PN-AAR-736

38018

931050

000311

000105

INTERNATIONAL SOYBEAN VARIETY EXPERIMENT
Seventh Report of Results
1979

Joseph A. Jackobs, Michael D. Staggs,
and Danny R. Erickson

College of Agriculture
University of Illinois at Urbana-Champaign

International Agricultural Publications
INTSOY Series Number 24

July 1983

Single copies of this publication may be obtained by writing to INTSOY at the following address:

International Soybean Program (INTSOY)
College of Agriculture
University of Illinois
113 Mumford Hall
1301 West Gregory Drive
Urbana, Illinois 61801
U.S.A.

Cable address: INTSOY
Telex number: 206957

Library of Congress Catalog Card Number: 83-80515

Support for the research reported and the preparation of this publication was provided by the United States Agency for International Development under Contract Number AID/TA/C-1294, and by the Illinois Agricultural Experiment Station, College of Agriculture, University of Illinois at Urbana-Champaign. The views and interpretations are those of the authors and should not be attributed to the Agency for International Development or to any individual acting in its behalf.

CONTENTS

FOREWORD	vii
MATERIALS AND METHODS	1
ISVEX SITES	1
CULTIVARS	2
EXPERIMENT SITES	2
DATA COLLECTED	3
MAP OF WORLD-WIDE DISTRIBUTION OF ISVEX	4
STATISTICAL ANALYSIS OF DATA	5
RESULTS AND DISCUSSION	6
PEDIGREE AND ORIGIN OF SOYBEAN CULTIVARS	10
GROUPS AND ZONES OF SOYBEAN CULTIVARS	12
DESCRIPTION OF ENVIRONMENTAL ZONES IN THE SEVENTH ISVEX DURING 1979	13
GEOGRAPHICAL DESCRIPTION OF TRIAL SITES	14
ACRONYMS	17
LIST OF COOPERATORS AND ADDRESSES	18
NUMBER OF POSITIVE AND NEGATIVE CORRELATIONS	33
PERFORMANCE CHARACTERISTICS OF SOYBEAN CULTIVARS	34
RELATIVE STABILITY OF VARIETIES	38
MULTIPLE REGRESSION COEFFICIENTS	42
AGRONOMIC CHARACTERISTICS FOR INDIVIDUAL SITES	45
Afghanistan, Kabul	46
Algeria, Khemis-Miliana	48
Argentina, Parana-Entre Rios	50
Argentina, Pergamino	52
Bangladesh, Bangladesh Rice Research Institute	54
Bangladesh, Mymensingh	56
Bolivia, Abapo Izozog	58
Bolivia, Abapo Izozog	60
Burma, Heho Seed Farm	62
Chile, La Platina	64

AGRONOMIC CHARACTERISTICS FOR INDIVIDUAL SITES
(continued)

Chile, Pirque Experiment Station	66
China (Taiwan), Shanhua	68
Colombia, Motilonia	70
Colombia, Palmira	72
Cuba, Alquizar	74
Czechoslovakia, Piestany	76
Ecuador, Boliche	78
Ecuador, Pallatanga	80
Ecuador, Pichilingua	82
Ecuador, Portoviejo	84
Egypt, Malawy	86
Egypt, Nubaria	88
Egypt, Sakha	90
Egypt, Shebin El Kom	92
Egypt, Sids	94
Ethiopia, Awassa	96
Ethiopia, Awassa, Sidamo	98
Ethiopia, Debre-Zeit	100
Fiji, Legalega	102
Fiji, Legalega	104
Fiji, Naisilesele	106
French Guiana, Cabassou, Cayenne	108
Gambia, Sapu	110
Ghana, MIM, Brong Ahato	112
Ghana, Kwadaso	114
Guatemala, Solola	116
Guinea, Foulaya	118
Iraq, Abu-Ghraib, Baghdad	120
Korea, Suweon	122
Malawi, Chitedze	124
Malaysia, Sungei Buloh	126
Malaysia, Tenom	128
Malaysia, Tenom, Sabah	130
Mexico, Altamirano, Guerrero	132
Mexico, Cayal, Campeche	134
Mexico, Culiacan	136
Mexico, Santiago	138
Mexico Tapachula, Chiapas	140
Morocco, Slimania	142
Nepal, Khumaltar, Kathmandu	144
Nepal, Parwanipur	146
Pakistan, NARC, Islamabad	148
Pakistan, Tandojam	150
Paraguay, Caacupe	152
Peru, Huarangopampa, Bagua	154
Peru, La Molina	156
Peru, Marcavelica, Sullana	158
Peru, Pichianaki	160

AGRONOMIC CHARACTERISTICS FOR INDIVIDUAL SITES
(continued)

Peru, Tingo Maria	162
Peru, Tulumayo	164
Peru, Yurigmaguas	166
Philippines, Los Banos	168
Portugal, Tapado da Ajuda, Lisboa	170
Portugal, Vinha Brava, Azores	172
Puerto Rico, Isabela	174
Puerto Rico, Isabela	176
Rwanda, Rubona	178
Somalia, Afgoi	180
Sri Lanka, Gannoruwa	182
Sudan, Abu-Naama	184
Sudan, Gezira	186
Syria, Kharabo	188
Tahiti, Papara	190
Thailand, Suwan Farm	192
Turkey, Adana	194
Turkey, Nusaybin	196
United States of America, Urbana, Illinois	198
Zaire, Mulungu	200
Zaire, Sandoa	202
Zambia, Lusaka	204
Zambia, Magoye	206
Zambia, Mufulira	208
Zimbabwe, Harare (Salisbury)	210

FOREWORD

The International Soybean Program (INTSOY) is a cooperative program of the University of Illinois at Urbana-Champaign and the University of Puerto Rico at Mayagüez, cooperating with international and national organizations to expand the uses of soybeans. INTSOY is primarily oriented to improve soybean production and utilization in the tropical and subtropical developing nations of the world, where protein-calorie nutrition problems tend to be concentrated. The soybean variety trials also serve the global soybean community through exchange of elite germplasm.

The International Soybean Variety Evaluation Experiment (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 trials provide cooperating scientists the opportunity to have their elite breeding material evaluated globally and compared with cultivars from other countries. The response of the cultivars under many different environments is analyzed for high, stable yield and other desirable agronomic characteristics. Many important dividends have been obtained through accumulation of knowledge from these trials under different management skills, ranges of temperature and day length, and various soil conditions.

The seventh International Soybean Variety Experiment was conducted from February, 1979, to March, 1980, by cooperators in 64 countries around the world. Cultivars were nominated by various cooperators from seven different countries. Seeds and materials for the experiment were prepared and distributed by INTSOY at the request of cooperating scientists. Each cooperator provided land, labor, fertilizer, and management necessary for the experiment. These cooperators were responsible for the success of the experiment. We express our thanks and appreciation to each person and his/her organization and also to several organizations which provided support in shipping the trials to cooperating scientists. The Food and Agriculture Organization (FAO) shipped the seeds to countries where FAO had missions, and the U.S. Government shipped seed and materials to selected countries.

Dr. W. H. Judy provided leadership in organizing the 1979 ISVEX. However, after he transferred from INTSOY to a position with the United States Agency for International Development, Dr. Joseph A. Jackobs

followed, supervised the analysis, and wrote this report. Mr. D. R. Erickson has succeeded Mr. H. J. Hill as Assistant Agronomist, and Mr. Michael D. Staggs served as Assistant Statistician in analyzing these data.

INTSOY is pleased to add the seventh report of results to the INTSOY publication series. We very much welcome your response to this report.

Harold E. Kauffman
Director
International Soybean Program (INTSOY)

-1-

INTERNATIONAL SOYBEAN VARIETY EXPERIMENT

Seventh Report of Results

This publication is the seventh report of results from the International Soybean Variety Evaluation Experiment (ISVEX), organized in 1973 by the International Soybean Program (INTSOY) of the University of Illinois at Urbana-Champaign and the University of Puerto Rico at Mayaguez, 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 can use directly or incorporate into a breeding program.

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

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

MATERIALS AND METHODS

ISVEX Sites

Instructions for management and data collection for the 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 cultivar was planted in a plot in each of the 4 blocks (replications). A plot consisted of four rows 5 m long and 60 cm apart. Nodule activity and abundance data were obtained from the border rows. All other data were obtained from the center two rows.

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

---

AUTHORS: Joseph A. Jackobs, Professor; Michael D. Staggs, Assistant Statistician; and Danny R. Erickson, Assistant Agronomist; INTSOY, Department of Agronomy, University of Illinois, Urbana, Illinois, U.S.A.

P, and 25 kg/ha K be broadcast and worked into the plot prior to planting.

Sufficient seed was provided to overplant approximately 75%. 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 suggested for use in control of insects.

Cultivars

Cultivars entered in the Seventh ISVEX during 1979 were selected for various traits, including agronomic performance, maturity group classification, seed availability, uniform seed quality, and adaptability. Cultivars in earlier trials which demonstrated consistent high yields were selected for introduction into the ISVEX trials. There are 36 cultivars entered in the Seventh ISVEX. Twenty-five of the 36 cultivars were adapted to the tropics and subtropics. Of these 25, nine cultivars were selected and developed in the tropics or subtropics.

Each year, the ISVEX trials have a higher proportion of cultivars from the tropics and subtropics, and soon they should constitute up to 75% of the entries. The pedigrees of the soybean cultivars tested can be found in Table 1.

The cultivars were divided into three groups according to their maturity group and were distributed among cooperators according to the environmental zone of the site. Later maturing cultivars were distributed in subtropical and tropical zones while earlier maturing cultivars were dispatched to more temperate areas. These three groups were designated ISVEX A (tropical), ISVEX B (subtropical), and ISVEX C (temperate). The variety Williams was common to all three sets (see Table 2).

The ISVEX instructions indicated that the cooperator could 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 are shown in the table containing the analysis of data for the particular location.

Experiment Sites

The experiment sites were divided into 13 environmental zones which were defined by latitude and altitude. Separating the trial sites by latitude permitted evaluation of cultivars under similar conditions of day-length. Separation according to altitude permitted evaluation under similar conditions of day- and night-time temperatures. There was some variation within each zone in temperature, moisture, and solar radiation. Limits of each zone and

the number of sites in each zone are shown in Table 3.

The environmental zones were defined by each 10° increment in latitude from the equator and three altitude ranges: 0-500 m, 501-1000 m, and over 1000 m.

Planting date for each site was determined by the environment. Plantings were made throughout the year. Many researchers and scientists are beginning to use ISVEX material in sequential cropping systems.

The Seventh ISVEX was dispatched to 167 sites in 64 countries. Data were returned from 85 sites. Of these 85 sites, 25 were in Africa, 17 in Asia, 21 in South America, 11 in Mesoamerica, and 11 in Europe, the Middle East, North America, and Oceania. Figure 1 shows the location of the countries where trials were completed. The cultivars were evaluated under a wide range of environmental conditions. Sites ranged in latitude from $48^{o}38$ minutes North in Piestany, Czechoslovakia, to $33^{o}56$ minutes South at Parana, Argentina, and in elevation from 2 m at Papara, Tahiti, to 2133 m at Solola, Guatemala. Data were returned from 49 trials located between 20° North and 20° South latitudes.

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 had flowered.

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

Nodule number: Number of nodules on roots of ten plants at the time when the first flowers appeared and a second count of nodules three weeks after first flowering.

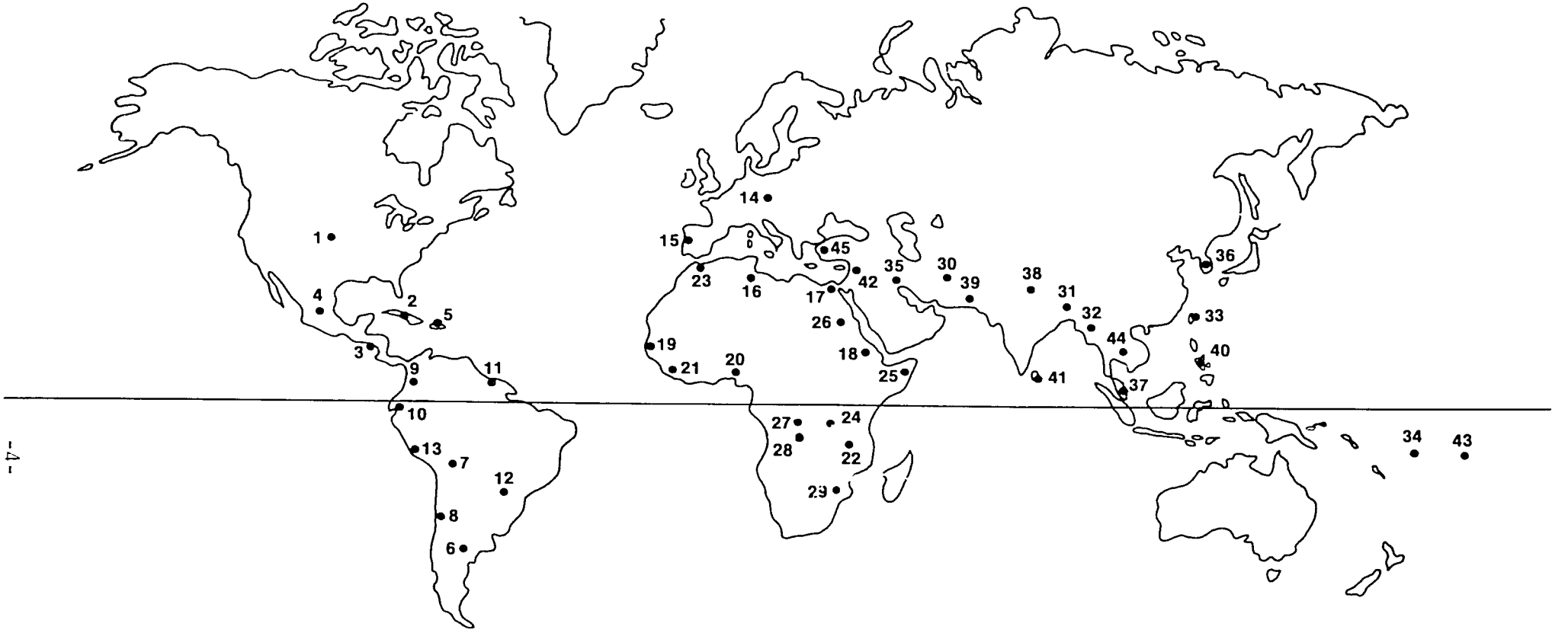
Nodule weight: Weight of nodules on roots of ten plants at the time when the first flowers appeared and again three weeks after first flowering.

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

Lodging score: Estimated rate 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 seventh (1979) International Soybean Variety Evaluation Experiment.



NORTH AMERICA
1 United States of America
MESO-AMERICA
2 Cuba
3 Guatemala
4 Mexico
5 Puerto Rico
SOUTH AMERICA
6 Argentina
7 Bolivia
8 Chile
9 Colombia
10 Ecuador
11 French Guiana
12 Paraguay
13 Peru
EUROPE
14 Czechoslovakia
15 Portugal
AFRICA
16 Algeria
17 Egypt
18 Ethiopia
19 Gambia
20 Ghana
21 Guinea
22 Malawi
23 Morocco
24 Rwanda
25 Somalia
26 Sudan
27 Zaire
28 Zambia
29 Zimbabwe
ASIA
30 Afghanistan
31 Bangladesh
32 Burma
33 China (Taiwan)
34 Fiji
35 Iraq
36 Korea
37 Malaysia
38 Nepal
39 Pakistan
40 Philippines
41 Sri Lanka
42 Syria
43 Tahiti
44 Thailand
45 Turkey

Plants harvested: Total number of plants harvested.

Pods per plant: Mean number of pods per plant estimated from ten plants.

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 seeds, and moldy or rotten seeds, according to a scale of 1 (very good quality) to 5 (very poor quality).

Seed germination: Number of seeds germinated out of 100 randomly selected seeds.

Data were also compiled for protein and oil contents of harvested beans. These analyses were made from one seed sample of each cultivar which was composited across replications at each trial site by the cooperator, who returned the sample to INTSOY for analysis. 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.

STATISTICAL ANALYSIS OF DATA

Analysis of variance was completed for variables for which data were complete 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 agronomic characteristics.

Oil and protein analysis data are reported for each cultivar, but no analysis of variance was performed.

Data were combined for locations within each group of cultivars, (Groups A, B, and C), so that the performance of each variety can be characterized. Before combining the data, they were adjusted to remove the effect of location. To do this, the adjusted value of each cultivar-location combination was calculated as follows:

$$\text{Adjusted value} = \frac{\text{Mean value of check cultivars over all locations}}{\text{Mean value of check cultivars at location}} \times \text{observed value}$$

The adjusted values have the effect of environment (as measured by the check cultivars) removed. The mean of the adjusted values of the checks at all locations will be the same as the mean of the check cultivars over all locations. The adjusted values were used to

1. Give equal weight to each location in determining the relative performance of cultivars over all locations.

2. Permit the comparison of cultivar means where the cultivars are grown at a different number of locations. This can be done, since the effect of environment has been removed.

3. Determine the relative stability of the performance of a cultivar over a wide range of environments. The standard deviation of the adjusted values of a cultivar at all locations is a measure of the interaction of a cultivar with location since the effect of location has been removed. Variation in the adjusted values of a cultivar is due to its failure to perform the same (in relation to the checks) at all locations. The magnitude of the standard deviations for the various characters varies widely because they reflect the units of measurement. A stability index was calculated to make comparisons between cultivars easier. The calculation was

$$\text{Stability index} = \frac{\text{Standard deviation of the adjusted values of a cultivar over all locations}}{\text{Mean standard deviation of all cultivars over all locations}}$$

The average stability index of all varieties at a location equals 1.

The influence of latitude, altitude, and environment on the relative performance of cultivars in terms of adjusted yield, days to flowering, and days to maturity was determined through multiple regression. The partial regression coefficients of the adjusted values for yield, days to flower, and days to maturity on the independent factors is a measure of the interaction of the cultivars in question with the independent factor. In other words, a partial regression coefficient exists because the cultivar in question did not respond the same as the checks did on an average. Multiple regressions were calculated separately for Groups A, B, and C.

RESULTS AND DISCUSSION

Summary mean values for parameters observed in experiments and stability of cultivars during 1979 are presented in Tables 8 and 9. The cultivars are ranked in approximate order of maturity from latest to earliest. The maturity group in which the cultivar was included is indicated. If a cultivar was included in more than one group, the two sets of data are given together. Comparisons of cultivars should be made only within each group.

Six varieties were included in both Group A (tropical) and Group B (subtropical). The mean adjusted yield of the two Groups was virtually the same, 1,885 and 1,877 kg/ha, respectively. The difference in days to flower was pronounced, 34.5 days in Group A and 51.9 days in Group B. The difference in days to maturity was still greater, 99.8 days in Group A and 126.13 days in Group B. The plants in Group A were shorter (49.5 cm) than those in Group B (71.4 cm). Average seed weight was greater in Group A, 17.4 g per 100 seeds, than in Group B, 15.8 g. Five cultivars were present in both Group B (sub tropical), and Group C (tropical), so similar comparisons can be made. The

mean yield of Group B, 2,096 kg/ha, was somewhat lower than that of Group C, 2,355 kg/ha. The difference in days to flowering was not as great as between Group A and Group B. Group B flowered in 39.4 days, while Group C flowered in 42.8 days. The difference in days to maturity likewise was not as great, Group B maturing in 108.8 days and Group C in 121.0. The difference in height was rather large. Group B plants averaged 60.2 cm while those in Group C averaged 89.4 cm. Seed weight in Group B was 17.6 g per 100 seeds and much lower in Group C, 15.3 g. These data indicate that the yield potential of soybeans may be somewhat lower in the tropics and subtropics than in the temperate zone, but by a narrow margin. Soybeans take significantly less time to flower and to mature near the equator and the time increases with distance from the equator. Surprisingly, weight per seed was greatest in the tropics and became progressively smaller in the subtropics and temperate zone.

The data in Table 8 summarize the performance characteristics of the 36 cultivars which were included in 12 or more trials. Data for a cultivar included in more than one Group are presented on consecutive lines. In this manner, all information on a cultivar is in one location. Days to maturity is the most important characteristic in determining where a cultivar can be grown successfully. For this reason, the cultivars have been placed in the order of their maturity from latest to earliest. When comparing cultivars, only the data from within a group should be used.

In addition to the average performance of a cultivar, it is important to know if its relative performance is consistent in relation to other cultivars, or if it varies widely from one location to another. The standard deviation of adjusted values for a cultivar across all trials in a group is a measure of consistency, because it measures deviations from the average of the check cultivars. If the standard deviation is large, the relative performance of a cultivar varies widely from one location to another. In this paper, stability index has been calculated to put all characteristics on the same scale. The average stability index values are given in Table 9. It is only valid to compare indices within Groups.

In Group A, the stability index for all characters of the cultivar Caribe was more than 1.00. This indicates that its performance varied widely in relation to the average performance of all varieties. On the other hand, the stability indices of Tunia (except for height to the first pod) were less than 1.00, which indicates that its relative performance was about the same as that for an average of all cultivars. SJ-2, also, was relatively consistent in all characteristics.

In spite of the fact that Improved Pelican and Bossier performed consistently in Group A, their performance in Group B in all characteristics except yield was erratic. The performance of Cutler 71 was consistent except in the case of shattering and quality, while the performance of Steele was consistent. In most cases, there was a tendency for the early maturing cultivars to be more consistent in their performance.

The correlations between agronomic characters are given in each table of original data. Table 7 has been prepared to determine frequency of posi-

tive and negative correlations for each combination of characters. If the ratio between the two values is between .5 and 2.0, there is little indication that the characters tend to be associated, positively or negatively. Yield tends to be negatively associated with shattering and seed quality and positively associated with plants harvested and seed weight. Days to flower is closely associated with days to maturity, plant height, lodging and pod height, and negatively associated with number of plants harvested and seed weight. Days to maturity was positively associated with plant height, lodging and pod height, and negatively associated with plants harvested and seed weight. Plant height was positively associated with lodging and pod height and negatively associated with seed weight. The correlations are influenced by the fact that earlier cultivars were developed primarily in the temperate zone and are the result of extensive plant breeding programs, whereas some of the later maturing cultivars are the result of less intensive breeding efforts. Therefore, the early cultivars have large seed which are preferred by the processors, whereas the late maturing cultivars often are small-seeded because of their origin. Thus the tendency observed for yield and seed size to be associated does not mean that small-seeded cultivars cannot be among the highest yielding cultivars. It may merely mean that the early cultivars in the trial were high yielding because they were developed in breeding programs where both yield and seed size were objectives.

The differential responses of cultivars to latitude, altitude, and general yield level were determined by calculating the multiple regression of adjusted yield, days to flowering, and days to maturity on these independent variables. The partial regression coefficients are given in Table 10. Since days to maturity is the most distinctive difference between cultivars, the cultivars within each group have been ranked according to maturity. The average adjusted days to maturity are given. The correlation between each set of partial regression coefficients and days to maturity are given at the bottom of each column.

The correlations between the partial regression coefficients for yield on degrees latitude were Group A, -.60; Group B, -.70; and Group C, -.70. The negative correlations indicate that the relative yield of late cultivars was lower with increasing distance from the equator. The influence of altitude on relative yields of late cultivars was least at the equator and became greater at greater distances from the equator: Group A, -.29, Group B, -.46, and Group C, -.77. Late maturing cultivars performed relatively poorly at higher altitudes. The response of late cultivars at different yield levels was not consistent at different distances from the equator: Group A, +.36, Group B, -.63, and Group C, +.93. The relative yield of late maturing cultivars at high yield levels was high in Groups A and C but was low in Group B. Relative yield of late maturing cultivars declined with increasing distance from the equator. This was also true for increasing heights above sea level and the effect became greater with greater distance from the equator. Near the equator and in the temperate zone, when the average yield in a trial was high, the yield of the late maturing varieties was relatively greater than that of the early maturing varieties. The opposite was true in the subtropics.

A similar examination of the partial regression coefficients for adjusted days to flower on latitude and altitude can be made. Flowering and maturity are delayed more in the late maturing cultivars with increasing distance from

the equator and increasing heights above sea level. In Groups A and B, where yields were high, the late maturing cultivars were relatively higher yielding until reaching the temperate zone (Group C), where the early maturing cultivars tended to be relatively higher yielding when yields were high.

Most partial regression coefficients for individual cultivars were not significant, but 8 of 9 calculated for Bragg were found to be significant.

The range in average protein content of cultivars was from 37.8% to 45.0%. The average oil content of ACC 2120 was exceptionally low, 14.4% in Group B. The other cultivars ranged in percent oil from 18.5 to 23.6. Both protein and oil were highest in the tropics, intermediate in the subtropics and lowest in the temperate zone. The quality of soybeans, measured by oil and protein contents, was better in the tropics and subtropics than it was in the temperate zone.

Table 1. Pedigree and origin of soybean cultivars entered in the Seventh International Soybean Variety Evaluation Experiment (ISVEX) during 1979

Cultivar	Maturity Group	Pedigree	Origin and/or Sponsor
ACC 2120 (G 2120)	VIII	Selection from P.I. 86736	S. Shanmugasundaram, AVRDC, China (Taiwan)
Bossier	VII	Selection from Lee	Louisiana AES and USDA, U.S.A.
Bragg	VI	Jackson x D49-2491	Georgia AES and USDA, U.S.A.
Calland	III	C1253 x Kent	Purdue AES and USRSL, U.S.A.
Caribe	IX	Unknown	G. Bastidas, ICA, Colombia
CH-3	VIII	Unknown	Unknown
Cobb	VIII	F57-735 x D58-335	Florida AES and USDA, U.S.A.
Columbus	IV	C1069 x Clark	Kansas AES and USRSL, U.S.A.
Corsoy	II	Harosoy x Capital	Iowa AES and USRSL, U.S.A.
Crawford	IV	Williams x Columbus	Kansas AES and USDA, U.S.A.
Cutler 71	IV	(Lincoln x Ogden) x Clark	Purdue AES and USRSL, U.S.A.
Davis	VI	[Roanoke x (Ogden x CNS)] x (Ralsoy x Ogden)	Arkansas AES and USRSL, U.S.A.
Elf	III	Williams x Ransom	Illinois AES, Ohio AES, and USDA, U.S.A.
Evans	0	Merit x Harosoy	Minnesota AES and USDA, U.S.A.
Forrest	V	Dyer x Bragg	Mississippi Agriculture and Forestry Experiment Station and USDA, U.S.A.
Franklin	IV	Clark 63(L12) x Custer	Illinois AES, Missouri AES and USDA, U.S.A.
Georgia Soy 17	VII	Bragg x Hood	Georgia AES, U.S.A.
Harcor	II	Corsoy x (Corsoy x Harosoy 63)	Research Station, Harrow, Ontario, Canada

Table 1. (Cont'd): Pedigree and origin of soybean cultivars entered in the Seventh International Soybean Variety Evaluation Experiment (ISVEX) during 1979

Cultivar	Maturity Group	Pedigree	Origin and/or Sponsor
Hardee L.S.	IX	D49-772 x Improved Pelican	INTSOY and University of Puerto Rico, P.R.
Hodgson	I	Corsoy x M372	Minnesota AES and USDA, U.S.A.
IAC-2	VIII	La 49-1219 x Yelmandl	Instituto Agronomico de Campinas, Brazil
Improved Pelican	VIII	Tanloxi x P.I. 60406	Louisiana AES, U.S.A.
James	IV	Delmar x Kent	Delaware AES and USRSL, U.S.A.
Jupiter	IX	D49-2491 x P.I. 240664	Florida AES and USDA, U.S.A.
McCall	00	M433 x Hark	Minnesota AES, U.S.A.
Mitchell	IV	Privately developed	J. M. Schultz Seed, Illinois, U.S.A.
Orba	VII	Unknown	Indonesia
Ransom	VII	(N55-3843 x N55 - 2908) x D56-1185	Alabama AES and USDA, U.S.A.
Rillito	VI	Clark x D49-2491	Arizona AES and USDA, U.S.A.
SJ-2	VII	Unknown	A. NaLampang, Dept. of Agriculture, Thailand
Steele	I	Blackhawk x Harosoy	Minnesota AES and USRSL, U.S.A.
Swift	0	[(Lincoln^2 x Richland) x Korean] x (Renville x Capital)	Minnesota AES and USRSL, U.S.A.
Tunia	VIII	Unknown	G. Bastidas, ICA, Colombia
UFV-1	VIII	D49-2491 x Improved Pelican Viçoja Selection	Universidade Federal de Viçosa, Brazil
Union	IV	Williams^5 x SL 12	Illinois AES and USDA, U.S.A.
Williams	III	Wayne x L57-0034	Illinois AES and USRSL, U.S.A.

Table 2. Soybean cultivar groups and the zones in which they were grown in the Seventh International Soybean Variety Evaluation Experiment, 1979

A - Tropical Group Zone I, II, & IV	B - Sub-Tropical Group Zone III, V, VI, VII VIII, IX, & X	C - Temperate Group Zone XI, XII, & XIII
Caribe		
CH-3		
Hardee L.S.		
IAC-2		
Jupiter		
SJ-2		
Tunia		
UFV-1		
ACC 2120 (G 2120)	ACC 2120 (G 2120)	
Bossier	Bossier	
Davis	Davis	
Improved Pelican	Improved Pelican	
Ransom	Ransom	
Rillito	Rillito	
Williams	Williams	Williams
	Bragg	
	Calland	Calland
	Cobb	
	Crawford	Crawford
	Cutler 71	Cutler 71
	Forrest	
	Franklin	Franklin
	Georgia Soy 17	
	James	
	Mitchell	Mitchell
		Columbus
		Corsoy
		Elf
		Evans
		Harcor
		Hodgson
		McCall
		Steele
		Swift
		Union

Table 3: Description of environmental zones in the Seventh International Soybean Variety Evaluation Experiment conducted during 1979

Zone	Latitude	Elevation (m)	Number of Sites
I	<10°59'[a]	<500	16
II	<10°59'	501-1,000	3
III	<10°59'	>1,000[b]	7
IV	11°-20°59'	<500	17
V	11°-20°59'	501-1,000	1
VI	11°-20°59'	>1,000	7
VII	21°-30°59'	<500	9
VIII	21°-30°59'	501-1,000	0
IX	21°-30°59'	>1,000	2
X	31°-40°59'	<500	14
XI	31°-40°59'	501-1,000	4
XII	31°-40°59'	>1,000	0
XIII	≥41°[c]	≥0	2

a < = less than

b > = greater than

c ≥ = equal to or greater than

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

Country	Site	Trial No.	Latitude	Longitude	Elevation (m)
Afghanistan	Kabul	645	36°32'N	68°53'E	450
Algeria	Khemis-Miliana	532	36°15'N	2°14'E	296
Argentina	Parana-Entre Rios	652	31°50'S	60°31'W	111
	Pergamino	657	33°56'S	60°34'W	66
Bangladesh	Bangladesh Rice Research Institute	168	24° N	90°26'E	30
	Mymensingh	448	24°N	90°E	18
Bolivia	Abapo Izozog	424	18°39'S	63° W	389
	Abapo Izozog	427	18°39'S	63°01'W	389
Burma	Heho Seed Farm	470	20°45'N	90°50'E	1140
Chile	La Platina, Santiago	654	33°27'S	70°41'W	625
	Pirque, Santiago	653	33°40'S	70°36'W	654
China (Taiwan)	Shanhua	575	22°30'N	120°17'E	9
Colombia	Motilonia	449	10°02'N	73°13'W	130
	Palmira	494	3°32'N	76°19'W	1080
Cuba	Havana	461	23°51'N	82°31'W	50
Czechoslovakia	Piestany	602	48°38'N	17°49'W	160
Ecuador	Boliche	467	2°15'S	79°38'W	14
	Pallatanga	589	1°59'S	78°58'W	1270
	Pichilingue	468	1°05'S	79°27'W	73
	Portoviejo	469	1°04'S	80°26'W	25
Egypt	Mallawy	597	27°30'N	31°E	120
	Nubaria	598	31° N	30°E	30
	Sakha	658	31° N	31°E	40
	Shebin El Kom	586	31°N	31°E	30
	Sids	584	28°N	31°E	100
Ethiopia	Awassa	591	6°31'N	38° E	1750
	Awassa, Sidamo	596	6°30'N	38°E	1750
	Debre-Zeit	574	8°55'N	38°58'E	1860

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

Country	Site	Trial No.	Latitude	Longitude	Elevation (m)
Fiji	Legalega	420	17°45'S	177°28'E	20
	Legalega	421	17°45'S	177°28'E	20
	Naiselesele	419	16°40'S	178°45'E	10
French Guiana	Cayenne	466	4°54'N	52°18'W	7
Gambia	Sapu	462	14°54'N	13°31'W	15
Ghana	Kumasi	471	7° N	2° W	250
	Kwadaso	490	6°41'N	2° W	270
Guatemala	Solola	590	14° N	90° W	2113
Guinea	Foulaye	480	10° N	13° W	480
Iraq	Abu-Ghraib	599	33°20'N	44°24'E	34
Korea	Suweon	696	37°17'N	127° #	37
Malawi	Chitedze	560	14° S	33°45'E	1080
Malaysia	Sungei Buloh	493	3°12'N	101°35'E	30
	Tenom	435	5° N	116° E	176
	Tenom, Sabah	437	5° N	116° E	176
Mexico	Altamirano	453	18°30'N	101° W	100
	Cayal	451	19°51'N	90°33'W	8
	Culicau	626	24°36'N	107°36'W	37
	Santiago	457	21°48'N	105°13'W	20
	Tapachula	452	14°30'N	92°10'W	9
Morocco	Slimania	638	34°55'N	2°19'W	85
Nepal	Kathmandu	583	27°46'N	85°20'E	1360
	Parwanipur	581	27°02'N	84°35'E	100
Pakistan	Islamabad	579	33° N	73° E	550
	Tandojam	593	25°12'N	63°23'E	19
Paraguay	Caacupe	563	25°24'S	57°06'W	228
Peru	Huarangopampa-Bagua	465	5°40'S	78°30'W	500

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

Country	Site	Trial No.	Latitude	Longitude	Elevation (m)
Peru (cont'd)	La Molina	429	12°05'S	76°57'W	251
	Marcavelica	434	4°51'S	80°44'W	80
	Pichanaki	492	11°54'S	75°15'W	650
	Tingo Maria	456	9°18'S	75°07'W	661
	Tulumayo	482	9°45'S	75°54'W	610
	Yurimaguas	484	5°41'S	76°05'W	184
Philippines	Los Banos, Laguna	483	14°10'N	121°15'E	15
Portugal	Tapada da Ajuda, Lisboa	643	38°42'N	9°11'W	60
	Vinha Brava	697	38°41'N	27°W	160
Puerto Rico	Isabela	460	18°N	40°W	128
	Isabela	576	18°N	40°W	128
Rwanda	Rubona	487	2°29'S	29°46'E	1650
Somalia	Afgoi	489	2°09'N	45°07'E	50
Sri Lanka	Gannoruwa	458	7°01'N	90°E	457
Sudan	Abu-Naama	473	12°44'N	34°07'E	436
	Gezira	486	14°24'N	35°29'E	400
Syria	Kharabo	700	33°30'N	36°E	617
Tahiti	Papara	498	17°45'S	149°30'W	2
Thailand	Suwan	438	14°30'N	101°E	300
Turkey	Adana	649	37°19'N	35°E	123
	Nusaybin	641	37°02'N	41°14'E	500
U.S.A.	Urbana, Illinois	659	40°07'N	88°13'W	226
Zaire	Mulungu Station	422	2°18'S	28°47'E	1731
	Sandoa	423	9°S	10°E	1000
Zambia	Lusaka	442	15°24'S	28°19'E	1154
	Magoye	444	16°01'S	27°37'E	1067
	Mufulira	441	12°38'S	28°10'E	1243
Zimbabwe	Harare (Salisbury)	568	17°48'S	31°03'E	1506

Table 5: Acronyms used in this report

1. AES - Agricultural Experiment Station
2. AVRDC - Asian Vegetable Research and Development Center
3. BPI Economic Garden - Botanique Philippines, Inc., Economic Gardens
4. BRRI - Bangladesh Rice Research Institute
5. CARDI - Caribbean Agricultural Research and Development Institute
6. CIAM - Centre D'Introduction et D'Adaptation et Multiplicacion Matérial Vegetal, Vivrier et Fruitier
7. CIGRAS - Centro de Investigaciones en Granos y Semillas
8. CNIECA - Centro Nacional de Investigación Extension y Capacitación Agropecuaria
9. CORGEPAI - Corporación Gestora del Proyecto "ABAPO-IZOZOG"
10. CRIA - Central Research Institute of Agriculture
11. EPAMIG - Empresa de Pesquisa Agropecuária de Minas Gerais
12. FAO - Food and Agriculture Organization of the United Nations
13. GERDAT/IRAT - Groupement D'Etudes et de Recherches Pour Le Developpement de L'Agronomie Tropical-Institut de Recherches Agronomiques et des Cultures Vivieres
14. ICA - Instituto Colombiano Agropecuario
15. IDCI - Institut de Developpement des Cultures Industrielles
16. INERA - National Institute for Agricultural Research
17. INIA - Instituto Nacional de Investigaciones Agrícolas
18. INIAP - Instituto Nacional de Investigaciones Agropecuarias
19. INRA - Institut National de Recherche Agronomique
20. IRAF - Institute of Agricultural and Forestry Research
21. INTA - Instituto Nacional de Tecnología Agropecuaria
22. INTA-EERA - Instituto Nacional de Tecnología Agropecuaria-Estación Experimental Regional Agropecuaria
23. ISABU - Institut de Sciences Agronomiques du Burundi
24. MASI/USAID/INERA - Multinational Agricultural Systems Institute/United States Agency for International Development/National Institute for Agricultural Research
25. SARH - Secretaria de Agricultura y Recursos Hidráulicos
26. SEDA - Service du Developpement Agricole
27. USDA - United States Department of Agriculture
28. UNDP - United Nations Development Program
29. USRSL - United States Regional Soybean Laboratory

Table 6: List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Afghanistan	645*	Dr. Arif Noory	President of Research Ministry of Agriculture Kabul, AFGHANISTAN
Algeria	532* 535	Ing. Tayeb Ferhat Benabbad	IDCI Station Regionale Khemis-Miliane, ALGERIA
Argentina	657* 661	Inga. Nora Mancuso	Instituto Nacional de Tecnologia Rivadavia 1439 1033 Capital Federal Buenos Aires, ARGENTINA
	655*	Ing. Nestor J. Oliveri	INTA Zaiman Casilla de Correo 152 Corrientes 320 3300 Posadas, Misiones, ARGENTINA
	662	Ing. Nestor L. Padulles	INTA-EERA Marcos Juarez Casilla de Correo 21 2580-Marcos Juarez (CBA) ARGENTINA
	562 428	Ing. L. R. Salado N.	INTA Estación Experimental Regional Agropecuaria Famailla Casilla de Correo 9 San Miguel de Tucuman, ARGENTINA
	652*	Ing. Raul Vicentini	INTA-Centro Regional Entreria Estación Experimental Agropecuaria Casilla Correo 128 3100 Paraná-Entre Rios, ARGENTINA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Austria	601**	Dr. Ralph F. Gretzmacher	Institute of Agronomy and Plant Breeding University of Agriculture 33 Gregor Mendel Street A-1180 Vienna, AUSTRIA
Bangladesh	168	Mr. Nizam U. Ahmed and Mr. M. Zahidul Hoque	Division of Rice Cropping Systems Bangladesh Rice Research Institute (BRRI) G.P.O. Box 911 Dacca, BANGLADESH
	431 455	Dr. Peter R. Hobbs	IRRI Bungalow No. 4 Farmgate, Telyoon, Dacca, BANGLADESH
	448*	Dr. A. J. Miah and Mr. M. L. Dass	Head, Plant Breeding Division Institute of Nuclear Agriculture P.O. Box 4 Mymensingh, BANGLADESH
Belize	459** 570**	Dr. B. K. Rai and Dr. P. Collins	CARDI-Belize Unit P.O. Box 2 Belmopan, BELIZE
Bolivia	427*	Ing. Oscar Flores and Ing. Juan Bellott Montalvo	Abapo-Izozog (CORGEPAI) Est. Exp. Armando Gomez Casilla No. 1281 Santa Cruz, BOLIVIA
	424**	Ing. Juan Bellott Montalvo and Mr. Eduardo Molina	Abapo-Izozog (CORGEPAI) Est. Exp. Armando Gomez Casilla No. 1281 Santa Cruz, BOLIVIA

* Data returned
** Trial returned but data insufficient to analyze

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Botswana	564 565 568 569	Mr. D. E. Gollifer	Agricultural Research Station P.O. Bag 0033 Gaborone, BOTSWANA
Brazil	425 464	Mr. Merv Olson	EPAMIG Caixa Postal 12 Janauba-Minas Gerais CEP 39.440 BRAZIL
	432	Mr. Ray Richardson	Sementes JMS Ltd. Av. Marcelino Pires, 3717 Caixa Postal 659 79.800 Dourados Matto Grosso, BRAZIL
Burma	470*	Dr. Myint Thein and Mr. Hla Shwe	Applied Research Division Agricultural Corporation Goygon, Insein P.O. Rangoon, BURMA
Chile	653*	Dr. Patricio C. Parodi and Ms. Isabel M. Nebreda	Department of Plant Science School of Agriculture Catholic University of Chile Casilla 114-D Santiago, CHILE
	654*	Ing. Vital A. Valdivia	Estación Experimental La Platina Casilla 5427 Santiago, CHILE
China (Taiwan)	575*	Dr. S. Shanmugasundaram	A.V.R.D.C. P.O. Box 42 Shanhua, Tainan 741, TAIWAN, CHINA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Colombia	449* 494* 450 447 446	Dr. Gilberto Bastidas R.	ICA Centro Experimental Palmira Apartado Aereo 233 Palmira, Valle, COLOMBIA
Costa Rica	481 577	Dr. Ronald Echendi	CIGRAS - University of Costa Rica Ciudad Universidad Rodrigo Facio San Jose, COSTA RICA
	440	Ing. Adrian Morales Gomez	Departamento de Agronomia Ministerio de Agricultura y Ganadería Apartado 10.094 San Jose, COSTA RICA
Cuba	461*	Ing. Jose Manuel Alvarez	Red. Estaciónes Experimentales de Cultivos Varios Ciudad de La Habana, CUBA
Czechoslovakia	602*	Ing. Teodor Sinsky	Vyskumny Ustav Rastlinnej Vyroby Bratislavska Cesta 122 921 68 Piestany, CZECHOSLOVAKIA
Dominican Republic	430	Ing. Agr. Catalina Aneca	Department of Legumes CNIECA San Cristobal, DOMINICAN REPUBLIC
Ecuador	467* 468* 589* 469*	Ing. Eduardo Maldonado A.	INIAP Estación Experimental Boliche P.O. Box 7069 Guayaquil, ECUADOR
Egypt	584* 597* 598* 658*	Dr. Ali Abdel-Aziz	Field Crops Research Institute Agricultural Research Center Giza, Cairo, EGYPT

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Egypt (cont'd)	585	Dr. M. Monir	Desert Institute Mataria, Cairo, EGYPT
	586*	Dr. M. N. Shatla	Vice-Dean of Faculty of Agriculture Menoufeia University Shebin El-Kom, EGYPT
Ethiopia	596*	Dr. Abdurahman Ali and Mr. Gasahun Woldie	Institute of Agricultural Research Awassa Agricultural Research Station P.O. Box 6 Awassa, Sidamo, ETHIOPIA
	591*	Dr. Geremen Haile	Awassa Junior Agricultural College P.O. Box 5 Awassa, Sidamo, ETHIOPIA
	574*	Dr. Alemu Mengistu	Debre-Zeit Agricultural Research Station P.O. Box 32 Debre-Zeit, ETHIOPIA
	594	Mr. Johannes Negassa	National Horticulture Center P.O. Box 103 Nazereth, Shoa, ETHIOPIA
Fiji	419* 420* 421*	Dr. R. Viner and Mr. M. Prasa, Mr. H. Kumar, and Mr. R. Nath	Legalega Research Station Box 9086 Nadi, FIJI
France	651	Dr. M. Tardieu	IRAT/GERDAT B.P. 5035 34032 Montpellier Cedex, FRANCE

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
French Guiana	466*	Dr. R. Vanbercie	IRAT B.P. 60 97301 Cayenne Cedex, FRENCH GUIANA
Gabon	474 491	Dr. J. Van Amerongen	DP/FAO/75/003 CIAM B.P. 2183 Libreville, GABON
Gambia	462	Dr. A. M. Pomfret and Mr. Albert H. A. Cox	Ministry of Agriculture and Natural Resources Rural Development Project P.O. Box 739 Banjul, GAMBIA
Ghana	471*	Mr. Heinz Burgin	Agro-Industries MIM, Ltd. P.O. Box 1950 Kumasi, GHANA
	490*	Dr. John K. Peprah	Crops Research Institute P.O. Box 3785 Kumasi, GHANA
Guatemala	590	Mr. Alan Praskin and Mr. Craig Bialick	Embajada de Canada Zone 9 Guatemala City, GUATEMALA
Guinea	480* 478	Director	INRA-Foulaye Kindia, GUINEA
Indonesia	495	Dr. Darman M. Arsyad	CRIA Jl. Merdeka 99 Bogor, INDONESIA
	485 496	Ir. Soenjoto Djojodirdjo	Department of Agronomy University of Gadyah Mada Yogyakarta, INDONESIA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Iran	648 656	Dr. H. Pourdavai	Seed and Plant Improvement Institute Oilseed Research Section Karadj, IRAN
Iraq	639 640	Dr. S. S. Rajan	Senior Adviser UNDP/FAP, Baghdad P.O. Box 2048 (Alwiyah) UNDP Office, Baghdad, IRAQ
	599*	Dr. Akhtar Ue I. Khwaja	Oilseed Section State Board of Applied Agricultural Research P.O. Box 7016 Baghdad, IRAQ
Italy	637	Dr. Mauro Deidda	Centro Regionale Agrario Sperimantale Via L. B. Albertini, 22 09100 Cagliari, ITALY
	642	Dr. Giovanni Porreca	Laboratori Produzione Alimentare di Base Comitato Nazionale per L'Energia Nucleare Centro di Studio Nucleari della Casaccia Cassella Postale 2400 0100 Rome AD, ITALY
	613	Prof. Guiseppe Rivorira	Instituto di Agronomia Generale Via E. Nicola 07100 Sassari, ITALY

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Jordan	587 588	Dr. Z. S. Ghosheh	Director of Agronomy Division Agricultural Research and Extension Department P.O. Box 226 Amman, JORDAN
Korea	696*	Dr. Ken-Yong Park and Dr. Eun-hi Hong	Upland Crops Research Officer Crop Experiment Station Suweon 170, KOREA
Libya	627	Dr. U. R. Pal	Department of Agronomy Faculty of Agriculture Al-Fatah University Tripoli, LIBYA
Malawi	560*	Dr. P. K. Sibale	Chitedze Research Station P.O. Box 158 Lilongwe, MALAWI
Malaysia	499	Dr. MacPherson Chia	Agricultural Research Centre, Semongok P.O. Box 977 Kuching, Sarawak, MALAYSIA
	493*	Mr. Ng Kim Foh	Rubber Research Experimental Station Sungei Buloh, Selangor, MALAYSIA
	436* 437*	Dr. Abu Bakar Suhid	Rural Development Corporation K.P.D., Box 119 Tenom, Sabah, MALAYSIA
	435*	Dr. Matthew T. Tulas and Mr. Amin Ganaw	Agricultural Research Station P.O. Box 197 Tenom, Sabah, MALAYSIA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Mexico	457* 626* 629 680 578	Ing. Roberto Manilla Chevez and Dr. Alberto Hernandez Flores	Productora Nacional de Semilla, SARH, Ave. Progresso No. 3 Coyoacan, D.F., Mexico City 21, MEXICO
	426	Dr. Mariano Matu Capal	Apartado 81 Pizimin, Yucatan, MEXICO
	451* 452* 453*	Dr. Jorge Nieto H., Ing. Mario Rivera de L., Ing. Rey V. Pena F. and Ing. Reza Aleman Rafael	INIA Apartado Postal C-1 Tampico, Tamaulipas, MEXICO
Morocco	638*	Ing. Christophe Clarouche and Dr. A. El Alami	B.P. 323 Berkane, MOROCCO
	639	Dr. Millas Hamdown	Direction de la Recherche Agronomique B.P. 415 Rabat, MOROCCO
	699	Dr. Omer Roussel and Dr. M. A. Yacoubi	Institute Agronomique Hassan II B.P. 704 Rabat-Agdal, MOROCCO
	698	Dr. M. A. Yacoubi	Institute Agronomique Hassan II B.P. 704 Rabat-Agdal, MOROCCO
Nepal	583*	Mr. M. P. Bharati and Mr. R. K. Neupane	Department of Agriculture G.P.O. 404 Khumaltar, Kathmandu, NEPAL

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Nepal (cont'd)	581*	Dr. R. P. Sah and Mr. M. P. Bharati	Parwanipur Agricultural Station Birgunj, Narayani Lone, NEPAL
Pakistan	595	Dr. Sayed Badshah	Oilseeds Botanist Agricultural Research Institute Tarnab, N.W.F.P., Peshawar, PAKISTAN
	593*	Dr. Altaf Hussain Chaudhary	Oilseeds Department Agricultural Research Institute Tandojam, Sind, PAKISTAN
	579*	Dr. A. Rahman Khan	Coordinator (Oilseeds) Agricultural Research Council L-13, Almarkaz, F-7/2 P.O. Box 1031 Islamabad, PAKISTAN
	531 632 652	Mr. J. R. Lockman	Project Director Technical Services Association 23-2 Race Course Road Lahore-3, PAKISTAN
Paraguay	563*	Ing. Roberto Casaccia, Ing. Oscar Aguilera, and Ing. Justo Lopez P.	Instituto Agronomico Nacional Ministerio de Agricultura y Ganadería Caacupe, PARAGUAY
	567 572	Florida Peach Corporation of America	Soja Internacional Choferes del Chaco 798 Asuncion, PARAGUAY
Peru	465*	Dr. Luis H. Camacho and Ing. Ubaldo César Arcaya Maceda	Sub-Estación Experimental de Huarangopampa Bagua-Amazonas, PERU

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Peru (cont'd)	484*	Dr. Luis H. Camacho and Dr. Dale E. Bandy	INIAP Apartado 2791 Lima, PERU
	429*	Dr. Luis H. Camacho and Mr. Jose Bruno A.	Estacion Experimental La Molina Lima, PERU
	434*	Dr. Luis H. Camacho and Ing. Manuel Guerrero Renteria	Avdo. Cayetano Heredia No. 402 Castilla, PERU
	492*	Dr. Luis H. Camacho and Ing. Carlos Loayza	Estación Experimental Huancayo Calle Real No. 507 Eltambo, Huancayo, PERU
	482*	Dr. Luis H. Camacho and Ing. Jose Isidro Morales	INIAP Apartado 2791 Lima, PERU
	456*	Dr. Luis H. Camacho, Ing. Roger Murragarra and Ing. Edgardo Sedano Vilcapoma	Universidad Nacional Agraria de la Selva Apartado 156 Tingo Maria, PERU
Philippines	424	Dr. F. B. Ballon	Bureau of Plant Industries San Andres, Malate, Manila, PHILIPPINES
	483*	Dr. Benjamin A. Legaspi	BPI Economic Garden Los Banos, Laguna, PHILIPPINES
Portugal (Azores)	697*	Ing. Antonio F. Carvao and Mr. Luis Tadeu S. Dutra	Servicos Agricolas da Ilha Terceira Vinha Brava - 9700 Angra Terceira, Azores, PORTUGAL

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Portugal (Azores) (cont'd)	643*	Ing. Abilio Silva and Ing. Antonio Aleixo	INIA Rua das Janelas Verdes 92 1.200 Lisbon, PORTUGAL
Puerto Rico	460* 576*	Dr. Quyen Nguyen, Mr. H. J. Hill, and Mr. James Oard	INTSOY/Puerto Rico Isabela Agricultural Experiment Station P.O. Box 506 Isabela, PUERTO RICO 00662
Rwanda	487*	Dr. Pierre Nyabyenda	Institute des Sciences Agronomiques du Rwanda B.P. 138 Butare, RWANDA
Saudi Arabia	573	Dr. Ziad Adham	Department of Research Ministry of Agriculture Riyadh, SAUDI ARABIA
	592 497	Dr. Mohamed Zeini Jowana	Director of Crop Production Ministry of Agriculture and Water Riyadh, SAUDI ARABIA
Sierra Leone	445	Dr. Helge Neutatz	Project Manager Rice Seed Multiplication Project P.M.B. 231 Freetown, SIERRA LEONE
Somalia	464 488 489*	Dr. Salad Giumale Ossoble and Mr. Faduma Husen Mohamed	Agricultural Research Institute Ministry of Agriculture Mogadishu, SOMALIA
Sri Lanka	458*	Mr. Cecil Dharmasena	Central Agricultural Experiment Institute Gannoruwa, Peradeniya, SRI LANKA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Sudan	473*	Dr. Fathi Mohamed Khalifa	Abu-Naama Research Station Abu-Naama B.N.P. Khartoum, SUDAN
	486*	Dr. M. O. M. Salih and Dr. Osman A. A. Ageeb	Ministry of Agriculture Food and Natural Resources P.O. Box 126 Wad Medani, SUDAN
Surinam	463 479	Dr. E. Rellum-Vervuurt	Agricultural Experiment Station P.O.B. 160 Paramaribo, SURINAM
Syria	644 647	Dr. Mohamed Sadek El-Mott	Ministry of Agriculture and Agrarian Reform Douma, Damascus, SYRIA
	700*	Eng. Ahdam Qabalan and Eng. Zaki Blanga	Minister of Agriculture and Agrarian Reform Ministry of Agriculture and Agrarian Reform, Damascus, SYRIA
Tahiti (French Polynesia)	498*	Dr. J. L. Reboul and Mr. R. Yau	GERDAT-IRAT B.P. 494 Papeete, TAHITI
Thailand	438*	Dr. Prasan Yingchol	Department of Agronomy Kasetsart University Bangkok-9, THAILAND
Trinidad	443	Ms. Cheryl Gonsalves	Chaguaramas Agricultural Development Project Ministry of Agriculture St. Clair, TRINIDAD

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Variety Evaluation Experiment

Country	Trial Number	Name	Mailing Address
Tunisia	536	Mr. E. Frey	B.P. 15 Aeroport Tunis, Carthage, TUNISIA
Turkey	660	Dr. Ibrahim Atakisi	Department of Field Crops Faculty of Agriculture University of Cukurova P.O. Box 444 Adana, TURKEY
	641*	Dr. Yasar Bilgin	Seker Enstitusu Agronomi Sube Sefi Etimesgut, Ankara, TURKEY
	649* 650	Dr. Attila Altinay	Bolge Zirai Aras. Enst. P.K. 226 Ankara, TURKEY
	637 638	Dr. Y. Ziya Kutiu	Project Leader, Food Legumes Regional Agricultural Research Institute P.O. Box 9 Menemen, Izmir, TURKEY
United States of America	659*	Mr. H. J. Hill	Department of Agronomy 1102 South Goodwin Avenue University of Illinois Urbana, IL 61801 UNITED STATES OF AMERICA
	530 533 534	Dr. E. H. Paschal, II	Texas A. and M. Agricultural Research and Experiment Station Rt. 5, Box 784, Beaumont, TX 77706 UNITED STATES OF AMERICA

* Data returned

Table 6 (cont'd): List of cooperators participating in the Seventh International Soybean Experiment

Country	Trial Number	Name	Mailing Address
Union of Soviet Socialist Republics	603	Dr. N. F. Korsakov	Division of Grain Legume Crops Vavilov Institute of Plant Industry 190000 Leningrad Herzen St., 44 UNION OF SOVIET SOCIALIST REPUBLICS
Zaire	422*	Dr. George H. Bridgmon, Mr. Miasuekama and Mr. Mbikayi	MASI/USAID/INERA Mulungu Bukavu Department of State Washington, D. C. 20521 UNITED STATES OF AMERICA
	439	Mr. Edward Charles	SEDA B.P. 1 Tshikapa, ZAIRE
	423*	Mr. Ron Monroe and Mr. Kenneth Hammer	B.P. 2219 Lubumbashi, ZAIRE
Zambia	444*	Dr. F. Javaheri	Mt. Makulu Research Station P.O. Box 7 Chilanga, ZAMBIA
	442*	Dr. C. Nissly and Dr. F. Javaheri	P.O. Box 32349 School of Agriculture University of Zambia Lusaka, ZAMBIA
	441*	Dr. R. N. Singh and Dr. F. Javaheri	Copperbelt Regional Research Station P.O. Box 668 Mufulira, ZAMBIA
Zimbabwe	568*	Dr. J. R. Tattersfield and Mr. J. S. Tichagwa	Crop Breeding Institute P.O. Box 8100 Causeway, Harare (Salisbury), ZIMBABWE

* Data returned

Table 7. Number of positive and negative correlations among adjusted values of plant characteristics of varieties within locations. The value in the upper left-hand side of the square is the number of positive correlations and the number in the lower right hand side is the number of negative correlations.

	Yield	Days to Flower	Days to Maturity	Plant Height	Lodging	Shattering	Plants Harvested	Pod Height	100 Seed Weight	Seed Quality
Yield										
Days to Flower	35/44									
Days to Maturity	38/44	77/2								
Plant Height	36/45	77/1	53/10							
Lodging	25/41	61/2	50/16	63/4						
Shattering	15/33	24/20	21/27	29/19	28/15					
Plants Harvested	52/14	16/57	12/64	36/39	46/23	32/15				
Pod Height	36/39	68/4	61/14	72/2	56/7	22/23	38/33			
100 Seed Weight	65/12	9/65	24/53	10/66	9/55	11/29	39/33	11/54		
Seed Quality	13/56	31/15	35/34	36/33	34/27	22/19	23/43	24/43	28/40	

Table 8: Performance characteristics[a/] of soybean cultivars

Variety	Group[b/]	Yield kg/ha	Days to Flower	Days to Maturity	Plant Height (cm)	Lodging[c/]	Shattering[d/]	Pod Height (cm)	Weight per 100 seeds (g)	Quality[e/]	% Protein	% Oil
Hardee L.S.	A	1855	50.2	117.1	62.6	1.7	1.3	10.8	15.3	2.4	41.0	22.5
Caribe	A	1762	44.2	116.8	82.6	2.8	1.6	11.6	12.3	2.5	45.0	18.5
Jupiter	A*	1867	50.1	113.7	71.7	2.0	1.2	14.0	17.0	2.5	41.6	21.8
UFV-1	A	2092	41.2	110.0	46.6	1.3	1.2	9.5	16.1	2.2	42.6	20.8
CH-3	A	1781	38.8	108.0	89.9	2.5	1.4	12.4	14.6	2.4	42.1	20.8
IAC-2	A	1878	40.3	107.0	79.5	2.3	1.4	12.5	15.2	2.3	42.0	21.3
ACC 2120	A	1638	52.8	106.9	95.0	3.4	1.4	12.3	8.1	2.8	44.0	16.6
(G 2120)	B	1458	74.1	142.3	111.8	3.2	2.2	22.0	8.9	3.2	44.0	14.4
Tunia	A	2066	37.0	106.6	62.4	1.6	1.2	10.5	18.5	2.4	41.6	21.7
Improved	A*	1431	41.5	105.0	69.6	1.9	1.4	10.1	13.5	2.4	41.7	22.1
Pelican	B	1242	64.0	140.8	104.0	2.8	1.2	20.2	13.1	2.6	41.9	19.8
Cobb	B	1735	58.5	140.8	71.6	1.8	1.3	10.3	15.8	2.2	39.3	20.8
SJ-2	A	1745	41.6	104.7	72.5	2.2	1.3	11.2	13.5	2.3	41.6	20.9
Bossier	A*	2062	34.1	103.6	52.0	1.5	1.3	9.6	17.1	2.5	42.5	21.4
	B	1858	50.3	132.8	71.7	2.6	1.2	12.0	15.2	2.7	42.2	20.0

Table 8 (cont'd): Performance characteristics[a/] of soybean cultivars

Variety	Group	Yield kg/ha	Days to Flower	Days to Maturity	Plant Height (cm)	Lodging	Shattering	Pod Height (cm)	Weight per 100 seeds (g)	Quality	% Protein	% Oil
Ransom	A	1801	52.2	101.2	36.8	1.2	1.2	6.9	19.3	2.8	41.6	23.6
	B	2040	54.6	128.4	61.7	2.0	1.2	10.2	16.8	2.8	41.6	20.4
Davis	A	2169	35.2	101.1	43.8	1.3	1.3	8.8	17.6	2.0	41.7	21.8
	B	2178	53.6	125.1	68.3	2.0	1.2	10.6	15.3	2.5	40.3	20.5
Orba	A	1779	40.9	99.3	76.3	1.9	2.0	12.3	13.5	2.4	41.2	19.6
Rillito	A	1964	33.0	96.9	46.3	1.4	1.3	8.4	18.0	2.8	42.0	21.5
	B	1889	50.4	124.8	68.1	2.1	1.2	11.3	16.6	2.5	41.7	19.7
Ga. Soy 17	B	2009	49.8	122.4	64.0	1.9	1.2	10.2	16.0	2.3	40.6	19.3
Bragg	B	2103	48.0	122.2	63.6	2.1	1.2	10.0	16.5	2.6	40.6	19.6
Forrest	B	2137	47.3	121.3	65.0	2.2	1.2	11.0	14.7	3.0	40.2	19.6
James	B	2038	43.6	113.9	68.7	1.6	1.2	9.7	16.9	2.8	41.8	20.4
Columbus	C	2193	44.2	125.4	89.4	1.7	1.0	14.4	14.9	2.8	42.0	18.8
Crawford	C	2204	45.3	125.4	89.4	1.7	1.0	14.4	14.9	2.8	40.7	19.4
Cutler 71	B	1882	38.4	108.3	60.0	1.6	1.4	9.5	18.3	2.9	41.6	21.0
	C	2229	41.8	120.6	91.1	1.9	1.0	14.8	15.9	2.8	40.4	19.8
Franklin	B*	1876	39.0	106.7	58.8	1.4	1.4	8.2	16.9	3.0	40.7	19.4
	C	2096	42.8	121.6	91.3	1.8	1.0	13.3	14.5	3.4	39.1	18.6

Table 8 (cont'd): Performance characteristics[a/] of soybean cultivars

Variety	Group	Yield kg/ha	Days to Flower	Days to Maturity	Plant Height (cm)	Lodging	Shattering	Pod Height (cm)	Weight per 100 seeds (g)	Quality	% Protein	% Oil
Mitchell	B*	2222	40.8	110.0	61.6	1.8	1.5	8.5	17.0	3.0	39.8	20.1
	C	2309	43.4	120.8	90.4	1.8	1.0	14.3	14.8	2.9	37.8	19.8
Calland	B*	1989	37.7	109.6	58.7	1.4	1.2	9.5	18.0	2.9	41.8	19.3
	C	2596	40.6	119.4	90.3	1.8	1.0	13.7	16.3	2.9	40.5	19.5
Union	C	2510	42.7	118.5	90.8	1.8	1.0	13.2	16.5	2.5	41.1	19.4
Williams	A*	1884	30.8	90.8	48.4	1.4	1.3	8.8	19.0	2.4	42.0	22.3
	B*	2057	38.3	104.9	54.9	1.4	1.2	8.7	18.1	2.5	41.7	20.3
	C*	2570	42.0	117.9	84.9	1.4	1.0	11.9	16.0	2.4	40.4	20.4
Elf	C	2377	41.0	117.9	47.9	1.3	1.2	8.7	16.2	2.8	40.3	20.0
Harcor	C	2221	35.9	105.7	69.2	1.4	1.1	9.4	14.8	2.7	39.7	20.4
Corsoy	C*	2230	35.9	105.0	67.3	1.4	1.0	9.1	15.0	2.5	39.6	21.0
Steele	C	2131	35.1	103.5	67.2	1.2	1.1	10.1	15.4	2.6	40.4	20.4
Hodgson	C*	1968	34.2	102.0	63.5	1.2	1.0	10.4	15.3	2.7	39.3	21.5
Swift	C	1752	33.3	101.8	61.2	1.3	1.1	8.8	14.6	3.2	38.9	21.5
Evans	C*	1901	33.1	100.2	56.3	1.2	1.1	8.7	14.2	2.7	39.9	21.9
McCall	C	1893	32.4	98.5	54.6	1.1	1.0	9.3	14.7	2.7	38.9	21.0

Table 8 (cont'd): Performance characteristics[a/] of soybean cultivars.

* Check variety in groups.

a/ Performance characteristics: Values given are the mean of adjusted values where

$$y = \frac{\bar{x} \text{ checks over all locations}}{\bar{x} \text{ checks at given location}} \times \text{observed value}$$

b/ Cultivar sets: Group A sent to tropical locations, Group B sent to semi-tropical locations, and Group C sent to temperate zone locations.

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

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

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

Table 9. Relative stability[a/] of varieties

	Group	Yield	Days to Flower	Days to Maturity	Plant Height	Lodging	Shattering	Pod Height	Weight per 100 seeds	Quality	% Protein	% Oil
Hardee L.S.	A	1.11	1.23	1.20	.89	.71	.92	.99	1.13	1.08	1.19	1.31
Caribe	A	1.17	1.49	1.97	1.47	1.82	2.08	1.27	1.06	1.16	1.35	1.36
Jupiter	A*	.97	1.02	1.01	.92	.89	.60	1.25	1.06	.96	1.05	1.24
UFV-1	A	1.23	1.13	.85	.83	.48	.68	1.03	1.00	.80	.96	.87
CH-3	A	1.11	.90	.85	1.42	1.24	.93	1.26	.95	1.03	.92	1.03
IAC-2	A	.88	.88	1.15	1.20	1.32	.81	1.15	.82	.87	.93	1.18
ACC 2120 (G 2120)	A	.82	1.62	.90	1.59	2.03	1.05	1.22	1.40	1.47	1.28	1.50
	B	.73	2.45	.92	.47	.89	- --	.32	1.05	.75	.72	1.32
Tunia	A	1.00	.87	.93	.73	.72	.71	1.06	.96	.75	.65	.84
Improved Pelican	A*	.92	.67	.73	.99	.93	1.03	.79	.83	.85	.96	.67
	B	.84	1.84	1.46	2.78	1.96	1.14	2.86	1.26	1.23	1.09	1.33
Cobb	B	1.11	1.59	1.75	1.20	.90	2.87	1.03	.88	1.10	.89	1.33
SJ-2	A	.96	.78	.75	.95	.72	.85	.93	.93	.83	.91	.54
Bossier	A*	.86	.93	.71	.71	.45	.78	.76	.70	.99	.92	1.10
	B	1.04	1.29	1.53	1.14	1.59	.66	1.66	1.05	1.39	1.16	1.02

Table 9 (cont'd): Relative stability[a/] of varieties

	Group[b/]	Yield	Days to Flower	Days to Maturity	Plant Height	Lodging	Shattering	Pod Height	Weight per 100 seeds	Quality	% Protein	% Oil
Ransom	A	1.00	.84	.99	.78	.62	.68	.76	1.23	1.17	1.02	.82
	B	1.33	1.61	1.34	1.20	1.18	.64	1.04	.93	1.42	1.62	1.30
Davis	A	1.05	.96	.89	.82	.58	.79	.84	1.04	1.00	.90	.84
	B	1.32	1.36	1.23	1.15	1.49	.65	1.15	1.01	1.33	1.11	1.01
Orba	A	1.06	.87	.84	1.16	1.74	2.69	1.08	.97	.99	1.19	1.02
Rillito	A	.92	.97	1.26	.82	.72	.76	.66	.98	1.14	.91	.86
	B	1.09	1.09	1.20	.96	1.25	.60	1.36	1.26	1.03	.63	.52
Ga. Soy 17	B	1.58	1.32	1.47	1.04	1.20	.78	1.22	1.08	1.09	1.24	1.14
Bragg	B	1.02	.94	1.08	1.05	1.10	.63	1.34	1.22	.88	1.50	1.08
Forrest	B	1.41	.72	1.03	1.03	1.48	.66	1.15	1.01	1.41	1.22	1.09
Columbus	C	1.40	1.35	1.38	1.36	1.47	.22	1.57	1.80	.88	.61	1.27
James	B	.92	.82	.81	1.01	.72	.75	.74	.98	1.31	1.19	.55
Crawford	C	1.42	1.39	1.12	1.43	1.23	.21	1.52	1.79	.80	1.32	1.63
Cutler 71	B	.61	.32	.43	.74	.45	2.12	.75	.80	.67	.39	1.05
	C	1.19	1.17	1.41	1.57	1.46	1.80	1.42	1.02	1.17	.82	.95
Franklin	B*	.83	.28	.29	.67	.41	.88	.52	1.03	.62	.80	.74
	C	1.18	1.03	1.15	1.35	1.41	.97	1.29	1.10	1.30	1.37	1.07

Table 9 (cont'd): Relative stability[a/] of varieties

	Group[b/]	Yield	Days to Flower	Days to Maturity	Plant Height	Lodging	Shattering	Pod Height	Weight per 100 seeds	Quality	% Protein	% Oil
Mitchell	B*	.82	.47	.63	.66	.57	1.22	.45	.96	.72	.97	.78
	C*	1.24	1.22	1.26	1.22	1.41	.21	1.38	1.00	.91	2.46	.95
Calland	B*	.96	.35	.44	.82	.37	.65	.51	.79	.60	.61	.44
	C	1.23	1.04	1.09	1.10	1.54	.21	1.08	1.00	1.14	.66	.63
Union	C	1.25	.94	.98	1.27	1.72	.21	1.16	.92	1.48	.95	.80
Williams	A*	.96	.84	.97	.72	.48	.65	.86	.95	.90	1.21	.83
	B*	.69	.26	.49	.57	.47	.75	.58	.65	.69	.88	.86
	C*	1.12	.91	.84	1.14	.73	.21	.73	.63	1.15	1.76	1.01
Elf	C	1.02	1.07	.95	.64	.98	4.44	.93	1.36	1.07	.72	.56
Harcor	C	.81	.89	.76	.64	.84	1.17	.63	.98	1.02	.62	.94
Corsoy	C*	.69	.98	.77	.66	.66	.72	.61	.68	.88	.57	1.00
Steele	C	.77	.80	.94	.68	.40	1.33	.63	.72	1.08	.30	1.24
Hodgson	C*	.65	.61	.72	.75	.43	.21	.85	.69	.78	.74	.70
Swift	C	.76	.80	.84	.86	.69	1.39	.65	.86	.86	1.32	1.15
Evans	C*	.58	.86	.83	.79	.51	1.17	.86	.72	.78	.83	1.09
McCall	C	.67	.93	.98	.54	.50	1.56	.72	.73	.71	.96	1.00

Table 9 (cont'd): Relative stability[a/] of varieties

* Check variety in groups.

a/ Relative stability index = $\frac{a}{b}$ where:

a = standard deviation of the adjusted values of a variety over all locations within a Group.
b = average standard deviation of all varieties over all locations within a Group.

b/ Cultivar sets. Group A sent to tropical locations, Group B sent to semi-tropical locations, and Group C sent to temperate zone locations. Comparisons should only be made within each Group.

Table 10. Multiple regression coefficients indicating the influence of latitude (degrees), altitude (meters), and average observed yield (kg/ha) at a location on adjusted yield, days to flowering and days to maturity. Adjusted days to maturity for each variety is given and the correlation coefficient (r) between days to maturity and the coefficients in the column is given in the last line.

GROUP A

Partial Regression Coefficients

Variety	Adjusted Yield, kg/ha			Adjusted Days to Flowering			Adjusted Days to Maturity			Adjusted Days to Maturity
	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	
	$x10^{0}$	$x10^{0}$	$x10^{0}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	
Hardee L.S.	- 2.49	-.0614	.3133**	-11.43	1.62	16.80*	-40.55**	2.88	16.41	117.1
Caribe	- 2.03	.1862	-.0383	52.63**	- .51	12.67	3.58	-4.60	38.51	116.8
Jupiter	-21.38**	-.1818	.1033	-11.58	5.35**	7.66	-21.67	7.29**	10.34*	113.7
UFV-1	- 6.24	.1682	.0638	24.58**	2.30*	1.04	-16.90	.93	21.30	110.0
CH-3	-17.37*	.0246	.0029	10.40	1.60	- 6.94	38.71**	.60	8.36	108.0
IAC-2	5.35	.2159*	-.0948	16.69**	1.38	6.00	1.54	- .66	20.14*	107.0
ACC 2120	-10.83	-.4230**	-.1111*	-27.01**	3.88*	21.54**	-21.40**	7.80**	11.43	106.9
Tunia	- 1.93	.2572*	.1716**	11.83	1.41	- 2.71	- 4.71	3.23*	- 6.90	106.6
Improved Pelican	-14.09	- .1001	.1376*	6.72	2.09**	6.28	18.75**	3.58**	- 5.13	105.0
SJ-2	-22.35**	- .0153	.0425	20.38**	1.46*	- 2.69	- 4.61	4.59	1.88	104.7
Bossier	5.00	.0246	-.0729	5.91	-3.73**	-10.34*	- .32	-4.35**	10.71*	103.6
Ransom	27.39**	.1419	.0440	8.42	-2.18*	- 7.89	3.35	-3.92*	-14.37	101.2
Davis	- 1.47	.1678	.1650**	12.48*	1.40	- .59	-10.65	.34	2.02	101.1
Orba	- 2.98	- .1229	-.2494**	14.51**	3.54**	- 2.72	22.63**	5.80**	-11.04*	99.3
Rillito	29.95**	.2616**	-.0049	3.66	-2.21*	.48	2.09	-7.08**	9.97	96.9
Williams	26.94**	.2614*	-.1299*	- 2.38	-3.46**	- 2.19	-1.38	-6.76**	-19.68**	90.8
r	- .6023**	-.2939	+.3609	+ .1736	+ .4949*	+ .5569**	- .4972*	+ .4013	+ .7634**	

* $p \leq .05$

** $p \leq .01$

Table 10 (continued): Multiple regression coefficients indicating the influence of latitude (degrees), altitude (meters) and average observed yield (kg/ha) at a location on adjusted yield, days to flowering and days to maturity. Adjusted days to maturity for each variety is given and the correlation coefficient (r) between days to maturity and the coefficients in the column is given in the last line.

GROUP B

Partial Regression Coefficients

Variety	Adjusted Yield, kg/ha			Adjusted Days to Flowering			Adjusted Days to Maturity			Adjusted Days to Maturity
	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	
	$x10^{0}$	$x10^{0}$	$x10^{0}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	
ACC 2120	-27.43	-.7972**	-.5360**	79.67	3.08	55.47	78.59	6.96	109.28**	142.3
Improved Pelican	-45.25**	-.4366*	-.1482	88.00**	.84	84.86**	69.17**	- 3.72	117.49**	140.8
Cobb	-42.74	-.0853	-.2302*	90.28**	-2.76	11.03	108.30**	-12.56**	84.04**	140.8
Bossier	-48.75**	-.4764*	-.1235	65.59**	1.34	26.15*	107.81**	3.92	61.66**	132.8
Ransom	-13.59	.1106	-.3198*	53.40	-3.71	18.75	85.44*	- 3.27	44.93**	128.4
Davis	-16.79	-.3049	-.1577	67.91**	5.96*	43.73**	44.08	2.04	61.94**	125.1
Rillito	-24.24	-.3127	-.0391	64.63**	.27	12.18	100.77**	2.40	29.65*	124.8
Ga. Soy 17	-50.34*	-.6667*	-.1728	59.88**	1.70	27.49*	53.70	6.91	37.50	122.7
Bragg	-39.54**	-.9338**	.2626**	66.64	4.30**	-23.94**	84.96**	7.21*	-11.12	122.2
Forrest	-17.63	-.3795*	-.0820	28.40*	1.62	15.30*	68.84**	6.88**	47.01**	121.3
James	-32.41	-.4097*	-.1018	9.43	-3.08*	24.69**	34.30*	5.71*	21.56*	113.9
Mitchell	7.12	.0524	.0034	24.29**	1.07	-14.22**	47.51**	1.74	- 5.43	110.0
Cutler	3.54	.0307	.0710	-10.51*	- .91	2.53	14.32	.57	- 2.30	108.3
[illegible]	19.39	-.1278	.0324	-14.67**	.12	9.46**	-28.78**	- .25	4.20	109.6
Franklin	- 8.17	-.2651	.0752	- 4.25	- .78	- .12	- 9.37	- .83	2.06	106.7
Williams	- 4.09	.3405**	-.1041	- 5.47	- .32	5.14*	- 8.84	- .62	- .84	104.9
r	- .6970**	-.4638*	-.6343**	+ .9238**	+ .1566	+ .6412**	+ .8029**	- .1844	+ .9069**	

* $p \leq .05$

** $p \leq .01$

Table 10 (continued): Multiple regression coefficients indicating the influence of latitude (degrees), altitude (meters) and average observed yield (kg/ha) at a location on adjusted yield, days to flowering and days to maturity. Adjusted days to maturity for each variety is given and the correlation coefficient (r) between days to maturity and the coefficients in the column is given in the last line.

