 | BRAGG | 1467.38 | 30.00 | 89.00 | 0.00 | 128.50 | 0.00 | 1.00 | 23.50 | 1.00 |
| 9 | BOSSIER | 1247.33 | 30.00 | 88.00 | 0.00 | 156.25 | 0.00 | 1.50 | 19.75 | 1.00 |
| | GRAND MEAN | 2301.29 | 31.56 | 91.41 | 0.00 | 149.28 | 0.00 | 2.00 | 34.95 | 1.03 |
| | STANDARD ERROR OF A VARIETY MEAN | 185.78 | 0.64 | 3.80 | 0.00 | 27.38 | 0.00 | 0.40 | 2.83 | 0.07 |
| | COEFFICIENT OF VARIATION | 16.15% | 4.04% | 8.31% | 0.00% | 36.68% | 0.00% | 40.23% | 16.21% | 14.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 529.17 | 1.81 | 10.82 | 0.00 | ******** | 0.00 | 1.15 | 8.07 | 0.21 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | 0.28* | 0.41** | 0.00 | 0.23 | 0.00 | 0.31* | 0.48** | 0.28* |
| DAYS TO FLOWER | 0.28* | 1.00 | 0.39** | 0.00 | -0.16 | 0.00 | 0.01 | 0.73** | 0.19 |
| DAYS TO MATURITY | 0.41** | 0.38** | 1.00 | 0.00 | -0.09 | 0.00 | 0.12 | 0.49** | 0.50** |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | 0.23 | -0.16 | -0.00 | 0.00 | 1.00 | 0.00 | 0.71** | -0.04 | 0.08 |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | 0.31* | 0.01 | 0.12 | 0.00 | 0.71** | 0.00 | 1.00 | 0.07 | 0.29* |
| PLANT HEIGHT | 0.48** | 0.73** | 0.49** | 0.00 | -0.04 | 0.00 | 0.07 | 1.00 | 0.38** |
| LODGING | 0.28* | 0.19 | 0.50** | 0.00 | 0.08 | 0.00 | 0.29* | 0.38** | 1.00 |
| SHATTER | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.45** | -0.10 | 0.19 | 0.00 | 0.16 | 0.00 | 0.09 | 0.05 | 0.04 |
| PODS PER PLANT | 0.58** | 0.70** | 0.65** | 0.00 | 0.10 | 0.00 | 0.27* | 0.76** | 0.56** |
| 100 SEED WEIGHT | 0.01 | -0.55** | -0.03 | 0.00 | 0.27* | 0.00 | 0.19 | -0.30* | -0.00 |
| QUALITY OF SEED | -0.11 | -0.45** | -0.29* | 0.00 | 0.25* | 0.00 | 0.10 | -0.26* | -0.17 |