GROUP C

Partial Regression Coefficients

Variety	Adjusted Yield, kg/ha			Adjusted Days to Flowering			Adjusted Days to Maturity			Adjusted Days to Maturity
	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	Latitude	Altitude	Observed Mean Yield	
	$x10^{0}$	$x10^{0}$	$x10^{0}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	$x10^{-2}$	$x10^{-3}$	$x10^{-4}$	
Columbus	-54.91**	-1.4223**	.5707**	11.51	5.29	- 5.56*	24.80**	- 8.39	-24.82	125.4
Crawford	-57.06**	-1.0095**	.4896**	21.94	1.36	- 7.86	2.99	9.83	-16.81	125.1
Franklin	-40.66**	- .5185	.3568**	14.22	5.04	- 2.40	- 7.54	5.28	-40.07**	121.6
Mitchell	-49.55**	-1.3552**	.5002**	16.08	11.36**	-14.14	- 5.53	7.59	-37.25*	120.8
Cutler 71	-36.66*	1.012**	.3463**	9.63	5.51	- 4.57	-27.65	- 2.12	-11.30	120.6
Calland	-47.63**	- .5272	.2719**	- 1.33	7.31**	2.03	-29.66	.11	- 9.84	119.4
Union	-12.40	- .0754	.3594**	12.64	8.61**	- 6.67	-24.71	.65	-22.35	118.5
Williams	1.63	- .3545	.2617**	7.86	10.15**	- 4.28	-25.22	.52	-30.21	117.9
Elf	.33	- .0378	.3960**	11.83	1.71	-15.42*	-28.63	- 8.93	-10.52	117.9
Harcor	-13.53	.2063	-.0921	-18.46	- 2.44	2.27	18.68	3.22	14.94	105.7
Corsoy	-11.58	.3505	-.0916	-11.59	- 2.41	- .13	26.78	- 2.81	9.03	105.0
Steele	-27.53**	.5790	.0867	-20.04	- 4.08	- .40	21.79	10.60	2.27	103.5
Hodgson	.54	.2758	-.1792**	- 3.60	- 3.17*	2.10	5.69	1.79	19.04	102.0
Swift	37.27	- .0746	-.2012**	6.36	- 2.87	- 6.22	16.33	- 3.42	10.13	101.8
Evans	9.92	- .3324	.0079	8.37	- 5.39*	2.21	4.11	.51	2.57	100.2
McCall	- 7.14	.2321	-.0664	1.32	- 7.63**	8.33	-31.19	4.47	13.12	95.8
r	- .7042**	- .7736**	.9287**	+ .6322**	+ .9162**	- .6439**	- .2423	- .1075	- .8492**	

* $p \leq .05$

** $p \leq .01$

AGRONOMIC CHARACTERISTICS FOR INDIVIDUAL SITES

TABLE 11 EXPERIMENT 645 YEAR 1979

REGION - MIDDLE EAST COUNTRY - AFGHANISTAN
SITE - KUNDUZ AGRIC.RESEARCH STATION,KABUL ELEVATION - 450 M
LATITUDE - 36 DEG. 32 MIN. N LONGITUDE - 68 DEG. 53 MIN. E
COOPERATORS - MOHAMMED KHOJA, ABDUL AHAD, ALI MOHAMMED, ARIF NOORY
FERTILIZER USED (KG/HA) - N 25.0, P 25.0
DATE PLANTED - MAY 23, 1979 DATE HARVESTED - SEPTEMBER, 1979
NUMBER OF IRRIGATIONS - 10

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
8	HARCOR	1755.77	26.50	101.75	.00	.00	.00	.00	72.25	.00
12	UNION	1636.99	32.00	105.00	.00	.00	.00	.00	100.50	.00
2	CALLAND	1583.23	28.75	107.50	.00	.00	.00	.00	93.25	.00
13	CORSOY	1512.80	25.00	101.25	.00	.00	.00	.00	70.75	.00
4	CUTLER 71	1501.55	28.25	104.50	.00	.00	.00	.00	86.75	.00
1	WILLIAMS	1463.63	29.25	105.75	.00	.00	.00	.00	89.25	.00
15	CRAWFORD	1389.44	31.50	114.50	.00	.00	.00	.00	100.50	.00
9	HODGSON	1358.60	23.75	101.25	.00	.00	.00	.00	63.50	.00
6	SWIFT	1341.93	23.25	112.00	.00	.00	.00	.00	63.75	.00
7	STEELE	1262.75	24.25	113.50	.00	.00	.00	.00	73.50	.00
16	MCCALL	1246.08	23.00	114.50	.00	.00	.00	.00	61.25	.00
11	COLUMBUS	1236.91	31.50	114.50	.00	.00	.00	.00	99.75	.00
14	EVANS	1212.74	23.00	112.25	.00	.00	.00	.00	46.75	.00
10	ELF	1149.19	31.25	99.50	.00	.00	.00	.00	45.75	.00
3	FRANKLIN	1083.97	32.50	109.75	.00	.00	.00	.00	83.50	.00
5	MITCHELL	1063.55	31.50	109.00	.00	.00	.00	.00	83.50	.00
	GRAND MEAN	1362.45	27.83	107.91	.00	.00	.00	.00	77.16	.00
	STANDARD ERROR OF A VARIETY MEAN	137.11	1.00	3.47	.00	.00	.00	.00	3.81	.00
	COEFFICIENT OF VARIATION	20.13%	7.20%	6.43%	.00%	.00%	.00%	.00%	9.89%	.00%
	5% LSD VARIETY MEANS (********=NS)	390.54	2.85	9.89	.00	.00	.00	.00	10.86	.00

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

YIELD	KG/HA	1.00	-.07	-.09	.00	.00	.00	.00	.24	.00
DAYS TO	FLOWER	-.07	1.00	-.07	.00	.00	.00	.00	.55++	.00
DAYS TO	MATURITY	-.09	-.07	1.00	.00	.00	.00	.00	.04	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.24	.55++	.04	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.09	.15	-.39++	.00	.00	.00	.00	.10	.00
PODS PER	PLANT	.03	.27+	.09	.00	.00	.00	.00	.24	.00
POD	HEIGHT	-.02	.57++	.11	.00	.00	.00	.00	.69++	.00
100 SEED	WEIGHT	.22	.18	.05	.00	.00	.00	.00	.21	.00
QUALITY	OF SEED	-.33++	-.37++	.12	.00	.00	.00	.00	-.43++	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 11 EXPERIMENT 645 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
8	HARCOR	.00	283.25	18.25	15.00	13.60	2.00	.00
12	UNION	.00	291.75	15.25	23.75	13.53	1.00	.00
2	CALLAND	.00	293.25	16.75	27.00	12.63	2.00	.00
13	CORSOY	.00	272.50	13.00	16.75	13.93	2.00	.00
4	CUTLER 71	.00	296.25	17.50	22.75	12.35	3.00	.00
1	WILLIAMS	.00	280.25	19.50	20.00	12.25	2.00	.00
15	CRAWFORD	.00	208.75	12.75	21.25	21.15	1.00	.00
9	HODGSON	.00	268.25	13.75	12.00	11.23	4.00	.00
6	SWIFT	.00	264.00	12.50	16.25	12.80	4.00	.00
7	STEELE	.00	254.75	12.50	19.75	10.80	5.00	.00
16	MCCALL	.00	256.75	14.00	12.75	12.60	3.00	.00
11	COLUMBUS	.00	266.25	16.75	24.75	16.63	3.00	.00
14	EVANS	.00	260.75	13.25	10.50	11.05	3.00	.00
10	ELF	.00	289.50	16.25	12.50	15.70	3.00	.00
3	FRANKLIN	.00	285.50	20.50	25.00	11.25	4.00	.00
5	MITCHELL	.00	284.75	17.25	26.75	9.23	3.00	.00
	GRAND MEAN	.00	272.28	15.61	19.17	13.17	2.81	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	18.98	1.79	2.07	1.50	.00	.00
	COEFFICIENT OF VARIATION	.00%	13.94%	22.89%	21.55%	22.75%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	********	5.09	5.89	4.27	.00	.00

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

YIELD KG/HA	.00	.09	.03	-.02	.22	-.33++	.00
DAYS TO FLOWER	.00	.15	.27+	.57++	.18	-.37++	.00
DAYS TO MATURITY	.00	-.39++	.09	.11	.05	.12	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	.10	.24	.69++	.21	-.43++	.00
LODGING	.00	.00	.00	.00	.00	.00	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.02	.19	-.31+	.02	.00
PODS PER PLANT	.00	-.02	1.00	.18	-.01	-.07	.00
POD HEIGHT	.00	.19	.18	1.00	-.09	-.17	.00
100 SEED WEIGHT	.00	-.31+	-.01	-.09	1.00	-.39++	.00
QUALITY OF SEED	.00	.02	-.07	-.17	-.39++	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 12 EXPERIMENT 532 YEAR 1979

REGION - AFRICA COUNTRY - ALGERIA
SITE - KHEMIS-MILIANA ELEVATION - 296 M
LATITUDE - 36 DEG. 15 MIN. N LONGITUDE - 2 DEG. 14 MIN. E
COOPERATOR - I.N.C.I., TAYIB FERHAT BIN ABRAD
DATE PLANTED - MAY 23, 1979 DATE HARVESTED - SEPTEMBER, 1979
SOIL TYPE - SAND 10%, SILT 30%, CLAY 35%, PH 8.5
FERTILIZER USED (KG/HA) - N 30.0, P 39.6, K 49.8
AMOUNT OF MOISTURE - 725 MM
NUMBER OF IRRIGATIONS - 22 (616 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	HODGSON	1760.93	.00	88.50	3.75	4.00	80.00	78.75	29.18	1.00
8	HARCOR	1710.94	.00	93.00	3.75	3.75	96.25	73.75	43.88	1.00
7	STEELE	1694.27	.00	90.75	4.00	4.00	81.25	76.25	32.60	1.00
1	WILLIAMS	1605.39	.00	109.00	4.00	3.50	92.50	80.00	76.75	2.00
16	MCCALL	1599.84	.00	84.00	4.00	4.25	86.25	35.00	26.80	1.00
13	CURSOY	1588.73	.00	88.50	4.00	4.00	85.00	81.25	41.08	1.00
12	UNION	1538.73	.00	111.75	4.00	3.50	82.50	80.00	76.48	1.75
5	MITCHELL	1460.96	.00	120.00	4.00	3.25	75.00	75.00	82.98	2.00
10	ELF	1360.97	.00	106.00	4.00	3.25	91.25	90.00	30.80	1.00
4	CUTLER 71	1294.31	.00	120.00	3.75	3.75	83.75	67.50	87.13	2.00
14	EVANS	1249.87	.00	84.00	3.75	4.00	88.75	73.75	24.25	1.00
2	CALLAND	1183.21	.00	120.00	4.00	3.75	82.50	82.50	79.50	1.25
15	CRAWFORD	1160.99	.00	121.25	4.00	3.25	86.25	85.00	87.65	2.00
6	SWIFT	1072.11	.00	84.00	4.25	4.25	72.50	52.50	28.13	1.00
11	COLUMBUS	1061.00	.00	125.00	3.50	3.50	87.50	85.00	76.63	2.00
3	FRANKLIN	1016.56	.00	120.00	4.00	3.75	72.50	77.50	83.05	2.25
	GRAND MEAN	1397.43	.00	104.11	3.92	3.73	83.98	74.61	56.68	1.45
	STANDARD ERROR OF A VARIETY MEAN	152.03	.00	1.33	.16	.25	8.47	8.80	3.13	.11
	COEFFICIENT OF VARIATION	21.76%	.00%	2.56%	7.91%	13.21%	20.16%	23.58%	11.05%	15.23%
	5% LSD VARIETY MEANS (********=NS)	433.06	.00	3.79	********	********	********	25.06	8.92	.32

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

YIELD	KG/HA	1.00	.00	-.33++	-.09	.03	.09	.13	-.25+	-.27+
DAYS TO	FLOWER	.00	1.00	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	-.33++	.00	1.00	-.11	-.47++	-.04	.34++	.90++	.77++
NODULE	ABUND 1	-.09	.00	-.11	1.00	.06	-.49++	-.24	-.04	-.07
NODULE	ABUND 2	.03	.00	-.47++	.06	1.00	-.22	-.56++	-.40++	-.35++
NODULE	ACT. 1	.09	.00	-.04	-.49++	-.22	1.00	.37++	-.04	-.05
NODULE	ACT. 2	.13	.00	.34++	-.24	-.56++	.37++	1.00	.27+	.20
PLANT	HEIGHT	-.25+	.00	.90++	-.04	-.40++	-.04	.27+	1.00	.84++
	LODGING	-.27+	.00	.77++	-.07	-.35++	-.05	.20	.84++	1.00
	SHATTER	.15	.00	-.27+	.05	.30+	.04	-.43++	-.21	-.18
PLANTS	HARVEST	-.12	.00	.78++	-.04	-.44++	.02	.23	.73++	.60++
PODS PER	PLANT	.31+	.00	-.20	.06	.01	.06	.16	-.13	-.17
POD	HEIGHT	-.29+	.00	.87++	-.09	-.23+	-.09	.21	.88++	.73++
100 SEED	WEIGHT	.40++	.00	-.32+	-.07	.11	.10	.11	-.21	-.22
QUALITY	OF SEED	-.30+	.00	-.02	-.10	.19	-.06	-.20	.01	.02
PERCENT	GERM.	.02	.00	.77++	-.06	-.44++	.03	.35++	.69++	.54++

TABLE 12 EXPERIMENT 532 YEAR 1977 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
9	HODGSON	1.00	85.25	27.75	8.03	11.35	2.00	86.75	39.3	23.3
8	HARCOR	1.00	115.50	25.25	10.40	9.85	4.00	92.50	39.6	20.9
7	STEELE	1.00	61.00	28.25	10.18	11.80	2.00	95.25	41.7	22.7
1	WILLIAMS	1.00	174.75	26.50	10.68	10.43	1.00	97.75	39.4	21.6
16	MCCALL	1.50	96.75	24.00	8.73	9.60	3.50	77.50	40.8	22.6
13	CORSOY	1.25	95.50	31.25	9.30	10.15	4.00	83.00	39.5	23.4
12	UNION	1.00	134.50	28.25	13.35	10.50	1.00	95.75	39.1	21.2
5	MITCHELL	1.00	147.50	24.50	16.68	9.68	3.00	97.00	38.8	19.4
10	ELF	1.00	150.75	27.00	8.60	9.03	2.00	96.50	39.2	20.9
4	CUTLER 71	1.00	138.75	26.75	18.75	9.80	3.75	97.00	39.7	18.0
14	EVANS	1.25	62.50	25.75	7.05	10.25	3.75	62.50	41.9	22.3
2	CALLAND	1.00	176.25	23.75	15.88	9.83	3.00	97.00	39.4	19.4
15	CRAWFORD	1.00	157.00	23.25	17.53	10.05	3.00	98.00	37.7	16.5
6	SWIFT	1.00	75.75	22.50	7.48	10.30	3.00	72.00	41.0	23.1
11	COLUMBUS	1.00	136.00	19.50	17.15	8.95	3.00	98.00	41.1	17.3
3	FRANKLIN	1.00	152.00	26.75	16.85	8.88	5.00	95.75	37.6	17.6
	GRAND MEAN	1.06	122.52	25.50	12.27	10.03	2.94	90.14		
	STANDARD ERROR OF A VARIETY MEAN	.14	9.66	2.24	.89	.52	.11	.91		
	COEFFICIENT OF VARIATION	27.17%	15.28%	17.56%	14.49%	10.32%	7.40%	2.03%		
	5% LSD VARIETY MEANS (********-NS)	********	26.66	********	2.53	1.47	.31	2.61		

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

YIELD	KG/HA	.15	-.12	.31+	-.29+	.40++	-.30+	.02
DAYS TO	FLOWER	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	-.27+	.78++	-.20	.87++	-.32+	-.02	.77++
NODULE	ABUND 1	.05	-.04	.06	-.09	-.07	-.10	-.06
NODULE	ABUND 2	.30+	-.44++	.01	-.28+	.11	.19	-.44++
NODULE	ACT. 1	.04	.02	.06	-.09	.10	-.06	.03
NODULE	ACT. 2	-.43++	.23	.16	.21	.11	-.20	.35++
PLANT	HEIGHT	-.21	.73++	-.13	.88++	-.21	.01	.69++
	LODGING	-.18	.60++	-.17	.73++	-.22	.02	.54++
	SHATTER	1.00	-.08	.08	-.19	-.07	.20	-.31+
PLANTS	HARVEST	-.08	1.00	-.11	.56++	-.35++	-.10	.67++
PODS PER	PLANT	.08	-.11	1.00	-.28+	.24	-.08	-.02
POD	HEIGHT	-.19	.56++	-.28+	1.00	-.27+	.19	.65++
100 SEED	WEIGHT	-.07	-.35++	.24	-.27+	1.00	-.34++	-.11
QUALITY	OF SEED	.20	-.10	-.08	.19	-.34++	1.00	-.27+
PERCENT	GERM.	-.31+	.67++	-.02	.65++	-.11	-.27+	1.00

TABLE 13 EXPERIMENT 652 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - ARGENTINA
SITE - PARANA - ENTRE RIOS ELEVATION - 111 M
LATITUDE - 13 DEG.50 MIN. S LONGITUDE - 60 DEG. 31 MIN. W
COOPERATOR - R. VICENTINI
DATE PLANTED - DECEMBER 17, 1979 DATE HARVESTED - MARCH 1980
SOIL TYPE - SAND 5.4%, SILT 36.%, CLAY 28. % PH 6.3
AMOUNT OF MOISTURE - 439.2 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
1	CALLAND	1604.05	53.00	120.00	3.00	2.25	93.75	61.25	53.75	1.00
16	CRAWFORD	1525.46	53.00	120.00	3.50	4.50	78.75	11.25	50.00	1.00
12	COLUMBUS	1514.74	53.00	120.00	3.50	4.00	81.25	10.00	50.00	1.00
4	MITCHELL	1446.86	53.00	120.00	3.50	4.00	82.50	12.50	48.75	1.00
3	CUTLER 71	1343.26	53.00	120.00	3.00	2.75	92.50	52.50	50.00	1.00
9	HARCOR	1318.25	53.00	93.00	3.00	3.75	86.25	15.00	40.00	1.00
8	STEELE	1275.38	53.00	93.00	2.25	7.50	74.88	10.75	38.75	1.00
6	CORSOY	1225.37	49.25	93.00	3.25	4.00	63.75	8.75	41.25	1.00
2	FRANKLIN	1218.22	53.00	120.00	3.50	3.75	88.75	27.50	50.00	1.00
13	UNION	1189.64	53.00	120.00	3.25	2.75	81.25	50.00	47.50	1.00
14	WILLIAMS	1111.05	53.00	120.00	2.75	2.75	76.25	13.75	45.00	1.00
10	HODGSON	1111.05	45.50	93.00	3.50	2.75	92.50	7.50	36.25	1.00
11	MCCALL	1014.59	41.75	93.00	3.25	3.50	93.75	6.25	36.25	1.00
15	EVANS	914.56	41.75	93.00	3.25	2.50	95.00	21.25	33.75	1.00
5	ELF	864.54	53.00	120.00	3.50	2.75	78.75	25.00	28.75	1.00
7	SWIFT	657.34	41.75	93.00	3.25	4.00	93.75	11.25	33.75	1.25
	GRAND MEAN	1208.40	50.19	108.19	3.20	3.59	84.60	21.53	42.73	1.02
	STANDARD ERROR OF A VARIETY MEAN	115.28	2.13	.00	.47	1.58	9.72	8.45	1.75	.06
	COEFFICIENT OF VARIATION	19.08%	8.48%	.00%	29.19%	87.83%	22.98%	78.45%	8.20%	12.31%
	5% LSD VARIETY MEANS (********=NS)	328.36	6.06	.00	********	********	********	24.06	4.99	********

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

YIELD	KG/HA	1.00	.37++	.36++	.06	.08	-.02	.04	.67++	-.22
DAYS TO	FLOWER	.37++	1.00	.54++	-.12	.04	-.19	.17	.49++	.06
DAYS TO	MATURITY	.36++	.54++	1.00	.10	-.12	-.05	.39++	.62++	-.14
NODULE	ABUND 1	.06	-.12	.10	1.00	-.09	-.27+	-.04	-.07	-.17
NODULE	ABUND 2	.08	.04	-.12	-.09	1.00	-.49++	-.19	-.08	.06
NODULE	ACT. 1	-.02	-.19	-.05	-.27+	-.49++	1.00	.10	.03	.07
NODULE	ACT. 2	.04	.17	.39++	-.04	-.19	.10	1.00	.32+	-.12
PLANT	HEIGHT	.67++	.49++	.62++	-.07	-.08	.03	.32+	1.00	-.04
	LODGING	-.22	.06	-.14	-.17	.06	.07	-.12	-.04	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.04	-.00	-.27+	.10	-.04	-.14	-.29+	-.05	-.04
PODS PER	PLANT	.06	-.06	-.05	.08	-.05	-.07	-.00	.11	-.13
POD	HEIGHT	.54++	.43++	.67++	.02	-.09	.03	.22	.64++	-.19
100 SEED	WEIGHT	.61++	.52++	.71++	-.01	.01	-.04	.29+	.61++	-.22
QUALITY	OF SEED	.12	.37++	.52++	-.02	-.08	.10	.44++	.24	-.06
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 13 EXPERIMENT 652 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	.00	210.75	18.50	7.25	18.25	3.25	.00	40.8	20.0
16	CRAWFORD	.00	217.50	32.00	8.00	18.25	1.75	.00	41.4	21.6
12	COLUMBUS	.00	211.25	22.50	7.00	18.50	1.75	.00	42.1	20.9
4	MITCHELL	.00	219.75	29.75	7.50	17.50	2.75	.00	38.8	20.6
3	CUTLER 71	.00	193.00	22.25	7.50	17.25	3.00	.00	41.0	19.6
9	HARCOR	.00	258.75	25.75	5.50	16.00	2.50	.00	39.1	19.7
8	STEELE	.00	247.00	19.00	6.00	15.25	2.00	.00	40.6	17.8
6	CORSOY	.00	244.25	27.75	5.25	14.25	1.50	.00	39.5	21.8
2	FRANKLIN	.00	196.75	19.75	7.25	18.50	3.75	.00	40.5	18.1
13	UNION	.00	207.00	21.00	7.00	17.75	3.50	.00	40.8	19.1
14	WILLIAMS	.00	244.50	18.50	6.75	17.00	3.00	.00	42.0	19.3
10	HODGSON	.00	284.75	22.00	5.00	14.75	1.75	.00	39.2	20.8
11	MCCALL	.00	224.50	21.00	5.00	13.50	2.00	.00	38.5	20.3
15	EVANS	.00	171.25	27.50	4.50	13.25	1.50	.00	38.8	21.4
5	ELF	.00	196.00	19.00	5.25	16.75	3.75	.00	40.0	21.5
7	SWIFT	.00	204.00	19.75	4.50	12.75	1.75	.00	38.0	20.3
	GRAND MEAN	.00	220.69	22.88	6.20	16.22	2.47	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	18.32	3.03	.49	.86	.37	.00		
	COEFFICIENT OF VARIATION	.00%	16.61%	26.53%	15.86%	10.65%	29.85%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	52.19	8.64	1.[illegible]0	2.46	1.05	.00		

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

YIELD	KG/HA	.00	.04	.06	.54++	.61++	.12	.00
DAYS TO	FLOWER	.00	-.00	-.06	.43++	.52++	.37++	.00
DAYS TO	MATURITY	.00	-.27+	-.05	.67++	.71++	.52++	.00
NODULE	ABUND 1	.00	.10	.08	.02	-.01	-.02	.00
NODULE	ABUND 2	.00	-.04	-.05	-.09	.01	-.08	.00
NODULE	ACT. 1	.00	-.14	-.07	.03	-.04	.10	.00
NODULE	ACT. 2	.00	-.29+	-.00	.22	.29+	.44++	.00
PLANT	HEIGHT	.00	-.05	.11	.64++	.61++	.24	.00
	LODGING	.00	-.04	-.13	-.19	-.22	-.06	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.02	-.69	-.24	-.34++	.00
PODS PER	PLANT	.00	.02	1.00	.12	-.04	-.17	.00
POD	HEIGHT	.00	-.09	.12	1.00	.57++	.37++	.00
100 SEED	WEIGHT	.00	-.24	-.04	.57++	1.00	.54++	.00
QUALITY	OF SEED	.00	-.34++	-.17	.37++	.54++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 14 EXPERIMENT 657 YEAR 1979

REGION - SOUTH AMERICA
SITE - PERGAMINO
LATITUDE - 33 DEG. 56 MIN. S
COOPERATOR - NORA MANCUSO
DATE PLANTED - JANUARY 4, 1980
SOIL TYPE - PH 5.8, OM 3.3%, N 82PPM, P 26 PPM, K 30 PPM
AMOUNT OF MOISTURE - 550 MM
SUBSITUTE VARIETY - HOOD

COUNTRY - ARGENTINA
ELEVATION - 66 M
LONGITUDE - 60 DEG. 34 MIN. W
DATE HARVESTED - APRIL 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
15	HOOD	4438.44	54.75	120.50	3.00	.00	.00	.00	73.75	.00
13	CRAWFORD	4217.06	37.75	106.00	1.50	.00	.00	.00	70.00	.00
16	COLUMBUS	4074.62	37.75	109.00	1.75	.00	.00	.00	63.75	.00
4	MITCHELL	3932.59	35.00	105.25	2.50	.00	.00	.00	62.50	.00
14	WILLIAMS	3591.78	34.00	105.00	2.25	.00	.00	.00	61.25	.00
1	CALLAND	3562.02	34.25	104.00	1.50	.00	.00	.00	73.75	.00
10	UNION	3183.92	34.25	102.75	2.00	.00	.00	.00	61.25	.00
3	CUTLER 71	2998.64	36.00	105.50	2.00	.00	.00	.00	61.25	.00
2	FRANKLIN	2945.87	35.25	105.25	3.25	.00	.00	.00	60.13	.00
7	HARCOR	2294.80	32.75	102.25	2.75	.00	.00	.00	50.25	.00
8	HODGSON	2246.40	35.00	103.50	2.00	.00	.00	.00	71.25	.00
9	ELF	2219.42	34.00	105.50	1.75	.00	.00	.00	27.50	.00
5	MCCALL	2139.28	34.25	104.50	3.50	.00	.00	.00	43.75	.00
11	CORSOY	2116.26	38.00	102.00	3.75	.00	.00	.00	38.75	.00
12	EVANS	1977.01	33.00	103.00	2.25	.00	.00	.00	46.25	.00
6	SWIFT	1895.27	32.00	101.50	3.00	.00	.00	.00	47.50	.00
	GRAND MEAN	2989.59	36.13	105.34	2.42	.00	.00	.00	57.05	.00
	STANDARD ERROR OF A VARIETY MEAN	200.09	1.59	1.39	.34	.00	.00	.00	5.38	.00
	COEFFICIENT OF VARIATION	13.39%	8.82%	2.64%	27.92%	.00%	.00%	.00%	18.86%	.00%
	5% LSD VARIETY MEANS (********=NS)	569.94	4.54	3.97	.96	.00	.00	.00	15.32	.00

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

YIELD	KG/HA	1.00	.49++	.59++	-.33++	.00	.00	.00	.64++	.00
DAYS TO	FLOWER	.49++	1.00	.80++	.16	.00	.00	.00	.30+	.00
DAYS TO	MATURITY	.59++	.80++	1.00	.03	.00	.00	.00	.31+	.00
NODULE	ABUND 1	-.33++	.16	.03	1.00	.00	.00	.00	-.32++	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.64++	.30+	.31+	-.32++	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.28+	.21	.09	-.06	.00	.00	.00	.45++	.00
PODS PER	PLANT	.62++	.75++	.68++	-.12	.00	.00	.00	.55++	.00
POD	HEIGHT	.44++	.08	.15	-.26+	.00	.00	.00	.58++	.00
100 SEED	WEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 14 EXPERIMENT 657 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
15	HOOD	.00	205.25	55.55	6.63	.00	.00	.00	43.0	16.0
13	CRAWFORD	.00	202.00	27.30	9.48	.00	.00	.00	42.2	20.8
16	COLUMBUS	.00	173.00	31.95	8.28	.00	.00	.00	43.7	17.6
4	MITCHELL	.00	204.75	30.85	8.55	.00	.00	.00	40.8	20.0
14	WILLIAMS	.00	200.50	21.05	8.70	.00	.00	.00	44.3	19.2
1	CALLAND	.00	210.00	27.68	8.15	.00	.00	.00	42.8	18.6
10	UNION	.00	199.25	25.53	6.93	.00	.00	.00	42.6	20.0
3	CUTLER 71	.00	182.50	24.65	7.25	.00	.00	.00	43.6	19.4
2	FRANKLIN	.00	210.50	24.08	7.45	.00	.00	.00	42.3	16.9
7	HARCOR	.00	197.25	24.13	4.23	.00	.00	.00	42.6	19.1
8	HODGSON	.00	210.25	26.45	9.25	.00	.00	.00	40.5	19.1
9	ELF	.00	148.75	17.65	2.25	.00	.00	.00	42.1	18.4
5	MCCALL	.00	191.25	15.30	7.38	.00	.00	.00	41.5	18.8
11	CORSOY	.00	142.50	16.30	4.70	.00	.00	.00	40.4	18.5
12	EVANS	.00	201.00	19.95	7.45	.00	.00	.00	41.0	20.6
6	SWIFT	.00	176.50	17.30	5.25	.00	.00	.00	41.3	19.4
	GRAND MEAN	.00	190.95	25.36	6.99	.00	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	15.98	2.53	.66	.00	.00	.00		
	COEFFICIENT OF VARIATION	.00%	16.73%	19.96%	18.95%	.00%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	********	7.21	1.89	.00	.00	.00		

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

YIELD	KG/HA	.00	.28+	.62++	.44++	.00	.00	.00
DAYS TO	FLOWER	.00	.21	.75++	.08	.00	.00	.00
DAYS TO	MATURITY	.00	.09	.68++	.15	.00	.00	.00
NODULE	ABUND 1	.00	-.06	-.12	-.26+	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.45++	.55++	.58++	.00	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.31+	.36++	.00	.00	.00
PODS PER	PLANT	.00	.31+	1.00	.15	.00	.00	.00
POD	HEIGHT	.00	.36++	.15	1.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	.00	.00	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 15 EXPERIMENT 168 YEAR 1979

REGION - ASIA COUNTRY - BANGLADESH
SITE - BANGLADESH RICE RESEARCH INS. ELEVATION - 30 M
LATITUDE - 24 DEG. 0 MIN. N LONGITUDE - 90 DEG. 26 MIN. E
COOPERATORS - N. U. AHMED & M. Z. HOQUE
DATE PLANTED - DECEMBER 21 1979 DATE HARVESTED - APRIL 1980
SOIL TYPE - SAND 41.0%, SILT 16.0%, CLAY 42.96%, PH 7.3
FERTILIZER USED (KG/HA) N 25, P 26.4, K 24.9
AMOUNT OF MOISTURE - 351.3 MM
NUMBER OF IRRIGATIONS - 5 (203.2 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	JAMES	2130.62	57.75	100.75	3.00	3.25	77.50	72.50	60.93	1.00
13	BOSSIER	2059.37	56.00	111.50	3.50	3.00	57.50	72.50	57.43	1.00
3	CUTLER 71	2022.50	50.25	102.00	4.00	3.50	57.50	80.00	59.15	1.00
8	COBB	1990.62	52.75	109.00	3.50	2.75	62.50	72.50	55.25	1.00
11	WILLIAMS	1884.37	56.75	98.50	3.00	3.50	67.50	75.00	42.15	1.00
6	CRAWFORD	1823.75	53.25	105.00	3.25	3.50	62.50	83.25	62.75	1.00
4	MITCHELL	1753.12	51.00	101.00	3.00	3.75	62.50	75.00	48.08	1.00
10	IMPROVED PELLICAN	1576.87	62.00	112.75	4.25	3.00	62.50	70.00	85.90	1.00
1	CALLAND	1465.62	47.75	95.00	3.50	3.75	70.00	82.50	44.40	1.00
9	RANSOM	1248.75	47.25	103.00	3.50	3.00	52.50	77.50	31.43	1.00
2	FRANKLIN	1223.12	49.50	97.00	3.75	3.50	55.00	80.00	41.00	1.00
5	BRAGG	1146.25	45.25	98.75	3.75	3.50	60.00	80.00	37.63	1.00
12	RILLITO	738.75	45.50	103.00	3.75	3.75	66.75	70.00	32.33	1.00
	GRAND MEAN	1620.29	51.92	102.87	3.52	3.37	62.63	76.21	50.65	1.00
	STANDARD ERROR OF A VARIETY MEAN	231.72	3.00	1.59	.28	.28	8.09	5.71	4.28	.00
	COEFFICIENT OF VARIATION	28.60%	11.54%	3.10%	15.76%	16.65%	25.83%	14.98%	16.90%	.00%
	5% LSD VARIETY MEANS (********=NS)	664.63	8.59	4.57	********	********	********	********	12.28	.00

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

YIELD	KG/HA	1.00	.29+	.13	-.15	-.37++	.13	-.03	.52++	.00
DAYS TO	FLOWER	.29+	1.00	.41++	.07	-.18	.12	.01	.42++	.00
DAYS TO	MATURITY	.13	.41++	1.00	.14	-.39++	-.00	-.16	.58++	.00
NODULE	ABUND 1	-.15	.07	.14	1.00	-.05	-.09	.24	.06	.00
NODULE	ABUND 2	-.37++	-.18	-.39++	-.05	1.00	-.03	-.01	-.33+	.00
NODULE	ACT. 1	.13	.12	-.00	-.09	-.03	1.00	-.18	.17	.00
NODULE	ACT. 2	-.03	.01	-.16	.24	-.01	-.18	1.00	-.05	.00
PLANT	HEIGHT	.52++	.42++	.58++	.06	-.33+	.17	-.05	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.17	.08	-.19	-.03	-.16	-.01	.08	.14	.00
PODS PER	PLANT	.36++	.14	.36++	-.01	-.10	.02	-.05	.48++	.00
POD	HEIGHT	.30+	.42++	.35++	.12	-.32+	.18	.03	.60++	.00
100 SEED	WEIGHT	.28+	-.16	-.22	-.33+	-.13	.10	.10	-.11	.00
QUALITY	OF SEED	-.13	.22	.35+	.10	-.12	.22	-.12	.08	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 15 EXPERIMENT 168 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	JAMES	1.00	97.25	32.33	10.58	18.58	3.00	.00	42.9	22.0
13	BOSSIER	1.00	63.75	37.00	9.28	17.23	3.25	.00	43.9	21.1
3	CUTLER 71	1.00	103.00	35.50	8.43	18.10	2.00	.00	42.0	23.3
8	COBB	1.00	76.00	33.58	5.60	18.60	2.50	.00	41.3	20.8
11	WILLIAMS	1.00	96.00	24.43	6.50	18.08	1.50	.00	43.0	22.8
6	CRAWFORD	1.00	43.25	49.48	5.73	17.23	2.50	.00	42.6	22.3
4	MITCHELL	1.00	74.50	29.33	4.15	19.80	2.25	.00	38.5	22.5
10	IMPROVED PELLICAN	1.00	110.50	36.93	13.33	13.48	3.50	.00	42.2	22.9
1	CALLAND	1.00	105.75	26.00	7.30	18.18	2.25	.00	43.0	21.5
9	RANSOM	1.00	86.75	27.75	4.90	19.00	2.50	.00	45.0	21.8
2	FRANKLIN	1.00	97.50	30.93	4.83	17.00	2.00	.00	40.0	21.6
5	BRAGG	1.00	92.50	17.43	7.90	19.15	2.75	.00	43.1	20.0
12	RILLITO	1.00	51.25	31.53	3.93	14.88	3.50	.00	42.9	21.8
	GRAND MEAN	1.00	84.46	31.71	7.11	17.64	2.58	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	9.92	3.70	1.08	.54	.31	.00		
	COEFFICIENT OF VARIATION	.00%	23.48%	23.34%	30.35%	6.09%	24.33%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	28.44	10.61	3.09	1.54	.90	.00		

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

YIELD KG/HA	.00	.17	.36++	.30+	.28+	-.13	.00
DAYS TO FLOWER	.00	.08	.14	.42++	-.16	.22	.00
DAYS TO MATURITY	.00	-.19	.36++	.35++	-.22	.35+	.00
NODULE ABUND 1	.00	-.03	-.01	.12	-.33+	.10	.00
NODULE ABUND 2	.00	-.16	-.10	-.32+	-.13	-.12	.00
NODULE ACT. 1	.00	-.01	.02	.18	.10	.22	.00
NODULE ACT. 2	.00	.08	-.05	.03	.10	-.12	.00
PLANT HEIGHT	.00	.14	.48++	.60++	-.11	.08	.00
LODGING	.00	.00	.00	.00	.00	.00	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.27	.52++	.05	-.11	.00
PODS PER PLANT	.00	-.27	1.00	.05	-.21	.11	.00
POD HEIGHT	.00	.52++	.05	1.00	-.22	.31+	.00
100 SEED WEIGHT	.00	.05	-.21	-.22	1.00	-.37++	.00
QUALITY OF SEED	.00	-.11	.11	.31+	-.37++	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 16 EXPERIMENT 448 YEAR 1979

REGION - ASIA COUNTRY - BANGLADESH
SITE - BANGLADESH AG. UNIV. FARM, MYMENSINGH ELEVATION - 18.29 M
LATITUDE - 24 DEG. 70 MIN. N LONGITUDE - 90 DEG. E
COOPERATOR - A. J. MIAH, M.L. DAS
DATE PLANTED - JANUARY 22,1980 DATE HARVESTED - MAY 1980
SOIL TYPE - SILTY CLAY LOAM, PH 7.13
FERTILIZER USED (KG/HA) - N 25, P 25, K 25
NUMBER OF IRRIGATIONS - 2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
5	ORBA	1473.21	53.00	118.00	4.00	1.50	93.75	99.75	50.33	1.75
19	DAVIS	1242.33	50.00	111.00	4.00	2.50	91.25	85.00	24.20	1.00
2	UFV-1	1212.74	55.00	132.00	4.00	2.50	92.50	89.25	30.28	1.00
8	CARIBE	1173.15	53.00	132.00	4.00	2.50	92.50	86.75	36.55	1.50
14	WILLIAMS	1089.80	43.00	101.00	4.00	3.75	92.50	88.00	24.18	1.00
13	BOSSIER	1089.80	44.00	125.00	4.00	3.25	90.00	85.75	29.33	1.00
6	IAC-2	919.35	53.00	125.00	4.00	3.25	95.00	89.50	41.83	1.50
1	CH-3	858.50	54.00	120.00	4.00	3.00	92.50	86.50	45.80	2.00
15	RANSOM	835.58	43.00	111.00	4.00	3.25	91.25	88.00	23.83	1.00
12	RILLITO	787.66	45.00	111.00	3.50	2.50	91.25	87.00	31.55	1.00
7	TUNIA	577.20	53.00	119.00	3.75	2.50	91.25	87.75	32.45	1.25
	GRAND MEAN	1023.58	49.64	118.55	3.93	2.77	92.16	87.66	33.66	1.27
	STANDARD ERROR OF A VARIETY MEAN	52.79	.00	.00	.11	.45	1.22	1.06	2.19	.15
	COEFFICIENT OF VARIATION	10.31%	.00%	.00%	5.69%	32.26%	2.65%	2.41%	13.03%	23.09%
	5% LSD VARIETY MEANS (********-NS)	152.47	.00	.00	********	********	********	3.05	6.34	.42

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

YIELD	KG/HA	1.00	.16	.17	.30+	-.24	.08	.14	.19	.09
DAYS TO	FLOWER	.16	1.00	.65++	.12	-.33+	.29	.21	.56++	.49++
DAYS TO	MATURITY	.17	.65++	1.00	.15	-.17	.11	.09	.35+	.24
NODULE	ABUND 1	.30+	.12	.15	1.00	.31+	.24	.15	.04	.17
NODULE	ABUND 2	-.24	-.33+	-.17	.31+	1.00	.01	-.15	-.37+	-.38+
NODULE	ACT. 1	.08	.29	.11	.24	.01	1.00	.66++	.32+	.29
NODULE	ACT. 2	.14	.21	.09	.15	-.15	.66++	1.00	.40++	.27
PLANT	HEIGHT	.19	.56++	.35+	.04	-.37+	.32+	.40++	1.00	.87++
	LODGING	.09	.49++	.24	.17	-.38+	.29	.27	.87++	1.00
	SHATTER	.25	.63++	.53++	.02	-.41++	.10	.30+	.28	.17
PLANTS	HARVEST	.28	-.35+	-.34+	-.03	.06	-.20	-.29	-.02	.04
PODS PER	PLANT	.21	.59++	.57++	.05	-.36+	.22	.29	.83++	.76++
POD	HEIGHT	.26	.56++	.39++	.05	-.37+	.32+	.40++	.99++	.83++
100 SEED	WEIGHT	-.32+	-.73++	-.48++	-.33+	.19	-.29	-.34+	-.50++	-.43++
QUALITY	OF SEED	.14	-.23	.16	-.02	.13	-.04	-.09	-.38+	-.31+
PERCENT	GERM.	.17	-.27	.22	.05	-.03	-.20	-.04	.07	.06

TABLE 16 EXPERIMENT 448 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
5	ORBA	3.00	125.00	32.45	42.80	10.00	1.00	82.25
19	DAVIS	2.00	163.25	19.00	19.15	12.95	2.00	65.00
2	UFV-1	3.00	99.25	26.30	26.18	11.60	3.00	85.25
8	CARIBE	3.00	126.00	36.20	37.08	12.03	4.25	78.00
14	WILLIAMS	2.00	132.50	12.98	19.40	13.40	3.00	69.75
13	BOSSIER	2.00	143.00	21.32	26.75	13.10	2.00	93.00
6	IAC-2	2.00	124.25	33.68	33.85	10.50	2.00	62.75
1	CH-3	2.00	152.25	31.43	37.43	12.20	1.00	85.75
15	RANSOM	2.00	137.50	17.78	18.03	13.50	2.75	90.50
12	RILLITO	2.00	150.00	70.33	25.73	16.20	2.50	80.75
7	TUNIA	3.00	95.50	26.65	24.80	11.10	1.25	62.50
	GRAND MEAN	2.36	131.50	25.06	27.56	12.41	2.25	77.77
	STANDARD ERROR OF A VARIETY MEAN	.00	8.75	2.51	2.01	.12	.15	1.05
	COEFFICIENT OF VARIATION	.00%	13.31%	19.99%	14.59%	1.85%	13.62%	2.71%
	5% LSD VARIETY MEANS (********=NS)	.00	25.28	7.24	5.81	.33	.44	3.04

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

YIELD	KG/HA	.25	.28	.21	.26	-.32+	.14	.17
DAYS TO	FLOWER	.63++	-.35+	.59++	.56++	-.73++	-.23	-.27
DAYS TO	MATURITY	.53++	-.34+	.57++	.39++	-.48++	.16	.22
NODULE	AROUND 1	.02	-.03	.05	.05	-.33+	-.02	.05
NODULE	AROUND 2	-.41++	.06	-.36+	-.37+	.19	.13	-.03
NODULE	ACT. 1	.10	-.20	.22	.32+	-.29	-.04	-.20
NODULE	ACT. 2	.30+	-.29	.29	.40++	-.34+	-.09	-.04
PLANT	HEIGHT	.28	-.02	.83++	.99++	-.50++	-.38+	.07
	LODGING	.17	.04	.76++	.83++	-.43++	-.31+	.06
	SHATTER	1.00	-.61++	.36+	.32+	-.57++	.10	-.05
PLANTS	HARVEST	-.61++	1.00	-.07	-.03	.40++	-.08	.14
PODS PER	PLANT	.36+	-.07	1.00	.85++	-.48++	-.02	.05
POD	HEIGHT	.32+	-.03	.85++	1.00	-.48++	-.30+	.11
100 SEED	WEIGHT	-.57++	.40++	-.48++	-.48++	1.00	.32+	.26
QUALITY	OF SEED	.10	-.08	-.02	-.30+	.32+	1.00	.10
PERCENT	GERM.	-.05	.14	.05	.11	.26	.10	1.00

TABLE 17 EXPERIMENT 424 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - BOLIVIA
SITE - ABAPO IZOZOG ELEVATION - 389 M
LATITUDE - 18 DEG. 39 MIN. S LONGITUDE - 63 DEG. W
COOPERATOR - JUAN BELLOTT MONTALVO AND EDUARDO MOLINA
DATE PLANTED - DECEMBER 7, 1979 DATE HARVESTED - MARCH 1980
SOIL TYPE - PH 7.0, OM 3.4%
AMOUNT OF MOISTURE - 468.5 MM
NUMBER OF IRRIGATIONS - 1 (80 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	4765.54	36.50	117.75	.00	.00	.00	.00	90.05	1.50
12	RILLITO	4561.33	32.75	107.00	.00	.00	.00	.00	85.40	1.75
16	DAVIS	4175.83	30.25	106.25	.00	.00	.00	.00	69.50	1.00
4	HARDEE LS	4119.57	44.00	133.75	.00	.00	.00	.00	86.20	2.00
14	WILLIAMS	4077.90	30.00	107.50	.00	.00	.00	.00	56.30	1.00
2	UFV-1	3975.79	33.00	117.25	.00	.00	.00	.00	61.65	1.00
6	IAC-2	3875.77	43.50	131.75	.00	.00	.00	.00	116.50	3.75
13	BOSSIER	3754.92	40.75	121.75	.00	.00	.00	.00	64.05	1.00
1	CH-3	3496.53	34.25	119.00	.00	.00	.00	.00	111.45	2.75
11	ACC-2120	3086.03	36.75	122.25	.00	.00	.00	.00	101.95	3.50
3	SJ-2	2792.22	34.75	116.25	.00	.00	.00	.00	81.60	2.75
15	RANSOM	2754.72	34.75	119.75	.00	.00	.00	.00	44.40	1.00
5	ORBA	2473.41	35.75	120.75	.00	.00	.00	.00	111.60	3.50
9	JUPITER	2427.57	42.50	133.00	.00	.00	.00	.00	66.63	1.00
10	IMPROVED PELICAN	2377.56	39.50	124.50	.00	.00	.00	.00	101.65	1.75
8	CARIBE	2046.24	50.50	157.75	.00	.00	.00	.00	85.95	4.00
	GRAND MEAN	3422.56	37.47	122.27	.00	.00	.00	.00	83.43	2.08
	STANDARD ERROR OF A VARIETY MEAN	372.11	.34	.75	.00	.00	.00	.00	4.04	.25
	COEFFICIENT OF VARIATION	21.74%	1.84%	1.23%	.00%	.00%	.00%	.00%	9.68%	24.54%
	5% LSD VARIETY MEANS (********=NS)	1059.94	.98	2.15	.00	.00	.00	.00	11.50	.73

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

YIELD	KG/HA	1.00	-.33++	-.42++	.00	.00	.00	.00	-.06	-.30+
DAYS TO	FLOWER	-.33++	1.00	.95++	.00	.00	.00	.00	.25+	.43++
DAYS TO	MATURITY	-.42++	.95++	1.00	.00	.00	.00	.00	.22	.49++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.06	.25+	.22	.00	.00	.00	.00	1.00	.68++
	LODGING	-.30+	.43++	.49++	.00	.00	.00	.00	.68++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.37++	-.44++	-.41++	.00	.00	.00	.00	-.18	-.13
PODS PER	PLANT	-.33++	.38++	.33++	.00	.00	.00	.00	.37++	.17
POD	HEIGHT	-.22	.62++	.62++	.00	.00	.00	.00	.43++	.39++
100 SEED	WEIGHT	.42++	-.46++	-.54++	.00	.00	.00	.00	-.60++	-.73++
QUALITY	OF SEED	-.50++	.69++	.77++	.00	.00	.00	.00	.07	.51++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 17 EXPERIMENT 424 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	1.00	83.50	98.05	9.95	20.33	2.00	.00	41.4	22.1
12	RILLITO	1.00	81.25	57.35	5.65	19.28	2.00	.00	41.9	21.0
16	DAVIS	1.00	96.25	72.45	6.05	21.35	1.25	.00	40.2	22.5
4	HARDEE LS	1.00	26.50	283.80	9.15	14.78	2.00	.00	42.8	22.5
14	WILLIAMS	1.00	136.50	44.35	5.00	24.03	1.75	.00	42.7	22.5
2	UFV-1	1.00	59.00	109.10	8.15	15.93	2.00	.00	43.0	20.9
6	IAC-2	1.00	61.25	171.90	11.75	16.10	2.75	.00	43.3	21.4
13	BOSSIER	1.00	73.75	73.80	7.70	20.70	3.00	.00	43.3	19.5
1	CH-3	1.00	49.00	135.70	7.75	15.63	2.00	.00	42.1	22.1
11	ACC-2120	1.00	78.75	171.10	8.80	7.38	3.00	.00	44.6	15.3
3	SJ-2	1.00	33.00	195.00	8.40	13.80	2.75	.00	42.0	22.7
15	RANSOM	1.00	62.50	58.50	.75	24.00	3.00	.00	43.3	24.2
5	ORBA	1.00	69.75	93.15	8.05	12.88	3.00	.00	41.4	20.4
9	JUPITER	1.00	29.00	133.80	11.05	17.38	3.00	.00	44.3	21.3
10	IMPROVED PELICAN	1.00	18.50	339.60	10.55	14.53	2.00	.00	43.7	22.9
8	CARIBE	1.00	57.50	141.70	15.45	10.13	5.00	.00	48.1	17.8
	GRAND MEAN	1.00	63.50	136.21	8.39	16.76	2.53	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	11.29	31.87	1.27	.43	.13	.00		
	COEFFICIENT OF VARIATION	.00%	35.55%	46.80%	30.40%	5.11%	9.88%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	32.15	90.78	3.63	1.22	.36	.00		

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

YIELD KG/HA	.00	.37++	-.33++	-.22	.42++	-.50++	.00
DAYS TO FLOWER	.00	-.44++	.38++	.62++	-.46++	.69++	.00
DAYS TO MATURITY	.00	-.41++	.33++	.62++	-.54++	.77++	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	-.18	.37++	.43++	-.60++	.07	.00
LODGING	.00	-.13	.17	.39++	-.73++	.51++	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.62++	-.31+	.37++	-.14	.00
PODS PER PLANT	.00	-.62++	1.00	.33++	-.44++	-.01	.00
POD HEIGHT	.00	-.31+	.33++	1.00	-.54++	.40++	.00
100 SEED WEIGHT	.00	.37++	-.44++	-.54++	1.00	-.46++	.00
QUALITY OF SEED	.00	-.14	-.01	.40++	-.46++	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 18 EXPERIMENT 427 YEAR 1979

REGION SOUTH AMERICA COUNTRY - BOLIVIA
SITE ABAPO 120200 ELEVATION - 589 M
LATITUDE - 18 DEG. 59 MIN. S LONGITUDE - 63 DEG. 1 MIN. W
COOPERATOR - JUAN BELLOTT MONTALVO, OSCAR FLORES
DATE PLANTED NOVEMBER 15, 1979 DATE HARVESTED FEBURARY 1980
SOIL TYPE PH 7.0, OM 3.4%
AMOUNT OF PRECIPITATION - 544.9 MM
NUMBER OF IRRIGATIONS - 1 (70 MM)
SUBSTITUTE VARIETY - IAC PELICAN

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE GROUP 1	NODULE GROUP 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
15	RANSOM	4055.72	37.00	131.00	.00	.00	.00	.00	43.40	1.00
12	RILLITO	3557.10	35.00	113.00	.00	.00	.00	.00	48.25	1.00
16	DAVIS	3363.10	41.00	105.50	.00	.00	.00	.00	63.85	1.00
14	WILLIAMS	3032.37	35.25	86.50	.00	.00	.00	.00	62.45	1.00
7	TUNIA	2938.09	45.75	125.50	.00	.00	.00	.00	95.60	1.25
4	HARDEE LS	2706.83	47.00	129.50	.00	.00	.00	.00	94.70	2.25
2	UFV-1	2817.23	37.50	133.00	.00	.00	.00	.00	69.35	1.00
3	SJ-2	2548.43	50.25	116.75	.00	.00	.00	.00	95.85	2.25
1	CH-3	2438.41	45.75	116.50	.00	.00	.00	.00	123.45	2.50
13	IAC PELICAN	2371.31	47.25	139.50	.00	.00	.00	.00	115.00	2.75
10	IMPROVED PELICAN	2254.67	47.00	131.25	.00	.00	.00	.00	117.25	3.00
6	IAC-2	2185.88	48.75	139.00	.00	.00	.00	.00	124.50	2.50
11	ACC 2120	2100.42	56.25	129.75	.00	.00	.00	.00	106.30	1.50
9	JUPITER	2047.07	49.75	140.50	.00	.00	.00	.00	69.75	1.00
5	ORBA	1982.93	47.00	120.50	.00	.00	.00	.00	103.55	2.00
8	CARIBE	1366.96	67.50	177.25	.00	.00	.00	.00	95.95	4.00
	GRAND MEAN	2715.13	47.13	135.75	.00	.00	.00	.00	89.51	1.88
	STANDARD ERROR OF A VARIETY MEAN	234.76	.72	1.39	.00	.00	.00	.00	4.21	.30
	COEFFICIENT OF VARIATION	17.26%	3.06%	2.05%	.00%	.00%	.00%	.00%	9.41%	31.93%
	5% LSD VARIETY MEANS (********-NS)	667.26	2.06	3.70	.00	.00	.00	.00	11.99	.85

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 GROUP 1	NODULE GROUP 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD	KG/HA	1.00	-.67++	-.54++	.00	.00	.00	.00	-.53++	-.41++
DAYS TO	FLOWER	-.67++	1.00	.80++	.00	.00	.00	.00	.46++	.56++
DAYS TO	MATURITY	-.54++	.80++	1.00	.00	.00	.00	.00	.30+	.55++
NODULE	GROUP 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	GROUP 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.53++	.46++	.30+	.00	.00	.00	.00	1.00	.59++
	LODGING	-.41++	.56++	.55++	.00	.00	.00	.00	.59++	1.00
	SHATTER	-.05	-.03	-.03	.00	.00	.00	.00	.15	-.06
PLANTS	HARVEST	.40++	-.29+	-.49++	.00	.00	.00	.00	-.38++	-.44++
PODS PER	PLANT	-.13	.34++	.16	.00	.00	.00	.00	.51++	.50++
POD	HEIGHT	-.43++	.47++	.55++	.00	.00	.00	.00	.34++	.19
100 SEED	WEIGHT	.70++	-.86++	-.57++	.00	.00	.00	.00	-.56++	-.53++
QUALITY	OF SEED	-.54++	.79++	.78++	.00	.00	.00	.00	.27+	.62++
PERCENT	GERM.	.12	-.23	-.35++	.00	.00	.00	.00	.15	-.19

TABLE 18 EXPERIMENT 427 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
15	RANSOM	1.00	180.25	48.25	5.05	20.45	3.00	75.00
12	RILLITO	1.00	190.50	45.25	5.00	17.[illegible]	2.00	48.00
16	DAVIS	1.00	203.25	60.50	9.50	15.10	2.00	38.50
14	WILLIAMS	1.00	206.00	33.25	9.50	22.00	2.00	38.75
7	TUNIA	1.25	148.00	39.25	11.70	16.50	2.00	55.00
4	HARDEE LS	1.00	66.00	123.00	12.55	14.40	3.00	43.00
2	UFV-1	1.00	151.00	47.50	12.35	14.95	2.00	59.25
3	SJ-2	1.00	112.25	143.50	7.05	12.10	3.00	82.50
1	CH-3	1.00	171.25	89.25	9.30	14.90	2.00	78.25
13	IAC PELICAN	1.00	52.50	138.75	8.45	17.00	3.00	48.00
10	IMPROVED PELICAN	1.00	57.75	80.25	9.55	13.38	3.00	58.75
6	IAC-2	1.00	133.00	89.25	14.10	14.85	3.00	57.50
11	ACC 2120	1.00	190.25	113.25	9.60	8.25	3.00	76.25
9	JUPITER	1.00	79.00	61.25	14.95	15.15	3.00	51.25
5	ORBA	1.25	171.	72.25	7.95	13.38	3.00	67.00
8	CARIBE	1.00	134	78.75	12.55	8.18	5.00	.75
	GRAND MEAN	1.03	141.63	78.41	9.53	15.26	2.75	54.86
	STANDARD ERROR OF A VARIETY MEAN	.09	17.03	16.79	1.42	.64	.00	8.12
	COEFFICIENT OF VARIATION	16.56%	24.05%	42.83%	29.81%	8.45%	.00%	29.59%
	5% LSD VARIETY MEANS (********=NS)	********	48.52	47.83	4.05	1.84	.00	23.12

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

YIELD	KG/HA	-.05	.40++	-.13	-.43++	.70++	-.54++	.12
DAYS TO	FLOWER	-.03	-.29+	.34++	.47++	-.86++	.79++	-.23
DAYS TO	MATURITY	-.03	-.49++	.16	.55++	-.57++	.78++	-.35++
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.15	-.38++	.51++	.34++	-.56++	.27+	.15
	LODGING	-.06	-.44++	.50++	.19	-.53++	.62++	-.19
	SHATTER	1.00	-.02	-.08	.15	-.02	-.06	.12
PLANTS	HARVEST	-.02	1.00	-.37++	-.31+	.24	-.35++	.05
PODS PER	PLANT	-.08	-.37++	1.00	.05	-.43++	.28+	.09
POD	HEIGHT	.15	-.31+	.05	1.00	-.44++	.26+	-.05
100 SEED	WEIGHT	-.02	.24	-.43++	-.44++	1.00	-.62++	-.02
QUALITY	OF SEED	-.06	-.35++	.28+	.26+	-.62++	1.00	-.33++
PERCENT	GERM.	.12	.05	.09	-.05	-.02	-.33++	1.00

TABLE 19 EXPERIMENT 470 YEAR 1979

REGION - ASIA
SITE - HEHO SEED FARM
LATITUDE - 20 DEG. 45 MIN. N
COOPERATOR - MYINT THEIN, HLA SHWE
DATE PLANTED - JUNE 9, 1979
SOIL TYPE - RED LOAM , PH 5.6
FERTILIZER USED (KG/HA) - N 25, P 25, K 12
AMOUNT OF MOISTURE - 659 MM

COUNTRY - BURMA
ELEVATION - 1140 M
LONGITUDE - 90 DEG. 50 MIN. E

DATE HARVESTED - SEPTEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	1671.78	28.00	92.00	1.00	2.50	58.75	78.75	35.80	1.00
15	RANSON	979.30	30.00	103.00	1.00	1.50	52.50	65.00	38.03	1.00
12	RILLITO	721.16	30.00	103.25	1.00	1.50	70.00	68.75	44.53	1.00
13	ROSSIER	600.28	30.00	104.00	1.00	2.00	48.75	42.50	54.60	1.50
19	DAVIS	493.75	41.00	104.50	1.00	3.00	86.25	72.50	54.20	1.00
5	ORBA	409.75	54.00	109.00	1.00	2.50	78.75	57.50	113.83	3.25
7	TUNIA	405.65	41.00	132.00	1.00	2.50	60.00	60.00	64.12	2.00
3	SJ-2	303.21	51.00	108.00	1.00	2.50	86.25	63.75	92.08	2.00
37	ACC 2120	215.12	43.00	107.00	1.00	3.00	90.00	56.25	103.98	3.25
10	IMPROVED PELICAN	179.88	51.00	109.00	1.00	3.25	88.75	50.00	85.30	2.00
1	CH-3	90.14	51.00	107.25	1.00	2.00	70.00	60.00	101.73	3.00
	GRAND MEAN	551.82	40.91	107.18	1.00	2.39	71.82	61.36	71.65	1.91
	STANDARD ERROR OF A VARIETY MEAN	71.38	1.51	.27	.00	.47	7.91	7.28	4.07	.14
	COEFFICIENT OF VARIATION	25.87%	7.37%	.51%	.00%	39.11%	22.03%	23.74%	11.35%	14.56%
	5% LSD VARIETY MEANS (******* NS)	205.15	4.35	.78	.00	***.****	22.85	********	11.75	.40

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

YIELD	KG/HA	1.00	-.69++	-.54++	.00	-.21	-.42++	.36+	-.69++	-.61++
DAYS TO	FLOWER	-.69++	1.00	.38+	.00	.32+	.47++	-.17	.84++	.71++
DAYS TO	MATURITY	-.54++	.38+	1.00	.00	.10	.03	-.21	.30	.33+
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	-.21	.32+	.10	.00	1.00	.34+	.05	.25	.20
NODULE	ACT. 1	-.42++	.47++	.03	.00	.34+	1.00	-.18	.39++	.34+
NODULE	ACT. 2	.36+	-.17	-.21	.00	.05	-.18	1.00	-.19	-.22
PLANT	HEIGHT	-.69++	.84++	.30	.00	.25	.39++	-.19	1.00	.89++
	LODGING	-.61++	.71++	.33+	.00	.20	.34+	-.22	.89++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.40++	-.39++	-.28	.00	-.12	-.21	.10	-.18	-.08
PODS PER	PLANT	-.46++	.44++	.19	.00	.21	.36+	-.31+	.48++	.39++
POD	HEIGHT	-.57++	.48++	.24	.00	.05	.25	-.30	.73++	.80++
100 SEED	WEIGHT	.81++	-.64++	-.28	.00	-.23	-.27	.27	-.69++	-.61++
QUALITY	OF SEED	-.78++	.65++	.26	.00	.19	.41++	-.27	.75++	.73++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 19 EXPERIMENT 470 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
14	WILLIAMS	1.00	322.50	11.25	15.75	21.25	1.00	.00
15	RANSOM	1.00	242.00	23.50	15.25	17.50	2.50	.00
12	RILLITO	1.00	252.25	22.75	15.38	15.00	3.00	.00
13	BOSSIER	1.00	287.50	22.25	15.18	13.75	2.75	.00
19	DAVIS	1.00	303.25	22.00	14.50	15.00	2.25	.00
5	ORBA	1.00	285.75	28.00	17.25	12.50	4.00	.00
7	TUNIA	1.00	237.50	26.00	15.23	15.00	2.75	.00
3	SJ-2	1.00	151.50	25.75	14.38	11.25	3.50	.00
37	ACC 2120	1.00	294.75	38.00	17.15	10.00	5.00	.00
10	IMPROVED PELICAN	1.00	112.00	43.75	15.95	10.00	4.75	.00
1	CH-3	1.00	264.00	22.00	16.90	10.00	5.00	.00
	GRAND MEAN	1.00	249.73	25.93	15.54	13.75	3.32	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	16.28	3.09	.22	1.20	.31	.00
	COEFFICIENT OF VARIATION	.00%	13.04%	23.82%	2.78%	17.50%	18.92%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	47.01	8.92	.62	3.47	.91	.00

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

YIELD	KG/HA	.00	.40++	-.46++	-.57++	.81++	-.78++	.00
DAYS TO	FLOWER	.00	-.39++	.44++	.48++	-.64++	.65++	.00
DAYS TO	MATURITY	.00	-.28	.19	.23	-.28	.26	.00
NODULE	AROUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	-.12	.21	.05	-.23	.19	.00
NODULE	ACT. 1	.00	-.21	.36+	.25	-.27	.41++	.00
NODULE	ACT. 2	.00	.10	-.31+	-.30	.27	-.27	.00
PLANT	HEIGHT	.00	-.18	.48++	.73++	-.69++	.75++	.00
	LODGING	.00	-.08	.39++	.80++	-.61++	.73++	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.41++	.00	.36+	-.32+	.00
PODS PER	PLANT	.00	-.41++	1.00	.33+	-.48++	.36++	.00
POD	HEIGHT	.00	.00	.33+	1.00	-.49++	.70++	.00
100 SEED	WEIGHT	.00	.36+	-.48++	-.49++	1.00	-.84++	.00
QUALITY	OF SEED	.00	-.32+	.46++	.70++	-.84++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 20 EXPERIMENT 654 YEAR 1979

REGION - SOUTH AMERICA
SITE - ESTACION EXP. LA PLATINA
LATITUDE - 33 DEG. 27 MIN. S
COOPERATOR - VITAL VALDIVIA
DATE PLANTED - OCTOBER 16, 1979
SOIL TYPE - PH 8.0
FERTILIZER USED (KG/HA) - P 33.1
AMOUNT OF MOISTURE - 55.2 MM
NUMBER OF IRRIGATIONS - 10
SUBSTITUTE VARIETY - AMSOY

COUNTRY - CHILE
ELEVATION - 625 M
LATITUDE - 70 DEG. 41 MIN. W

DATE HARVESTED - FEBRUARY, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	CALLAND	4548.83	45.25	134.75	5.00	3.50	.00	68.75	103.75	4.00
1	WILLIAMS	4542.57	53.25	131.00	4.25	2.75	5.00	87.50	107.50	2.50
10	ELF	4394.63	49.50	129.00	4.50	3.50	2.50	87.50	77.50	1.00
11	AMSOY	4294.61	41.25	124.50	4.75	2.25	.00	61.25	105.00	2.00
5	MITCHELL	4250.85	51.25	139.50	5.00	3.50	.00	85.00	128.75	4.00
12	UNION	4240.43	54.00	134.00	4.25	3.00	6.25	86.25	121.25	4.00
4	CUTLER 71	4129.99	52.75	137.25	4.25	2.50	11.25	82.50	118.75	3.25
3	FRANKLIN	4027.89	53.75	138.75	4.75	3.25	2.50	70.00	110.00	2.75
7	STEELE	3875.77	40.75	113.50	4.50	3.00	2.50	53.75	83.75	2.00
13	CORSOY	3725.74	42.25	115.25	4.50	2.50	.00	50.00	81.25	2.00
8	HARCOR	3686.15	45.25	117.50	4.25	2.50	2.50	51.25	81.25	3.00
15	CRAWFORD	3436.10	59.25	145.00	5.00	2.25	2.50	88.75	127.50	3.50
9	HODGSON	3233.98	41.25	115.25	4.75	3.25	5.00	36.25	78.75	1.25
16	MCCALL	2977.68	37.75	101.00	4.75	2.75	7.50	48.75	71.25	1.00
14	EVANS	2838.07	40.00	109.00	4.50	1.75	5.00	42.50	62.50	1.00
6	SWIFT	2067.08	41.75	104.00	4.50	2.75	5.00	36.25	75.00	1.75
	GRAND MEAN	3766.90	46.83	124.33	4.59	2.81	3.59	64.77	95.86	2.44
	STANDARD ERROR OF A VARIETY MEAN	232.60	1.65	2.03	.24	.28	3.17	6.80	5.16	.39
	COEFFICIENT OF VARIATION	12.35%	7.05%	3.26%	10.61%	20.18%	176.52%	21.01%	10.77%	32.14%
	5% LSD VARIETY MEANS (********=NS)	662.53	4.70	5.78	********	.81	********	19.38	14.70	1.12

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

YIELD	KG/HA	1.00	.22	.62++	-.09	-.00	-.08	.37++	.56++	.57++
DAYS TO	FLOWER	.22	1.00	.74++	.08	.16	-.10	.65++	.61++	.38++
DAYS TO	MATURITY	.62++	.74++	1.00	.14	.15	-.11	.63++	.82++	.66++
NODULE	ABUND 1	-.09	.08	.14	1.00	.09	-.47++	.03	.04	.03
NODULE	ABUND 2	-.00	.16	.15	.09	1.00	-.05	.23	.03	.03
NODULE	ACT. 1	-.08	-.10	-.11	-.47++	-.05	1.00	.00	-.00	-.08
NODULE	ACT. 2	.37++	.65++	.63++	.03	.23	.00	1.00	.52++	.28+
PLANT	HEIGHT	.56++	.61++	.82++	.04	.03	-.00	.52++	1.00	.74++
	LODGING	.57++	.38++	.66++	.03	.03	-.08	.28+	.74++	1.00
	SHATTER	-.14	.15	.07	.10	.03	-.07	.08	-.03	-.13
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.22	-.13	.13	-.14	-.26+	-.18	-.26+	.04	.23
POD	HEIGHT	.46++	.69++	.79++	.10	.35++	.08	.63++	.76++	.53++
100 SEED	WEIGHT	.59++	-.17	.11	-.18	-.16	.03	.03	.10	.17
QUALITY	OF SEED	-.05	.19	.17	.09	.14	-.00	.09	.16	.08
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 20 EXPERIMENT 654 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	CALLAND	1.00	.00	34.25	15.20	17.83	3.00	.00	40.8	18.8
1	WILLIAMS	1.00	.00	30.75	14.05	17.63	3.00	.00	41.1	20.9
10	ELF	1.00	.00	28.75	13.48	17.03	3.00	.00	40.4	19.4
11	AMSOY	1.00	.00	37.75	11.10	17.05	2.75	.00	38.4	20.5
5	MITCHELL	1.00	.00	38.00	15.95	15.68	2.75	.00	39.6	20.9
12	UNION	1.00	.00	29.75	15.28	17.35	3.25	.00	41.0	20.0
4	CUTLER 71	1.00	.00	31.25	16.80	16.68	2.25	.00	39.4	21.3
3	FRANKLIN	1.25	.00	41.25	16.53	14.10	2.75	.00	37.4	18.9
7	STEELE	1.00	.00	31.50	10.60	17.58	1.50	.00	40.6	21.3
13	CORSOY	1.00	.00	40.75	8.48	15.13	1.50	.00	40.9	19.2
8	HARCOR	1.00	.00	43.50	8.63	14.63	1.75	.00	39.8	19.5
15	CRAWFORD	1.00	.00	37.75	15.70	14.55	2.50	.00	41.5	20.2
9	HODGSON	1.00	.00	32.50	11.58	17.05	2.75	.00	38.6	22.4
16	MCCALL	1.00	.00	29.50	8.73	16.18	2.75	.00	38.4	20.1
14	EVANS	1.00	.00	44.25	7.33	17.00	2.25	.00	40.4	20.5
6	SWIFT	1.00	.00	28.25	9.55	13.85	3.00	.00	35.2	20.8
	GRAND MEAN	1.02	.00	34.98	12.43	16.20	2.55	.00		
	STANDARD ERROR OF A VARIETY MEAN	.06	.00	4.02	.72	.57	.34	.00		
	COEFFICIENT OF VARIATION	12.31%	.00%	22.98%	11.62%	7.00%	26.31%	.00%		
	5% LSD VARIETY MEANS (********=NS)	********	.00	********	2.06	1.62	.95	.00		

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

YIELD	KG/HA	-.14	.00	.22	.46++	.59++	-.05	.00
DAYS TO	FLOWER	.15	.00	-.13	.69++	-.17	.19	.00
DAYS TO	MATURITY	.07	.00	.13	.79++	.11	.17	.00
NODULE	ABUND 1	.10	.00	-.14	.10	-.18	.09	.00
NODULE	ABUND 2	.03	.00	-.26+	.35++	-.16	.14	.00
NODULE	ACT. 1	-.07	.00	-.18	.08	.03	-.00	.00
NODULE	ACT. 2	.08	.00	-.26+	.63++	.03	.09	.00
PLANT	HEIGHT	-.03	.00	.04	.76++	.10	.16	.00
	LODGING	-.13	.00	.23	.53++	.17	.08	.00
	SHATTER	1.00	.00	.03	.09	-.24	.23	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.03	.00	1.00	-.14	-.00	-.10	.00
POD	HEIGHT	.09	.00	-.14	1.00	.05	.27+	.00
100 SEED	WEIGHT	-.24	.00	-.00	.05	1.00	-.07	.00
QUALITY	OF SEED	.23	.00	-.10	.27+	-.07	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 21 EXPERIMENT 653 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - CHILE
SITE - PIRQUE EXPERIMENT STATION ELEVATION - 654 M
LATITUDE - 33 DEG. 40 MIN. S LONGITUDE - 70 DEG. 36 MIN. W
COPERATORS - P. C. PARODI, I. M. NEBREDA
DATE PLANTED - NOVEMBER 15, 1979 DATE HARVESTED - APRIL, 1980
SOIL TYPE PH 7.7
FERTILIZER USED (KG/HA) N 48.0, P 115.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	4027.89	65.50	138.75	.00	.00	.00	.00	110.00	1.00
1	CALLAND	4015.39	65.00	135.25	.00	.00	.00	.00	98.75	2.00
9	ELF	3967.46	55.75	131.75	.00	.00	.00	.00	57.50	1.00
4	MITCHELL	3840.35	68.75	138.50	.00	.00	.00	.00	122.50	1.00
10	UNION	3813.26	68.00	137.50	.00	.00	.00	.00	127.50	2.75
15	STEELE	3732.00	47.00	124.75	.00	.00	.00	.00	86.25	1.00
2	FRANKLIN	3384.01	64.25	134.25	.00	.00	.00	.00	131.25	1.00
13	CRAWFORD	3311.08	70.25	148.50	.00	.00	.00	.00	127.50	1.00
3	CUTLER 71	3231.90	61.75	134.50	.00	.00	.00	.00	123.75	2.00
11	CORSOY	3181.89	51.75	126.25	.00	.00	.00	.00	78.75	1.00
16	COLUMBUS	3138.13	70.25	145.00	.00	.00	.00	.00	121.25	1.00
8	HODGSON	2681.79	47.25	120.25	.00	.00	.00	.00	61.25	1.00
7	HARCOR	2675.53	44.75	129.25	.00	.00	.00	.00	95.00	1.00
5	MCCALL	2356.72	38.00	125.25	.00	.00	.00	.00	65.00	1.00
12	EVANS	2283.79	41.50	120.00	.00	.00	.00	.00	66.25	1.00
6	SWIFT	2006.65	44.50	123.00	.00	.00	.00	.00	72.50	1.00
	GRAND MEAN	3227.99	56.52	132.05	.00	.00	.00	.00	96.56	1.23
	STANDARD ERROR OF A VARIETY MEAN	171.19	.36	.52	.00	.00	.00	.00	1.67	.06
	COEFFICIENT OF VARIATION	10.61%	1.28%	.79%	.00%	.00%	.00%	.00%	3.46%	10.13%
	5% LSD VARIETY MEANS (********=NS)	487.63	1.03	1.49	.00	.00	.00	.00	4.76	.18

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

YIELD	KG/HA	-.00	.64++	.52++	.00	.00	.00	.00	.42++	.32+
DAYS TO	FLOWER	.64++	1.00	.90++	.00	.00	.00	.00	.83++	.37++
DAYS TO	MATURITY	.52++	.90++	1.00	.00	.00	.00	.00	.81++	.22
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.42++	.83++	.81++	.00	.00	.00	.00	1.00	.38++
	LODGING	.32+	.37++	.22	.00	.00	.00	.00	.38++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.37++	-.04	-.10	.00	.00	.00	.00	-.05	.06
PODS PER	PLANT	.03	.34++	.54++	.00	.00	.00	.00	.38++	-.01
POD	HEIGHT	-.30+	-.07	-.15	.00	.00	.00	.00	.02	-.06
100 SEED	WEIGHT	.46++	.22	.20	.00	.00	.00	.00	-.05	.07
QUALITY	OF SEED	-.31+	-.37++	-.34++	.00	.00	.00	.00	-.39++	-.20
PERCENT	GERM.	-.03	-.15	-.08	.00	.00	.00	.00	-.26+	-.16

TABLE 21 EXPERIMENT 653 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
14	WILLIAMS	1.00	198.25	26.38	10.55	19.08	1.25	95.00	39.6	18.5
1	CALLAND	1.00	239.75	26.48	9.80	16.33	3.00	100.00	39.7	19.4
9	ELF	1.00	224.50	21.13	13.83	20.08	2.50	96.25	38.8	19.7
4	MITCHELL	1.00	198.50	23.75	16.20	18.48	2.00	92.50	35.7	19.1
10	UNION	1.00	199.50	26.28	15.80	20.03	1.25	100.00	41.2	18.8
15	STEELE	1.00	240.25	23.05	14.28	18.53	2.50	98.75	38.6	20.4
2	FRANKLIN	1.00	227.00	25.68	16.65	16.53	2.25	87.50	37.3	19.2
13	CRAWFORD	1.00	190.00	34.80	17.75	17.98	2.00	100.00	40.5	19.3
3	CUTLER 71	1.00	199.50	23.85	16.73	15.05	2.00	62.50	37.5	20.2
11	CORSOY	1.00	240.75	23.05	15.13	18.30	2.50	93.75	37.9	19.7
16	COLUMBUS	1.00	175.50	34.23	12.55	17.13	2.25	95.00	39.6	19.0
8	HODGSON	1.00	201.50	23.78	18.08	16.50	2.25	100.00	36.9	20.7
7	HARCOR	1.00	200.75	26.80	10.85	15.40	2.25	97.50	38.0	19.9
5	MCCALL	1.00	221.50	29.33	15.53	17.90	2.75	100.00	37.6	19.2
12	EVANS	1.00	167.25	20.93	14.53	16.90	2.50	100.00	38.1	21.8
6	SWIFT	1.00	172.75	23.30	17.08	16.38	3.50	95.00	37.8	20.1
	GRAND MEAN	1.00	206.08	25.80	14.71	17.53	2.30	94.61		
	STANDARD ERROR OF A VARIETY MEAN	.00	11.99	1.84	.62	.33	.34	5.53		
	COEFFICIENT OF VARIATION	.00%	11.63%	14.24%	8.47%	3.75%	29.26%	11.69%		
	5% LSD VARIETY MEANS (********=NS)	.00	34.15	5.23	1.77	.94	.96	15.75		

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

YIELD	KG/HA	.00	.37++	.03	-.30+	.46++	-.31+	-.03
DAYS TO	FLOWER	.00	-.04	.34++	-.07	.22	-.37++	-.15
DAYS TO	MATURITY	.00	-.10	.54++	-.15	.20	-.34++	-.08
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	-.05	.38++	.02	-.05	-.39++	-.26+
	LODGING	.00	.06	-.01	-.06	.07	-.20	-.16
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.04	-.08	.15	-.06	-.08
PODS PER	PLANT	.00	-.04	1.00	-.01	-.02	-.11	.07
POD	HEIGHT	.00	-.08	-.01	1.00	.00	.07	-.12
100 SEED	WEIGHT	.00	.15	-.02	.00	1.00	-.23	.30+
QUALITY	OF SEED	.00	-.06	-.11	.07	-.23	1.00	.33++
PERCENT	GERM.	.00	-.08	.07	-.12	.30+	.33++	1.00

TABLE 22 EXPERIMENT 575 YEAR 1979

REGION - ASIA
SITE - SHANHUA
LATITUDE - 22 DEG. 30 MIN. N
COOPERATOR - S. SHANMUGASUNDARAM
DATE PLANTED - SEPTEMBER 21, 1979
SOIL TYPE - SAND 22%, SILT 54%, CLAY 24%, PH 8.6
FERTILIZER USED (KG/HA) - N 40.0, P 35.2, K 83.0
SUBSTITUTE VARIETY - AGS 66

COUNTRY - TAIWAN
ELEVATION - 9 M
LONGITUDE - 120 DEG. 17 MIN. E
DATE HARVESTED - DECEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	CUTLER	833.08	24.00	76.00	1.00	1.00	100.00	100.00	33.50	1.75
11	CALLAND	833.08	24.75	78.00	1.00	1.00	100.00	100.00	35.75	1.25
14	MITCHELL	832.67	25.50	76.25	1.00	1.00	100.00	100.00	33.25	1.75
9	DAVIS	821.83	27.75	80.75	1.00	1.00	100.00	100.00	33.75	1.25
6	AGS 66	820.16	26.50	76.00	1.00	1.00	100.00	100.00	26.50	1.25
7	JAMES	803.08	25.00	77.50	1.00	1.00	100.00	100.00	34.00	1.50
10	GASOY 17	796.41	25.00	74.75	1.00	1.00	100.00	100.00	26.00	1.25
12	FRANKLIN	794.33	25.00	75.25	1.00	1.00	100.00	100.00	30.00	1.50
4	WILLIAMS	787.24	23.50	74.50	1.00	1.00	100.00	100.00	30.75	2.00
3	BOSSIER	755.98	27.75	78.50	1.00	1.00	100.00	100.00	36.25	1.50
16	ACC 2120	738.90	52.00	98.25	1.00	1.00	100.00	100.00	92.25	2.00
5	RANSOM	708.06	26.00	76.00	1.00	1.00	100.00	100.00	25.00	1.50
15	BRAGG	670.55	25.25	74.25	1.50	1.25	100.00	100.00	28.25	1.50
1	IMPROVED PELICAN	659.30	32.00	95.75	2.00	1.50	100.00	100.00	42.75	1.25
2	RILLITO	654.30	26.00	74.75	1.00	1.00	100.00	100.00	31.00	1.50
8	FORREST	473.43	27.25	75.75	1.00	1.00	100.00	100.00	29.50	1.50
	GRAND MEAN	748.90	27.70	78.89	1.09	1.05	100.00	100.00	35.53	1.52
	STANDARD ERROR OF A VARIETY MEAN	52.39	.66	.74	.19	.14	.00	.00	2.33	.23
	COEFFICIENT OF VARIATION	13.99%	4.74%	1.88%	35.57%	26.94%	.00%	.00%	13.14%	30.83%
	5% LSD VARIETY MEANS (********=NS)	149.23	1.87	2.12	.55	********	.00	.00	6.65	********

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

YIELD	KG/HA	1.00	-.09	.01	-.13	-.19	.00	.00	-.04	.16
DAYS TO	FLOWER	-.09	1.00	.83++	.07	.05	.00	.00	.92++	.19
DAYS TO	MATURITY	.01	.83++	1.00	.30+	.20	.00	.00	.78++	.12
NODULE	ABUND 1	-.13	.07	.30+	1.00	-.04	.00	.00	.00	-.08
NODULE	ABUND 2	-.19	.05	.20	-.04	1.00	.00	.00	.02	-.18
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.04	.92++	.78++	.00	.02	.00	.00	1.00	.21
	LODGING	.16	.19	.12	-.08	-.18	.00	.00	.21	1.00
	SHATTER	.27+	-.23	-.28+	-.15	.01	.00	.00	-.23	.05
PLANTS	HARVEST	.25+	-.10	-.37++	-.51++	-.40++	.00	.00	-.04	.20
PODS PER	PLANT	.12	.45++	.67++	.36++	.33++	.00	.00	.42++	-.03
POD	HEIGHT	-.04	.71++	.82++	.27+	.18	.00	.00	.75++	.25+
100 SEED	WEIGHT	.48++	-.60++	-.30+	.10	.11	.00	.00	-.52++	.11
QUALITY	OF SEED	-.51++	.09	-.19	-.07	.04	.00	.00	.09	-.05
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 22 EXPERIMENT 575 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
13	CUTLER	1.50	180.25	12.75	9.75	15.13	1.25	.00
11	CALLAND	1.25	191.25	15.50	9.75	14.45	1.00	.00
14	MITCHELL	2.00	180.00	12.75	9.75	13.78	1.75	.00
9	DAVIS	1.00	180.75	16.75	9.75	11.95	1.25	.00
6	AGS 66	1.75	171.50	15.25	9.00	11.73	1.25	.00
7	JAMES	1.25	179.75	14.50	10.00	13.83	1.50	.00
10	GASOY 17	1.50	190.50	14.00	8.50	12.30	1.75	.00
12	FRANKLIN	1.75	158.25	13.25	9.50	13.20	1.50	.00
4	WILLIAMS	1.00	192.50	12.25	9.75	13.68	1.25	.00
3	BOSSIER	1.00	185.75	16.25	8.75	11.93	1.50	.00
16	ACC 2120	1.00	187.25	19.25	14.25	8.30	1.75	.00
5	RANSOM	1.25	175.75	15.00	8.75	12.48	1.25	.00
15	BRAGG	1.25	170.00	14.00	9.00	12.93	2.00	.00
1	IMPROVED PELICAN	1.00	57.00	23.75	13.25	13.43	1.00	.00
2	RILLITO	1.25	146.25	13.75	9.00	12.28	1.75	.00
8	FORREST	1.25	177.50	11.75	8.75	10.05	2.50	.00
	GRAND MEAN	1.31	170.27	15.05	9.84	12.59	1.52	.00
	STANDARD ERROR OF A VARIETY MEAN	.20	10.91	1.46	.45	.54	.24	.00
	COEFFICIENT OF VARIATION	31.10%	12.82%	19.40%	9.06%	8.58%	31.22%	.00%
	5% LSD VARIETY MEANS (********=NS)	.58	31.08	4.16	1.27	1.54	.67	.00

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

YIELD	KG/HA	.27+	.25+	.12	-.04	.48++	-.51++	.00
DAYS TO	FLOWER	-.23	-.10	.45++	.71++	-.60++	.09	.00
DAYS TO	MATURITY	-.28+	-.37++	.67++	.82++	-.30+	-.19	.00
NODULE	ABUND 1	-.15	-.51++	.36++	.27+	.10	-.07	.00
NODULE	ABUND 2	.01	-.40++	.33++	.18	.11	.04	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.23	-.04	.42++	.75++	-.52++	.09	.00
	LODGING	.05	.20	-.03	.25+	.11	-.05	.00
	SHATTER	1.00	.08	-.22	-.23	.21	.15	.00
PLANTS	HARVEST	.08	1.00	-.49++	-.30+	-.03	.06	.00
PODS PER	PLANT	-.22	-.49++	1.00	.54++	-.05	-.23	.00
POD	HEIGHT	-.23	-.30+	.54++	1.00	-.20	-.14	.00
100 SEED	WEIGHT	.21	-.03	-.05	-.20	1.00	-.46++	.00
QUALITY	OF SEED	.15	.06	-.23	-.14	-.46++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 23 EXPERIMENT 449 YEAR 1979

REGION - SOUTH AMERICA
SITE - CENTRO EXPERIMENTAL MOTILONIA
LATITUDE - 10 DEG. 2 MIN. N
COOPERATOR - GUILLERMO ARRIETA, GILBERTO BASTIDAS
DATE PLANTED - AUGUST 7,1979
AMOUNT OF MOISTURE - 896.2 MM

COUNTRY - COLOMBIA
ELEVATION - 130 M
LONGITUDE - 73 DEG. 3 MIN. W
DATE HARVESTED - NOVEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UF V-1 (PUERTO RICO)	4041.02	31.50	80.00	.00	.00	.00	.00	40.00	1.00
4	HARDEE LS	3686.91	35.75	95.00	.00	.00	.00	.00	84.75	1.00
9	JUPITER	3416.12	39.50	90.00	.00	.00	.00	.00	72.75	1.25
8	CARIBE	3291.14	32.00	95.00	.00	.00	.00	.00	101.00	1.00
7	TUNIA	3009.93	24.25	75.00	.00	.00	.00	.00	71.00	1.50
15	RANSOM	2879.75	22.00	70.00	.00	.00	.00	.00	40.75	1.00
12	RILLITO	2754.77	25.00	75.00	.00	.00	.00	.00	50.75	1.00
19	DAVIS	2692.28	25.00	75.00	.00	.00	.00	.00	35.25	1.00
14	WILLIAMS	2634.99	22.00	70.00	.00	.00	.00	.00	66.75	1.25
5	ORBA	2582.92	30.00	70.00	.00	.00	.00	.00	82.25	4.50
3	SJ-2	2291.30	32.00	75.00	.00	.00	.00	.00	74.75	2.25
6	IAC-2	2260.05	32.00	80.00	.00	.00	.00	.00	99.73	1.00
1	CH-3	2166.32	32.00	80.00	.00	.00	.00	.00	105.50	1.00
37	ACC 2120	2020.51	43.50	75.00	.00	.00	.00	.00	103.25	4.00
	GRAND MEAN	2837.72	30.46	78.93	.00	.00	.00	.00	73.46	1.63
	STANDARD ERROR OF A VARIETY MEAN	269.14	1.33	.00	.00	.00	.00	.00	4.13	.37
	COEFFICIENT OF VARIATION	18.97%	8.72%	.00%	.00%	.00%	.00%	.00%	11.24%	45.37%
	5% LSD VARIETY MEANS (********=NS)	769.90	3.80	.00	.00	.00	.00	.00	11.81	1.05

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

YIELD	KG/HA	1.00	.07	.42++	.00	.00	.00	.00	-.25	-.37++
DAYS TO	FLOWER	.07	1.00	.50++	.00	.00	.00	.00	.55++	.31+
DAYS TO	MATURITY	.42++	.50++	1.00	.00	.00	.00	.00	.37++	-.33+
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.25	.55++	.37++	.00	.00	.00	.00	1.00	.22
	LODGING	-.37++	.31+	-.33+	.00	.00	.00	.00	.22	1.00
	SHATTER	-.09	-.02	-.30+	.00	.00	.00	.00	.10	.61++
PLANTS	HARVEST	-.20	-.00	-.47++	.00	.00	.00	.00	.01	.47++
PODS PER	PLANT	.15	.31+	.53++	.00	.00	.00	.00	.34+	-.05
POD	HEIGHT	-.11	.07	.08	.00	.00	.00	.00	.18	.06
100 SEED	WEIGHT	.37++	-.65++	-.03	.00	.00	.00	.00	-.61++	-.59++
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 23 EXPERIMENT 449 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	UF V-1 (PUERTO RICO)	1.00	91.00	71.25	7.25	18.20	.00	.00	45.5	21.6
4	HARDEE LS	1.00	33.50	161.25	16.00	16.50	.00	.00	41.7	23.7
9	JUPITER	1.00	47.50	72.75	12.25	14.40	.00	.00	40.4	24.0
8	CARIBE	1.00	80.25	129.00	14.50	13.40	.00	.00	45.5	20.7
7	TUNIA	1.00	68.50	71.25	14.50	16.10	.00	.00	41.0	24.0
15	RANSOM	1.00	97.75	48.75	7.00	19.20	.00	.00	42.6	26.0
12	RILLITO	1.00	61.50	63.25	8.50	17.70	.00	.00	42.6	25.0
19	DAVIS	1.00	92.00	59.00	23.75	17.00	.00	.00	41.5	23.7
14	WILLIAMS	1.00	98.75	36.00	11.00	15.20	.00	.00	41.7	25.7
5	ORBA	3.00	114.00	58.00	15.25	14.30	.00	.00	46.6	21.2
3	SJ-2	1.00	31.75	161.75	9.00	12.90	.00	.00	41.6	23.2
6	IAC-2	1.00	58.00	80.00	19.00	16.00	.00	.00	43.1	23.3
1	CH-3	1.00	74.50	74.75	14.50	15.00	.00	.00	45.8	21.7
37	ACC 2120	1.00	142.75	78.00	15.50	5.00	.00	.00	41.1	20.4
	GRAND MEAN	1.14	77.98	83.21	13.43	15.06	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	5.81	14.13	5.20	.00	.00	.00		
	COEFFICIENT OF VARIATION	.00%	14.90%	33.95%	77.49%	.00%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	16.61	40.41	********	.00	.00	.00		

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

YIELD	KG/HA	-.09	-.20	.15	-.11	.37++	.00	.00
DAYS TO	FLOWER	-.02	-.00	.31+	.07	-.65++	.00	.00
DAYS TO	MATURITY	-.30+	-.47++	.53++	.08	-.03	.00	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.10	.01	.34+	.19	-.61++	.00	.00
	LODGING	.61++	.47++	-.05	.06	-.59++	.00	.00
	SHATTER	1.00	.31+	-.16	.05	-.06	.00	.00
PLANTS	HARVEST	.31+	1.00	-.52++	.08	-.37++	.00	.00
PODS PER	PLANT	-.16	-.52++	1.00	.08	-.17	.00	.00
POD	HEIGHT	.05	.08	.08	1.00	-.09	.00	.00
100 SEED	WEIGHT	-.06	-.37++	-.17	-.09	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 24 EXPERIMENT 494 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - COLOMBIA
SITE - PALMIRA ELEVATION - 1080 M
LATITUDE - 3 DEG. 32 MIN. N LONGITUDE - 76 DEG. 19 MIN. W
COOPERATORS - GILBERTO BASTIDAS, ORLANDO AGUDELO, RAUL VARELA
DATE HARVESTED - JULY, 1979
SOIL TYPE - SAND 39%, SILT 35%, CLAY 25%, PH 6.7
AMOUNT OF MOISTURE - 382 MM
NUMBER OF IRRIGATIONS - 2 (50 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
15	DAVIS	3409.01	30.00	92.00	1.75	1.00	76.75	97.25	48.00	1.00
7	TUNIA	2817.23	28.00	98.00	2.00	1.00	78.25	97.50	67.00	1.00
2	UFV-1	2742.21	30.00	100.00	2.00	1.00	91.25	92.00	48.00	1.00
3	SJ-2	2679.70	32.00	99.00	2.00	1.00	61.50	68.75	70.00	4.00
4	HARDEE LS	2437.99	48.00	109.00	1.75	1.00	71.75	87.25	78.00	2.00
10	IMPROVED PELICAN	2404.65	31.00	98.00	2.00	1.00	80.75	78.25	74.00	2.00
8	CARIBE	2379.64	32.00	105.00	1.75	1.00	85.50	85.25	83.00	4.00
12	BOSSIER	2342.13	26.00	93.00	2.00	1.00	90.25	83.75	40.00	1.00
6	IAC-2	2321.30	29.00	93.00	2.00	1.00	81.50	85.00	89.00	4.00
11	RILLITO	2283.79	25.00	91.00	1.75	1.00	68.25	97.00	41.00	1.00
13	WILLIAMS	2271.29	26.00	84.00	1.25	1.00	58.25	95.00	41.00	1.00
5	ORBA	2208.77	39.00	91.00	1.50	1.25	61.00	64.25	[illegible].00	5.00
9	JUPITER	2042.07	45.00	115.00	1.50	1.00	58.50	84.00	85.00	3.00
14	RANSOM	1992.06	26.00	91.00	1.75	1.00	90.50	100.00	37.00	1.00
16	ACC 2120	1975.39	51.00	103.00	2.00	1.00	82.25	76.00	97.00	5.00
1	CH-3	1946.22	32.00	103.00	1.75	1.00	85.25	96.50	92.00	4.00
	GRAND MEAN	2390.84	33.13	97.81	1.80	1.02	78.22	86.98	66.75	2.50
	STANDARD ERROR OF A VARIETY MEAN	155.22	.00	.00	.20	.06	6.85	4.06	.00	.00
	COEFFICIENT OF VARIATION	12.98%	.00%	.00%	22.07%	12.31%	17.51%	9.34%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	442.13	.00	.00	********	********	19.50	11.57	.00	.00

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

YIELD	KG/HA	1.00	-.23	-.14	.08	.09	-.02	-.01	-.27+	-.33++
DAYS TO	FLOWER	-.23	1.00	.69++	-.04	.09	-.28+	-.41++	.67++	.56++
DAYS TO	MATURITY	-.14	.69++	1.00	.08	-.11	-.20	-.18	.64++	.35++
NODULE	ABUND 1	.08	-.04	.08	1.00	-.25+	-.11	-.07	.07	.01
NODULE	ABUND 2	.09	.09	-.11	-.25+	1.00	.01	-.34++	.04	.20
NODULE	ACT. 1	-.02	-.28+	-.20	-.11	.01	1.00	.36++	-.18	-.24
NODULE	ACT. 2	-.01	-.41++	-.18	-.07	-.34++	.36++	1.00	-.39++	-.60++
PLANT	HEIGHT	-.27+	.67++	.64++	.07	.04	-.18	-.39++	1.00	.82++
	LODGING	-.33++	.56++	.35++	.01	.20	-.24	-.60++	.82++	1.00
	SHATTER	-.10	.19	-.23	-.19	.49++	-.28+	-.46++	.08	.42++
PLANTS	HARVEST	.10	-.37++	-.58++	-.08	.08	.29+	.16	-.22	.01
PODS PER	PLANT	-.11	.76++	.65++	-.01	.03	-.29+	-.39++	.58++	.42++
POD	HEIGHT	-.33++	.69++	.70++	-.04	.07	-.35++	-.40++	.82++	.67++
100 SEED	WEIGHT	.19	-.65++	-.41++	-.14	-.11	.13	.59++	-.81++	-.85++
QUALITY	OF SEED	-.27+	.83++	.64++	.00	-.07	-.07	-.22	.58++	.45++
PERCENT	GERM.	.05	.40++	-.03	-.03	.12	-.20	-.22	-.05	-.07

TABLE 24 EXPERIMENT 494 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
15	DAVIS	1.00	225.00	36.50	7.00	18.80	1.00	94.00	42.2	22.1
7	TUNIA	1.00	193.00	36.25	8.00	19.00	1.00	96.00	42.4	23.0
2	UFV-1	1.00	169.75	40.75	4.00	19.60	1.00	95.00	44.3	21.7
3	SJ-2	1.00	140.50	67.75	11.00	15.00	1.00	96.00	44.2	21.3
4	HARDEE LS	1.00	62.25	125.00	12.00	17.60	2.00	97.00	41.2	25.0
10	IMPROVED PELICAN	1.00	107.25	56.75	11.00	14.40	1.00	93.00	44.2	23.0
8	CARIBE	1.00	181.50	55.00	9.00	13.00	2.00	79.00	45.8	19.7
12	BOSSIER	1.00	205.00	36.50	8.00	19.40	1.00	94.00	43.5	21.9
6	IAC-2	1.00	202.75	49.50	12.00	15.80	1.00	91.00	44.5	21.4
11	RILLITO	1.00	178.75	30.25	5.00	20.80	1.00	88.00	43.2	21.9
13	WILLIAMS	1.00	234.75	24.00	5.00	21.00	1.00	96.00	43.5	22.8
5	ORBA	5.00	202.50	58.25	12.00	13.80	1.00	98.00	42.3	19.8
9	JUPITER	1.00	122.75	73.00	20.00	17.20	2.00	97.00	45.0	21.0
14	RANSOM	1.00	195.50	34.50	5.00	22.40	1.00	93.00	42.4	24.3
16	ACC 2120	1.00	220.25	80.75	13.00	7.20	3.00	98.00	44.8	17.1
1	CH-3	1.00	198.75	60.50	15.00	15.80	1.00	89.00	43.9	20.6
	GRAND MEAN	1.25	177.52	54.08	9.81	16.93	1.31	93.38		
	STANDARD ERROR OF A VARIETY MEAN	.00	12.15	7.31	.00	.00	.00	.00		
	COEFFICIENT OF VARIATION	.00%	13.69%	27.02%	.00%	.00%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	34.61	20.81	.00	.00	.00	.00		

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

YIELD	KG/HA	-.10	.10	-.11	-.33++	.19	-.27+	.05
DAYS TO	FLOWER	.19	-.37++	.76++	.69++	-.65++	.83++	.40++
DAYS TO	MATURITY	-.23	-.58++	.65++	.70++	-.41++	.64++	-.03
NODULE	ABUND 1	-.19	-.08	-.01	-.04	-.14	.00	-.03
NODULE	ABUND 2	.49++	.08	.03	.07	-.11	-.07	.12
NODULE	ACT. 1	-.28+	.29+	-.29+	-.35++	.13	-.07	-.20
NODULE	ACT. 2	-.46++	.16	-.39++	-.40++	.59++	-.22	-.22
PLANT	HEIGHT	.08	-.22	.58++	.82++	-.81++	.58++	-.05
	LODGING	.42++	.01	.42++	.67++	-.85++	.45++	-.07
	SHATTER	1.00	.13	.04	.14	-.22	-.14	.25+
PLANTS	HARVEST	.13	1.00	-.62++	-.34++	.03	-.17	-.10
PODS PER	PLANT	.04	-.62++	1.00	.57++	-.46++	.57++	.21
POD	HEIGHT	.14	-.34++	.57++	1.00	-.56++	.46++	.17
100 SEED	WEIGHT	-.22	.03	-.46++	-.56++	1.00	-.65++	.02
QUALITY	OF SEED	-.14	-.17	.57++	.46++	-.65++	1.00	.05
PERCENT	GERM.	.25+	-.10	.21	.17	.02	.05	1.00

TABLE 25 EXPERIMENT 461 YEAR 1979

REGION - MESO AMERICA COUNTRY - CUBA
SITE - ESTACION CENTRAL DE PAPA, GRANOS Y FIBRAS, ALQUIZAR, ELEVATION-50 M
LATITUDE - 23 DEG. 51 MIN. N LONGITUDE - 82 DEG. 31 MIN. W
COOPERATOR - MANUEL IRANETA IRANETA, RAMON ARIAS OTERO
DATE PLANTED - AUGUST 20, 1979 DATE HARVESTED - DECEMBER, 1979
SOIL TYPE - MATANZAS, SAND 7.68%, SILT 13.38%, CLAY 78.93%, PH 6.4
FERTILIZER USED (KG/HA) - N 30.0, P 33.0, K 87.2
AMOUNT OF MOISTURE - 675 MM
NUMBER OF IRRIGATIONS - 3 (90 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	JUPITER	3267.32	43.00	105.75	3.25	.00	96.25	.00	82.25	1.25
12	BOSSIER	3211.06	23.75	101.00	1.25	.00	93.75	.00	57.75	1.00
4	HARDEE LS	3131.88	44.75	109.00	1.75	.00	97.50	.00	83.00	2.00
15	DAVIS	3067.28	28.00	100.00	2.50	.00	96.25	.00	41.75	1.00
7	TUNIA	2831.82	29.00	100.00	1.50	.00	95.00	.00	78.25	1.00
11	RILLITO	2527.59	24.25	100.00	1.75	.00	91.25	.00	37.25	1.00
1	CH-3	2496.33	33.75	100.00	3.00	.00	96.25	.00	112.00	2.75
3	SJ-2	2488.00	35.00	100.00	3.00	.00	91.25	.00	83.00	2.75
14	RANSOM	2435.90	23.50	100.00	1.25	.00	98.75	.00	34.75	1.00
2	UFV-1	2365.06	34.00	102.00	2.00	.00	97.50	.00	39.25	1.00
6	IAC-2	2319.21	34.25	100.00	2.00	.00	98.75	.00	104.75	2.25
13	WILLIAMS	2271.29	23.25	88.00	3.00	.00	83.75	.00	65.25	1.00
8	CARIBE	2131.68	37.75	107.00	2.25	.00	97.50	.00	96.25	2.00
10	IMPROVED PELICAN	2073.33	35.25	100.00	2.50	.00	81.25	.00	84.00	2.00
16	ACC 2120	2044.16	44.75	100.00	1.75	.00	98.75	.00	104.25	2.75
5	ORBA	1454.46	33.75	89.00	1.25	.00	93.75	.00	91.00	3.50
	GRAND MEAN	2507.27	33.00	100.11	2.13	.00	94.22	.00	74.67	1.77
	STANDARD ERROR OF A VARIETY MEAN	204.22	.34	.31	.50	.00	4.90	.00	3.41	.16
	COEFFICIENT OF VARIATION	16.29%	2.04%	.62%	46.60%	.00%	10.40%	.00%	9.14%	18.07%
	5% LSD VARIETY MEANS (********=NS)	581.71	.96	.89	1.41	.00	********	.00	9.72	.45

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

YIELD	KG/HA	1.00	-.03	.45++	.21	.00	.04	.00	-.20	-.46++
DAYS TO	FLOWER	-.03	1.00	.50++	.14	.00	.15	.00	.62++	.52++
DAYS TO	MATURITY	.45++	.50++	1.00	.01	.00	.21	.00	.06	-.15
NODULE	ABUND 1	.21	.14	.01	1.00	.00	-.17	.00	.17	-.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.04	.15	.21	-.17	.00	1.00	.00	.11	.02
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.20	.62++	.06	.17	.00	.11	.00	1.00	.74++
	LODGING	-.46++	.52++	-.15	-.00	.00	.02	.00	.74++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	-.00	-.24	-.26+	-.00	.00	.19	.00	.15	.04
PODS PER	PLANT	.09	.57++	.52++	.15	.00	-.04	.00	.19	.17
POD	HEIGHT	.04	.55++	.22	.23	.00	-.02	.00.	.78++	.45++
100 SEED	WEIGHT	.47++	-.45++	.10	.04	.00	-.00	.00	-.56++	-.66++
QUALITY	OF SEED	.11	-.69++	-.27+	-.22	.00	.04	.00	-.50++	-.39++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 25 EXPERIMENT 461 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	1.00	120.25	56.75	16.80	22.63	1.50	.00	41.3	21.5
12	BOSSIER	1.00	133.75	55.75	11.65	20.68	3.00	.00	43.7	20.4
4	HARDEE LS	1.00	108.25	63.00	13.90	18.18	1.50	.00	42.6	21.3
15	DAVIS	1.00	153.25	41.75	7.33	18.30	2.75	.00	40.6	22.5
7	TUNIA	1.00	123.50	43.00	13.95	18.95	1.50	.00	40.9	22.2
11	RILLITO	1.00	132.75	41.25	8.00	19.43	2.75	.00	41.8	22.7
1	CH-3	1.00	141.50	43.50	15.53	16.65	2.00	.00	42.7	19.3
3	SJ-2	1.00	113.25	70.75	13.03	15.23	1.00	.00	43.1	21.0
14	RANSOM	1.00	131.50	31.25	6.83	20.98	3.50	.00	41.0	24.2
2	UFV-1	1.00	77.00	67.25	6.68	21.45	1.75	.00	44.5	19.7
6	IAC-2	1.00	140.50	50.25	15.58	17.88	2.75	.00	41.9	20.9
13	WILLIAMS	1.00	147.50	28.50	9.38	19.03	2.50	.00	42.0	22.9
8	CARIBE	1.00	137.50	63.00	15.10	12.83	1.00	.00	45.1	18.3
10	IMPROVED PELICAN	1.00	81.50	61.25	12.58	16.25	1.00	.00	43.3	21.5
16	ACC 2120	1.00	134.00	72.50	12.50	6.98	1.00	.00	44.5	14.6
5	ORBA	1.00	139.25	32.25	13.53	14.30	2.00	.00	41.5	19.6
	GRAND MEAN	1.00	125.95	51.38	12.02	17.48	1.97	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	9.00	5.29	.88	.67	.21	.00		
	COEFFICIENT OF VARIATION	.00%	14.29%	20.58%	14.57%	7.64%	21.16%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	25.64	15.06	2.49	1.90	.59	.00		

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

YIELD	KG/HA	.00	-.00	.09	.04	.47++	.11	.00
DAYS TO	FLOWER	.00	-.24	.57++	.55++	-.45++	-.69++	.00
DAYS TO	MATURITY	.00	-.26+	.52++	.22	.10	-.27+	.00
NODULE	ABUND 1	.00	-.00	.15	.23	.04	-.22	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.19	-.04	-.02	-.00	.04	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.15	.19	.78++	-.56++	-.50++	.00
	LODGING	.00	.04	.17	.45++	-.66++	-.39++	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.54++	.13	-.13	.35++	.00
PODS PER	PLANT	.00	-.54++	1.00	.20	-.29+	-.53++	.00
POD	HEIGHT	.00	.13	.20	1.00	-.22	-.42++	.00
100 SEED	WEIGHT	.00	-.13	-.29+	-.22	1.00	.47++	.00
QUALITY	OF SEED	.00	.35++	-.53++	-.42++	.47++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 26 EXPERIMENT 602 YEAR 1979

REGION - EUROPE
SITE - PIESTANY
LATITUDE - 48 DEG. 38 MIN. N
COOPERATORS - ING. TEODOR SINSKY, CSC
DATE PLANTED - MAY 11, 1979
SOIL TYPE - SAND 30 %, SILT 21 %, CLAY 49 %, PH 7.15
FERTILIZER USED (KG/HA) P 50, K 50
AMOUNT OF MOISTURE - 361.1MM
LOCAL VARIETIES ZORA & DUNAJKA

COUNTRY - CZECHOSLOVAKIA
ELEVATION - 160M
LONGITUDE - 17 DEG. 49 MIN. W
ING. LUBOMIR PASTUCHA
DATE HARVESTED - AUGUST 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
3	MC CALL	2242.11	32.75	138.00	3.00	1.50	92.50	96.25	83.50	1.25
2	EVANS	2152.51	44.25	142.50	2.75	1.50	92.50	76.25	98.75	1.25
1	HARCOR	2137.93	68.50	156.00	3.25	1.75	80.00	71.25	118.75	3.00
8	HARLON	2037.91	48.50	156.00	4.00	2.50	92.50	81.25	122.75	3.25
11	NORMAN	1992.06	36.50	130.50	3.25	2.00	95.00	92.50	86.75	2.00
16	DUNAJKA	1975.39	48.50	136.50	3.25	2.75	91.25	60.00	104.25	4.00
6	FLAMBEAU	1958.72	36.00	142.50	3.50	2.50	91.25	83.75	97.50	3.25
12	TRAVERSE	1946.22	37.75	147.00	2.75	1.00	97.50	82.50	91.50	1.50
15	ZORA	1860.79	36.00	135.75	3.00	2.25	95.00	87.50	103.25	2.75
7	ADA	1783.69	37.75	138.00	2.75	1.75	92.50	86.25	93.25	2.00
13	VANSOY	1762.85	41.25	140.00	3.00	1.75	95.00	77.50	109.75	2.50
10	CLAY	1681.59	44.25	147.00	3.75	1.75	88.75	53.75	84.75	1.50
14	PORTAGE	1627.41	36.00	138.00	3.25	2.25	87.50	90.00	83.50	1.00
5	FISKEBY	1287.76	29.25	93.00	3.75	2.25	93.75	97.50	46.75	1.00
9	GRANDE	1023.12	37.75	159.00	3.25	1.50	95.00	83.75	103.75	2.25
4	ACMO	748.07	37.75	138.00	3.25	1.75	91.25	93.75	69.50	1.00
	GRAND MEAN	1763.63	40.80	139.86	3.23	1.92	91.95	82.[illegible]1	93.64	2.09
	STANDARD ERROR OF A VARIETY MEAN	211.38	1.01	2.02	.21	.28	4.16	8.77	3.48	.31
	COEFFICIENT OF VARIATION	23.97%	4.97%	2.89%	13.20%	28.71%	9.04%	21.37%	7.44%	29.30%
	5% LSD VARIETY MEANS (********=NS)	602.11	2.89	5.76	.61	.79	********	24.99	9.93	.87

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

YIELD	KG/HA	1.00	.24	.12	-.08	-.05	-.06	-.02	.38++	.26+
DAYS TO	FLOWER	.24	1.00	.53++	.06	.04	-.35++	-.42++	.61++	.43++
DAYS TO	MATURITY	.12	.53++	1.00	-.08	-.18	-.13	-.26+	.72++	.30+
NODULE	ABUND 1	-.08	.06	-	1.00	.32++	-.03	-.19	-.05	.05
NODULE	ABUND 2	-.05	.04	-	.32++	1.00	.12	-.14	.13	.36++
NODULE	ACT. 1	-.06	-.35++	-.13	-.03	.12	1.00	.03	-.07	-.05
NODULE	ACT. 2	-.02	-.42++	-.26+	-.19	-.14	.03	1.00	-.25+	-.20
PLANT	HEIGHT	.38++	.61++	.72++	-.05	.13	-.07	-.25+	1.00	.63++
	LODGING	.26+	.43++	.30+	.05	.36++	-.05	-.20	.63++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.67++	.12	-.21	-.04	.19	.01	-.06	.25+	.48++
PODS PER	PLANT	-.26+	.33++	.23	-.15	.01	-.00	-.02	.21	.08
POD	HEIGHT	.37++	.80++	.35++	-.01	-.07	-.33++	-.28+	.59++	.36++
100 SEED	WEIGHT	-.18	-.47++	.09	-.03	-.11	.20	.16	-.20	-.27[illegible]
QUALITY	OF SEED	.11	.41++	.62++	.15	-.05	-.14	-.20	.43++	.26+
PERCENT	GERM.	.32++	.36++	-.10	.08	.11	-.03	-.12	.22	.23

TABLE 26 EXPERIMENT 602 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
3	MC CALL	1.00	183.25	25.75	8.50	18.23	2.00	91.00	43.2	14.9
2	EVANS	1.00	120.00	35.75	16.25	20.15	2.00	74.00	43.3	17.0
1	HARCOR	1.00	167.00	38.75	25.00	13.80	3.00	95.50	42.8	14.2
8	HARLON	1.00	158.25	27.25	13.25	22.25	3.00	88.25	42.6	16.6
11	NORMAN	1.00	169.00	30.50	13.25	21.68	3.00	70.50	44.0	15.3
16	DUNAJKA	1.00	235.25	44.50	15.50	15.18	2.00	97.50	43.0	17.5
6	FLAMBEAU	1.00	158.75	15.50	9.00	20.78	3.00	71.50	43.5	14.0
12	TRAVERSE	1.00	129.25	21.25	9.00	21.05	2.00	87.50	43.0	15.2
15	ZORA	1.00	181.25	30.00	12.00	20.50	1.00	81.00	43.0	17.0
7	ADA	1.00	147.25	27.25	13.50	22.88	3.00	71.75	44.8	14.8
13	VANSOY	1.00	167.25	29.75	15.50	17.48	2.00	82.25	44.9	13.9
10	CLAY	1.00	95.50	29.75	12.00	21.93	3.00	73.75	42.1	16.7
14	PORTAGE	1.00	127.25	26.00	11.00	24.60	2.00	57.75	43.6	14.9
5	FISKEBY	1.00	149.00	19.75	8.00	19.93	1.00	87.00	40.1	17.3
9	GRANDE	1.00	62.75	42.25	11.75	25.10	3.00	62.00	41.8	11.8
4	ACMO	1.00	64.75	41.00	8.50	18.83	2.00	70.50	43.6	14.5
	GRAND MEAN	1.00	144.73	30.31	12.63	20.27	2.31	78.86		
	STANDARD ERROR OF A VARIETY MEAN	.00	18.86	4.26	1.20	.95	.00	4.34		
	COEFFICIENT OF VARIATION	.00%	26.07%	28.08%	19.02%	9.35%	.00%	11.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	53.73	12.12	3.42	2.70	.00	12.35		

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

YIELD KG/HA	.00	.67++	-.26+	.37++	-.18	.11	.32++
DAYS TO FLOWER	.00	.12	.33++	.80++	-.47++	.41++	.36++
DAYS TO MATURITY	.00	-.21	.23	.35++	.09	.62++	-.10
NODULE ABUND 1	.00	-.04	-.15	-.01	-.03	.15	.08
NODULE ABUND 2	.00	.19	.01	-.07	-.11	-.05	.11
NODULE ACT. 1	.00	.01	-.00	-.33++	.20	-.14	-.03
NODULE ACT. 2	.00	-.06	-.02	-.28+	.16	-.20	-.12
PLANT HEIGHT	.00	.25+	.21	.59	-.20	.43++	.22
LODGING	.00	.48++	.08	.36+	-.27+	.26+	.23
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.18	.31+	-.38++	-.16	.45++
PODS PER PLANT	.00	-.18	1.00	.18	-.27+	.08	.06
POD HEIGHT	.00	.31+	.18	1.00	-.44++	.29+	.25+
100 SEED WEIGHT	.00	-.38++	-.27+	-.44++	1.00	.18	-.60++
QUALITY OF SEED	.00	-.16	.08	.29+	.18	1.00	-.20
PERCENT GERM.	.00	.45++	.06	.25+	-.60++	-.20	1.00

TABLE 27 EXPERIMENT 467 YEAR 1979

REGION - SOUTH AMERICA
SITE - BOLICHE
LATITUDE - 2 DEG. 15 MIN. S
COOPERATOR - ING. EDUARDO MALDONADO
DATE PLANTED - JUNE 19, 1979
SOIL TYPE - SAND 10%, SILT 10%, CLAY 80%, PH 6.9
AMOUNT OF MOISTURE - 120 MM
NUMBER OF IRRIGATIONS - 4 (120 MM)
SUBSTITUTE VARIETIES - ECUADOR 1, ECUADOR 2

COUNTRY - ECUADOR
ELEVATION - 14 M
LONGITUDE - 79 DEG. 38 MIN. W
DATE HARVESTED - OCTOBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	DAVIS	3388.18	39.00	113.00	4.50	4.00	50.00	80.00	43.50	1.00
7	TUNIA	3273.57	34.00	107.75	4.00	3.75	100.00	97.50	55.00	1.00
2	UFV-1	3146.46	37.00	111.25	4.25	3.75	75.00	85.00	39.25	1.00
4	HARDEE LS	3146.46	43.00	120.00	4.25	3.75	75.00	93.75	51.50	1.00
9	JUPITER	3131.88	45.00	116.00	4.75	4.00	25.00	91.25	64.75	1.25
8	CARIBE	3042.27	34.00	106.00	4.50	4.00	50.00	95.00	59.00	1.50
1	CH-3	2765.14	35.50	110.75	4.25	4.00	75.00	92.50	73.75	2.00
3	SJ-2	2754.72	37.00	109.50	4.50	4.00	50.00	82.50	62.75	3.25
15	ECUADOR 1	2523.42	34.00	113.00	4.25	4.00	75.00	95.00	35.25	1.00
12	RILLITO	2498.42	40.25	110.75	4.75	4.00	25.00	91.25	43.25	1.00
10	IMPROVED PELICAN	2471.33	37.00	104.00	5.00	4.00	.00	88.75	59.25	1.00
6	IAC-2	2458.82	36.00	107.25	4.00	3.75	100.00	93.75	55.50	1.00
11	ACC 2120	2379.64	29.00	108.50	4.75	4.00	25.00	100.00	39.75	1.00
16	ECUADOR 2	2187.94	51.00	113.00	5.00	4.00	.00	91.25	89.75	4.75
5	ORBA	2183.77	34.50	93.00	4.00	4.00	100.00	93.75	61.25	2.25
13	WILLIAMS	1583.65	27.00	92.50	4.00	4.00	100.00	100.00	38.25	1.00
	GRAND MEAN	2683.48	37.08	108.52	4.42	3.94	57.81	91.33	54.48	1.56
	STANDARD ERROR OF A VARIETY MEAN	162.50	.46	1.40	.17	.11	16.80	3.19	2.86	.24
	COEFFICIENT OF VARIATION	12.11%	2.48%	2.58%	7.60%	5.68%	58.11%	6.99%	10.50%	31.28%
	5% LSD VARIETY MEANS (********=NS)	462.87	1.31	3.99	.48	********	47.84	9.10	8.15	.70

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

YIELD	KG/HA	1.00	.23	.51++	.16	-.07	-.16	-.22	.09	-.22
DAYS TO	FLOWER	.23	1.00	.60++	.33++	-.02	-.33++	-.28+	.56++	.47++
DAYS TO	MATURITY	.51++	.60++	1.00	.18	-.02	-.18	-.30+	.11	.05
NODULE	ABUND 1	.16	.33++	.18	1.00	.22	-1.00++	-.02	.24	.16
NODULE	ABUND 2	-.07	-.02	-.09	.22	1.00	-.22	-.12	.14	.13
NODULE	ACT. 1	-.16	-.33++	-.18	-1.00++	-.22	1.00	.02	-.24	-.16
NODULE	ACT. 2	-.22	-.28+	-.30+	-.02	-.12	.02	1.00	-.12	-.24
PLANT	HEIGHT	.09	.56++	.11	.24	.14	-.24	-.12	1.00	.70++
	LODGING	-.22	.47++	.05	.16	.13	-.16	-.24	.70++	1.00
	SHATTER	-.33++	.28+	-.33++	.00	.09	-.00	.00	.44++	.59++
PLANTS	HARVEST	-.18	-.23	-.25+	-.17	.13	.17	.03	.04	.14
PODS PER	PLANT	.06	.64++	.37++	.24	.08	-.24	-.38++	.50++	.64++
POD	HEIGHT	.23	.51++	.24	.06	-.03	-.06	-.38++	.59++	.54++
100 SEED	WEIGHT	.10	-.44++	.09	-.18	-.11	.18	.25	-.68++	-.64++
QUALITY	OF SEED	-.16	-.13	-.10	-.41++	-.20	.41++	.01	-.01	-.15
PERCENT	GERM.	.09	.14	.13	.07	-.05	-.07	-.03	.02	.01

TABLE 27 EXPERIMENT 467 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
14	DAVIS	1.00	181.75	36.75	14.00	19.93	2.50	100.00
7	TUNIA	1.00	171.25	28.25	13.25	23.28	3.00	100.00
2	UFV-1	1.00	184.00	34.25	13.75	21.53	1.75	100.00
4	HARDEE LS	1.00	142.25	45.50	12.00	19.10	3.25	99.50
9	JUPITER	1.00	182.25	35.00	18.25	22.88	2.25	100.00
8	CARIBE	1.00	163.00	40.25	12.00	15.23	2.00	100.00
1	CH-3	1.00	185.75	36.00	15.00	16.78	3.00	99.50
3	SJ-2	1.00	179.75	48.00	16.75	16.48	2.25	100.00
15	ECUADOR 1	1.00	184.75	30.75	11.00	22.93	2.00	100.00
12	RILLITO	1.00	121.50	42.25	9.75	22.08	2.75	100.00
10	IMPROVED PELICAN	1.00	153.50	38.75	10.50	15.90	2.00	100.00
6	IAC-2	1.00	174.75	36.75	11.00	18.75	3.25	100.00
11	ACC 2120	1.00	197.25	31.00	9.25	25.78	2.00	100.00
16	ECUADOR 2	1.75	185.00	62.25	18.00	10.73	2.00	100.00
5	JRBA	2.00	206.50	36.25	16.50	16.00	3.00	100.00
13	WILLIAMS	1.00	194.50	19.50	8.50	22.43	3.00	99.00
	GRAND MEAN	1.11	175.48	37.59	13.09	19.36	2.50	99.88
	STANDARD ERROR OF A VARIETY MEAN	.06	9.36	3.59	1.20	.84	.23	.30
	COEFFICIENT OF VARIATION	11.27%	10.67%	19.08%	18.28%	8.70%	18.74%	.61%
	5% LSD VARIETY MEANS (********=NS)	.18	26.67	10.22	3.41	2.40	.67	********

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

YIELD	KG/HA	-.33++	-.18	.06	.23	.10	-.16	.09
DAYS TO	FLOWER	.28+	-.23	.64++	.51++	-.44++	-.13	.14
DAYS TO	MATURITY	-.33++	-.25+	.37++	.24	.09	-.10	.13
NODULE	ABUND 1	.00	-.17	.24	.06	-.18	-.41++	.07
NODULE	ABUND 2	.09	.13	.08	-.03	-.11	-.20	-.05
NODULE	ACT. 1	-.00	.17	-.24	-.06	.18	.41++	-.07
NODULE	ACT. 2	.00	.03	-.38++	-.38++	.25	.01	-.03
PLANT	HEIGHT	.44++	.04	.50++	.59++	-.68++	-.01	.02
	LODGING	.59++	.14	.64++	.54++	-.64++	-.15	.01
	SHATTER	1.00	.26+	.33++	.36++	-.45++	.04	.07
PLANTS	HARVEST	.26+	1.00	-.25+	.31+	.03	-.20	.06
PODS PER	PLANT	.33++	-.25+	1.00	.37++	-.54++	-.04	.16
POD	HEIGHT	.36++	.31+	.37++	1.00	-.32++	-.08	.08
100 SEED	WEIGHT	-.45++	.03	-.54++	-.32++	1.00	.05	-.03
QUALITY	OF SEED	.04	-.20	-.04	-.08	.05	1.00	-.16
PERCENT	GERM.	.07	.06	.16	.08	-.03	-.16	1.00

TABLE 28 EXPERIMENT 589 YEAR 1979

REGION - SOUTH AMERICA
SITE - PALLATANGA
LATITUDE - 1 DEG. 59 MIN. S
COOPERATOR - ING. EDUARDO MALDONADO
DATE PLANTED - MAY 3, 1979
SOIL TYPE - SAND 31%, SILT 45%, CLAY 24%, PH 6.7
SUBSTITUTE VARIETIES - ECUADOR 1, ECUADOR 2

COUNTRY - ECUADOR
ELEVATION - 1270 M
LONGITUDE - 78 DEG. 58 MIN. W
DATE HARVESTED - AUGUST, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	GASOY 17	2336.30	38.50	114.00	4.00	3.00	98.75	98.75	32.00	1.00
14	BRAGG	2158.76	37.00	105.00	4.00	3.50	95.00	97.50	45.25	2.25
6	JAMES	2122.09	39.50	118.00	4.00	3.50	92.50	98.75	47.50	1.00
11	FRANKLIN	2013.74	37.25	112.25	3.75	3.00	98.75	98.75	42.50	1.25
5	WILLIAMS	1871.62	38.50	114.00	4.00	3.25	93.75	100.00	40.25	1.00
4	BOSSIER	1871.62	37.00	105.00	3.75	3.00	92.50	97.50	37.25	1.75
7	FORREST	1834.53	37.00	110.25	3.75	3.00	98.75	96.25	41.75	1.00
13	MITCHELL	1781.19	37.00	106.75	3.50	3.00	95.00	98.75	43.50	2.00
3	RILLITO	1778.27	38.00	108.50	4.00	3.50	93.75	98.75	45.50	1.00
8	DAVIS	1688.25	37.00	114.00	4.00	3.75	96.25	98.75	30.50	1.00
1	IMPROVED PELICAN	1540.31	40.00	120.00	4.00	3.50	96.25	98.75	57.75	1.00
12	CUTLER 71	1152.31	37.50	112.00	4.00	3.50	96.25	98.75	31.75	1.00
15	ECUADOR 1	1040.21	38.00	114.00	4.00	3.50	96.25	97.50	23.75	1.00
2	ACC 2120	1037.71	37.25	112.00	4.00	3.50	97.50	97.50	23.50	1.00
16	ECUADOR 2	656.38	39.50	147.00	4.00	3.50	97.50	96.25	84.50	5.00
10	CALLAND	312.15	37.50	120.00	4.00	3.50	95.00	98.75	23.75	1.00
	GRAND MEAN	1574.72	37.91	114.55	3.92	3.34	95.86	98.20	40.69	1.45
	STANDARD ERROR OF A VARIETY MEAN	106.69	.28	1.56	.13	.29	1.98	1.61	2.30	.17
	COEFFICIENT OF VARIATION	13.55%	1.49%	2.73%	6.67%	17.16%	4.14%	3.27%	11.31%	23.96%
	5% LSD VARIETY MEANS (********=NS)	303.89	.80	4.45	********	********	********	********	6.55	.50

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

YIELD	KG/HA	1.00	-.04	-.48++	-.13	-.21	-.03	.10	.04	-.23
DAYS TO	FLOWER	-.04	1.00	.62++	.24	.08	-.04	.07	.49++	.19
DAYS TO	MATURITY	-.48++	.62++	1.00	.20	.14	.07	-.10	.58++	.62++
NODULE	ABUND 1	-.13	.24	.20	1.00	.18	-.01	.02	.04	-.10
NODULE	ABUND 2	-.21	.08	.14	.18	1.00	-.10	-.14	.05	.05
NODULE	ACT. 1	-.03	-.04	.07	-.01	-.10	1.00	.03	.05	.06
NODULE	ACT. 2	.10	.07	-.10	.02	-.14	.03	1.00	-.17	-.11
PLANT	HEIGHT	.04	.49++	.58++	.04	.05	.05	-.17	1.00	.72++
	LODGING	-.23	.19	.62++	-.10	.05	.06	-.11	.72++	1.00
	SHATTER	.04	.06	-.04	.05	-.06	-.10	.21	-.07	-.14
PLANTS	HARVEST	-.19	-.62++	-.13	-.12	-.06	.26+	-.10	-.25+	.18
PODS PER	PLANT	.66++	.40++	-.10	-.03	.00	-.20	.10	.28+	-.12
POD	HEIGHT	-.26+	.58++	.74++	.15	.07	.00	-.11	.80++	.64++
100 SEED	WEIGHT	-.01	-.44++	-.54++	.06	-.03	.02	.09	-.87++	-.68++
QUALITY	OF SEED	-.37++	-.34++	-.03	-.02	.17	.11	-.07	-.28+	-.05
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 28 EXPERIMENT 589 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
9	GASOY 17	1.00	200.75	22.25	7.25	20.68	2.25	.00
14	BRAGG	1.75	189.50	21.75	6.50	19.58	3.25	.00
6	JAMES	1.50	106.50	39.75	9.50	16.50	2.00	.00
11	FRANKLIN	1.50	198.00	18.25	6.75	19.78	4.00	.00
5	WILLIAMS	2.00	174.50	22.50	10.00	20.60	3.25	.00
4	BOSSIER	1.00	186.75	20.50	6.25	18.63	1.75	.00
7	FORREST	1.50	187.50	19.50	7.00	18.65	3.25	.00
13	MITCHELL	1.75	194.75	19.75	6.75	19.45	3.00	.00
3	RILLITO	1.25	183.75	19.75	10.50	17.28	2.50	.00
8	DAVIS	1.25	199.75	20.00	5.75	20.53	3.00	.00
1	IMPROVED PELICAN	2.25	119.50	30.25	11.00	16.03	2.00	.00
12	CUTLER 71	2.75	194.50	16.75	5.50	19.75	3.50	.00
15	ECUADOR 1	1.00	201.50	12.75	6.00	23.25	3.50	.00
2	ACC 2120	1.75	192.75	15.25	6.25	24.15	3.00	.00
16	ECUADOR 2	1.00	195.25	14.50	19.00	8.93	2.75	.00
10	CALLAND	1.25	188.75	4.75	8.25	23.08	4.25	.00
	GRAND MEAN	1.53	182.13	19.89	8.27	19.18	2.95	.00
	STANDARD ERROR OF A VARIETY MEAN	.35	4.65	1.52	.79	.74	.27	.00
	COEFFICIENT OF VARIATION	45.34%	5.11%	15.33%	19.09%	7.76%	18.26%	.00%
	5% LSD VARIETY MEANS (********=NS)	.99	13.25	4.34	2.25	2.12	.77	.00

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

YIELD	KG/HA	.04	-.19	.66++	-.26+	-.01	-.37++	.00
DAYS TO	FLOWER	.06	-.62++	.40++	.58++	-.44++	-.34++	.00
DAYS TO	MATURITY	-.04	-.13	-.10	.74++	-.54++	-.03	.00
NODULE	ABUND 1	.05	-.12	-.03	.15	.06	-.02	.00
NODULE	ABUND 2	-.06	-.06	.00	.07	-.03	.17	.00
NODULE	ACT. 1	-.10	.26+	-.20	.00	.02	.11	.00
NODULE	ACT. 2	.21	-.10	.10	-.11	.09	-.07	.00
PLANT	HEIGHT	-.07	-.25+	.28+	.80++	-.87++	-.28+	.00
	LODGING	-.14	.18	-.12	.64++	-.68++	-.05	.00
	SHATTER	1.00	-.21	.13	-.15	.11	.06	.00
PLANTS	HARVEST	-.21	1.00	-.74++	-.17	.29+	.42++	.00
PODS PER	PLANT	.13	-.74++	1.00	.03	-.33++	-.51++	.00
POD	HEIGHT	-.15	-.17	.03	1.00	-.72++	-.21	.00
100 SEED	WEIGHT	.11	.29+	-.33++	-.72++	1.00	.32++	.00
QUALITY	OF SEED	.06	.42++	-.51++	-.21	.32++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 29 EXPERIMENT 468 YEAR 1979

REGION - SOUTH AMERICA
SITE - PICHILINGUE
LATITUDE - 1 DEG. 5 MIN. S
COOPERATOR - ING. EDUARDO MALDONADO
DATE PLANTED - MAY 22, 1979
SOIL TYPE - SAND 90%, SILT 5%, CLAY 5%
SUBSTITUTE VARIETIES - MANABI, SS-DA-010

COUNTRY - ECUADOR
ELEVATION - 73 M
LONGITUDE - 79 DEG. 27 MIN. W
DATE HARVESTED - OCTOBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
4	HARDEE LS	2795.56	40.00	117.50	3.50	1.50	26.25	38.75	85.50	.00
9	JUPITER	2791.81	45.50	99.75	2.75	1.25	31.25	37.50	92.00	.00
2	UFV-1	2748.88	34.00	113.00	3.50	1.25	28.75	45.00	46.50	.00
1	CH-3	2739.30	34.00	115.00	4.00	2.25	50.00	61.25	121.00	.00
7	TUNIA	2690.12	31.00	117.50	3.50	1.50	37.50	26.25	85.50	.00
12	MANABI	2611.36	32.00	104.00	2.75	1.00	23.75	45.00	84.50	.00
11	RILLITO	2585.10	28.00	119.75	3.25	1.00	26.25	43.75	44.25	.00
14	SS-DA-010	2567.18	34.75	119.25	3.50	1.25	40.00	51.25	84.75	.00
15	DAVIS	2518.84	30.25	119.75	2.75	1.00	43.75	46.25	44.75	.00
6	IAC-2	2284.21	34.25	99.00	3.50	1.50	50.00	56.25	93.75	.00
3	SJ-2	2200.44	35.50	105.50	4.00	1.50	57.50	51.25	97.75	.00
13	WILLIAMS	2198.77	28.00	90.00	2.50	2.50	60.00	61.25	64.50	.00
10	IMPROVED PELICAN	2195.02	36.00	100.50	4.00	2.00	38.75	45.00	83.75	.00
16	ACC 2120	2129.59	57.00	107.00	4.00	1.25	63.75	41.25	125.25	.00
8	CARIBE	2110.42	37.00	115.00	2.75	1.25	42.50	45.00	136.25	.00
5	ORBA	1892.04	34.25	96.50	1.50	1.75	46.25	40.00	88.25	.00
	GRAND MEAN	2441.17	36.27	108.69	3.25	1.40	41.64	45.94	86.14	.00
	STANDARD ERROR OF A VARIETY MEAN	132.54	.50	3.63	.49	.30	14.09	8.43	4.16	.00
	COEFFICIENT OF VARIATION	10.86%	2.76%	6.67%	30.38%	53.45%	67.67%	36.72%	9.65%	.00%
	5% LSD VARIETY MEANS (********=NS)	377.53	1.42	10.33	1.40	********	********	********	11.84	.00

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

YIELD	KG/HA	1.00	-.02	.35++	.34++	-.14	-.27+	-.08	-.24	.00
DAYS TO	FLOWER	-.02	1.00	.01	.19	-.09	.08	-.17	.51++	.00
DAYS TO	MATURITY	.35++	.01	1.00	.17	-.24	-.16	-.15	-.06	.00
NODULE	ABUND 1	.34++	.19	.17	1.00	.18	.01	.03	.15	.00
NODULE	ABUND 2	-.14	-.09	-.24	.18	1.00	.05	.40++	.12	.00
NODULE	ACT. 1	-.27+	.08	-.16	.01	.05	1.00	-.07	.17	.00
NODULE	ACT. 2	-.08	-.17	-.15	.03	.40++	-.07	1.00	.05	.00
PLANT	HEIGHT	-.24	.51++	-.06	.15	.12	.17	.05	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
PODS PER	PLANT	-.13	.72++	.06	.22	.07	.00	-.12	.61++	00
POD	HEIGHT	-.05	.11	-.26+	-.11	.21	-.09	.00	.30+	.00
100 SEED	WEIGHT	.45++	-.58++	.10	-.22	-.11	-.27+	-.04	-.66++	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 29 EXPERIMENT 468 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
4	HARDEE LS	.00	.00	68.00	16.75	15.33	.00	.00
9	JUPITER	.00	.00	40.25	22.00	19.88	.00	.00
2	UFV-1	.00	.00	23.75	15.75	17.28	.00	.00
1	CH-3	.00	.00	37.50	19.00	14.35	.00	.00
7	TUNIA	.00	.00	28.00	18.50	18.75	.00	.00
12	MANABI	.00	.00	31.00	18.00	21.40	.00	.00
11	RILLITO	.00	.00	27.25	12.00	20.45	.00	.00
14	SS-DA-010	.00	.00	52.00	14.75	18.30	.00	.00
15	DAVIS	.00	.00	21.75	13.50	19.85	.00	.00
6	IAC-2	.00	.00	32.25	19.25	13.55	.00	.00
3	SJ-2	.00	.00	50.50	19.00	13.24	.00	.00
13	WILLIAMS	.00	.00	27.75	15.50	19.53	.00	.00
10	IMPROVED PELICAN	.00	.00	38.50	15.25	16.68	.00	.00
16	ACC 2120	.00	.00	79.50	15.00	7.30	.00	.00
8	CARIBE	.00	.00	57.50	16.00	11.88	.00	.00
5	ORBA	.00	.00	40.25	20.00	13.53	.00	.00
	GRAND MEAN	.00	.00	40.36	16.87	16.13	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	.00	5.38	1.36	.45	.00	.00
	COEFFICIENT OF VARIATION	.00%	.00%	26.68%	16.08%	5.62%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	.00	15.34	3.87	1.29	.00	.00

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

YIELD	KG/HA	.00	.00	-.13	-.05	.45++	.00	.00
DAYS TO	FLOWER	.00	.00	.72++	.11	-.58++	.00	.00
DAYS TO	MATURITY	.00	.00	.06	-.26+	.10	.00	.00
NODULE	ABUND 1	.00	.00	.22	-.11	-.22	.00	.00
NODULE	ABUND 2	.00	.00	.07	.21	-.11	.00	.00
NODULE	ACT. 1	.00	.00	.00	-.09	-.27+	.00	.00
NODULE	ACT. 2	.00	.00	-.12	.00	-.04	.00	.00
PLANT	HEIGHT	.00	.00	.61++	.30+	-.66++	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.00	.00	1.00	-.02	-.59++	.00	.00
POD	HEIGHT	.00	.00	-.02	1.00	-.08	.00	.00
100 SEED	WEIGHT	.00	.00	-.59++	-.08	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 30 EXPERIMENT 469 YEAR 1979

REGION - SOUTH AMERICA
SITE - PORTOVIEJO
LATITUDE - 1 DEG. 4 MIN. S
COOPERATOR - ING. EDUARDO MALDONADO
DATE PLANTED - AUGUST 7, 1979
SOIL TYPE - SAND 20%, SILT 30%, CLAY 50%, PH 7.5
AMOUNT OF MOISTURE - 350 MM
SUBSTITUTE VARIETIES - ECUADOR 1, ECUADOR 2

COUNTRY - ECUADOR
ELEVATION - 25 MM
LONGITUDE - 80 DEG. 26 MIN. W
DATE HARVESTED - NOVEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	JUPITER	2830.75	44.00	98.00	.00	.00	.00	.00	73.00	3.75
3	SJ-2	2693.50	34.00	90.00	.00	.00	.00	.00	70.50	2.25
2	UFV-1	2635.25	34.00	98.00	.00	.00	.00	.00	41.50	1.00
7	TUNIA	2593.50	30.00	90.00	.00	.00	.00	.00	52.75	1.00
6	IAC-2	2547.50	33.00	98.00	.00	.00	.00	.00	66.50	1.75
4	HARDEE LS	2487.25	47.00	98.00	.00	.00	.00	.00	63.25	1.50
13	WILLIAMS	2481.00	33.00	102.25	.00	.00	.00	.00	56.75	1.00
1	CH-3	2435.25	33.00	102.00	.00	.00	.00	.00	74.50	1.00
12	ECUADOR 1	2228.75	29.00	102.00	.00	.00	.00	.00	51.75	1.00
8	CARIBE	2195.25	33.00	103.50	.00	.00	.00	.00	64.00	1.50
15	DAVIS	2187.00	28.00	80.00	.00	.00	.00	.00	48.00	1.00
10	IMPROVED PELICAN	2172.50	38.00	80.00	.00	.00	.00	.00	60.50	1.00
11	RILLITO	2166.50	28.00	80.00	.00	.00	.00	.00	38.50	1.00
14	ECUADOR 2	2070.75	33.00	80.00	.00	.00	.00	.00	33.75	1.00
16	ACC 2120	1962.00	47.00	98.00	.00	.00	.00	.00	98.75	4.00
5	ORBA	1637.25	33.00	80.00	.00	.00	.00	.00	62.75	1.75
	GRAND MEAN	2339.00	34.81	92.48	.00	.00	.00	.00	59.80	1.59
	STANDARD ERROR OF A VARIETY MEAN	208.50	.00	.38	.00	.00	.00	.00	2.43	.32
	COEFFICIENT OF VARIATION	17.83%	.00%	.83%	.00%	.00%	.00%	.00%	8.14%	39.61%
	5% LSD VARIETY MEANS (********=NS)	593.90	.00	1.09	.00	.00	.00	.00	6.93	.90

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

YIELD	KG/HA	1.00	.11	.29+	.00	.00	.00	.00	.17	.31+
DAYS TO	FLOWER	.11	1.00	.29+	.00	.00	.00	.00	.61++	.60++
DAYS TO	MATURITY	.29+	.29+	1.00	.00	.00	.00	.00	.41++	.19
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.17	.61++	.41++	.00	.00	.00	.00	1.00	.62++
	LODGING	.31+	.60++	.19	.00	.00	.00	.00	.62++	1.00
	SHATTER	-.43++	-.04	-.44++	.00	.00	.00	.00	-.07	-.04
PLANTS	HARVEST	-.14	-.07	.01	.00	.00	.00	.00	.03	.16
PODS PER	PLANT	.24	.46++	.20	.00	.00	.00	.00	.48++	.43++
POD	HEIGHT	-.00	.56++	.36++	.00	.00	.00	.00	.63++	.45++
100 SEED	WEIGHT	.40++	-.52++	.05	.00	.00	.00	.00	-.54++	-.36++
QUALITY	OF SEED	.07	.61++	.04	.00	.00	.00	.00	.49++	.39++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 30 EXPERIMENT 469 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
9	JUPITER	1.00	185.75	42.25	16.00	17.93	1.50	.00
3	SJ-2	1.00	142.25	62.00	11.25	14.95	2.00	.00
2	UFV-1	1.00	166.00	49.00	9.50	16.58	1.50	.00
7	TUNIA	1.00	185.00	62.50	10.50	18.03	2.25	.00
6	IAC-2	1.00	199.25	45.50	11.25	17.35	2.00	.00
4	HARDEE LS	1.00	162.75	60.75	11.50	14.65	2.75	.00
13	WILLIAMS	1.00	163.25	38.00	9.75	20.73	1.25	.00
1	CH-3	1.00	186.00	51.75	12.50	16.23	1.50	.00
12	ECUADOR 1	1.00	170.25	34.75	11.50	19.60	1.00	.00
8	CARIBE	1.00	189.75	57.50	9.75	15.73	1.00	.00
15	DAVIS	1.00	198.75	36.25	6.00	17.60	1.00	.00
10	IMPROVED PELICAN	1.00	150.75	51.00	11.00	15.45	2.25	.00
11	RILLITO	1.00	173.75	55.00	7.50	17.65	2.00	.00
14	ECUADOR 2	2.00	193.25	37.00	7.50	16.20	1.50	.00
16	ACC 2120	1.25	197.25	65.00	15.00	7.48	4.00	.00
5	ORBA	3.00	183.75	47.75	12.75	12.93	1.00	.00
	GRAND MEAN	1.20	177.86	46.53	10.83	16.07	1.78	.00
	STANDARD ERROR OF A VARIETY MEAN	.12	6.93	6.25	1.03	.70	.20	.00
	COEFFICIENT OF VARIATION	19.89%	7.79%	26.85%	18.99%	8.74%	22.04%	.00%
	5% LSD VARIETY MEANS (********=NS)	.34	19.74	17.79	2.93	2.00	.56	.00

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

YIELD	KG/HA	-.43++	-.14	.24	-.00	.40++	.07	.00
DAYS TO	FLOWER	-.04	-.07	.46++	.56++	-.52++	.61++	.00
DAYS TO	MATURITY	-.44++	.01	.20	.36++	.05	.04	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.07	.03	.48++	.63++	-.54++	.49++	.00
	LODGING	-.04	.16	.43++	.45++	-.36++	.39++	.00
	SHATTER	1.00	.17	.02	.05	-.31+	-.17	.00
PLANTS	HARVEST	.17	1.00	-.12	-.02	-.18	-.05	.00
PODS PER	PLANT	.02	-.12	1.00	.09	-.45++	.33++	.00
POD	HEIGHT	.05	-.02	.09	1.00	-.35++	.26+	.00
100 SEED	WEIGHT	-.31+	-.18	-.45++	-.35++	1.00	-.50++	.00
QUALITY	OF SEED	-.17	-.05	.33++	.26+	-.50++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 31 EXPERIMENT 597 YEAR 1979

REGION - AFRICA
SITE - MALLAWY
LATITUDE - 27 DEG. 30 MIN. N
COOPERATOR - ALI ABD EL-AZIZ
DATE PLANTED - MAY 21, 1979
FERTILIZER USED (KG/HA) - N 25.0, P 54.0
AMOUNT OF MOISTURE - 11 MM
NUMBER OF IRRIGATIONS - 8

COUNTRY - EGYPT
ELEVATION - 120 M
LONGITUDE - 31 DEG. E

DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	CRAWFORD	4630.00	37.00	113.25	.00	.00	.00	.00	85.70	2.00
4	RANSOM	4560.55	63.25	149.00	.00	.00	.00	.00	71.20	3.00
13	MITCHELL	4375.35	37.75	110.50	.00	.00	.00	.00	82.95	2.75
10	CALLAND	4180.89	36.50	105.50	.00	.00	.00	.00	70.80	2.00
12	CUTLER 71	4016.52	37.25	104.25	.00	.00	.00	.00	77.05	1.75
2	BOSSIER	3986.43	63.75	160.25	.00	.00	.00	.00	79.05	3.00
11	FRANKLIN	3942.44	37.00	102.50	.00	.00	.00	.00	73.65	2.25
7	FORREST	3759.56	49.50	123.75	.00	.00	.00	.00	55.60	1.50
5	COBB	3754.93	68.00	161.25	.00	.00	.00	.00	92.45	2.25
6	JAMES	3581.30	62.00	114.75	.00	.00	.00	.00	91.15	1.75
9	GASOY 17	3328.97	67.25	117.25	.00	.00	.00	.00	89.40	2.25
3	WILLIAMS	3261.83	36.25	89.75	.00	.00	.00	.00	61.05	1.50
1	RILLITO	3016.44	62.25	140.50	.00	.00	.00	.00	71.45	2.25
8	DAVIS	2882.17	59.50	138.25	.00	.00	.00	.00	56.40	2.00
	GRAND MEAN	3805.53	51.23	124.20	.00	.00	.00	.00	75.56	2.16
	STANDARD ERROR OF A VARIETY MEAN	375.50	.36	1.08	.00	.00	.00	.00	4.83	.42
	COEFFICIENT OF VARIATION	19.73%	1.42%	1.74%	.00%	.00%	.00%	.00%	12.79%	38.85%
	5% LSD VARIETY MEANS (********=NS)	1074.13	1.04	3.10	.00	.00	.00	.00	13.82	********

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

YIELD	KG/HA	1.00	-.24	-.04	.00	.00	.00	.00	.10	.29+
DAYS TO	FLOWER	-.24	1.00	.80++	.00	.00	.00	.00	.21	.20
DAYS TO	MATURITY	-.04	.80++	1.00	.00	.00	.00	.00	.10	.32+
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.10	.21	.10	.00	.00	.00	.00	1.00	.18
	LODGING	.29+	.20	.32+	.00	.00	.00	.00	.18	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.18	-.29+	-.30+	.00	.00	.00	.00	-.17	.11
PODS PER	PLANT	.05	.59++	.64++	.00	.00	.00	.00	.10	.21
POD	HEIGHT	.06	.21	-.02	.00	.00	.00	.00	.01	.03
100 SEED	WEIGHT	.14	-.04	-.23	.00	.00	.00	.00	.24	.02
QUALITY	OF SEED	-.34++	.14	.15	.00	.00	.00	.00	-.23	-.05
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 31 EXPERIMENT 597 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT G RM.	PERCENT PROTEIN	PERCENT OIL
14	CRAWFORD	1.00	85.00	42.50	3.45	12.88	1.00	.00	39.9	21.3
4	RANSOM	1.00	85.00	64.60	4.55	15.18	1.00	.00	38.1	24.0
13	MITCHELL	1.00	88.75	43.90	3.50	12.68	1.00	.00	37.2	23.5
10	CALLAND	1.00	87.50	45.80	4.30	14.20	1.00	.00	38.2	21.7
12	CUTLER 71	1.00	88.75	47.00	4.10	16.03	1.00	.00	38.4	21.6
2	BOSSIER	1.00	85.00	76.20	3.20	13.30	1.00	.00	42.4	20.7
11	FRANKLIN	1.00	83.75	40.40	2.85	15.03	1.00	.00	38.1	22.5
7	FORREST	1.00	83.75	66.55	4.15	12.58	1.25	.00	39.1	21.3
5	COBB	1.00	57.50	71.85	3.15	14.25	1.00	.00	36.4	23.9
6	JAMES	1.00	85.00	52.20	4.10	15.35	1.00	.00	40.4	22.4
9	GASOY 17	1.00	82.50	61.85	4.80	14.58	1.00	.00	35.0	23.3
3	WILLIAMS	1.00	83.75	37.13	3.35	14.78	1.00	.00	37.6	25.0
1	RILLITO	1.00	81.25	70.75	3.95	13.33	1.25	.00	40.2	20.8
8	DAVIS	1.00	81.25	55.85	4.00	12.20	1.50	.00	38.4	22.1
	GRAND MEAN	1.00	82.77	55.47	3.82	14.02	1.07	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	5.93	7.48	.31	.44	.12	.00		
	COEFFICIENT OF VARIATION	.00%	14.34%	26.96%	16.47%	6.24%	22.24%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	********	21.39	.90	1.25	********	.00		

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

YIELD	KG/HA	.00	.18	.05	.06	.14	-.34++	.00
DAYS TO	FLOWER	.00	-.29+	.59++	.21	-.04	.14	.00
DAYS TO	MATURITY	.00	-.30+	.64++	-.02	-.23	.15	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	-.17	.10	.01	.24	-.23	.00
	LODGING	.00	.11	.21	.03	.02	-.05	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.14	.17	.14	-.12	.00
PODS PER	PLANT	.00	-.14	1.00	.12	.00	-.18	.00
POD	HEIGHT	.00	.17	.12	1.00	.13	.05	.00
100 SEED	WEIGHT	.00	.14	.00	.13	1.00	-.47++	.00
QUALITY	OF SEED	.00	-.12	-.18	.05	-.47++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 32 EXPERIMENT 598 YEAR 1979

REGION - AFRICA
SITE - NUBARIA
LATITUDE - 31 DEG. N
COOPERATOR - ALI ABD EL-AZIZ
DATE PLANTED - MAY 20, 1979
FERTILIZER USED (KG/HA) - N 25.0, P 54.0, K 50.0
NUMBER OF IRRIGATIONS - 10

COUNTRY - EGYPT
ELEVATION - 30 M
LONGITUDE - 30 DEG. E
DATE HARVESTED - AUGUST, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	FORREST	1670.57	52.25	131.25	.00	.00	.00	.00	88.25	1.50
11	FRANKLIN	1649.74	33.25	92.50	.00	.00	.00	.00	83.75	1.00
8	DAVIS	1574.23	66.75	131.50	.00	.00	.00	.00	105.25	2.25
14	CRAWFORD	1538.82	34.75	111.25	.00	.00	.00	.00	78.75	1.75
6	JAMES	1235.22	45.25	115.75	.00	.00	.00	.00	75.00	2.00
12	CUTLER 71	1192.00	34.25	95.00	.00	.00	.00	.00	70.25	1.50
3	WILLIAMS	1184.19	31.75	94.75	.00	.00	.00	.00	67.25	1.25
4	RANSOM	1002.96	61.75	129.50	.00	.00	.00	.00	84.20	2.75
10	CALLAND	997.76	31.25	93.50	.00	.00	.00	.00	62.25	1.00
13	MITCHELL	938.91	35.25	94.25	.00	.00	.00	.00	68.00	1.00
1	RILLITO	858.72	63.50	134.25	.00	.00	.00	.00	97.35	3.50
5	COBB	487.94	77.75	154.00	.00	.00	.00	.00	90.12	1.75
2	BOSSIER	414.00	67.75	139.25	.00	.00	.00	.00	80.50	2.75
9	GASOY 17	378.06	67.25	140.50	.00	.00	.00	.00	94.75	3.00
	GRAND MEAN	1080.22	50.20	118.38	.00	.00	.00	.00	81.83	1.93
	STANDARD ERROR OF A VARIETY MEAN	254.84	.52	4.06	.00	.00	.00	.00	4.55	.42
	COEFFICIENT OF VARIATION	47.18%	2.05%	6.86%	.00%	.00%	.00%	.00%	11.12%	43.43%
	5% LSD VARIETY MEANS (********=NS)	728.99	1.47	11.62	.00	.00	.00	.00	13.0[illegible]	1.20

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

YIELD	KG/HA	1.00	-.36++	-.30+	.00	.00	.00	.00	.06	-.31+
DAYS TO	FLOWER	-.36++	1.00	.92++	.00	.00	.00	.00	.66++	.54++
DAYS TO	MATURITY	-.30+	.92++	1.00	.00	.00	.00	.00	.63++	.50++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.06	.66++	.63++	.00	.00	.00	.00	1.00	.45++
	LODGING	-.31+	.54++	.50++	.00	.00	.00	.00	.45++	1.00
	SHATTER	.05	-.12	-.13	.00	.00	.00	.00	-.18	.01
PLANTS	HARVEST	-.36++	.35++	.24	.00	.00	.00	.00	.05	.10
PODS PER	PLANT	.56++	.09	.13	.00	.00	.00	.00	.46++	.03
POD	HEIGHT	-.20	.60++	.61++	.00	.00	.00	.00	.50++	.47++
100 SEED	WEIGHT	.15	-.00	.10	.00	.00	.00	.00	.10	-.03
QUALITY	OF SEED	-.35++	.38++	.30+	.00	.00	.00	.00	.10	.16
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 32 EXPERIMENT 598 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	FORREST	1.00	217.25	32.68	21.75	13.95	2.75	.00	36.9	22.7
11	FRANKLIN	1.00	257.75	22.23	13.25	14.88	4.00	.00	37.5	22.0
8	DAVIS	1.00	241.75	38.88	16.25	13.15	2.50	.00	38.8	22.3
14	CRAWFORD	1.00	201.00	29.53	13.25	17.75	1.50	.00	41.3	21.9
6	JAMES	1.00	210.25	21.73	16.50	17.55	2.50	.00	40.7	22.0
12	CUTLER 71	1.25	248.75	21.68	15.00	15.05	3.00	.00	37.5	22.7
3	WILLIAMS	1.00	265.25	18.40	9.50	14.60	1.75	.00	36.6	23.1
4	RANSOM	1.00	262.75	23.25	21.00	14.80	4.00	.00	40.1	19.9
10	CALLAND	1.00	266.00	17.20	12.75	15.53	3.00	.00	37.4	21.5
13	MITCHELL	1.00	256.50	15.98	12.75	14.28	3.50	.00	37.0	22.9
1	RILLITO	1.00	243.25	27.30	18.50	14.58	3.25	.00	37.8	21.3
5	COBB	1.00	330.75	14.60	18.50	15.50	3.75	.00	35.4	25.2
2	BOSSIER	1.00	279.50	17.13	20.25	14.85	4.00	.00		
9	GASOY 17	1.00	320.75	17.28	20.75	16.20	3.75	.00	39.1	19.8
	GRAND MEAN	1.02	257.39	22.71	16.43	15.40	3.09	.00		
	STANDARD ERROR OF A VARIETY MEAN	.07	19.73	2.48	1.89	.78	.33	.00		
	COEFFICIENT OF VARIATION	1. .13%	15.33%	21.82%	23.07%	10.18%	21.27%	.00%		
	5% LSD VARIETY MEANS (********=NS)	********	56.45	7.09	5.42	2.24	.94	.00		

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

YIELD	KG/HA	.05	-.36++	.56++	-.20	.15	-.35++	.00
DAYS TO	FLOWER	-.12	.35++	.09	.60++	-.00	.38++	.00
DAYS TO	MATURITY	-.13	.24	.13	.61++	.10	.30+	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.18	.05	.46++	.50++	.10	.10	.00
	LODGING	.01	.10	.03	.47++	-.03	.16	.00
	SHATTER	1.00	.13	-.02	-.04	-.01	-.01	.00
PLANTS	HARVEST	.13	1.00	-.30+	.13	-.08	.36++	.00
PODS PER	PLANT	-.02	-.30+	1.00	.09	.06	-.32+	.00
POD	HEIGHT	-.04	.13	.09	1.00	-.01	.28+	.00
100 SEED	WEIGHT	-.01	-.08	.06	-.01	1.00	-.23	.00
QUALITY	OF SEED	-.01	.36++	-.32+	.28+	-.23	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 33 EXPERIMENT 658 YEAR 1979

REGION - AFRICA
SITE - SAKHA
LATITUDE - 31 DEG. N
COOPERATOR - ALI ABD EL-AZIZ
DATE PLANTED - APRIL 15, 1979
FERTILIZER USED (KG/HA) - N 25.0, P 54.0
NUMBER OF IRRIGATIONS - 7

COUNTRY - EGYPT
ELEVATION - 40 M
LONGITUDE - 31 DEG. E
DATE HARVESTED - AUGUST, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	CALLAND	4608.64	35.50	117.50	.00	.00	.00	.00	.00	.00
4	CUTLER 71	4259.73	37.75	126.50	.00	.00	.00	.00	.00	.00
10	ELF	4171.21	36.75	116.00	.00	.00	.00	.00	.00	.00
5	MITCHELL	3942.08	39.50	105.25	.00	.00	.00	.00	.00	.00
1	WILLIAMS	3827.51	36.25	115.00	.00	.00	.00	.00	.00	.00
11	COLUMBUS	3650.46	43.25	116.25	.00	.00	.00	.00	.00	.00
12	UNION	3530.68	37.25	113.25	.00	.00	.00	.00	.00	.00
3	FRANKLIN	3416.12	37.75	115.75	.00	.00	.00	.00	.00	.00
15	CRAWFORD	3338.01	41.00	116.75	.00	.00	.00	.00	.00	.00
13	CORSOY	3171.37	35.75	102.00	.00	.00	.00	.00	.00	.00
8	HARCOR	2525.64	35.50	101.50	.00	.00	.00	.00	.00	.00
14	EVANS	2468.35	31.25	92.50	.00	.00	.00	.00	.00	.00
16	MCCALL	2385.03	33.50	104.25	.00	.00	.00	.00	.00	.00
7	STEELE	2270.47	33.00	95.75	.00	.00	.00	.00	.00	.00
9	HODGSON	1609.12	33.50	98.00	.00	.00	.00	.00	.00	.00
6	SWIFT	1588.29	32.50	104.00	.00	.00	.00	.00	.00	.00
	GRAND MEAN	3172.67	36.25	108.77	.00	.00	.00	.00	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	246.89	.85	2.85	.00	.00	.00	.00	.00	.00
	COEFFICIENT OF VARIATION	15.56%	4.70%	5.24%	.00%	.00%	.00%	.00%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	703.25	2.43	8.11	.00	.00	.00	.00	.00	.00

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

YIELD	KG/HA	1.00	.54++	.68++	.00	.00	.00	.00	.00	.00
DAYS TO	FLOWER	.54++	1.00	.62++	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	.68++	.62++	1.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.00	.00	[illegible]	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.22	-.34++	-.23	.00	.00	.00	00	.00	.00
PODS PER	PLANT	.00	.00	.00	.00	.00	.00	.00	.00	.00
POD	HEIGHT	.50++	.69++	.55++	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.60++	.30+	.55++	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 33 EXPERIMENT 658 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	CALLAND	.00	143.50	.00	17.75	18.68	.00	.00	40.0	20.2
4	CUTLER 71	.00	123.25	.00	20.00	18.03	.00	.00	38.6	22.8
10	ELF	.00	126.50	.00	8.38	19.03	.00	.00	40.9	23.1
5	MITCHELL	.00	133.50	.00	20.13	16.20	.00	.00	39.2	21.2
1	WILLIAMS	.00	124.00	.00	13.25	17.65	.00	.00	33.0	26.6
11	COLUMBUS	.00	98.75	.00	20.25	15.15	.00	.00	40.6	22.5
12	UNION	.00	116.00	.00	16.13	18.10	.00	.00	41.0	21.2
3	FRANKLIN	.00	112.00	.00	20.25	15.88	.00	.00	34.6	24.4
15	CRAWFORD	.00	68.75	.00	17.88	15.95	.00	.00	39.4	22.7
13	CORSOY	.00	154.75	.00	12.00	14.48	.00	.00	38.1	23.1
8	HARCOR	.00	119.50	.00	12.88	14.35	.00	.00	38.3	23.9
14	EVANS	.00	150.00	.00	9.00	15.48	.00	.00	39.6	23.5
16	MCCALL	.00	144.50	.00	10.75	16.83	.00	.00	37.1	23.5
7	STEELE	.00	112.25	.00	10.00	15.10	.00	.00	38.7	22.2
9	HODGSON	.00	100.00	.00	11.88	15.00	.00	.00	39.1	23.2
6	SWIFT	.00	97.25	.00	10.00	13.23	.00	.00	38.1	24.3
	GRAND MEAN	.00	120.28	.00	14.41	16.19	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	10.31	.00	1.37	.86	.00	.00		
	COEFFICIENT OF VARIATION	.00%	17.13%	.00%	18.98%	10.63%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	29.35	.00	3.89	2.45	.00	.00		

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

YIELD KG/HA	.00	.22	.00	.50++	.60++	.00	.00
DAYS TO FLOWER	.00	-.34++	.00	.69++	.30+	.00	.00
DAYS TO MATURITY	.00	-.23	.00	.55++	.55++	.00	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	.00	.00	.00	.00	.00	.00
LODGING	.00	.00	.00	.00	.00	.00	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	.00	-.20	.07	.00	.00
PODS PER PLANT	.00	.00	1.00	.00	.00	.00	.00
POD HEIGHT	.00	-.20	.00	1.00	.28+	.00	.00
100 SEED WEIGHT	.00	.07	.00	.28+	1.00	.00	.00
QUALITY OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 34 EXPERIMENT 586 YEAR 1979

REGION - AFRICA
SITE - SHEBIN EL KOM
LATITUDE - 31 DEG. N
COOPERATOR - DR. M. N. SHATLA

COUNTRY - EGYPT
ELEVATION - 30 M
LONGITUDE - 31 DEG. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	BRAGG	6417.95	54.00	130.00	5.00	5.00	78.00	40.00	119.50	1.75
5	CALLAND	4797.62	54.00	130.00	5.00	5.00	64.00	71.50	107.00	2.00
6	FRANKLIN	4500.90	53.25	130.00	5.00	5.00	68.00	47.75	119.00	1.00
8	MITCHELL	4142.49	54.00	130.00	5.00	5.00	64.75	48.00	113.50	4.00
7	CUTLER 71	3667.40	54.00	130.00	5.00	5.00	58.00	72.25	111.00	2.50
14	WILLIAMS	3542.37	54.00	130.00	5.00	5.00	67.00	43.50	99.50	1.25
1	JAMES	2975.59	56.75	142.25	5.00	5.00	77.25	43.00	113.50	2.50
3	DAVIS	1208.57	76.50	152.00	5.00	5.00	50.00	91.75	137.50	2.75
2	FORREST	1158.56	67.00	152.00	5.00	5.00	64.50	60.00	125.50	1.50
15	RANSOM	625.12	65.00	152.00	5.00	5.00	70.75	58.50	131.00	2.00
12	RILLITO	495.93	76.50	152.00	5.00	5.00	71.75	39.50	165.00	1.75
13	BOSSIER	454.26	77.50	152.00	5.00	5.00	73.50	88.50	166.00	2.75
11	ACC 2120	437.59	109.00	205.00	5.00	5.00	69.50	50.00	106.50	3.50
4	GASOY 17	395.91	68.25	152.00	5.00	5.00	58.25	50.00	128.25	3.00
16	COBB	258.38	78.50	198.00	5.00	5.00	56.25	64.75	129.00	3.00
10	IMPROVED PELICAN	200.04	109.00	204.25	5.00	5.00	35.25	21.25	203.25	3.50
	GRAND MEAN	2204.61	68.89	152.59	5.00	5.00	63.80	55.64	129.69	2.42
	STANDARD ERROR OF A VARIETY MEAN	556.80	2.16	1.45	.00	.00	12.30	23.35	4.54	.34
	COEFFICIENT OF VARIATION	50.51%	6.26%	1.90%	.00%	.00%	38.57%	83.94%	7.00%	27.67%
	5% LSD VARIETY MEANS (********=NS)	1586.00	6.14	4.12	.00	.00	********	********	12.94	.95

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

YIELD	KG/HA	1.00	-.64++	-.68++	.00	.00	.11	-.16	-.50++	-.29+
DAYS TO	FLOWER	-.64++	1.00	.89++	.00	.00	-.18	-.07	.56++	.42++
DAYS TO	MATURITY	-.68++	.89++	1.00	.00	.00	-.16	-.08	.45++	.45++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.11	-.18	-.16	.00	.00	1.00	.01	-.17	-.17
NODULE	ACT. 2	-.16	-.07	-.08	.00	.00	.01	1.00	.01	-.17
PLANT	HEIGHT	-.50++	.56++	.45++	.00	.00	-.17	.01	1.00	.21
	LODGING	-.29+	.42++	.45++	.00	.00	-.17	-.17	.21	1.00
	SHATTER	.04	-.08	-.01	.00	.00	-.20	.02	.01	.04
PLANTS	HARVEST	.41++	-.36++	-.31+	.00	.00	.01	-.07	-.35++	-.26+
PODS PER	PLANT	.40++	-.21	-.17	.00	.00	-.13	-.27+	.03	-.10
POD	HEIGHT	-.22	.26++	.6[illegible]++	.00	.00	-.11	-.18	.33++	.40++
100 SEED	WEIGHT	.28	-.43++	-.45++	.00	.00	-.03	.09	-.06	.01
QUALITY	OF SEED	-.41++	.35++	.20	.00	.00	.06	.02	.39++	.39++
PERCENT	GERM.	-.28+	.34++	.25+	.00	.00	-.27+	-.03	.59++	.25

TABLE 34 EXPERIMENT 5[illegible] (CODE 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
9	BRAGG	1.50	100.[illegible]	[illegible]	[illegible]	19.2[illegible]	1.00	82.50
5	CALLAND	1.50	1[illegible]	6[illegible]	19.[illegible]	21.8[illegible]	1.00	65.00
6	FRANKLIN	1.25	[illegible]	61.25	12.75	22.24	1.00	61.25
8	MITCHELL	1.50	[illegible]	71.[illegible]	12.25	26.63	2.00	68.75
7	CUTLER 71	3.25	10[illegible]	5[illegible]	13.50	25.85	1.00	67.50
14	WILLIAMS	1.50	12[illegible]	49.00	10.25	21.38	1.00	63.75
1	JAMES	1.00	95.75	74.50	11.75	21.98	3.00	62.50
3	DAVIS	2.00	102.50	70.00	5.[illegible]	17.68	2.00	75.75
2	FORREST	1.25	114.75	65.00	8.00	18.2[illegible]	1.00	67.50
15	RANSUM	2.00	83.75	63.00	9.00	19.93	2.00	70.00
12	RILLITU	2.00	62.25	58.25	9.00	19.45	2.00	72.00
13	BOSSIER	2.00	9[illegible].00	34.00	10.50	23.75	3.00	90.00
11	ACC 2120	1.00	82.25	30.25	59.50	12.13	2.00	61.75
4	GASOY 17	1.00	89.50	43.25	10.00	22.23	2.00	87.50
16	COBB	3.25	94.75	57.50	10.25	22.90	1.00	82.50
10	IMPROVED PELICAN	1.00	68.00	74.75	63.00	18.35	2.00	95.00
	GRAND MEAN	1.69	97.80	59.39	17.22	20.72	1.69	73.33
	STANDARD ERROR OF A VARIETY MEAN	.81	16.69	8.95	2.22	1.48	.00	4.91
	COEFFICIENT OF VARIATION	96.52%	34.14%	30.14%	25.83%	14.27%	.00%	13.38%
	5% LSD VARIETY MEANS (********=NS)	********	********	25.50	6.33	4.21	.00	13.97

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

YIELD	KG/HA	.04	.41++	.30++	-.22	.24	-.41++	-.28+
DAYS TO	FLOWER	-.08	-.33++	-.21	.76++	-.44++	.35++	.34++
DAYS TO	MATURITY	-.01	-.31+	-.17	.69++	-.43++	.20	.29+
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	-.20	.01	-.13	-.11	-.03	.06	-.27+
NODULE	ACT. 2	.02	-.07	-.27+	-.18	.05	.02	-.03
PLANT	HEIGHT	.01	-.35++	.03	.33++	-.06	.39++	.55++
	LODGING	.04	-.26+	-.10	.40++	.01	.39++	.25
	SHATTER	1.00	-.09	.03	-.16	.28+	-.12	.06
PLANTS	HARVEST	-.09	1.00	.09	-.22	.04	-.31+	-.11
PODS PER	PLANT	.03	.09	1.00	-.10	.09	-.10	.08
POD	HEIGHT	-.16	-.22	-.10	1.00	-.46++	.13	.13
100 SEED	WEIGHT	.28+	.04	.09	-.46++	1.00	-.01	.10
QUALITY	OF SEED	-.12	-.31+	-.10	.13	-.01	1.00	.19
PERCENT	GERM.	.06	-.11	.08	.13	.10	.19	1.00

TABLE 35 EXPERIMENT 584 YEAR 1979

REGION - AFRICA
SITE - SIDS
LATITUDE - 28 DEG. N
COOPERATOR - ALI ABDEL-AZIZ
FERTILIZER USED (KG/HA) - N 25.0, P 54.0
NUMBER OF IRRIGATIONS - 7

COUNTRY - EGYPT
ELEVATION - 100 M
LONGITUDE - 31 DEG. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
5	CALLAND	3074.32	35.00	95.00	1.75	1.00	.00	.00	70.00	1.00
8	MITCHELL	2523.35	40.00	105.00	1.25	1.00	.00	.00	70.00	1.00
1	WILLIAMS	2486.31	40.00	105.00	1.75	1.25	.00	.00	51.25	1.00
9	CRAWFORD	2384.45	45.00	95.00	1.25	1.25	.00	.00	63.75	1.00
6	FRANKLIN	2240.92	40.00	101.25	1.50	1.00	.00	.00	48.75	1.00
7	CUTLER 71	2194.62	35.00	100.00	1.00	1.00	.00	.00	55.00	1.00
4	FORREST	1342.70	55.00	120.00	1.00	2.00	.00	.00	68.75	2.00
3	JAMES	1268.62	55.00	111.25	1.25	1.25	.00	.00	107.50	2.00
2	RANSOM	537.08	90.00	150.00	3.00	2.00	.00	.00	98.75	1.75
	GRAND MEAN	2005.82	48.33	109.17	1.53	1.31	.00	.00	70.42	1.31
	STANDARD ERROR OF A VARIETY MEAN	234.22	.00	.55	.21	.13	.00	.00	1.30	.08
	COEFFICIENT OF VARIATION	25.35%	.00%	1.01%	27.45%	19.15%	.00%	.00%	3.68%	12.77%
	5% LSD VARIETY MEANS (********=NS)	683.67	.00	1.61	.61	.36	.00	.00	3.78	.24

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

YIELD	KG/HA	1.00	-.80++	-.78++	-.32	-.61++	.00	.00	-.61++	-.70++
DAYS TO	FLOWER	-.80++	1.00	.95++	.61++	.70++	.00	.00	.70++	.66++
DAYS TO	MATURITY	-.78++	.95++	1.00	.59++	.70++	.00	.00	.60++	.65++
NODULE	ABUND 1	-.32	.61++	.59++	1.00	.37+	.00	.00	.33	.10
NODULE	ABUND 2	-.61++	.70++	.70++	.37+	1.00	.00	.00	.39+	.61++
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.61++	.70++	.60++	.33	.39+	.00	.00	1.00	.69++
	LODGING	-.70++	.66++	.65++	.10	.61++	.00	.00	.69++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.35+	-.29	-.24	-.14	-.40+	.00	.00	-.10	-.23
PODS PER	PLANT	.44++	-.29	-.34+	-.08	-.32	.00	.00	-.11	-.30
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.43++	-.41+	-.40+	-.31	-.39+	.00	.00	-.14	-.13
QUALITY	OF SEED	-.75++	.70++	.74++	.32	.66++	.00	.00	.44++	.66++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 35 EXPERIMENT 584 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
5	CALLAND	1.00	209.00	30.35	.00	14.10	1.50	.00	38.7	21.9
8	MITCHELL	1.00	205.75	34.40	.00	12.03	1.50	.00	37.9	22.3
1	WILLIAMS	1.00	197.00	18.10	.00	14.63	1.25	.00	38.1	23.4
9	CRAWFORD	1.00	194.25	30.53	.00	12.80	1.00	.00	40.8	20.8
6	FRANKLIN	1.00	202.25	30.08	.00	11.73	2.25	.00	39.3	22.9
7	CUTLER 71	1.00	202.25	25.70	.00	13.90	1.25	.00	39.7	22.1
4	FORREST	1.00	197.50	19.50	.00	12.35	3.50	.00	42.9	20.9
3	JAMES	1.00	198.75	24.95	.00	13.88	2.25	.00	40.3	22.1
2	RANSOM	1.00	195.75	19.60	.00	11.28	3.50	.00		
	GRAND MEAN	1.00	200.28	25.91	.00	12.96	2.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	4.41	4.77	.00	.59	.25	.00		
	COEFFICIENT OF VARIATION	.00%	4.40%	36.82%	.00%	9.14%	24.77%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	********	********	.00	1.73	.72	.00		

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	.00	.35+	.44++	.00	.43++	-.75++	.00
DAYS TO FLOWER	.00	-.29	-.29	.00	-.41+	.70++	.00
DAYS TO MATURITY	.00	-.24	-.34+	.00	-.40+	.74++	.00
NODULE ABUND 1	.00	-.14	-.08	.00	-.31	.32	.00
NODULE ABUND 2	.00	-.40+	-.32	.00	-.39+	.66++	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	-.10	-.11	.00	-.14	.44++	.00
LODGING	.00	-.23	-.30	.00	-.13	.66++	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	.33+	.00	.02	-.11	.00
PODS PER PLANT	.00	.33+	1.00	.00	-.05	-.26	.00
POD HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED WEIGHT	.00	.02	-.05	.00	1.00	-.48++	.00
QUALITY OF SEED	.00	-.11	-.26	.00	-.48++	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 36 EXPERIMENT 591 YEAR 1979

REGION - AFRICA
SITE - AWASSA AGR COLLEGE
LATITUDE - 6 DEG. 30 MIN. N
COOPERATOR - ASFAW MESFIN, GEREMEW HAILE, ABDURAHMAN ALI
DATE PLANTED - JUNE 28, 1979

COUNTRY - ETHIOPIA
ELEVATION - 1750 M
LONGITUDE - 38 DEG. E
DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
6	CLARK 63K	3294.41	49.00	138.00	4.00	4.00	36.25	47.50	45.75	1.25
8	FORREST	3238.15	50.25	126.50	4.00	4.00	56.25	86.25	60.00	1.75
13	CUTLER 71	3083.95	45.50	104.75	3.75	3.75	71.25	88.75	50.75	2.50
14	MITCHELL	3025.60	45.00	104.25	3.75	4.00	90.00	87.50	47.75	2.00
4	WILLIAMS	3021.44	41.50	101.50	4.25	4.25	50.00	70.00	43.75	2.75
5	COKER 240	2973.51	45.25	106.00	3.75	3.75	91.25	88.75	36.25	1.00
3	BOSSIER	2952.67	49.25	136.00	4.00	4.75	40.00	35.00	57.50	2.00
11	CALLAND	2923.50	48.75	117.25	4.00	4.00	65.00	83.75	47.50	2.00
7	JAMES	2856.82	45.25	112.50	4.00	4.00	83.75	88.75	55.00	2.25
9	DAVIS	2779.72	55.25	129.00	4.00	4.00	98.75	73.75	58.75	1.25
2	RILLITO	2579.68	45.75	115.00	4.00	4.00	83.75	65.00	41.00	1.25
12	FRANKLIN	2440.07	46.00	110.25	4.00	4.25	48.75	56.25	41.75	1.00
15	BRAGG	2317.13	49.75	119.50	4.00	4.00	61.25	65.00	40.00	1.75
1	IMPROVED PELICAN	2244.20	63.50	148.50	4.00	4.50	51.25	70.00	86.75	2.50
10	GASOY 17	2048.33	47.00	137.00	4.00	4.25	40.00	40.00	38.00	1.00
16	ACC 2120	1187.74	49.75	161.00	3.75	4.00	92.50	67.50	84.00	5.00
	GRAND MEAN	2685.43	48.55	122.94	3.95	4.09	65.63	69.61	52.16	1.95
	STANDARD ERROR OF A VARIETY MEAN	181.66	1.89	3.86	.13	.17	9.86	11.69	4.62	.27
	COEFFICIENT OF VARIATION	13.53%	7.79%	6.29%	6.34%	8.09%	30.05%	33.58%	17.70%	27.47%
	5% LSD VARIETY MEANS (********=NS)	517.44	5.39	11.01	********	.47	28.08	33.29	13.15	.76

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

YIELD	KG/HA	1.00	-.23	-.40++	.12	-.15	-.12	.11	-.27+	-.26+
DAYS TO	FLOWER	-.23	1.00	.59++	-.19	.16	.15	.10	.53++	-.03
DAYS TO	MATURITY	-.40++	.59++	1.00	-.12	.17	-.05	-.24	.58++	.29+
NODULE	ABUND 1	.12	-.19	-.12	1.00	.19	-.36++	-.10	-.14	-.06
NODULE	ABUND 2	-.15	.16	.17	.19	1.00	-.41++	-.46++	.08	.01
NODULE	ACT. 1	-.12	.15	-.05	-.36++	-.41++	1.00	.38++	.21	.12
NODULE	ACT. 2	.11	.10	-.24	-.10	-.46++	.38++	1.00	.13	.11
PLANT	HEIGHT	-.27+	.53++	.58++	-.14	.08	.21	.13	1.00	.58++
	LODGING	-.26+	-.03	.29+	-.06	.01	.12	.11	.58++	1.00
	SHATTER	-.49++	.04	.48++	-.16	-.06	.03	.01	.33++	.50++
PLANTS	HARVEST	.01	-.38++	-.35++	-.07	-.30+	.10	.23	-.38++	-.15
PODS PER	PLANT	-.20	.46++	.44++	.12	.20	-.00	.01	.55++	.40++
POD	HEIGHT	-.47++	.60++	.77++	-.29+	.12	.19	-.07	.78++	.53++
100 SEED	WEIGHT	.60++	-.38++	-.50++	.22	-.06	-.17	-.11	-.70++	-.58++
QUALITY	OF SEED	-.27+	-.17	.04	-.28+	-.26+	.17	.05	.05	.38++
PERCENT	GERM.	-.08	.03	-.07	-.04	-.02	.08	.16	-.08	.03

TABLE 36 EXPERIMENT 591 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
6	CLARK 63K	1.50	228.25	28.75	7.00	18.00	2.00	53.00	39.5	19.8
8	FORREST	1.50	166.50	41.25	7.75	17.25	1.25	86.00	41.0	15.6
13	CUTLER 71	1.00	224.25	30.25	5.25	17.50	3.50	65.50	40.4	18.6
14	MITCHELL	1.50	210.50	31.75	4.25	18.00	2.75	76.50	37.4	18.3
4	WILLIAMS	1.00	187.50	29.25	4.75	18.00	2.00	78.00	41.1	18.7
5	COKER 240	1.25	193.25	30.25	3.75	19.25	2.50	85.00	40.6	17.0
3	BOSSIER	1.25	171.25	27.50	10.25	17.75	2.00	64.00	40.0	18.6
11	CALLAND	1.25	221.00	26.50	5.25	19.00	2.75	89.50	40.5	17.0
7	JAMES	1.75	211.75	28.25	5.25	18.75	1.25	56.50	39.7	18.4
9	DAVIS	1.00	179.75	33.50	9.25	16.75	1.00	60.00	37.8	18.7
2	RILLITO	1.00	184.00	28.00	4.75	21.50	2.00	77.00	41.4	18.2
12	FRANKLIN	2.25	237.75	28.00	3.25	18.00	2.00	90.00	41.0	15.6
15	BRAGG	1.25	192.25	22.25	5.75	19.00	1.75	65.50	36.1	19.3
1	IMPROVED PELICAN	1.50	52.00	91.50	13.00	15.25	2.00	71.00	40.8	18.5
10	GASOY 17	1.50	233.00	19.25	5.25	18.00	1.75	69.00	40.5	16.5
16	ACC 2120	4.00	202.25	56.75	18.25	9.25	4.00	76.50	44.4	13.3
	GRAND MEAN	1.53	193.45	34.56	7.06	17.58	2.16	72.69		
	STANDARD ERROR OF A VARIETY MEAN	.25	16.19	5.66	.94	.83	.30	9.89		
	COEFFICIENT OF VARIATION	32.56%	16.74%	32.75%	26.71%	9.45%	27.60%	27.21%		
	5% LSD VARIETY MEANS (********=NS)	.71	46.11	16.12	2.69	2.36	.85	********		

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

YIELD	KG/HA	-.49++	.01	-.20	-.47++	.60++	-.27+	-.08
DAYS TO	FLOWER	.04	-.38++	.46++	.60++	-.38++	-.17	.03
DAYS TO	MATURITY	.48++	-.35++	.44++	.77++	-.50++	.04	-.07
NODULE	ABUND 1	-.16	-.07	.12	-.29+	.22	-.28+	-.04
NODULE	ABUND 2	-.06	-.30+	.20	.12	-.06	-.26+	-.02
NODULE	ACT. 1	.03	.10	-.00	.19	-.17	.17	.08
NODULE	ACT. 2	.01	.23	.01	-.07	-.11	.05	.16
PLANT	HEIGHT	.33++	-.38++	.55++	.78++	-.70++	.05	-.08
	LODGING	.50++	-.15	.40++	.53++	-.58++	.38++	.03
	SHATTER	1.00	.13	.23	.44++	-.54++	.34++	.02
PLANTS	HARVEST	.13	1.00	-.64++	-.35++	-.01	.09	.08
PODS PER	PLANT	.23	-.64++	1.00	.48++	-.29+	.07	.08
POD	HEIGHT	.44++	-.35++	.48++	1.00	-.74++	.19	-.01
100 SEED	WEIGHT	-.54++	-.01	-.29+	-.74++	1.00	-.27+	-.03
QUALITY	OF SEED	.34++	.09	.07	.19	-.27+	1.00	.01
PERCENT	GERM.	.02	.08	.08	-.01	-.03	.01	1.00

TABLE 37 EXPERIMENT 596 YEAR 1979

REGION - AFRICA COUNTRY - ETHIOPIA
SITE - AWASSA, SIDAMO ELEVATION - 1750 M
LATITUDE - 6 DEG. 30 MIN. N LONGITUDE - 38 DEG. E
COOPERATOR - GASHAHUN WOLDIE, ABDURAHMAN ALI
DATE PLANTED - JUNE 26, 1979 DATE HARVESTED - OCTOBER, 1979
FERTILIZER USED - (KG/HA) - N 18.0, P 46.0
SUBSTITUTE VARIETIES - COKER 240, CLARK 63 K.