TABLE 202 EXPERIMENT 370 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 13 | DAVIS | 1.00 | 207.00 | 33.75 | 17.00 | 1.00 |
| 8 | JUPITER | 1.00 | 191.50 | 82.50 | 17.00 | 1.00 |
| 15 | FORREST | 1.00 | 170.00 | 29.25 | 15.25 | 1.00 |
| 14 | IMPROVED PELICAN | 1.00 | 133.50 | 48.00 | 12.25 | 1.00 |
| 1 | CALLAND | 1.00 | 168.75 | 21.25 | 20.50 | 2.00 |
| 11 | CLARK 63 | 1.00 | 200.00 | 21.00 | 17.25 | 2.00 |
| 6 | PICKETT 71 | 1.00 | 153.25 | 25.00 | 17.75 | 1.75 |
| 5 | HILL | 1.00 | 158.50 | 26.50 | 15.50 | 1.25 |
| 4 | HANSON | 1.00 | 191.50 | 22.25 | 17.00 | 2.00 |
| 7 | CUTLER 71 | 1.00 | 196.25 | 23.25 | 19.00 | 1.75 |
| 12 | COBB | 1.00 | 132.50 | 26.75 | 16.75 | 1.00 |
| 16 | COLUMBUS | 1.00 | 136.25 | 24.50 | 17.25 | 1.50 |
| 10 | WILLIAMS | 1.00 | 174.50 | 18.25 | 19.25 | 1.75 |
| 2 | WOODWORTH | 1.00 | 177.00 | 17.00 | 15.00 | 1.00 |
| 3 | BRAGG | 1.00 | 196.50 | 14.75 | 18.75 | 1.50 |
| 9 | BOSSIER | 1.00 | 122.00 | 19.25 | 16.75 | 2.00 |
| | GRAND MEAN | 1.00 | 170.56 | 28.33 | 17.02 | 1.47 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 16.59 | 3.33 | 0.53 | 0.15 |
| | COEFFICIENT OF VARIATION | 0.00% | 19.45% | 23.54% | 6.21% | 20.77% |
| | 5% LSI VARIETY MEANS (********=NS) | 0.00 | 47.25 | 9.50 | 1.50 | 0.43 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | 0.00 | 0.45** | 0.58** | 0.01 | -0.11 |
| DAYS TO FLOWER | 0.00 | -0.10 | 0.70** | -0.55** | -0.45** |
| DAYS TO MATURITY | 0.00 | 0.19 | 0.65** | -0.03 | -0.29* |
| MODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| MODULE NUMBER 2 | 0.00 | 0.16 | 0.10 | 0.27* | 0.25* |
| MODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| MODULE WEIGHT 2 | 0.00 | 0.09 | 0.27* | 0.19 | 0.10 |
| PLANT HEIGHT | 0.00 | 0.05 | 0.76** | -0.30* | -0.26* |
| LODGING | 0.00 | 0.04 | 0.56** | -0.00 | -0.17 |
| SHATTER | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANTS HARVEST | 0.00 | 1.00 | 0.03 | 0.28* | 0.09 |
| PODS PER PLANT | 0.00 | 0.03 | 1.00 | -0.24 | -0.34** |
| 100 SEED WEIGHT | 0.00 | 0.28* | -0.24 | 1.00 | 0.51** |
| QUALITY OF SEED | 0.00 | 0.09 | -0.34** | 0.51** | 1.00 |

TABLE 203 EXPERIMENT 190 YEAR 1976

REGION - SOUTH AMERICA
SITE - TACUAREMBO
LATITUDE - 31 DEG. 42 MIN. S
COOPERATOR - LUIS AMENDOLA
DATE PLANTED - DECEMBER 1, 1976
SOIL TYPE - SAND 62%, SILT 18%, CLAY 20%, PH 4.6
FERTILIZER USED (KG/HA) - N 30.0,P 45.0, K 30.0
AMOUNT OF MOISTURE - 790 MM