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
24	MITCHELL	3258.98	50.50	120.00	2.50	1.00	87.50	81.25	59.45	3.00
35	CRAWFORD	3258.98	50.25	121.00	1.50	1.00	86.25	80.00	72.45	3.00
19	DAVIS	2950.59	74.00	132.00	2.50	1.00	82.50	88.75	81.50	3.50
16	CLARK 23 K	2875.57	68.00	132.00	3.25	1.00	62.50	97.50	78.20	3.25
14	WILLIAMS	2846.40	50.25	114.00	2.25	1.00	92.50	75.00	52.95	1.75
15	COKER 240	2833.90	72.50	132.00	3.25	1.00	48.75	87.50	64.85	3.25
17	JAMES	2729.71	52.50	132.00	3.00	1.00	70.00	81.25	64.10	2.25
18	FORREST	2629.69	64.00	132.00	3.00	1.00	85.00	82.50	77.55	3.25
21	CALLAND	2563.01	48.75	132.00	2.25	1.00	87.50	87.50	66.60	2.75
23	CUTLER 71	2558.84	48.50	114.00	1.25	1.00	86.25	86.25	67.80	2.25
13	BOSSIER	2517.17	57.75	131.00	2.75	1.00	78.75	75.00	90.05	4.00
22	FRANKLIN	2225.44	47.75	121.00	3.25	1.00	56.25	75.00	58.10	2.00
20	GASOY 17	2087.92	65.00	131.00	3.00	1.00	77.50	88.75	73.85	2.50
12	RILLITO	1896.21	59.50	131.00	3.50	1.00	58.75	93.75	73.30	3.25
10	IMPROVED PELICAN	1108.55	81.00	131.00	3.00	2.50	63.75	82.50	98.45	3.00
37	ACC 2120	50.01	106.00	166.00	2.50	1.00	100.00	73.75	161.85	5.00
	GRAND MEAN	2399.44	62.27	129.50	2.67	1.09	76.48	83.52	77.57	3.00
	STANDARD ERROR OF A VARIETY MEAN	144.95	.45	.00	.33	.13	7.07	6.37	3.77	.34
	COEFFICIENT OF VARIATION	12.08%	1.45%	.00%	25.00%	22.86%	18.48%	15.25%	9.73%	22.97%
	5% LSD VARIETY MEANS (********=NS)	412.88	1.28	.00	.95	.36	20.13	********	10.75	.98

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

YIELD	KG/HA	1.00	-.70++	-.69++	-.16	-.32++	-.03	.13	-.74++	-.28+
DAYS TO	FLOWER	-.70++	1.00	.85++	.20	.27+	.04	-.01	.84++	.60++
DAYS TO	MATURITY	-.69++	.85++	1.00	.23	.03	.09	-.03	.85++	.63++
NODULE	ABUND 1	-.16	.20	.23	1.00	-.00	-.46++	-.05	-.01	.02
NODULE	ABUND 2	-.32++	.27+	.03	-.00	1.00	-.22	-.03	.18	0.00
NODULE	ACT. 1	-.03	.04	.09	-.46++	-.22	1.00	-.04	.21	.14
NODULE	ACT. 2	.13	-.01	-.03	-.05	-.03	-.04	1.00	-.13	-.02
PLANT	HEIGHT	-.74++	.84++	.85++	-.01	.18	.21	-.13	1.00	.68++
	LODGING	-.28+	.60++	.63++	.02	0.00	.14	-.02	.68++	1.00
	SHATTER	-.49++	.48++	.62++	-.14	-.17	.29+	-.16	.63++	.43++
PLANTS	HARVEST	.15	-.34++	-.04	-.31+	-.54++	.33++	-.10	-.04	-.08
PODS PER	PLANT	-.31+	.37++	.12	.22	.68++	-.23	.03	.24	.10
POD	HEIGHT	-.71++	.77++	.78++	.12	.08	.28+	-.22	.85++	.53++
100 SEED	WEIGHT	.74++	-.88++	-.84++	-.10	-.27+	-.07	.11	-.88++	-.56++
QUALITY	OF SEED	-.42++	.16	.37++	-.34++	.05	.29+	-.11	.49++	.29+
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 37 EXPERIMENT 596 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
24	MITCHELL	2.00	254.50	20.50	6.10	20.70	3.25	.00	41.6	16.9
35	CRAWFORD	2.00	255.50	18.25	7.25	20.30	3.00	.00	42.8	16.9
19	DAVIS	2.00	248.00	29.25	9.80	16.35	1.75	.00	40.2	18.8
16	CLARK 23 K	2.00	214.00	34.00	13.05	16.08	2.00	.00	39.2	17.9
14	WILLIAMS	2.00	263.75	17.50	8.20	20.80	2.00	.00	42.4	16.4
15	COKER 240	1.75	87.25	46.25	7.25	17.00	2.00	.00	40.4	18.6
17	JAMES	2.00	294.75	20.75	6.65	19.73	2.75	.00	43.1	18.1
18	FORREST	1.75	145.00	35.50	9.15	17.95	2.00	.00	38.2	16.2
21	CALLAND	2.00	315.00	24.25	7.95	18.25	4.00	.00	43.7	16.7
23	CUTLER 71	2.00	293.50	19.00	7.75	19.35	3.50	.00	42.2	18.9
13	BOSSIER	2.25	226.00	46.75	10.85	16.83	3.00	.00	41.6	17.6
22	FRANKLIN	2.00	271.50	19.25	7.35	17.90	3.00	.00	41.0	15.6
20	GASOY 17	2.50	270.25	22.75	10.25	18.43	2.50	.00	41.8	14.6
12	RILLITO	2.00	224.75	28.75	8.45	20.50	2.50	.00	41.5	17.1
10	IMPROVED PELICAN	1.50	31.25	120.00	12.05	14.25	3.00	.00	42.4	16.2
37	ACC 2120	3.75	289.75	22.25	27.78	7.30	4.75	.00	44.8	11.5
	GRAND MEAN	2.09	230.30	32.81	9.99	17.61	2.81	.00		
	STANDARD ERROR OF A VARIETY MEAN	.17	16.00	4.45	1.32	.42	.23	.00		
	COEFFICIENT OF VARIATION	15.82%	13.89%	27.13%	26.48%	4.74%	16.01%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.47	45.56	12.68	3.77	1.19	.64	.00		

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

YIELD	KG/HA	-.49++	.15	-.31+	-.71++	.74++	-.42++	.00
DAYS TO	FLOWER	.48++	-.34++	.37++	.77++	-.88++	.16	.00
DAYS TO	MATURITY	.62++	-.04	.12	.78++	-.84++	.37++	.00
NODULE	ABUND 1	-.14	-.31+	.22	.12	-.10	-.34++	.00
NODULE	ABUND 2	-.17	-.54++	.68++	.08	-.27+	.05	.00
NODULE	ACT. 1	.29+	.33++	-.23	.28+	-.07	.29+	.00
NODULE	ACT. 2	-.16	-.10	.03	-.22	.11	-.11	.00
PLANT	HEIGHT	.63++	-.04	.24	.85++	-.88++	.49++	.00
	LODGING	.43++	-.08	.10	.53++	-.56++	.29+	.00
	SHATTER	1.00	.40++	-.30+	.65++	-.57++	.49++	.00
PLANTS	HARVEST	.40++	1.00	-.75++	.04	.16	.36++	.00
PODS PER	PLANT	-.30+	-.75++	1.00	.10	-.29+	-.05	.00
POD	HEIGHT	.65++	.04	.10	1.00	-.83++	.37++	.00
100 SEED	WEIGHT	-.57++	.16	-.29+	-.83++	1.00	-.37++	.00
QUALITY	OF SEED	.49++	.36++	-.05	.37++	-.37++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 38 EXPERIMENT 574 YEAR 1979

REGION - AFRICA
SITE - DEBRE-ZEIT
LATITUDE - 8 DEG. 55 MIN. N
COOPERATOR - ALEMU MENGISTU
DATE PLANTED - JULY 12, 1979
AMOUNT OF MOISTURE - 377 MM

COUNTRY - ETHIOPIA
ELEVATION - 1860 M
LONGITUDE - 38 DEG. 58 MIN. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
4	WILLIAMS	2421.73	44.00	110.00	.00	.00	62.50	.00	65.00	1.00
5	RANSOM	2044.16	48.75	110.00	.00	.00	72.50	.00	65.75	1.00
11	CALLAND	1870.79	45.50	110.00	.00	.00	70.00	.00	64.00	1.00
13	CUTLER 71	1759.94	44.00	110.00	.00	.00	63.75	.00	75.75	1.00
14	MITCHELL	1639.98	45.00	110.25	.00	.00	73.75	.00	73.25	1.00
6	COBB	1501.97	45.75	110.00	.00	.00	62.50	.00	73.25	1.00
12	FRANKLIN	1496.13	43.00	110.00	.00	.00	52.50	.00	64.00	1.00
7	JAMES	1490.30	43.50	110.50	.00	.00	75.00	.00	71.00	1.00
2	RILLITO	1354.44	49.00	110.50	.00	.00	75.00	.00	87.25	2.50
15	BRAGG	1242.75	44.75	113.75	.00	.00	72.50	.00	82.75	2.75
10	GASOY 17	1213.16	47.00	110.25	.00	.00	73.75	.00	78.00	1.50
3	BOSSIER	811.83	49.50	123.00	.00	.00	55.00	.00	95.00	3.25
8	FORREST	773.49	47.25	110.25	.00	.00	68.75	.00	90.25	3.25
9	DAVIS	695.14	48.50	116.75	.00	.00	72.50	.00	87.25	2.00
1	IMPROVED PELICAN	118.36	46.00	132.00	.00	.00	75.00	.00	89.50	2.00
	GRAND MEAN	1362.28	46.10	113.15	.00	.00	68.33	.00	77.47	1.68
	STANDARD ERROR OF A VARIETY MEAN	135.55	2.49	1.22	.00	.00	4.45	.00	2.92	.31
	COEFFICIENT OF VARIATION	19.90%	10.80%	2.16%	.00%	.00%	13.03%	.00%	7.55%	36.59%
	5% LSD VARIETY MEANS (********=NS)	386.88	********	3.48	.00	.00	12.71	.00	8.35	.83

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

YIELD	KG/HA	1.00	-.13	-.63++	.00	.00	-.11	.00	-.67++	-.53++
DAYS TO	FLOWER	-.13	1.00	.16	.00	.00	.02	.00	.30+	.26+
DAYS TO	MATURITY	-.63++	.16	1.00	.00	.00	.01	.00	.50++	.36++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	-.11	.02	.01	.00	.00	1.00	.00	.02	-.03
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.67++	.30+	.50++	.00	.00	.02	.00	1.00	.66++
	LODGING	-.53++	.26+	.36++	.00	.00	-.03	.00	.66++	1.00
	SHATTER	.16	-.16	-.19	.00	.00	-.11	.00	-.28+	-.28+
PLANTS	HARVEST	.53++	-.15	-.70++	.00	.00	-.18	.00	-.41++	-.35++
PODS PER	PLANT	.38++	.14	-.20	.00	.00	-.05	.00	-.11	.05
POD	HEIGHT	-.63++	.06	.68++	.00	.00	.25	.00	.47++	.38++
100 SEED	WEIGHT	.72++	-.07	-.38++	.00	.00	-.01	.00	-.49++	-.25
QUALITY	OF SEED	-.65++	.06	.38++	.00	.00	-.01	.00	.59++	.41++
PERCENT	GERM.	.21	.00	-.21	.00	.00	-.18	.00	-.17	.01

TABLE 38 EXPERIMENT 574 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
4	WILLIAMS	1.00	124.75	23.00	10.25	14.00	2.00	77.00	42.9	12.8
5	RANSOM	1.00	112.50	24.50	9.50	12.50	1.75	88.00	42.7	14.5
11	CALLAND	1.25	151.75	21.25	10.50	12.63	2.25	97.00	44.1	14.4
13	CUTLER 71	1.25	126.50	22.75	10.00	12.78	2.25	94.00	44.0	15.7
14	MITCHELL	2.25	127.50	15.80	11.25	12.88	2.00	76.03	44.0	12.8
6	COBB	1.00	111.75	26.75	8.75	10.83	2.75	74.00		
12	FRANKLIN	1.50	141.00	22.25	7.25	12.53	1.75	100.00	43.7	13.5
7	JAMES	1.25	141.25	19.75	10.50	11.38	2.75	68.00	41.5	14.4
2	RILLITO	1.00	108.00	27.00	16.50	12.85	2.25	91.00	43.8	13.9
15	BRAGG	1.00	105.00	27.50	12.25	13.80	2.25	93.00	43.8	13.2
10	GASOY 17	1.00	127.75	19.25	10.75	10.33	2.50	94.00	42.8	14.5
3	BOSSIER	1.00	118.75	20.25	14.25	10.63	3.00	88.00	44.2	15.6
8	FORREST	1.00	98.25	23.75	16.50	9.45	3.75	77.00	43.1	15.5
9	DAVIS	1.00	115.25	23.75	17.00	9.53	3.50	74.00	44.7	15.2
1	IMPROVED PELICAN	1.00	29.50	11.25	25.00	8.65	3.50	75.00	42.3	15.6
	GRAND MEAN	1.17	115.97	21.92	12.68	11.65	2.55	84.40		
	STANDARD ERROR OF A VARIETY MEAN	.15	6.17	4.22	1.62	.54	.25	.01		
	COEFFICIENT OF VARIATION	26.23%	10.64%	38.47%	25.60%	9.36%	19.61%	.02%		
	5% LSD VARIETY MEANS (********=NS)	.44	17.61	********	4.63	1.56	.71	.02		

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	.16	.53++	.38++	-.63++	.72++	-.65++	.21
DAYS TO FLOWER	-.16	-.15	.14	.06	-.07	.06	.00
DAYS TO MATURITY	-.19	-.70++	-.20	.68++	-.38++	.38++	-.21
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	-.11	-.18	-.05	.25	-.01	-.01	-.18
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	-.28+	-.41++	-.11	.47++	-.49++	.59++	-.17
LODGING	-.28+	-.35++	.05	.38++	-.25	.41++	.01
SHATTER	1.00	.26+	-.15	-.13	.16	-.18	-.02
PLANTS HARVEST	.26+	1.00	.00	-.62++	.32+	-.34++	.30+
PODS PER PLANT	-.15	.00	1.00	-.30+	.35++	-.24	.13
POD HEIGHT	-.13	-.62++	-.30+	1.00	-.44++	.46++	-.28+
100 SEED WEIGHT	.16	.32+	.35++	-.44++	1.00	-.73++	.36++
QUALITY OF SEED	-.18	-.34++	-.24	.46++	-.73++	1.00	-.44++
PERCENT GERM.	-.02	.30+	.13	-.28+	.36++	-.44++	1.00

TABLE 39 EXPERIMENT 420 YEAR 1979

REGION - OCEANIA COUNTRY - FIJI
SITE - LEGALEGA RESEARCH STATION ELEVATION - 20
LATITUDE - 17 DEG. 45 MIN. S LONGITUDE - 177 DEG. 28 MIN. E
COOPERATORS - R. VINER & H. KUMAR
DATE PLANTED - MARCH 21, 1980 DATE HARVESTED - JUNE 1980
SOIL TYPE - SAND 72 %, SILT 6 %, CLAY 22 %
FERTILIZER USED (KG/HA) N 25, P 26.4, K 33.2 PHOS ZINC .5
AMOUNT OF MOISTURE - 170MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	1348.19	20.50	96.50	4.00	2.25	65.00	78.75	49.25	1.00
1	CH-3	1252.33	28.75	102.25	3.50	3.50	86.25	85.00	68.75	1.00
5	ORBA	1227.33	22.00	94.75	3.00	2.75	63.75	93.75	53.00	1.00
6	IAC-2	1216.91	27.75	101.25	3.25	2.75	100.00	96.25	60.00	1.00
8	CARIBE	1165.55	31.00	102.00	4.00	3.00	92.50	96.25	58.75	1.00
11	ACC 2120	1083.55	37.25	107.75	4.00	3.25	97.50	85.00	72.25	1.00
4	HARDEE LS	1025.20	37.75	112.75	4.00	3.00	60.00	73.75	42.75	1.00
10	DAVIS	1004.37	22.75	97.75	4.00	2.75	93.75	95.00	23.50	1.00
13	BOSSIER	1000.20	20.00	99.00	4.25	3.00	81.25	92.50	34.75	1.00
2	UFV-1	975.19	28.25	101.25	4.00	3.00	67.50	93.75	28.75	1.00
12	RILLITO	933.52	21.50	98.25	3.50	2.50	68.75	85.00	43.00	1.00
7	TUNIA	908.51	23.50	108.75	4.00	3.50	56.25	96.25	43.25	1.00
3	SJ-2	768.90	30.50	102.75	4.25	4.00	53.75	88.75	48.25	1.00
15	RANSOM	545.94	20.00	106.50	4.00	3.50	80.00	81.25	23.25	1.00
9	JUPITER	450.09	33.25	109.50	4.25	3.75	76.25	53.75	47.00	1.00
	GRAND MEAN	993.72	26.98	102.73	3.87	3.10	76.17	86.33	46.43	1.00
	STANDARD ERROR OF A VARIETY MEAN	97.33	.14	.00	.25	.38	14.21	6.61	2.14	.00
	COEFFICIENT OF VARIATION	19.59%	1.00%	.00%	12.74%	24.67%	37.30%	15.32%	9.22%	.00%
	5% LSD VARIETY MEANS (********=NS)	277.77	.39	.00	.70	********	********	18.87	6.11	.00

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

YIELD	KG/HA	1.00	.03	-.39++	-.24	-.10	-.10	.14	.44++	.00
DAYS TO	FLOWER	.03	1.00	.57++	.11	.15	.03	-.25	.49++	.00
DAYS TO	MATURITY	-.39++	.57++	1.00	.21	.29+	.03	-.29+	.04	.00
NODULE	ABUND 1	-.24	.11	.21	1.00	.19	-.05	-.16	-.24	.00
NODULE	ABUND 2	-.10	.15	.29+	.19	1.00	-.23	-.23	.02	.00
NODULE	ACT. 1	-.10	.03	.03	-.05	-.23	1.00	.12	.09	.00
NODULE	ACT. 2	.14	-.25	-.29+	-.16	-.23	.12	1.00	-.04	.00
PLANT	HEIGHT	.44++	.49++	.04	-.24	.02	.09	-.04	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.64++	-.14	-.51++	-.17	-.09	.08	.08	.48++	.00
PODS PER	PLANT	-.33+	.46++	.67++	.17	.14	.07	-.16	.07	.00
POD	HEIGHT	.57++	.41++	-.20	-.22	.07	.06	.11	.73++	.00
100 SEED	WEIGHT	-.34++	-.49++	.13	.07	.03	-.10	-.13	-.56++	.00
QUALITY	OF SEED	-.04	.47++	.29+	.16	.11	.09	-.25	.33++	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 39 EXPERIMENT 420 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
14	WILLIAMS	1.00	121.50	18.25	5.73	16.93	1.75	.00	38.6	24.2
1	CH-3	1.00	168.75	24.00	13.25	11.48	1.00	.00	39.6	23.8
5	ORBA	1.00	92.50	41.00	8.00	11.13	1.00	.00	43.2	20.8
6	IAC-2	1.00	116.50	35.75	9.35	13.23	1.25	.00	38.8	23.5
8	CARIBE	1.00	107.75	31.50	9.55	11.20	1.00	.00	39.9	22.6
11	ACC 2120	1.00	80.50	66.25	12.50	6.13	4.00	.00	41.0	17.9
4	HARDEE LS	1.00	30.50	85.50	6.68	12.10	1.00	.00	39.1	20.9
10	DAVIS	1.00	56.00	28.25	5.08	14.98	1.25	.00	39.1	23.5
13	BOSSIER	1.00	97.00	26.25	6.65	13.63	1.00	.00	41.3	21.7
2	UFV-1	1.00	67.00	41.00	6.65	14.10	2.00	.00	40.1	24.3
12	RILLITO	1.00	77.25	26.75	5.00	13.28	1.00	.00	40.2	22.9
7	TUNIA	1.00	16.00	90.75	3.50	17.50	1.50	.00	39.6	23.6
3	SJ-2	1.00	37.25	59.75	7.60	11.10	1.50	.00	40.8	22.3
15	RANSOM	1.00	24.50	32.00	2.00	22.53	1.00	.00	41.4	23.6
9	JUPITER	1.00	26.50	66.75	3.78	16.93	2.50	.00	39.9	18.3
	GRAND MEAN	1.00	74.63	44.92	7.02	13.75	1.52	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	14.03	8.75	.78	.90	.20	.00		
	COEFFICIENT OF VARIATION	.00%	37.59%	38.97%	22.33%	13.09%	25.74%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	40.04	24.98	2.24	2.57	.56	.00		

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

YIELD	KG/HA	.00	.64++	-.33+	.57++	-.34++	-.04	.00
DAYS TO	FLOWER	.00	-.14	.46++	.41++	-.49++	.47++	.00
DAYS TO	MATURITY	.00	-.51++	.67++	-.20	.13	.29+	.00
NODULE	ABUND 1	.00	-.17	.17	-.22	.07	.16	.00
NODULE	ABUND 2	.00	-.09	.14	.07	.03	.11	.00
NODULE	ACT. 1	.00	.08	.07	.06	-.10	.09	.00
NODULE	ACT. 2	.00	.08	-.16	.11	-.13	-.25	.00
PLANT	HEIGHT	.00	.48++	.07	.73++	-.56++	.33++	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.57++	.64++	-.34++	-.09	.00
PODS PER	PLANT	.00	-.57++	1.00	-.23	-.05	.25	.00
POD	HEIGHT	.00	.64++	-.23	1.00	-.70++	.21	.00
100 SEED	WEIGHT	.00	-.34++	-.05	-.70++	1.00	-.23	.00
QUALITY	OF SEED	.00	-.09	.25	.21	-.23	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 40 EXPERIMENT 421 YEAR 1979

REGION - OCEANIA COUNTRY - FIJI
SITE - LEGALEGA RESEARCH STATION ELEVATION - 20 m
LATITUDE - 17 DEG. 45 MIN. S LONGITUDE - 177 DEG. 28 MIN. E
COOPERATORS - R. VINER R. NATH
DATE PLANTED - JANUARY 1980 DATE HARVESTED - APRL 1980
SOIL TYPE - SAND 72 %, SILT 6 %, CLAY 22 %
FERTILIZER USED (KG/HA) N 25, P 26.4, K 33.2
AMOUNT OF MOISTURE - 730.9 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	BOSSIER	2321.30	28.50	113.00	.00	.00	.00	.00	56.75	1.25
12	RILLITO	2087.92	28.50	97.50	.00	.00	.00	.00	59.50	1.25
16	DAVIS	1975.39	28.50	106.00	.00	.00	.00	.00	35.00	1.00
14	WILLIAMS	1814.93	21.50	88.50	.00	.00	.00	.00	49.50	1.00
2	UFV 1	1754.52	39.50	132.25	.00	.00	.00	.00	43.50	1.00
6	IAC 2	1727.45	36.50	128.25	.00	.00	.00	.00	89.75	1.50
5	ORBA	1677.42	35.00	109.50	.00	.00	.00	.00	87.00	2.00
7	TUNIA	1625.32	33.00	105.00	.00	.00	.00	.00	54.25	1.25
15	RANSOM	1606.57	28.00	100.50	.00	.00	.00	.00	31.50	1.00
3	SJ 2	1569.06	36.50	108.25	.00	.00	.00	.00	80.00	2.00
9	JUPITER	1450.29	45.50	120.50	.00	.00	.00	.00	70.25	2.25
4	HARDEE LS	1308.59	49.50	148.50	.00	.00	.00	.00	75.00	1.50
11	ACC 2120	1110.64	52.00	121.00	.00	.00	.00	.00	92.50	2.50
1	CH 3	610.54	35.00	127.00	.00	.00	.00	.00	98.25	2.00
8	CARIBE	580.53	49.00	152.50	.00	.00	.00	.00	112.00	2.50
10	IMPROVED PELICAN	541.36	37.00	129.25	.00	.00	.00	.00	81.00	1.50
	GRAND MEAN	1485.11	36.42	117.97	.00	.00	.00	.00	69.73	1.59
	STANDARD ERROR OF A VARIETY MEAN	271.78	.79	5.54	.00	.00	.00	.00	5.68	.23
	COEFFICIENT OF VARIATION	36.60%	4.34%	9.39%	.00%	.00%	.00%	.00%	16.29%	29.49%
	5% LSD VARIETY MEANS (********NS)	774.14	2.26	15.21	.00	.00	.00	.00	16.18	.67

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

YIELD	KG/HA	1.00	-.30+	-.48++	.00	.00	.00	.00	-.43++	-.44++
DAYS TO	FLOWER	-.30+	1.00	.66++	.00	.00	.00	.00	.52++	.51++
DAYS TO	MATURITY	-.48++	.66++	1.00	.00	.00	.00	.00	.49++	.32++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.43++	.52++	.49++	.00	.00	.00	.00	1.00	.72++
	LODGING	-.44++	.51++	.32++	.00	.00	.00	.00	.72++	1.00
	SHATTER	-.42++	.27+	.66++	.00	.00	.00	.00	.36++	.16
PLANTS	HARVEST	.12	-.06	-.12	.00	.00	.00	.00	.33++	.27+
PODS PER	PLANT	-.24	.29+	.37++	.00	.00	.00	.00	.20	.15
POD	HEIGHT	-.15	.43++	.22	.00	.00	.00	.00	.62++	.38++
100 SEED	WEIGHT	.35++	-.38++	-.13	.00	.00	.00	.00	-.56++	-.53++
QUALITY	OF SEED	-.56++	.33++	.29+	.00	.00	.00	.00	.24	.38++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 40 EXPERIMENT 421 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
13	BOSSIER	1.00	109.75	6.73	7.08	19.50	3.50	.00	42.0	25.2
12	RILLITO	1.00	112.25	3.90	7.05	15.98	3.00	.00	46.0	17.6
16	DAVIS	1.00	113.50	4.10	6.03	20.28	1.75	.00	45.4	18.3
14	WILLIAMS	1.00	101.75	3.65	6.58	18.93	3.75	.00	48.4	17.8
2	UFV 1	1.25	50.75	9.30	7.48	19.15	4.00	.00	19.7	13.2
6	IAC 2	1.50	105.50	6.80	17.40	18.15	2.75	.00	48.8	12.9
5	ORBA	1.00	107.00	4.70	11.93	15.98	2.50	.00	40.5	22.4
7	TUNIA	1.00	42.00	10.70	7.68	18.65	3.50	.00	45.0	21.4
15	RANSOM	1.00	58.50	4.45	3.78	19.05	3.75	.00	46.5	21.4
3	SJ 2	1.00	124.75	8.18	12.03	14.65	3.75	.00	47.6	19.2
9	JUPITER	1.00	47.25	7.73	13.80	18.48	4.75	.00	43.7	22.3
4	HARDEE LS	1.25	18.50	21.78	8.55	19.40	3.75	.00	41.5	23.5
11	ACC 2120	1.25	162.50	5.58	13.45	8.40	5.00	.00	46.1	20.4
1	CH 3	1.25	152.75	5.68	11.00	14.30	4.50	.00	42.9	24.2
8	CARIBE	1.75	111.25	7.43	12.33	15.63	3.75	.00	43.8	20.7
10	IMPROVED PELICAN	1.50	17.25	15.40	10.78	14.35	4.50	.00		
	GRAND MEAN	1.17	89.58	7.99	9.81	16.93	3.66	.00		
	STANDARD ERROR OF A VARIETY MEAN	.18	18.09	2.29	1.40	.84	.33	.00		
	COEFFICIENT OF VARIATION	30.38%	40.40%	57.26%	28.52%	9.94%	17.92%	.00%		
	5% LSD VARIETY MEANS (********=NS)	********	51.54	6.51	3.98	2.40	.93	.00		

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

YIELD KG/HA	-.42++	.12	-.24	-.15	.35++	-.56++	.00	
DAYS TO FLOWER	.27+	-.06	.29+	.43++	-.38++	.33++	.00	
DAYS TO MATURITY	.66++	-.12	.37++	.22	-.13	.29+	.00	
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00	
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00	
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00	
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00	
PLANT HEIGHT	.36++	.33++	.20	.62++	-.56++	.24	.00	
LODGING	.16	.27+	.15	.38++	-.53++	.38++	.00	
SHATTER	1.00	.08	.06	.20	-.26+	.19	.00	
PLANTS HARVEST	.08	1.00	-.47++	.14	-.44++	-.07	.00	
PODS PER PLANT	.06	-.47++	1.00	-.02	.05	.27+	.00	
POD HEIGHT	.20	.14	-.02	1.00	-.39++	.07	.00	
100 SEED WEIGHT	-.26+	-.44++	.05	-.39++	1.00	-.43++	.00	
QUALITY OF SEED	.19	-.07	.27+	.07	-.43++	1.00	.00	
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00	

TABLE 41 EXPERIMENT 419 YEAR 1979

REGION - OCEANIA
SITE - NAISELESELE
LATITUDE - 16 DEG. 40 MIN. S
COOPERATORS - R. VINER & M. PRASAD
DATE PLANTED - MARCH 11, 1980
SOIL TYPE - SANDY LOAM, SAND 70% , SILT 22% , CLAY 8% , PH 4.5
FERTILIZER USED (KG/HA) N 25.0, P 26.4, K 25.0

COUNTRY - FIJI
ELEVATION - 10 M
LONGITUDE - 178 DEG. 45 MIN. E
DATE HARVESTED - JUNE, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
8	CARIBE	1687.84	45.00	92.00	2.00	2.50	93.75	91.25	49.93	1.00
5	ORBA	1058.54	45.00	76.00	2.50	1.25	100.00	85.00	46.80	1.00
13	BOSSIER	1033.54	35.00	81.75	1.50	1.25	97.50	90.00	30.85	1.00
2	UFV-1	991.86	46.25	83.25	2.50	1.50	91.25	96.25	23.20	1.00
11	ACC 2120	933.52	50.00	78.25	3.25	3.25	91.25	95.00	49.00	1.00
1	CH-3	871.01	45.00	83.00	3.00	2.50	95.00	93.75	50.20	1.00
6	IAC-2	850.17	45.00	83.25	2.00	1.25	92.50	98.75	43.95	1.00
14	WILLIAMS	741.81	36.25	74.00	3.25	2.75	92.50	8.75	30.05	1.00
12	RILLITO	741.81	41.75	74.00	1.50	2.25	92.50	91.25	37.65	1.00
10	DAVIS	695.97	35.50	81.75	1.75	2.50	87.50	90.00	21.40	1.00
3	SJ-2	633.46	45.00	83.00	3.25	3.00	93.75	91.25	31.00	1.00
7	TUNIA	600.12	43.25	83.00	1.75	2.25	93.75	85.00	31.85	1.00
9	JUPITER	375.07	45.00	84.00	3.75	3.75	88.75	85.00	34.40	1.00
15	RANSOM	316.73	34.00	84.75	2.25	2.25	90.00	82.75	19.75	1.00
4	HARDEE LS	200.04	46.25	84.00	2.00	2.50	90.00	98.75	25.55	1.00
	GRAND MEAN	782.10	42.55	81.73	2.42	2.32	92.67	85.92	35.04	1.00
	STANDARD ERROR OF A VARIETY MEAN	106.17	1.27	.76	.52	.38	3.27	5.04	2.46	.00
	COEFFICIENT OF VARIATION	27.15%	5.98%	1.87%	42.86%	32.70%	7.06%	11.72%	14.04%	.00%
	5% LSD VARIETY MEANS (********=NS)	303.02	3.63	2.18	1.48	1.08	********	14.37	7.02	.00

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

YIELD	KG/HA	1.00	.21	.15	-.18	-.23	.41++	.02	.56++	.00
DAYS TO	FLOWER	.21	1.00	.13	.25	.09	.12	.33++	.51++	.00
DAYS TO	MATURITY	.15	.13	1.00	-.09	.05	-.13	.42++	-.03	.00
NODULE	ABUND 1	-.18	.25	-.09	1.00	.32+	-.30+	-.15	.06	.00
NODULE	ABUND 2	-.23	.09	.05	.32+	1.00	-.28+	-.10	-.05	.00
NODULE	ACT. 1	.41++	.12	-.13	-.30+	-.28+	1.00	-.04	.36++	.00
NODULE	ACT. 2	.02	.33++	.42++	-.15	-.10	-.04	1.00	.10	.00
PLANT	HEIGHT	.56++	.51++	-.03	.06	-.05	.36++	.10	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.14	-.00	-.26+	.02	-.22	.28+	.03	.13	.00
PLANTS	HARVEST	.71++	.15	-.23	.04	-.00	.29+	-.13	.53++	.00
PODS PER	PLANT	-.12	.45++	.31+	.16	.04	.05	.31+	.17	.00
POD	HEIGHT	.23	.31+	-.38++	.28+	.04	.18	-.17	.63++	.00
100 SEED	WEIGHT	-.34++	-.58++	.25	-.18	-.09	-.08	-.07	-.59++	.00
QUALITY	OF SEED	-.49++	-.24	.25	.04	.35++	-.33++	.10	-.49++	.00
PERCENT	GERM.	-.05	.07	-.44++	.17	-.05	.11	-.11	.17	.00

TABLE 41 EXPERIMENT 419 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
8	CARIBE	1.00	176.25	31.80	6.60	9.25	1.25	62.75
5	ORBA	1.75	110.75	34.05	8.00	7.75	1.00	90.50
13	BOSSIER	1.25	119.00	26.45	6.55	12.00	1.25	95.00
2	UFV-1	1.00	110.00	25.50	6.45	10.50	1.00	78.50
11	ACC 2120	1.00	260.50	27.05	11.20	4.00	1.50	79.75
1	CH-3	1.00	116.25	40.60	9.35	8.00	1.00	96.25
6	IAC-2	1.00	101.75	34.73	9.55	10.25	1.25	93.00
14	WILLIAMS	1.00	147.50	15.00	9.15	10.75	1.25	90.75
12	RILLITO	1.00	120.50	20.10	7.35	9.50	1.25	85.25
10	DAVIS	1.00	124.25	19.15	5.80	12.50	2.00	84.50
3	SJ-2	1.00	56.00	34.75	7.15	8.75	1.50	91.25
7	TUNIA	1.00	43.75	27.80	7.15	13.25	1.75	66.50
9	JUPITER	1.00	20.00	44.85	7.23	13.25	2.50	89.25
15	RANSOM	1.00	35.50	20.85	4.90	17.75	3.00	59.50
4	HARDEE LS	1.00	7.25	50.73	5.30	10.25	2.00	85.25
	GRAND MEAN	1.07	103.28	30.23	7.45	10.52	1.57	83.20
	STANDARD ERROR OF A VARIETY MEAN	.09	21.78	4.53	.78	.61	.23	1.11
	COEFFICIENT OF VARIATION	16.91%	42.17%	29.97%	20.85%	11.69%	29.38%	2.68%
	5% LSD VARIETY MEANS (********=NS)	.26	62.16	12.93	2.22	1.75	.66	3.18

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

YIELD	KG/HA	.14	.71++	-.12	.23	-.34++	-.49++	-.05
DAYS TO	FLOWER	-.00	.15	.45++	.31+	-.58++	-.24	.07
DAYS TO	MATURITY	-.26+	-.23	.31+	-.38++	.25	.25	-.44++
NODULE	ABUND 1	.02	.04	.16	.28+	-.18	.04	.17
NODULE	ABUND 2	-.22	-.00	.04	.04	-.09	.35++	-.05
NODULE	ACT. 1	.28+	.29+	.05	.18	-.08	-.33++	.11
NODULE	ACT. 2	.03	-.13	.31+	-.17	-.07	.10	-.11
PLANT	HEIGHT	.13	.53++	.17	.63++	-.59++	-.49++	.17
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	-.03	.02	-.04	-.13	-.12	.16
PLANTS	HARVEST	-.03	1.00	-.30+	.53++	-.48++	-.41++	.03
PODS PER	PLANT	.02	-.30+	1.00	-.11	-.17	-.02	.19
POD	HEIGHT	-.04	.53++	-.11	1.00	-.48++	-.37++	.32+
100 SEED	WEIGHT	-.13	-.48++	-.17	-.48++	1.00	.57++	-.39++
QUALITY	OF SEED	-.12	-.41++	-.02	-.37++	.57++	1.00	-.36++
PERCENT	GERM.	.16	.03	.19	.32+	-.39++	-.36++	1.00

TABLE 42 EXPERIMENT 466 YEAR 1979

REGION - SOUTH AMERICA
SITE - CABASSOU - CAYENNE
LATITUDE - 4 DEG. 54 MIN. N
COOPERATOR - I.R.A.T. - R. VANBERCIE
DATE PLANTED - MAY 9, 1979
SOIL TYPE - SAND 49%, SILT 16.8%, CLAY 34.2%, PH 4.7
FERTILIZER USED (KG/HA) - N 35.0, P 66.0, K 83.0
AMOUNT OF MOISTURE - 893 MM

COUNTRY - FRENCH GUIANA
ELEVATION - 7 M
LONGITUDE - 52 DEG. 18 MIN. W
DATE HARVESTED - AUGUST, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
4	HARDEE LS	3446.52	41.25	103.00	2.00	1.00	61.25	76.25	71.75	1.75
7	TUNIA	3375.67	30.00	91.50	2.25	1.75	68.75	81.25	74.75	2.25
15	DAVIS	3275.65	26.25	87.50	3.00	3.75	77.50	76.25	31.00	1.00
12	BOSSIER	3238.15	26.00	94.25	1.50	1.25	70.00	88.75	53.50	1.75
2	UFV-1	3029.77	32.50	95.50	2.00	1.50	61.25	56.25	35.75	1.00
3	SJ-2	2967.26	33.00	87.50	3.00	3.00	78.75	51.25	89.25	2.75
5	ORBA	2896.41	31.50	86.75	1.00	1.00	65.00	71.25	80.75	2.75
13	WILLIAMS	2733.88	22.75	80.50	1.75	3.00	62.50	42.50	55.25	1.50
6	IAC-2	2708.87	31.50	95.25	1.50	1.00	60.00	67.50	92.50	2.00
14	RANSOM	2704.71	24.50	84.25	2.25	2.75	70.00	61.25	33.25	1.00
8	CARIBE	2613.02	40.75	122.00	2.75	2.75	62.50	80.00	116.25	2.75
16	ACC 2120	2588.02	46.50	88.75	3.25	2.00	68.75	68.75	110.75	3.25
9	JUPITER	2554.68	40.75	101.25	3.00	1.75	77.50	70.00	63.75	1.50
11	RILLITO	2521.34	23.50	83.75	2.25	1.50	53.75	65.00	38.50	1.25
10	IMPROVED PELICAN	2471.33	35.25	92.25	3.25	2.25	83.75	55.00	95.25	2.25
1	CH-3	2175.43	31.25	94.25	3.25	2.50	58.75	71.25	103.50	3.25
	GRAND MEAN	2831.30	32.33	93.02	2.38	2.05	67.50	67.66	71.61	2.00
	STANDARD ERROR OF A VARIETY MEAN	142.92	.47	.83	.50	.51	7.34	6.92	3.14	.26
	COEFFICIENT OF VARIATION	10.10%	2.89%	1.78%	41.69%	49.90%	21.76%	20.45%	8.77%	26.22%
	5% LSD VARIETY MEANS (********=NS)	407.11	1.33	2.35	1.41	1.45	********	19.71	3.93	.75

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

YIELD	KG/HA	1.00	-.10	-.02	-.33++	-.10	.26+	.18	-.29+	-.25+
DAYS TO	FLOWER	-.10	1.00	.60++	.26+	-.14	.10	.13	.64++	.45++
DAYS TO	MATURITY	-.02	.60++	1.00	.08	-.10	-.06	.36++	.44++	.22
NODULE	ABUND 1	-.33++	.26+	.08	1.00	.47++	.03	-.00	.20	.10
NODULE	ABUND 2	-.10	-.14	-.10	.47++	1.00	.14	-.13	-.03	.03
NODULE	ACT. 1	.26+	.10	-.06	.03	.14	1.00	-.19	.00	-.13
NODULE	ACT. 2	.18	.13	.36++	-.00	-.13	-.19	1.00	.10	.10
PLANT	HEIGHT	-.29+	.64++	.44++	.20	-.03	.00	.10	1.00	.77++
	LODGING	-.25+	.45++	.22	.10	.03	-.13	.10	.77++	1.00
	SHATTER	.25+	-.03	.02	-.11	-.13	.01	.05	.01	.12
PLANTS	HARVEST	.05	-.42++	-.22	-.22	.14	.08	-.03	-.35++	-.27+
PODS PER	PLANT	-.00	.76++	.48++	.22	-.13	.11	.18	.55++	.43++
POD	HEIGHT	-.19	.70++	.65++	.12	-.15	.10	.15	.80++	.50++
100 SEED	WEIGHT	.24	-.71++	-.17	-.18	.14	-.01	-.01	-.72++	-.62++
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 42 EXPERIMENT 466 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
4	HARDEE LS	1.50	100.25	123.50	10.00	14.78	.00	.00	43.6	23.7
7	TUNIA	1.00	145.00	46.50	11.00	17.95	.00	.00	43.6	21.8
15	DAVIS	1.00	155.25	51.75	6.25	18.35	.00	.00	42.8	22.5
12	BOSSIER	2.00	143.25	78.75	8.75	16.40	.00	.00	44.7	21.7
2	UFV-1	1.00	147.75	63.00	8.50	15.70	.00	.00	45.4	20.5
3	SJ-2	1.75	122.75	91.50	11.25	12.65	.00	.00	43.7	19.9
5	ORBA	1.00	149.50	65.25	11.00	12.53	.00	.00	42.6	19.7
13	WILLIAMS	1.00	155.25	33.00	7.25	19.98	.00	.00	44.4	21.8
6	IAC-2	1.00	131.50	70.00	13.00	13.10	.00	.00	43.9	21.8
14	RANSOM	1.00	153.75	37.25	5.25	19.03	.00	.00	43.5	24.0
8	CARIBE	1.00	145.50	117.50	16.00	14.35	.00	.00	47.6	17.3
16	ACC 2120	1.00	138.75	154.50	12.25	5.98	.00	.00	46.1	16.2
9	JUPITER	1.00	130.50	80.00	13.75	16.95	.00	.00	43.0	21.8
11	RILLITO	1.00	149.25	46.25	6.50	18.23	.00	.00	46.0	21.4
10	IMPROVED PELICAN	1.00	99.25	71.75	10.75	13.33	.00	.00	44.5	22.4
1	CH-3	1.00	128.50	87.00	11.25	14.03	.00	.00	45.8	19.2
	GRAND MEAN	1.14	137.25	76.09	10.17	15.21	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.17	7.20	10.32	.58	.35	.00	.00		
	COEFFICIENT OF VARIATION	30.52%	10.49%	27.12%	11.45%	4.64%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.50	20.50	29.39	1.66	1.00	.00	.00		

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	.25+	.05	-.00	-.19	.24	.00	.00
DAYS TO FLOWER	-.03	-.42++	.76++	.70++	-.71++	.00	.00
DAYS TO MATURITY	.02	-.22	.48++	.65++	-.17	.00	.00
NODULE ABUND 1	-.11	-.22	.22	.12	-.18	.00	.00
NODULE ABUND 2	-.13	.14	-.13	-.15	.14	.00	.00
NODULE ACT. 1	.01	.08	.11	.10	-.01	.00	.00
NODULE ACT. 2	.05	-.03	.18	.15	-.01	.00	.00
PLANT HEIGHT	.01	-.35++	.55++	.80++	-.72++	.00	.00
LODGING	.12	-.27+	.43++	.50++	-.62++	.00	.00
SHATTER	1.00	-.16	.09	-.01	-.05	.00	.00
PLANTS HARVEST	-.16	1.00	-.32++	-.22	.31+	.00	.00
PODS PER PLANT	.09	-.32++	1.00	.47++	-.69++	.00	.00
POD HEIGHT	-.01	-.22	.47++	1.00	-.54++	.00	.00
100 SEED WEIGHT	-.05	.31+	-.69++	-.54++	1.00	.00	.00
QUALITY OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 43 EXPERIMENT 462 YEAR 1979

REGION - AFRICA
SITE - SAFU AGRICULTURAL STATION
LATITUDE - 14 DEG. 54 MIN. N
COOPERATOR - ALBERT COX, A. M. POMFRET
DATE PLANTED - AUGUST 2, 1979
FERTILIZER USED (KG/HA) - N 13, P 26.4, K 24.9
AMOUNT OF MOISTURE - 717.7 MM

COUNTRY - GAMBIA
ELEVATION - 15 M
LONGITUDE - 13 DEG. 32 MIN. W
DATE HARVESTED - OCTOBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	BOSSIER	500.10	42.00	79.00	.00	.00	.00	.00	40.05	.00
19	DAVIS	489.68	29.00	68.00	.00	.00	.00	.00	25.40	.00
14	WILLIAMS	366.74	29.00	68.00	.00	.00	.00	.00	36.98	.00
12	RILLITO	333.40	29.00	68.00	.00	.00	.00	.00	35.50	.00
15	RANSOM	312.56	42.00	79.00	.00	.00	.00	.00	28.45	.00
5	ORBA	270.89	42.00	79.00	.00	.00	.00	.00	45.63	.00
6	IAC-2	270.89	29.00	68.00	.00	.00	.00	.00	51.78	.00
7	TUNIA	250.05	29.00	68.00	.00	.00	.00	.00	38.18	.00
3	SJ-2	177.13	42.00	79.00	.00	.00	.00	.00	31.93	.00
9	JUPITER	156.28	42.00	79.00	.00	.00	.00	.00	35.98	.00
1	CH-3	152.11	42.00	79.00	.00	.00	.00	.00	35.38	.00
2	UFV-1	127.11	29.00	68.00	.00	.00	.00	.00	38.93	.00
4	HARDEE LS	83.35	29.00	68.00	.00	.00	.00	.00	33.75	.00
	GRAND MEAN	268.48	35.00	73.08	.00	.00	.00	.00	36.76	.00
	STANDARD ERROR OF A VARIETY MEAN	60.35	.00	.00	.00	.00	.00	.00	2.05	.00
	COEFFICIENT OF VARIATION	44.96%	.00%	.00%	.00%	.00%	.00%	.00%	11.14%	.00%
	5% LSD VARIETY MEANS (********=NS)	173.11	.00	.00	.00	.00	.00	.00	5.87	.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 ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD KG/HA	1.00	-.04	-.04	.00	.00	.00	.00	-.11	.00
DAYS TO FLOWER	-.04	1.00	1.00++	.00	.00	.00	.00	-.07	.00
DAYS TO MATURITY	-.04	1.00++	1.00	.00	.00	.00	.00	-.07	.00
NODULE ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT HEIGHT	-.11	-.07	-.07	.00	.00	.00	.00	1.00	.00
LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.62++	.10	.10	.00	.00	.00	.00	-.14	.00
PODS PER PLANT	.00	.00	.00	.00	.00	.00	.00	.00	.00
POD HEIGHT	.25	-.01	-.01	.00	.00	.00	.00	-.25	.00
100 SEED WEIGHT	.32+	-.19	-.19	.00	.00	.00	.00	.11	.00
QUALITY OF SEED	.17	-.11	-.11	.00	.00	.00	.00	-.17	.00
PERCENT GERM.	.07	.21	.21	.00	.00	.00	.00	.50++	.00

TABLE 43 EXPERIMENT 462 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
13	BOSSIER	.00	70.50	.00	4.73	19.25	2.00	14.00	40.9	21.2
19	DAVIS	.00	40.00	.00	4.85	19.00	3.00	10.00	42.7	20.9
14	WILLIAMS	.00	54.25	.00	4.45	20.50	3.00	4.00	41.8	23.7
12	RILLITO	.00	62.00	.00	4.85	19.25	5.00	10.00	42.2	23.8
15	RANSOM	.00	45.50	.00	5.05	17.50	3.00	2.00	42.4	23.8
5	ORBA	.00	27.50	.00	4.48	17.00	3.00	42.00	41.8	19.7
6	IAC-2	.00	26.75	.00	4.25	17.00	2.00	16.00	43.4	22.3
7	TUNIA	.00	26.50	.00	4.78	21.75	3.00	2.00	43.1	20.2
3	SJ-2	.00	25.25	.00	4.55	15.25	2.00	6.00	46.0	19.4
9	JUPITER	.00	16.50	.00	4.23	13.50	4.00	8.00	44.2	18.6
1	CH-3	.00	51.25	.00	4.08	18.75	2.00	6.00	42.3	22.4
2	UFV-1	.00	12.50	.00	4.35	18.50	2.00	4.00	46.0	18.8
4	HARDEE LS	.00	23.33	.00	4.15	13.75	2.00	15.00	45.2	17.1
	GRAND MEAN	.00	37.06	.00	4.52	17.77	2.77	10.69		
	STANDARD ERROR OF A VARIETY MEAN	.00	7.80	.00	.16	2.19	.00	1.39		
	COEFFICIENT OF VARIATION	.00%	42.09%	.00%	6.90%	24.64%	.00%	25.94%		
	5% LSD VARIETY MEANS (********=NS)	.00	22.37	.00	.45	********	.00	3.98		

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

YIELD KG/HA	.00	.62++	.00	.25	.32+	.17	.07
DAYS TO FLOWER	.00	.10	.00	-.01	-.19	-.11	.21
DAYS TO MATURITY	.00	.10	.00	-.01	-.19	-.11	.21
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	-.14	.00	-.25	.11	-.17	.50++
LODGING	.00	.00	.00	.00	.00	.00	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	.00	.18	.33+	.17	-.05
PODS PER PLANT	.00	.00	1.00	.00	.00	.00	.00
POD HEIGHT	.00	.18	.00	1.00	.29+	.29+	-.09
100 SEED WEIGHT	.00	.33+	.00	.29+	1.00	.05	-.02
QUALITY OF SEED	.00	.17	.00	.29+	.05	1.00	-.01
PERCENT GERM.	.00	-.05	.00	-.09	-.02	-.01	1.00

TABLE 44 EXPERIMENT 471 YEAR 1979

REGION - AFRICA
SITE - NIM BKONO AMATO
LATITUDE - 7 DEG. N
COOPERATOR - HEINZ BURGER
DATE PLANTED - MAY 17, 1979
SOIL TYPE - SAND 10.7 SILT 60% CLAY 30%
FERTILIZER USED (LB/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 475 MM

COUNTRY - GHANA
ELEVATION - 250 M
LONGITUDE - 2 DEG. W

DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UFV-1	2421.32	36.00	111.25	4.00	3.50	26.25	31.25	59.15	1.00
15	DAVIS	2160.00	39.75	111.75	3.00	3.25	43.75	50.00	50.70	1.00
14	RANSOM	2033.73	28.00	114.00	3.25	2.75	41.25	55.00	39.50	1.00
4	HARDEE LS	2025.30	30.00	116.30	3.00	3.00	33.00	50.00	83.20	1.25
17	F62-3977	2001.37	30.00	117.25	4.25	3.75	15.00	28.75	81.15	3.00
3	SJ-2	[illegible]	33.00	108.50	3.75	4.00	38.75	52.50	85.40	2.75
12	BOSSIER	1656.00	32.00	114.00	3.00	2.75	46.25	60.00	72.35	2.75
6	TAE-2	1644.08	33.00	114.50	3.50	3.25	70.00	68.75	92.55	2.50
9	JUPITER	1462.79	32.25	113.75	4.25	3.00	16.75	63.75	80.30	3.50
7	TUNIA	1314.02	34.25	113.75	3.25	3.25	51.25	58.75	75.75	1.00
11	KILLITO	1323.18	27.50	1[illegible].75	4.00	3.00	42.50	45.00	56.05	1.00
16	ACC 2120	1271.08	33.75	105.25	3.75	3.50	56.25	55.00	108.70	3.75
1	CB 5	1064.00	36.00	116.25	4.00	3.75	43.75	57.50	135.15	3.25
10	IMPROVED PELICAN	1041.37	37.50	111.00	3.00	2.50	57.00	67.50	80.55	3.50
18	HARDEE	1035.62	33.75	115.25	4.00	4.00	80.00	.00	45.40	2.00
5	ORBA	921.02	36.00	108.00	3.25	3.50	43.75	52.50	89.42	4.00
8	CAPTIE	904.35	38.75	124.50	4.25	4.25	45.75	55.00	127.55	3.00
13	WILLIAMS	307.14	27.00	109.00	3.75	3.25	25.00	37.50	64.33	3.50
	GRAND MEAN	1461.40	36.44	112.68	3.63	3.35	44.65	49.38	79.30	2.43
	STANDARD ERROR OF A VARIETY MEAN	243.51	1.71	2.25	.31	.41	9.75	9.83	8.62	.49
	COEFFICIENT OF VARIATION	33.36%	9.3%	4.00%	17.05%	24.37%	43.87%	39.80%	16.70%	39.93%
	5% LSD VARIETY MEANS (******* NS)	671.37	4.65	6.37	.88	*******	27.69	27.90	18.80	1.38

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

		YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD	KG/HA.	1.00	.13	-.03	-.03	.13	-.13	-.03	-.25+	-.43++
DAYS TO	FLOWER	.13	1.00	.10	.11	.02	-.24+	-.05	.38++	.25+
DAYS TO	MATURITY	-.08	.10	1.00	.08	.13	-.11	-.03	.14	-.07
NODULE	AROUND 1	-.03	.11	.08	1.00	.66++	-.33++	-.36++	.19	.07
NODULE	AROUND 2	.13	.02	.13	.66++	1.00	-.29+	-.50++	.21	-.03
NODULE	ACT. 1	-.13	-.24+	-.11	-.33++	-.29+	1.00	.48++	.01	-.03
NODULE	ACT. 2	-.03	-.05	-.03	-.36++	-.50++	.48++	1.00	.24+	.11
PLANT	HEIGHT	-.25+	.38++	.14	.19	.21	.01	.24+	1.00	.46++
	LODGING	-.43++	.25+	-.07	.07	-.03	-.03	.11	.46++	1.00
	SHATTER	-.07	-.17	.03	-.18	-.07	-.08	-.04	-.16	.11
PLANTS	HARVEST	.12	-.41++	-.19	-.13	-.08	-.06	.13	-.04	-.07
PODS PER	PLANT	.02	.51++	-.02	.19	.13	.02	-.05	.25+	.13
POD	HEIGHT	-.27+	-.06	-.21	-.11	.01	.06	.26+	.41++	.27+
100 SEED	WEIGHT	.23	-.32++	.25+	-.10	-.14	-.09	-.20	-.62++	-.41++
QUALITY	OF SEED	-.73++	-.26+	.23	.04	-.11	.02	-.02	.08	.13
PERCENT	DEAD	.27+	.40++	-.48++	-.08	.01	.16	.19	.26+	.13

TABLE 44 EXPERIMENT 471 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD WEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
2	UFV-1	1.00	202.00	25.75	5.00	20.25	1.75	58.50
15	DAVIS	1.50	223.75	20.75	6.25	23.50	2.25	41.00
14	RANSOM	1.50	177.25	21.25	4.20	23.45	2.25	54.75
4	HARDEE LS	1.00	49.75	113.50	6.75	19.75	2.25	59.50
17	F62-3977	1.25	90.50	52.75	5.60	22.65	1.50	56.50
3	SJ-2	1.00	112.50	86.00	5.50	18.10	2.25	77.75
12	BOSSIER	1.00	258.50	16.50	8.05	21.75	2.25	37.00
6	IAC-2	1.00	82.75	58.75	10.05	21.65	2.50	53.00
9	JUPITER	1.00	63.00	94.75	6.25	21.45	2.50	58.50
7	TUNIA	1.00	99.00	54.50	7.00	22.60	3.00	48.00
11	RILLITO	1.25	174.75	25.00	6.65	22.55	3.75	16.75
16	ACC 2170	1.00	186.75	75.50	8.65	8.65	2.50	66.50
1	CH-3	1.00	156.75	41.25	10.40	17.85	2.75	57.25
10	IMPROVED PELICAN	1.25	33.75	97.50	5.50	17.15	2.25	51.75
18	HARDEE	1.00	25.00	62.75	3.30	24.05	3.00	39.50
5	URUA	1.75	211.00	20.25	10.00	17.05	2.50	56.00
8	CARIBE	1.00	145.75	67.00	5.25	14.68	3.25	41.50
13	WILLIAMS	1.25	160.50	15.25	7.95	21.45	4.25	23.00
	GRAND MEAN	1.15	156.01	51.50	7.04	19.64	2.00	49.71
	STANDARD ERROR OF A VARIETY MEAN	.18	16.75	11.50	1.10	.58	.40	9.28
	COEFFICIENT OF VARIATION	31.96%	29.95%	45.67%	31.24%	5.86%	50.60%	37.34%
	5% LSD VARIETY MEANS (******** NS)	********	48.13	62.07	3.12	1.66	1.15	26.55

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

YIELD	KG/HA	-.07	.12	.02	-.27*	.23	-.73**	.27*
DAYS TO	FLOWER	-.17	-.41**	.51**	-.06	-.52**	-.28*	.40**
DAYS TO	MATURITY	.03	-.19	-.02	-.21	.25*	.23	-.48**
NODULE	AROUND 1	-.18	-.13	.10	-.11	-.10	.04	-.08
NODULE	AROUND 2	-.07	-.08	.13	.01	-.14	-.11	.01
NODULE	ACT. 1	-.08	-.06	.02	.06	-.09	.02	.16
NODULE	ACT. 2	-.04	.13	-.05	.26*	-.20	-.02	.19
PLANT	HEIGHT	-.16	-.04	.25*	.41**	-.62**	.08	.26*
	LODGING	.11	-.07	.13	.27*	-.41**	.13	.15
	SHATTER	1.00	.18	-.22	-.10	.15	.09	-.35**
PLANTS	HARVEST	.18	1.00	-.64**	.52**	-.11	-.01	-.06
PODS PER	PLANT	-.22	-.64**	1.00	-.23	-.30**	-.13	.37**
POD	WEIGHT	-.10	.32**	-.23	1.00	-.25*	.15	.04
100 SEED	WEIGHT	.15	-.11	-.30**	-.25*	1.00	.06	-.49**
QUALITY	OF SEED	.09	-.01	-.13	.15	.06	1.00	-.50**
PERCENT	GERM.	-.35**	-.06	.37**	.04	-.49**	-.50**	1.00

TABLE 45 EXPERIMENT 490 YEAR 1979

REGION - AFRICA
SITE - KWADASO
LATITUDE - 6 DEG. N
COOPERATOR - JOHN K. PEPRAH

COUNTRY - GHANA
ELEVATION - 270 M
LONGITUDE - 2 DEG. W

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UFV-1	2146.26	106.75	181.75	3.75	.00	81.25	.00	53.50	2.25
9	JUPITER	1975.39	113.50	180.50	3.75	.00	91.25	.00	71.50	2.50
6	IAC-2	1903.71	106.00	180.00	3.50	.00	72.50	.00	75.50	2.00
3	SJ-2	1857.04	107.75	180.25	4.00	.00	91.25	.00	63.00	2.25
10	IMPROVED PELICAN	1586.15	110.25	181.50	4.25	.00	87.50	.00	77.25	2.00
16	DAVIS	1545.31	98.00	155.50	3.75	.00	75.00	.00	39.00	1.00
4	HARDEE LS	1362.77	117.00	174.00	3.75	.00	76.25	.00	63.25	2.00
5	ORBA	1291.51	105.00	171.25	4.00	.00	81.25	.00	72.50	2.75
7	TUNIA	1289.84	99.75	179.25	3.75	.00	77.50	.00	58.50	1.75
11	ACC 2120	1286.92	117.00	180.50	4.00	.00	80.00	.00	84.00	2.00
15	RANSOM	1195.66	98.00	180.25	3.50	.00	71.25	.00	28.75	1.00
8	CARIBE	1182.74	108.75	182.75	3.75	.00	86.25	.00	88.00	2.75
13	BOSSIER	1182.74	98.50	172.00	3.75	.00	77.50	.00	54.25	1.25
14	WILLIAMS	1013.54	95.00	155.00	3.75	.00	83.75	.00	38.50	1.00
1	CH-3	809.33	100.50	179.75	3.75	.00	87.50	.00	73.75	2.25
12	RILLITO	724.31	98.25	179.00	3.75	.00	87.50	.00	32.50	2.75
	GRAND MEAN	1397.08	105.00	175.83	3.80	.00	81.72	.00	60.86	1.97
	STANDARD ERROR OF A VARIETY MEAN	235.61	1.04	.71	.29	.00	6.00	.00	3.66	.19
	COEFFICIENT OF VARIATION	33.73%	1.98%	.81%	15.18%	.00%	14.68%	.00%	12.01%	19.21%
	5% LSD VARIETY MEANS (********=NS)	671.12	2.96	2.03	********	.00	********	.00	10.41	.54

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

YIELD	KG/HA	1.00	.29+	.11	.11	.00	-.10	.00	.12	.17
DAYS TO	FLOWER	.29+	1.00	.46++	.07	.00	.05	.00	.65++	.44++
DAYS TO	MATURITY	.11	.46++	1.00	-.01	.00	.12	.00	.45++	.52++
NODULE	ABUND 1	.11	.07	-.01	1.00	.00	.16	.00	.14	.03
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	-.10	.05	.12	.16	.00	1.00	.00	.15	.24
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.12	.65++	.45++	.14	.00	.15	.00	1.00	.44++
	LODGING	.17	.44++	.52++	.03	.00	.24	.00	.44++	1.00
	SHATTER	.06	0.00	.08	.05	.00	-.12	.00	.07	.01
PLANTS	HARVEST	.04	-.28+	-.32++	-.16	.00	-.26+	.00	-.12	.00
PODS PER	PLANT	.15	.60++	.28+	.09	.00	.14	.00	.39++	.19
POD	HEIGHT	.19	.39++	.34++	.08	.00	.28+	.00	.39++	.23
100 SEED	WEIGHT	.22	-.13	-.11	-.14	.00	-.05	.00	-.39++	-.12
QUALITY	OF SEED	-.53++	-.46++	-.23	-.05	.00	.08	.00	-.21	-.13
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 45 EXPERIMENT 490 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	UFV-1	1.00	103.50	60.25	8.50	20.50	3.50	.00	46.1	21.1
9	JUPITER	1.00	76.75	62.75	31.00	25.75	2.00	.00	43.8	23.2
6	IAC-2	1.25	143.25	69.50	13.25	21.25	3.50	.00	46.5	21.7
3	SJ-2	1.00	89.50	62.50	8.50	17.75	3.00	.00	45.2	21.0
10	IMPROVED PELICAN	1.00	40.50	139.50	24.25	19.00	2.25	.00	45.6	22.0
16	DAVIS	1.00	139.25	27.75	7.00	21.00	3.25	.00	43.3	22.3
4	HARDEE LS	1.00	77.50	144.50	11.25	21.75	3.00	.00	44.8	23.4
5	ORBA	1.00	134.00	47.25	9.50	18.25	3.50	.00	44.7	19.9
7	TUNIA	1.00	71.75	43.50	14.75	18.00	3.00	.00	46.3	21.1
11	ACC 2120	1.00	102.50	78.50	11.50	12.25	2.50	.00	47.4	16.9
15	RANSOM	1.00	95.75	29.00	7.50	22.00	3.25	.00	43.6	22.3
8	CARIBE	1.00	89.25	51.25	12.00	16.25	3.25	.00	48.2	18.3
13	BOSSIER	1.00	108.75	36.50	10.75	18.50	4.25	.00	47.0	21.6
14	WILLIAMS	1.00	111.75	30.00	8.25	19.50	4.00	.00	44.8	22.6
1	CH-3	1.00	111.75	72.75	11.00	17.75	4.00	.00	45.4	19.8
12	RILLITO	1.00	115.00	30.75	10.75	21.25	4.00	.00	44.6	20.8
	GRAND MEAN	1.02	100.67	61.64	12.48	19.42	3.27	.00		
	STANDARD ERROR OF A VARIETY MEAN	.06	11.97	12.97	1.58	.67	.41	.00		
	COEFFICIENT OF VARIATION	12.31%	23.78%	42.08%	25.29%	6.90%	24.83%	.00%		
	5% LSD VARIETY MEANS (********=NS)	********	34.10	36.94	4.50	1.91	1.15	.00		

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

YIELD	KG/HA	.06	.04	.15	.19	.22	-.53++	.00
DAYS TO	FLOWER	0.00	-.28+	.60++	.39++	-.13	-.46++	.00
DAYS TO	MATURITY	.08	-.32++	.28+	.34++	-.11	-.23	.00
NODULE	ABUND 1	.05	-.16	.09	.08	-.14	-.05	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	-.12	-.26+	.14	.28+	-.05	.08	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.07	-.12	.39++	.39++	-.39++	-.21	.00
	LODGING	.01	.00	.19	.23	-.12	-.13	.00
	SHATTER	1.00	.28+	.06	.12	.10	-.04	.00
PLANTS	HARVEST	.28+	1.00	-.36++	-.35++	.04	.32++	.00
PODS PER	PLANT	.06	-.36++	1.00	.32+	-.01	-.26+	.00
POD	HEIGHT	.12	-.35++	.32+	1.00	.30+	-.39++	.00
100 SEED	WEIGHT	.10	.04	-.01	.30+	1.00	-.01	.00
QUALITY	OF SEED	-.04	.32++	-.26+	-.39++	-.01	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 46 EXPERIMENT 590 YEAR 1979

REGION - MESOAMERICA
SITE - SOLOLA
LATITUDE - 14 DEG. N
COOPERATORS - CRAIG BIALICK & ALAN FRASKIN
DATE PLANTED - MAY 19, 1979
SOIL TYPE - VOLCANIC CLAY LOAM, PH 6.0
FERTILIZER USED (KG/HA) - N 16, P 20
AMOUNT OF MOISTURE - 1752.6 MM

COUNTRY - GUATEMALA
ELEVATION - 2113 M
LONGITUDE - 90 DEG. W
DATE HARVESTED - OCTOBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	1446.96	68.25	155.00	4.00	3.00	78.75	93.75	52.70	1.25
24	MITCHELL	1375.27	67.25	153.50	4.00	4.50	82.50	72.50	47.63	1.00
15	RANSOM	1003.95	79.50	175.75	3.25	2.25	93.75	90.00	50.80	2.00
23	CUTLER 71	734.73	68.75	160.50	4.00	3.75	78.75	88.75	49.55	1.00
21	CALLAND	702.22	68.75	160.00	3.75	3.50	83.75	87.50	48.25	1.00
13	BOSSIER	695.14	83.75	187.00	4.00	4.00	82.50	87.50	70.48	3.75
18	FORREST	514.27	85.50	188.00	4.00	4.50	61.25	87.50	67.30	3.50
17	JAMES	502.60	72.50	183.75	4.00	2.50	82.50	87.50	58.43	1.00
22	FRANKLIN	396.33	70.00	158.00	4.00	4.00	86.25	91.25	55.23	1.00
25	BRAGG	395.50	84.50	189.00	4.00	2.75	87.50	95.00	57.78	2.50
20	GASOY 17	262.55	84.00	198.50	4.00	3.00	86.25	98.75	61.63	2.25
12	RILLITO	242.55	82.00	189.50	4.00	2.00	91.25	76.25	62.23	2.00
	GRAND MEAN	689.34	76.23	175.29	3.92	3.31	82.92	88.02	56.83	1.85
	STANDARD ERROR OF A VARIETY MEAN	91.57	1.56	3.80	.23	.43	6.33	5.90	3.46	.34
	COEFFICIENT OF VARIATION	26.57%	4.10%	4.34%	11.76%	26.20%	15.27%	13.41%	12.19%	36.39%
	5% LSD VARIETY MEANS (********=NS)	263.46	4.50	10.95	********	1.25	********	********	9.97	.97

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

YIELD	KG/HA	1.00	-.38++	-.62++	-.13	-.01	-.03	-.18	-.51++	-.28
DAYS TO	FLOWER	-.38++	1.00	.67++	-.11	-.20	-.04	.12	.39++	.69++
DAYS TO	MATURITY	-.62++	.67++	1.00	-.02	-.21	-.03	.11	.66+	.56++
NODULE	AROUND 1	-.13	-.11	-.02	1.00	.21	-.24	-.03	.15	-.35+
NODULE	AROUND 2	-.01	-.20	-.21	.21	1.00	-.35+	-.08	.15	.08
NODULE	ACT. 1	-.03	-.04	-.03	-.24	-.35+	1.00	.15	-.07	-.13
NODULE	ACT. 2	-.18	.12	.11	-.03	-.08	.15	1.00	.19	.08
PLANT	HEIGHT	-.51++	.39++	.66++	.15	.15	-.07	.19	1.00	.57++
	LODGING	-.28	.69++	.56++	-.35+	.08	-.13	.08	.57++	1.00
	SHATTER	.13	-.21	-.25	.07	.12	-.20	-.41++	-.37++	-.28
PLANTS	HARVEST	.47++	-.40++	-.54++	.13	-.04	.19	-.07	-.49++	-.53++
PODS PER	PLANT	.80++	-.31+	-.56++	-.12	.22	-.15	-.25	-.46++	-.17
POD	HEIGHT	-.17	.34+	.23	.03	.09	-.24	.11	.43++	.46++
100 SEED	WEIGHT	.29+	.18	-.11	-.09	-.35+	.13	-.07	-.37++	-.03
QUALITY	OF SEED	.04	-.48++	-.32+	.10	.09	.20	-.07	-.29+	-.45++
PERCENT	GERM.	.20	.43++	-.13	-.06	-.10	-.03	-.07	-.11	.26

TABLE 46 EXPERIMENT 590 YEAR 1977 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
14	WILLIAMS	1.00	269.25	13.25	11.43	18.43	2.50	90.00
24	MITCHELL	1.50	298.25	16.00	9.55	17.18	4.00	92.50
15	RANSOM	1.00	253.75	11.75	10.80	18.28	2.50	91.75
23	CUTLER 71	1.00	310.50	12.75	10.20	18.23	3.50	67.75
21	CALLAND	1.25	296.25	10.25	10.83	16.83	4.75	46.75
13	BOSSIER	1.00	256.25	17.25	12.08	16.28	2.75	83.75
18	FORREST	1.00	324.50	9.50	13.60	16.58	2.25	93.75
17	JAMES	1.50	276.50	7.00	10.15	15.10	3.25	44.25
22	FRANKLIN	1.25	288.00	6.50	8.93	15.93	3.50	89.50
25	BRAGG	1.00	268.75	5.50	11.43	18.75	3.00	98.25
20	GASOY 17	1.00	256.25	4.75	11.40	17.50	3.50	90.25
12	KILLITO	1.00	246.75	5.75	10.80	20.08	3.00	92.00
	GRAND MEAN	1.13	270.42	9.60	11.35	17.45	3.21	81.71
	STANDARD ERROR OF A VARIETY MEAN	.16	15.16	1.13	1.29	.65	.27	10.17
	COEFFICIENT OF VARIATION	27.90%	11.21%	23.52%	22.76%	7.84%	16.80%	24.89%
	5% LSD VARIETY MEANS (********-NS)	*******	43.62	3.25	3.71	1.97	.78	29.26

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

YIELD	KG/ha	.13	.47++	.80++	-.17	.29+	.04	.20
DAYS TO	FLOWER	-.21	-.40++	-.31+	.34+	.18	-.48++	.43++
DAYS TO	MATURITY	-.75	-.54++	-.56++	.23	-.11	-.32+	-.13
NODULE	AROUND 1	.07	.13	.12	.03	.09	.10	-.06
NODULE	AROUND 2	.12	-.04	.22	.09	-.35+	.09	-.10
NODULE	ACT. 1	-.20	.19	-.15	-.24	.13	.20	-.03
NODULE	ACT. 2	-.41++	-.07	-.25	.11	-.07	-.07	-.07
PLANT	HEIGHT	-.37++	-.49++	-.46++	.43++	-.37++	-.29+	-.11
	LODGING	-.28	-.53++	-.17	.46++	-.03	-.45++	.26
	SHATTER	1.00	.15	.21	-.28	-.08	.21	.07
PLANTS	HARVEST	.15	1.00	.36+	-.23	.14	.42++	-.05
PODS PER	PLANT	.21	.36+	1.00	-.20	.14	.02	.10
POD	HEIGHT	-.28	-.23	-.20	1.00	-.12	-.21	.10
100 SEED	WEIGHT	-.08	.14	.14	-.12	1.00	-.09	.51++
QUALITY	OF SEED	.21	.42++	.02	-.21	-.09	1.00	-.33+
PERCENT	GERM.	.07	-.05	.10	.10	.51++	-.33+	1.00

TABLE 47 EXPERIMENT 480 YEAR 1979

REGION - AFRICA COUNTRY - GUINEA
SITE - FOULAYA ELEVATION 450 M
LATITUDE 10 DEG. N LONGITUDE - **13 DEG. W**
COOPERATORS - INSTITUT DE NATIONAL DE RECHERCHE AGRONOMIQUE
DATE PLANTED - SAND 50.5%, SILT 7.5%, CLAY 27.3%, PH 4.9
FERTILIZER USED - N 80, P 79.2, K 124.5
AMOUNT OF MOISTURE - 550 MM
NUMBER OF IRRIGATIONS - 22 (550 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
1	CH-3	2690.17	32.25	98.00	.00	.00	.00	.00	87.00	.00
7	TUNIS	2569.26	25.75	101.75	.00	.00	.00	.00	57.00	.00
5	URBA	2294.21	33.00	92.75	.00	.00	.00	.00	49.00	.00
14	WILLIAMS	2271.29	29.75	85.75	.00	.00	.00	.00	37.00	.00
9	JUPITER	2242.11	32.75	101.00	.00	.00	.00	.00	65.00	.00
4	HARDEE LS	2100.42	36.50	113.25	.00	.00	.00	.00	57.00	.00
19	DAVIS	1904.56	25.50	96.75	.00	.00	.00	.00	32.00	.00
13	BOSSIER	1789.94	32.75	92.25	.00	.00	.00	.00	42.00	.00
12	RILLITO	1785.77	28.50	89.50	.00	.00	.00	.00	36.00	.00
3	SJ-2	1769.10	30.75	100.50	.00	.00	.00	.00	62.00	.00
6	TAL-2	1717.01	32.75	99.25	.00	.00	.00	.00	46.00	.00
37	G 2126	1694.09	48.50	106.00	.00	.00	.00	.00	87.00	.00
8	CARIBE	1664.92	33.00	93.00	.00	.00	.00	.00	31.00	.00
15	RANSOM	1171.07	27.75	97.00	.00	.00	.00	.00	29.00	.00
10	IMPROVED PELICAN	910.60	31.00	98.00	.00	.00	.00	.00	40.00	.00
2	UF V-1 (PUERTO RICO)	587.62	27.25	104.75	.00	.00	.00	.00	28.00	.00
	GRAND MEAN	1872.63	32.02	98.09	.00	.00	.00	.00	49.06	.00
	STANDARD ERROR OF A VARIETY MEAN	214.56	1.15	4.47	.00	.00	.00	.00	.00	.00
	COEFFICIENT OF VARIATION	23.54%	7.17%	9.11%	.00%	.00%	.00%	.00%	.00%	.00%
	5% LSD VARIETY MEANS (++++++++ NS)	611.15	3.27	12.72	.00	.00	.00	.00	.00	.00

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

YIELD	KG/HA	1.00	.14	-.08	.00	.00	.00	.00	.45++	.00
DAYS TO	FLOWER	.14	1.00	.25+	.00	.00	.00	.00	.62++	.00
DAYS TO	MATURITY	-.08	.25+	1.00	.00	.00	.00	.00	.27+	.00
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.45++	.62++	.27+	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
POD PER	PLANT	.00	.00	.00	.00	.00	.00	.00	.00	.00
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 47 EXPERIMENT 480 [illegible]

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
1	CH-5	.00	.00	.00	.00	.00	.00	.00
7	TUNIA	.00	.00	.00	.00	.00	.00	.00
5	ORBA	.00	.00	.00	.00	.00	.00	.00
14	WILLIAMS	.00	.00	.00	.00	.00	.00	.00
9	JUPITER	.00	.00	.00	.00	.00	.00	.00
4	HARDEE LS	.00	.00	.00	.00	.00	.00	.00
19	DAVIS	.00	.00	.00	.00	.00	.00	.00
13	BOSSIER	.00	.00	.00	.00	.00	.00	.00
12	KILLITO	.00	.00	.00	.00	.00	.00	.00
3	SJ-2	.00	.00	.00	.00	.00	.00	.00
6	IAC-2	.00	.00	.00	.00	.00	.00	.00
37	G 2120	.00	.00	.00	.00	.00	.00	.00
8	CARIBE	.00	.00	.00	.00	.00	.00	.00
15	RANSOM	.00	.00	.00	.00	.00	.00	.00
10	IMPROVED PELICAN	.00	.00	.00	.00	.00	.00	.00
2	UR V-1 (PUERTO RICO)	.00	.00	.00	.00	.00	.00	.00
	GRAND MEAN	.00	.00	.00	.00	.00	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	.00	.00	.00	.00	.00	.00
	COEFFICIENT OF VARIATION	.00%	.00%	.00%	.00%	.00%	.00%	.00%
	5% LSD VARIETY MEANS (******** NS)	.00	.00	.00	.00	.00	.00	.00

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

YIELD	KG/HA	.00	.00	.00	.00	.00	.00	.00
DAYS TO	FLOWER	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	.00	.00	.00	.00	.00	.00	.00
NODULE	GROWTH 1	.00	.00	.00	.00	.00	.00	.00
NODULE	GROWTH 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.00	.00	.00	.00	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.00	.00	1.00	.00	.00	.00	.00
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	.00	.00	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 48 EXPERIMENT 599 YEAR 1979

REGION - MIDDLE EAST COUNTRY - IRAQ
SITE - ABU-GHRAIB, BAGHDAD ELEVATION - 34 M
LATITUDE - 33 DEG. 20 MIN. N LONGITUDE - 44 DEG. 24 MIN. E
COOPERATORS - KAHTAN KHALAF ALI, AKHTAR UL I KHWAJA, S. S. KAZAN
DATE PLANTED - APRIL 8, 1979 DATE HARVESTED - AUGUST, 1979
SOIL TYPE - SAND 34%, SILT 33%, CLAY 33%, PH 7.8
FERTILIZER USED (KG/HA) - N 25.0, P 44.0
NUMBER OF IRRIGATIONS - 20

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
11	CALLAND	584.47	50.00	171.00	4.00	3.00	.00	.00	80.50	2.50
14	MITCHELL	479.99	90.00	213.00	4.00	3.25	.00	.00	95.25	3.25
8	FORREST	407.21	62.00	171.00	3.25	3.75	.00	.00	86.00	3.75
15	BRAGG	398.72	91.00	213.00	4.75	4.25	.00	.00	107.75	2.25
7	JAMES	338.00	57.00	142.00	3.75	3.25	.00	.00	97.75	3.25
6	COBB	299.15	89.00	213.00	3.75	3.75	.00	.00	126.50	2.75
5	RANSOM	290.22	89.00	213.00	4.00	3.50	.00	.00	76.50	2.00
16	ACC 2120	279.06	91.00	213.00	2.75	3.50	.00	.00	131.25	2.25
3	BOSSIER	265.67	51.00	213.00	4.00	4.25	.00	.00	101.25	2.00
13	CUTLER 71	265.22	59.00	169.00	4.25	3.75	.00	.00	99.25	2.50
2	RILLITO	247.05	89.00	213.00	4.50	3.75	.00	.00	101.25	2.00
9	DAVIS	246.47	61.00	171.00	3.50	3.75	.00	.00	107.00	1.75
4	WILLIAMS	235.75	53.00	142.00	2.50	3.50	.00	.00	83.00	1.00
12	FRANKLIN	215.21	56.00	169.00	4.50	4.25	.00	.00	83.25	2.75
10	GASOY 17	147.34	50.00	118.00	4.50	3.75	.00	.00	118.00	2.50
1	IMPROVED PELICAN	130.38	89.00	213.00	5.00	5.00	.00	.00	119.25	2.50
	GRAND MEAN	301.87	70.44	184.81	3.94	3.77	.00	.00	100.86	2.44
	STANDARD ERROR OF A VARIETY MEAN	104.09	.00	.00	.58	.76	.00	.00	10.63	.72
	COEFFICIENT OF VARIATION	68.97%	.00%	.00%	29.36%	40.24%	.00%	.00%	21.08%	59.29%
	5% LSD VARIETY MEANS (********=NS)	********	.00	.00	********	********	.00	.00	30.29	********

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

YIELD	KG/HA	1.00	.01	.08	-.25+	-.37++	.00	.00	-.18	.09
DAYS TO	FLOWER	.01	1.00	.80++	.10	.06	.00	.00	.25+	.02
DAYS TO	MATURITY	.08	.80++	1.00	.11	.09	.00	.00	.15	-.01
NODULE	ABUND 1	-.25+	.10	.11	1.00	.31+	.00	.00	.15	-.16
NODULE	ABUND 2	-.37++	.06	.09	.31+	1.00	.00	.00	.12	.01
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.18	.25+	.15	.15	.12	.00	.00	1.00	.06
	LODGING	.09	.02	-.01	-.16	.01	.00	.00	.06	1.00
	SHATTER	-.11	-.46++	-.75++	-.18	-.19	.00	.00	-.06	-.01
PLANTS	HARVEST	.12	-.37++	-.27+	-.18	-.12	.00	.00	-.22	.29+
PODS PER	PLANT	.03	-.24	-.32++	-.14	.06	.00	.00	-.06	.01
POD	HEIGHT	-.13	.26+	.39++	.12	.22	.00	.00	.15	-.12
100 SEED	WEIGHT	-.14	-.01	-.01	-.02	-.05	.00	.00	-.05	-.18
QUALITY	OF SEED	.26+	-.37++	-.32+	-.09	-.03	.00	.00	-.30+	.32+
PERCENT	GERM.	.14	-.10	-.01	.22	.03	.00	.00	-.12	.06

TABLE 48 EXPERIMENT 599 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
11	CALLAND	1.00	79.25	36.50	13.25	12.50	5.00	95.75
14	MITCHELL	1.00	107.75	18.25	12.28	10.75	5.00	89.25
8	FORREST	1.25	134.50	56.50	15.40	8.75	5.00	92.00
15	BRAGG	1.00	78.50	32.00	27.25	11.25	3.25	93.25
7	JAMES	1.75	87.75	43.75	17.75	9.13	5.00	88.00
6	COBB	1.00	74.25	33.25	24.58	11.20	3.00	89.50
5	RANSOM	1.00	62.00	35.75	19.75	11.68	3.50	93.00
16	ACC 2120	1.00	47.75	37.50	16.90	9.88	2.50	89.50
3	BOSSIER	1.00	95.00	27.75	34.75	11.10	2.75	91.25
13	CUTLER 71	1.00	81.00	46.25	16.68	12.75	4.50	92.50
2	RILLITO	1.00	39.00	38.25	36.75	11.50	2.75	87.75
9	DAVIS	1.00	95.75	39.75	13.20	8.13	5.00	91.00
4	WILLIAMS	2.00	92.25	51.50	12.18	14.00	3.50	90.00
12	FRANKLIN	1.00	91.50	42.00	13.23	11.00	5.00	93.25
10	GASOY 17	2.00	78.75	44.00	21.53	11.75	2.50	91.25
1	IMPROVED PELICAN	1.00	44.25	30.00	29.75	13.00	2.00	93.25
	GRAND MEAN	1.19	80.58	38.31	20.28	11.15	3.77	91.28
	STANDARD ERROR OF A VARIETY MEAN	.09	12.95	10.60	3.72	1.01	.28	2.47
	COEFFICIENT OF VARIATION	15.37%	32.14%	53.76%	36.72%	18.21%	15.11%	5.42%
	5% LSD VARIETY MEANS (********=NS)	.26	36.89	********	10.61	2.89	.81	********

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

YIELD	KG/HA	-.11	.12	.03	-.13	-.14	.26+	.14
DAYS TO	FLOWER	-.46++	-.37++	-.24	.26+	-.01	-.37++	-.10
DAYS TO	MATURITY	-.75++	-.27+	-.32++	.39++	-.01	-.32+	-.01
NODULE	ABUND 1	-.18	-.18	-.14	.12	-.02	-.09	.22
NODULE	ABUND 2	-.19	-.12	.06	.22	-.05	-.03	.03
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.06	-.22	-.06	.15	-.05	-.30+	-.12
	LODGING	-.01	.29+	.01	-.12	-.18	.32+	.06
	SHATTER	1.00	.11	.28+	-.17	.05	-.04	-.22
PLANTS	HARVEST	.11	1.00	.11	-.28+	-.09	.49++	.06
PODS PER	PLANT	.28+	.11	1.00	-.24	.09	.17	-.12
POD	HEIGHT	-.17	-.28+	-.24	1.00	.08	-.45++	-.05
100 SEED	WEIGHT	.05	-.09	.09	.08	1.00	-.22	.11
QUALITY	OF SEED	-.04	.49++	.17	-.45++	-.22	1.00	.05
PERCENT	GERM.	-.22	.06	-.12	-.05	.11	.05	1.00

TABLE 49 EXPERIMENT 696 YEAR 1979

REGION - ASIA
SITE - SUWEON
LATITUDE - 37 DEG. 17 MIN. N
COOPERATOR - LUN-HI HONG, KEN YONG PARK
DATE PLANTED - MAY 23, 1979
SOIL TYPE - PH 5.6
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 24.9
SUBSTITUTE VARIETY - SUWEON 86

COUNTRY - KOREA
ELEVATION - 37 M
LONGITUDE - 127 DEG. E
DATE HARVESTED - AUGUST, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
1	WILLIAMS	634.27	38.75	122.75	2.50	2.50	100.00	90.00	128.48	1.75
10	ELF	630.11	44.75	125.50	3.25	3.00	100.00	96.25	54.25	1.50
8	HARCOR	607.72	35.75	106.00	3.50	3.00	96.25	97.50	87.75	1.75
2	CALLAND	605.05	38.75	115.75	3.00	3.25	100.00	92.50	116.03	2.25
13	CORSOY	592.09	37.75	106.50	3.00	3.00	96.75	95.00	80.95	2.00
7	SUWEON 86	582.26	50.75	122.75	2.50	2.75	100.00	90.00	72.03	3.00
12	UNION	562.93	44.75	124.75	2.75	2.75	100.00	96.25	124.55	3.25
9	HODGSON	552.52	36.00	94.75	3.25	3.50	97.50	97.50	72.25	1.25
6	SWIFT	523.35	40.25	94.25	3.50	3.50	100.00	93.00	72.53	1.75
4	CUTLER 71	492.63	39.00	120.00	3.00	3.00	100.00	93.75	131.08	3.75
3	FRANKLIN	478.05	44.25	125.50	4.00	3.75	98.75	93.75	125.00	3.50
14	EVANS	454.09	33.00	94.00	3.25	3.00	100.00	93.75	58.25	1.50
5	MITCHELL	449.41	43.50	127.25	3.00	2.75	97.50	93.75	124.98	3.25
16	MCCALL	400.98	33.75	89.75	2.75	3.00	100.00	85.00	54.60	1.25
15	CRAWFORD	282.77	47.25	128.75	3.00	3.00	100.00	97.50	122.30	3.50
11	COLUMBUS	249.96	48.00	130.25	4.00	3.00	100.00	96.25	106.15	3.75
	GRAND MEAN	506.01	40.92	114.28	3.17	3.05	99.30	93.98	95.70	2.44
	STANDARD ERROR OF A VARIETY MEAN	28.35	.28	.60	.31	.19	1.04	2.46	5.13	.27
	COEFFICIENT OF VARIATION	11.20%	1.37%	1.04%	19.28%	12.45%	2.10%	5.24%	10.72%	21.94%
	5% LSD VARIETY MEANS (********=NS)	80.74	.80	1.70	.87	.54	********	********	14.60	.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 ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD	KG/HA	1.00	-.25+	-.13	-.23	-.12	-.12	-.02	-.14	-.40++
DAYS TO	FLOWER	-.25+	1.00	.80++	.06	-.12	.15	.11	.32++	.64++
DAYS TO	MATURITY	-.13	.80++	1.00	.02	-.22	.09	.13	.65++	.69++
NODULE	ABUND 1	-.23	.06	.02	1.00	.14	-.02	.12	.10	.23
NODULE	ABUND 2	-.12	-.12	-.22	.14	1.00	.03	-.06	-.08	-.07
NODULE	ACT. 1	-.12	.15	.09	-.02	.03	1.00	-.16	.06	.07
NODULE	ACT. 2	-.02	.11	.13	.12	-.06	-.16	1.00	.13	.06
PLANT	HEIGHT	-.14	.32++	.65++	.10	-.08	.06	.13	1.00	.67++
	LODGING	-.40++	.64++	.69++	.23	-.07	.07	.06	.67++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
PODS PER	PLANT	-.27+	.38++	.58++	.14	-.02	-.07	.09	.43++	.48++
POD	HEIGHT	-.42++	.25+	.24	-.18	-.07	.11	.10	.41++	.32+
100 SEED	WEIGHT	.51++	.19	-.02	-.37++	-.14	.05	-.10	-.20	-.06
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 49 EXPERIMENT 676 YEAR 1973 (CONTINUED)

ENTR. NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
1	WILLIAMS	.00	.00	53.05	17.80	18.43	.00	.00
10	ELF	.00	.00	53.85	7.80	17.90	.00	.00
8	HARCOR	.00	.00	56.58	13.00	1 .13	.00	.00
2	CALLAND	.00	.00	44.46	17.05	16.10	.00	.00
13	CORSOY	.00	.00	35.93	13.50	17.13	.00	.00
7	SOWEON 88	.00	.00	51.00	14.38	20.30	.00	.00
12	UNION	.00	.00	20.85	21.63	18.20	.00	.00
9	HODGSON	.00	.00	25.93	16.28	17.40	.00	.00
6	SWIFT	.00	.00	23.80	15.33	18.30	.00	.00
4	CUTLER 71	.00	.00	58.33	13.20	17.05	.00	.00
3	FRANKLIN	.00	.00	45.30	9.50	14.33	.00	.00
14	EVANS	.00	.00	27.05	12.93	14.90	.00	.00
5	MITCHELL	.00	.00	38.83	18.23	14.93	.00	.00
16	MCCALL	.00	.00	29.35	15.83	15.83	.00	.00
15	CRAWFORD	.00	.00	50.80	27.40	16.03	.00	.00
11	COLUMBUS	.00	.00	47.43	22.93	11.08	.00	.00
	GRAND MEAN	.00	.00	35.07	16.22	16.95	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	.00	3.83	1.57	.99	.00	.00
	COEFFICIENT OF VARIATION	.00%	.00%	20.71%	19.31%	11.65%	.00%	.00%
	5% LSD VARIETY MEANS (*******=NS)	.00	.00	10.33	4.46	2.81	.00	.00

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

YIELD	KG/HA	.00	.00	-.274	-.42++	.51++	.00	.00
DAYS TO	FLOWER	.00	.00	.38++	.25+	.19	.00	.00
DAYS TO	MATURITY	.00	.00	.58++	.24	-.02	.00	.00
NODULE	AROUND 1	.00	.00	.14	-.18	-.37++	.00	.00
NODULE	AROUND 2	.00	.00	-.02	-.07	-.14	.00	.00
NODULE	ACT. 1	.00	.00	-.07	.11	.05	.00	.00
NODULE	ACT. 2	.00	.00	.09	.10	-.10	.00	.00
PLANT	HEIGHT	.00	.00	.43++	.41++	-.20	.00	.00
	LODGING	.00	.00	.48++	.32+	-.06	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.00	.00	1.00	.21	-.23	.00	.00
POD	HEIGHT	.00	.00	.21	1.00	-.16	.00	.00
100 SEED	WEIGHT	.00	.00	-.23	-.16	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 50 EXPERIMENT 560 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
13	BOSSIER	1.00	273.50	35.20	8.03	23.33	1.50	90.50
2	FORREST	1.00	302.75	30.35	9.85	21.83	1.50	89.25
9	BRAGG	1.00	285.00	23.60	8.88	26.55	1.25	87.75
12	RILLITO	1.00	274.25	26.00	8.53	25.30	1.00	85.50
3	DAVIS	1.00	281.00	25.80	9.88	24.98	1.25	94.25
4	GASOY 17	1.00	321.75	20.20	8.00	23.30	1.00	94.00
15	HARDEE	1.00	276.50	32.70	17.80	26.33	1.00	94.25
16	COBB	1.00	329.75	20.75	8.93	22.30	1.00	88.25
8	MITCHELL	1.25	276.25	20.35	7.48	25.45	1.75	98.25
1	JAMES	1.00	3[illegible]5.50	14.50	8.55	25.00	1.00	97.50
14	WILLIAMS	1.00	3[illegible]0.75	18.48	8.08	24.05	3.00	89.00
5	CALLAND	1.00	338.50	15.00	9.23	27.78	2.25	92.50
7	CUTLER 71	1.00	327.25	16.60	8.90	26.80	2.25	78.75
10	IMPROVED PELICAN	1.00	228.25	52.45	11.38	19.55	1.50	92.00
6	FRANKLIN	1.25	310.75	14.78	8.40	23.53	3.50	61.25
11	ACC 2120	2.50	259.50	33.05	6.83	12.83	4.00	74.50
	GRAND MEAN	1.13	295.77	24.99	9.29	23.68	1.80	87.97
	STANDARD ERROR OF A VARIETY MEAN	.11	13.86	3.94	.86	.87	.24	7.35
	COEFFICIENT OF VARIATION	19.32%	9.37%	31.52%	18.50%	7.37%	26.98%	16.71%
	5% LSD VARIETY MEANS (********=NS)	.31	39.49	11.22	2.[illegible]5	2.48	.69	********

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

YIELD	KG/HA	-.60++	.23	.07	.09	.52++	-.54++	.38++
DAYS TO	FLOWER	.65++	-.50++	.54++	.10	-.74++	.26+	-.09
DAYS TO	MATURITY	.31+	-.45++	.62++	.17	-.52++	-.13	.07
NODULE	ABUND 1	-.10	.00	.21	-.16	-.24	-.02	-.03
NODULE	ABUND 2	-.20	.07	.02	-.17	.01	-.18	.37++
NODULE	ACT. 1	-.14	.22	-.08	.13	.30+	-.06	-.09
NODULE	ACT. 2	.03	-.09	.03	-.02	.04	-.07	.03
PLANT	HEIGHT	.47++	-.46++	.64++	.23	-.60++	.14	.06
	LODGING	.44++	-.37++	.04	.04	-.35++	.44++	-.33++
	SHATTER	1.00	-.22	.13	-.19	-.59++	.54++	-.34++
PLANTS	HARVEST	-.22	1.00	-.55++	-.10	.39++	-.04	.04
PODS PER	PLANT	.13	-.55++	1.00	.34++	-.38++	-.07	.10
POD	HEIGHT	-.19	-.10	.34++	1.00	.18	-.32++	.09
100 SEED	WEIGHT	-.59++	.39++	-.38++	.18	1.00	-.39++	.27+
QUALITY	OF SEED	.54++	-.04	-.07	-.32++	-.39++	1.00	-.43++
PERCENT	GERM.	-.34++	.04	.10	.09	.27+	-.43++	1.00

TABLE 50 EXPERIMENT 560 YEAR 1979

REGION - AFRICA COUNTRY - MALAWI
SITE - CHITEDZE RESEARCH STATION ELEVATION - 1080 M
LATITUDE - 14 DEG. S LONGITUDE - 33 DEG. 45 MIN. E
COOPERATOR - P. K. SIBALE
DATE PLANTED - DECEMBER 14, 1979 DATE HARVESTED - APRIL 1979
SOIL TYPE - SAND 12%, CLAY 34%, PH 5.2, OM 4.53%
FERTILIZER USED (KG/HA) N 25, P 25, K 25
AMOUNT OF MOISTURE - 538 MM
SUBSTITUTE VARIETY - HARDEE

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	BOSSIER	3475.69	31.00	118.00	4.50	4.00	41.25	100.00	67.13	1.75
2	FORREST	3342.33	34.00	112.00	4.75	3.75	53.75	85.00	62.75	2.00
9	BRAGG	3261.07	32.00	104.25	4.25	4.00	46.25	100.00	52.88	2.25
12	RILLITO	3225.64	32.00	105.00	5.00	4.00	40.00	82.50	49.75	2.50
3	DAVIS	3190.22	42.00	116.50	4.25	3.75	67.50	100.00	70.00	1.00
4	GASOY 17	3171.47	30.00	103.50	4.50	4.50	40.00	97.50	52.38	1.25
15	HARDEE	3121.46	40.00	112.00	4.00	3.50	55.00	96.25	77.63	2.50
16	COBB	2963.09	33.00	112.00	4.75	4.00	53.75	100.00	61.75	1.25
8	MITCHELL	2946.42	26.00	90.50	4.50	4.00	40.00	100.00	52.90	2.25
1	JAMES	2679.70	27.00	95.00	3.75	3.75	72.50	98.75	57.13	2.00
14	WILLIAMS	2671.37	26.00	88.50	4.25	3.75	55.00	96.25	45.13	2.25
5	CALLAND	2654.70	26.00	95.00	4.50	4.25	52.50	86.25	52.50	1.50
7	CUTLER 71	2652.61	26.00	93.00	4.00	3.25	73.75	98.75	55.58	2.25
10	IMPROVED PELICAN	2367.14	49.00	120.25	4.75	4.25	33.25	98.75	98.92	2.00
6	FRANKLIN	2298.38	26.00	88.00	4.50	3.50	61.25	87.50	50.50	2.25
11	ACC 2120	1158.56	69.00	127.00	4.50	3.75	26.25	95.00	103.88	3.25
	GRAND MEAN	2823.74	34.31	105.03	4.42	3.88	50.94	95.16	63.17	2.02
	STANDARD ERROR OF A VARIETY MEAN	218.39	.00	2.07	.20	.27	14.17	6.01	2.53	.20
	COEFFICIENT OF VARIATION	15.47%	.00%	3.94%	9.05%	13.94%	55.65%	12.64%	7.99%	20.02%
	5% LSD VARIETY MEANS (********=NS)	622.08	.00	5.89	.57	********	********	********	7.19	.57

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

YIELD KG/HA	1.00	-.43++	.00	.16	.20	.21	.02	-.29+	-.55++
DAYS TO FLOWER	-.43++	1.00	.78++	.10	.00	-.23	.05	.88++	.32+
DAYS TO MATURITY	.00	.78++	1.00	.19	.16	-.25+	.03	.77++	-.05
NODULE ABUND 1	.16	.10	.19	1.00	.44++	-.32++	-.16	.11	-.02
NODULE ABUND 2	.20	.00	.16	.44++	1.00	-.31+	-.18	.05	-.20
NODULE ACT. 1	.21	-.23	-.25+	-.32++	-.31+	1.00	.19	-.15	-.18
NODULE ACT. 2	.02	5	.03	-.16	-.18	.19	1.00	.14	-.10
PLANT HEIGHT	-.29+	.28++	.77++	.11	.05	-.15	.14	1.00	.19
LODGING	-.55++	.32+	-.05	-.02	-.20	-.18	-.10	.19	1.00
SHATTER	-.60++	.65++	.31+	-.10	-.20	-.14	.03	.47++	.44++
PLANTS HARVEST	.23	-.50++	-.45++	.00	.07	.22	-.09	-.46++	-.37++
PODS PER PLANT	.07	.54++	.62++	.21	.02	-.08	.03	.64++	.04
POD HEIGHT	.09	.10	.17	-.16	-.17	.13	-.02	.23	.04
100 SEED WEIGHT	.52++	-.74++	-.52++	-.24	.01	.30+	.04	-.60++	-.35++
QUALITY OF SEED	-.54++	.26+	-.13	-.02	-.18	-.06	-.07	.14	.44++
PERCENT GERM.	.38++	-.09	.07	-.03	.37++	-.09	.03	.06	-.33++

TABLE 51 EXPERIMENT 493 YEAR 1979

REGION - ASIA
SITE - SUNGEI BULOH
LATITUDE - 3 DEG. 12 MIN. N
COOPERATOR - NG KIM FOH
DATE PLANTED - JUNE 20, 1979
SOIL TYPE - SAND 84%, SILT 5%, CLAY 11%, PH 5.2
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 24.9
AMOUNT OF MOISTURE - 611 MM

COUNTRY - MALAYSIA
ELEVATION - 30 M.
LONGITUDE - 101 DEG. 35 MIN. E

DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	JUPITER	2380.40	40.00	106.50	4.50	4.25	.00	.00	79.03	1.25
8	CARIBE	2350.85	40.00	91.00	4.00	4.00	.00	.00	102.20	3.00
4	HARDEE LS	1994.15	48.00	109.00	4.00	4.00	.00	.00	61.18	1.00
12	BOSSIER	1769.15	31.50	10[illegible] 00	4.25	4.00	.00	.00	55.48	1.00
2	UFV-1	1728.32	37.00	1[illegible].25	4.00	4.00	.00	.00	38.93	1.00
16	ACC 2120	1574.57	49.00	94.00	4.00	4.00	.00	.00	110.50	2.50
3	SJ-2	1556.70	37.00	92.00	4.00	4.00	.00	.00	77.35	1.25
5	ORBA	1481.65	37.00	94.00	4.75	4.75	.00	.00	75.55	1.50
1	CH-3	1287.90	37.00	106.00	4.00	4.00	.00	.00	107.05	2.25
7	TUNIA	1269.97	37.00	103.00	4.00	4.00	.00	.00	57.65	1.00
13	WILLIAMS	1213.75	31.00	86.00	4.75	4.00	.00	.00	58.40	1.00
10	IMPROVED PELICAN	1146.25	38.75	97.00	4.00	4.00	.00	.00	71.93	1.00
11	RILLITO	1082.92	31.00	96.25	4.00	4.00	.00	.00	40.13	1.00
6	IAC-2	1028.32	37.00	100.25	4.25	4.00	.00	.00	84.03	1.00
15	DAVIS	1009.57	32.00	94.00	4.00	4.00	.00	.00	31.70	1.00
14	RANSOM	903.80	31.00	98.50	4.75	4.25	.00	.00	33.25	1.00
	GRAND MEAN	1486.14	37.64	98.42	4.20	4.08	.00	.00	67.78	1.36
	STANDARD ERROR OF A VARIETY MEAN	117.86	.27	.90	.15	.11	.00	.00	3.55	.14
	COEFFICIENT OF VARIATION	15.86%	1.43%	1.82%	7.05%	5.43%	.00%	.00%	10.47%	21.10%
	5% LSD VARIETY MEANS (********=NS)	335.72	.76	2.55	.42	.32	.00	.00	10.10	.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 ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD KG/HA	1.00	.57++	.27+	-.04	.02	.00	.00	.34++	.37++
DAYS TO FLOWER	.57++	1.00	.36++	-.19	.02	.00	.00	.56++	.36++
DAYS TO MATURITY	.27+	.36++	1.00	-.18	-.09	.00	.00	-.06	-.21
NODULE ABUND 1	-.04	-.19	-.18	1.00	.58++	.00	.00	-.15	-.15
NODULE ABUND 2	.02	.02	-.09	.58++	1.00	.00	.00	.03	.02
NODULE ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT HEIGHT	.34++	.56++	-.06	-.15	.03	.00	.00	1.00	.73++
LODGING	.37++	.36++	-.21	-.15	.02	.00	.00	.73++	1.00
SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.10	.03	-.13	.17	.19	.00	.00	.21	.32++
PODS PER PLANT	.53++	.48++	-.11	-.29+	-.12	.00	.00	.55++	.48++
POD HEIGHT	.24	.56++	.15	-.01	.24	.00	.00	.77++	.46++
100 SEED WEIGHT	-.30+	-.67++	.10	.30+	.04	.00	.00	-.73++	-.55++
QUALITY OF SEED	-.40++	-.33++	-.24	.11	-.04	.00	.00	-.32++	-.22
PERCENT GERM.	-.21	.12	-.18	-.15	.07	.00	.00	.03	-.20

TABLE 51 EXPERIMENT 493 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	.00	194.25	32.35	22.43	14.40	1.00	67.50	42.0	24.0
8	CARIBE	.00	186.25	49.40	15.83	10.50	1.00	61.25	46.1	20.5
4	HARDEE LS	.00	122.00	35.50	18.48	13.95	1.25	75.50	39.6	26.2
12	BOSSIER	.00	201.50	25.43	10.13	16.73	1.00	77.50	42.6	23.9
2	UFV-1	.00	156.25	24.18	8.25	15.73	1.00	84.00	41.4	23.2
16	ACC 2120	.00	240.00	38.40	24.05	5.73	1.00	98.00	41.6	17.7
3	SJ-2	.00	116.75	42.78	20.18	9.88	1.00	98.00	40.9	23.7
5	ORBA	.00	191.50	30.90	25.60	13.53	1.25	98.50	39.5	20.9
1	CH-3	.00	153.75	35.95	26.50	14.38	1.25	61.25	41.9	23.0
7	TUNIA	.00	170.25	20.15	13.65	16.93	1.25	96.75	40.6	22.4
13	WILLIAMS	.00	180.75	25.35	9.50	19.88	2.00	73.50	41.2	23.6
10	IMPROVED PELICAN	.00	92.50	39.83	10.25	11.00	1.00	99.00	40.1	24.8
11	RILLITO	.00	190.50	22.03	9.38	17.75	2.00	66.50	42.8	23.2
6	IAC-2	.00	194.25	17.45	24.05	12.13	1.25	91.25	38.5	24.5
15	DAVIS	.00	174.00	19.53	7.48	17.30	1.50	88.50	42.0	24.4
14	RANSOM	.00	167.50	12.63	6.00	18.20	1.50	64.75	42.4	25.6
	GRAND MEAN	.00	170.75	29.49	15.74	14.25	1.27	81.36		
	STANDARD ERROR OF A VARIETY MEAN	.00	12.15	3.38	1.56	.20	.20	3.00		
	COEFFICIENT OF VARIATION	.00%	14.23%	22.90%	19.82%	2.78%	32.16%	7.39%		
	5% LSD VARIETY MEANS (********=NS)	.00	34.61	9.62	4.44	.56	.58	8.56		

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

YIELD KG/HA	.00	.10	.53++	.24	-.30+	-.40++	-.21
DAYS TO FLOWER	.00	.03	.48++	.56++	-.67++	-.33++	.12
DAYS TO MATURITY	.00	-.13	-.11	.15	.10	-.24	-.18
NODULE ABUND 1	.00	.17	-.29+	-.01	.30+	.11	-.15
NODULE ABUND 2	.00	.19	-.12	.24	.04	-.04	.07
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	.21	.55++	.77++	-.73++	-.32++	.03
LODGING	.00	.32++	.48++	.46++	-.55++	-.22	-.20
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.24	.26+	-.01	-.10	-.12
PODS PER PLANT	.00	-.24	1.00	.28+	-.62++	-.28+	.07
POD HEIGHT	.00	.26+	.28+	1.00	-.56++	-.31+	.14
100 SEED WEIGHT	.00	-.01	-.62++	-.56++	1.00	.40++	-.39++
QUALITY OF SEED	.00	-.10	-.28+	-.31+	.40++	1.00	-.20
PERCENT GERM.	.00	-.12	.07	.14	-.39++	-.20	1.00

TABLE 52 EXPERIMENT 435 YEAR 1979

REGION - ASIA
SITE - TENOM
LATITUDE - 5 DEG. N
COOPERATOR - AMIN GANAU
DATE PLANTED - OCTOBER 29, 1979
SOIL TYPE - ALLUVIAL SOIL, PH 5.2-6.5
FERTILIZER USED (KG/HA) - N 13.0, P 36.0, K 19.0
AMOUNT OF MOISTURE - 609.5 MM

COUNTRY - MALAYSIA
ELEVATION - 176 M
LONGITUDE - 116 DEG. E

DATE HARVESTED - JANUARY, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
5	ORBA	897.97	27.25	86.00	1.00	1.00	98.75	98.75	52.13	2.00
1	CH-3	630.98	25.75	89.00	1.00	1.00	100.00	93.75	75.13	1.75
3	SJ-2	510.23	28.25	89.00	1.00	1.00	100.00	98.75	46.30	1.00
13	WILLIAMS	467.85	23.00	81.00	1.25	1.25	98.75	97.50	40.55	1.00
2	UFV-1	425.83	27.25	90.50	1.00	1.25	100.00	97.50	27.83	1.00
16	ACC 2120	421.48	37.75	86.25	1.00	1.00	100.00	92.50	81.75	3.50
7	TUNIA	413.08	26.50	88.25	1.00	1.00	100.00	98.75	41.25	1.00
11	RILLITO	405.88	23.25	82.50	1.00	1.00	100.00	98.75	32.93	1.00
15	DAVIS	396.13	24.75	83.50	1.25	1.25	100.00	88.75	24.38	1.00
4	HARDEE LS	391.63	35.50	97.00	1.25	1.00	100.00	98.75	31.03	1.00
12	BOSSIER	387.47	26.00	89.50	1.00	1.00	98.75	98.75	36.93	1.00
6	IAC-2	312.37	28.75	89.75	1.50	1.25	98.75	96.25	44.73	1.00
10	IMPROVED PELICAN	284.03	30.00	90.75	1.50	1.00	100.00	98.75	43.65	1.25
9	JUPITER	281.80	37.00	90.50	1.75	1.00	100.00	93.75	42.55	1.00
8	CARIBE	251.07	31.00	95.00	1.25	1.25	98.75	96.25	74.73	2.25
14	RANSOM	227.53	23.25	94.00	1.00	1.25	100.00	92.50	26.65	1.00
	GRAND MEAN	419.08	28.45	88.91	1.17	1.09	99.61	96.25	45.15	1.36
	STANDARD ERROR OF A VARIETY MEAN	49.74	.75	1.14	.18	.16	.72	2.12	3.42	.24
	COEFFICIENT OF VARIATION	23.74%	5.29%	2.57%	30.04%	28.71%	1.44%	4.40%	15.17%	34.60%
	5% LSD VARIETY MEANS (********=NS)	141.67	2.14	3.26	********	********	********	6.03	9.75	.67

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

YIELD	KG/HA	1.00	-.16	-.36++	-.27+	-.13	.07	.21	.22	.09
DAYS TO	FLOWER	-.16	1.00	.41++	.30+	-.09	.06	-.03	.35++	.36++
DAYS TO	MATURITY	-.36++	.41++	1.00	.22	.18	.15	.06	-.07	-.10
NODULE	ABUND 1	-.27+	.30+	.22	1.00	.14	-.02	-.03	-.15	-.15
NODULE	ABUND 2	-.13	-.09	.18	.14	1.00	-.11	-.08	-.17	-.14
NODULE	ACT. 1	.07	.06	.15	-.02	-.11	1.00	-.05	.00	-.01
NODULE	ACT. 2	.21	-.03	.06	-.03	-.08	-.05	1.00	-.03	-.20
PLANT	HEIGHT	.22	.35++	-.07	-.15	-.17	.00	-.03	1.00	.79++
	LODGING	.09	.36++	-.10	-.15	-.14	-.01	-.20	.79++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.43++	-.32++	-.63++	-.45++	-.03	-.05	-.15	.40++	.43++
PODS PER	PLANT	.05	.53++	.47++	.24	-.05	.07	.17	-.01	-.05
POD	HEIGHT	.39++	.09	-.31+	-.19	-.13	-.02	.06	.76++	.48++
100 SEED	WEIGHT	.15	-.59++	-.01	-.08	.13	.06	.12	-.69++	-.56++
QUALITY	OF SEED	-.23	-.05	.18	.04	-.09	.15	.19	-.01	-.08
PERCENT	GERM.	.39++	.01	-.33++	-.01	-.07	.11	.18	-.05	-.09

TABLE 52 EXPERIMENT 435 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
5	ORBA	1.00	213.75	39.50	9.25	13.80	1.75	83.00	42.5	18.7
1	CH-3	1.00	221.25	33.25	11.00	10.95	2.50	80.25	43.4	19.9
3	SJ-2	1.00	91.50	59.25	8.00	10.18	2.75	84.25	41.8	21.0
13	WILLIAMS	1.00	237.25	19.50	9.25	13.28	2.00	84.25	43.7	20.8
2	UFV-1	1.00	138.00	27.25	5.75	12.25	2.00	68.50	44.0	19.2
16	ACC 2120	1.00	271.75	36.75	10.50	5.48	2.50	81.00	44.2	15.2
7	TUNIA	1.00	118.75	26.50	7.50	13.33	2.50	67.75	44.1	19.3
11	RILLITO	1.00	212.25	22.25	8.00	12.75	2.50	87.75	43.3	19.4
15	DAVIS	1.00	181.50	20.25	5.50	12.50	1.50	65.00	44.3	19.7
4	HARDEE LS	1.00	45.00	93.75	5.50	12.23	1.50	77.50	42.0	22.0
12	BOSSIER	1.00	183.50	25.75	7.75	11.40	2.75	57.50	45.0	19.7
6	IAC-2	1.00	104.25	36.75	9.25	9.93	2.00	65.75	43.2	19.8
10	IMPROVED PELICAN	1.00	33.00	64.00	6.00	9.35	3.50	86.50	42.0	21.0
9	JUPITER	1.00	77.25	35.00	8.00	10.28	2.75	71.50	43.6	20.1
8	CARIBE	1.00	153.50	34.50	9.75	7.13	2.00	22.50	45.7	14.4
14	RANSOM	1.00	171.25	16.75	5.25	16.18	3.75	41.25	45.5	22.0
	GRAND MEAN	1.00	153.36	36.94	7.89	11.31	2.39	70.27		
	STANDARD ERROR OF A VARIETY MEAN	.00	15.50	5.86	.63	.54	.25	7.67		
	COEFFICIENT OF VARIATION	.00%	20.22%	31.75%	16.04%	9.51%	20.99%	21.82%		
	5% LSD VARIETY MEANS (********=NS)	.00	44.15	16.71	1.80	1.53	.71	21.83		

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

YIELD	KG/HA	.00	.43++	.05	.39++	.15	23	.39++
DAYS TO	FLOWER	.00	-.32++	.53++	.09	-.59++	.05	.01
DAYS TO	MATURITY	.00	-.63++	.47++	-.31+	-.01	.18	-.33++
NODULE	ABUND 1	.00	-.45++	.24	-.19	-.08	.04	-.01
NODULE	ABUND 2	.00	-.03	-.05	-.13	.13	-.09	-.07
NODULE	ACT. 1	.00	-.05	.07	-.02	.06	.15	.11
NODULE	ACT. 2	.00	-.15	.17	.06	.12	.19	.18
PLANT	HEIGHT	.00	.40++	-.01	.76++	-.69++	-.01	-.05
	LODGING	.00	.43++	-.05	.48++	-.56++	-.08	-.09
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.56++	.57++	-.06	-.12	.05
PODS PER	PLANT	.00	-.56++	1.00	-.18	-.20	-.10	.20
POD	HEIGHT	.00	.57++	-.18	1.00	-.48++	-.04	.09
100 SEED	WEIGHT	.00	-.06	-.20	-.48++	1.00	.08	.06
QUALITY	OF SEED	.00	-.12	-.10	-.04	.08	1.00	-.10
PERCENT	GERM.	.00	.05	.20	.09	.06	-.10	1.00

TABLE 53 EXPERIMENT 437 YEAR 1979

REGION - ASIA
SITE - TENOM, SABAH
LATITUDE - 5 DEG. N
COOPERATOR - ABU BAKAR SUHID
DATE PLANTED - JANURARY 17, 1980
FERTILIZER USED (KG/Ha) N 6.8, P 45.5, K 5.2s
AMOUNT OF MOISTURE - 602.7 mm

COUNTRY - EAST MALAYSIA
ELEVATION - 176 M
LONGITUDE - 116 DEG. E

DATE HARVESTED - APRIL, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
11	ACC 2120	3500.25	46.50	98.00	2.00	1.50	100.00	100.00	74.05	5.00
8	CARIBE	2406.25	27.50	105.25	2.50	1.75	40.00	70.00	58.20	1.00
5	URBA	2200.00	29.50	91.75	2.25	1.75	80.00	85.00	63.50	1.00
1	CH-3	1925.00	29.50	105.75	2.50	2.25	65.00	70.00	70.00	1.00
14	WILLIAMS	1718.75	29.50	89.75	2.25	2.75	30.00	55.00	51.50	1.00
13	BUSSIER	1650.00	29.50	105.50	2.25	1.50	65.00	65.00	50.65	1.00
12	KILLITO	1581.25	33.00	105.50	2.25	1.75	80.00	90.00	19.00	1.00
2	UPV-1	1512.50	29.50	107.25	2.25	2.50	60.00	85.00	14.75	1.00
	GRAND MEAN	2062.50	32.06	101.09	2.28	1.97	67.50	75.00	47.70	1.50
	STANDARD ERROR OF A VARIETY MEAN	.00	1.36	3.25	.37	.35	9.62	8.93	6.05	.00
	COEFFICIENT OF VARIATION	.00%	8.47%	6.40%	32.51%	35.32%	27.62%	23.82%	25.59%	.00%
	5% LSD VARIETY MEANS (********-NS)	.00	3.99	9.51	********	********	27.42	26.27	17.81	.00

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

YIELD	KG/HA	1.00	.72++	-.20	-.10	-.28	.32	.35+	.82++	.88++
DAYS TO	FLOWER	.72++	1.00	-.25	-.21	-.24	.58++	.50++	.50++	.85++
DAYS TO	MATURITY	-.20	-.25	1.00	-.03	.07	-.15	.04	-.18	-.21
NODULE	AROUND 1	-.10	-.21	-.03	1.00	.08	-.19	-.10	.01	-.17
NODULE	AROUND 2	-.28	-.24	.07	.08	1.00	-.42+	-.50++	-.19	-.23
NODULE	ACT. 1	.32	.58++	-.15	-.19	-.42+	1.00	.87++	.24	.44+
NODULE	ACT. 2	.35+	.50++	.04	-.10	-.50++	.87++	1.00	.29	.36+
PLANT	HEIGHT	.82++	.50++	-.18	.01	-.19	.24	.29	1.00	.63++
	LODGING	.88++	.85++	-.21	-.17	-.23	.44+	.36+	.63++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.83++	.84++	-.28	-.09	-.30	.62++	.56++	.63++	.86++
PODS PER	PLANT	.56++	.26	.23	-.13	.04	.11	.19	.56++	.43+
POD	HEIGHT	.08	-.10	.31	-.10	-.21	.02	.04	.27	.03
100 SEED	WEIGHT	-.96++	-.62++	.28	.07	.23	-.30	-.34	-.88++	-.77++
QUALITY	OF SEED	-.12	-.03	.12	-.08	-.23	.08	.03	-.18	-.07
PERCENT	GERM.	.56++	.27	-.11	-.02	-.17	.27	.22	.65++	.42+

TABLE 53 EXPERIMENT 457 YEAR 1977 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
11	ACC 2120	1.00	296.75	14.96	4.50	9.19	1.00	76.00
8	CARIBE	1.00	53.75	11.05	3.86	15.07	1.00	40.00
5	ORBA	1.00	141.00	7.35	5.00	13.53	1.00	84.00
1	CH-3	1.00	35.50	12.78	5.75	17.08	1.00	60.00
14	WILLIAMS	1.00	42.50	3.73	1.50	18.90	1.00	6.00
13	BOSSIER	1.00	47.25	4.78	5.50	22.25	2.00	39.00
12	RILLITO	1.00	60.00	5.00	3.75	21.60	1.00	12.00
2	UFV-1	1.00	47.50	4.55	4.13	25.00	1.00	52.00
	GRAND MEAN	1.00	90.53	7.77	4.23	17.88	1.13	46.13
	STANDARD ERROR OF A VARIETY MEAN	.00	13.48	2.50	.74	.17	.35	3.89
	COEFFICIENT OF VARIATION	.00%	29.78%	64.37%	35.04%	1.89%	62.85%	16.86%
	5% LSD VARIETY MEANS (********=NS)	.00	39.65	7.36	2.18	.50	********	11.44

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

		SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD	KG/HA	.00	.85++	.50++	.08	-.90++	-.12	.56++
DAYS TO	FLOWER	.00	.84++	.26	-.10	-.62++	-.03	.27
DAYS TO	MATURITY	.00	-.28	.23	.31	.28	.12	-.11
NODULE	ABUND 1	.00	-.09	-.13	-.10	.07	-.08	-.02
NODULE	ABUND 2	.00	-.30	-.04	-.21	.23	-.23	-.17
NODULE	ACT. 1	.00	.62++	.11	.02	-.30	.08	.27
NODULE	ACT. 2	.00	.56++	.19	.04	-.34	.03	.22
PLANT	HEIGHT	.00	.63++	.56++	.27	-.88++	-.18	.65++
	LODGING	.00	.86++	.43+	.03	-.77++	-.07	.42+
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.42+	.02	-.77++	-.08	.54++
PODS PER	PLANT	.00	.42+	1.00	.29	-.57++	-.11	.43+
POD	HEIGHT	.00	.02	.29	1.00	-.03	.07	.45++
100 SEED	WEIGHT	.00	-.77++	-.57++	-.03	1.00	.17	-.55++
QUALITY	OF SEED	.00	-.08	-.11	.07	.17	1.00	-.27
PERCENT	GERM.	.00	.54++	.43+	.45++	-.55++	-.27	1.00

TABLE 54 EXPERIMENT 453 YEAR 1979

REGION - MESO-AMERICA
SITE - ALTAMIRANO, GUERRERO
LATITUDE - 18 DEG. 30 MIN N
COOPERATOR - REY V. PEUA F., JORGE NIETO H.

COUNTRY - MEXICO
ELEVATION - 100 M
LONGITUDE - 101 DEG. W

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UFV-1	3336.22	34.33	117.00	.00	.00	.00	.00	74.33	1.00
8	CARIBE	2294.90	42.00	140.00	.00	.00	.00	.00	110.67	4.00
5	ORBA	2138.76	32.67	107.67	.00	.00	.00	.00	84.67	2.67
13	BOSSIER	2105.98	22.33	117.00	.00	.00	.00	.00	84.33	1.00
1	DAVIS	1954.28	23.67	112.00	.00	.00	.00	.00	53.33	2.00
9	JUPITER	1802.58	42.00	119.00	.00	.00	.00	.00	88.67	1.00
15	RANSOM	1798.69	21.33	117.33	.00	.00	.00	.00	48.67	2.00
6	IAC-2	1603.65	33.67	117.00	.00	.00	.00	.00	116.33	2.33
4	HARDEE LS	1447.51	42.67	116.33	.00	.00	.00	.00	87.00	1.00
12	RILLITO	1339.71	26.33	110.00	.00	.00	.00	.00	62.33	1.00
10	IMPROVED PELICAN	1208.02	30.00	110.33	.00	.00	.00	.00	100.33	1.00
14	WILLIAMS	1049.10	24.00	110.33	.00	.00	.00	.00	58.67	1.00
11	ACC 2120	1044.65	36.67	110.33	.00	.00	.00	.00	99.00	4.00
7	TUNIA	926.85	31.33	119.00	.00	.00	.00	.00	73.00	2.00
3	SJ-2	611.23	32.67	118.00	.00	.00	.00	.00	92.33	1.00
	GRAND MEAN	1644.14	31.71	116.09	.00	.00	.00	.00	82.24	1.80
	STANDARD ERROR OF A VARIETY MEAN	140.10	.74	1.80	.00	.00	.00	.00	5.92	.13
	COEFFICIENT OF VARIATION	14.76%	4.04%	2.69%	.00%	.00%	.00%	.00%	12.46%	12.12%
	5% LSD VARIETY MEANS (********-NS)	405.87	2.14	5.21	.00	.00	.00	.00	17.15	.36

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

YIELD	KG/HA	1.00	.08	.24	.00	.00	.00	.00	-.03	.05
DAYS TO	FLOWER	.08	1.00	.43++	.00	.00	.00	.00	.61++	.28
DAYS TO	MATURITY	.24	.43++	1.00	.00	.00	.00	.00	.36+	.34+
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.03	.61++	.36+	.00	.00	.00	.00	1.00	.35+
	LODGING	.05	.28	.34+	.00	.00	.00	.00	.35+	1.00
	SHATTER	-.44++	-.05	-.53++	.00	.00	.00	.00	.05	-.05
PLANTS	HARVEST	.21	-.38+	-.19	.00	.00	.00	.00	-.09	.33+
PODS PER	PLANT	.11	.58++	.42++	.00	.00	.00	.00	.53++	.06
POD	HEIGHT	.18	.66++	.45++	.00	.00	.00	.00	.64++	.21
100 SEED	WEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	-.30+	-.11	-.19	.00	.00	.00	.00	-.14	-.10
PERCENT	GERM.	.24	-.40++	.16	.00	.00	.00	.00	-.15	.30+

TABLE 54 EXPERIMENT 453 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
2	UFV-1	1.00	158.67	70.00	8.33	.00	2.33	79.67
8	CARIBE	1.00	136.33	88.33	15.33	.00	1.67	68.33
5	ORBA	2.00	147.33	50.67	12.33	.00	2.00	73.67
13	BOSSIER	1.00	192.67	82.00	11.67	.00	1.00	93.00
1	DAVIS	3.00	163.67	53.00	9.00	.00	1.67	82.00
9	JUPITER	1.00	103.00	124.33	18.33	.00	1.67	51.67
15	RANSOM	1.00	170.33	52.33	5.00	.00	2.67	85.67
6	IAC-2	3.00	173.00	87.33	13.67	.00	2.33	79.67
4	HARDEE LS	3.33	124.00	79.00	13.67	.00	2.00	62.33
12	RILLITO	3.00	143.33	49.67	6.67	.00	2.33	72.00
10	IMPROVED PELICAN	3.00	107.67	64.67	12.00	.00	2.67	54.00
14	WILLIAMS	3.00	164.33	35.67	6.00	.00	3.00	81.00
11	ACC 2120	3.00	194.67	76.67	9.33	.00	2.33	93.67
7	TUNIA	1.00	137.00	75.67	8.33	.00	2.33	68.67
3	S1-2	2.00	86.67	79.33	10.33	.00	2.67	43.67
	GRAND MEAN	2.09	146.84	71.44	10.87	.00	2.18	72.60
	STANDARD ERROR OF A VARIETY MEAN	.09	15.66	8.47	1.45	.00	.35	7.64
	COEFFICIENT OF VARIATION	7.14%	18.47%	20.53%	23.19%	.00%	28.10%	18.22%
	5% LSD VARIETY MEANS (********=NS)	.25	45.36	24.54	4.21	.00	1.02	22.12

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

YIELD	KG/HA	-.44++	.21	.11	.18	.00	-.30+	.24
DAYS TO	FLOWER	-.05	-.38+	.58++	.66++	.00	-.11	-.40++
DAYS TO	MATURITY	-.53++	-.19	.42++	.45++	.00	-.19	-.18
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.05	-.09	.55++	.64++	.00	-.14	-.15
	LODGING	-.05	.33+	.06	.21	.00	-.10	.30+
	SHATTER	1.00	.03	-.37+	-.14	.00	.21	.00
PLANTS	HARVEST	.03	1.00	-.24	-.25	.00	-.09	.98++
PODS PER	PLANT	-.37+	-.24	1.00	.55++	.00	-.35+	-.27
POD	HEIGHT	-.14	-.25	.55++	1.00	.00	-.45++	-.28
100 SEED	WEIGHT	.00	.00	.00	.00	1.00	.00	.00
QUALITY	OF SEED	.21	-.09	-.35+	-.45++	.00	1.00	-.06
PERCENT	GERM.	.00	.98++	-.27	-.28	.00	-.06	1.00

TABLE 55 EXPERIMENT 451 YEAR 1979

REGION - MESO-AMERICA COUNTRY - MEXICO
SITE - CAYAL, CAMPECHE ELEVATION - 8 M
LATITUDE 19 DEG. 51 MIN. N LONGITUDE - 19 DEG. 33 MIN. W
COOPERATOR - ING. MARIO RIVERA DE L., JORGE NIETO H.
DATE PLANTED - AUGUST 14, 1979 DATE HARVESTED - DECEMBER 1979
SOIL TYPE - SAND 16.2, SILT 25.2, CLAY 58.6, PH 7.2, OM 3.19%
FERTILIZER USED (KG/HA) N 25, P 25, K 25
AMOUNT OF MOISTURE - 424.1 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	2323.38	29.25	87.00	.00	3.50	.00	.00	69.75	1.00
3	SJ-2	2123.34	31.50	82.00	.00	2.00	.00	.00	95.25	1.00
16	DAVIS	2035.82	25.75	77.50	.00	3.00	.00	.00	40.00	1.00
13	BOSSIER	2023.62	23.00	82.00	.00	1.00	.00	.00	57.50	1.00
2	UFV-1	2014.99	30.75	83.50	.00	2.25	.00	.00	41.00	1.00
6	IAC-2	2009.57	30.75	81.00	.00	3.50	.00	.00	87.00	1.00
12	RILLITO	1987.90	25.50	74.00	.00	3.50	.00	.00	42.25	1.00
9	JUPITER	1925.80	38.00	82.75	.00	3.00	.00	.00	77.50	1.00
15	RANSOM	1906.63	23.25	70.25	.00	4.00	.00	.00	34.50	1.00
14	WILLIAMS	1785.77	22.00	74.00	.00	4.00	.00	.00	52.50	1.00
5	ORBA	1433.62	30.50	73.00	.00	3.00	.00	.00	80.00	2.00
11	ACC 2120	1433.62	46.00	78.00	.00	4.00	.00	.00	113.75	3.75
1	CH-3	1402.36	31.00	81.75	.00	4.25	.00	.00	101.50	1.25
4	HARDEE LS	1385.69	38.25	87.00	.00	2.50	.00	.00	61.75	1.00
10	IMPROVED PELICAN	1379.41	33.25	82.75	.00	2.00	.00	.00	74.25	1.00
8	CARIBE	1089.80	36.00	92.00	.00	3.25	.00	.00	88.75	2.25
	GRAND MEAN	1766.32	30.80	80.55	.00	3.05	.00	.00	69.95	1.33
	STANDARD ERROR OF A VARIETY MEAN	167.64	.46	2.07	.00	.55	.00	.00	3.59	.11
	COEFFICIENT OF VARIATION	18.98%	2.98%	5.20%	.00%	35.98%	.00%	.00%	10.26%	16.18%
	5% LSD VARIETY MEANS (********)	477.32	1.31	5.97	.00	1.56	.00	.00	10.22	.31

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

YIELD	KG/HA	1.00	-.38++	-.10	.00	-.19	.00	.00	-.25	-.41++
DAYS TO	FLOWER	-.38++	1.00	.40++	.00	.04	.00	.00	.65++	.62++
DAYS TO	MATURITY	-.10	.40++	1.00	.00	-.18	.00	.00	.27+	.01
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	-.19	.04	-.18	.00	1.00	.00	.00	.10	.15
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.25	.65++	.27+	.00	.10	.00	.00	1.00	.55++
	LODGING	-.41++	.62++	.01	.00	.15	.00	.00	.55++	1.00
	SHATTER	-.17	-.02	-.25	.00	.11	.00	.00	.11	.20
PLANTS	HARVEST	-.08	.06	-.65++	.00	.24	.00	.00	.16	.52++
PODS PER	PLANT	.07	.44++	.21	.00	-.18	.00	.00	.37++	.12
POD	HEIGHT	-.19	.46++	.06	.00	.02	.00	.00	.47++	.15
100 SEED	WEIGHT	.51++	-.77++	-.35++	.00	-.04	.00	.00	-.59++	-.69++
QUALITY	OF SEED	.08	-.23	-.31+	.00	.16	.00	.00	-.14	-.04
PERCENT	GERM.	-.15	.66++	.33++	.00	-.18	.00	.00	.63++	.44++

TABLE 55 EXPERIMENT 451 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
7	TUNIA	1.00	117.50	61.50	6.00	16.03	2.75	51.50
3	SJ-2	1.00	113.00	84.00	8.25	16.10	2.00	70.00
16	DAVIS	1.00	271.50	16.75	7.25	16.58	2.00	22.25
13	BOSSIER	1.00	290.50	26.75	7.50	14.83	3.00	36.75
2	UFV-1	1.00	248.50	50.25	8.75	12.58	2.25	52.00
6	IAC-2	1.00	321.75	35.25	12.50	13.58	3.25	48.50
12	RILLITO	1.00	238.00	22.75	6.50	17.55	4.00	14.0[illegible]
9	JUPITER	1.00	219.00	47.25	13.25	15.43	2.25	55.25
15	RANSOM	1.00	252.50	16.50	6.25	18.30	3.90	29.75
14	WILLIAMS	1.00	280.50	13.75	7.25	19.85	3.50	10.25
5	ORBA	1.75	298.50	25.00	10.25	12.08	2.50	67.00
11	ACC 2120	1.00	422.75	75.75	10.25	6.00	3.00	73.25
1	CH-3	1.00	267.50	28.25	11.75	12.25	2.75	50.75
4	HARDEE LS	1.00	111.25	69.75	10.75	13.08	2.75	41.75
10	IMPROVED PELICAN	1.00	65.00	113.25	6.75	12.00	2.75	48.75
8	CARIBE	1.00	250.75	17.25	7.00	8.70	2.00	55.50
	GRAND MEAN	1.05	235.66	43.44	8.77	13.91	2.73	45.45
	STANDARD ERROR OF A VARIETY MEAN	.06	20.50	12.78	.75	.83	.34	5.67
	COEFFICIENT OF VARIATION	11.94%	17.38%	58.87%	17.00%	12.00%	24.50%	24.96%
	5% LSD VARIETY MEANS (********-NS)	.18	57.84	36.42	2.12	2.38	.95	16.16

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

YIELD	KG/HA	-.17	-.08	.07	-.19	.51++	.08	-.15
DAYS TO	FLOWER	-.02	.06	.4[illegible]++	.46++	-.77++	-.23	.66++
DAYS TO	MATURITY	-.25+	-.35++	.21	.06	-.35++	-.31+	.33++
NODULE	AROUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.11	.2[illegible]	-.18	.02	-.04	.16	-.18
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.11	.16	.39++	.47++	-.59++	-.14	.63++
	LODGING	.20	.52++	.12	.15	-.69++	-.04	.44++
	SHATTER	1.00	.16	-.10	.16	-.12	-.11	.24
PLANTS	HARVEST	.16	1.00	-.45++	.29+	-.25+	.14	.04
PODS PER	PLANT	-.10	-.45++	1.00	-.03	-.28+	-.05	.28+
POD	HEIGHT	.16	.29+	-.03	1.00	-.33++	-.09	.36++
100 SEED	WEIGHT	-.12	-.25+	-.28+	-.33++	1.00	.22	-.62++
QUALITY	OF SEED	-.11	.14	-.05	-.09	.22	1.00	-.44++
PERCENT	GERM.	.24	.04	.28+	.36++	-.62++	-.44++	1.00

TABLE 56 EXPERIMENT 626 YEAR 1979

REGION - MESOAMERICA
COUNTRY - MEXICO
SITE - CULIACAN
ELEVATION - 37 M
LATITUDE - 24 DEG. 36 MIN. N
LONGITUDE - 107 DEG. 36 MIN. W
COOPERATOR - ALBERTO HERNANDEZ FLORES, ROBERTO MANILLA CHEVEZ
DATE PLANTED - JULY 31, 1979
DATE HARVESTED - NOVEMBER, 1979
SOIL TYPE - SAND 44.4%, SILT 7.2%, CLAY 48.3%, PH 8.3
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 54 MM
NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
6	ORBA	2199.01	28.75	94.75	4.00	4.00	.00	.00	69.00	.00
1	CH-3	2154.36	25.50	92.00	3.25	3.25	.00	.00	66.25	.00
16	IAC-2	2031.57	28.25	96.25	4.00	4.00	.00	.00	70.25	.00
11	DAVIS	1957.90	35.00	102.25	3.25	3.50	.00	.00	79.50	.00
8	RANSOM	1895.39	34.75	100.50	2.50	3.00	.00	.00	83.50	.00
7	TUNIA	1837.58	33.25	92.50	3.50	2.75	.00	.00	74.00	.00
13	RILLITO	1723.49	35.25	98.75	3.25	3.50	.00	.00	86.25	.00
4	SJ-2	1567.21	34.25	94.75	3.75	3.75	.00	.00	91.75	.00
10	IMPROVED PELICAN	1553.82	36.00	98.75	4.00	3.50	.00	.00	82.75	.00
5	HARDEE LS	1504.70	42.75	105.50	3.75	3.75	.00	.00	94.50	.00
14	BOSSIER	1462.29	37.50	100.50	3.75	3.50	.00	.00	100.00	.00
12	ACC 2120	1395.31	42.75	101.00	3.50	3.50	.00	.00	91.00	.00
15	WILLIAMS	1366.29	39.25	99.75	4.00	4.00	.00	.00	86.25	.00
9	CARIBE	1335.03	41.50	102.00	4.25	4.00	.00	.00	100.00	.00
2	JUPITER	1283.69	44.00	99.00	3.50	3.75	.00	.00	92.50	.00
3	UFV-1	1238.14	33.00	97.50	3.75	4.25	.00	.00	81.75	.00
	GRAND MEAN	1656.74	35.73	98.48	3.63	3.63	.00	.00	84.33	.00
	STANDARD ERROR OF A VARIETY MEAN	266.67	5.09	4.68	.40	.32	.00	.00	9.41	.00
	COEFFICIENT OF VARIATION	32.19%	28.48%	9.50%	22.19%	17.39%	.00%	.00%	22.31%	.00%
	5% LSD VARIETY MEANS (********=NS)	********	********	********	********	********	.00	.00	********	.00

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

YIELD	KG/HA	1.00	-.68++	-.45++	-.32++	-.25+	.00	.00	-.76++	.00
DAYS TO	FLOWER	-.68++	1.00	.78++	.23	.02	.00	.00	.83++	.00
DAYS TO	MATURITY	-.45++	.78++	1.00	.25+	.09	.00	.00	.66++	.00
NODULE	ABUND 1	-.32++	.23	.25+	1.00	.55++	.00	.00	.26+	.00
NODULE	ABUND 2	-.25+	.02	.09	.55++	1.00	.00	.00	.14	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.76++	.83++	.66++	.26+	.14	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.03	-.13	-.11	-.07	.03	.00	.00	-.23	.00
PODS PER	PLANT	-.03	.30+	.14	.14	-.01	.00	.00	.34++	.00
POD	HEIGHT	-.47++	.48++	.24	.01	-.13	.00	.00	.50++	.00
100 SEED	WEIGHT	.47++	-.68++	-.49++	-.37++	-.22	.00	.00	-.60++	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 56 EXPERIMENT 626 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
6	ORBA	.00	238.00	22.50	11.50	14.40	.00	.00
1	CH-3	.00	215.00	19.00	[illegible]	15.28	.00	.00
16	IAC-2	.00	240.00	17.00	11.75	15.98	.00	.00
11	DAVIS	.00	226.50	21.25	12.00	14.05	.00	.00
8	RANSOM	.00	315.50	21.25	14.00	11.13	.00	.00
7	TUNIA	.00	222.50	19.75	14.50	1 .25	.00	.00
13	RILLITO	.00	163.75	31.50	14.75	15.93	.00	.00
4	SJ-2	.00	210.25	30.00	14.00	13.85	.00	.00
10	IMPROVED PELICAN	.00	244.00	20.00	12.75	12.20	.00	.00
5	HARDEE LS	.00	257.50	20.00	15.75	13.20	.00	.00
14	BOSSIER	.00	200.25	27.75	14.75	13.83	.00	.00
12	ACC 2120	.00	226.50	27.75	17.75	12.98	.00	.00
15	WILLIAMS	.00	231.75	18.25	13.25	12.85	.00	.00
9	CARIBE	.00	183.00	35.00	12.50	13.03	.00	.00
2	JUPITER	.00	243.25	27.25	15.75	11.13	.00	.00
3	UFV-1	.00	198.50	22.50	14.50	14.98	.00	.00
	GRAND MEAN	.00	219.77	23.80	13.80	13.61	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	23.25	5.27	1.23	1.30	.00	.00
	COEFFICIENT OF VARIATION	.00%	21.16%	44.29%	17.87%	19.15%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	********	********	3.51	********	.00	.00

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

YIELD	KG/HA	.00	.03	-.03	-.47++	.47++	.00	.00
DAYS TO	FLOWER	.00	-.13	.30+	.48++	-.68++	.00	.00
DAYS TO	MATURITY	.00	-.11	.14	.24	-.49++	.00	.00
NODULE	ABUND 1	.00	-.07	.14	.01	-.37++	.00	.00
NODULE	ABUND 2	.00	.03	-.01	-.13	-.22	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	-.23	.34++	.50++	-.60++	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.63++	-.04	.08	.00	.00
PODS PER	PLANT	.00	-.63++	1.00	.18	-.37++	.00	.00
POD	HEIGHT	.00	-.04	.18	1.00	-.22	.00	.00
100 SEED	WEIGHT	.00	.08	-.37++	-.22	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 57 EXPERIMENT 457 YEAR 1979

REGION - MESO-AMERICA COUNTRY - MEXICO
SITE - CAMPO AGRICOLA EXP.-SANTIAGO ELEVATION - 20 M
LATITUDE - 22 DEG. N LONGITUDE - 105 DEG. W
COOPERATOR - INIA, ROBERTO MANILLA CHEVEZ
DATE PLANTED - AUGUST, 1979
FERTILIZER USED - (KG/HA) - N 40.0, P 40.0
AMOUNT OF MOISTURE - 740 M

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	2791.13	27.00	92.00	.00	.00	.00	.00	85.00	1.50
4	HARDEE LS	2541.72	30.50	93.00	.00	.00	.00	.00	74.00	2.00
2	UFV 1	2509.57	29.00	92.00	.00	.00	.00	.00	69.50	2.25
12	BOSSIER	2497.07	28.00	92.00	.00	.00	.00	.00	70.75	2.00
6	IAC 2	2148.85	27.25	90.75	.00	.00	.00	.00	67.00	2.25
9	JUPITER	2110.76	25.00	85.00	.00	.00	.00	.00	72.75	1.75
16	ACC 2120	2094.68	27.75	88.25	.00	.00	.00	.00	67.25	2.00
5	ORBA	2087.54	29.00	85.50	.00	.00	.00	.00	70.00	2.00
14	RANSOM	2025.04	25.00	85.00	.00	.00	.00	.00	71.50	1.75
11	RILLITO	2014.33	28.00	92.00	.00	.00	.00	.00	84.75	1.50
1	CH 3	1936.35	26.00	87.00	.00	.00	.00	.00	69.50	2.25
8	CARIBE	1930.99	26.00	87.00	.00	.00	.00	.00	66.50	2.00
3	SJ 2	1817.30	29.00	93.00	.00	.00	.00	.00	76.50	2.00
13	WILLIAMS	1578.60	26.00	85.00	.00	.00	.00	.00	74.50	1.75
15	DAVIS	1398.24	26.00	93.00	.00	.00	.00	.00	67.25	2.25
10	IMPROVED PELICAN	1075.62	26.00	87.00	.00	.00	.00	.00	57.25	2.25
	GRAND MEAN	2034.86	27.22	89.22	.00	.00	.00	.00	71.50	1.97
	STANDARD ERROR OF A VARIETY MEAN	369.48	.12	.47	.00	.00	.00	.00	8.41	.31
	COEFFICIENT OF VARIATION	36.32%	.86%	1.06%	.00%	.00%	.00%	.00%	23.54%	31.16%
	5% LSD VARIETY MEANS (********=NS)	********	.33	1.35	.00	.00	.00	.00	********	********

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

YIELD	KG/HA	1.00	.26+	.15	.00	.00	.00	.00	.53++	-.39++
DAYS TO	FLOWER	.26+	1.00	.56++	.00	.00	.00	.00	.09	.04
DAYS TO	MATURITY	.15	.56++	1.00	.00	.00	.00	.00	.15	.01
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.53++	.09	.15	.00	.00	.00	.00	1.00	-.76++
	LODGING	-.39++	.04	.01	.00	.00	.00	.00	-.76++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.35++	.07	.10	.00	.00	.00	.00	.17	-.18
PODS PER	PLANT	.35++	.15	.03	.00	.00	.00	.00	.12	.06
POD	HEIGHT	.32++	.12	.11	.00	.00	.00	.00	.54++	-.50++
100 SEED	WEIGHT	.22	-.13	.13	.00	.00	.00	.00	.21	-.01
QUALITY	OF SEED	-.26+	.12	-.05	.00	.00	.00	.00	-.30+	.21
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 57 EXPERIMENT 457 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	.00	146.00	24.50	9.00	18.50	2.25	.00	44.2	22.4
4	HARDEE LS	.00	112.50	31.50	7.50	15.50	4.25	.00	42.1	23.6
2	UFV 1	.00	129.75	27.75	7.50	15.50	2.25	.00	40.0	24.6
12	BOSSIER	.00	201.00	21.50	8.25	17.00	1.50	.00	44.8	22.0
6	IAC 2	.00	145.25	22.75	4.25	17.25	3.00	.00	45.7	21.3
9	JUPITER	.00	134.50	29.75	6.50	16.75	3.00	.00	45.9	21.1
16	ACC 2120	.00	119.25	34.75	7.75	13.50	2.75	.00	44.9	22.6
5	ORBA	.00	140.25	27.50	7.00	15.50	3.25	.00	40.7	23.5
14	RANSOM	.00	107.25	22.75	6.75	16.00	2.75	.00	44.1	21.2
11	RILLITO	.00	122.25	23.25	7.25	18.00	2.75	.00	42.4	22.6
1	CH 3	.00	133.25	21.25	6.00	19.00	2.25	.00	44.8	21.6
8	CARIBE	.00	144.00	20.25	5.75	16.75	2.25	.00	44.0	22.8
3	SJ 2	.00	137.75	25.00	7.00	17.75	2.50	.00	44.6	20.7
13	WILLIAMS	.00	127.50	23.25	8.25	16.25	2.75	.00	41.7	24.2
15	DAVIS	.00	130.00	23.25	7.75	17.00	2.25	.00	45.8	21.4
10	IMPROVED PELICAN	.00	111.75	20.00	6.50	16.00	3.25	.00	43.1	22.3
	GRAND MEAN	.00	133.89	24.94	7.06	16.64	2.69	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	20.99	5.25	1.20	.99	.68	.00		
	COEFFICIENT OF VARIATION	.00%	31.36%	42.08%	33.98%	11.87%	50.84%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	********	********	********	********	********	.00		

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

YIELD KG/HA	.00	.35++	.35++	.32++	.22	-.26+	.00
DAYS TO FLOWE	.00	.07	.15	.12	-.13	.12	.00
DAYS TO MATURITY	.00	.10	.03	.11	.13	-.05	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	.17	.12	.54++	.21	-.30+	.00
LODGING	.00	-.18	.06	-.50++	-.01	.21	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.26+	.23	.24	-.30+	.00
PODS PER PLANT	.00	-.26+	1.00	-.16	-.17	.27+	.00
POD HEIGHT	.00	.23	-.16	1.00	-.08	-.46++	.00
100 SEED WEIGHT	.00	.24	-.17	-.08	1.00	-.28+	.00
QUALITY OF SEED	.00	-.30+	.27+	-.46++	-.28+	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 58 EXPERIMENT 452 YEAR 1979

REGION - MESO-AMERICA COUNTRY - MEXICO
SITE - TAPACHULA, CHIAPAS ELEVATION - 9 M
LATITUDE - 14 DEG. 30 MIN. N LONGITUDE - 92 DEG. 10 MIN. W
COOPERATOR - REZA ALEMAN RAFAEL, JORGE NIETO, H.
DATE PLANTED - JULY 3, 1979 DATE HARVESTED - OCTOBER 1979
SOIL TYPE - SAND 63.46%, SILT 21.06%, CLAY 15.48%
AMOUNT OF MOISTURE - 1414.8 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
16	DAVIS	7159.79	26.00	91.50	5.00	4.00	.00	25.00	63.50	2.75
15	RANSOM	6975.45	24.50	99.00	5.00	4.25	.00	18.75	52.50	1.50
12	RILLITO	6617.17	25.00	98.75	5.00	4.00	.00	22.50	65.00	1.75
2	UFV 1	5715.75	34.50	110.25	5.00	5.00	.00	.00	67.25	2.50
4	HARDEE LS	5491.83	46.00	112.25	5.00	5.00	.00	.00	85.25	4.25
14	WILLIAMS	5170.53	24.00	85.50	5.00	5.00	.00	.00	80.25	3.00
13	BOSSIER	4795.07	25.00	108.75	5.00	3.00	.00	67.50	83.25	3.50
9	JUPITER	4722.68	44.25	113.75	5.00	5.00	.00	.00	79.75	4.00
8	CARIBE	4405.02	42.00	112.75	5.00	5.00	.00	.00	116.50	4.00
11	ACC 2120	4328.47	53.75	102.25	5.00	4.50	.00	23.75	136.00	4.50
7	TUNIA	4017.59	28.25	95.75	5.00	4.75	.00	7.50	95.25	3.75
3	SJ 2	3931.14	34.25	98.00	5.00	5.00	.00	.00	109.25	4.50
10	IMPROVED PELICAN	3672.33	36.50	98.00	5.00	5.00	.00	.00	113.75	4.75
6	IAC 2	3147.93	33.75	109.25	5.00	5.00	.00	.00	154.75	4.75
5	ORBA	2785.49	33.25	89.25	5.00	5.00	.00	.00	121.75	5.00
1	CH-3	2581.36	32.25	105.75	5.00	5.00	.00	.00	144.00	4.50
	GRAND MEAN	4719.85	33.95	101.92	5.00	4.66	.00	10.31	98.00	3.69
	STANDARD ERROR OF A VARIETY MEAN	494.23	.36	1.01	.00	.48	.00	12.70	7.76	.33
	COEFFICIENT OF VARIATION	20.94%	2.11%	1.98%	.00%	20.55%	.00%	246.39%	15.84%	18.02%
	5% LSD VARIETY MEANS (********=NS)	1407.77	1.02	2.88	.00	********	.00	36.19	22.10	.93

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

YIELD	KG/HA	1.00	-.26+	-.07	.00	-.18	.00	.15	-.61++	-.62++
DAYS TO	FLOWER	-.26+	1.00	.51++	.00	.26+	.00	-.21	.39++	.50++
DAYS TO	MATURITY	-.07	.51++	1.00	.00	.06	.00	-.03	.12	.15
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	-.18	.26+	.06	.00	1.00	.00	-.95++	.20	.39++
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.15	-.21	-.03	.00	-.95++	.00	1.00	-.14	-.31+
PLANT	HEIGHT	-.61++	.39++	.12	.00	.20	.00	-.14	1.00	.70++
	LODGING	-.62++	.50++	.15	.00	.39++	.00	-.31+	.70++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
PODS PER	PLANT	-.20	.69++	.36++	.00	.21	.00	-.15	.35++	.47++
POD	HEIGHT	-.05	.27+	.12	.00	.22	.00	-.25+	-.01	.19
100 SEED	WEIGHT	.58++	-.56++	-.07	.00	-.06	.00	.08	-.54++	-.48++
QUALITY	OF SEED	-.11	-.29+	-.12	.00	-.07	.00	.07	.12	-.06
PERCENT	GERM.	-.29+	.56++	-.04	.00	.18	.00	-.17	.41++	.36++

TABLE 58 EXPERIMENT 452 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
16	DAVIS	.00	.00	36.75	7.15	15.33	2.00	25.00
15	RANSOM	.00	.00	32.00	5.80	17.13	5.00	14.00
12	RILLITO	.00	.00	39.90	6.20	15.53	2.00	21.25
2	UFV 1	.00	.00	47.35	7.15	14.08	2.75	17.00
4	HARDEE LS	.00	.00	84.00	8.15	12.70	2.00	22.25
14	WILLIAMS	.00	.00	38.75	7.40	14.75	3.00	4.00
13	BOSSIER	.00	.00	56.75	6.90	13.18	3.50	4.50
9	JUPITER	.00	.00	76.25	9.60	15.35	2.00	20.25
8	CARIBE	.00	.00	114.80	10.00	10.38	2.75	37.50
11	ACC 2120	.00	.00	98.20	8.05	6.95	3.00	72.75
7	TUNIA	.00	.00	43.70	9.00	15.28	3.50	20.00
3	SJ 2	.00	.00	86.95	8.05	11.38	3.25	27.00
10	IMPROVED PELICAN	.00	.00	100.98	7.75	10.08	3.00	19.75
6	IAC 2	.00	.00	57.25	7.50	11.10	4.00	28.25
5	ORBA	.00	.00	53.40	7.75	9.13	3.00	59.75
1	CH-3	.00	.00	43.30	6.55	12.53	2.75	30.00
	GRAND MEAN	.00	.00	63.15	7.69	12.80	2.97	26.45
	STANDARD ERROR OF A VARIETY MEAN	.00	.00	8.24	1.02	.93	.16	5.17
	COEFFICIENT OF VARIATION	.00%	.00%	26.09%	26.59%	14.48%	10.87%	39.10%
	5% LSD VARIETY MEANS (********=NS)	.00	.00	23.46	********	2.64	.46	14.73

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

YIELD	KG/HA	.00	.00	-.20	-.05	.58++	-.11	-.29+
DAYS TO	FLOWER	.00	.00	.69++	.27+	-.56++	-.29+	.56++
DAYS TO	MATURITY	.00	.00	.36++	.12	-.07	-.12	-.04
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.21	.22	-.06	-.07	.18
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	-.15	-.25+	.08	.07	-.17
PLANT	HEIGHT	.00	.00	.35++	-.01	-.54++	.12	.41++
	LODGING	.00	.00	.47++	.19	-.48++	-.06	.36++
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.00	.00	1.00	.27+	-.47++	-.18	.37++
POD	HEIGHT	.00	.00	.27+	1.00	-.15	-.19	.26+
100 SEED	WEIGHT	.00	.00	-.47++	-.15	1.00	-.01	-.60++
QUALITY	OF SEED	.00	.00	-.18	-.19	-.01	1.00	-.12
PERCENT	GERM.	.00	.00	.37++	.26+	-.60++	-.12	1.00

TABLE 59 EXPERIMENT 638 YEAR 1979

REGION - AFRICA COUNTRY - MOROCCO
SITE - STATION EXPERIMENTALE DE SLIMANIA ELEVATION - 85 M
LATITUDE - 34 DEG. 55 MIN. N LONGITUDE - 2 DEG. 19 MIN. W
COOPERATORS - CHRISTOPHE CLARUOCLA, A EL. ALAMI
DATE PLANTED - JUNE 12, 1979 DATE HARVESTED - OCTOBER, 1979
SOIL TYPE - SAND 12%, SILT 38%, CLAY 50%, PH 7.5
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 24.9
AMOUNT OF MOISTURE - 878 MM
NUMBER OF IRRIGATIONS - 13 (780 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
10	ELF	4730.11	34.00	107.50	2.00	1.25	82.50	97.50	41.75	1.00
4	CUTLER 71	4563.41	34.00	106.25	2.50	1.25	95.00	93.75	91.50	2.25
5	MITCHELL	4344.62	34.00	108.75	3.25	1.75	100.00	100.00	83.25	1.75
12	UNION	4334.20	32.00	104.75	1.75	1.00	92.50	100.00	77.25	1.50
11	COLUMBUS	4271.69	36.00	113.75	2.50	1.50	95.00	97.50	93.00	2.25
15	CRAWFORD	4146.66	36.00	110.75	2.50	1.25	97.50	100.00	94.25	1.75
2	CALLAND	4125.82	34.00	109.50	2.75	1.50	96.25	96.25	83.25	1.75
3	FRANKLIN	4105.82	34.00	105.50	2.50	1.50	86.25	97.50	94.75	2.00
7	STEELE	3839.52	24.75	89.00	2.50	1.25	98.75	95.00	61.00	1.00
8	HARCOR	3787.42	26.75	99.75	2.50	1.00	86.25	93.75	61.50	1.00
1	WILLIAMS	3654.90	32.75	101.00	2.75	1.75	82.50	95.00	69.25	1.00
13	CORSOY	3563.21	25.00	96.75	2.75	1.25	88.75	95.00	61.75	1.00
16	MCCALL	3334.00	24.50	87.00	2.50	1.50	90.00	92.50	58.25	1.00
9	HODGSON	3328.58	24.50	94.25	2.50	1.25	85.00	98.75	61.50	1.00
14	EVANS	3203.97	24.25	89.00	2.25	1.00	98.75	93.75	60.50	1.00
6	SWIFT	2989.76	24.50	85.75	2.50	1.25	93.75	91.25	61.25	1.00
	GRAND MEAN	3895.23	30.06	100.58	2.50	1.33	91.80	96.09	72.13	1.39
	STANDARD ERROR OF A VARIETY MEAN	298.26	.71	1.69	.28	.24	3.27	2.49	4.76	.30
	COEFFICIENT OF VARIATION	15.31%	4.69%	3.36%	22.01%	35.85%	7.13%	5.19%	13.21%	42.98%
	5% LSD VARIETY MEANS (********=NS)	849.58	2.01	4.81	********	********	9.32	********	13.57	.85

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

YIELD	KG/HA	1.00	.45++	.62++	-.40++	-.04	-.02	.23	.53++	.61++
DAYS TO	FLOWER	.45++	1.00	.86++	.06	.23	.03	.25+	.56++	.51++
DAYS TO	MATURITY	.62++	.86++	1.00	-.07	.10	-.02	.37++	.60++	.56++
NODULE	ABUND 1	-.40++	.06	-.07	1.00	.23	.16	-.17	-.08	-.15
NODULE	ABUND 2	-.0[illegible]	.23	.10	.23	1.00	-.12	.01	.07	.13
NODULE	ACT. 1	-.02	.03	-.02	.16	-.12	1.00	-.06	.24	.16
NODULE	ACT. 2	.23	.25+	.37++	-.17	.01	-.06	1.00	.23	.18
PLANT	HEIGHT	.53++	.56++	.60++	-.08	.07	.24	.23	1.00	.81++
	LODGING	.61++	.51++	.56++	-.15	.13	.16	.18	.81++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	-.29+	-.14	-.25+	.26+	.23	-.14	-.20	-.22	-.22
PODS PER	PLANT	.55++	.47++	.63++	-.15	-.04	.03	.13	.50++	.47++
POD	HEIGHT	.24	.44++	.43++	.21	.12	.17	.03	.53++	.46++
100 SEED	WEIGHT	.63++	.56++	.64++	-.26+	-.01	-.14	.37++	.44++	.49++
QUALITY	OF SEED	-.43++	-.40++	-.35++	.17	-.15	.14	-.12	-.41++	-.38++
PERCENT	GERM.	.28+	.34++	.41++	-.02	-.01	-.18	-.03	.24	.20