COUNTRY - URUGUAY
ELEVATION - 120 M
LONGITUDE - 55 DEG. 39 MIN. W
DATE HARVESTED - MARCH, 1977

| ENTRY NUMBERS | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 4170.83 | 59.00 | 150.00 | 58.75 | 0.00 | 0.55 | 0.00 | 112.73 | 4.25 |
| 9 | WILLIAMS | 3777.01 | 38.00 | 109.00 | 98.00 | 0.00 | 0.83 | 0.00 | 96.23 | 1.00 |
| 14 | FORREST | 3744.92 | 59.00 | 141.00 | 28.50 | 0.00 | 0.37 | 0.00 | 109.73 | 5.00 |
| 4 | RANSOM | 3729.91 | 59.00 | 155.00 | 63.50 | 0.00 | 0.42 | 0.00 | 101.20 | 2.75 |
| 12 | DAVIS | 3601.97 | 72.00 | 141.00 | 40.50 | 0.00 | 0.51 | 0.00 | 107.30 | 3.00 |
| 2 | WOODWORTH | 3519.04 | 38.00 | 99.00 | 78.75 | 0.00 | 0.57 | 0.00 | 91.27 | 1.00 |
| 11 | COBB | 3281.07 | 72.00 | 148.00 | 19.25 | 0.00 | 0.24 | 0.00 | 111.65 | 1.75 |
| 10 | CLARK 63 | 3267.32 | 38.00 | 109.00 | 101.75 | 0.00 | 0.84 | 0.00 | 100.43 | 1.00 |
| 15 | COLUMBUS | 3253.98 | 43.00 | 130.00 | 133.00 | 0.00 | 1.16 | 0.00 | 103.95 | 1.50 |
| 16 | ESSEX | 3194.81 | 50.00 | 141.00 | 43.25 | 0.00 | 0.49 | 0.00 | 92.92 | 2.75 |
| 6 | PICKETT 71 | 3124.37 | 66.00 | 141.00 | 13.50 | 0.00 | 0.14 | 0.00 | 93.50 | 3.50 |
| 1 | CALLAND | 3101.87 | 38.00 | 109.00 | 59.00 | 0.00 | 0.67 | 0.00 | 99.47 | 1.00 |
| 8 | BOSSIER | 3060.20 | 72.00 | 151.25 | 24.25 | 0.00 | 0.27 | 0.00 | 112.78 | 3.75 |
| 5 | HILL | 2977.26 | 59.00 | 130.00 | 21.50 | 0.00 | 0.14 | 0.00 | 99.30 | 3.75 |
| 7 | CUTLER 71 | 2973.51 | 38.00 | 109.00 | 86.25 | 0.00 | 0.80 | 0.00 | 96.15 | 1.00 |
| 13 | IMPROVED PELICAN | 2176.27 | 72.00 | 166.00 | 5.50 | 0.00 | 0.05 | 0.00 | 120.45 | 2.75 |
| | GRAND MEAN | 3309.65 | 54.56 | 133.08 | 54.70 | 0.00 | 0.50 | 0.00 | 103.07 | 2.48 |
| | STANDARD ERROR OF A VARIETY MEAN | 147.21 | 0.00 | 0.31 | 12.66 | 0.00 | 0.13 | 0.00 | 2.65 | 0.30 |
| | COEFFICIENT OF VARIATION | 8.90% | 0.00% | 0.47% | 46.29% | 0.00% | 53.32% | 0.00% | 5.14% | 24.43% |
| | 5% LSD VARIETY MEANS (*********=NS) | 419.31 | 0.00 | 0.89 | 36.06 | 0.00 | 0.38 | 0.00 | 7.54 | 0.86 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YIELD KG/HA | 1.00 | -0.14 | -0.12 | 0.28* | 0.00 | 0.29* | 0.00 | -0.12 | 0.10 |
| DAYS TO FLOWER | -0.14 | 1.00 | 0.88** | -0.69** | 0.00 | -0.62** | 0.00 | 0.56** | 0.63** |
| DAYS TO MATURITY | -0.12 | 0.88** | 1.00 | -0.55** | 0.00 | -0.50** | 0.00 | 0.59** | 0.65** |
| NODULE NUMBER 1 | 0.28* | -0.69** | -0.55** | 1.00 | 0.00 | 0.86** | 0.00 | -0.31* | -0.49** |
| NODULE NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 1 | 0.29* | -0.62** | -0.50** | 0.86** | 0.00 | 1.00 | 0.00 | -0.20 | -0.42** |
| NODULE WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| PLANT HEIGHT | -0.12 | 0.56** | 0.59** | -0.31* | 0.00 | -0.20 | 0.00 | 1.00 | 0.38** |
| LODGING | 0.10 | 0.63** | 0.65** | -0.49** | 0.00 | -0.42** | 0.00 | 0.38** | 1.00 |
| SHATTER | -0.57** | 0.33** | 0.43** | -0.30* | 0.00 | -0.32* | 0.00 | 0.46** | 0.05 |
| PLANTS HARVEST | 0.15 | -0.31* | -0.38** | 0.09 | 0.00 | 0.02 | 0.00 | -0.41** | -0.12 |
| PODS PER PLANT | -0.01 | 0.82** | 0.76** | -0.68** | 0.00 | -0.53** | 0.00 | 0.54** | 0.78** |
| 100 SEED WEIGHT | 0.44** | -0.50** | -0.42** | 0.57** | 0.00 | 0.55** | 0.00 | -0.14 | -0.50** |
| QUALITY OF SEED | -0.33** | 0.12 | 0.19 | -0.26* | 0.00 | -0.18 | 0.00 | 0.31* | -0.07 |