TABLE 59 EXPERIMENT 638 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
10	ELF	1.00	196.50	40.00	5.75	22.58	2.00	96.00	41.9	18.4
4	CUTLER 71	1.00	216.25	44.75	10.50	23.23	1.25	99.75	42.6	20.2
5	MITCHELL	1.00	172.50	47.00	10.75	19.75	1.75	96.25	30.1	19.8
12	UNION	1.00	164.50	45.50	9.25	21.05	1.25	99.00	41.8	18.3
11	COLUMBUS	1.00	183.75	51.75	8.25	19.90	1.75	99.25	43.4	19.8
15	CRAWFORD	1.00	183.25	44.75	9.50	21.40	2.00	96.75	43.3	20.0
2	CALLAND	1.00	159.00	40.50	10.00	21.43	2.00	98.00	41.7	20.1
3	FRANKLIN	1.00	213.75	47.00	10.00	20.90	1.00	96.25	41.0	20.3
7	STEELE	1.00	195.50	25.50	7.25	18.30	1.50	91.00	40.8	18.3
8	HARCOR	1.00	196.75	46.25	7.00	18.60	2.00	94.25	41.6	17.9
1	WILLIAMS	1.00	199.75	34.00	8.00	20.30	1.25	100.00	42.0	20.2
13	CORSOY	1.00	202.25	40.75	5.50	17.45	2.75	98.25	41.6	20.9
16	MCCALL	1.00	213.25	30.50	7.75	16.88	1.50	97.00	40.7	20.6
9	HODGSON	1.00	185.00	36.75	8.75	21.18	2.50	97.75	41.2	21.7
14	EVANS	1.00	186.50	31.25	5.75	15.45	3.00	91.00	41.2	22.2
6	SWIFT	1.00	201.25	32.50	5.75	17.08	2.25	94.75	40.7	20.9
	GRAND MEAN	1.00	191.86	39.92	8.11	19.72	1.86	96.58		
	STANDARD ERROR OF A VARIETY MEAN	.00	12.37	3.71	1.02	.90	.20	1.59		
	COEFFICIENT OF VARIATION	.00%	12.89%	18.57%	25.16%	9.11%	21.14%	3.29%		
	5% LSD VARIETY MEANS (********=NS)	.00	********	10.56	2.91	2.56	.56	4.53		

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

YIELD	KG/HA	.00	-.29+	.55++	.24	.63++	-.43++	.28+
DAYS TO	FLOWER	.00	-.14	.47++	.44++	.56++	-.40++	.34++
DAYS TO	MATURITY	.00	-.25+	.63++	.43++	.64++	-.35++	.41++
NODULE	ABUND 1	.00	.26+	-.15	.21	-.26+	.17	-.02
NODULE	ABUND 2	.00	.23	-.04	.12	-.01	-.15	-.01
NODULE	ACT. 1	.00	-.14	.03	.17	-.14	.14	-.18
NODULE	ACT. 2	.00	-.20	.13	.03	.37++	-.12	-.03
PLANT	HEIGHT	.00	-.22	.50++	.53++	.44++	-.41++	.24
	LODGING	.00	-.22	.47++	.46++	.49++	-.38++	.20
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.17	-.00	-.22	.04	-.25
PODS PER	PLANT	.00	-.17	1.00	.19	.38++	-.24	.34++
POD	HEIGHT	.00	-.00	.19	1.00	.40++	-.34++	.24
100 SEED	WEIGHT	.00	-.22	.38++	.40++	1.00	-.52++	.37++
QUALITY	OF SEED	.00	.04	-.24	-.34++	-.52++	1.00	-.28+
PERCENT	GERM.	.00	-.25	.34++	.24	.37++	-.28+	1.00

TABLE 60 EXPERIMENT 583 YEAR 1979

REGION - ASIA
SITE - KHUMALTAR, KATHMANDU
LATITUDE - 27 DEG. 46 MIN. N
COOPERATORS - M. P. BHARATI & R. K. NEUPANE
DATE PLANTED - JUNE 10, 1979
FERTILIZER USED (KG/HA) N 20, P 60, K 30
AMOUNT OF MOISTURE - 357.9 MM

COUNTRY - NEPAL
ELEVATION -1360 M
LONGITUDE - 85 DEG. 20 MIN. E
DATE HARVESTED - SEPTEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
15	RANSOM	3461.11	46.25	120.00	1.50	1.00	76.25	92.50	59.25	1.25
12	RILLITO	3452.36	47.00	120.00	2.50	1.50	83.75	90.00	71.75	1.25
3	DAVIS	3415.27	53.00	122.75	1.25	1.25	83.75	95.00	74.50	1.75
2	FORREST	3338.17	45.50	120.00	1.75	1.25	73.75	88.75	65.00	1.00
4	GASOY 17	3156.88	53.00	120.00	1.25	1.00	73.75	87.50	71.00	1.00
1	JAMES	3136.04	44.00	120.00	1.75	1.00	71.25	95.00	70.75	1.00
8	MITCHELL	2711.38	44.00	117.50	1.00	1.00	81.25	95.00	63.75	1.00
14	WILLIAMS	2677.62	38.00	106.00	1.00	1.25	85.00	95.00	55.75	1.00
6	FRANKLIN	2591.77	38.00	106.00	2.25	1.50	78.75	97.50	68.00	1.00
7	CUTLER 71	2565.10	36.00	109.50	1.25	1.50	81.25	96.25	64.25	1.00
16	COBB	2542.17	59.75	131.00	1.50	1.25	76.25	90.00	86.00	2.00
13	BOSSIER	2115.42	53.00	120.00	2.00	1.25	80.00	92.50	79.75	2.00
5	CALLAND	1717.01	36.00	106.00	2.25	1.00	80.00	91.25	70.00	1.00
11	ACC 2120	1489.88	64.00	131.00	1.50	1.75	81.25	86.25	130.25	4.00
10	IMPROVED PELICAN	1406.53	64.00	131.00	2.25	1.50	71.25	86.25	119.00	4.25
9	BRAGG	1283.17	53.00	120.00	3.25	2.00	53.75	88.75	40.50	1.00
	GRAND MEAN	2566.24	48.41	118.80	1.77	1.31	76.95	91.72	74.34	1.59
	STANDARD ERROR OF A VARIETY MEAN	185.30	1.16	1.30	.36	.20	5.11	3.34	3.17	.30
	COEFFICIENT OF VARIATION	14.44%	4.81%	2.19%	40.34%	30.84%	13.28%	7.28%	8.54%	37.92%
	5% LSD VARIETY MEANS (********=NS)	527.80	3.32	3.70	1.01	.58	14.55	********	9.04	.86

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

YIELD	KG/HA	1.00	-.31+	-.10	-.22	-.32++	.15	.15	-.31+	-.44++
DAYS TO	FLOWER	-.31+	1.00	.88++	.07	.25+	-.18	-.42++	.65++	.68++
DAYS TO	MATURITY	-.10	.88++	1.00	.01	.12	-.17	-.33++	.61++	.61++
NODULE	ABUND 1	-.22	.07	.01	1.00	.33++	-.36++	-.26+	-.06	.04
NODULE	ABUND 2	-.32++	.25+	.12	.33++	1.00	-.31+	-.33++	.11	.18
NODULE	ACT. 1	.15	-.18	-.17	-.36++	-.31+	1.00	.42++	.18	.12
NODULE	ACT. 2	.15	-.42++	-.33++	-.26+	-.33++	.42++	1.00	-.22	-.21
PLANT	HEIGHT	-.31+	.65++	.61++	-.06	.11	.18	-.22	1.00	.83++
	LODGING	-.44++	.68++	.61++	.04	.18	.12	-.21	.83++	1.00
	SHATTER	.16	-.09	-.03	-.11	-.22	-.04	.09	-.11	-.15
PLANTS	HARVEST	.41++	-.44++	-.34++	-.43++	-.41++	.43++	.22	.06	-.19
PODS PER	PLANT	.14	.40++	.38++	-.01	.12	-.03	-.25+	.33++	.24
POD	HEIGHT	-.37++	.67++	.60++	-.09	.17	.15	-.30+	.89++	.82++
100 SEED	WEIGHT	.40++	-.77++	-.65++	-.08	-.20	.05	.37++	-.84++	-.77++
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 60 EXPERIMENT 583 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
15	RANSOM	1.00	176.50	31.50	14.50	19.63	.00	.00
12	RILLITO	1.00	158.00	37.50	14.00	17.18	.00	.00
3	DAVIS	1.50	165.00	46.75	14.75	16.88	.00	.00
2	FORREST	1.50	168.00	41.25	14.00	15.88	.00	.00
4	GASOY 17	1.25	159.00	39.25	15.25	15.00	.00	.00
1	JAMES	1.25	193.75	32.25	9.75	19.43	.00	.00
8	MITCHELL	3.25	180.00	29.25	10.00	21.38	.00	.00
14	WILLIAMS	1.00	181.75	31.25	8.50	20.68	.00	.00
6	FRANKLIN	1.25	198.00	31.75	8.50	17.75	.00	.00
7	CUTLER 71	1.00	178.50	36.50	11.50	22.50	.00	.00
16	COBB	1.25	176.50	44.75	14.00	15.05	.00	.00
13	BOSSIER	1.25	169.75	30.50	17.50	12.43	.00	.00
5	CALLAND	1.00	204.00	28.00	13.00	17.68	.00	.00
11	ACC 2120	1.00	168.75	44.00	47.50	5.38	.00	.00
10	IMPROVED PELICAN	1.00	114.50	40.25	33.00	8.85	.00	.00
9	BRAGG	1.00	47.50	33.00	5.75	18.18	.00	.00
	GRAND MEAN	1.28	164.97	36.11	15.72	16.50	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.26	9.08	4.70	1.41	.51	.00	.00
	COEFFICIENT OF VARIATION	40.83%	11.01%	26.06%	17.97%	6.17%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	.74	25.86	********	4.02	1.45	.00	.00

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	.16	.41++	.14	-.37++	.40++	.00	.00
DAYS TO FLOWER	-.09	-.44++	.40++	.67++	-.77++	.00	.00
DAYS TO MATURITY	-.03	-.34++	.38++	.60++	-.65++	.00	.00
NODULE ABUND 1	-.11	-.43++	-.01	-.09	-.08	.00	.00
NODULE ABUND 2	-.22	-.41++	.12	.17	-.20	.00	.00
NODULE ACT. 1	-.04	.43++	-.03	.15	.05	.00	.00
NODULE ACT. 2	.09	.22	-.25+	-.30+	.37++	.00	.00
PLANT HEIGHT	-.11	.06	.33++	.89++	-.84++	.00	.00
LODGING	-.15	-.19	.24	.82++	-.77++	.00	.00
SHATTER	1.00	.11	-.01	-.17	.17	.00	.00
PLANTS HARVEST	.11	1.00	-.11	-.06	.18	.00	.00
PODS PER PLANT	-.01	-.11	1.00	.27+	-.29+	.00	.00
POD HEIGHT	-.17	-.06	.27+	1.00	-.84++	.00	.00
100 SEED WEIGHT	.17	.18	-.29+	-.84++	1.00	.00	.00
QUALITY OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 61 EXPERIMENT 581 YEAR 1979

REGION - ASIA COUNTRY - NEPAL
SITE - PARWANIPUR AGRIC. STATION ELEVATION - 100 M
LATITUDE - 27 DEG. 2 MIN. N LONGITUDE - 84 DEG. 35 MIN. E
COOPERATOR - R. P. SAH, M. P. BHARATI
DATE PLANTED - JUNE 28, 1979 DATE HARVESTED - OCTOBER, 1979
SOIL TYPE - CLAY-LOAM
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 1301 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
8	FORREST	2129.09	42.00	96.00	.00	.00	.00	.00	50.00	.00
9	DAVIS	2046.24	41.00	104.75	.00	.00	.00	.00	55.00	.00
10	GASOY 17	2012.90	38.00	107.75	.00	.00	.00	.00	47.50	.00
5	RANSOM	1858.70	36.75	110.50	.00	.00	.00	.00	47.00	.00
7	JAMES	1704.51	35.50	95.00	.00	.00	.00	.00	65.50	.00
2	RILLITO	1679.50	38.00	113.50	.00	.00	.00	.00	51.00	.00
6	COBB	1506.55	43.00	119.75	.00	.00	.00	.00	45.50	.00
15	ACC 2120	1498.22	54.00	108.25	.00	.00	.00	.00	101.00	.00
4	WILLIAMS	1191.90	34.25	95.00	.00	.00	.00	.00	55.25	.00
3	BOSSIER	1133.56	38.00	114.00	.00	.00	.00	.00	53.50	.00
11	CALLAND	1083.55	28.00	97.00	.00	.00	.00	.00	59.75	.00
12	FRANKLIN	1058.54	38.00	96.00	.00	.00	.00	.00	50.00	.00
13	CUTLER 71	1016.87	30.50	102.75	.00	.00	.00	.00	55.00	.00
14	MITCHELL	914.77	33.50	97.00	.00	.00	.00	.00	65.25	.00
1	IMPROVED PELICAN	664.72	50.00	120.00	.00	.00	.00	.00	89.50	.00
	GRAND MEAN	1433.34	39.70	105.15	.00	.00	.00	.00	59.38	.00
	STANDARD ERROR OF A VARIETY MEAN	218.96	1.85	1.77	.00	.00	.00	.00	4.31	.00
	COEFFICIENT OF VARIATION	30.55%	9.56%	3.36%	.00%	.00%	.00%	.00%	14.52%	.00%
	5% LSD VARIETY MEANS (********=NS)	624.93	5.28	5.04	.00	.00	.00	.00	12.31	.00

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

YIELD	KG/HA	1.00	.10	-.05	.00	.00	.00	.00	-.05	.00
DAYS TO	FLOWER	.10	1.00	.44++	.00	.00	.00	.00	.47++	.00
DAYS TO	MATURITY	-.05	.44++	1.00	.00	.00	.00	.00	.09	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.05	.47++	.09	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	.00	.00	.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.06	.68++	.64++	.00	.00	.00	.00	.34++	.00
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.20	-.58++	-.38++	.00	.00	.00	.00	-.56++	.00
QUALITY	OF SEED	-.32+	-.41++	-.68++	.00	.00	.00	.00	.01	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 61 EXPERIMENT 581 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
8	FORREST	.00	.00	59.75	.00	15.80	4.50	.00
9	DAVIS	.00	.00	75.00	.00	16.53	1.50	.00
10	GASOY 17	.00	.00	72.75	.00	11.45	1.00	.00
5	RANSOM	.00	.00	68.00	.00	16.05	2.00	.00
7	JAMES	.00	.00	46.75	.00	15.78	4.00	.00
2	RILLITO	.00	.00	80.25	.00	15.58	1.50	.00
6	COBB	.00	.00	81.00	.00	13.63	1.75	.00
15	ACC 2120	.00	.00	106.75	.00	7.18	2.00	.00
4	WILLIAMS	.00	.00	42.00	.00	15.50	5.00	.00
3	BOSSIER	.00	.00	70.75	.00	14.10	1.75	.00
11	CALLAND	.00	.00	41.00	.00	16.45	5.00	.00
12	FRANKLIN	.00	.00	38.75	.00	15.60	5.00	.00
13	CUTLER 71	.00	.00	35.75	.00	15.20	5.00	.00
14	MITCHELL	.00	.00	47.75	.00	15.40	5.00	.00
1	IMPROVED PELICAN	.00	.00	89.00	.00	12.63	3.00	.00
	GRAND MEAN	.00	.00	63.68	.00	14.66	3.20	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	.00	6.58	.00	.63	.30	.00
	COEFFICIENT OF VARIATION	.00%	.00%	20.67%	.00%	8.64%	18.94%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	.00	18.79	.00	1.81	.87	.00

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

YIELD	KG/HA	.00	.00	.06	.00	.20	-.32+	.00
DAYS TO	FLOWER	.00	.00	.68++	.00	-.58++	-.41++	.00
DAYS TO	MATURITY	.00	.00	.64++	.00	-.38++	-.68++	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.00	.34++	.00	-.56++	.01	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	.00	.00	.00	.00	.00
PODS PER	PLANT	.00	.00	1.00	.00	-.59++	-.71++	.00
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	-.59++	.00	1.00	.27+	.00
QUALITY	OF SEED	.00	.00	-.71++	.00	.27+	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 62 EXPERIMENT 579 YEAR 1979

REGION - ASIA
SITE - NARC, ISLAMABAD
LATITUDE - 33 DEG. 75 MIN. N
COOPERATOR - DR. ABDUR RAHMAN KHAN
DATE PLANTED - JULY 15, 1979
SOIL TYPE - SAND 15 %, SILT 30 %, CLAY 55 %, PH 7.1
FERTILIZER USED (KG/HA) N 22, P 24.6
AMOUNT OF MOISTURE - 480 MM

COUNTRY - PAKISTAN
ELEVATION - 550 M
LONGITUDE - 73 DEG. E
DATE HARVESTED - OCTOBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
6	FRANKLIN	1308.59	27.50	80.00	2.75	.00	.00	.00	64.25	1.00
14	WILLIAMS	1260.67	27.50	81.50	2.00	.00	.00	.00	59.75	1.00
15	RANSOM	1171.07	38.50	95.00	2.00	.00	.00	.00	71.50	1.00
7	CUTLER 71	1154.40	27.00	83.75	2.75	.00	.00	.00	62.25	1.00
5	CALLAND	1154.40	27.00	83.00	2.75	.00	.00	.00	57.00	1.00
8	MITCHELL	1091.88	30.00	83.25	3.00	.00	.00	.00	51.75	1.00
13	BOSSIER	1087.72	42.75	108.00	2.75	.00	.00	.00	81.50	1.00
9	BRAGG	1071.05	40.75	98.75	2.25	.00	.00	.00	79.75	1.00
3	DAVIS	1016.87	41.25	92.00	3.00	.00	.00	.00	63.25	1.00
4	GASOY 17	1000.20	41.50	101.50	2.75	.00	.00	.00	68.75	1.00
16	COBB	923.10	43.75	105.00	2.75	.00	.00	.00	72.50	1.00
2	FORREST	916.85	33.00	94.00	3.00	.00	.00	.00	70.25	1.00
12	RILLITO	833.50	39.25	96.25	2.00	.00	.00	.00	80.25	1.00
1	JAMES	821.00	29.75	89.00	3.00	.00	.00	.00	61.75	1.00
11	ACC 2120	504.27	59.25	117.00	3.00	.00	.00	.00	87.25	1.00
10	IMPROVED PELICAN	446.34	51.50	108.00	5.00	.00	.00	.00	70.75	1.00
	GRAND MEAN	985.12	37.52	94.75	2.80	.00	.00	.00	68.91	1.00
	STANDARD ERROR OF A VARIETY MEAN	96.42	.38	1.31	.42	.00	.00	.00	3.47	.00
	COEFFICIENT OF VARIATION	19.57%	2.03%	2.77%	30.30%	.00%	.00%	.00%	10.06%	.00%
	5% LSD VARIETY MEANS (********=NS)	274.64	1.09	3.74	1.21	.00	.00	.00	9.88	.00

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

YIELD	KG/HA	1.00	-.61++	-.57++	-.30+	.00	.00	.00	-.14	.00
DAYS TO	FLOWER	-.61++	1.00	.93++	.15	.00	.00	.00	.61++	.00
DAYS TO	MATURITY	-.57++	.93++	1.00	.17	.00	.00	.00	.62++	.00
NODULE	ABUND 1	-.30+	.15	.17	1.00	.00	.00	.00	-.15	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.14	.61++	.62++	-.15	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	-.07	.07	-.05	-.12	.00	.00	.00	-.01	.00
PLANTS	HARVEST	.52++	-.51++	-.44++	-.27+	.00	.00	.00	-.17	.00
PODS PER	PLANT	-.34++	.58++	.56++	-.07	.00	.00	.00	.61++	.00
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.63++	-.81++	-.74++	.00	.00	.00	.00	-.58++	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 62 EXPERIMENT 579 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
6	FRANKLIN	3.00	180.25	12.93	.00	14.38	.00	.00	38.5	21.8
14	WILLIAMS	1.50	203.00	12.58	.00	14.78	.00	.00	40.7	21.5
15	RANSOM	1.50	189.25	17.65	.00	12.43	.00	.00	39.5	21.7
7	CUTLER 71	2.25	189.75	11.35	.00	15.13	.00	.00	41.3	22.0
5	CALLAND	2.00	219.50	11.75	.00	14.90	.00	.00	41.2	20.5
8	MITCHELL	2.25	194.00	13.78	.00	12.50	.00	.00	39.8	19.8
13	BOSSIER	1.00	179.00	18.03	.00	11.20	.00	.00	40.8	20.7
9	BRAGG	1.50	169.50	17.38	.00	12.28	.00	.00	39.6	22.1
3	DAVIS	2.00	169.75	14.20	.00	11.38	.00	.00	39.9	20.0
4	GASOY 17	1.25	188.50	12.30	.00	12.43	.00	.00	39.3	19.4
16	COBB	1.00	193.25	21.75	.00	11.15	.00	.00	39.2	20.8
2	FORREST	1.75	178.50	22.20	.00	10.05	.00	.00	40.0	20.0
12	RILLITO	1.50	168.00	24.00	.00	10.83	.00	.00	41.4	21.7
1	JAMES	1.75	196.75	13.25	.00	13.55	.00	.00	41.7	21.5
11	ACC 2120	4.00	166.00	30.70	.00	6.68	.00	.00	42.5	15.8
10	IMPROVED PELICAN	1.25	35.00	21.50	.00	9.88	.00	.00	42.4	18.9
	GRAND MEAN	1.84	176.25	17.21	.00	12.09	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.29	11.81	2.82	.00	.50	.00	.00		
	COEFFICIENT OF VARIATION	31.12%	13.40%	32.72%	.00%	8.24%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.82	33.64	8.02	.00	1.42	.00	.00		

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

YIELD	KG/HA	-.07	.52++	-.34++	.00	.63++	.00	.00
DAYS TO	FLOWER	.07	-.51++	.58++	.00	-.81++	.00	.00
DAYS TO	MATURITY	-.05	-.44++	.56++	.00	-.74++	.00	.00
NODULE	ABUND 1	-.12	-.27+	-.07	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.01	-.17	.61++	.00	-.58++	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.07	.17	.00	-.20	.00	.00
PLANTS	HARVEST	.07	1.00	-.30+	.00	.37++	.00	.00
PODS PER	PLANT	.17	-.30+	1.00	.00	-.61++	.00	.00
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	-.20	.37++	-.61++	.00	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 63 EXPERIMENT 593 YEAR 1979

REGION - ASIA
COUNTRY - PAKISTAN
SITE - TANDOJAM
ELEVATION - 19 M
LATITUDE - 25 DEG. 12 MIN. N
LONGITUDE - 63 DEG. 23 MIN. E
COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL, N. AHMED, A.H. SOOMRO
DATE PLANTED - JUNE 24, 1979
DATE HARVESTED - OCTOBER, 1979
FERTILIZER USED (KG/HA) - N 90.0, P 39.2
NUMBER OF IRRIGATIONS - 4
SUBSTITUTE VARIETY - HAMPTON 266A

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
10	GASOY 17	1571.15	41.00	113.50	5.00	4.25	.00	.00	29.50	1.00
16	ACC 2120	1516.97	64.75	119.25	5.00	4.75	.00	.00	75.25	1.00
5	RANSOM	1212.74	39.25	107.25	5.00	3.75	.00	.00	30.50	1.00
3	BOSSIER	1129.39	42.25	114.75	5.00	4.50	.00	.00	31.00	1.00
15	BRAGG	1037.71	43.25	117.25	5.00	4.50	.00	.00	34.50	1.00
7	JAMES	958.52	31.25	95.50	5.00	4.50	.00	.00	40.50	1.00
11	CALLAND	829.33	23.75	95.00	5.00	4.00	.00	.00	38.00	1.00
6	HAMPTON 266A	821.00	41.50	111.25	5.00	4.75	.00	.00	27.25	1.00
2	RILLITO	758.48	41.75	111.00	5.00	4.75	.00	.00	36.75	1.00
14	MITCHELL	750.15	28.25	94.25	5.00	4.75	.00	.00	25.25	1.00
1	IMPROVED PELICAN	745.98	53.50	122.75	5.00	4.50	.00	.00	75.00	1.00
9	DAVIS	695.97	33.75	109.75	5.00	4.50	.00	.00	26.00	1.00
8	FORREST	666.80	31.50	98.25	5.00	5.00	.00	.00	20.00	1.00
13	CUTLER 71	633.46	25.00	95.00	5.00	5.00	.00	.00	26.00	1.00
12	FRANKLIN	625.12	26.25	91.25	5.00	4.50	.00	.00	29.50	1.00
4	WILLIAMS	579.28	24.75	93.75	5.00	4.00	.00	.00	25.50	1.00
	GRAND MEAN	908.25	36.98	105.61	5.00	4.50	.00	.00	35.66	1.00
	STANDARD ERROR OF A VARIETY MEAN	156.51	.72	2.67	.00	.33	.00	.00	2.60	.00
	COEFFICIENT OF VARIATION	34.46%	3.89%	5.05%	.00%	14.49%	.00%	.00%	14.59%	.00%
	5% LSD VARIETY MEANS (********-NS)	445.81	2.05	7.60	.00	********	.00	.00	7.41	.00

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

YIELD	KG/HA	1.00	.45++	.47++	.00	.02	.00	.00	.30+	.00
DAYS TO	FLOWER	.45++	1.00	.81++	.00	.09	.00	.00	.73++	.00
DAYS TO	MATURITY	.47++	.81++	1.00	.00	-.01	.00	.00	.52++	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.02	.09	-.01	.00	1.00	.00	.00	-.03	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.30+	.73++	.52++	.00	-.03	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.41++	.61++	.29+	.00	.09	.00	.00	.58++	.00
PLANTS	HARVEST	.41++	.14	.06	.00	-.04	.00	.00	-.00	.00
PODS PER	PLANT	.37++	.77++	.59++	.00	.10	.00	.00	.75++	.00
POD	HEIGHT	.31+	.65++	.43++	.00	.01	.00	.00	.85++	.00
100 SEED	WEIGHT	-.36++	-.81++	-.65++	.00	-.09	.00	.00	-.39++	.00
QUALITY	OF SEED	-.33++	-.30+	-.34++	.00	.03	.00	.00	-.22	.00
PERCENT	GERM.	.47++	.43++	.33++	.00	-.13	.00	.00	.36++	.00

TABLE 63 EXPERIMENT 593 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
10	GASOY 17	1.00	81.25	39.50	3.75	10.13	1.50	85.00
16	ACC 2120	4.50	91.00	88.75	10.00	5.90	1.75	93.00
5	RANSOM	1.00	69.00	41.00	4.25	11.63	1.75	75.00
3	DOSSIER	1.00	74.75	53.25	3.50	9.30	2.00	90.00
15	BRAGG	1.00	76.25	50.50	4.75	9.18	3.00	79.00
7	JAMES	1.00	75.25	43.25	3.75	14.20	2.75	62.00
11	CALLAND	1.00	68.25	35.50	4.75	16.95	2.75	78.50
6	HAMPTON 266A	1.00	55.25	47.50	3.25	11.40	2.75	44.00
2	RILLITO	1.00	59.25	44.00	4.75	9.80	2.50	75.00
14	MITCHELL	1.00	66.75	31.50	3.25	11.55	3.00	61.00
1	IMPROVED PELICAN	1.00	40.25	69.25	8.25	10.05	2.25	65.00
9	DAVIS	1.00	47.75	51.50	3.50	12.63	2.00	45.00
8	FORREST	1.00	76.50	30.00	2.75	10.13	3.00	49.00
13	CUTLER 71	1.00	51.00	31.00	3.75	18.45	2.75	62.00
12	FRANKLIN	1.25	64.50	35.00	4.50	15.18	3.00	60.00
4	WILLIAMS	1.00	51.25	35.75	4.75	16.25	1.75	60.00
	GRAND MEAN	1.23	65.52	45.45	4.59	12.04	2.41	67.72
	STANDARD ERROR OF A VARIETY MEAN	.14	12.64	5.47	.49	.67	.29	4.53
	COEFFICIENT OF VARIATION	23.24%	38.58%	24.08%	21.33%	11.15%	23.74%	13.39%
	5% LSD VARIETY MEANS (********=NS)	.41	********	15.59	1.40	1.91	.81	12.91

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

YIELD	KG/HA	.41++	.41++	.37++	.31+	-.36++	-.33++	.47++
DAYS TO	FLOWER	.61++	.14	.77++	.65++	-.81++	-.30+	.43++
DAYS TO	MATURITY	.29+	.06	.59++	.43++	-.65++	-.34++	.33++
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.09	-.04	.10	.01	-.09	.03	-.13
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.58++	-.00	.75++	.85++	-.39++	-.22	.36++
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.23	.60++	.65++	-.43++	- 17	.36++
PLANTS	HARVEST	.23	1.00	.00	.00	-.29+	.09	.20
PODS PER	PLANT	.60++	.00	1.00	.72++	-.53++	-.36++	.33++
POD	HEIGHT	.65++	.00	.72++	1.00	-.34++	-.26+	.35++
100 SEED	WEIGHT	-.43++	-.29+	-.53++	-.34++	1.00	.15	-.32++
QUALITY	OF SEED	-.17	.09	-.36++	-.26+	.15	1.00	-.21
PERCENT	GERM.	.36++	.20	.33++	.35++	-.33++	-.21	1.00

TABLE 64 EXPERIMENT 563 YEAR 1979

REGION - SOUTH AMERICA
SITE - CAACUPE
LATITUDE - 25 DEG. 24 MIN. S
COOPERATORS - ROBERTO CASACCIA, OSCAR AGUILERA & JUSTO LOPEZ P.
DATE PLANTED - NOVEMBER 13, 1979
SOIL TYPE - PH 4.9, OM .6%
FERTILIZER USED (KG/HA) N 25, P 25, K 25
AMOUNT OF MOISTURE - 1122.4 MM
SUBSTITUTE VARIETIES VISOJA & L 326

COUNTRY - PARAGUAY
ELEVATION - 228 M
LONGITUDE - 57 DEG. 6 MIN. W
DATE HARVESTED - MARCH 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	FORREST	5469.84	44.00	134.00	3.75	2.00	67.50	31.25	57.50	1.00
3	DAVIS	4950.99	49.00	134.00	3.75	1.75	85.00	52.50	56.75	1.00
12	RILLITO	3992.46	44.00	140.00	3.50	1.25	85.00	63.75	54.25	1.00
4	GASOY 17	3863.27	46.00	140.00	3.50	1.50	90.00	41.25	52.50	1.25
8	MITCHELL	3584.05	36.00	123.00	4.00	3.00	72.50	63.75	55.75	1.50
9	BRAGG	3536.12	46.00	156.00	3.50	1.50	75.00	46.25	58.00	1.00
1	JAMES	3317.33	40.00	123.00	3.50	2.50	86.25	30.00	62.25	1.00
13	BOSSIER	2996.43	44.00	164.00	3.50	1.25	83.75	78.75	66.75	1.25
7	CUTLER 71	2784.82	36.00	123.75	3.75	2.50	57.50	48.75	52.75	1.25
5	CALLAND	2419.23	36.00	123.00	3.75	2.50	81.25	68.75	50.00	1.00
6	FRANKLIN	2408.81	36.00	123.00	4.00	3.25	58.75	66.25	43.50	1.00
15	VISOJA	2187.94	58.00	164.00	3.75	1.50	87.50	48.75	74.00	1.50
14	WILLIAMS	2146.26	36.00	123.00	3.25	2.75	78.75	70.00	39.50	1.00
16	L 326	1864.96	86.00	181.00	3.50	3.00	67.50	51.25	116.25	3.00
11	ACC 2120	1479.46	78.00	156.00	3.75	1.75	81.25	51.25	129.75	5.00
10	IMPROVED PELICAN	1416.95	78.00	181.00	3.50	2.75	75.00	51.25	155.75	4.75
	GRAND MEAN	3026.18	49.56	143.05	3.64	2.17	77.03	53.98	70.33	1.72
	STANDARD ERROR OF A VARIETY MEAN	295.79	.00	.19	.23	.30	5.06	5.96	4.02	.25
	COEFFICIENT OF VARIATION	19.55%	.00%	.26%	12.67%	27.52%	13.14%	22.08%	11.44%	28.52%
	5% LSD VARIETY MEANS (********=NS)	842.53	.00	.53	********	.85	14.42	16.97	11.46	.70

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

YIELD	KG/HA	1.00	-.44++	-.37++	.01	-.32++	.13	-.14	-.48++	-.54++
DAYS TO	FLOWER	-.44++	1.00	.85++	-.07	-.00	.04	-.16	.90++	.82++
DAYS TO	MATURITY	-.37++	.85++	1.00	-.13	-.19	.10	-.03	.77++	.61++
NODULE	ABUND 1	.01	-.07	-.13	1.00	.19	-.35++	-.02	-.05	-.01
NODULE	ABUND 2	-.32++	-.00	-.19	.19	1.00	-.41++	-.14	.06	.11
NODULE	ACT. 1	.13	.04	.10	-.35++	-.41++	1.00	.03	.01	-.00
NODULE	ACT. 2	-.14	-.16	-.03	-.02	-.14	.03	1.00	-.13	-.05
PLANT	HEIGHT	-.48++	.90++	.77++	-.05	.06	.01	-.13	1.00	.89++
	LODGING	-.54++	.82++	.61++	-.01	.11	-.00	-.05	.89++	1.00
	SHATTER	.00	.04	-.01	.01	.21	-.14	.04	.01	-.12
PLANTS	HARVEST	.25+	-.56++	-.67++	.13	.09	-.00	-.03	-.42++	-.31+
PODS PER	PLANT	-.40++	.92++	.79++	-.14	-.01	.03	-.12	.85++	.76++
POD	HEIGHT	-.39++	.80++	.76++	-.00	-.16	.21	-.18	.80++	.70++
100 SEED	WEIGHT	.14	-.76++	-.68++	.07	.36++	-.25+	.24	-.69++	-.65++
QUALITY	OF SEED	-.56++	.39++	.38++	-.16	.13	-.03	.06	.37++	.37++
PERCENT	GERM.	.26+	.37++	.38++	-.09	-.54++	.34++	-.14	.32++	.28+

TABLE 64 EXPERIMENT 563 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	FORREST	1.00	245.50	42.25	8.70	17.70	3.00	87.25	41.1	22.0
3	DAVIS	1.00	240.25	47.25	8.08	18.80	1.50	66.50	41.2	20.9
12	RILLITO	1.00	195.25	56.50	8.28	20.28	2.25	78.25	42.5	20.7
4	GASOY 17	1.00	258.25	43.50	7.93	17.05	1.00	87.50	43.6	22.0
8	MITCHELL	1.50	263.50	31.25	6.48	22.35	2.25	67.75	40.0	23.4
9	BRAGG	1.00	226.50	41.00	7.13	19.70	3.50	70.25	43.1	20.0
1	JAMES	1.00	292.50	36.50	8.83	21.63	2.25	65.25	41.9	23.9
13	BOSSIER	1.00	236.50	44.25	11.50	17.68	3.00	72.25	43.3	20.5
7	CUTLER 71	1.00	297.00	30.25	7.45	22.98	3.00	48.00	44.2	21.6
5	CALLAND	1.00	272.75	33.00	6.63	25.13	3.50	61.75	43.5	20.7
6	FRANKLIN	1.00	250.50	29.25	5.78	24.55	2.75	25.25	43.5	21.9
15	VISOJA	1.00	155.50	62.75	16.30	14.63	4.00	83.75	46.2	19.5
14	WILLIAMS	1.00	270.75	26.00	4.28	25.58	3.75	41.75	45.1	21.5
16	L 326	1.25	123.00	114.50	13.38	16.85	4.00	65.25	46.2	19.5
11	ACC 2120	1.00	277.50	97.75	16.95	8.00	4.25	95.50	44.9	18.9
10	IMPROVED PELICAN	1.00	143.75	110.25	16.35	15.65	4.00	75.00	45.2	20.9
	GRAND MEAN	1.05	234.31	52.89	9.62	19.28	3.00	68.20		
	STANDARD ERROR OF A VARIETY MEAN	.09	20.59	6.18	.88	.63	.48	7.31		
	COEFFICIENT OF VARIATION	17.89%	17.57%	23.35%	18.28%	6.50%	31.67%	21.42%		
	5% LSD VARIETY MEANS (********=NS)	.27	58.65	17.59	2.51	1.78	1.35	20.81		

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

YIELD KG/HA	.00	.25+	-.40++	-.39++	.14	-.56++	.26+
DAYS TO FLOWER	.04	-.56++	.92++	.80++	-.76++	.39++	.37++
DAYS TO MATURITY	-.01	-.67++	.79++	.76++	-.68++	.38++	.38++
NODULE ABUND 1	.01	.13	-.14	-.00	.07	-.16	-.09
NODULE ABUND 2	.21	.09	-.01	-.16	.36++	.13	-.54++
NODULE ACT. 1	-.14	-.00	.03	.21	-.25+	-.03	.34++
NODULE ACT. 2	.04	-.03	-.12	-.18	.24	.06	-.14
PLANT HEIGHT	.01	-.42++	.85++	.80++	-.69++	.37++	.32++
LODGING	-.12	-.31+	.76++	.70++	-.65++	.37++	.28+
SHATTER	1.00	.03	.03	-.03	.06	0.00	-.07
PLANTS HARVEST	.03	1.00	-.61++	-.39++	.31+	-.30+	-.12
PODS PER PLANT	.03	-.61++	1.00	.72++	-.65++	.37++	.42++
POD HEIGHT	-.03	-.39++	.72++	1.00	-.80++	.34++	.46++
100 SEED WEIGHT	.06	.31+	-.65++	-.80++	1.00	-.19	-.62++
QUALITY OF SEED	0.00	-.30+	.37++	.34++	-.19	1.00	-.09
PERCENT GERM.	-.07	-.12	.42++	.46++	-.62++	-.09	1.00

TABLE 65 EXPERIMENT 465 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - PERU
SITE - HUARANGOPAMPA, BAGUA ELEVATION - 500 M
LATITUDE - 5 DEG. 40 MIN. S LONGITUDE - 78 DEG. 30 MIN. W
COOPERATOR - UBALDO CESAR ARCAYA MACEDA, LUIS CAMACHO
DATE PLANTED - AUGUST 20, 1979 DATE HARVESTED - DECEMBER, 1979
SOIL TYPE - SAND 14%, SILT 56%, CLAY 30%, PH 7.6
AMOUNT OF MOISTURE - 338 MM
NUMBER OF IRRIGATIONS - 6
LOCAL VARIETY - NACIONAL

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
4	HARDEE LS	3960.38	43.00	124.50	3.75	1.50	65.00	7.50	53.75	1.00
9	JUPITER	3893.70	40.25	112.00	2.75	2.00	76.25	52.50	69.75	1.75
2	UFV-1	3640.31	33.50	114.00	3.25	2.25	72.50	85.00	34.25	1.00
15	DAVIS	3515.29	32.00	109.75	2.50	2.75	78.75	100.00	34.00	1.00
7	TUNIA	3484.03	32.00	109.75	3.25	2.75	83.75	87.50	51.75	1.00
1	CH-3	3350.67	34.00	110.50	2.50	2.75	78.75	77.50	93.75	2.00
6	IAC-2	3331.92	34.75	113.00	3.25	2.50	71.25	88.75	76.25	1.75
3	SJ-2	3122.71	34.50	110.50	3.50	2.50	60.00	85.00	69.25	1.50
8	CARIBE	3071.45	36.00	142.25	3.75	3.25	65.00	33.75	104.50	3.50
10	IMPROVED PELICAN	3040.19	34.50	106.00	3.75	3.00	85.00	42.50	73.25	1.25
11	RILLITO	2877.66	27.00	98.25	3.75	2.75	33.75	67.50	36.00	1.00
14	NACIONAL	2823.48	42.00	110.50	2.00	1.75	86.25	80.00	72.50	1.75
12	BOSSIER	2788.06	26.25	107.50	3.25	3.50	52.50	48.75	37.50	1.00
5	ORBA	2750.55	34.00	93.00	2.00	2.00	85.00	95.00	66.00	1.00
16	ACC 2120	2741.38	49.00	108.50	2.00	1.00	95.00	80.00	114.25	3.50
13	WILLIAMS	2540.09	25.50	91.00	2.50	2.25	43.75	68.75	40.00	1.00
	GRAND MEAN	3183.24	34.89	110.06	2.98	2.41	70.78	75.00	64.17	1.56
	STANDARD ERROR OF A VARIETY MEAN	220.73	.39	.85	.24	.29	7.68	5.76	4.62	.26
	COEFFICIENT OF VARIATION	13.87%	2.24%	1.54%	16.05%	23.94%	21.71%	15.37%	14.39%	33.90%
	5% LSD VARIETY MEANS (********=NS)	628.73	1.11	2.41	.68	.82	21.89	16.42	13.15	.75

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

YIELD	KG/HA	1.00	.17	.36++	.13	.03	.09	-.20	.09	.03
DAYS TO	FLOWER	.17	1.00	.40++	-.23	-.56++	.50++	-.15	.61++	.51++
DAYS TO	MATURITY	.36++	.40++	1.00	.35++	.10	.11	-.17	.39++	.47++
NODULE	ABUND 1	.13	-.23	.35++	1.00	.46++	-.37++	-.20	-.17	-.11
NODULE	ABUND 2	.03	-.56++	.10	.46++	1.00	-.29+	.17	-.17	-.11
NODULE	ACT. 1	.09	.50++	.11	-.37++	-.29+	1.00	.29+	.40++	.29+
NODULE	ACT. 2	-.20	-.15	-.17	-.20	.17	.29+	1.00	.14	.13
PLANT	HEIGHT	.09	.61++	.39++	-.17	-.17	.40++	.14	1.00	.82++
	LODGING	.03	.51++	.47++	-.11	-.11	.29+	.13	.82++	1.00
	SHATTER	-.35++	.13	-.24	-.41++	-.20	.15	.20	.08	-.03
PLANTS	HARVEST	-.27+	-.15	-.27+	-.52++	-.09	-.00	.21	-.04	.13
PODS PER	PLANT	.13	.11	.36++	.33++	.20	-.13	-.11	.33++	.36++
POD	HEIGHT	.15	.62++	.13	-.37++	-.43++	.41++	.06	.56++	.31+
100 SEED	WEIGHT	.26+	-.47++	-.18	.13	.16	-.26+	-.23	-.68++	-.61++
QUALITY	OF SEED	-.33++	.13	.14	-.17	.02	.10	.04	.36++	.42++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 65 EXPERIMENT 465 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
4	HARDEE LS	2.00	122.75	55.50	10.50	19.85	2.00	.00
9	JUPITER	1.00	233.00	37.75	17.75	17.68	2.00	.00
2	UFV-1	2.00	212.00	36.50	9.25	16.15	2.00	.00
15	DAVIS	2.00	245.25	33.75	8.25	19.48	2.00	.00
7	TUNIA	1.00	187.75	39.50	10.25	22.28	2.00	.00
1	CH-3	2.00	227.50	47.00	14.75	15.28	2.00	.00
6	IAC-2	2.00	193.00	40.00	13.25	15.98	2.00	.00
3	SJ-2	2.00	157.25	38.75	12.75	13.68	2.00	.00
8	CARIBE	2.00	214.25	77.25	11.00	12.38	3.00	.00
10	IMPROVED PELICAN	2.00	117.25	63.00	8.50	14.65	2.00	.00
11	RILLITO	2.00	234.00	47.25	7.75	20.23	2.00	.00
14	NACIONAL	4.00	246.75	29.75	17.00	19.43	2.00	.00
12	BOSSIER	2.00	238.25	40.25	7.25	17.08	3.00	.00
5	ORBA	4.00	249.50	36.25	14.25	14.08	3.00	.00
16	ACC 2120	2.00	234.00	51.50	13.75	6.65	3.00	.00
13	WILLIAMS	2.00	236.75	32.00	7.00	19.70	2.00	.00
	GRAND MEAN	2.13	208.70	44.13	11.45	16.53	2.25	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	12.01	10.65	.76	.30	.00	.00
	COEFFICIENT OF VARIATION	.00%	11.51%	48.28%	13.31%	3.61%	.00%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	34.22	********	2.17	.85	.00	.00

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

YIELD	KG/HA	-.35++	-.27+	.13	.15	.26+	-.33++	.00
DAYS TO	FLOWER	.13	-.15	.11	.62++	-.47++	.13	.00
DAYS TO	MATURITY	-.24	-.27+	.36++	.13	-.18	.14	.00
NODULE	ABUND 1	-.41++	-.52++	.33++	-.37++	.13	-.17	.00
NODULE	ABUND 2	-.20	-.09	.20	-.43++	.16	.02	.00
NODULE	ACT. 1	.15	-.00	-.13	.41++	-.26+	.10	.00
NODULE	ACT. 2	.20	.21	-.11	.06	-.23	.04	.00
PLANT	HEIGHT	.08	-.04	.33++	.56++	-.68++	.36++	.00
	LODGING	-.03	.13	.36++	.31+	-.61++	.42++	.00
	SHATTER	1.00	.26+	-.12	.26+	-.13	.28+	.00
PLANTS	HARVEST	.26+	1.00	-.34++	.17	-.02	.31+	.00
PODS PER	PLANT	-.12	-.34++	1.00	-.07	-.20	.19	.00
POD	HEIGHT	.26+	.17	-.07	1.00	-.25+	.02	.00
100 SEED	WEIGHT	-.13	-.02	-.20	-.25+	1.00	-.61++	.00
QUALITY	OF SEED	.28+	.31+	.19	.02	-.61++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 66 EXPERIMENT 429 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - PERU
SITE - LA MOLINA EXPERIMENTAL STA. ELEVATION - 251
LATITUDE - 12 DEG. 5 MIN. S LONGITUDE - 76 DEG. 57 MIN. W
COOPERATOR - JOSE BRUNO, LUIS CAMACHO
DATE PLANTED - NOVEMBER 22, 1979 DATE HARVESTED - APRIL 1980
SOIL TYPE - SAND 39.6%, SILT 32.0%, CLAY 28.4%
AMOUNT OF MOISTURE - 400 MM
NUMBER OF IRRIGATIONS - 6 (400 MM)
SUBSITUTE VARIETY - NACIONAL

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UFV-1	3391.93	60.25	156.25	2.50	1.75	65.00	93.75	70.75	1.00
15	NACIONAL	3366.09	72.00	146.25	2.25	1.50	70.00	87.50	103.00	1.00
7	TUNIA	3364.42	49.25	129.50	1.75	1.25	93.75	87.50	70.00	1.00
1	CH-3	3323.58	57.75	137.00	4.25	2.25	8.75	65.00	91.50	1.25
16	DAVIS	3294.83	45.75	125.00	2.00	1.00	82.50	93.75	59.25	1.00
6	IAC-2	2880.99	59.00	143.00	3.50	1.00	43.75	96.25	99.75	1.25
10	IMPROVED PELICAN	2847.65	69.50	140.75	4.00	2.75	21.25	40.00	96.25	1.25
12	RILLITO	2818.90	42.00	114.25	4.00	1.50	38.75	92.50	57.00	1.00
13	BOSSIER	2773.47	42.75	131.75	3.00	1.75	65.00	100.00	73.75	1.00
3	SJ-2	2768.89	60.75	138.25	4.75	3.00	10.00	81.25	98.50	1.25
5	ORBA	2701.37	58.00	135.50	2.50	1.75	77.50	95.00	107.75	3.25
4	HARDEE LS	2678.45	70.50	158.75	3.50	1.50	53.75	97.50	88.25	1.00
8	CARIBE	2510.09	67.75	156.25	2.25	2.50	68.75	95.00	110.75	3.25
9	JUPITER	2496.75	82.00	156.25	3.00	1.00	67.50	100.00	85.25	1.00
14	WILLIAMS	2204.19	61.25	99.50	3.50	3.75	52.50	46.25	45.25	1.00
11	ACC 2120	1915.38	80.50	134.50	3.75	4.25	46.25	26.25	97.75	2.75
	GRAND MEAN	2833.56	61.19	137.67	3.16	2.03	54.06	81.09	84.67	1.45
	STANDARD ERROR OF A VARIETY MEAN	248.93	.73	1.09	.52	.46	14.05	11.62	3.92	.36
	COEFFICIENT OF VARIATION	17.57%	2.40%	1.58%	32.70%	45.20%	51.98%	28.67%	9.25%	49.28%
	5% LSD VARIETY MEANS (********=NS)	709.07	2.09	3.09	1.47	1.31	40.02	33.11	11.15	1.02

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

YIELD	KG/HA	1.00	-.31+	.13	-.14	-.33++	.07	.28+	-.08	-.22
DAYS TO	FLOWER	-.31+	1.00	.53++	.09	.25+	-.08	-.26+	.48++	.22
DAYS TO	MATURITY	.13	.53++	1.00	-.10	-.25+	.03	.26+	.60++	.12
NODULE	ABUND 1	-.14	.09	-.10	1.00	.15	-.89++	-.18	.05	.07
NODULE	ABUND 2	-.33++	.25+	-.25+	.15	1.00	-.23	-.66++	.13	.16
NODULE	ACT. 1	.07	-.08	.03	-.89++	-.23	1.00	.17	-.13	-.04
NODULE	ACT. 2	.28+	-.26+	.28+	-.18	-.66++	.17	1.00	-.06	-.08
PLANT	HEIGHT	-.08	.48++	.60++	.05	.13	-.13	-.06	1.00	.37++
	LODGING	-.22	.22	.12	.07	.16	-.04	-.08	.37++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.04	-.40++	-.46++	-.19	.05	.20	.04	-.25+	.26+
PODS PER	PLANT	-.23	.56++	.53++	.16	.20	-.19	-.19	.56++	.17
POD	HEIGHT	.23	.38++	.55++	-.16	-.08	.06	.13	.71++	.17
100 SEED	WEIGHT	.37++	-.20	-.19	-.27+	-.33++	.25+	.18	-.43++	-.46++
QUALITY	OF SEED	.02	-.10	.34++	-.19	-.33++	.20	.50++	.08	.23
PERCENT	GERM.	.29+	.10	.31+	.07	-.12	-.09	-.02	.24	-.12

TABLE 66 EXPERIMENT 429 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	UFV-1	1.00	247.75	34.50	14.25	15.03	2.00	98.50	40.0	20.3
15	NACIONAL	1.00	175.50	36.00	22.25	20.65	1.25	98.00	41.7	19.0
7	TUNIA	1.00	251.75	28.00	17.25	16.53	1.75	96.75	38.5	22.6
1	CH-3	1.00	227.50	35.25	18.50	14.50	2.25	99.75	39.6	19.6
16	DAVIS	1.00	268.75	22.25	14.50	16.48	2.00	95.25	37.6	21.7
6	IAC-2	1.00	236.50	49.50	19.50	11.08	1.50	98.75	38.6	20.6
10	IMPROVED PELICAN	1.00	143.25	52.25	18.25	11.98	1.25	99.25	36.6	23.6
12	RILLITO	1.00	273.75	21.75	8.50	15.13	1.75	97.25	37.1	23.5
13	BOSSIER	1.00	234.00	31.75	13.50	16.00	2.00	89.25	39.4	22.4
3	SJ-2	1.00	160.50	51.75	16.75	11.35	1.75	97.75	38.2	19.5
5	ORBA	1.00	299.50	41.75	21.00	12.28	2.75	99.00	37.9	17.8
4	HARDEE LS	1.00	149.25	67.50	17.00	11.63	2.75	96.75	34.0	24.1
8	CARIBE	1.00	228.50	36.75	18.00	10.98	3.00	84.50	41.5	18.3
9	JUPITER	1.00	159.25	53.75	16.50	19.20	2.00	97.50	38.9	22.5
14	WILLIAMS	1.00	264.00	13.50	8.75	18.25	1.50	81.00	38.4	22.3
11	ACC 2120	1.00	286.75	62.25	16.25	6.63	1.00	98.50	41.9	15.9
	GRAND MEAN	1.00	225.41	39.91	16.30	14.23	1.91	95.48		
	STANDARD ERROR OF A VARIETY MEAN	.00	19.08	5.56	1.15	.65	.20	1.93		
	COEFFICIENT OF VARIATION	.00%	16.93%	27.86%	14.17%	9.16%	20.60%	4.05%		
	5% LSD VARIETY MEANS (********=NS)	.00	54.34	15.83	3.29	1.86	.56	5.51		

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

YIELD	KG/HA	.00	.04	-.23	.23	.37++	.02	.29+
DAYS TO	FLOWER	.00	-.40++	.56++	.38++	-.20	-.10	.10
DAYS TO	MATURITY	.00	-.46++	.53++	.55++	-.19	.34++	.31+
NODULE	ABUND 1	.00	-.19	.16	-.16	-.27+	-.19	.07
NODULE	ABUND 2	.00	.05	.20	-.08	-.33++	-.33++	-.12
NODULE	ACT. 1	.00	.20	-.19	.06	.25+	.20	-.09
NODULE	ACT. 2	.00	.04	-.19	.13	.18	.50++	-.02
PLANT	HEIGHT	.00	-.25+	.56++	.71++	-.43++	.08	.24
	LODGING	.00	.26+	.17	.17	-.46++	.23	-.12
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.38++	-.22	-.11	-.01	-.15
PODS PER	PLANT	.00	-.38++	1.00	.35++	-.47++	-.08	.35++
POD	HEIGHT	.00	-.22	.35++	1.00	-.19	.12	.40++
100 SEED	WEIGHT	.00	-.11	-.47++	-.19	1.00	-.09	-.16
QUALITY	OF SEED	.00	-.01	-.08	.12	-.09	1.00	-.18
PERCENT	GERM.	.00	-.15	.35++	.40++	-.16	-.18	1.00

TABLE 67 EXPERIMENT 434 YEAR 1979

REGION - SOUTH AMERICA
SITE - MARCAVELICA, SULLANA
LATITUDE - 4 DEG. 51 MIN. S
COPERATORS - ING. MANUEL GUERRERO RENTERIA, T. A. ROBERTO PEREZ LAZO
DATE PLANTED - SEPTEMBER 17, 1979
AMOUNT OF MOISTURE 756.0 MM
NUMBER OF IRRIGATIONS - 10 (756 MM)

COUNTRY - PERU
ELEVATION - 80 M
LONGITUDE - 80 DEG. 44 MIN. W
DATE HARVESTED - DECEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
1	CH-3	2647.20	39.00	103.25	5.00	4.50	3.75	50.00	83.17	2.50
16	DAVIS	2219.19	32.50	100.00	4.25	3.00	58.75	86.25	35.70	1.25
13	BOSSIER	1868.92	28.00	98.75	4.50	3.50	47.50	77.50	34.20	2.00
2	UFV-1	1857.31	38.75	113.00	4.75	4.25	25.00	61.25	37.40	1.00
6	IAC-2	1736.60	39.00	105.00	4.25	3.50	51.25	90.00	66.15	1.00
8	CARIBE	1726.80	29.50	95.75	4.75	4.00	16.25	61.25	43.85	2.75
14	WILLIAMS	1712.63	27.50	82.25	3.75	3.25	72.50	73.75	30.60	3.00
7	TUNIA	1676.79	29.50	100.25	4.50	4.25	25.00	53.75	53.40	2.75
9	JUPITER	1643.04	52.50	138.50	4.25	5.00	43.75	.00	58.53	3.00
3	SJ-2	1554.89	40.50	102.25	4.75	4.50	25.00	31.25	60.03	1.00
5	ORBA	1471.54	37.50	89.50	4.25	4.25	60.00	21.25	56.15	1.00
11	ACC 2120	1270.05	55.00	120.00	4.25	5.00	43.75	.00	109.90	5.00
15	RANSOM	1210.03	23.25	87.75	3.50	3.25	92.50	80.00	21.95	1.00
12	RILLITO	1202.12	27.25	84.00	4.00	3.75	53.75	67.50	32.55	1.00
10	IMPROVED PELICAN	1175.86	40.75	99.75	4.25	4.50	31.25	42.50	53.30	1.25
4	HARDEF LS	1051.88	52.75	137.25	4.25	5.00	75.00	.00	59.10	1.00
	GRAND MEAN	1626.55	37.08	103.58	4.33	4.09	45.31	49.77	52.25	1.91
	STANDARD ERROR OF A VARIETY MEAN	322.34	1.36	2.74	.28	.41	16.79	16.13	5.11	.18
	COEFFICIENT OF VARIATION	39.63%	7.36%	5.30%	13.09%	20.05%	74.10%	64.82%	19.55%	18.65%
	5% LSD VARIETY MEANS (********=NS)	********	3.89	7.81	********	1.17	47.82	45.95	14.55	.51

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

YIELD	KG/HA	1.00	-.12	.04	.14	-.30+	-.10	.31+	.25+	.12
DAYS TO	FLOWER	-.12	1.00	.81++	.08	.55++	-.00	-.58++	.66++	.27+
DAYS TO	MATURITY	.04	.81++	1.00	.08	.42++	.05	-.47++	.46++	.22
NODULE	ABUND 1	.14	.08	.08	1.00	.53++	-.77++	-.21	.16	.04
NODULE	ABUND 2	-.30+	.55++	.42++	.53++	1.00	-.44++	-.71++	.39++	.17
NODULE	ACT. 1	-.10	-.00	.05	-.77++	-.44++	1.00	.18	-.19	-.11
NODULE	ACT. 2	.31+	-.58++	-.47++	-.21	-.71++	.18	1.00	-.37++	-.23
PLANT	HEIGHT	.25+	.66++	.46++	.16	.39++	-.19	-.37++	1.00	.53++
	LODGING	.12	.27+	.22	.04	.17	-.11	-.23	.53++	1.00
	SHATTER	.05	-.20	-.14	.17	-.03	-.16	.03	-.08	.13
PLANTS	HARVEST	.35++	-.43++	-.41++	-.17	-.45++	.15	.48++	-.03	.14
PODS PER	PLANT	.24	.65++	.57++	.28+	.37++	-.27+	-.37++	.63++	.28+
POD	HEIGHT	-.07	.47++	.35++	-.05	.11	.09	-.11	.49++	.21
100 SEED	WEIGHT	.43++	-.57++	-.24	.01	-.35++	-.03	.38++	-.54++	-.21
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 67 EXPERIMENT 434 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
1	CH-3	1.25	237.25	31.50	5.90	14.25	.00	.00	36.6	22.1
16	DAVIS	1.25	276.00	18.75	5.08	16.88	.00	.00	38.2	23.3
13	BOSSIER	1.00	235.00	19.75	7.15	18.00	.00	.00	38.8	20.1
2	UFV-1	1.00	170.75	32.75	5.28	13.50	.00	.00	38.4	20.6
6	IAC-2	1.00	226.25	28.25	8.25	14.00	.00	.00	35.6	22.1
8	CARIBE	4.00	243.75	24.25	4.53	13.63	.00	.00	43.2	17.2
14	WILLIAMS	1.00	219.75	13.75	4.48	17.25	.00	.00	40.3	21.3
7	TUNIA	1.00	177.25	21.50	5.08	16.38	.00	.00	36.2	19.8
9	JUPITER	1.00	114.25	37.25	6.70	16.13	.00	.00	38.1	23.7
3	SJ-2	1.25	155.50	37.00	6.23	12.75	.00	.00	36.2	22.4
5	ORBA	1.25	206.50	25.00	7.03	10.75	.00	.00	36.4	18.7
11	ACC 2120	1.00	199.25	56.00	8.88	7.25	.00	.00	44.0	15.1
15	RANSOM	1.00	223.50	12.75	3.35	15.63	.00	.00	37.3	23.4
12	RILLITO	1.00	179.50	15.50	4.63	17.00	.00	.00	39.5	20.3
10	IMPROVED PELICAN	1.00	65.75	35.00	5.10	14.00	.00	.00	39.7	22.7
4	HARDEE LS	1.00	108.75	44.00	6.48	12.88	.00	.00	39.0	20.4
	GRAND MEAN	1.25	189.[illegible]	28.31	5.88	14.39	.00	.00		
	STANDARD ERROR OF A VARIETY MEAN	.13	16.29	5.21	.79	.71	.00	.00		
	COEFFICIENT OF VARIATION	20.22%	17.15%	36.82%	26.75%	9.88%	.00%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.36	46.40	14.85	2.24	2.03	.00	.00		

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

YIELD	KG/HA	.05	.35++	.24	-.07	.43++	.00	.00
DAYS TO	FLOWER	-.20	-.43++	.65++	.47++	-.57++	.00	.00
DAYS TO	MATURITY	-.14	-.41++	.57++	.35++	-.24	.00	.00
NODULE	ABUND 1	.17	-.17	.28+	-.05	.01	.00	.00
NODULE	ABUND 2	-.03	-.45++	.37++	.11	-.35++	.00	.00
NODULE	ACT. 1	-.16	.15	-.27+	.09	-.03	.00	.00
NODULE	ACT. 2	.03	.48++	-.37++	-.11	.38++	.00	.00
PLANT	HEIGHT	-.08	-.03	.63++	.49++	-.54++	.00	.00
	LODGING	.13	.14	.28+	.21	-.21	.00	.00
	SHATTER	1.00	.25+	-.09	-.18	-.10	.00	.00
PLANTS	HARVEST	.25+	1.00	-.35++	.04	.10	.00	.00
PODS PER	PLANT	-.09	-.35++	1.00	.20	-.32++	.00	.00
POD	HEIGHT	-.18	.04	.20	1.00	-.45++	.00	.00
100 SEED	WEIGHT	-.10	.10	-.32++	-.45++	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 68 EXPERIMENT 492 YEAR 1979

REGION - SOUTH AMERICA
SITE - PICHANAKI
LATITUDE - 11 DEG. 54 MIN. S
COOPERATORS - CARLOS LOAYZA, LUIS H. CAMACHO
DATE PLANTED - MARCH 31, 1979

COUNTRY - PERU
ELEVATION - 650 M
LONGITUDE - 75 DEG. 15 MIN. W
DATE HARVESTED - JUNE, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
10	IMPROVED PELICAN	1880.38	.00	88.50	1.25	.00	88.75	.00	57.25	1.75
4	HARDEE LS	1806.19	.00	94.25	1.00	.00	88.75	.00	45.00	1.00
3	SJ-2	1791.61	.00	78.50	1.25	.00	90.00	.00	65.75	1.75
6	IAC-2	1646.58	.00	87.25	1.25	.00	77.50	.00	73.00	2.25
2	UFV-1	1562.81	.00	93.00	1.00	.00	88.75	.00	32.25	1.00
15	DAVIS	1481.96	.00	84.75	1.00	.00	83.75	.00	34.25	1.25
16	ACC 2120	1476.55	.00	88.00	1.25	.00	91.25	.00	92.25	3.25
8	CARIBE	1475.71	.00	87.00	1.00	.00	80.00	.00	60.75	2.00
1	CH-3	1275.25	.00	87.00	1.50	.00	91.25	.00	76.50	1.75
11	RILLITO	1244.00	.00	81.25	1.00	.00	87.50	.00	33.75	1.00
9	JUPITER	1157.73	.00	88.75	1.25	.00	87.50	.00	58.25	1.00
5	ORBA	1123.14	.00	80.50	1.25	.00	82.50	.00	48.50	1.50
7	TUNIA	1110.22	.00	90.00	1.50	.00	82.50	.00	42.00	1.00
12	BOSSIER	1003.12	.00	84.50	1.25	.00	91.25	.00	38.50	1.25
13	WILLIAMS	983.11	.00	78.25	1.50	.00	80.00	.00	48.00	1.25
14	RANSOM	816.83	.00	86.00	1.00	.00	83.75	.00	30.75	1.00
	GRAND MEAN	1364.70	.00	86.09	1.20	.00	85.94	.00	52.30	1.50
	STANDARD ERROR OF A VARIETY MEAN	240.54	.00	2.84	.21	.00	3.72	.00	6.19	.41
	COEFFICIENT OF VARIATION	35.25%	.00%	6.59%	34.67%	.00%	8.65%	.00%	23.67%	54.32%
	5% LSD VARIETY MEANS (********=NS)	********	.00	8.08	********	.00	********	.00	17.63	1.16

C O R R E L A T I O N S (+ - PROB=.0' ++ - PROB=.01)

YIELD	KG/HA	1.00	.00	.09	-.01	.00	.07	.00	.35++	.28+
DAYS TO	FLOWER	.00	1.00	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	.09	.00	1.00	.03	.00	.09	.00	-.04	-.08
NODULE	ABUND 1	-.01	.00	.03	1.00	.00	-.05	.00	.04	-.08
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.07	.00	.09	-.05	.00	1.00	.00	.13	.05
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.35++	.00	-.04	.04	.00	.13	.00	1.00	.78++
	LODGING	.28+	.00	-.08	-.08	.00	.05	.00	.78++	1.00
	SHATTER	-.11	.00	-.36++	-.06	.00	-.19	.00	-.02	.09
PLANTS	HARVEST	.06	.00	-.35++	.09	.00	-.12	.00	.24	.23
PODS PER	PLANT	.28+	.00	.18	-.05	.00	.16	.00	.22	.14
POD	HEIGHT	.17	.00	.23	.17	.00	.22	.00	.54++	.21
100 SEED	WEIGHT	-.14	.00	.09	.07	.00	-.07	.00	-.60++	-.48++
QUALITY	OF SEED	-.25+	.00	-.07	-.15	.00	.17	.00	-.37++	-.24
PERCENT	GERM.	-.04	.00	-.03	-.07	.00	.01	.00	-.26+	-.11

TABLE 68 EXPERIMENT 492 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
10	IMPROVED PELICAN	1.50	86.25	31.75	7.75	14.00	1.00	96.75	44.1	21.6
4	HARDEE LS	1.50	55.50	58.25	10.25	15.00	1.50	99.75	43.0	22.0
3	SJ-2	1.50	120.25	45.50	10.25	14.75	1.00	88.75	43.4	21.3
6	IAC-2	1.25	162.00	29.75	9.50	15.25	1.00	88.00	42.0	22.3
2	UFV-1	1.75	138.75	29.75	7.75	18.50	1.00	92.25	44.2	21.0
15	DAVIS	3.75	153.50	33.25	6.50	17.50	1.50	99.25	42.3	21.9
16	ACC 2120	2.75	157.50	35.75	11.25	9.00	1.00	96.00	44.5	16.0
8	CARIBE	4.50	144.75	63.00	7.75	13.00	1.00	96.50	45.2	18.4
1	CH-3	1.75	145.50	34.50	12.00	13.50	1.00	93.25	43.1	20.8
11	RILLITO	1.75	105.00	18.50	6.00	18.25	2.25	97.50	43.4	21.0
9	JUPITER	1.25	71.75	45.00	12.00	17.75	1.00	94.25	42.3	23.2
5	ORBA	5.00	191.25	24.00	9.00	11.25	1.00	95.75	42.2	19.5
7	TUNIA	1.75	81.50	27.75	7.25	21.00	1.00	97.25	42.9	22.0
12	BOSSIER	2.25	133.75	19.25	7.75	18.00	1.75	93.75	42.8	22.2
13	WILLIAMS	3.25	166.00	20.00	8.25	18.00	1.25	96.00	42.1	22.5
14	RANSOM	1.75	136.25	25.00	5.75	18.00	2.00	97.75	42.3	25.0
	GRAND MEAN	2.33	128.09	33.81	8.69	15.80	1.27	95.17		
	STANDARD ERROR OF A VARIETY MEAN	.28	20.05	6.83	.91	1.16	.18	1.04		
	COEFFICIENT OF VARIATION	23.81%	31.31%	40.38%	21.01%	14.71%	28.43%	2.19%		
	5% LSD VARIETY MEANS (********=NS)	.79	57.11	19.44	2.60	3.31	.51	2.97		

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

YIELD	KG/HA	-.11	.06	.28+	.17	-.14	-.25+	-.04
DAYS TO	FLOWER	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	-.36++	-.35++	.18	.23	.09	-.07	-.03
NODULE	ABUND 1	-.06	.09	-.05	.17	.07	-.15	-.07
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	-.19	-.12	.16	.22	-.07	.17	.01
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.02	.24	.22	.54++	-.60++	-.37++	-.26+
	LODGING	.09	.23	.14	.21	-.48++	-.24	-.11
	SHATTER	1.00	.49++	.02	-.16	-.36++	-.06	.27+
PLANTS	HARVEST	.49++	1.00	-.19	-.06	-.37++	-.13	-.10
PODS PER	PLANT	.02	-.19	1.00	.16	-.26+	-.25+	.10
POD	HEIGHT	-.16	-.06	.16	1.00	-.37++	-.30+	-.35++
100 SEED	WEIGHT	-.36++	-.37++	-.26+	-.37++	1.00	.30+	.04
QUALITY	OF SEED	-.06	-.13	-.25+	-.30+	.30+	1.00	.30+
PERCENT	GERM.	.27+	-.10	.10	-.35++	.04	.30+	1.00

TABLE 69 EXPERIMENT 456 YEAR 1979

REGION - SOUTH AMERICA
SITE - TINGO MARIA
LATITUDE - 9 DEG. 18 MIN. S
COOPERATOR - EDGARDO SEDANO VILAFOMA, ROGER MURRUGARRA, LUIS CAMACHO
DATE PLANTED - AUGUST 7, 1979
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 49.8
AMOUNT OF MOISTURE - 721 MM
NUMBER OF IRRIGATIONS - 0

COUNTRY - PERU
ELEVATION - 660 M
LONGITUDE - 75 DEG. 7 MIN. W
DATE HARVESTED - NOVEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	4836.38	31.00	109.50	3.25	3.00	85.00	58.75	67.50	1.75
15	DAVIS	4535.49	31.50	104.25	3.00	2.75	88.75	50.00	32.75	1.00
4	HARDEE LS	3965.38	44.50	122.50	3.00	2.75	78.75	58.75	63.75	2.00
2	UFV-1	3959.12	36.00	108.75	3.25	3.00	86.25	62.50	39.50	1.00
8	CARIBE	3695.32	30.00	108.25	3.75	3.25	87.50	60.00	71.25	3.00
9	JUPITER	3630.73	45.25	118.00	3.50	3.50	93.75	61.25	75.00	2.00
1	CH-3	3273.99	34.00	104.50	3.75	3.75	81.25	70.00	93.50	3.25
10	IMPROVED PELICAN	3173.13	32.00	104.50	3.50	3.00	100.00	60.00	78.75	2.00
12	BOSSIER	3059.36	27.75	105.25	3.25	3.00	93.75	58.75	42.25	1.00
11	RILLITO	2972.68	42.50	92.25	3.50	2.75	91.25	52.50	34.50	1.00
6	IAC-2	2937.67	30.00	108.50	3.75	3.25	96.25	56.25	80.00	3.00
16	ACC 2120	2902.66	48.25	118.25	4.00	3.50	88.75	45.00	111.25	4.00
3	SJ-2	2900.58	38.50	107.00	3.50	2.75	91.25	53.75	71.75	2.50
5	ORBA	2867.66	34.00	94.00	3.00	3.50	97.50	56.25	69.75	3.75
13	WILLIAMS	2660.53	27.25	84.00	3.00	3.50	92.50	55.00	46.00	1.00
14	RANSOM	2408.81	27.00	98.00	3.00	2.25	76.25	56.25	29.75	1.00
	GRAND MEAN	3361.22	34.97	105.47	3.38	3.09	89.30	57.19	62.95	2.08
	STANDARD ERROR OF A VARIETY MEAN	339.13	1.13	2.39	.30	.36	5.98	4.95	4.45	.40
	COEFFICIENT OF VARIATION	20.18%	6.44%	4.53%	17.60%	23.08%	13.39%	17.31%	14.14%	38.93%
	5% LSD VARIETY MEANS (********=NS)	966.00	3.21	6.81	********	********	********	********	12.68	1.15

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

YIELD	KG/HA	1.00	.06	.36++	.04	-.03	-.09	.05	-.07	-.07
DAYS TO	FLOWER	.06	1.00	.51++	.21	.15	-.02	-.11	.35++	.22
DAYS TO	MATURITY	.36++	.51++	1.00	.17	.04	-.13	.10	.43++	.24
NODULE	ABUND 1	.04	.21	.17	1.00	.42++	-.23	-.21	.32+	.09
NODULE	ABUND 2	-.03	.15	.04	.42++	1.00	-.06	-.08	.26+	.15
NODULE	ACT. 1	-.09	-.02	-.13	-.23	-.06	1.00	.10	.04	.10
NODULE	ACT. 2	.05	-.11	.10	-.21	-.08	.10	1.00	.07	.15
PLANT	HEIGHT	-.07	.35++	.43++	.32+	.26+	.04	.07	1.00	.76++
	LODGING	-.07	.22	.24	.09	.15	.10	.15	.76++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	-.11	-.30+	-.43++	.04	-.17	-.13	-.06	-.07	.15
PODS PER	PLANT	-.01	.57++	.46++	.34++	.24	-.06	-.10	.67++	.49++
POD	HEIGHT	.04	.07	.09	.18	.19	-.04	.16	.43++	.34++
100 SEED	WEIGHT	.16	-.11	.05	-.13	-.09	-.14	.25+	-.39++	-.42++
QUALITY	OF SEED	-.21	.25+	.19	-.03	-.23	.07	.21	.04	.13
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 69 EXPERIMENT 456 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	1.00	161.25	33.00	9.50	26.00	2.25	.00	42.5	22.8
15	DAVIS	1.00	169.00	26.75	5.25	15.75	1.75	.00	42.8	22.1
4	HARDEE LS	1.00	121.50	42.00	10.00	22.50	3.00	.00	43.0	22.4
2	UFV-1	1.00	179.50	28.50	7.75	23.25	2.00	.00	44.4	21.2
8	CARIBE	1.00	168.25	38.50	7.00	18.00	2.50	.00	45.6	20.1
9	JUPITER	1.00	138.50	45.00	10.00	24.75	3.00	.00	43.6	24.2
1	CH-3	1.00	167.00	49.75	13.75	18.00	2.50	.00	42.6	22.2
10	IMPROVED PELICAN	1.00	131.00	49.75	10.00	19.75	2.00	.00	44.0	22.3
12	BOSSIER	1.00	141.00	32.25	6.50	21.75	2.75	.00	44.5	22.5
11	RILLITO	1.00	168.25	27.25	6.25	23.25	3.50	.00	43.3	22.7
6	IAC-2	1.00	178.75	29.75	10.75	19.75	2.75	.00	44.1	22.6
16	ACC 2120	1.00	167.75	10.00	5.50	9.00	2.75	.00	4[illegible].7	16.3
3	SJ-2	1.00	139.25	50.50	9.00	18.00	2.00	.00	43.9	20.6
5	ORBA	1.00	177.00	38.75	9.50	16.50	2.50	.00	42.4	20.7
13	WILLIAMS	1.00	171.75	26.50	5.00	20.00	1.50	.00	42.3	23.1
14	RANSOM	1.00	176.25	27.75	4.75	21.25	3.25	.00	42.8	24.0
	GRAND MEAN	1.00	159.75	41.00	8.16	19.84	2.50	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	8.02	4.85	1.10	1.54	.51	.00		
	COEFFICIENT OF VARIATION	.00%	10.04%	23.65%	27.06%	15.54%	40.88%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	22.85	13.81	3.14	4.39	********	.00		

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

YIELD	KG/HA	.00	-.11	-.01	.04	.16	-.21	.00
DAYS TO	FLOWER	.00	-.30+	.57++	.07	-.11	.25+	.00
DAYS TO	MATURITY	.00	-.43++	.46++	.09	.05	.19	.00
NODULE	ABUND 1	.00	.04	.34++	.18	-.13	-.03	.00
NODULE	ABUND 2	.00	-.17	.24	.19	-.09	-.23	.00
NODULE	ACT. 1	.00	-.13	-.06	-.04	-.14	.07	.00
NODULE	ACT. 2	.00	-.06	-.10	.16	.25+	.21	.00
PLANT	HEIGHT	.00	-.07	.67++	.43++	-.39++	.04	.00
	LODGING	.00	.15	.49++	.34++	-.42++	.13	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.14	-.07	-.21	.01	.00
PODS PER	PLANT	.00	-.14	1.00	-.06	-.49++	-.04	.00
POD	HEIGHT	.00	-.07	-.06	1.00	.02	.03	.00
100 SEED	WEIGHT	.00	-.21	-.49++	.02	1.00	.25+	.00
QUALITY	OF SEED	.00	.01	-.04	.03	.25+	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 70 EXPERIMENT 482 YEAR 1979

REGION - SOUTH AMERICA
SITE - TULUMAYO
LATITUDE - 9 DEG. 45 MIN. S
COOPERATORS - JOSE ISIDRO MORALES, LUIS CAMACHO
DATE PLANTED - JULY 5, 1979
SOIL TYPE - PH 5.8
AMOUNT OF MOISTURE - 536 MM

COUNTRY - PERU
ELEVATION - 610 M
LONGITUDE - 75 DEG. 54 MIN. W
DATE HARVESTED - OCTOBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	JUPITER	2648.49	57.00	109.00	1.00	2.50	90.00	13.75	62.60	1.00
3	SJ-2	2100.63	52.00	103.00	1.25	1.75	87.50	30.00	70.53	1.00
15	DAVIS	1906.92	45.00	101.00	1.00	2.25	97.50	17.50	30.25	1.00
6	IAC-2	1880.79	47.00	103.00	1.00	2.00	96.25	35.00	58.10	1.00
7	TUNIA	1856.54	47.00	102.00	1.00	2.50	87.50	37.50	44.30	1.00
16	ACC 2120	1779.94	56.00	103.00	1.00	2.50	86.25	11.25	88.77	4.25
1	CH-3	1758.10	52.00	110.00	1.25	2.00	92.50	15.00	63.85	1.25
4	HARDEE LS	1614.32	56.00	111.50	1.25	2.25	77.50	23.75	33.05	1.00
5	ORBA	1426.95	49.00	92.00	1.00	2.75	92.50	10.00	54.00	1.75
13	WILLIAMS	1381.48	47.00	94.00	1.00	2.75	87.50	2.50	35.75	1.00
14	RANSOM	1310.01	45.00	102.00	1.00	3.00	87.50	3.75	25.33	1.00
8	CARIBE	1309.72	42.00	102.00	1.00	2.25	90.00	17.50	38.95	1.25
11	RILLITO	1233.41	46.00	98.00	1.00	3.25	86.25	3.75	31.25	1.00
12	BOSSIER	1184.15	42.00	102.00	1.75	2.50	86.25	3.75	29.18	1.00
10	IMPROVED PELICAN	919.52	52.00	103.00	1.00	2.00	86.25	30.00	41.88	1.00
2	UFV-1	795.62	49.00	108.00	1.00	2.50	82.50	17.50	21.53	1.00
	GRAND MEAN	1569.16	49.00	102.72	1.09	2.42	88.36	17.03	45.58	1.28
	STANDARD ERROR OF A VARIETY MEAN	216.66	.00	.13	.16	.36	5.29	4.64	3.20	.17
	COEFFICIENT OF VARIATION	27.61%	.00%	.24%	28.71%	29.49%	11.98%	54.47%	14.06%	25.85%
	5% LSD VARIETY MEANS (********=NS)	617.15	.00	.36	********	********	********	13.21	9.13	.47

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

YIELD	KG/HA	1.00	.35++	.19	-.11	-.23	.24	.19	.54++	.08
DAYS TO	FLOWER	.35++	1.00	.50++	-.08	-.15	-.14	.18	.58++	.35++
DAYS TO	MATURITY	.19	.50++	1.00	.13	-.25+	-.16	.27+	.09	-.08
NODULE	ABUND 1	-.11	-.08	.13	1.00	-.03	-.27+	-.09	.01	-.04
NODULE	ABUND 2	-.23	-.15	-.25+	-.03	1.00	-.12	-.43++	-.23	-.02
NODULE	ACT. 1	.24	-.14	-.16	-.27+	-.12	1.00	-.07	.14	-.03
NODULE	ACT. 2	.19	.18	.27+	-.09	-.43++	-.07	1.00	.21	-.12
PLANT	HEIGHT	.54++	.58++	.09	.01	-.23	.14	.21	1.00	.62++
	LODGING	.08	.35++	-.08	-.04	-.02	-.03	-.12	.62++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.32++	-.13	-.36++	-.03	.21	.31+	-.30+	.37++	.36++
PODS PER	PLANT	.23	.53++	.36++	.08	-.41++	-.20	.51++	.49++	.21
POD	HEIGHT	.20	.21	-.09	-.05	-.04	.10	.12	.40++	.18
100 SEED	WEIGHT	-.06	-.24	.08	.05	.16	-.17	.01	-.71++	-.68++
QUALITY	OF SEED	-.27+	-.20	-.23	.12	.11	-.21	-.32++	-.37++	.07
PERCENT	GERM.	.27+	.51++	-.06	-.18	-.11	.02	.08	.49++	.30+

TABLE 70 EXPERIMENT 482 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	1.00	111.25	43.43	13.95	19.50	1.00	94.00	39.4	24.3
3	SJ-2	1.00	73.25	93.18	10.38	13.75	1.00	97.50	37.9	22.2
15	DAVIS	1.00	118.25	24.30	8.23	20.50	1.00	75.50	41.5	21.0
6	IAC-2	1.00	113.00	43.55	11.20	15.75	1.25	88.50	40.8	22.9
7	TUNIA	1.00	91.50	32.35	17.05	20.25	1.50	55.00	39.5	21.9
16	ACC 2120	1.00	155.25	58.48	13.03	6.75	1.75	100.00	43.3	16.4
1	CH-3	1.00	109.25	42.28	11.23	14.50	1.00	66.00	40.6	22.0
4	HARDEE LS	1.00	48.00	52.35	7.50	22.50	2.00	81.00	39.1	24.2
5	ORBA	1.00	138.75	27.38	13.25	13.75	2.00	79.00	39.0	21.2
13	WILLIAMS	1.00	127.50	20.63	9.75	19.75	2.50	84.00	39.6	24.2
14	RANSOM	1.00	111.25	21.43	6.83	19.00	2.50	68.00	39.9	26.2
8	CARIBE	1.00	132.00	34.40	9.33	13.25	1.00	73.00	44.8	19.0
11	RILLITO	1.00	92.50	21.38	8.25	22.75	2.00	85.00	38.8	25.1
12	BOSSIER	1.00	81.50	28.35	6.95	19.75	2.50	51.00	40.1	23.1
10	IMPROVED PELICAN	1.00	34.50	66.10	8.58	16.00	1.25	86.50	38.5	23.4
2	UFV-1	1.00	54.50	41.88	5.80	18.75	2.50	60.00	38.4	23.2
	GRAND MEAN	1.00	99.52	40.71	10.08	17.28	1.67	77.75		
	STANDARD ERROR OF A VARIETY MEAN	.00	13.69	5.96	1.91	.55	.24	4.77		
	COEFFICIENT OF VARIATION	.00%	27.52%	29.26%	37.90%	6.33%	29.17%	12.28%		
	5% LSD VARIETY MEANS (********=NS)	.00	39.00	16.97	5.44	1.56	.69	13.60		

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

YIELD KG/HA	.00	.32++	.23	.20	-.06	-.27+	.27+
DAYS TO FLOWER	.00	-.13	.53++	.21	-.24	-.20	.51++
DAYS TO MATURITY	.00	-.36++	.36++	-.09	.08	-.23	-.06
NODULE ABUND 1	.00	-.03	.08	-.05	.05	.12	-.18
NODULE ABUND 2	.00	.21	-.41++	-.04	.16	.11	-.11
NODULE ACT. 1	.00	.31+	-.20	.10	-.17	-.21	.02
NODULE ACT. 2	.00	-.30+	.51++	.12	.01	-.32++	.08
PLANT HEIGHT	.00	.37++	.49++	.40++	-.71++	-.37++	.49++
LODGING	.00	.36++	.21	.18	-.68++	.07	.30+
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.42++	.31+	-.40++	-.05	.08
PODS PER PLANT	.00	-.42++	1.00	-.13	-.34++	-.25+	.41++
POD HEIGHT	.00	.31+	-.13	1.00	-.29+	-.37++	.11
100 SEED WEIGHT	.00	-.40++	-.34++	-.29+	1.00	.30+	-.30+
QUALITY OF SEED	.00	-.05	-.25+	-.37++	.30+	1.00	-.25+
PERCENT GERM.	.00	.08	.41++	.11	-.30+	-.25+	1.00

TABLE 71 EXPERIMENT 484 YEAR 1979

REGION - SOUTH AMERICA COUNTRY - PERU
SITE - YURIGMAGUAS ELEVATION - 184 M
LATITUDE - 5 DEG. 41 MIN. S LONGITUDE - 76 DEG. 5 MIN. W
COOPERATOR - DALE E. BANDY, LUIS CAMACHO
SOIL TYPE - SAND 75%, SILT 17%, CLAY 8%, PH 5.5
DATE PLANTED - SEPTEMBER 8, 1979 DATE HARVESTED - DECEMBER, 1979
FERTILIZER USED (KG/HA) - N 2.5, P 2.5, K 75, MG 18
AMOUNT OF MOISTURE - 743 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
15	DAVIS	1995.00	31.25	84.00	3.25	3.50	.00	41.25	62.00	1.25
4	HARDEE LS	1942.50	44.50	124.00	3.00	3.00	.00	45.00	91.50	1.25
16	ACC 2120	1935.00	47.25	83.00	3.00	3.00	.00	22.50	119.25	4.25
3	SJ-2	1912.50	40.75	89.75	3.25	2.25	.00	48.75	93.50	3.50
10	IMPROVED PELICAN	1882.50	38.00	85.25	3.00	1.75	.00	75.00	89.00	2.50
2	UFV-1	1702.50	36.75	90.00	3.50	3.50	.00	66.25	60.00	1.00
7	TUNIA	1682.50	35.00	95.00	3.00	2.75	.00	60.00	76.50	1.25
6	IAC-2	1662.50	36.50	90.50	3.50	2.50	.00	80.00	94.25	3.75
1	CH-3	1417.50	36.50	102.00	3.00	3.25	.00	57.50	106.00	4.25
9	JUPITER	1332.50	46.00	91.50	3.75	2.75	.00	33.75	87.00	2.00
13	WILLIAMS	1330.00	31.00	77.75	3.25	4.00	.00	13.75	62.00	1.25
12	BOSSIER	1322.50	36.75	90.75	3.50	3.00	.00	18.75	74.75	1.25
14	RANSOM	1210.00	31.25	97.75	3.00	3.25	.00	15.00	53.25	1.00
11	RILLITO	975.00	32.50	90.00	3.75	4.00	.00	38.75	63.25	1.00
5	ORBA	867.50	35.25	77.00	3.25	3.00	.00	7.50	68.25	4.25
8	CARIBE	627.50	38.25	124.00	2.75	3.00	.00	23.75	110.25	4.00
	GRAND MEAN	1487.34	37.34	93.27	3.23	3.03	.00	40.47	81.92	2.36
	STANDARD ERROR OF A VARIETY MEAN	190.59	1.14	7.36	.24	.42	.00	11.28	3.69	.34
	COEFFICIENT OF VARIATION	25.63%	6.08%	15.78%	14.81%	27.57%	.00%	55.76%	9.00%	29.01%
	5% LSD VARIETY MEANS (********=NS)	542.89	3.24	20.96	********	1.19	.00	32.14	10.50	.97

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

YIELD	KG/HA	1.00	.15	-.19	-.16	-.11	.00	.22	.21	-.00
DAYS TO	FLOWER	.15	1.00	.23	.10	-.30+	.00	.08	.61++	.28+
DAYS TO	MATURITY	-.19	.23	1.00	-.10	-.09	.00	.23	.29+	-.06
NODULE	ABUND 1	-.16	.10	-.10	1.00	.07	.00	.12	-.19	-.19
NODULE	ABUND 2	-.11	-.30+	-.09	.07	1.00	.00	-.32+	-.24	-.10
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.22	.08	.23	.12	-.32+	.00	1.00	.11	.03
PLANT	HEIGHT	.21	.61++	.29+	-.19	-.24	.00	.11	1.00	.69++
	LODGING	-.00	.28+	-.06	-.19	-.10	.00	.03	.69++	1.00
	SHATTER	-.28+	-.40++	.02	-.45++	.04	.00	-.10	-.09	.20
PLANTS	HARVEST	-.04	-.22	-.24	-.11	.20	.00	-.43++	.10	.21
PODS PER	PLANT	.12	.26+	.27+	.01	-.16	.00	.21	.31+	.07
POD	HEIGHT	.04	.45++	-.16	.00	-.36++	.00	.03	.55++	.55++
100 SEED	WEIGHT	.20	-.51++	-.05	.13	.12	.00	.26+	-.55++	-.53++
QUALITY	OF SEED	-.58++	-.44++	.04	.19	.21	.00	-.10	-.47++	-.31+
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 71 EXPERIMENT 484 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
15	DAVIS	2.00	133.75	62.75	8.00	17.75	2.00	.00	44.1	22.2
4	HARDEE LS	1.25	82.75	90.50	9.75	15.03	2.25	.00	44.9	23.4
16	ACC 2120	1.00	148.75	72.00	12.00	6.98	1.25	.00	45.8	16.1
3	SJ-2	1.50	100.25	56.50	12.75	15.10	2.50	.00	45.4	21.1
10	IMPROVED PELICAN	2.25	94.50	72.25	12.75	15.50	2.25	.00	45.4	22.2
2	UFV-1	1.25	87.00	54.75	6.50	16.45	2.50	.00	46.0	20.0
7	TUNIA	2.50	118.75	73.00	11.50	18.23	2.75	.00	45.7	22.8
6	IAC-2	2.25	112.25	88.00	12.00	18.43	2.50	.00	45.3	21.8
1	CH-3	2.00	120.50	48.50	14.50	16.05	3.00	.00	45.2	20.5
9	JUPITER	1.00	108.75	57.75	15.25	15.48	3.00	.00	43.2	22.3
13	WILLIAMS	2.00	142.00	49.75	10.00	18.58	3.50	.00	43.6	24.2
12	BOSSIER	1.25	120.00	55.50	9.25	15.48	3.25	.00	45.8	21.5
14	RANSOM	2.00	122.00	56.25	5.75	19.83	3.25	.00	44.9	23.7
11	RILLITO	2.00	109.75	48.00	7.50	17.35	4.75	.00	46.1	23.2
5	ORBA	3.50	128.75	52.00	13.25	11.43	3.25	.00	44.7	20.9
8	CARIBE	3.00	118.25	88.50	10.50	9.25	2.50	.00	46.4	17.8
	GRAND MEAN	1.72	115.50	64.13	10.70	15.43	2.78	.00		
	STANDARD ERROR OF A VARIETY MEAN	.38	7.23	9.08	.83	.83	.28	.00		
	COEFFICIENT OF VARIATION	39.89%	12.52%	28.31%	15.44%	10.78%	20.28%	.00%		
	5% LSD VARIETY MEANS (********=NS)	1.09	20.59	25.85	2.35	2.37	.80	.00		

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

YIELD	KG/HA	-.28+	-.04	.12	.04	.20	-.58++	.00
DAYS TO	FLOWER	-.40++	-.22	.26+	.45++	-.51++	-.44++	.00
DAYS TO	MATURITY	.02	-.24	.27+	-.16	-.05	.08	.00
NODULE	ABUND 1	-.45++	-.11	.01	.00	.13	.19	.00
NODULE	ABUND 2	.04	.20	-.16	-.36++	.12	.21	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	-.10	-.43++	.21	.03	.26+	-.10	.00
PLANT	HEIGHT	-.09	.10	.31+	.55++	-.55++	-.47++	.00
	LODGING	.20	.21	.07	.55++	-.53++	-.31+	.00
	SHATTER	1.00	.13	.04	-.02	-.06	.11	.00
PLANTS	HARVEST	.13	1.00	-.24	.05	-.15	-.01	.00
PODS PER	PLANT	.04	-.24	1.00	.07	-.14	-.35++	.00
POD	HEIGHT	-.02	.05	.07	1.00	-.28+	-.13	.00
100 SEED	WEIGHT	-.06	-.15	-.14	-.28+	1.00	.36++	.00
QUALITY	OF SEED	.11	-.01	-.35++	-.13	.36++	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 72 EXPERIMENT 483 YEAR 1979

REGION - ASIA
SITE - LOS BANOS, LAGUNA
LATITUDE - 14 DEG. 10 MIN. N
COOPERATOR - BENJAMIN M. LEGASPI
DATE PLANTED - JUNE 22,1979
SOIL TYPE - CLAY LOAM, PH 5.0, OM 1.73%
FERTILIZER USED (KG/HA) - N 56, P 24.416, K 46.48
AMOUNT OF MOISTURE - 1376 MM
SUBSTITUTE VARIETIES - CLARK 63 & L-114

COUNTRY - PHILIPPINES
ELEVATION - 15 M
LONGITUDE - 121 DEG. 15 MIN. E
DATE HARVESTED - SEPTEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	2478.04	25.00	84.00	2.03	2.25	100.00	70.00	55.18	1.00
12	RILLITO	2251.99	25.00	93.00	3.20	1.60	100.00	70.00	47.33	1.00
7	TUNIA	2241.07	32.00	106.00	1.73	2.30	100.00	83.75	80.52	2.00
19	DAVIS	2159.77	32.00	92.00	2.18	1.60	100.00	85.00	47.63	1.00
1	CH-3	2003.82	35.00	106.00	1.73	1.70	95.00	81.25	128.50	2.75
4	HARDEE LS	1877.92	50.00	121.00	1.90	1.25	95.00	72.50	77.68	2.00
5	ORBA	1842.24	42.00	106.00	1.95	1.38	87.50	75.00	114.95	4.25
13	CLARK 63	1682.00	32.00	84.00	1.80	2.23	100.00	77.50	84.43	1.75
6	IAC-2	1651.25	42.00	112.00	2.10	1.38	95.00	81.25	121.65	3.00
10	IMPROVED PELICAN	1555.60	42.00	106.00	2.05	1.88	87.50	77.50	96.50	2.00
37	ACC 2120	1535.27	56.00	98.00	2.08	2.20	73.75	56.25	118.35	3.75
3	SJ-2	1534.68	37.00	98.00	1.93	1.90	82.50	65.00	98.30	2.25
9	JUPITER	1450.79	50.00	112.00	2.63	2.30	78.75	53.75	80.93	1.75
15	L-114	1327.77	47.00	112.00	2.45	1.70	97.50	93.75	89.50	2.75
2	UF V-1	1294.97	42.00	112.00	1.95	1.48	62.50	66.25	45.40	1.00
8	CARIBE	330.36	52.00	123.00	2.73	2.88	98.75	66.25	121.93	1.00
	GRAND MEAN	1701.09	40.06	104.06	2.15	1.88	90.86	73.44	88.06	2.08
	STANDARD ERROR OF A VARIETY MEAN	124.69	.00	.00	.19	.21	3.91	5.51	3.10	.20
	COEFFICIENT OF VARIATION	14.66%	.00%	.00%	17.86%	22.51%	8.60%	15.02%	7.04%	19.08%
	5% LSD VARIETY MEANS (********=NS)	355.17	.00	.00	.55	.60	11.12	15.70	8.93	.56

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

YIELD	KG/HA	1.00	-.66++	-.56++	-.19	-.32++	.25+	.21	-.36++	.05
DAYS TO	FLOWER	-.66++	1.00	.72++	.05	.08	-.41++	-.26+	.50++	.39++
DAYS TO	MATURITY	-.56++	.72++	1.00	.09	-.07	-.18	-.02	.37++	.14
NODULE	ABUND 1	-.19	.05	.09	1.00	.12	.09	-.20	-.18	-.27+
NODULE	ABUND 2	-.32++	.08	-.07	.12	1.00	.13	-.28+	.12	-.21
NODULE	ACT. 1	.25+	-.41++	-.18	.09	.13	1.00	.34++	-.03	-.18
NODULE	ACT. 2	.21	-.26+	-.02	-.20	-.28+	.34++	1.00	.03	.03
PLANT	HEIGHT	-.36++	.50++	.37++	-.18	.12	-.03	.03	1.00	.67++
	LODGING	.05	.39++	.14	-.27+	-.21	-.18	.03	.67++	1.00
	SHATTER	-.06	.03	.02	.06	-.02	-.06	.15	.06	-.01
PLANTS	HARVEST	.43++	-.51++	-.71++	.03	.01	.22	.09	-.16	-.01
PODS PER	PLANT	-.15	.56++	.35++	-.13	-.16	-.17	-.18	.35++	.38++
POD	HEIGHT	-.20	.02	.01	-.00	.03	.12	.01	.25+	-.01
100 SEED	WEIGHT	.64++	-.72++	-.45++	-.08	-.15	.49++	.31+	-.43++	-.22
QUALITY	OF SEED	-.69++	.31+	.27+	.11	.40++	-.12	-.27+	.24	-.11
PERCENT	GERM.	.06	-.05	.07	.22	.13	.38++	.08	-.23	-.40++

TABLE 72 EXPERIMENT 483 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
14	WILLIAMS	1.00	286.75	18.63	10.43	16.05	2.00	95.00	40.9	23.8
12	RILLITO	1.00	232.50	35.05	9.63	13.63	2.00	100.00	42.4	23.5
7	TUNIA	1.00	145.00	33.58	9.38	14.60	2.00	85.00	42.7	22.3
19	DAVIS	1.00	252.50	19.30	10.05	13.90	1.50	100.00	41.3	21.5
1	CH-3	1.00	227.50	43.30	10.93	13.38	2.75	95.00	43.7	21.5
4	HARDEE LS	1.00	81.25	109.58	10.00	12.25	1.75	100.00	39.8	24.1
5	ORBA	1.00	207.75	46.15	10.43	11.30	2.00	60.00	40.7	22.4
13	CLARK 63	1.00	284.75	21.75	14.25	15.28	2.50	100.00	40.3	22.8
6	IAC-2	1.00	183.50	41.80	12.85	12.83	2.00	100.00	42.7	22.8
10	IMPROVED PELICAN	1.25	78.25	79.15	11.00	9.20	1.75	70.00	41.0	24.4
37	ACC 2120	1.00	218.50	95.10	8.80	5.73	2.75	80.00	43.2	14.7
3	SJ-2	1.00	126.75	62.70	10.58	10.63	2.00	60.00	40.5	23.4
9	JUPITER	1.00	144.50	38.28	11.60	12.68	2.25	100.00	40.3	24.2
15	L-114	1.00	175.75	43.13	11.38	13.10	2.00	100.00	43.2	15.6
2	UF V-1	1.00	147.50	27.73	9.33	9.65	3.00	90.00	41.0	19.0
8	CARIBE	1.00	127.25	39.93	12.48	6.13	4.00	100.00	45.4	14.0
	GRAND MEAN	1.02	182.50	47.20	10.82	11.89	2.27	89.69		
	STANDARD ERROR OF A VARIETY MEAN	.06	15.90	7.04	.85	.39	.25	6.21		
	COEFFICIENT OF VARIATION	12.31%	17.43%	29.84%	15.68%	6.63%	22.02%	13.84%		
	5% LSD VARIETY MEANS (********=NS)	********	45.30	20.06	2.42	1.12	.71	17.68		

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

YIELD	KG/HA	-.06	.43++	-.15	-.20	.64++	-.69++	.06
DAYS TO	FLOWER	.03	-.51++	.56++	.02	-.72++	.31+	-.05
DAYS TO	MATURITY	.02	-.71++	.35++	.01	-.45++	.27+	.07
NODULE	ABUND 1	.06	.03	-.13	-.00	-.08	.11	.22
NODULE	ABUND 2	-.02	.01	-.16	.03	-.15	.40++	.13
NODULE	ACT. 1	-.06	.22	-.17	.12	.49++	-.12	.38++
NODULE	ACT. 2	.15	.09	-.18	.01	.31+	-.27+	.08
PLANT	HEIGHT	.06	-.16	.35++	.25+	-.43++	.24	-.23
	LODGING	-.01	-.01	.38++	-.01	-.22	-.11	-.40++
	SHATTER	1.00	-.15	.18	.24	-.14	-.05	-.07
PLANTS	HARVEST	-.15	1.00	-.48++	.12	.41++	-.07	.20
PODS PER	PLANT	.18	-.48++	1.00	-.16	-.48++	-.03	-.25+
POD	HEIGHT	.24	.12	-.16	1.00	.11	.03	.13
100 SEED	WEIGHT	-.14	.41++	-.48++	.11	1.00	-.45++	.31+
QUALITY	OF SEED	-.05	-.07	-.03	.03	-.45++	1.00	.07
PERCENT	GERM.	-.07	.20	-.25+	.13	.31+	.07	1.00

TABLE 73 EXPERIMENT 643 YEAR 1979

REGION - EUROPE COUNTRY - PORTUGAL
SITE - TAPADO DA AJUDA, LISBOA ELEVATION - 60 M
LATITUDE - 38 DEG. 42 MIN. N LONGITUDE - 9 DEG. 11 MIN. W
COOPERATORS - ABILIO SILVA, ANTONIO ALEIXO
DATE PLANTED - MAY 16, 1979 DATE HARVESTED - SEPTEMBER, 1979
SOIL TYPE - SAND 30.0%, SILT 21.4%, CLAY 48.6%, PH 7.1
FERTILIZER USED (KG/HA) - N 13.0, P 27.7, K 24.9
AMOUNT OF MOISTURE - 315 MM
NUMBER OF IRRIGATIONS - 17 (290 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	CALLAND	1558.64	34.00	124.00	5.00	3.50	.00	100.00	82.00	1.00
1	WILLIAMS	1531.56	42.00	123.50	4.25	4.00	.00	100.00	79.00	1.00
11	COLUMBUS	1273.17	45.00	137.75	5.00	3.25	.00	100.00	82.50	1.00
3	FRANKLIN	1235.66	42.00	126.25	4.50	3.00	.00	100.00	87.25	1.00
5	MITCHELL	1200.24	43.50	128.25	5.00	4.00	.00	100.00	85.50	1.00
12	UNION	1183.57	42.00	124.00	4.75	1.75	.00	100.00	80.25	1.00
6	SWIFT	1146.06	33.25	100.25	4.75	3.75	.00	97.50	72.00	1.00
10	ELF	1127.31	43.50	123.75	4.00	4.00	.00	100.00	57.50	1.00
14	EVANS	1093.97	35.25	104.50	4.25	2.75	.00	100.00	73.75	1.00
4	CUTLER 71	1062.71	45.00	126.50	5.00	4.25	.00	100.00	77.50	1.00
8	HARCOR	1027.29	34.00	104.25	4.50	2.25	.00	100.00	71.00	1.00
7	STEELE	1018.95	33.25	91.75	4.50	4.00	.00	100.00	71.25	1.00
16	MCCALL	1008.53	27.00	87.50	4.75	4.00	.00	100.00	66.25	1.00
9	HODGSON	1006.45	32.50	101.00	4.75	4.00	.00	100.00	70.75	1.00
13	CORSOY	1000.20	37.25	105.50	5.00	4.00	.00	100.00	7[illegible].25	1.00
15	CRAWFORD	979.36	42.25	123.50	4.75	3.25	.00	97.50	[illegible].75	1.00
	GRAND MEAN	1153.36	38.23	114.52	4.67	3.48	.00	99.69	75.16	1.00
	STANDARD ERROR OF A VARIETY MEAN	147.56	1.88	3.87	.20	.42	.00	.85	2.14	.00
	COEFFICIENT OF VARIATION	25.59%	9.85%	6.76%	8.64%	23.99%	.00%	1.71%	5.68%	.00%
	5% LSD VARIETY MEANS (********=NS)	********	5.36	11.03	.57	1.19	.00	********	6.08	.00

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

YIELD	KG/HA	1.00	.15	.29+	-.22	-.21	.00	.24	.51++	.00
DAYS TO	FLOWER	.15	1.00	.84++	-.03	-.09	.00	.21	.44++	.00
DAYS TO	MATURITY	.29+	.84++	1.00	.10	-.15	.00	.15	.56++	.00
NODULE	ABUND 1	-.22	-.03	.10	1.00	.33++	.00	-.13	.15	.00
NODULE	ABUND 2	-.21	-.09	-.15	.33++	1.00	.00	-.09	-.28+	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.24	.21	.15	-.13	-.09	.00	1.00	.20	.00
PLANT	HEIGHT	.51++	.44++	.56++	.15	-.28+	.00	.20	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	-.14	-.39++	-.41++	-.12	-.09	.00	-.16	-.24	.00
PLANTS	HARVEST	.48++	-.24	-.12	-.14	-.06	.00	.06	.20	.00
PODS PER	PLANT	.41++	.25	.23	-.21	-.17	.00	.27+	.20	.00
POD	HEIGHT	.06	.56++	.61++	.07	-.00	.00	.14	.33++	.00
100 SEED	WEIGHT	.45++	.26+	.40++	.12	-.08	.00	.02	.35++	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.32+	.36++	.41++	-.08	.03	.00	.41++	.24	.00

TABLE 75 EXPERIMENT 643 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	CALLAND	1.00	101.75	27.50	8.25	18.78	.00	100.00	38.1	21.9
1	WILLIAMS	1.00	98.75	26.00	8.25	17.28	.00	99.50	40.1	21.8
11	COLUMBUS	1.00	90.25	27.75	8.00	15.38	.00	97.75	41.2	20.8
3	FRANKLIN	1.00	96.50	24.25	7.00	14.90	.00	92.75	39.0	20.0
5	MITCHELL	1.00	84.50	28.25	7.00	15.73	.00	95.00	36.1	22.2
12	UNION	1.00	91.25	23.75	7.75	16.28	.00	93.75	39.3	20.5
6	SWIFT	2.00	106.00	22.75	6.00	13.58	.00	81.00	39.5	21.4
10	ELF	1.00	83.25	29.50	7.25	15.03	.00	99.75	38.2	21.1
14	EVANS	1.50	89.00	30.00	6.50	14.08	.00	74.25	39.7	21.3
4	CUTLER 71	1.00	98.00	21.00	11.25	18.43	.00	99.00	38.5	21.5
8	HARCOR	1.75	91.50	26.75	7.75	14.55	.00	96.50	37.5	22.4
7	STEELE	1.50	97.50	24.00	6.50	15.60	.00	97.50	39.2	21.3
16	MCCALL	1.00	101.50	21.25	5.00	14.58	.00	95.25	39.1	22.6
9	HODGSON	1.00	84.75	25.75	7.50	14.55	.00	87.50	39.5	22.1
13	CORSOY	1.00	91.25	25.00	5.00	14.08	.00	82.75	39.2	21.8
15	CRAWFORD	1.00	83.75	24.50	7.75	15.25	.00	83.00	38.8	21.0
	GRAND MEAN	1.17	92.47	25.50	7.30	15.50	.00	92.20		
	STANDARD ERROR OF A VARIETY MEAN	.12	4.67	2.12	.47	.74	.00	2.93		
	COEFFICIENT OF VARIATION	20.91%	10.10%	16.64%	12.79%	9.58%	.00%	6.36%		
	5% LSD VARIETY MEANS (********=NS)	.35	13.30	********	1.33	2.11	.00	8.35		

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

		SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD	KG/HA	-.14	.48++	.41++	.06	.45++	.00	.32+
DAYS TO	FLOWER	-.39++	-.24	.25	.56++	.26+	.00	.36++
DAYS TO	MATURITY	-.41++	-.12	.23	.61++	.40++	.00	.41++
NODULE	ABUND 1	-.12	-.14	-.21	.07	.12	.00	-.08
NODULE	ABUND 2	-.09	-.06	-.17	-.00	-.08	.00	.03
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	-.16	.06	.27+	.14	.02	.00	.41++
PLANT	HEIGHT	-.24	.20	.20	.33++	.35++	.00	.24
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.18	-.12	-.18	-.31+	.00	-.33++
PLANTS	HARVEST	.18	1.00	-.24	-.03	.11	.00	.04
PODS PER	PLANT	-.12	-.24	1.00	-.09	-.07	.00	.18
POD	HEIGHT	-.18	-.03	-.09	1.00	.51++	.00	.46++
100 SEED	WEIGHT	-.31+	.11	-.07	.51++	1.00	.00	.51++
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	-.33++	.04	.18	.46++	.51++	.00	1.00

TABLE 74 EXPERIMENT 697 YEAR 1979

REGION - EUROPE
SITE - VINHA BRAVA, AZORES
LATITUDE - 38 DEG. 41 MIN. N
COOPERATORS - ANTONIO T. CARVAO & LUIS TADEU S. DUTRA
DATE PLANTED - MAY 17,1979
FERTILIZER USED (KG/HA) - N 25, P 26.4, K 24.9
AMOUNT OF MOISTURE - 282.5 MM

COUNTRY - PORTUGAL
ELEVATION - 160 M
LONGITUDE - 27 DEG. 15 MIN. W
DATE HARVESTED - SEPTEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
33	UNION	4273.77	55.25	142.50	.05	2.50	.00	96.25	87.60	1.25
14	WILLIAMS	3984.13	51.25	137.75	.00	1.75	.00	95.00	73.85	1.00
21	CALLAND	3857.02	53.50	152.75	.00	1.75	.00	98.75	90.33	1.25
23	CUTLER 71	3538.21	52.00	158.75	.00	1.50	.00	100.00	94.65	1.25
31	ELF	3415.27	49.50	149.00	.00	1.25	.00	93.75	52.20	1.00
24	MITCHELL	3380.10	54.50	162.50	.00	2.50	.00	85.00	85.15	1.25
32	COLUMBUS	3363.17	51.25	162.25	.00	1.75	.00	100.00	91.30	1.50
36	CRAWFORD	3219.39	57.75	161.25	.05	1.75	.00	100.00	96.27	1.00
29	HARCOR	2742.21	47.25	127.75	.00	1.00	.00	100.00	59.85	1.00
35	EVANS	2725.54	39.75	120.75	.00	1.00	.00	100.00	54.95	1.00
34	CORSOY	2317.13	42.25	122.75	.00	1.00	.00	100.00	60.10	1.00
27	SWIFT	2312.96	39.25	119.25	.00	1.25	.00	98.75	67.90	1.00
28	STEELE	2229.61	44.75	126.25	.00	1.00	.00	100.00	61.00	1.00
38	MCCALL	2190.02	46.00	117.00	.00	1.25	.00	96.25	46.13	1.00
30	HODGSON	2025.40	44.50	124.50	.00	1.25	.00	96.25	58.62	1.00
22	FRANKLIN	1079.38	55.25	156.25	.00	4.25	.00	27.50	77.53	1.00
	GRAND MEAN	2916.34	49.13	140.20	.00	1.67	.00	92.97	72.34	1.09
	STANDARD ERROR OF A VARIETY MEAN	370.95	2.17	.63	.00	.43	.00	6.89	3.16	.14
	COEFFICIENT OF VARIATION	25.44%	8.83%	.89%	.00%	50.99%	.00%	14.81%	8.74%	26.17%
	5% LSD VARIETY MEANS (********=NS)	1056.61	6.18	1.78	.00	1.21	.00	19.62	9.00	********

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

YIELD	KG/HA	1.00	.32++	.34++	.00	.05	.00	.31+	.43++	.32++
DAYS TO	FLOWER	.32++	1.00	.72++	.00	.45++	.00	-.28+	.58++	.06
DAYS TO	MATURITY	.34++	.72++	1.00	.00	.43++	.00	-.25+	.77++	.32++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.05	.45++	.43++	.00	1.00	.00	-.71++	.30+	.05
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.31+	-.28+	-.25+	.00	-.71++	.00	1.00	-.08	.01
PLANT	HEIGHT	.43++	.58++	.77++	.00	.30+	.00	-.08	1.00	.39++
	LODGING	.32++	.06	.32++	.00	.05	.00	.01	.39++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.25+	.34++	.10	.00	-.04	.00	.06	-.03	-.17
PODS PER	PLANT	.14	.01	-.13	.00	-.05	.00	.04	.06	.16
POD	HEIGHT	.35++	.64++	.79++	.00	.31+	.00	-.20	.79++	.34++
100 SEED	WEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	-.40++	.02	-.04	.00	.31+	.00	-.38++	-.01	-.11
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 74 EXPERIMENT 697 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
33	UNION	1.00	178.00	38.25	13.05	.00	3.50	.00
14	WILLIAMS	1.00	165.25	38.15	12.50	.00	3.50	.00
21	CALLAND	1.00	144.00	44.25	13.00	.00	2.75	.00
23	CUTLER 71	1.00	136.75	40.55	15.85	.00	2.50	.00
31	ELF	1.00	199.00	30.25	11.80	.00	2.50	.00
24	MITCHELL	1.00	138.50	43.40	14.10	.00	4.25	.00
32	COLUMBUS	1.00	128.50	49.95	13.75	.00	3.00	.00
36	CRAWFORD	1.00	171.00	47.60	18.50	.00	3.00	.00
29	HARCOR	1.00	181.00	49.00	8.40	.00	2.75	.00
35	EVANS	1.00	107.00	54.50	5.60	.00	3.50	.00
34	CORSOY	1.00	154.50	42.75	8.00	.00	2.75	.00
27	SWIFT	1.00	127.25	45.40	7.85	.00	4.50	.00
28	STEELE	1.00	131.00	38.45	8.15	.00	3.25	.00
38	MCC[illegible]L	1.00	135.75	36.00	6.80	.00	3.25	.00
30	HODGSO[illegible]	1.00	146.00	45.45	8.80	.00	3.50	.00
22	FRANKLIN	1.00	147.00	34.75	13.95	.00	5.00	.00
	GRAND MEAN	1.00	151.03	41.67	11.52	.00	3.34	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	11.47	5.23	1.26	.00	.40	.00
	COEFFICIENT OF VARIATION	.00%	15.19%	25.13%	21.88%	.00%	23.77%	.00%
	5% LSD VARIETY MEANS (********=NS)	.00	32.68	********	3.59	.00	1.13	.00

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

YIELD	KG/HA	.00	.25+	.14	.35++	.00	-.40++	.00
DAYS TO	FLOWER	.00	.34++	.01	.64++	.00	.02	.00
DAYS TO	MATURITY	.00	.10	-.13	.79++	.00	-.04	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	-.04	-.05	.31+	.00	.31+	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.06	.04	-.20	.00	-.38++	.00
PLANT	HEIGHT	.00	-.03	.06	.79++	.00	-.01	.00
	LODGING	.00	-.17	.16	.34++	.00	-.11	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.25+	.16	.00	-.10	.00
PODS PER	PLANT	.00	-.25+	1.00	-.09	.00	-.13	.00
POD	HEIGHT	.00	.16	-.09	1.00	.00	-.09	.00
100 SEED	WEIGHT	.00	.00	.00	.00	1.00	.00	.00
QUALITY	OF SEED	.00	-.10	-.13	-.09	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 75 EXPERIMENT 460 YEAR 1979

REGION - MESOAMERICA
SITE - ISABELA
LATITUDE - 18 DEG. N
COOPERATORS - QUYEN NGUYEN, JOSE BRAVO, HANKHILL, JIM OARD
DATE PLANTED - JUNE 27, 1979
FERTILIZER USED (KG/HA) - P 25.0

COUNTRY - PUERTO RICO
ELEVATION - 128 M
LONGITUDE - 40 DEG. W
DATE HARVESTED - OCT' BER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	DAVIS	2254.72	39.25	104.25	2.75	3.00	86.25	6.25	71.75	1.50
7	TUNIA	2127.32	36.50	109.25	2.50	2.50	80.00	15.00	74.75	1.50
4	HARDEE LS	1980.21	37.50	114.50	3.00	2.00	63.75	35.00	95.25	3.00
11	BOSSIER	1907.62	36.00	108.25	2.25	2.75	92.50	21.25	53.50	2.25
13	RANSOM	1840.79	23.00	102.25	2.25	2.25	95.00	17.50	61.50	1.00
8	CARIBE	1760.03	44.75	109.00	2.75	2.75	87.50	23.75	92.00	3.25
9	IMPROVED PELICAN	1693.68	24.00	113.25	3.25	3.25	46.25	17.50	72.00	2.50
2	UFV-1	1649.93	48.50	116.00	2.75	2.75	86.25	32.50	66.50	2.00
15	ACC 2120	1648.97	24.00	107.00	2.75	2.50	86.25	6.25	61.75	3.25
3	SJ-2	1598.97	40.50	112.25	2.50	2.25	87.50	26.25	85.00	2.25
10	RILLITO	1561.00	23.00	107.00	2.25	2.75	92.50	17.50	68.25	1.50
6	IAC-2	1523.50	39.25	114.00	2.75	2.00	92.50	22.50	72.50	2.75
5	ORBA	1452.83	37.25	111.00	2.25	2.25	95.00	27.50	95.50	3.00
1	CH-3	1276.39	39.25	116.25	2.50	2.75	72.50	5.00	73.00	1.75
12	WILLIAMS	886.98	16.00	93.75	3.00	3.50	66.25	10.00	71.50	1.50
	GRAND MEAN	1677.53	33.92	109.20	2.63	2.62	82.00	18.92	74.32	2.20
	STANDARD ERROR OF A VARIETY MEAN	189.66	2.06	2.75	.30	.50	11.86	9 82	10.99	.32
	COEFFICIENT OF VARIATION	22.61%	12.17%	5.04%	22.87%	38.08%	28.94%	103.86%	29.57%	28.89%
	5% LSD VARIETY MEANS (********=NS)	541.31	5.89	7.85	********	********	********	********	********	.91

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

YIELD	KG/HA	1.00	.32+	.11	-.06	-.05	-.00	.02	.15	.00
DAYS TO	FLOWER	.32+	1.00	.46++	-.08	-.21	.13	.19	.33+	.21
DAYS TO	MATURITY	.11	.46++	1.00	.09	-.14	.03	.12	.20	.26+
NODULE	ABUND 1	-.06	-.08	.09	1.00	.24	-.61++	-.09	.18	.19
NODULE	ABUND 2	-.05	-.21	[illegible]	.24	1.00	-.16	-.44++	-.10	.08
NODULE	ACT. 1	-.00	.13		-.61++	-.16	1.00	.07	-.20	-.07
NODULE	ACT. 2	.02	.19	[illegible]	-.09	-.44++	.07	1.00	.15	-.10
PLANT	HEIGHT	.15	.33+	.20	.18	-.10	-.20	.15	1.00	.38++
	LODGING	.00	.21	.26+	.19	.08	-.07	-.10	.38++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	-.02	-.07	-.14	-.09	-.14	.13	-.14	.12	.25
PODS PER	PLANT	.10	.10	.15	-.02	-.10	.02	.17	.14	.20
POD	HEIGHT	-.11	.38++	.41++	-.01	-.32+	-.09	.28+	.13	.10
100 SEED	WEIGHT	.03	-.28+	-.34++	-.06	.06	-.04	-.02	-.15	-.67++
QUALITY	OF SEED	-.15	-.47++	-.42++	-.13	.15	.03	-.07	-.19	-.3[illegible]++
PERCENT	GERM.	.25	.62++	.57++	-.05	-.23	.08	.15	.16	.37++

TABLE 75 EXPERIMENT 460 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	1.00	220.75	22.40	10.00	19.10	4.00	54.00	43.0	22.5
7	TUNIA	1.00	193.75	44.20	15.25	17.40	3.25	67.00	42.6	21.2
4	HARDEE LS	1.00	220.25	50.45	16.25	11.60	2.75	83.00	43.5	20.8
11	BOSSIER	1.00	251.75	20.60	13.25	14.70	4.00	56.00	46.0	20.7
13	RANSOM	1.00	202.75	34.55	10.00	16.53	4.00	68.00	41.7	24.1
8	CARIBE	1.00	262.50	33.00	13.75	7.40	3.25	77.00	46.2	18.3
9	IMPROVED PELICAN	1.00	136.75	42.65	13.25	13.20	4.00	57.00	43.6	21.6
2	UFV-1	1.00	146.00	41.90	13.50	11.85	3.25	89.00	44.4	20.3
15	ACC 2120	1.00	319.75	43.20	10.50	5.28	3.25	83.00	44.4	15.4
3	SJ-2	1.00	111.75	58.85	12.25	12.75	3.00	74.00	42.0	21.8
10	RILLITO	1.00	190.75	28.35	10.25	17 48	4.00	29.00	44.8	21.2
6	IAC-2	1.00	235.00	38.25	18.00	12.50	3.00	62.00	45.3	19.9
5	ORBA	1.00	247.00	35.65	15.75	11.00	2.75	81.00	42.9	19.6
1	CH-3	1.00	235.25	18.75	18.50	14.83	3.00	85.00	44.9	19.9
12	WILLIAMS	1.00	238.75	23.50	11.75	19.28	5.00	5.00	44.9	25.3
	GRAND MEAN	1.00	214.18	35.75	13.48	13.66	3.50	64.67		
	STANDARD ERROR OF A VARIETY MEAN	.00	27.10	8.00	1.50	.66	.32	.00		
	COEFFICIENT OF VARIATION	.00%	25.30%	44.74%	22.24%	9.64%	18.44%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	77.33	22.83	4.28	1.88	.92	.00		

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

YIELD	KG/HA	.00	-.02	.10	-.11	.03	-.15	.25
DAYS TO	FLOWER	.00	-.07	.10	.38++	-.28+	-.47++	.62++
DAYS TO	MATURITY	.00	-.14	.15	.41++	-.34++	-.42++	.57++
NODULE	ABUND 1	.00	-.09	-.02	-.01	-.06	-.13	-.05
NODULE	ABUND 2	.00	-.14	-.10	-.32+	.06	.15	-.23
NODULE	ACT. 1	.00	.13	.02	-.09	-.04	.03	.08
NODULE	ACT. 2	.00	-.14	.17	.28+	-.02	-.07	.15
PLANT	HEIGHT	.00	.12	.14	.13	-.15	-.19	.16
	LODGING	.00	.25	.20	.10	-.67++	-.34++	.37++
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.22	.13	-.24	.10	.02
PODS PER	PLANT	.00	-.22	1.00	-.01	-.30+	-.01	.27+
POD	HEIGHT	.00	.13	-.01	1.00	-.13	-.29+	.30+
100 SEED	WEIGHT	.00	-.24	-.30+	-.13	1.00	.38++	-.63++
QUALITY	OF SEED	.00	.10	-.01	-.29+	.38++	1.00	-.60++
PERCENT	GERM.	.00	.02	.27+	.30+	-.63++	-.60++	1.00

TABLE 76 EXPERIMENT 576 YEAR 1979

REGION - MESOAMERICA
SITE - ISABELA
LATITUDE - 18 DEG. N
COOPERATORS - QUYEN NGUYEN, HANK HILL, JIM OARD, JOSE BRAVO
DATE PLANTED - JULY 13, 1979
FERTILIZER USED (KG/HA) - P 25.0

COUNTRY - PUERTO RICO
ELEVATION - 128 M
LONGITUDE - 40 DEG. W
DATE HARVESTED - OCTOBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	DAVIS	2392.21	24.75	97.00	3.25	1.50	100.00	52.50	61.75	2.25
8	FORREST	2258.08	24.50	95.25	3.50	1.50	100.00	75.00	54.00	1.50
14	MITCHELL	2072.99	24.00	92.00	2.50	2.75	100.00	57.50	55.25	2.00
16	ACC 2120	2062.42	30.00	105.00	2.25	2.00	97.50	83.75	62.75	3.00
3	BOSSIER	1937.42	24.75	101.25	1.75	1.50	96.25	82.50	50.50	2.75
2	RILLITO	1910.02	24.25	96.50	2.25	2.00	100.00	68.75	62.00	2.25
6	COBB	1889.35	30.25	100.50	3.25	1.00	93.75	83.75	69.50	1.50
7	JAMES	1809.54	24.75	89.75	2.50	2.00	97.50	57.50	50.00	1.25
15	BRAGG	1803.29	24.75	98.50	3.00	2.00	100.00	73.75	53.00	2.00
11	CALLAND	1713.39	24.00	89.00	3.00	2.00	97.50	68.75	47.75	1.50
5	RANSOM	1675.89	28.25	98.25	3.50	1.75	97.50	53.75	55.00	2.00
10	GASOY 17	1662.91	24.25	96.00	2.50	1.50	93.75	68.75	48.00	1.75
4	WILLIAMS	1623.97	24.00	89.00	3.50	1.75	97.50	91.25	49.75	1.75
1	IMPROVED PELICAN	1446.58	28.50	107.25	2.50	2.00	100.00	65.00	57.00	2.50
13	CUTLER 71	1251.87	26.25	90.25	3.00	2.00	100.00	67.50	47.00	1.75
12	FRANKLIN	1190.82	24.25	90.00	2.50	2.00	100.00	66.25	55.50	1.50
	GRAND MEAN	1793.80	25.72	95.97	2.80	1.83	98.20	69.77	54.92	1.95
	STANDARD ERROR OF A VARIETY MEAN	184.91	2.07	1.26	.51	.58	1.55	10.52	7.16	.25
	COEFFICIENT OF VARIATION	20.62%	16.09%	2.63%	36.33%	63.53%	3.16%	30.15%	26.06%	25.97%
	5% LSD VARIETY MEANS (********=NS)	526.71	********	3.60	********	********	4.42	********	********	.72

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

YIELD	KG/HA	1.00	-.18	.17	-.09	-.14	-.14	-.06	-.01	.25+
DAYS TO	FLOWER	-.18	1.00	.34++	.01	-.03	.09	.01	.66++	.09
DAYS TO	MATURITY	.17	.34++	1.00	-.11	-.13	-.09	.08	.20	.48++
NODULE	ABUND 1	-.09	.01	-.11	1.00	.05	-.03	-.16	.11	-.21
NODULE	ABUND 2	-.14	-.03	-.13	.05	1.00	.06	-.08	-.04	.01
NODULE	ACT. 1	-.14	.09	-.09	-.03	.06	1.00	-.16	.24	-.09
NODULE	ACT. 2	-.06	.01	.08	-.16	-.08	-.16	1.00	-.02	.06
PLANT	HEIGHT	-.01	.66++	.20	.11	-.04	.24	-.02	1.00	-.01
	LODGING	.25+	.09	.48++	-.21	.01	-.09	.06	-.01	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.17	-.09	-.25+	.02	.00	-.21	-.02	-.03	-.16
PODS PER	PLANT	.17	.24	.69++	-.07	-.03	-.05	.04	.04	.53++
POD	HEIGHT	.03	.09	.13	-.03	-.07	.19	.27+	.12	.17
100 SEED	WEIGHT	-.18	-.32++	-.64++	.14	.02	.05	-.17	-.21	-.44++
QUALITY	OF SEED	-.28+	-.21	-.57++	.09	.11	.16	-.02	-.16	-.23
PERCENT	GERM.	.33++	.24	.67++	-.08	.03	.01	-.02	.21	.40++

TABLE 76 EXPERIMENT 576 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
9	DAVIS	1.00	283.25	19.80	12.75	18.00	3.25	70.00	41.8	22.8
8	FORREST	1.00	268.25	19.70	12.75	15.70	3.75	72.00	42.2	22.0
14	MITCHELL	1.00	309.50	16.75	12.50	18.73	4.25	81.00	42.2	22.1
16	ACC 2120	1.00	344.50	63.85	13.75	6.15	2.75	92.00	46.3	14.6
3	BOSSIER	1.00	271.00	23.35	12.25	16.83	3.50	57.00	44.6	22.1
2	RILLITO	1.00	218.50	18.95	11.50	18.65	4.00	79.00	43.5	22.0
6	COBB	1.00	296.50	21.55	10.75	16.60	2.75	69.00	40.1	24.0
7	JAMES	1.00	312.25	14.70	12.75	18.05	3.25	60.00	43.6	21.8
15	BRAGG	1.00	266.50	15.35	11.75	18.45	4.25	69.00	43.9	21.9
11	CALLAND	1.00	318.50	14.40	15.00	18.58	4.50	41.00	43.3	21.3
5	RANSOM	1.00	229.25	17.95	12.00	19.75	3.50	68.00	42.0	24.9
10	GASOY 17	1.00	309.75	15.65	9.50	18.15	4.00	73.00	42.4	22.7
4	WILLIAMS	1.00	253.25	15.20	12.00	19.78	4.75	54.00	44.9	22.8
1	IMPROVED PELICAN	1.00	115.25	48.65	17.00	13.35	3.00	91.00	42.1	22.9
13	CUTLER 71	1.00	267.50	13.40	14.25	19.85	4.75	51.00	44.3	22.3
12	FRANKLIN	1.00	273.75	14.95	11.00	18.50	5.00	30.00	42.8	22.1
	GRAND MEAN	1.00	271.09	22.14	12.59	17.19	3.83	66.06		
	STANDARD ERROR OF A VARIETY MEAN	.00	17.39	2.80	1.41	.20	.25	.00		
	COEFFICIENT OF VARIATION	.00%	12.83%	25.26%	22.42%	2.38%	13.25%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	49.55	7.96	********	.58	.72	.00		

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	.00	.17	.17	.03	-.18	-.28+	.33++
DAYS TO FLOWER	.00	-.09	.24	.09	-.32++	-.21	.24
DAYS TO MATURITY	.00	-.25+	.69++	.13	-.64++	-.57++	.67++
NODULE ABUND 1	.00	.02	-.07	-.03	.14	.09	-.08
NODULE ABUND 2	.00	.00	-.03	-.07	.02	.11	.03
NODULE ACT. 1	.00	-.21	-.05	.19	.05	.16	.01
NODULE ACT. 2	.00	-.02	.04	.27+	-.17	-.02	-.02
PLANT HEIGHT	.00	-.03	.04	.12	-.21	-.16	.21
LODGING	.00	-.16	.53++	.17	-.44++	-.23	.40++
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.12	-.26+	-.08	.03	-.20
PODS PER PLANT	.00	-.12	1.00	.21	-.88++	-.52++	.59++
POD HEIGHT	.00	-.26+	.21	1.00	-.20	-.07	.09
100 SEED WEIGHT	.00	-.08	-.88++	-.20	1.00	.53++	-.57++
QUALITY OF SEED	.00	.03	-.52++	-.07	.53++	1.00	-.57++
PERCENT GERM.	.00	-.20	.59++	.09	-.57++	-.57++	1.00

TABLE 77 EXPERIMENT 487 YEAR 1979

REGION - AFRICA
SITE - RUBONA
LATITUDE - 2 DEG. 29 MIN. S
COOPERATOR - DR. P. NYABYENDA
DATE PLANTED - OCTOBER 24, 1979
SOIL TYPE - PH 5.5
AMOUNT OF MOISTURE - 849.2 MM
SUBSTITUTE VARIETY - PALMETTO

COUNTRY - RWANDA
ELEVATION - 1650 M
LONGITUDE - 29 DEG. 46 MIN. E

DATE HARVESTED - FEBRUARY 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
19	DAVIS	2945.00	42.00	141.50	2.00	.00	100.00	.00	46.65	1.00
8	CARIBE	2440.00	59.00	142.00	2.00	.00	100.00	.00	87.10	3.50
15	PALMETTO	2430.00	42.00	113.50	2.50	.00	100.00	.00	69.56	3.25
13	BOSSIER	2307.50	39.00	141.75	2.00	.00	100.00	.00	46.00	1.25
7	TUNIA	2297.50	57.00	140.50	2.00	.00	100.00	.00	72.95	1.50
2	UFV-1	2220.00	57.00	145.50	2.00	.00	98.75	.00	54.68	1.00
3	SJ-2	2137.50	57.25	146.75	2.00	.00	100.00	.00	83.68	3.00
6	IAC-2	2067.50	55.00	145.50	2.00	.00	100.00	.00	96.10	3.25
5	ORBA	2042.50	56.50	143.50	2.50	.00	99.50	.00	98.83	4.50
1	CH-3	1947.50	58.75	149.00	2.00	.00	99.00	.00	119.35	4.00
12	RILLITO	1827.50	38.00	104.00	2.00	.00	100.00	.00	35.40	1.25
14	WILLIAMS	1722.50	30.00	95.75	2.50	.00	100.00	.00	31.55	2.00
10	IMPROVED PELICAN	1335.00	57.25	141.75	2.00	.00	100.00	.00	70.00	1.50
9	JUPITER	1247.50	87.75	164.25	2.00	.00	100.00	.00	83.45	3.00
37	ACC 2120	1202.50	95.00	159.50	2.00	.00	98.75	.00	115.85	4.50
4	HARDEE LS	1000.00	91.00	157.75	2.50	.00	100.00	.00	65.43	1.50
	GRAND MEAN	1948.13	57.66	139.53	2.13	.00	99.75	.00	73.54	2.50
	STANDARD ERROR OF A VARIETY MEAN	223.87	.81	1.43	.24	.00	.47	.00	5.59	.36
	COEFFICIENT OF VARIATION	22.98%	2.82%	2.04%	22.73%	.00%	.95%	.00%	15.22%	28.44%
	5% LSD VARIETY MEANS (********=NS)	637.67	2.32	4.06	********	.00	********	.00	15.94	1.01

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

YIELD	KG/HA	1.00	-.54++	-.22	-.14	.00	-.04	.00	-.14	-.09
DAYS TO	FLOWER	-.54++	1.00	.78++	-.04	.00	-.18	.00	.54++	.30+
DAYS TO	MATURITY	-.22	.78++	1.00	-.14	.00	-.15	.00	.59++	.24
NODULE	ABUND 1	-.14	-.04	-.14	1.00	.00	.07	.00	-.12	.05
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	-.04	-.18	-.15	.07	.00	1.00	.00	-.15	-.13
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.14	.54++	.59++	-.12	.00	-.15	.00	1.00	.77++
	LODGING	-.09	.30+	.24	.05	.00	-.13	.00	.77++	1.00
	SHATTER	-.10	.18	.06	-.14	.00	-.08	.00	-.14	-.19
PLANTS	HARVEST	.24	-.22	-.36++	.08	.00	-.10	.00	.12	.34++
PODS PER	PLANT	-.36++	.69++	.69++	-.09	.00	-.07	.00	.58++	.39++
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.11	-.22	-.18	.00	.00	.26+	.00	-.38++	-.43++
QUALITY	OF SEED	-.32+	.35++	.29+	-.05	.00	-.24	.00	.58++	.50++
PERCENT	GERM.	.05	-.22	-.28+	.05	.00	-.12	.00	-.29+	-.31+

TABLE 77 EXPERIMENT 487 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
19	DAVIS	2.00	97.25	23.80	.00	14.38	1.00	95.50	38.6	19.8
8	CARIBE	2.00	127.50	40.43	.00	15.75	2.25	85.50	39.9	16.9
15	PALMETTO	1.50	187.50	17.33	.00	16.38	2.50	95.25	36.4	19.5
13	BOSSIER	1.75	104.50	31.65	.00	15.00	2.25	97.25	37.1	17.8
7	TUNIA	2.00	64.25	50.08	.00	17.75	3.25	94.75	36.0	21.3
2	UFV-1	1.75	117.75	34.03	.00	16.25	2.50	93.75	37.9	19.2
3	SJ-2	2.00	60.50	63.48	.00	14.88	3.25	90.75	37.4	18.0
6	IAC-2	1.75	103.25	47.63	.00	13.88	2.75	92.50	37.2	18.4
5	ORBA	2.00	115.25	44.48	.00	14.50	4.50	89.25	35.5	17.3
1	CH-3	1.75	109.00	58.55	.00	14.63	4.50	95.00	37.2	19.6
12	RILLITO	2.00	103.75	16.38	.00	15.75	2.50	94.75	34.3	19.4
14	WILLIAMS	2.00	134.25	14.00	.00	15.25	2.50	97.25	36.8	17.8
10	IMPROVED PELICAN	2.00	37.25	43.78	.00	16.00	3.25	94.50	33.2	21.0
9	JUPITER	2.00	74.00	48.83	.00	17.38	3.00	90.25	36.0	16.4
37	ACC 2120	2.00	165.75	71.22	.00	9.38	3.50	94.50	41.1	14.6
4	HARDEE LS	2.00	32.25	73.63	.00	16.38	3.25	93.50	35.6	18.7
	GRAND MEAN	1.91	102.13	42.45	.00	15.22	2.92	93.39		
	STANDARD ERROR OF A VARIETY MEAN	.15	8.80	6.30	.00	.37	.27	2.03		
	COEFFICIENT OF VARIATION	15.27%	17.24%	29.69%	.00%	4.87%	18.63%	4.35%		
	5% LSD VARIETY MEANS (********=NS)	********	25.07	17.95	.00	1.06	.78	5.79		

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

YIELD	KG/HA	-.10	.24	-.36++	.00	.11	-.32+	.05
DAYS TO	FLOWER	.18	-.22	.69++	.00	-.22	.35++	-.22
DAYS TO	MATURITY	.06	-.36++	.69++	.00	-.18	.29+	-.28+
NODULE	AROUND 1	-.14	.08	-.09	.00	.00	-.05	.05
NODULE	AROUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	-.08	-.10	-.07	.00	.26+	-.24	-.12
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.14	.12	.58++	.00	-.38++	.58++	-.29+
	LODGING	-.19	.34++	.39++	.00	-.43++	.50++	-.31+
	SHATTER	1.00	-.31+	-.00	.00	.01	.03	-.13
PLANTS	HARVEST	-.31+	1.00	-.37++	.00	-.38++	-.16	.11
PODS PER	PLANT	-.00	-.37++	1.00	.00	-.26+	.45++	-.32++
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	.01	-.38++	-.26+	.00	1.00	-.15	-.01
QUALITY	OF SEED	.03	-.16	.45++	.00	-.15	1.00	-.19
PERCENT	GERM.	-.13	.11	-.32++	.00	-.01	-.19	1.00

TABLE 78 EXPERIMENT 489 YEAR 1979

REGION - AFRICA COUNTRY - SOMALIA
SITE - AFGOI ELEVATION - 50 M
LATITUDE - 2 DEG. 9 MIN. N LONGITUDE - 45 DEG. 7 MIN. E
COOPERATOR - SALAD GIUMALE OSSOBLE, FADUMA HUSEN MOHAMED
DATE PLANTED - OCTOBER 30, 1979 DATE HARVESTED - JANUARY, 1980
SOIL TYPE - SAND 14%, SILT 17%, CLAY 69%, PH 7.5
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 103 MM
NUMBER OF IRRIGATIONS - 4

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
9	JUPITER	2023.32	47.00	103.75	.00	.00	.00	.00	47.78	1.75
7	TUNIA	1427.37	35.00	99.00	.00	.00	.00	.00	30.20	1.00
2	UFV-1	1400.28	35.00	100.00	.00	.00	.00	.00	27.90	1.00
16	ACC 2120	1400.28	51.00	91.00	.00	.00	.00	.00	52.30	1.25
8	CARIBE	1396.11	35.00	119.00	.00	.00	.00	.00	55.95	1.00
12	BOSSIER	1375.27	33.50	95.00	.00	.00	.00	.00	31.50	1.00
15	DAVIS	1337.77	29.50	90.50	.00	.00	.00	.00	23.15	1.00
13	WILLIAMS	1229.41	29.00	78.00	.00	.00	.00	.00	27.00	1.00
6	IAC-2	1137.73	35.00	95.50	.00	.00	.00	.00	38.55	1.00
1	CH-3	1098.14	35.00	95.50	.00	.00	.00	.00	43.85	1.00
4	HARDEE LS	1000.20	48.50	104.50	.00	.00	.00	.00	27.15	1.00
5	ORBA	991.86	39.00	82.75	.00	.00	.00	.00	39.65	1.00
14	RANSOM	887.68	29.25	89.50	.00	.00	.00	.00	20.95	1.00
11	RILLITO	779.32	29.50	82.00	.00	.00	.00	.00	27.23	2.00
3	SJ-2	743.90	33.50	89.75	.00	.00	.00	.00	36.35	1.00
10	IMPROVED PELICAN	662.63	35.00	89.50	.00	.00	.00	.00	33.70	1.00
	GRAND MEAN	1180.70	36.23	94.08	.00	.00	.00	.00	35.20	1.13
	STANDARD ERROR OF A VARIETY MEAN	176.76	.00	.00	.00	.00	.00	.00	.00	.13
	COEFFICIENT OF VARIATION	29.94%	.00%	.00%	.00%	.00%	.00%	.00%	.00%	23.42%
	5% LSD VARIETY MEANS (*********=NS)	503.49	.00	.00	.00	.00	.00	.00	.00	.38

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

YIELD	KG/HA	1.00	.29+	.32++	.00	.00	.00	.00	.38++	.14
DAYS TO	FLOWER	.29+	1.00	.33++	.00	.00	.00	.00	.48++	.10
DAYS TO	MATURITY	.32++	.33++	1.00	.00	.00	.00	.00	.44++	-.10
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.38++	.48++	.44++	.00	.00	.00	.00	1.00	.08
	LODGING	.14	.10	-.10	.00	.00	.00	.00	.08	1.00
	SHATTER	-.20	.16	-.22	.00	.00	.00	.00	.12	-.15
PLANTS	HARVEST	.51++	.12	-.07	.00	.00	.00	.00	.37++	.09
PODS PER	PLANT	.17	.37++	.08	.00	.00	.00	.00	.30+	-.05
POD	HEIGHT	-.07	.06	-.20	.00	.00	.00	.00	.34++	.05
100 SEED	WEIGHT	.31+	-.48++	-.21	.00	.00	.00	.00	-.54++	.07
QUALITY	OF SEED	-.26+	-.23	.08	.00	.00	.00	.00	.03	.04
PERCENT	GERM.	.21	.23	-.01	.00	.00	.00	.00	.34++	.15

TABLE 78 EXPERIMENT 489 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
9	JUPITER	1.00	270.25	22.50	11.00	14.48	3.00	56.00
7	TUNIA	2.00	253.25	11.75	9.75	18.88	3.00	60.00
2	UFV-1	1.00	201.50	16.25	8.95	14.03	2.75	44.50
16	ACC 2120	2.00	387.75	131.00	11.20	6.28	2.00	89.50
8	CARIBE	1.00	264.00	34.25	10.00	9.15	3.00	46.50
12	BOSSIER	1.50	290.75	14.00	9.10	14.08	3.25	46.00
15	DAVIS	1.50	259.25	13.50	9.15	17.08	2.00	25.50
13	WILLIAMS	1.00	300.50	7.50	12.40	15.90	2.50	57.00
6	IAC-2	1.25	311.50	13.50	11.80	13.60	2.75	34.50
1	CH-3	1.50	232.25	18.00	10.50	13.13	3.25	46.50
4	HARDEE LS	1.00	119.00	42.00	7.10	11.35	2.25	29.50
5	ORBA	3.25	279.50	12.25	10.55	12.28	2.75	35.00
14	RANSOM	1.00	234.25	10.50	8.05	15.08	3.25	28.50
11	RILLITO	1.00	203.75	10.00	8.90	14.85	3.00	44.00
3	SJ-2	1.25	132.00	21.00	11.55	11.13	3.00	29.00
10	IMPROVED PELICAN	1.75	115.00	20.75	10.25	11.20	3.25	54.00
	GRAND MEAN	1.44	240.91	24.92	10.02	13.28	2.81	45.38
	STANDARD ERROR OF A VARIETY MEAN	.22	20.52	24.49	.55	.51	.19	10.18
	COEFFICIENT OF VARIATION	30.68%	17.04%	196.54%	10.95%	7.73%	13.51%	44.88%
	5% LSD VARIETY MEANS (********=NS)	.63	58.46	********	1.56	1.46	.54	29.00

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

YIELD	KG/HA	-.20	.51++	.17	-.07	.31+	-.26+	.21
DAYS TO	FLOWER	.16	.12	.37++	.06	-.48++	-.23	.23
DAYS TO	MATURITY	-.22	-.07	.08	-.20	-.21	.08	-.01
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.12	.37++	.30+	.34++	-.54++	.03	.34++
	LODGING	-.15	.09	-.05	.05	.07	.04	.15
	SHATTER	1.00	.21	-.10	.25	-.15	-.03	.18
PLANTS	HARVEST	.21	1.00	.14	.26+	.02	-.22	.35++
PODS PER	PLANT	-.10	.14	1.00	.09	-.35++	-.23	.17
POD	HEIGHT	.25	.26+	.09	1.00	-.16	.04	.06
100 SEED	WEIGHT	-.15	.02	-.35++	-.16	1.00	.07	-.22
QUALITY	OF SEED	-.03	-.22	-.23	.04	.07	1.00	-.11
PERCENT	GERM.	.18	.35++	.17	.06	-.22	-.11	1.00

TABLE 79 EXPERIMENT 458 YEAR 1979

REGION - ASIA
SITE - C.A.R.I.,GANNORUWA
LATITUDE - 7 DEG. 1 MIN. N
COOPERATOR - BFN EMERSON, CARL HITTLE
DATE PLANTED - NOVEMBER 6, 1979
FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 25.2

COUNTRY - SRI LANKA
ELEVATION - 457 M
LONGITUDE - 90 DEG. E
DATE HARVESTED - FEBRUARY, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	1981.25	29.75	83.00	.00	.00	95.00	58.75	35.03	2.00
11	RILLITO	1928.12	26.75	78.00	.00	.00	100.00	63.75	35.05	2.00
2	UFV-1	1878.12	32.00	81.50	.00	.00	100.00	66.25	28.03	2.00
5	ORBA	1643.75	31.25	74.25	.00	.00	87.50	67.50	42.20	2.00
14	RANSOM	1605.25	26.75	79.50	.00	.00	100.00	60.00	26.93	2.00
6	IAC-2	1581.25	32.50	79.50	.00	.00	95.00	56.25	41.30	2.00
12	BOSSIER	1556.25	29.50	78.25	.00	.00	97.50	32.50	34.98	2.00
13	WILLIAMS	1537.50	26.00	75.50	.00	.00	100.00	56.25	27.90	2.00
9	JUPITER	1528.12	38.00	86.75	.00	.00	92.50	62.50	51.60	2.00
16	ACC 2120	1468.75	43.00	87.00	.00	.00	100.00	62.50	57.85	2.00
15	DAVIS	1453.12	28.00	81.50	.00	.00	97.50	58.75	26.60	2.00
1	CH-3	1453.12	30.75	84.25	.00	.00	100.00	65.00	42.98	2.00
8	CARIBE	1306.25	31.25	81.25	.00	.00	97.50	58.75	34.00	2.00
3	SJ-2	1118.75	33.00	84.25	.00	.00	100.00	42.50	33.63	2.00
4	HARDEE LS	503.12	39.00	90.00	.00	.00	100.00	33.75	25.10	2.00
10	IMPROVED PELICAN	425.00	33.25	79.75	.00	.00	95.00	37.50	28.95	2.00
	GRAND MEAN	1435.55	31.92	81.52	.00	.00	97.34	55.16	35.76	2.00
	STANDARD ERROR OF A VARIETY MEAN	163.91	.71	.46	.00	.00	3.29	8.21	2.17	.00
	COEFFICIENT OF VARIATION	2[illegible].84%	4.46%	1.12%	.00%	.00%	6.75%	29.77%	12.16%	.00%
	5% LSD VARIETY MEANS (********=NS)	[illegible]56.88	2.03	1.30	.00	.00	********	23.39	6.19	.00

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

YIELD	KG/HA	1.00	-.27+	-.18	.00	.00	-.01	.38++	.23	.00
DAYS TO	FLOWER	-.27+	1.00	.70++	.00	.00	-.01	-.08	.52++	.00
DAYS TO	MATURITY	-.18	.70++	1.00	.00	.00	.15	-.11	.24	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	-.01	-.01	.15	.00	.00	1.00	-.19	-.13	.00
NODULE	ACT. 2	.38++	-.08	-.11	.00	.00	-.19	1.00	.18	.00
PLANT	HEIGHT	.23	.52++	.24	.00	.00	-.13	.18	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	-.01	.04	.09	.00	.00	-.04	.04	.04	.00
PLANTS	HARVEST	.76++	-.29+	-.35++	.00	.00	-.07	.39++	.38++	.00
PODS PER	PLANT	-.34++	.64++	.62++	.00	.00	.07	-.[illegible]3+	.02	.00
POD	HEIGHT	.48++	.13	-.01	.00	.00	-.10	.24	.58++	.00
100 SEED	WEIGHT	.47++	-.75++	-.43++	.00	.00	.02	.16	-.45++	.00
QUALITY	OF SEED	-.21	-.34++	-.08	.00	.00	.31+	-.16	-.39++	.00
PERCENT	GERM.	-.50++	.18	.14	.00	.00	.24	-.08	-.24	.00

TABLE 79 EXPERIMENT 458 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	1.50	188.50	15.25	11.28	17.38	2.75	74.25	40.2	22.1
11	RILLITO	1.50	190.50	13.48	11.33	21.45	3.00	84.75	42.3	20.4
2	UFV-1	1.75	144.25	20.20	11.15	15.93	2.00	77.00	40.5	22.5
5	ORBA	1.25	196.75	16.18	12.68	12.93	2.25	75.50	38.9	18.3
14	RANSOM	1.50	152.50	14.43	10.05	18.13	2.75	87.00	38.1	24.7
6	IAC-2	1.75	169.50	19.73	10.20	15.48	2.00	81.75	40.0	20.9
12	BOSSIER	2.00	190.75	17.73	10.33	14.30	2.75	70.50	39.5	20.1
13	WILLIAMS	1.25	188.00	9.38	11.70	20.20	3.00	76.75	40.5	23.4
9	JUPITER	2.00	158.50	20.95	13.45	13.80	2.50	78.75	38.7	22.9
16	ACC 2120	1.50	200.00	24.98	13.30	6.58	2.00	80.00	41.7	17.2
15	DAVIS	1.50	170.50	13.98	9.80	16.78	3.00	76.00	39.2	22.0
1	CH-3	1.50	171.75	16.15	11.98	13.80	3.00	81.00	39.2	20.1
8	CARIBE	3.50	128.00	24.78	9.78	11.68	2.75	89.50	42.2	18.8
3	SJ-2	1.75	86.00	26.23	10.30	12.13	2.00	79.50	39.4	20.1
4	HARDEE LS	1.25	22.50	43.80	8.35	12.48	3.00	92.75	39.5	22.0
10	IMPROVED PELICAN	1.75	37.75	20.08	9.28	12.03	3.00	98.75	40.0	22.4
	GRAND MEAN	1.70	149.73	19.83	10.93	14.69	2.61	81.48		
	STANDARD ERROR OF A VARIETY MEAN	.24	12.84	2.50	.83	.61	.16	3.97		
	COEFFICIENT OF VARIATION	27.96%	17.15%	25.22%	15.25%	8.26%	12.39%	9.76%		
	5% LSD VARIETY MEANS (********=NS)	.68	36.57	7.12	2.38	1.73	.46	11.32		

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

YIELD	KG/HA	-.01	.76++	-.34++	.48++	.47++	-.21	-.50++
DAYS TO	FLOWER	.04	-.29+	.64++	.13	-.75++	-.34++	.18
DAYS TO	MATURITY	.09	-.35++	.62++	-.01	-.43++	-.08	.14
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	-.04	-.07	.07	-.10	.02	.31+	.24
NODULE	ACT. 2	-.04	.39++	-.28+	.24	.16	-.16	-.08
PLANT	HEIGHT	.04	.38++	.02	.58++	-.45++	-.39++	-.24
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	-.11	.13	-.08	-.18	-.02	.21
PLANTS	HARVEST	-.11	1.00	-.59++	.51++	.33++	-.14	-.53++
PODS PER	PLANT	.13	-.59++	1.00	-.13	-.49++	-.13	.28+
POD	HEIGHT	-.08	.51++	-.13	1.00	.01	-.29+	-.36++
100 SEED	WEIGHT	-.18	.33++	-.49++	.01	1.00	.29+	-.23
QUALITY	OF SEED	-.02	-.14	-.13	-.29+	.29+	1.00	.23
PERCENT	GERM.	.21	-.53++	.28+	-.36++	-.23	.23	1.00

TABLE 80 EXPERIMENT 473 YEAR 1979

REGION - AFRICA
SITE - ABU-NAAMA
LATITUDE - 12 DEG. 44 MIN. N
COOPERATOR - FATHI MOHAMAD KHALIFA
DATE PLANTED - JUNE 16, 1979
SOIL TYPE - CLAY 68%, PH 9.1
FERTILIZER USED (KG/HA) - N 25.0, P 25.0
AMOUNT OF MOISTURE - 463 MM
NUMBER OF IRRIGATIONS - 7
SUBSTITUTE VARIETY - SEMMES

COUNTRY - SUDAN
ELEVATION - 436 M
LONGITUDE - 34 DEG. 7 MIN. E
DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
2	UFV-1	2785.97	39.75	113.00	4.00	4.00	.00	100.00	38.00	2.00
12	SEMMES	2206.69	44.50	117.50	4.00	4.00	.00	100.00	52.50	1.25
4	HARDEE LS	2183.77	47.00	117.50	4.00	3.25	.00	90.00	55.25	2.75
9	JUPITER	2140.01	53.00	114.50	4.50	4.50	.00	60.00	64.50	3.00
14	RANSOM	1908.71	28.50	99.25	4.00	3.25	.00	100.00	33.25	2.50
15	DAVIS	1906.63	31.00	95.75	4.00	4.00	.00	98.75	33.00	1.75
11	RILLITO	1698.26	28.50	94.00	4.25	3.25	.00	100.00	36.50	2.50
13	WILLIAMS	1648.25	27.00	81.00	4.00	3.50	.00	100.00	40.50	3.25
8	CARIBE	1546.14	44.75	150.50	4.00	4.50	.00	98.75	92.75	2.75
1	CH-3	1469.04	37.00	104.75	4.25	3.50	.00	100.00	77.00	3.25
7	TUNIA	1429.45	32.50	101.75	4.00	3.50	.00	100.00	47.75	3.50
6	IAC-2	1250.25	39.50	107.75	3.25	3.25	.00	100.00	67.75	3.00
5	ORBA	1244.00	39.25	94.00	4.00	3.50	.00	100.00	67.50	3.50
16	ACC 2120	968.94	50.75	97.50	4.25	4.00	.00	100.00	68.25	3.00
3	SJ-2	645.96	38.75	95.75	4.75	5.00	.00	85.00	44.50	3.00
10	IMPROVED PELICAN	525.10	41.00	99.25	4.75	4.75	.00	77.50	48.25	3.50
	GRAND MEAN	1597.32	38.92	105.23	4.13	3.86	.00	94.38	54.20	2.78
	STANDARD ERROR OF A VARIETY MEAN	189.49	2.82	1.59	.25	.52	.00	6.59	3.17	.47
	COEFFICIENT OF VARIATION	23.73%	14.51%	3.01%	12.19%	27.09%	.00%	13.96%	11.69%	33.45%
	5% LSD VARIETY MEANS (********=NS)	539.74	8.04	4.51	.72	********	.00	18.76	9.03	1.32

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

YIELD	KG/HA	1.00	.00	.28+	-.21	-.13	.00	.08	-.13	-.43++
DAYS TO	FLOWER	.00	1.00	.46++	.10	.18	.00	-.30+	.48++	-.02
DAYS TO	MATURITY	.28+	.46++	1.00	-.13	.10	.00	-.06	.57++	-.18
NODULE	ABUND 1	-.21	.10	-.13	1.00	.47++	.00	-.38++	-.04	.18
NODULE	ABUND 2	-.13	.18	.10	.47++	1.00	.00	-.35++	.15	.16
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.08	-.30+	-.06	-.38++	-.35++	.00	1.00	-.08	-.27+
PLANT	HEIGHT	-.13	.48++	.57++	-.04	.15	.00	-.08	1.00	.17
	LODGING	-.43++	-.02	-.18	.18	.16	.00	-.27+	.17	1.00
	SHATTER	-.08	.25+	.16	-.06	.05	.00	-.14	.39++	.36++
PLANTS	HARVEST	.10	-.32+	-.34++	-.18	-.19	.00	.35++	.08	.02
PODS PER	PLANT	.09	.47++	.66++	-.03	.14	.00	-.09	.33++	-.11
POD	HEIGHT	.14	.46++	.27+	-.03	.04	.00	-.25+	.2)	-.09
100 SEED	WEIGHT	.69++	-.27+	.12	-.25	-.30+	.00	.06	-.23+	-.30+
QUALITY	OF SEED	-.45++	-.04	-.17	.13	.09	.00	.03	-.15	.12
PERCENT	GERM.	-.03	-.05	-.28+	.03	.07	.00	.16	-.04	.03

TABLE 80 EXPERIMENT 473 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
2	UFV-1	1.00	163.50	28.00	11.00	13.05	2.25	54.00	43.7	21.7
12	SEMMES	1.75	180.25	26.50	15.00	14.25	2.00	53.00	41.6	24.6
4	HARDEE LS	2.25	142.50	43.50	11.75	14.10	1.75	38.00	41.5	24.9
9	JUPITER	2.25	176.50	28.75	15.75	14.13	2.25	34.00	42.0	24.7
14	RANSOM	1.00	236.75	21.00	10.00	14.50	3.25	42.00	42.1	25.1
15	DAVIS	1.25	243.00	20.50	9.25	12.88	2.50	29.00	43.1	22.2
11	RILLITO	1.00	211.75	22.00	9.50	12.23	4.00	35.00	41.7	21.9
13	WILLIAMS	1.75	256.00	12.00	11.50	16.43	1.50	77.00	43.3	21.9
8	CARIBE	2.00	168.75	50.50	12.00	11.55	2.75	33.00	47.2	18.8
1	CH-3	2.00	237.50	18.25	8.50	12.25	2.25	23.00	44.1	20.5
7	TUNIA	1.75	261.75	14.25	8.75	12.93	3.00	34.00	42.2	20.6
6	IAC-2	1.75	228.50	19.00	9.50	11.00	2.25	27.00	42.1	23.9
5	ORBA	3.25	252.75	19.75	9.75	8.93	3.25	71.00	42.1	19.7
16	ACC 2120	1.50	299.00	25.00	15.25	5.35	3.25	77.00	44.6	15.7
3	SJ-2	1.25	121.50	30.00	9.50	8.13	3.25	58.00	40.0	22.0
10	IMPROVED PELICAN	1.75	90.50	27.00	12.50	8.03	3.25	27.00	42.0	22.7
	GRAND MEAN	1.72	204.41	25.38	11.22	11.86	2.67	44.50		
	STANDARD ERROR OF A VARIETY MEAN	.31	17.53	3.29	1.19	.57	.43	9.44		
	COEFFICIENT OF VARIATION	36.48%	17.15%	25.92%	21.15%	9.56%	32.39%	42.41%		
	5% LSD VARIETY MEANS (********=NS)	.89	49.92	9.37	3.38	1.61	1.23	26.88		

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

YIELD	KG/HA	-.08	.10	.09	.14	.69++	-.45++	-.03
DAYS TO	FLOWER	.25+	-.32+	.47++	.46++	-.27+	-.04	-.05
DAYS TO	MATURITY	.16	-.34++	.66++	.27+	.12	-.17	-.28+
NODULE	ABUND 1	-.06	-.18	-.03	-.03	-.25	.13	.03
NODULE	ABUND 2	.05	-.19	.14	.04	-.30+	.09	.07
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	-.14	.35++	-.09	-.25+	.06	.03	.16
PLANT	HEIGHT	.39++	.08	.33++	.20	-.25+	-.15	-.04
	LODGING	.36++	.02	-.11	-.09	-.30+	.12	.03
	SHATTER	1.00	.04	.03	.14	-.08	-.02	-.11
PLANTS	HARVEST	.04	1.00	-.54++	-.13	.05	.03	.19
PODS PER	PLANT	.03	-.54++	1.00	.20	-.08	-.02	-.14
POD	HEIGHT	.14	-.13	.20	1.00	-.02	-.19	.24
100 SEED	WEIGHT	-.08	.05	-.08	-.02	1.00	-.48++	-.15
QUALITY	OF SEED	-.02	.03	-.02	-.19	-.48++	1.00	-.17
PERCENT	GERM.	-.11	.19	-.14	.24	-.15	-.17	1.00

TABLE 81 EXPERIMENT 486 YEAR 1979

REGION - AFRICA COUNTRY - SUDAN
SITE - GEZIRA RESEARCH STATION ELEVATION - 400 M
LATITUDE - 14 DEG. 24 MIN. N LONGITUDE - 35 DEG. 29 MIN. E
COOPERATOR - OSMAN A. A. AGEEB, M.O.M. SALIH
DATE PLANTED - JUNE 13, 1979 DATE HARVESTED - SEPTEMBER, 1979
SOIL TYPE - VERTISOL, SULEINI SERIES, CLAY >50%, PH 8.5
FERTILIZER USED (KG/HA) - N 132.0, P 25.0
AMOUNT OF MOISTURE - 212 MM
NUMBER OF IRRIGATIONS - 9

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
11	RILLITO	2795.98	28.00	90.25	4.75	4.75	.00	.00	35.00	1.25
12	BOSSIER	2721.79	28.75	109.50	4.25	3.00	.00	.00	43.50	1.00
4	HARDEE LS	2705.96	52.00	115.50	5.00	3.50	.00	.00	67.50	1.00
2	UFV-1	2630.94	39.00	118.25	4.50	3.50	.00	.00	46.00	1.00
9	JUPITER	2604.69	51.75	116.25	5.00	4.25	.00	.00	67.00	1.00
14	RANSOM	2599.27	27.25	92.00	4.25	3.50	.00	.00	26.50	1.00
15	DAVIS	2370.47	31.25	100.00	4.25	3.75	.00	.00	31.00	1.00
7	TUNIA	2231.28	34.00	99.00	4.00	4.00	.00	.00	61.00	1.00
13	WILLIAMS	2201.27	21.00	76.00	4.00	3.50	.00	.00	40.25	1.00
5	ORBA	2039.57	38.00	106.00	4.50	2.00	.00	.00	95.75	2.00
6	IAC-2	1969.98	38.00	115.25	4.75	4.25	.00	.00	101.50	2.25
16	ACC 2120	1925.80	55.00	99.25	4.25	4.00	.00	.00	94.00	2.00
8	CARIBE	1694.09	55.00	147.00	4.25	4.75	.00	.00	101.00	2.50
3	SJ-2	1552.39	38.00	98.50	5.00	5.00	.00	.00	61.25	1.00
1	CH-3	1524.89	38.00	113.50	5.00	3.00	.00	.00	87.00	2.00
10	IMPROVED PELICAN	1499.47	38.00	99.00	5.00	4.75	.00	.00	80.50	2.00
	GRAND MEAN	2191.74	38.31	105.95	4.55	3.84	.00	.00	64.92	1.44
	STANDARD ERROR OF A VARIETY MEAN	156.18	.12	1.12	.26	.40	.00	.00	3.08	.11
	COEFFICIENT OF VARIATION	14.25%	.65%	2.12%	11.51%	21.04%	.00%	.00%	9.48%	15.56%
	5% LSD VARIETY MEANS (********=NS)	444.88	.35	3.20	.75	1.15	.00	.00	8.77	.32

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

YIELD	KG/HA	1.00	-.19	-.12	-.16	-.10	.00	.00	-.53++	-.53++
DAYS TO	FLOWER	-.19	1.00	.69++	.22	.16	.00	.00	.66++	.40++
DAYS TO	MATURITY	-.12	.69++	1.00	.13	.03	.00	.00	.54++	.43++
NODULE	ABUND 1	-.16	.22	.13	1.00	.16	.00	.00	.14	.03
NODULE	ABUND 2	-.10	.16	.03	.16	1.00	.00	.00	.01	.01
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.53++	.66++	.54++	.14	.01	.00	.00	1.00	.79++
	LODGING	-.53++	.40++	.43++	.03	.01	.00	.00	.79++	1.00
	SHATTER	-.11	-.31+	-.35++	-.00	-.40++	.00	.00	.16	.23
PLANTS	HARVEST	.18	-.18	.03	-.25+	-.31+	.00	.00	-.02	.10
PODS PER	PLANT	-.11	.71++	.54++	.37++	.21	.00	.00	.43++	.26+
POD	HEIGHT	-.32++	.62++	.80++	-.05	.08	.00	.00	.67++	.58++
100 SEED	WEIGHT	.61++	-.58++	-.21	-.21	-.19	.00	.00	-.65++	-.51++
QUALITY	OF SEED	-.26+	.24	-.21	-.11	.31+	.00	.00	.19	.11
PERCENT	GERM.	.05	-.32+	-.35++	-.24	.07	.00	.00	-.27+	-.07

TABLE 81 EXPERIMENT 486 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
11	RILLITO	1.50	167.50	25.75	7.75	13.33	2.00	80.00	38.8	25.1
12	BOSSIER	2.00	216.25	27.75	10.50	13.08	2.00	83.00	40.1	23.1
4	HARDEE LS	1.50	117.50	59.00	10.50	11.53	1.25	3.00	39.1	24.2
2	UFV-1	1.00	177.25	46.50	11.00	10.58	2.00	60.00	38.4	23.2
9	JUPITER	1.00	182.50	40.50	13.00	13.05	2.00	38.00	39.4	24.3
14	RANSOM	2.00	186.50	19.00	7.50	15.55	2.00	71.00	39.9	26.2
15	DAVIS	1.75	178.75	28.00	8.00	13.83	1.00	60.00	41.5	21.0
7	TUNIA	1.25	157.75	21.75	11.75	12.75	3.00	35.00	39.5	21.9
13	WILLIAMS	2.00	196.30	18.50	7.75	14.58	2.00	63.00	39.6	24.2
5	ORBA	2.75	188.75	27.25	10.75	10.08	1.00	69.00	39.0	21.2
6	IAC-2	2.00	207.00	38.25	13.50	10.58	1.75	29.00	40.8	22.9
16	ACC 2120	2.00	192.25	43.50	11.50	5.03	5.00	89.00	43.3	16.4
8	CARIBE	1.00	171.75	44.50	20.25	10.70	2.00	48.00	44.8	19.0
3	SJ-2	1.25	108.25	41.50	8.50	8.30	3.00	68.00	37.9	22.2
1	CH-3	2.00	195.25	37.75	12.25	10.83	1.00	35.00	40.6	22.0
10	IMPROVED PELICAN	2.00	91.75	45.25	10.00	8.03	4.00	52.00	38.5	23.4
	GRAND MEAN	1.69	170.97	35.30	10.91	11.36	2.19	55.19		
	STANDARD ERROR OF A VARIETY MEAN	.15	13.31	3.32	.75	.42	.20	6.81		
	COEFFICIENT OF VARIATION	18.21%	15.57%	18.81%	13.77%	7.38%	18.19%	24.68%		
	5% LSD VARIETY MEANS (********=NS)	.44	37.91	9.46	2.14	1.19	.57	19.40		

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

YIELD	KG/HA	-.11	.18	-.11	-.32++	.61++	-.26+	.05
DAYS TO	FLOWER	-.31+	-.18	.71++	.62++	-.58++	.24	-.32+
DAYS TO	MATURITY	-.35++	.03	.54++	.80++	-.21	-.21	-.35++
NODULE	ABUND 1	-.00	-.25+	.37++	-.05	-.21	-.11	-.24
NODULE	ABUND 2	-.40++	-.31+	.21	.08	-.19	.31+	.07
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.16	-.02	.43++	.67++	-.65++	.19	-.27+
	LODGING	.23	.10	.26+	.58++	-.51++	.11	-.07
	SHATTER	1.00	.17	-.23	-.24	-.07	-.06	.22
PLANTS	HARVEST	.17	1.00	-.36++	.16	.24	-.28+	.24
PODS PER	PLANT	-.23	-.36++	1.00	.37++	-.50++	.17	-.36++
POD	HEIGHT	-.24	.16	.37++	1.00	-.27+	.00	-.28+
100 SEED	WEIGHT	-.07	.24	-.50++	-.27+	1.00	-.55++	-.09
QUALITY	OF SEED	-.06	-.28+	.17	.00	-.55++	1.00	.27+
PERCENT	GERM.	.22	.24	-.36++	-.28+	-.09	.27+	1.00

TABLE 82 EXPERIMENT 700 YEAR 1979

REGION - MIDDLE EAST COUNTRY - SYRIA
SITE - KHARABO ELEVATION - 617 M
LATITUDE - 33 DEG. 30 MIN. N LONGITUDE -36 DEG. E
COOPERATOR - JAKI BLANGA, ABDAM DABALAN
DATE PLANTED - MAY 27, 1979 DATE HARVESTED - SEPTEMBER, 1979
FERTILIZER USED (KG/HA) - N 30, P 50, K 0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
33	UNION	4491.42	39.00	127.75	.00	.00	.00	.00	103.75	.00
31	LLF	4117.63	44.00	130.00	.00	.00	.00	.00	43.25	.00
21	CALLAND	3885.17	47.00	127.75	.00	.00	.00	.00	92.50	.00
14	WILLIAMS	3826.93	49.00	132.00	.00	.00	.00	.00	83.00	.00
22	FRANKLIN	3492.57	47.75	129.00	.00	.00	.00	.00	93.75	.00
36	CRAWFORD	3184.25	49.00	134.25	.00	.00	.00	.00	97.50	.00
29	HARCOR	2761.35	40.50	119.50	.00	.00	.00	.00	86.25	.00
32	COLUMBUS	2584.27	43.50	130.00	.00	.00	.00	.00	97.50	.00
34	CORSOY	2396.78	49.00	111.00	.00	.00	.00	.00	70.00	.00
23	CUTLER 71	2143.63	46.50	130.25	.00	.00	.00	.00	80.00	.00
30	HODGSON	1842.63	37.00	111.25	.00	.00	.00	.00	56.25	.00
	GRAND MEAN	3146.28	45.48	125.07	.00	.00	.00	.00	80.52	.00
	STANDARD ERROR OF A VARIETY MEAN	313.43	1.74	3.21	.00	.00	.00	.00	11.44	.00
	COEFFICIENT OF VARIATION	22.02%	7.64%	5.13%	.00%	.00%	.00%	.00%	28.41%	.00%
	5% LSD VARIETY MEANS (********NS)	1000.57	5.02	9.26	.00	.00	.00	.00	33.03	.00