TABLE 203 EXPERIMENT 190 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | BRAGG | 1.00 | 279.50 | 56.50 | 22.22 | 2.25 |
| 9 | WILLIAMS | 1.00 | 307.25 | 23.38 | 22.08 | 1.00 |
| 14 | FORREST | 1.00 | 266.25 | 68.32 | 16.47 | 3.75 |
| 8 | RANSOM | 1.00 | 264.50 | 38.92 | 20.39 | 2.00 |
| 12 | DAVIS | 1.00 | 287.75 | 46.75 | 19.93 | 1.75 |
| 2 | WOODWORTH | 1.00 | 311.25 | 22.47 | 18.71 | 2.75 |
| 11 | COBB | 1.00 | 251.25 | 60.80 | 19.19 | 5.00 |
| 10 | CLARK 63 | 1.00 | 286.75 | 26.78 | 20.52 | 3.25 |
| 15 | COLUMBUS | 1.00 | 273.00 | 29.55 | 19.95 | 2.00 |
| 16 | ESSEX | 1.00 | 282.25 | 43.22 | 17.04 | 3.50 |
| 6 | PICKETT 71 | 1.00 | 307.00 | 54.32 | 16.06 | 1.25 |
| 1 | CALLAND | 1.00 | 297.25 | 22.92 | 21.48 | 3.00 |
| 8 | BOSSIER | 1.00 | 182.50 | 58.12 | 17.98 | 1.00 |
| 5 | HILL | 1.00 | 345.25 | 55.92 | 15.95 | 2.00 |
| 7 | CUTLER 71 | 1.00 | 243.00 | 24.97 | 21.80 | 2.50 |
| 13 | IMPROVED PELICAN | 2.00 | 266.25 | 59.37 | 16.05 | 5.00 |
| | GRAND MEAN | 1.06 | 278.19 | 43.27 | 19.11 | 2.63 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 7.82 | 2.65 | 0.39 | 0.29 |
| | COEFFICIENT OF VARIATION | 0.00% | 5.62% | 12.25% | 4.04% | 22.45% |
| | 5% LSD VARIETY MEANS (********=NS) | 0.00 | 22.27 | 7.55 | 1.10 | 0.84 |

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| YIELD | KG/HA | -0.57** | 0.15 | -0.01 | 0.44** | -0.33** |
| DAYS TO | FLOWER | 0.33** | -0.31* | 0.82** | -0.50** | 0.12 |
| DAYS TO | MATURITY | 0.43** | -0.38** | 0.76** | -0.42** | 0.19 |
| NODULE | NUMBER 1 | -0.30* | 0.09 | -0.68** | 0.57** | -0.26* |
| NODULE | NUMBER 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 1 | -0.32* | 0.02 | -0.53** | 0.55** | -0.18 |
| NODULE | WEIGHT 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PLANT | HEIGHT | 0.46** | -0.41** | 0.54** | -0.14 | 0.31* |
| | LODGING | 0.05 | -0.12 | 0.78** | -0.50** | -0.07 |
| | SHATTER | 1.00 | -0.08 | 0.25* | -0.34** | 0.47** |
| PLANTS | HARVEST | -0.08 | 1.00 | -0.22 | -0.10 | -0.07 |
| PODS PER | PLANT | 0.25* | -0.22 | 1.00 | -0.55** | 0.24 |
| 100 SEED | WEIGHT | -0.34** | -0.10 | -0.55** | 1.00 | -0.24 |
| QUALITY | OF SEED | 0.47** | -0.07 | 0.24 | -0.24 | 1.00 |

TAPLE 204 EXPERIMENT 152 YEAR 1976

REGION - SOUTH AMERICA
SITE - TREINTA Y TRES
LATITUDE - 33 DEG. 18 MIN. S
COOPERATOR - MIGUEL A. BERASAIN
DATE PLANTED - NOVEMBER 19, 1976
SOIL TYPE - CLAY, PH 5.8
FERTILIZER USED (KG/HA) - N 30.0, P 35.2
AMOUNT OF MOISTURE - 900 MM
NUMBER OF IRRIGATIONS - 1 (50 MM)
LOCAL VARIETY - CTS-18