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

YIELD	KG/HA	1.00	.32+	.35+	.00	.00	.00	.00	.28	.00
DAYS TO	FLOWER	.32+	1.00	.52++	.00	.00	.00	.00	.43++	.00
DAYS TO	MATURITY	.35+	.52++	1.00	.00	.00	.00	.00	.24	.00
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.28	.43++	.24	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.34+	.28	.19	.00	.00	.00	.00	.41++	.00
PODS PER	PLANT	-.21	-.33+	-.22	.00	.00	.00	.00	.00	.00
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	.00	.00	.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 32 EXPERIMENT .00 YEAR 1977 CONTINUED

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
33	UNION	.00	457.00	29.50	.00	.00	.00	.00
31	ELF	.00	476.75	27.50	.00	.00	.00	.00
21	CALLAND	.00	485.25	36.00	.00	.00	.00	.00
14	WILLIAMS	.00	455.50	27.50	.00	.00	.00	.00
22	FRANKLIN	.00	451.25	32.25	.00	.00	.00	.00
36	CRAWFORD	.00	452.50	33.00	.00	.00	.00	.00
29	HARCOR	.00	472.00	40.25	.00	.00	.00	.00
32	COLUMBUS	.00	446.50	27.75	.00	.00	.00	.00
34	CORSOY	.00	450.75	37.25	.00	.00	.00	.00
23	CUTLER 71	.00	438.75	32.00	.00	.00	.00	.00
30	HODGSON	.00	348.25	31.50	.00	.00	.00	.00
	GRAND MEAN	.00	434.82	32.26	.00	.00	.00	.00
	STANDARD ERROR OF A VARIETY MEAN	.00	30.06	3.87	.00	.00	.00	.00
	COEFFICIENT OF VARIATION	.00%	13.75%	24.05%	.00%	.00%	.00%	.00%
	5% LSD VARIETY MEANS (*/**/***-NS)	.00	********	********	.00	.00	.00	.00

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

YIELD	KG/HA	.00	.34*	-.21	.00	.00	.00	.00
DAYS TO	FLOWER	.00	.28	-.33*	.00	.00	.00	.00
DAYS TO	MATURITY	.00	.19	-.22	.00	.00	.00	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.41**	.00	.00	.00	.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.27	.00	.00	00	.00
PODS PER	PLANT	.00	-.27	1.00	.00	.00	.00	.00
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	.00	.00	.00	.00	1.00	.00	.00
QUALITY	OF SEED	.00	.00	.00	.00	.00	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 83 EXPERIMENT 498 YEAR 1979

REGION - OCEANIA
SITE - PAPARA
LATITUDE - 17 DEG. 45 MIN. S
COOPERATOR - J. L. REBOUL, R. YAU
DATE PLANTED - JULY 17, 1979
SOIL TYPE - SAND 39%, SILT 28%, CLAY 33%, PH 6.6
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 33.2
AMOUNT OF MOISTURE - 1135 MM

COUNTRY - FRENCH POLYNESIA (TAHITI)
ELEVATION - 2 M
LONGITUDE - 149 DEG. 30 MIN. W
DATE HARVESTED - OCTOBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
6	TUNIA	3996.63	38.00	110.00	1.25	.00	.00	.00	54.38	1.25
12	WILLIAMS	3917.45	36.00	99.00	1.75	.00	.00	.00	43.08	1.00
14	DAVIS	3709.07	40.00	108.00	1.75	.00	.00	.00	34.75	1.00
7	CARIBE	3592.38	40.00	106.00	2.00	.00	.00	.00	44.63	2.25
10	RILLITO	3359.00	36.00	99.00	1.25	.00	.00	.00	45.63	1.50
4	ORBA	3192.30	44.00	99.00	2.00	.00	.00	.00	59.25	3.75
11	BOSSIER	3013.10	39.00	106.25	1.25	.00	.00	.00	45.13	1.00
9	IMPROVED PELICAN	2898.50	44.00	106.00	2.00	.00	.00	.00	56.88	2.00
8	JUPITER	2800.56	47.00	121.00	1.25	.00	.00	.00	75.00	3.75
3	SJ-2	2792.22	44.00	110.00	2.00	.00	.00	.00	68.13	2.75
1	CH-3	2742.21	40.00	114.00	2.00	.00	.00	.00	78.50	2.75
2	UFV-1	2700.54	44.00	112.00	1.25	.00	.00	.00	30.75	1.00
13	RANSOM	2513.00	36.00	102.50	1.50	.00	.00	.00	45.70	1.00
15	ACC 2120	2379.64	53.75	114.00	2.00	.00	.00	.00	84.50	3.00
5	IAC-2	1917.05	44.00	114.00	1.75	.00	.00	.00	56.75	2.25
	GRAND MEAN	3034.91	41.72	108.05	1.67	.00	.00	.00	54.87	2.02
	STANDARD ERROR OF A VARIETY MEAN	397.77	1.36	1.45	.20	.00	.00	.00	5.10	.34
	COEFFICIENT OF VARIATION	26.21%	6.54%	2.68%	23.78%	.00%	.00%	.00%	18.60%	33.35%
	5% LSD VARIETY MEANS (********=NS)	1135.26	3.90	4.12	.57	.00	.00	.00	14.57	.96

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

YIELD	KG/HA	1.00	-.27+	-.39++	-.12	.00	.00	.00	-.26+	-.21
DAYS TO	FLOWER	-.27+	1.00	.47++	.23	.00	.00	.00	.45++	.53++
DAYS TO	MATURITY	-.39++	.47++	1.00	-.05	.00	.00	.00	.38++	.31+
NODULE	ABUND 1	-.12	.23	-.05	1.00	.00	.00	.00	.19	.29+
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.26+	.45++	.38++	.19	.00	.00	.00	1.00	.64++
	LODGING	-.21	.53++	.31+	.29+	.00	.00	.00	.64++	1.00
	SHATTER	-.47++	.45++	.66++	.03	.00	.00	.00	.50++	.48++
PLANTS	HARVEST	-.11	-.01	-.05	.02	.00	.00	.00	.20	.28+
PODS PER	PLANT	-.17	.57++	.39++	.34++	.00	.00	.00	.45++	.33+
POD	HEIGHT	.23	.12	-.26+	.25	.00	.00	.00	.31+	.42++
100 SEED	WEIGHT	.30+	-.42++	-.19	-.30+	.00	.00	.00	-.35++	-.32+
QUALITY	OF SEED	-.41++	.34++	.78++	.03	.00	.00	.00	.12	.05
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 83 EXPERIMENT 498 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
6	TUNIA	2.00	114.00	14.88	8.15	37.50	3.00	.00
12	WILLIAMS	1.50	220.50	12.15	10.20	32.50	2.00	.00
14	DAVIS	2.00	207.75	9.83	9.80	32.50	4.50	.00
7	CARIBE	2.00	95.50	21.75	10.00	30.00	3.00	.00
10	RILLITO	1.75	202.50	8.80	10.60	31.25	2.00	.00
4	ORBA	1.75	214.00	14.95	12.85	28.75	1.75	.00
11	BOSSIER	2.50	162.50	13.45	8.75	33.75	3.25	.00
9	IMPROVED PELICAN	1.75	120.50	17.53	10.85	30.00	2.75	.00
8	JUPITER	3.25	187.25	18.18	10.60	30.00	4.00	.00
3	SJ-2	3.00	147.75	15.90	14.15	28.75	3.50	.00
1	CH-3	2.75	206.00	16.60	8.65	27.50	5.00	.00
2	UFV-1	2.00	118.75	14.53	6.60	27.50	5.00	.00
13	RANSOM	1.50	143.25	13.53	9.00	33.75	3.25	.00
15	ACC 2120	3.50	203.75	34.93	9.85	22.50	4.50	.00
5	IAC-2	3.00	179.25	18.50	9.35	31.25	5.00	.00
	GRAND MEAN	2.28	168.22	16.36	9.96	30.50	3.50	.00
	STANDARD ERROR OF A VARIETY MEAN	.30	27.18	2.47	1.08	2.40	.31	.00
	COEFFICIENT OF VARIATION	25.97%	32.32%	30.23%	21.59%	15.71%	17.45%	.00%
	5% LSD VARIETY MEANS (********=NS)	.85	77.58	7.06	3.07	6.84	.87	.00

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

YIELD	KG/HA	-.47++	-.11	-.17	.23	.30+	-.41++	.00
DAYS TO	FLOWER	.45++	-.01	.57++	.12	-.42++	.34++	.00
DAYS TO	MATURITY	.66++	-.05	.39++	-.26+	-.19	.78++	.00
NODULE	ABUND 1	.03	.02	.34++	.25	-.30+	.03	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.50++	.20	.45++	.31+	-.35++	.12	.00
	LODGING	.48++	.28+	.33+	.42++	-.32+	.05	.00
	SHATTER	1.00	.18	.33+	.05	-.17	.56++	.00
PLANTS	HARVEST	.18	1.00	-.27+	.31+	-.01	-.08	.00
PODS PER	PLANT	.33+	-.27+	1.00	-.13	-.36++	.29+	.00
POD	HEIGHT	.05	.31+	-.13	1.00	.00	-.37++	.00
100 SEED	WEIGHT	-.17	-.01	-.36++	.00	1.00	-.16	.00
QUALITY	OF SEED	.56++	-.08	.29+	-.37++	-.16	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 84 EXPERIMENT 438 YEAR 1979

REGION - ASIA
SITE - SUWAN FARM
LATITUDE - 14 DEG. 30 MIN. N
COOPERATORS - E. SAROBOL & P. YINGCHOL
DATE PLANTED - AUGUST 23,1979
FERTILIZER USED (KG/HA) - N 25, P 14
AMOUNT OF MOISTURE - 393.65 MM

COUNTRY - THAILAND
ELEVATION - 300 M
LONGITUDE - 101 DEG. E

DATE HARVESTED - DECEMBER 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
12	RILLITO	207.70	33.50	95.00	.00	.00	.00	.00	25.03	1.25
14	WILLIAMS	162.30	28.50	95.00	.00	.00	.00	.00	27.25	1.25
15	RANSOM	140.80	31.00	95.00	.00	.00	.00	.00	18.88	1.00
9	JUPITER	117.10	43.25	106.00	.00	.00	.00	.00	37.30	1.75
13	BOSSIER	82.80	30.25	95.00	.00	.00	.00	.00	25.28	1.25
5	ORBA	60.80	38.00	95.00	.00	.00	.00	.00	41.43	2.00
7	TUNIA	51.40	31.00	106.00	.00	.00	.00	.00	31.40	1.50
3	SJ-2	41.20	36.00	95.00	.00	.00	.00	.00	36.33	1.50
8	CARIBE	39.90	35.00	100.50	.00	.00	.00	.00	33.10	1.50
6	IAC-2	39.60	34.00	95.00	.00	.00	.00	.00	39.13	2.25
10	IMPROVED PELICAN	37.00	36.25	100.50	.00	.00	.00	.00	36.05	1.00
4	HARDEE LS	26.90	43.50	103.25	.00	.00	.00	.00	23.35	1.00
2	UFV-1	25.80	37.50	100.50	.00	.00	.00	.00	19.58	1.00
19	DAVIS	21.90	31.00	95.00	.00	.00	.00	.00	24.10	1.00
1	CH-3	8.40	36.00	95.00	.00	.00	.00	.00	41.35	1.75
	GRAND MEAN	70.91	34.98	98.12	.00	.00	.00	.00	30.63	1.40
	STANDARD ERROR OF A VARIETY MEAN	.00	1.99	1.57	.00	.00	.00	.00	2.08	.27
	COEFFICIENT OF VARIATION	.00%	11.38%	3.21%	.00%	.00%	.00%	.00%	13.59%	39.07%
	5% LSD VARIETY MEANS (********=NS)	.00	5.68	4.49	.00	.00	.00	.00	5.94	.78

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 ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
YIELD KG/HA	1.00	-.23	-.16	.00	.00	.00	.00	-.28+	-.08
DAYS TO FLOWER	-.23	1.00	.34++	.00	.00	.00	.00	.22	.09
DAYS TO MATURITY	-.16	.34++	1.00	.00	.00	.00	.00	.07	-.05
NODULE ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT HEIGHT	-.28+	.22	.07	.00	.00	.00	.00	1.00	.60++
LODGING	-.08	.09	-.05	.00	.00	.00	.00	.60++	1.00
SHATTER	-.08	.24	-.07	.00	.00	.00	.00	.25	.20
PLANTS HARVEST	.27+	-.45++	-.42++	.00	.00	.00	.00	.08	.31+
PODS PER PLANT	-.17	.26+	.42++	.00	.00	.00	.00	.24	.02
POD HEIGHT	-.17	.10	-.28+	.00	.00	.00	.00	.45++	.47++
100 SEED WEIGHT	.77++	-.35++	-.19	.00	.00	.00	.00	-.39++	-.04
QUALITY OF SEED	-.20	.06	-.16	.00	.00	.00	.00	.12	.21
PERCENT GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 84 EXPERIMENT 438 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
12	RILLITO	1.00	169.50	15.80	8.48	16.75	3.00	.00	41.1	23.1
14	WILLIAMS	1.00	208.75	11.53	6.98	16.58	3.00	.00	42.3	22.9
15	RANSOM	1.00	166.00	15.60	5.20	15.83	3.50	.00	42.5	22.4
9	JUPITER	1.00	111.75	32.20	6.70	12.05	3.25	.00	44.7	17.3
13	BOSSIER	1.00	164.00	19.30	7.98	15.15	3.25	.00	45.0	19.7
5	ORBA	3.25	179.50	21.25	11.45	11.53	3.75	.00	43.0	20.4
7	TUNIA	1.00	171.50	16.95	7.95	11.23	3.00	.00	43.8	19.4
3	SJ-2	1.00	76.25	28.15	7.58	8.03	3.25	.00	41.9	21.9
8	CARIBE	1.00	152.00	20.15	8.40	7.05	3.50	.00	46.6	14.4
6	IAC-2	1.00	196.50	17.13	9.73	10.88	3.00	.00	42.2	20.9
10	IMPROVED PELICAN	1.00	27.00	33.25	7.53	7.60	3.00	.00		
4	HARDEE LS	1.50	33.25	21.80	7.15	7.90	3.50	.00		
2	UFV-1	1.00	98.00	23.00	5.83	11.55	3.25	.00		
19	DAVIS	1.00	202.00	17.05	6.95	11.35	3.50	.00		
1	CH-3	1.00	181.00	12.45	10.28	5.85	3.75	.00		
	GRAND MEAN	1.18	142.47	20.37	7.88	11.29	3.30	.00		
	STANDARD ERROR OF A VARIETY MEAN	.14	13.53	3.24	.82	.85	.23	.00		
	COEFFICIENT OF VARIATION	23.69%	19.00%	31.85%	20.83%	15.10%	13.69%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.40	38.62	9.26	2.34	2.43	********	.00		

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

YIELD	KG/HA	-.08	.27+	-.17	-.17	.77++	-.20	.00
DAYS TO	FLOWER	.24	-.45++	.26+	.10	-.35++	.06	.00
DAYS TO	MATURITY	-.07	-.42++	.42++	-.28+	-.19	-.16	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.25	.08	.24	.45++	-.39++	.12	.00
	LODGING	.20	.31+	.02	.47++	-.04	.21	.00
	SHATTER	1.00	.04	.06	.40++	-.03	.15	.00
PLANTS	HARVEST	.04	1.00	-.54++	.31+	.43++	.13	.00
PODS PER	PLANT	.06	-.54++	1.00	-.27+	-.27+	-.04	.00
POD	HEIGHT	.40++	.31+	-.27+	1.00	-.20	.14	.00
100 SEED	WEIGHT	-.03	.43++	-.27+	-.20	1.00	-.14	.00
QUALITY	OF SEED	.15	.13	-.04	.14	-.14	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 85 EXPERIMENT 649 YEAR 1979

REGION MIDDLE EAST
SITE - ADANA
LATITUDE - 37 DEG. 19 MIN. N
COOPERATORS DR. IBRAHIM ATAKIS, HALIS ARIOGLU
DATE PLANTED - JUNE 1, 1979
SOIL TYPE - SAND 34.3%, SILT 40.2%, PH 7.5
FERTILIZER USED (KG/HA) N 25.0, P 25.0
SUBSTITUTE VARIETY ANSOY 71

COUNTRY - TURKEY
ELEVATION - 123 M
LONGITUDE - 35 DEG. E
DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	CORSOY	2959.76	25.25	106.50	.00	.00	.00	.00	93.95	1.75
3	FRANKLIN	2922.25	25.00	106.25	.00	.00	.00	.00	79.55	1.50
17	ANSOY 71	2736.38	23.00	96.00	.00	.00	.00	.00	98.10	1.00
14	EVANS	2638.03	26.00	108.00	.00	.00	.00	.00	111.55	1.25
1	WILLIAMS	2611.36	26.25	107.50	.00	.00	.00	.00	95.95	1.50
10	ELF	2556.43	23.00	106.00	.00	.00	.00	.00	86.77	1.50
11	COLUMBUS	2528.84	24.00	106.25	.00	.00	.00	.00	58.88	1.00
9	HODGSON	2403.81	24.00	109.00	.00	.00	.00	.00	89.35	1.25
5	MITCHELL	2395.90	23.25	98.50	.00	.00	.00	.00	86.52	1.75
8	HARCOR	2389.23	22.75	96.75	.00	.00	.00	.00	91.27	1.75
7	STEELE	2375.47	26.25	106.00	.00	.00	.00	.00	93.58	1.00
12	UNION	2350.05	25.25	106.25	.00	.00	.00	.00	74.08	1.00
15	CRAWFORD	2325.46	23.00	106.75	.00	.00	.00	.00	68.30	1.25
6	SWIFT	2291.73	21.00	107.50	.00	.00	.00	.00	84.80	1.75
16	ALTONA	2021.24	26.00	103.50	.00	.00	.00	.00	99.42	1.25
2	LALLAND	1912.88	25.75	101.75	.00	.00	.00	.00	99.00	1.50
4	CUTLER 71	1374.04	21.25	95.00	.00	.00	.00	.00	88.97	1.00
	GRAND MEAN	2405.87	24.24	104.00	.00	.00	.00	.00	87.35	1.30
	STANDARD ERROR OF A VARIETY MEAN	258.64	1.91	5.08	.00	.00	.00	.00	12.28	.31
	COEFFICIENT OF VARIATION	21.50%	15.79%	9.77%	.00%	.00%	.00%	.00%	28.12%	40.26%
	5% LSD VARIETY MEANS (******** NS)	735.46	********	********	.00	.00	.00	.00	********	********

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

YIELD	KG/HA	1.00	.30+	.48++	.00	.00	.00	.00	.22	.26+
DAYS TO	FLOWER	.30+	1.00	.48++	.00	.00	.00	.00	.59++	.13
DAYS TO	MATURITY	.48++	.48++	1.00	.00	.00	.00	.00	.24+	-.04
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.22	.59++	.24+	.00	.00	.00	.00	1.00	.23++
	LODGING	.26+	.13	-.04	.00	.00	.00	.00	.33++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.26	.26	.14	.00	.00	.00	.00	.16	.29+
POPS ###	PLANT	.21	-.08	.29+	.00	.00	.00	.00	.08	.03
POD	HEIGHT	.05	.57++	.22+	.00	.00	.00	.00	.70++	.19
100 SEED	WEIGHT	.08	-.73++	-.24+	.00	.00	.00	.00	-.62++	.14
QUALITY	OF SEED	-.22	-.52++	-.31++	.00	.00	.00	.00	-.70++	-.44++
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 85 EXPERIMENT 649 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
13	CORSOY	1.00	138.75	45.00	10.58	16.75	1.75	100.00
3	FRANKLIN	1.00	165.75	59.95	7.65	17.75	2.75	100.00
17	ANSOY 71	1.00	158.75	54.25	6.58	1[illegible].50	3.00	100.00
14	EVANS	1.00	169.50	45.05	10.15	16.15	1.50	100.00
1	WILLIAMS	1.00	152.50	47.20	10.15	16.65	2.25	100.00
10	ELF	1.00	194.00	58.15	9.18	17.45	1.75	100.00
11	COLUMBUS	1.00	157.50	41.65	8.95	17.55	3.25	100.00
9	HODGSON	1.00	155.25	59.45	9.75	17.70	2.00	100.00
5	MITCHELL	1.00	157.00	45.65	9.78	17.65	2.00	100.00
8	HARCOR	1.00	127.00	38.35	9.15	16.45	2.00	100.00
7	STEELE	1.00	150.50	41.05	9.65	16.78	1.75	100.00
12	UNION	1.00	159.50	42.25	11.20	16.70	2.75	100.00
15	CRAWFORD	1.00	146.50	57.00	8.58	16.08	2.25	100.00
6	SWIFT	1.00	160.25	44.45	7.18	19.15	2.50	100.00
16	ALTONA	1.00	180.75	59.55	13.55	15.25	2.00	100.00
2	DALLAND	1.00	172.50	41.75	11.50	16.40	2.00	100.00
4	CUTLER 71	1.00	150.25	55.55	10.45	17.50	2.50	100.00
	GRAND MEAN	1.00	156.60	49.62	9.86	17.22	2.24	100.00
	STANDARD ERROR OF A VARIETY MEAN	.00	13.10	5.80	2.73	.95	.53	.00
	COEFFICIENT OF VARIATION	.00%	17.65%	18.72%	55.51%	19.85%	47.01%	.00%
	5% LSD VARIETY MEANS (*****=NS)	.00	********	********	********	********	********	.00

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

FIELD	NO/HA	.00	.23	.21	.06	.06	-.22	.00
DAYS TO	FLOWER	.00	.25	-.08	.57**	-.73**	-.52**	.00
DAYS TO	MATURITY	.00	.14	.29*	.27*	-.24*	-.31**	.00
NODULE	AROUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	.00	.16	.08	.70**	-.62**	-.70**	.00
	LODGING	.00	.29*	.05	.19	.14	-.44**	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.25	.20	-.15	-.25*	.00
PODS PER	PLANT	.00	-.25	1.00	-.16	.13	.11	.00
POD	HEIGHT	.00	.20	-.16	1.00	-.62**	-.80**	.00
100 SEED	WEIGHT	.00	-.15	.13	-.62**	1.00	.50**	.00
QUALITY	OF SEED	.00	-.25*	.11	-.80**	.50**	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 86 EXPERIMENT 641 YEAR 1979

REGION - MIDDLE EAST
SITE - NUSAYBIN
LATITUDE - 37 DEG. 2 MIN. N
COOPERATOR - YASAR BILGIN
DATE PLANTED - APRIL 4, 1979
SOIL TYPE - PH 8.1
FERTILIZER USED (KG/HA) - N 25.0, P 26.4, K 24.9
AMOUNT OF MOISTURE - 371 MM
NUMBER OF IRRIGATIONS - 6 (360 MM)

COUNTRY - TURKEY
ELEVATION - 500 M
LONGITUDE - 41 DEG. 14 MIN. E

DATE HARVESTED - JULY, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	CORSOY	1304.43	21.75	81.00	4.50	4.25	.00	.00	51.88	1.50
16	MCCALL	1087.72	20.00	72.50	4.50	4.00	.00	.00	41.50	1.25
6	SWIFT	1083.55	20.00	72.50	5.00	5.00	.00	.00	44.00	1.00
9	HODGSON	1083.55	21.00	79.00	5.00	5.00	.00	.00	51.50	1.00
8	HARCOR	962.69	21.00	79.00	5.00	5.00	.00	.00	52.75	1.25
14	EVANS	925.18	20.00	72.50	4.25	4.00	.00	.00	37.00	1.25
7	STEELE	846.00	21.00	79.00	4.75	4.25	.00	.00	51.75	1.00
10	ELF	679.30	28.25	89.75	4.50	3.25	.00	.00	25.10	2.50
2	CALLAND	620.96	29.75	92.00	5.00	5.00	.00	.00	59.95	1.25
1	WILLIAMS	616.79	31.75	94.50	4.75	4.50	.00	.00	55.68	1.50
4	CUTLER 71	516.77	30.75	93.50	4.00	4.25	.00	.00	63.90	1.50
12	UNION	458.42	28.25	90.75	4.75	5.00	.00	.00	60.35	1.00
3	FRANKLIN	308.39	27.75	102.25	4.75	3.50	.00	.00	68.38	1.75
5	MITCHELL	266.72	33.75	96.75	5.00	4.50	.00	.00	60.90	1.50
15	CRAWFORD	241.71	35.75	98.75	4.00	3.75	.00	.00	64.95	1.25
11	COLUMBUS	216.71	30.50	89.50	5.00	3.25	.00	.00	61.73	1.25
	GRAND MEAN	701.18	26.33	86.45	4.67	4.28	.00	.00	53.21	1.36
	STANDARD ERROR OF A VARIETY MEAN	80.53	1.41	3.37	.35	.58	.00	.00	2.95	.23
	COEFFICIENT OF VARIATION	22.97%	10.75%	7.81%	15.16%	26.90%	.00%	.00%	11.10%	33.94%
	5% LSD VARIETY MEANS (********=NS)	229.39	4.03	9.61	********	********	.00	.00	8.41	.66

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

YIELD	KG/HA	1.00	-.72++	-.70++	-.02	.14	.00	.00	-.51++	-.11
DAYS TO	FLOWER	-.72++	1.00	.85++	-.04	-.08	.00	.00	.49++	.23
DAYS TO	MATURITY	-.70++	.85++	1.00	.00	.03	.00	.00	.55++	.33++
NODULE	ABUND 1	-.02	-.04	.00	1.00	.64++	.00	.00	.02	.11
NODULE	ABUND 2	.14	-.08	.03	.64++	1.00	.00	.00	.04	.07
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.51++	.49++	.55++	.02	.04	.00	.00	1.00	-.21
	LODGING	-.11	.23	.33++	.11	.07	.00	.00	-.21	1.00
	SHATTER	-.01	.11	.09	.02	-.02	.00	.00	-.44++	.57++
PLANTS	HARVEST	.50++	-.50++	-.52++	-.36++	-.18	.00	.00	-.23	-.30+
PODS PER	PLANT	.52++	-.44++	-.32+	.10	.19	.00	.00	-.10	.02
POD	HEIGHT	-.74++	.70++	.55++	-.30+	-.30+	.00	.00	.59++	-.16
100 SEED	WEIGHT	.65++	-.49++	-.48++	.11	.33++	.00	.00	-.35++	-.19
QUALITY	OF SEED	-.65++	.49++	.50++	.06	-.07	.00	.00	.36++	.08
PERCENT	GERM.	.12	-.12	-.05	-.14	.03	.00	.00	-.18	.06

TABLE 86 EXPERIMENT 641 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
13	CORSOY	1.00	138.00	37.00	4.48	11.18	4.25	32.50	41.5	20.8
16	MCCALL	1.00	206.50	25.00	6.48	10.85	3.50	36.00	38.2	21.6
6	SWIFT	1.00	159.75	31.25	4.70	11.13	4.00	15.50	40.0	22.6
9	HODGSON	1.00	186.00	33.75	5.18	10.73	4.25	20.75	40.8	20.2
8	HARCOR	1.00	232.00	31.75	5.43	9.60	4.75	24.75	40.6	20.6
14	EVANS	1.00	169.50	25.75	5.58	10.65	4.00	18.50	40.3	22.6
7	STEELE	1.00	149.25	25.75	6.28	11.15	4.25	43.50	42.4	20.4
10	ELF	3.25	107.00	23.50	4.78	9.15	4.75	40.00	42.8	17.7
2	CALLAND	1.00	131.75	24.25	9.95	12.00	4.50	38.25	42.6	16.7
1	WILLIAMS	1.00	97.25	25.50	7.35	9.93	4.25	26.00	43.9	16.4
4	CUTLER 71	1.50	121.50	20.50	11.40	9.38	5.00	29.25	44.2	15.5
12	UNION	1.00	135.50	19.25	8.73	10.43	5.00	30.00	44.6	15.6
3	FRANKLIN	1.00	120.75	24.25	8.83	7.60	5.00	19.25	43.8	14.8
5	MITCHELL	1.00	120.25	21.50	12.15	9.50	5.00	17.75	43.5	15.2
15	CRAWFORD	1.00	132.25	17.75	14.18	7.58	5.00	22.25	45.5	13.3
11	COLUMBUS	1.00	104.75	19.50	12.93	7.18	5.00	19.00	45.9	13.6
	GRAND MEAN	1.17	144.50	25.39	8.02	9.87	4.53	27.08		
	STANDARD ERROR OF A VARIETY MEAN	.22	17.78	3.32	.77	.28	.23	5.82		
	COEFFICIENT OF VARIATION	38.06%	24.61%	26.16%	19.15%	5.75%	9.97%	43.00%		
	5% LSD VARIETY MEANS (********=NS)	.64	50.64	9.46	2.19	.81	.64	16.58		

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

YIELD	KG/HA	-.01	.50++	.52++	-.74++	.65++	-.65++	.12
DAYS TO	FLOWER	.11	-.50++	-.44++	.70++	-.49++	.49++	-.12
DAYS TO	MATURITY	.09	-.52++	-.32+	.55++	-.48++	.50++	-.05
NODULE	ABUND 1	.02	-.36++	.10	-.30+	.11	.06	-.14
NODULE	ABUND 2	-.02	-.18	.19	-.30+	.33++	-.07	.03
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT	HEIGHT	-.44++	-.23	-.10	.59++	-.35++	.36++	-.18
	LODGING	.57++	-.30+	.02	-.16	-.19	.08	.06
	SHATTER	1.00	-.22	-.06	-.20	-.05	.08	.19
PLANTS	HARVEST	-.22	1.00	.05	-.15	.24	-.31+	-.02
PODS PER	PLANT	-.06	.05	1.00	-.59++	.32++	-.33++	.08
POD	HEIGHT	-.20	-.15	-.59++	1.00	-.53++	.47++	-.17
100 SEED	WEIGHT	-.05	.24	.32++	-.53++	1.00	-.52++	.31+
QUALITY	OF SEED	.08	-.31+	-.33++	.47++	-.52++	1.00	-.14
PERCENT	GERM.	.19	-.02	.08	-.17	.31+	-.14	1.00

TABLE 87 EXPERIMENT 659 YEAR 1979

REGION - NORTH AMERICA
SITE - URBANA, ILLINOIS
LATITUDE - 40 DEG. 7 MIN. N
COOPERATOR - HANK HILL
DATE PLANTED - MAY 15, 1979
SOIL TYPE - FLANIGAN SILT LOAM, PH 7.4
AMOUNT OF MOISTURE - 415 MM
NUMBER OF IRRIGATIONS - 1 (100 MM)

COUNTRY - UNITED STATES
ELEVATION - 226 M
LONGITUDE - 88 DEG. 13 MIN. W

DATE HARVESTED - SEPTEMBER, 1979

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE AROUND 1	NODULE AROUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
1	WILLIAMS	2974.14	46.25	131.00	.00	.00	.00	.00	95.75	1.75
12	UNION	2910.50	46.75	132.00	.00	.00	.00	.00	114.00	1.50
15	CRAWFORD	2650.24	50.50	141.00	.00	.00	.00	.00	117.00	2.25
3	FRANKLIN	2616.56	47.50	126.00	.00	.00	.00	.00	120.75	2.25
10	ELF	2614.36	44.75	129.00	.00	.00	.00	.00	53.25	1.00
2	CALLAND	2541.42	43.00	125.75	.00	.00	.00	.00	111.50	2.50
8	HARCOR	2535.42	39.25	115.25	.00	.00	.00	.00	96.25	2.50
11	COLUMBUS	2533.63	46.75	143.50	.00	.00	.00	.00	108.25	2.00
4	CUTLER 71	2454.32	48.50	129.75	.00	.00	.00	.00	111.50	2.00
13	CORSOY	2325.97	34.75	117.00	.00	.00	.00	.00	104.75	2.50
7	STEELE	2311.50	36.50	118.25	.00	.00	.00	.00	84.25	2.25
9	HODGSON	2300.00	34.25	94.25	.00	.00	.00	.00	84.50	1.75
5	MITCHELL	2271.04	48.25	123.00	.00	.00	.00	.00	103.00	2.00
14	EVANS	2265.37	34.75	95.50	.00	.00	.00	.00	68.00	1.25
6	SWIFT	2172.43	35.00	119.75	.00	.00	.00	.00	78.25	2.00
16	MCCALL	1747.85	33.00	92.00	.00	.00	.00	.00	56.75	1.00
	GRAND MEAN	2451.55	41.86	120.81	.00	.00	.00	.00	94.23	1.91
	STANDARD ERROR OF A VARIETY MEAN	284.77	1.94	.20	.00	.00	.00	.00	5.42	.27
	COEFFICIENT OF VARIATION	23.23%	9.27%	.33%	.00%	.00%	.00%	.00%	11.50%	28.53%
	5% LSD VARIETY MEANS (********=NS)	********	5.52	.57	.00	.00	.00	.00	15.43	.77

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

YIELD	KG/HA	1.00	.37++	.35++	.00	.00	.00	.00	.41++	.16
DAYS TO	FLOWER	.37++	1.00	.74++	.00	.00	.00	.00	.53++	.11
DAYS TO	MATURITY	.35++	.74++	1.00	.00	.00	.00	.00	.55++	.24
NODULE	AROUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	AROUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	.41++	.53++	.55++	.00	.00	.00	.00	1.00	.58++
	LODGING	.16	.11	.24	.00	.00	.00	.00	.58++	1.00
	SHATTER	-.06	-.20	-.02	.00	.00	.00	.00	-.02	.02
PLANTS	HARVEST	.36++	.09	.07	.00	.00	.00	.00	.21	.21
PODS PER	PLANT	-.07	.27+	.21	.00	.00	.00	.00	.20	.09
POD	HEIGHT	.31+	.40++	.44++	.00	.00	.00	.00	.67++	.31+
100 SEED	WEIGHT	.49++	.22	.30+	.00	.00	.00	.00	.33++	.09
QUALITY	OF SEED	-.16	-.27+	-.27+	.00	.00	.00	.00	-.18	-.07
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 87 EXPERIMENT 659 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
1	WILLIAMS	1.00	78.25	72.00	16.15	17.73	2.25	.00
12	UNION	1.00	60.75	77.75	12.40	19.38	2.25	.00
15	CRAWFORD	1.00	64.25	92.00	15.75	15.45	2.00	.00
3	FRANKLIN	1.00	86.00	88.75	15.55	15.45	2.50	.00
10	ELF	1.00	84.00	71.00	8.85	16.60	2.00	.00
2	CALLAND	1.00	70.25	62.25	15.80	17.03	2.50	.00
8	HARCOR	1.00	83.00	75.25	11.10	14.83	2.75	.00
11	COLUMBUS	1.00	82.75	87.75	18.50	14.63	2.00	.00
4	CUTLER 71	1.00	83.50	76.50	18.00	17.33	2.25	.00
13	CORSOY	1.00	70.00	83.75	11.55	15.85	2.00	.00
7	STEELE	1.25	68.50	63.80	9.25	16.80	2.75	.00
9	HODGSON	1.00	60.50	82.00	14.00	16.13	2.50	.00
5	MITCHELL	1.00	61.00	133.25	12.00	14.83	2.50	.00
14	EVANS	1.00	75.75	72.25	8.50	14.40	2.50	.00
6	SWIFT	1.00	71.25	78.55	9.00	15.65	3.00	.00
16	MCCALL	1.00	77.00	42.75	7.75	14.50	2.50	.00
	GRAND MEAN	1.02	73.55	78.73	12.76	16.03	2.39	.00
	STANDARD ERROR OF A VARIETY MEAN	.06	9.75	13.56	1.81	.49	.25	.00
	COEFFICIENT OF VARIATION	12.31%	26.53%	34.44%	28.43%	6.15%	21.10%	.00%
	5% LSD VARIETY MEANS (********=NS)	********	********	38.61	5.17	1.40	********	.00

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

	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.
YIELD KG/HA	-.06	.36++	-.07	.31+	.49++	-.16	.00
DAYS TO FLOWER	-.20	.09	.27+	.40++	.22	-.27+	.00
DAYS TO MATURITY	-.02	.07	.21	.44++	.30+	-.27+	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	-.02	.21	.20	.67++	.33++	-.18	.00
LODGING	.02	.21	.09	.31+	.09	-.07	.00
SHATTER	1.00	-.05	.01	-.05	.05	.15	.00
PLANTS HARVEST	-.05	1.00	-.19	.23	.14	-.09	.00
PODS PER PLANT	.01	-.19	1.00	-.03	-.18	.13	.00
POD HEIGHT	-.05	.23	-.03	1.00	.22	-.20	.00
100 SEED WEIGHT	.05	.14	-.18	.22	1.00	-.07	.00
QUALITY OF SEED	.15	-.09	.13	-.20	-.07	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 88 EXPERIMENT 422 YEAR 1979

REGION - AFRICA
SITE - MULUNGU STATION
LATITUDE - 2 DEG. 18 MIN. S
COOPERATORS - DR. G. H. BRIDGMON, MIASUEKANA & MBIKAYI
DATE PLANTED - NOVEMBER 8, 1979
SOIL TYPE - PH 6.7
AMOUNT OF MOISTURE - 706.8 MM

COUNTRY - ZAIRE
ELEVATION - 1731 M
LONGITUDE - 28 DEG. 47 MIN. E
DATE HARVESTED - MARCH 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
13	BOSSIER	1800.36	46.00	121.00	2.50	2.00	76.25	86.25	70.60	3.50
1	CH 3	1571.15	68.00	163.00	2.50	2.50	85.00	85.00	137.35	5.00
7	TUNIA	1529.47	64.00	152.00	2.25	2.75	86.25	86.25	80.75	2.00
12	RILLITO	1504.47	46.00	121.00	2.50	2.75	75.00	72.50	53.90	4.50
2	UFV 1	1321.10	78.00	162.25	2.25	2.00	87.50	93.75	68.75	3.25
6	IAC 2	1312.76	74.00	156.50	2.00	2.25	76.25	91.25	121.80	3.75
8	CARIBE	1262.75	65.00	144.25	2.50	2.50	78.75	85.00	103.35	4.00
5	ORBA	1162.73	74.00	156.25	2.50	2.50	86.25	88.75	159.10	4.25
4	HARDEE LS	1154.40	78.00	183.00	2.75	2.50	63.75	71.25	77.40	5.00
14	WILLIAMS	1108.55	44.00	121.00	3.00	3.00	70.00	86.25	40.50	2.25
16	DAVIS	1096.05	60.00	134.00	2.00	2.25	90.00	83.75	48.05	3.00
3	SJ 2	1021.04	70.00	163.25	2.25	2.00	80.00	88.75	110.10	5.00
9	JUPITER	900.18	99.00	183.00	2.25	2.50	85.00	88.75	76.25	5.00
15	RANSOM	879.34	46.00	128.75	2.50	1.75	81.25	93.75	30.00	1.00
10	IMPROVED PELICAN	700.14	74.00	164.25	3.00	2.00	91.25	83.75	114.95	4.75
11	ACC 2120	583.45	103.00	183.00	2.50	2.50	76.25	72.50	144.00	5.00
	GRAND MEAN	1181.75	68.06	152.28	2.45	2.36	80.55	84.84	89.80	3.83
	STANDARD ERROR OF A VARIETY MEAN	162.34	.43	4.22	.34	.30	7.68	6.97	4.74	.47
	COEFFICIENT OF VARIATION	27.47%	1.27%	5.55%	27.57%	25.24%	19.08%	16.42%	10.56%	24.46%
	5% LSD VARIETY MEANS (********=NS)	462.40	1.23	12.03	********	********	********	********	13.51	1.33

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

YIELD	KG/HA	1.00	-.38++	-.32++	.04	.13	-.09	.00	-.11	-.06
DAYS TO	FLOWER	-.38++	1.00	.88++	-.08	.00	.08	-.07	.57++	.51++
DAYS TO	MATURITY	-.32++	.88++	1.00	-.02	.04	.01	-.10	.55++	.53++
NODULE	ABUND 1	.04	-.08	-.02	1.00	.45++	-.44++	-.14	.01	.02
NODULE	ABUND 2	.13	.00	.04	.45++	1.00	-.19	-.26+	.03	.10
NODULE	ACT. 1	-.09	.08	.01	-.44++	-.19	1.00	.49++	.03	-.10
NODULE	ACT. 2	.00	-.07	-.10	-.14	-.26+	.49++	1.00	-.10	-.31+
PLANT	HEIGHT	-.11	.57++	.55++	.01	.03	.03	-.10	1.00	.51++
	LODGING	-.06	.51++	.53++	.02	.10	-.10	-.31+	.51++	1.00
	SHATTER	-.13	.16	.31+	.09	-.10	.15	.05	.45++	.32+
PLANTS	HARVEST	.37++	-.63++	-.71++	.07	.15	-.25+	-.17	-.34++	-.24
PODS PER	PLANT	-.05	.45++	.48++	-.20	-.13	.14	-.12	.15	.31+
POD	HEIGHT	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 SEED	WEIGHT	.34++	-.42++	-.37++	-.07	-.00	.06	.14	-.62++	-.47++
QUALITY	OF SEED	.10	-.18	-.16	.12	-.04	.01	-.01	-.16	.07
PERCENT	GERM.	-.14	-.00	.06	.04	-.06	.06	-.10	.28+	.18

TABLE 88 EXPERIMENT 422 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
13	BOSSIER	1.00	205.25	20.98	.00	19.98	3.50	84.75	41.8	21.2
1	CH 3	3.25	148.00	32.70	.00	17.23	4.00	95.00	39.2	18.6
7	TUNIA	1.00	125.50	24.25	.00	23.48	3.25	84.00	39.1	21.7
12	RILLITO	1.00	260.50	16.85	.00	19.30	4.00	93.75	42.7	18.8
2	UFV 1	2.00	101.00	23.85	.00	23.33	3.75	86.25	42.3	19.4
6	IAC 2	2.00	134.50	23.75	.00	18.25	3.00	91.00	40.1	18.9
8	CARIBE	1.00	144.50	21.98	.00	14.28	3.00	90.75	46.2	15.2
5	ORBA	2.00	93.25	22.00	.00	17.90	2.00	91.50	38.0	16.4
4	HARDEE LS	1.00	28.75	51.65	.00	18.73	2.00	90.50	40.6	22.9
14	WILLIAMS	1.00	247.50	12.70	.00	21.65	4.00	86.75	42.0	19.4
16	DAVIS	1.00	187.00	26.33	.00	22.28	2.00	89.75	40.2	22.5
3	SJ 2	2.50	99.75	19.48	.00	15.13	3.25	93.75	40.6	19.5
9	JUPITER	1.00	44.25	38.20	.00	20.68	3.75	83.25	42.7	20.3
15	RANSOM	1.00	141.50	14.05	.00	20.30	3.75	93.50	40.2	20.8
10	IMPROVED PELICAN	4.25	27.25	26.00	.00	15.00	4.25	96.50	40.8	20.3
11	ACC 2120	1.00	143.00	31.35	.00	9.35	3.00	93.25	43.1	16.6
	GRAND MEAN	1.63	133.22	25.38	.00	18.55	3.28	90.27		
	STANDARD ERROR OF A VARIETY MEAN	.21	13.73	5.62	.00	.61	.27	2.16		
	COEFFICIENT OF VARIATION	25.95%	20.61%	44.28%	.00%	6.57%	16.65%	4.78%		
	5% LSD VARIETY MEANS (********=NS)	.60	39.10	16.01	.00	1.74	.78	6.15		

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

YIELD	KG/HA	-.13	.37++	-.05	.00	.34++	.10	-.14
DAYS TO	FLOWER	.16	-.63++	.45++	.00	-.42++	-.18	-.00
DAYS TO	MATURITY	.31+	-.71++	.48++	.00	-.37++	-.16	.06
NODULE	ABUND 1	.09	.07	-.20	.00	-.07	.12	.04
NODULE	ABUND 2	-.10	.15	-.13	.00	-.00	-.04	-.06
NODULE	ACT. 1	.15	-.25+	.14	.00	.06	.01	.06
NODULE	ACT. 2	.05	-.17	-.12	.00	.14	-.01	-.10
PLANT	HEIGHT	.45++	-.34++	.15	.00	-.62++	-.16	.28+
	LODGING	.32+	-.24	.31+	.00	-.47++	.07	.18
	SHATTER	1.00	-.37++	-.02	.00	-.27+	.27+	.35++
PLANTS	HARVEST	-.37++	1.00	-.47++	.00	.19	.23	-.05
PODS PER	PLANT	-.02	-.47++	1.00	.00	-.08	-.18	-.13
POD	HEIGHT	.00	.00	.00	1.00	.00	.00	.00
100 SEED	WEIGHT	-.27+	.19	-.08	.00	1.00	.06	-.43++
QUALITY	OF SEED	.27+	.23	-.18	.00	.06	1.00	-.14
PERCENT	GERM.	.35++	-.05	-.13	.00	-.43++	-.14	1.00

TABLE 89 EXPERIMENT 423 YEAR 1979

REGION - AFRICA
SITE - SANDOA
LATITUDE - 9 DEG. S
COPERATOR - K. HAMMER, R. MONROE
DATE PLANTED - FEBRUARY 21, 1980
AMOUNT OF MOISTURE 253.0 MM

COUNTRY - ZAIRE
ELEVATION - 1000 M
LONGITUDE - 10 DEG. E

DATE HARVESTED - JUNE, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
14	WILLIAMS	760.61	30.75	70.25	.00	.00	.00	.00	33.75	.00
2	UFV-1	635.29	37.50	86.50	.00	.00	.00	.00	49.25	.00
7	RANSOM	623.83	30.50	72.50	.00	.00	.00	.00	30.00	.00
5	ORBA	622.21	38.50	76.00	.00	.00	.00	.00	51.25	.00
13	BOSSIER	615.33	32.75	81.25	.00	.00	.00	.00	37.50	.00
11	DAVIS	590.95	37.75	80.50	.00	.00	.00	.00	42.00	.00
6	IAC-2	578.41	37.50	82.75	.00	.00	.00	.00	47.00	.00
12	RILLITO	571.32	31.00	48.00	.00	.00	.00	.00	35.75	.00
1	CH-3	490.47	37.50	85.25	.00	.00	.00	.00	74.00	.00
10	IMPROVED PELICAN	456.88	38.00	78.75	.00	.00	.00	.00	37.00	.00
3	SJ-2	415.96	39.00	83.75	.00	.00	.00	.00	51.50	.00
8	CARIBE	357.74	37.00	87.75	.00	.00	.00	.00	50.75	.00
9	JUPITER	227.63	48.75	103.75	.00	.00	.00	.00	59.00	.00
4	HARDEE LS	222.84	45.00	103.25	.00	.00	.00	.00	37.50	.00
	GRAND MEAN	512.11	37.25	81.45	.00	.00	.00	.00	45.45	.00
	STANDARD ERROR OF A VARIETY MEAN	65.90	.70	2.72	.00	.00	.00	.00	2.69	.00
	COEFFICIENT OF VARIATION	25.74%	3.75%	6.67%	.00%	.00%	.00%	.00%	11.82%	.00%
	5% LSD VARIETY MEANS (********=NS)	188.50	2.00	7.77	.00	.00	.00	.00	7.68	.00

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

YIELD	KG/HA	1.00	-.57++	-.46++	.00	.00	.00	.00	-.13	.00
DAYS TO	FLOWER	-.57++	1.00	.77++	.00	.00	.00	.00	.43++	.00
DAYS TO	MATURITY	-.46++	.77++	1.00	.00	.00	.00	.00	.39++	.00
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.00	.00	.00	1.00	.00	.00	.00	.00
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.00	.00	.00	.00	.00	.00	1.00	.00	.00
PLANT	HEIGHT	-.13	.43++	.39++	.00	.00	.00	.00	1.00	.00
	LODGING	.00	.00	.00	.00	.00	.00	.00	.00	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.29+	-.42++	-.38++	.00	.00	.00	.00	.03	.00
PODS PER	PLANT	.10	.19	.19	.00	.00	.00	.00	.22	.00
POD	HEIGHT	-.28+	.63++	.48++	.00	.00	.00	.00	.26	.00
100 SEED	WEIGHT	.44++	-.11	-.04	.00	.00	.00	.00	-.08	.00
QUALITY	OF SEED	-.20	.13	.11	.00	.00	.00	.00	.05	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 89 EXPERIMENT 423 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
14	WILLIAMS	.00	275.75	8.75	3.00	13.03	1.50	.00	40.4	22.5
2	UFV-1	.00	250.25	15.25	9.50	10.03	1.00	.00	41.5	19.5
7	RANSOM	.00	236.50	13.75	3.00	11.18	1.00	.00	36.1	25.0
5	ORBA	.00	242.50	16.00	10.00	8.20	1.00	.00	41.2	17.1
13	BOSSIER	.00	276.50	13.25	4.00	10.88	1.25	.00	40.6	19.7
11	DAVIS	.00	327.50	10.00	8.00	10.08	1.00	.00	40.6	21.2
6	IAC-2	.00	299.75	13.25	2.00	11.43	1.50	.00	41.2	22.0
12	RILLITO	.00	283.75	9.50	3.00	10.25	2.00	.00	39.6	20.9
1	CH-3	.00	283.00	13.00	3.00	10.20	1.00	.00	38.1	19.3
10	IMPROVED PELICAN	.00	143.50	18.50	3.00	9.23	1.50	.00	38.4	22.8
3	SJ-2	.00	221.50	16.45	8.00	9.35	1.00	.00	40.4	20.8
8	CARIBE	.00	269.00	14.25	6.00	8.50	2.25	.00	43.9	17.0
9	JUPITER	.00	167.75	14.50	10.00	12.63	2.25	.00	38.4	21.2
4	HARDEE LS	.00	165.00	12.25	8.00	9.80	1.50	.00	39.4	19.6
	GRAND MEAN	.00	245.88	13.48	5.75	10.34	1.41	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	18.12	1.52	.40	.51	.27	.00		
	COEFFICIENT OF VARIATION	.00%	14.74%	22.56%	13.94%	9.95%	38.70%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	51.83	4.35	1.15	1.47	.78	.00		

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

YIELD KG/HA	.00	.29+	.10	-.28+	.44++	-.20	.00
DAYS TO FLOWER	.00	-.42++	.19	.63++	-.11	.13	.00
DAYS TO MATURITY	.00	-.38++	.19	.48++	-.04	.11	.00
NODULE ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE ABUND 2	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE ACT. 2	.00	.00	.00	.00	.00	.00	.00
PLANT HEIGHT	.00	.03	.22	.26	-.08	.05	.00
LODGING	.00	.00	.00	.00	.00	.00	.00
SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS HARVEST	.00	1.00	-.43++	-.23	.03	-.09	.00
PODS PER PLANT	.00	-.43++	1.00	.16	-.03	.05	.00
POD HEIGHT	.00	-.23	.16	1.00	-.23	-.04	.00
100 SEED WEIGHT	.00	.03	-.03	-.23	1.00	.14	.00
QUALITY OF SEED	.00	-.09	.05	-.04	.14	1.00	.00
PERCENT GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 90 EXPERIMENT 442 YEAR 1979

REGION - AFRICA
SITE - UNIV. OF ZAMBIA FARM, LUSAKA
LATITUDE - 15 DEG. 24 MIN. S
COOPERATORS - F. JAVAHERI & C. NISSLY
DATE PLANTED - DECEMBER 21 1979
FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
AMOUNT OF MOISTURE - 710.0 MM
NUMBER OF IRRIGATIONS - 1 (30 MM)

COUNTRY - ZAMBIA
ELEVATION - 1154 M
LONGITUDE - 28 DEG. 19 MIN. E

DATE HARVESTED - APRIL 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	1735.50	.00	116.75	.00	2.50	.00	87.50	83.50	2.00
16	DAVIS	1576.00	.00	115.75	.00	2.75	.00	95.00	75.50	1.75
12	RILLITO	1571.50	.00	117.75	.00	2.00	.00	87.50	59.50	1.00
6	IAC-2	1456.25	.00	124.00	.00	1.00	.00	97.50	110.75	4.00
13	BOSSIER	1391.25	.00	117.50	.00	1.50	.00	80.00	70.50	1.50
14	WILLIAMS	1382.75	.00	92.75	.00	1.50	.00	70.00	47.25	1.00
3	SJ-2	1382.50	.00	125.00	.00	2.25	.00	88.75	93.25	3.75
2	UFV-1	1344.00	.00	116.50	.00	1.25	.00	96.25	72.75	1.50
15	RANSOM	1312.75	.00	116.00	.00	1.00	.00	86.25	38.50	1.00
9	JUPITER	1209.50	.00	120.25	.00	3.25	.00	96.25	95.00	3.00
8	CARIBE	1185.50	.00	121.50	.00	3.00	.00	97.50	121.00	4.25
4	HARDEE LS	1124.50	.00	126.75	.00	3.75	.00	87.50	80.00	3.00
1	CH-3	1124.25	.00	118.25	.00	4.00	.00	75.00	116.75	4.25
5	OKBA	1043.25	.00	120.25	.00	3.75	.00	72.50	93.50	5.00
10	IMPROVED PELICAN	879.25	.00	125.50	.00	3.50	.00	88.75	87.50	1.75
11	ACC 2120	823.25	.00	121.25	.00	3.25	.00	76.25	115.50	4.50
	GRAND MEAN	1283.88	.00	118.48	.00	2.52	.00	87.66	85.05	2.70
	STANDARD ERROR OF A VARIETY MEAN	105.67	.00	.71	.00	.28	.00	5.48	4.07	.26
	COEFFICIENT OF VARIATION	16.46%	.00%	1.20%	.00%	22.33%	.00%	12.51%	9.58%	19.26%
	5% LSD VARIETY MEANS (********=NS)	301.00	.00	2.02	.00	.80	.00	15.61	11.60	.74

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

YIELD	KG/HA	1.00	.00	-.22	.00	-.42++	.00	.06	-.38++	-.43++
DAYS TO	FLOWER	.00	1.00	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	-.22	.00	1.00	.00	.33++	.00	.35++	.52++	.46++
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	-.42++	.00	.33++	.00	1.00	.00	-.17	.45++	.45++
NODULE	ACT. 1	.00	.00	.00	.00	.00	1.00	.00	.00	.00
NODULE	ACT. 2	.06	.00	.35++	.00	-.17	.00	1.00	.23	.06
PLANT	HEIGHT	-.38++	.00	.52++	.00	.45++	.00	.23	1.00	.81++
	LODGING	-.43++	.00	.46++	.00	.45++	.00	.06	.81++	1.00
	SHATTER	-.14	.00	.25+	.00	.09	.00	.29+	.46++	.30+
PLANTS	HARVEST	.08	.00	-.44++	.00	-.11	.00	-.16	.08	.11
PODS PER	PLANT	-.50++	.00	.46++	.00	.46++	.00	.18	.30+	.24
POD	HEIGHT	-.17	.00	.23	.00	.21	.00	.21	.59++	.42++
100 SEED	WEIGHT	.58++	.00	-.34++	.00	-.36++	.00	-.16	-.68++	-.68++
QUALITY	OF SEED	-.37++	.00	-.20	.00	.08	.00	-.21	-.09	.03
PERCENT	GERM.	.24	.00	-.13	.00	-.22	.00	-.27+	-.26+	-.26+

TABLE 90 EXPERIMENT 442 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	1.00	146.75	29.75	7.50	21.75	2.25	100.00	41.9	20.1
16	DAVIS	1.50	182.75	33.50	9.00	20.75	1.50	72.00	42.5	19.2
12	RILLITO	2.25	162.25	24.75	8.50	22.75	2.50	91.00	41.0	20.0
6	IAC-2	2.00	167.25	34.50	11.75	16.00	2.00	96.00	41.8	20.2
13	BOSSIER	1.00	158.75	25.75	7.50	18.00	1.75	100.00	43.5	19.0
14	WILLIAMS	1.25	211.25	23.50	6.25	20.00	3.00	98.00	42.2	18.4
3	SJ-2	2.25	67.50	57.75	8.75	14.75	1.75	91.00	42.2	19.0
2	UFV-1	2.25	136.00	40.25	7.75	15.50	2.00	94.00	43.4	18.6
15	RANSOM	1.50	143.75	24.25	5.75	22.25	2.75	92.00	42.9	21.6
9	JUPITER	1.00	93.75	60.00	12.25	16.00	2.25	96.00	38.7	17.5
8	CARIBE	4.00	171.25	51.25	12.00	14.50	2.25	89.00	46.7	16.6
4	HARDEE LS	2.00	19.75	102.00	7.00	17.75	2.25	93.00	38.1	18.5
1	CH-3	2.50	188.25	36.25	10.25	16.00	2.00	94.00	43.3	17.8
5	ORBA	1.00	222.50	42.50	10.25	13.75	2.50	93.00	42.5	17.6
10	IMPROVED PELICAN	1.75	27.00	90.75	8.25	16.50	2.50	96.00	43.1	19.7
11	ACC 2120	2.75	203.50	60.25	12.75	7.00	3.00	61.00	44.7	16.0
	GRAND MEAN	1.88	143.89	46.06	9.09	17.08	2.27	91.00		
	STANDARD ERROR OF A VARIETY MEAN	.31	22.63	7.64	1.64	.53	.34	.00		
	COEFFICIENT OF VARIATION	32.66%	31.45%	33.18%	36.09%	6.15%	29.67%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.87	64.46	21.76	********	1.50	********	.00		

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

YIELD	KG/HA	-.14	.08	-.50++	-.17	.58++	-.37++	.24
DAYS TO	FLOWER	.00	.00	.00	.00	.00	.00	.00
DAYS TO	MATURITY	.25+	-.44++	.46++	.23	-.34++	-.20	-.13
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.09	-.11	.46++	.21	-.36++	.08	-.22
NODULE	ACT. 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ACT. 2	.29+	-.16	.18	.21	-.16	-.21	-.27+
PLANT	HEIGHT	.46++	.08	.30+	.59++	-.68++	-.09	-.26+
	LODGING	.30+	.11	.24	.42++	-.68++	.03	-.26+
	SHATTER	1.00	.03	.12	.41++	-.34++	-.09	-.31+
PLANTS	HARVEST	.03	1.00	-.54++	.20	-.09	.22	-.23
PODS PER	PLANT	.12	-.54++	1.00	.07	-.39++	-.02	-.10
POD	HEIGHT	.41++	.20	.07	1.00	-.39++	-.22	-.24
100 SEED	WEIGHT	-.34++	-.09	-.39++	-.39++	1.00	-.08	.46++
QUALITY	OF SEED	-.09	.22	-.02	-.22	-.08	1.00	-.07
PERCENT	GERM.	-.31+	-.23	-.10	-.24	.46++	-.07	1.00

TABLE 91 EXPERIMENT 444 YEAR 1979

REGION - AFRICA
SITE - MAGOYE
LATITUDE - 16 DEG. 1 MIN. S
COPERATOR - F. JAVAHERI
DATE PLANTED - DECEMBER 21, 1979
FERTILIZER USED (KG/HA) N 30.0, P 27.0, K 25.0
AMOUNT OF MOISTURE 472.0 MM
SUBSTITUTE VARITIES - GEDULD

COUNTRY - ZAMBIA
ELEVATION - 1067 M
LONGITUDE - 27 DEG. 37 MIN. E
DATE HARVESTED - MARCH, 1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
16	DAVIS	2748.47	43.50	99.00	.00	1.00	38.75	98.75	57.25	1.00
2	UFV-1	2523.00	55.75	108.50	.00	1.00	.00	98.75	50.50	1.00
12	RILLITO	2493.00	35.00	92.00	.00	1.00	50.00	100.00	42.00	1.00
7	TUNIA	2403.81	44.00	105.50	.00	1.00	25.00	100.00	59.75	1.00
8	CARIBE	2319.21	53.00	109.25	.00	1.00	25.00	97.50	78.25	3.00
13	BOSSIER	2318.80	35.00	96.75	.00	1.00	20.00	97.50	38.25	1.25
15	GEDULD	2199.61	44.25	99.00	.00	1.00	50.00	92.50	56.75	1.00
1	CH-3	2062.50	45.25	104.00	.00	1.00	.00	100.00	69.50	2.00
14	WILLIAMS	2050.41	27.00	90.75	.00	1.00	25.00	98.75	44.50	1.00
6	IAC-2	1944.56	49.50	106.25	.00	1.50	37.50	98.75	74.25	1.75
9	JUPITER	1855.37	65.00	117.50	.00	1.00	.00	93.75	74.75	1.50
4	HARDEE LS	1751.18	60.00	117.00	.00	1.00	25.00	95.00	61.25	1.00
5	ORBA	1486.96	52.00	99.00	.00	1.00	40.00	98.75	65.75	3.75
11	ACC 2120	1258.58	63.00	104.00	.00	1.00	50.00	87.50	85.25	3.25
3	SJ-2	1231.91	50.25	104.00	.00	1.00	.00	98.75	54.75	1.75
10	IMPROVED PELICAN	1039.79	52.50	103.75	.00	1.00	25.00	97.50	59.50	1.00
	GRAND MEAN	1980.45	48.44	103.52	.00	1.03	25.70	97.11	60.77	1.64
	STANDARD ERROR OF A VARIETY MEAN	209.25	.26	2.01	.00	.13	16.54	1.82	6.97	.27
	COEFFICIENT OF VARIATION	21.13%	1.08%	3.89%	.00%	24.24%	128.69%	3.76%	22.94%	33.17%
	5% LSD VARIETY MEANS (********=NS)	596.02	.75	5.74	.00	********	********	5.20	19.85	.78

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

YIELD	KG/HA	1.00	-.36++	-.08	.00	.07	.06	.18	-.03	-.19
DAYS TO	FLOWER	-.36++	1.00	.76++	.00	.01	-.08	-.39++	.53++	.34++
DAYS TO	MATURITY	-.08	.76++	1.00	.00	.05	-.06	-.17	.37++	.08
NODULE	ABUND 1	.00	.00	.00	1.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.07	.01	.05	.00	1.00	-.08	.08	.17	.05
NODULE	ACT. 1	.06	-.08	-.06	.00	-.08	1.00	-.06	-.09	.12
NODULE	ACT. 2	.18	-.39++	-.17	.00	.08	-.06	1.00	-.26+	-.28+
PLANT	HEIGHT	-.03	.53++	.37++	.00	.17	-.09	-.26+	1.00	.48++
	LODGING	-.19	.34++	.08	.00	.05	.12	-.28+	.48++	1.00
	SHATTER	.00	.00	.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.35++	-.37++	-.44++	.00	.12	.14	-.06	.07	.30+
PODS PER	PLANT	-.25	.66++	.57++	.00	-.03	-.04	-.26+	.32+	.12
POD	HEIGHT	-.04	.53++	.49++	.00	.23	-.06	-.21	.39++	.27+
100 SEED	WEIGHT	.49++	-.68++	-.33++	.00	-.06	-.03	.36++	-.48++	-.59++
QUALITY	OF SEED	.11	-.16	-.23	.00	-.04	.06	.03	.02	-.10
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 91 EXPERIMENT 444 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
16	DAVIS	1.00	241.75	16.25	11.25	19.85	1.00	.00	41.0	23.5
2	UFV-1	1.00	155.50	45.25	14.25	15.58	1.00	.00	41.5	20.8
12	RILLITO	1.00	220.25	19.00	10.00	22.63	1.50	.00	42.7	20.5
7	TUNIA	1.00	195.00	23.75	12.50	19.83	1.00	.00	40.9	23.1
8	CARIBE	1.00	210.00	36.75	14.00	12.45	1.00	.00	43.0	20.3
13	BOSSIER	1.00	250.75	22.00	12.50	19.20	1.25	.00	42.3	21.3
15	GEDULD	1.00	161.50	27.25	12.00	15.35	1.25	.00	39.0	21.9
1	CH-3	1.00	196.50	31.75	13.25	15.40	1.25	.00	40.6	20.9
14	WILLIAMS	1.00	255.25	11.25	8.75	23.03	1.00	.00	42.0	22.5
6	IAC-2	1.00	193.25	25.25	18.25	15.10	1.00	.00	36.8	23.7
9	JUPITER	1.00	170.25	45.25	25.25	15.83	1.00	.00	42.0	19.6
4	HARDEE LS	1.00	56.00	64.25	12.75	16.38	1.00	.00	37.1	24.5
5	ORBA	1.00	227.75	24.00	15.00	11.25	1.00	.00	42.8	16.5
11	ACC 2120	1.00	275.75	54.75	14.25	6.78	1.25	.00	44.4	13.3
3	SJ-2	1.00	78.25	43.50	15.00	13.35	1.00	.00	37.7	21.5
10	IMPROVED PELICAN	1.00	56.25	49.00	9.25	13.25	1.00	.00	40.4	20.9
	GRAND MEAN	1.00	184.00	33.70	13.64	15.95	1.09	.00		
	STANDARD ERROR OF A VARIETY MEAN	.00	13.79	6.08	1.44	1.20	.14	.00		
	COEFFICIENT OF VARIATION	.00%	14.99%	36.09%	21.06%	15.01%	25.27%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.00	39.28	17.32	4.09	3.41	********	.00		

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

YIELD	KG/HA	.00	.35++	-.25	-.04	.49++	.11	.00
DAYS TO	FLOWER	.00	-.37++	.66++	.53++	-.68++	-.18	.00
DAYS TO	MATURITY	.00	-.44++	.57++	.49++	-.33++	-.23	.00
NODULE	ABUND 1	.00	.00	.00	.00	.00	.00	.00
NODULE	ABUND 2	.00	.12	-.03	.23	-.06	-.04	.00
NODULE	ACT. 1	.00	.14	-.04	-.06	-.03	.06	.00
NODULE	ACT. 2	.00	-.06	-.26+	-.21	.36++	.03	.00
PLANT	HEIGHT	.00	.07	.32+	.39++	-.48++	.02	.00
	LODGING	.00	.30+	.12	.27+	-.59++	-.10	.00
	SHATTER	1.00	.00	.00	.00	.00	.00	.00
PLANTS	HARVEST	.00	1.00	-.48++	-.05	.14	.28+	.00
PODS PER	PLANT	.00	-.48++	1.00	.19	-.41++	-.04	.00
POD	HEIGHT	.00	-.05	.19	1.00	-.25+	-.20	.00
100 SEED	WEIGHT	.00	.14	-.41++	-.25+	1.00	.13	.00
QUALITY	OF SEED	.00	.28+	-.04	-.20	.13	1.00	.00
PERCENT	GERM.	.00	.00	.00	.00	.00	.00	1.00

TABLE 92 EXPERIMENT 441 YEAR 1979

REGION - AFRICA
SITE - MUFULIRA
LATITUDE - 12 DEG. 38 MIN. S
COOPERATORS - R. N. SINGH AND F. JAVAHERI
DATE PLANTED - DECEMBER 24, 1979
FERTILIZER USED - (KG/HA) - N 30.0, P 27.0, K 25.0,
AMOUNT OF MOSITURE - 1013 MM

COUNTRY - ZAMBIA
ELEVATION - 1243 M
LONGITUDE - 28 DEG. 10 MIN. E
DATE HARVESTED - APRIL,1980

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
7	TUNIA	3717.41	47.00	120.00	3.50	3.25	100.00	98.75	78.25	1.25
2	UFV-1	3704.91	59.00	122.00	3.50	3.00	100.00	100.00	78.25	1.00
19	DAVIS	3267.32	49.00	114.00	4.00	2.50	98.75	95.00	61.00	1.00
4	HARDEE LS	3250.65	62.00	127.00	3.75	2.50	100.00	100.00	77.75	1.00
8	CARIBE	3158.96	56.00	120.00	4.25	2.50	100.00	95.00	103.00	1.75
12	RILLITO	3146.46	37.00	104.00	3.75	4.00	100.00	100.00	51.75	1.25
9	JUPITER	3071.45	69.00	127.00	3.50	2.00	100.00	100.00	113.00	1.75
13	BOSSIER	3071.45	39.00	108.00	3.75	3.25	100.00	98.75	61.50	1.00
3	SJ-2	2917.25	55.50	122.00	4.00	3.50	100.00	97.50	99.25	1.50
1	CH-3	2917.25	50.00	121.00	3.75	3.00	100.00	98.75	109.50	2.00
6	IAC-2	2908.91	55.50	93.00	4.00	2.50	100.00	100.00	89.50	1.25
15	RANSOM	2846.40	35.00	104.00	3.00	2.25	100.00	97.50	38.00	1.25
5	ORBA	2646.36	55.50	115.00	2.00	3.00	100.00	98.75	88.00	3.00
14	WILLIAMS	2504.67	35.00	96.00	3.00	3.25	100.00	100.00	42.75	1.00
37	ACC 2120	2350.47	69.00	122.00	3.25	1.75	93.75	100.00	116.50	3.50
10	IMPROVED PELICAN	2208.77	61.00	114.00	3.50	3.25	100.00	97.50	77.75	1.75
	GRAND MEAN	2980.54	52.16	114.31	3.53	2.84	99.53	98.59	80.36	1.58
	STANDARD ERROR OF A VARIETY MEAN	137.52	.32	6.30	.43	.59	1.20	1.86	4.04	.41
	COEFFICIENT OF VARIATION	9.23%	1.24%	11.03%	24.41%	41.59%	2.42%	3.78%	10.06%	52.13%
	5% LSD VARIETY MEANS (********=NS)	391.72	.92	17.95	********	********	********	********	11.51	1.17

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

YIELD	KG/HA	1.00	-.07	.14	.24	.06	.09	-.08	.05	-.19
DAYS TO	FLOWER	-.07	1.00	.46++	.06	-.26+	-.22	.04	.77++	.35++
DAYS TO	MATURITY	.14	.46++	1.00	.04	-.23	-.08	-.03	.42++	.18
NODULE	ABUND 1	.24	.06	.04	1.00	.15	.10	-.03	.11	-.12
NODULE	ABUND 2	.06	-.26+	-.23	.15	1.00	.26+	.21	-.16	-.22
NODULE	ACT. 1	.09	-.22	-.08	.10	.26+	1.00	-.07	-.14	-.35++
NODULE	ACT. 2	-.08	.04	-.03	-.03	.21	-.07	1.00	-.05	.05
PLANT	HEIGHT	.05	.77++	.42++	.11	-.16	-.14	-.05	1.00	.46++
	LODGING	-.19	.35++	.18	-.12	-.22	-.35++	.05	.46++	1.00
	SHATTER	-.25	.33++	.16	-.12	-.05	-.31+	-.12	.41++	.52++
PLANTS	HARVEST	.02	-.14	-.23	-.14	-.14	-.19	.01	.07	.14
PODS PER	PLANT	.04	.24	.20	.13	.17	.16	-.24	.13	-.10
POD	HEIGHT	.14	.65++	.32++	.09	-.23	-.05	.06	.64++	.15
100 SEED	WEIGHT	.47++	-.68++	-.25+	.06	.16	.35++	-.03	-.59++	-.47++
QUALITY	OF SEED	.04	-.48++	-.19	-.03	.14	.10	.05	-.34++	-.03
PERCENT	GERM.	.06	.72++	.36++	-.02	-.15	-.13	-.02	.65++	.30+

TABLE 92 EXPERIMENT 441 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
7	TUNIA	2.00	347.00	10.20	18.05	22.53	1.75	94.00	42.3	19.2
2	UFV-1	2.00	279.00	14.60	22.63	16.50	1.00	98.00	41.7	18.0
19	DAVIS	2.00	350.75	11.83	15.95	19.28	1.25	95.00	40.2	20.3
4	HARDEE LS	2.00	175.00	14.40	19.48	16.85	1.00	87.00	45.2	20.7
8	CARIBE	3.50	280.50	12.88	15.38	15.15	2.25	85.00	45.0	16.5
12	RILLITO	2.00	274.00	15.10	15.38	21.70	5.00	72.00	41.1	17.3
9	JUPITER	2.00	309.50	13.43	36.45	19.08	1.75	95.00	41.6	19.1
13	BOSSIER	2.00	320.50	12.58	16.13	19.38	3.75	52.00	40.5	19.7
3	SJ-2	2.50	218.00	16.13	24.00	14.28	2.00	96.00	42.6	17.3
1	CH-3	2.25	318.00	8.83	22.10	15.23	1.00	100.00	41.4	16.6
6	IAC-2	2.00	358.50	7.88	22.13	16.48	1.00	95.00	39.3	16.8
15	RANSOM	2.00	278.25	10.65	13.68	20.48	4.00	72.00	43.1	20.4
5	ORBA	3.75	344.75	10.68	22.30	13.40	2.25	100.00	40.5	16.8
14	WILLIAMS	2.00	351.75	10.35	12.45	21.75	1.75	68.00	42.2	19.0
37	ACC 2120	3.50	398.75	14.38	22.95	6.70	1.50	97.00	42.2	15.9
10	IMPROVED PELICAN	2.00	141.00	17.58	16.30	13.53	1.50	90.00	42.8	16.9
	GRAND MEAN	2.34	296.58	12.59	19.71	17.02	2.05	87.25		
	STANDARD ERROR OF A VARIETY MEAN	.15	12.39	1.85	1.41	.46	.61	.00		
	COEFFICIENT OF VARIATION	12.62%	8.36%	29.35%	14.27%	5.44%	59.65%	.00%		
	5% LSD VARIETY MEANS (********=NS)	.42	35.29	5.26	4.00	1.32	1.74	.00		

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

YIELD	KG/HA	-.25	.02	.04	.14	.47++	.04	.06
DAYS TO	FLOWER	.33++	-.14	.24	.65++	-.68++	-.48++	.72++
DAYS TO	MATURITY	.16	-.23	.20	.32++	-.25+	-.19	.36++
NODULE	ABUND 1	-.12	-.14	.13	.09	.06	-.03	-.02
NODULE	ABUND 2	-.05	-.14	.17	-.23	.16	.14	-.15
NODULE	ACT. 1	-.31+	-.19	.16	-.05	.35++	.10	-.13
NODULE	ACT. 2	-.12	.01	-.24	.06	-.03	.05	-.02
PLANT	HEIGHT	.41++	.07	.13	.64++	-.59++	-.34++	.65++
	LODGING	.52++	.14	-.10	.15	-.47++	-.03	.30+
	SHATTER	1.00	.27+	-.01	.09	-.63++	-.08	.28+
PLANTS	HARVEST	.27+	1.00	-.37++	.10	.02	-.00	.05
PODS PER	PLANT	-.01	-.37++	1.00	.12	-.16	.09	-.01
POD	HEIGHT	.09	.10	.12	1.00	-.25+	-.26+	.52++
100 SEED	WEIGHT	-.63++	.02	-.16	-.25+	1.00	.29+	-.50++
QUALITY	OF SEED	-.08	-.00	.09	-.26+	.29+	1.00	-.53++
PERCENT	GERM.	.28+	.05	-.01	.52++	-.50++	-.53++	1.00

TABLE 93 EXPERIMENT 568 YEAR 1979

REGION - AFRICA
SITE - SALISBURY
LATITUDE - 17 DEG. 48 MIN. S
COOPERATORS - J.R. TATTERSFIELD, J.S. TICHAGWA
DATE PLANTED - NOVEMBER 22, 1979
SOIL TYPE - SAND 30%, SILT 20%, CLAY 50%, PH 5.8
FERTILIZER USED (KG/HA) - N 24.0, P 23.8, K 74.7
AMOUNT OF MOISTURE - 719 MM
NUMBER OF IRRIGATIONS - 1 (22 MM)
SUBSTITUTE VARIETIES - ORIBI, IMPALA

COUNTRY - ZIMBABWE
ELEVATION - 1506 M
LONGITUDE - 31 DEG. 3 MIN. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE ABUND 1	NODULE ABUND 2	NODULE ACT. 1	NODULE ACT. 2	PLANT HEIGHT	LODGING
6	IMPALA	4011.22	57.00	107.00	2.00	1.75	92.50	73.75	104.50	2.25
10	GASOY 17	4000.80	47.00	101.25	3.50	2.25	72.50	58.75	79.00	3.00
2	RILLITO	3964.54	47.00	97.00	3.00	1.75	73.75	62.50	68.75	3.25
5	ORIBI	3964.13	50.00	104.00	3.50	3.50	77.50	71.25	97.75	1.50
14	MITCHELL	3864.94	33.00	80.00	2.50	3.00	98.75	38.75	71.25	1.25
15	BRAGG	3859.94	47.00	102.00	3.00	2.25	92.50	63.75	66.25	3.25
8	FORREST	3521.95	47.00	102.00	3.25	2.00	72.50	66.25	74.50	4.00
11	CALLAND	3422.35	33.00	80.00	2.00	2.50	100.00	45.00	56.25	1.50
7	JAMES	3114.79	33.00	83.00	2.00	2.50	98.75	48.75	70.00	1.00
4	WILLIAMS	3089.37	33.00	75.25	2.00	3.00	92.50	38.75	55.00	1.00
13	CUTLER 71	3031.44	33.00	80.00	1.75	3.50	97.50	35.00	66.25	1.25
9	DAVIS	3027.27	68.00	111.00	3.50	2.00	93.75	85.00	85.00	5.00
3	BOSSIER	2938.09	47.00	118.00	2.50	1.75	85.00	70.00	67.50	5.00
12	FRANKLIN	2849.74	33.00	73.00	3.50	3.50	96.25	38.75	61.25	1.00
1	IMPROVED PELICAN	2317.55	82.00	129.00	4.00	2.75	86.25	71.25	131.25	4.75
16	ACC 2120	906.01	95.00	129.00	4.00	3.25	87.50	83.75	145.50	5.00
	GRAND MEAN	3242.76	49.06	98.22	2.88	2.58	88.59	59.45	81.25	2.75
	STANDARD ERROR OF A VARIETY MEAN	160.87	.00	.36	.40	.49	4.39	4.57	2.40	.18
	COEFFICIENT OF VARIATION	9.92%	.00%	.74%	27.86%	37.84%	9.92%	15.36%	5.92%	13.42%
	5% LSD VARIETY MEANS (********=NS)	458.23	.00	1.04	1.14	********	12.51	13.01	6.85	.53

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

YIELD	KG/HA	1.00	-.58++	-.38++	-.34++	-.20	-.15	-.21	-.50++	-.37++
DAYS TO	FLOWER	-.58++	1.00	.90++	.51++	-.05	-.22	.74++	.90++	.77++
DAYS TO	MATURITY	-.38++	.90++	1.00	.46++	-.18	-.36++	.81++	.78++	.87++
NODULE	ABUND 1	-.34++	.51++	.46++	1.00	.02	-.31+	.40++	.43++	.41++
NODULE	ABUND 2	-.20	-.05	-.18	.02	1.00	.04	-.25+	.09	-.26+
NODULE	ACT. 1	-.15	-.22	-.36++	-.31+	.04	1.00	-.34++	-.17	-.35++
NODULE	ACT. 2	-.21	.74++	.81++	.40++	-.25+	-.34++	1.00	.59++	.70++
PLANT	HEIGHT	-.50++	.90++	.78++	.43++	.09	-.17	.59++	1.00	.52++
	LODGING	-.37++	.77++	.87++	.41++	-.26+	-.35++	.70++	.52++	1.00
	SHATTER	-.80++	.82++	.62++	.40++	.16	-.04	.40++	.82++	.49++
PLANTS	HARVEST	.27+	-.46++	-.43++	-.28+	-.10	.06	-.18	-.49++	-.30+
PODS PER	PLANT	-.72++	.89++	.74++	.45++	.11	-.13	.50++	.88++	.60++
POD	HEIGHT	-.20	.58++	.56++	.37++	-.02	-.36++	.51++	.62++	.29+
100 SEED	WEIGHT	.86++	-.75++	-.61++	-.46++	-.16	.10	-.38++	-.69++	-.59++
QUALITY	OF SEED	-.39++	.30+	.15	-.04	.00	.02	.15	.19	.30+
PERCENT	GERM.	.37++	-.18	-.11	-.04	-.06	-.23	-.13	-.15	-.15

TABLE 93 EXPERIMENT 568 YEAR 1979 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	POD HEIGHT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT GERM.	PERCENT PROTEIN	PERCENT OIL
6	IMPALA	1.00	198.50	37.95	16.25	22.18	2.25	90.00	37.5	21.3
10	GASOY 17	1.00	199.75	37.13	10.00	19.63	2.00	95.50	40.7	18.6
2	RILLITO	1.00	199.50	38.93	12.50	23.30	2.75	93.50	42.3	18.7
5	ORIBI	1.00	200.00	41.85	17.50	21.18	1.75	91.50	41.0	17.5
14	MITCHELL	1.00	199.25	25.93	8.75	20.13	3.00	93.00	40.6	19.7
15	BRAGG	1.00	200.00	26.20	8.75	22.90	2.00	95.00	40.6	18.7
8	FORREST	1.00	199.50	37.15	11.25	16.43	3.00	90.25	39.6	18.9
11	CALLAND	1.00	200.00	23.55	8.75	22.05	2.75	88.75	43.7	17.7
7	JAMES	1.00	200.00	26.83	10.00	20.03	2.00	87.00	42.6	19.2
4	WILLIAMS	1.00	200.00	21.78	10.00	20.10	2.50	93.25	42.6	19.4
13	CUTLER 71	1.00	200.00	24.58	8.75	20.00	3.00	88.50	42.2	19.5
9	DAVIS	1.00	200.00	44.15	12.50	16.95	3.00	86.50	40.1	20.7
3	BOSSIER	1.00	200.00	43.23	11.25	17.43	2.50	88.50	42.7	19.0
12	FRANKLIN	1.00	200.00	22.73	10.00	18.80	2.25	90.00	40.9	18.1
1	IMPROVED PELICAN	2.00	151.50	153.95	15.00	13.03	2.50	92.00	44.0	16.8
16	ACC 2120	3.00	200.00	185.23	15.00	7.20	3.75	85.00	44.8	12.2
	GRAND MEAN	1.19	196.75	49.49	11.64	18.83	2.56	90.52		
	STANDARD ERROR OF A VARIETY MEAN	.00	1.93	4.69	1.05	.45	.25	2.40		
	COEFFICIENT OF VARIATION	.00%	1.97%	18.96%	18.06%	4.75%	19.73%	5.31%		
	5% LSD VARIETY MEANS (********=NS)	.00	5.51	13.36	2.99	1.27	.72	********		

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

YIELD	KG/HA	-.80++	.27+	-.72++	-.20	.86++	-.39++	.37++
DAYS TO	FLOWER	.82++	-.46++	.89++	.58++	-.75++	.30+	-.18
DAYS TO	MATURITY	.62++	-.43++	.74++	.56++	-.61++	.15	-.11
NODULE	ABUND 1	.40++	-.28+	.45++	.37++	-.46++	-.04	-.04
NODULE	ABUND 2	.16	-.10	.11	-.02	-.16	.00	-.06
NODULE	ACT. 1	-.04	.06	-.13	-.36++	.10	.02	-.23
NODULE	ACT. 2	.40++	-.18	.50++	.51++	-.38++	.15	-.13
PLANT	HEIGHT	.82++	-.49++	.88++	.62++	-.69++	.19	-.15
	LODGING	.49++	-.30+	.60++	.29+	-.59++	.30+	-.15
	SHATTER	1.00	-.38++	.95++	.36++	-.86++	.42++	-.22
PLANTS	HARVEST	-.38++	1.00	-.54++	-.27+	.36++	-.05	-.07
PODS PER	PLANT	.95++	-.54++	1.00	.45++	-.84++	.34++	-.22
POD	HEIGHT	.36++	-.27+	.45++	1.00	-.31+	-.10	-.21
100 SEED	WEIGHT	-.86++	.36++	-.84++	-.31+	1.00	-.44++	.31+
QUALITY	OF SEED	.42++	-.05	.34++	-.10	-.44++	1.00	.00
PERCENT	GERM.	-.22	-.07	-.22	-.21	.31+	.00	1.00