COUNTRY - URUGUAY
ELEVATION - 31 M
LONGITUDE - 55 DEG. W
DATE HARVESTED - APRIL, 1977

| ENTRY NUMBER | VARIETY OR CROSS | YIELD KG/HA | DAYS TO FLOWER | DAYS TO MATURITY | NODULE NUMBER 1 | NODULE NUMBER 2 | NODULE WEIGHT 1 | NODULE WEIGHT 2 | PLANT HEIGHT | LODGING |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | BRAGG | 3330.67 | 78.00 | 153.00 | 0.00 | 821.50 | 0.00 | 3.80 | 97.25 | 1.00 |
| 4 | HANSON | 3073.95 | 76.00 | 158.25 | 0.00 | 779.75 | 0.00 | 3.03 | 89.00 | 1.00 |
| 6 | PICKETT 71 | 3064.36 | 80.00 | 148.00 | 0.00 | 601.25 | 0.00 | 2.80 | 73.90 | 1.00 |
| 12 | FORREST | 2942.25 | 66.50 | 149.75 | 0.00 | 605.50 | 0.00 | 4.20 | 86.15 | 1.00 |
| 16 | CTS-18 | 2922.67 | 68.50 | 136.00 | 0.00 | 643.00 | 0.00 | 3.38 | 69.95 | 1.00 |
| 11 | DAVIS | 2815.98 | 80.00 | 151.00 | 0.00 | 469.50 | 0.00 | 2.53 | 83.30 | 1.00 |
| 15 | COLUMBUS | 2739.30 | 58.00 | 134.00 | 0.00 | 538.75 | 0.00 | 2.83 | 70.25 | 1.00 |
| 5 | HILL | 2671.37 | 71.75 | 136.00 | 0.00 | 596.75 | 0.00 | 2.85 | 84.00 | 1.00 |
| 1 | CALLAND | 2515.50 | 46.00 | 128.25 | 0.00 | 513.25 | 0.00 | 3.18 | 55.55 | 1.00 |
| 8 | BOISIER | 2420.07 | 82.75 | 156.00 | 0.00 | 1176.75 | 0.00 | 5.92 | 80.60 | 1.00 |
| 9 | WILLIAMS | 2273.37 | 48.00 | 124.00 | 0.00 | 649.75 | 0.00 | 3.75 | 50.00 | 1.00 |
| 7 | CUTLER 71 | 2235.86 | 54.00 | 128.00 | 0.00 | 439.75 | 0.00 | 2.43 | 56.15 | 1.00 |
| 10 | CLARK 63 | 2220.03 | 50.00 | 126.00 | 0.00 | 620.25 | 0.00 | 2.95 | 59.45 | 1.00 |
| 2 | WOODWORTH | 2078.33 | 46.00 | 125.00 | 0.00 | 465.50 | 0.00 | 2.35 | 55.50 | 1.00 |
| 14 | BEESON | 1946.64 | 43.00 | 119.00 | 0.00 | 403.00 | 0.00 | 2.15 | 43.65 | 1.00 |
| 13 | WELLS | 1795.78 | 43.00 | 117.00 | 0.00 | 589.25 | 0.00 | 3.50 | 38.45 | 1.00 |
| | GRAND MEAN | 2565.38 | 61.97 | 136.83 | 0.00 | 620.84 | 0.00 | 3.23 | 68.32 | 1.00 |
| | STANDARD ERROR OF A VARIETY MEAN | 164.63 | 0.13 | 0.19 | 0.00 | 99.08 | 0.00 | 0.63 | 2.85 | 0.00 |
| | COEFFICIENT OF VARIATION | 12.83% | 0.43% | 0.27% | 0.00% | 31.92% | 0.00% | 38.97% | 8.35% | 0.00% |
| | 5% LSD VARIETY MEANS (********=NS) | 468.93 | 0.38 | 0.53 | 0.00 | 282.23 | 0.00 | 1.79 | 8.12 | 0.00 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| YIELD | KG/HA | 1.00 | 0.65++ | 0.67++ | 0.00 | 0.23 | 0.00 | 0.08 | 0.78++ | 0.00 |
| DAYS TO | FLOWER | 0.65++ | 1.00 | 0.93++ | 0.00 | 0.42++ | 0.00 | 0.24 | 0.86++ | 0.00 |
| DAYS TO | MATURITY | 0.67++ | 0.93++ | 1.00 | 0.00 | 0.44++ | 0.00 | 0.28+ | 0.88++ | 0.00 |
| NODULE | NUMBER 1 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE | NUMBER 2 | 0.23 | 0.42++ | 0.44++ | 0.00 | 1.00 | 0.00 | 0.82++ | 0.36++ | 0.00 |
| NODULE | WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| NODULE | WEIGHT 2 | 0.08 | 0.24 | 0.28+ | 0.00 | 0.82++ | 0.00 | 1.00 | 0.20 | 0.00 |
| PLANT | HEIGHT | 0.78++ | 0.86++ | 0.88++ | 0.00 | 0.36++ | 0.00 | 0.20 | 1.00 | 0.00 |
| | LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| | SHATTER | -0.30+ | -0.34++ | -0.34++ | 0.00 | -0.23 | 0.00 | -0.20 | -0.36++ | 0.00 |
| PLANTS | HARVEST | 0.19 | -0.29+ | -0.27+ | 0.00 | -0.33++ | 0.00 | -0.33++ | -0.06 | 0.00 |
| PODS PER | PLANT | 0.56++ | 0.88++ | 0.80++ | 0.00 | 0.49++ | 0.00 | 0.35++ | 0.74++ | 0.00 |
| 100 SEED | WEIGHT | -0.19 | -0.56++ | -0.43++ | 0.00 | -0.18 | 0.00 | -0.13 | -0.40++ | 0.00 |
| QUALITY | OF SEED | -0.50++ | -0.77++ | -0.78++ | 0.00 | -0.33++ | 0.00 | -0.19 | -0.67++ | 0.00 |

TABLE 204 EXPERIMENT 152 YEAR 1976 (CONTINUED)

| ENTRY NUMBER | VARIETY OR CROSS | SHATTER | PLANTS HARVEST | PODS PER PLANT | 100 SEED WEIGHT | QUALITY OF SEED |
|---|---|---|---|---|---|---|
| 3 | BRAGG | 1.00 | 180.50 | 43.25 | 19.43 | 1.00 |
| 4 | RANSOM | 1.00 | 160.00 | 47.00 | 19.33 | 1.50 |
| 6 | PICKETT 71 | 1.00 | 151.25 | 55.25 | 14.88 | 1.00 |
| 12 | FORREST | 1.00 | 142.00 | 49.50 | 16.68 | 1.00 |
| 16 | CTS-18 | 1.00 | 161.75 | 55.00 | 16.88 | 2.75 |
| 11 | DAVIS | 1.00 | 157.25 | 41.50 | 17.23 | 1.00 |
| 15 | COLUMBUS | 1.00 | 149.50 | 30.25 | 21.10 | 4.25 |
| 5 | HILL | 1.00 | 160.50 | 51.50 | 16.10 | 2.75 |
| 1 | CALLAND | 1.00 | 177.00 | 19.00 | 23.08 | 4.50 |
| 8 | BOSSIER | 1.00 | 74.25 | 68.50 | 17.40 | 1.25 |
| 9 | WILLIAMS | 1.00 | 164.50 | 19.25 | 21.28 | 2.25 |
| 7 | CUTLER 71 | 1.00 | 134.25 | 26.50 | 20.80 | 3.25 |
| 10 | CLARK 63 | 1.00 | 169.50 | 24.25 | 19.85 | 3.00 |
| 2 | WOODWORTH | 1.00 | 170.25 | 24.50 | 17.43 | 3.25 |
| 14 | BEESON | 2.00 | 152.50 | 18.23 | 21.75 | 3.50 |
| 13 | WELLS | 1.00 | 155.75 | 17.75 | 18.20 | 4.25 |
| | GRAND MEAN | 1.06 | 153.80 | 36.95 | 18.84 | 2.53 |
| | STANDARD ERROR OF A VARIETY MEAN | 0.00 | 8.97 | 2.57 | 0.45 | 0.25 |
| | COEFFICIENT OF VARIATION | 0.00% | 11.66% | 13.93% | 4.78% | 20.13% |
| | 5% LSD VARIETY MEANS (*********=NS) | 0.00 | 25.55 | 7.33 | 1.28 | 0.73 |

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

| | | | | | |
|---|---|---|---|---|---|
| YIELD KG/HA | -0.30+ | 0.19 | 0.56++ | -0.19 | -0.50++ |
| DAYS TO FLOWER | -0.34++ | -0.29+ | 0.88++ | -0.58++ | -0.77++ |
| DAYS TO MATURITY | -0.34++ | -0.27+ | 0.80++ | -0.43++ | -0.78++ |
| NODULE NUMBER 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE NUMBER 2 | -0.23 | -0.33++ | 0.49++ | -0.18 | -0.33++ |
| NODULE WEIGHT 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NODULE WEIGHT 2 | -0.20 | -0.33++ | 0.35++ | -0.13 | -0.19 |
| PLANT HEIGHT | -0.36++ | -0.06 | 0.74++ | -0.40++ | -0.67++ |
| LODGING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHATTER | 1.00 | -0.01 | -0.29+ | 0.31+ | 0.19 |
| PLANTS HARVEST | -0.01 | 1.00 | -0.46++ | 0.17 | 0.17 |
| PODS PER PLANT | -0.29+ | -0.46++ | 1.00 | -0.64++ | -0.63++ |
| 100 SEED WEIGHT | 0.31+ | 0.17 | -0.64++ | 1.00 | 0.53++ |
| QUALITY OF SEED | 0.19 | 0.17 | -0.63++ | 0.53++ | 1.00 |