

L.Y.  
328.1  
2485

528-041.2

5280041-⑤

35p.

PD-AB-425-A1

URUGUAY

Evaluation Report of the  
Agricultural Production and Marketing Project

No 528-55-130-041.2

By Lyall E. Peterson, Consultant

7/17/00 - 722

USAID Mission to Uruguay

Montevideo

November 1, 1974

Slightly modified on December 10, 1974  
to incorporate Table of Contents and  
minor editorial changes.

Peterson, Lyall E.

Evaluation Report of the Agricultural Production and Marketing Project  
No. 528-55-130-041.2 (Uruguay)

November 1, 1974

20 pages

8 annexes

AID Contract Number:

AID Project Number: 528-55-130-041.2

Source: DIS  
*ARC Catalog No. UY 338.1 P485*

Originally this was a production and marketing project. It has since become a research effort designed to assist the Ministry of Agriculture to stimulate production and improve marketing through research coordinated with technical assistance to producers, concentrating on fruit and vegetable production for export. A university consortium contract provides for advisory services, participant training and the importation of essential equipment and materials for the development of the Las Brujas Experiment Station. In general, the project is well-conceived and satisfactorily carried out. The GOU has been very supportive of this project and is taking steps to improve the coordination of other pertinent activities such as supervised credit, marketing facilities, and cooperative development. It is difficult to relate indications of positive progress to the project because it is a long range enterprise. The U.S. university consortium and the participant training program are effective. Experiments are oriented toward priority crops and major problems and the people working on the project are clearly aware of its goal. There have been some problems with equipment and supplies: delays, installation, and maintenance. Annexes include a logical framework and a list of publications.

## TABLE OF CONTENTS

<u>Item</u>	<u>Page No</u>
INTRODUCTION .....	1
PROJECT STATUS AND OUTLOOK. ....	2
Background - FYs 1966 - 1972 .....	2
Origin of Present Approach .....	3
Project Description .....	3
AID Inputs .....	4
Government of Uruguay (GOU) Inputs .....	6
Financial Summary .....	7
Project Outputs .....	8
Estimated Project Status on April 1,1976 .....	10
RELATION OF PROJECT TO OTHER AGENCY ACTIVITIES	11
Activities of Major Cooperating Agencies..	11
Relation to Proposed Loan .....	13
CONCLUSIONS AND OBSERVATIONS	14
Project Objectives .....	14
Progress to Date in Attaining Objectives .	14
Effectiveness of the Consortium .....	15
GOU Counterpart Support .....	16
Training Program .....	17
Equipment or Commodities .....	17
Project Management .....	18
Adequacy of the Research Work .....	18
Marketing .....	19
Coordination - Relations with Other Agencies .....	19
Transition to the Proposed Loan Project ..	20
LIST OF ANNEXES .....	21
Annex A - Fruits and Vegetables with Best Prospects for Export	
Annex B - Logical Framework Summary	
Annex C - List of U.S. Advisors under the University Consortiur Contract	
Annex D - Training Summary	
Annex E - Counterpart Personnel at Las Brujas	
Annex F - Publications and Special Reports	
Annex G - Production Systems	

EVALUATION REPORT \*  
of the  
AGRICULTURAL PRODUCTION AND MARKETING PROJECT  
for  
USAID/URUGUAY

Introduction

This report has been prepared on request of the USAID/Uruguay Resident Representative. It is based on a review of considerable background information, a visit to the Las Brujas experiment station, conversations with Consortium Advisors and MAP officials and on past experience in other Latinamerican countries with similar AID projects.

It is hoped that the report will be helpful to the R.D.O. in issuing a revised PAR and PROP for the project - also as a basis for discussions at the January 1975 meeting of the Consortium Council.

This project is, in effect, a pilot-type of operation that is leading to a nationwide program as described in the recent IRR report on the proposed US\$ 4.9 million loan for IATA. In this context I feel that it is important to indicate the relation of this project to the Development Planning Project.

---

\* Prepared by Lyall E. Peterson, Consultant, Nov. 1, 1974

### Origin of Present Approach

In 1972 it was decided to radically change the approach of the Project - to concentrate primarily on the research activities of the Ministry of Agriculture (MAP). More specifically, this concentration was to be aimed at the GOU goal of increasing the production and export of non-traditional crops or commodities. In this case, the GOU goal was further defined to be primarily concerned with certain fruits and vegetables.

One of the advisors (Dr. Chester Hitz) who worked under the former IDS contract has stayed in Uruguay, to now serve as Chief-of-party of the U.S. University Consortium group, as well as the principal advisor on fruits.

The rationale for reorganizing this project by contracting for U. S. University technical assistance also has been described, in detail, in other documents (FY'75 DAP, 10/20/71 PROP Revision on this Project, etc.). Briefly, this Project complements the activities of other donor agencies. The nature of the technical assistance is more appropriate to AID financing than it would be for any other international agency. Finally, AID assistance is specifically preferred, in this instance, by GOU and MAP.

Operation of this revised Project has been facilitated by the fact that about 85% of fruit and vegetable production (excluding citrus) is concentrated in a relatively small area surrounding Montevideo. The Las Brujas experiment station serves as the center for research activities. The principal fruit and vegetable crops being considered for export potential are described in Annex A.

A sketch map showing principal fruit and vegetable production centers is attached as Annex G.

### Project Description

This evaluation report is primarily concerned with the U.S. University Consortium Contract which was signed on December 8, 1972 by Penn State University and AID and that included Michigan State and Texas A&M as PSU sub-contractors. Whereas the Consortium Contract includes the

Development Planning Project of AID (i.e. Dr. McGrann, etc.) this report is largely confined to the Ag. Production and Marketing Project.

The project goal, purposes, etc. are described in the Logical Framework Summary, attached as Annex B.

The first phase of the Contract ended on March 31, 1974 and has been described in a 13 page report to USAID. The second annual phase is now in progress and is somewhat hampered by difficulties in agreeing on an amended contract. The final annual phase is scheduled to terminate on March 31, 1976, at which time the proposed loan to IATA may be operational.

Briefly, the Consortium Contract provides for both long and short term U. S. advisory services, for participant training and the importation of essential equipment or materials. The major thrust of the project is to assist in development of the Las Brujas Experiment Station, which serves as a focal point for research and demonstrations that are aimed to stimulate the production of those fruits and vegetables which have priority as export crops.

#### AID Inputs

The major inputs into this project have been U.S. technical advisory services and rather strong support of a participant training program. A modest part of the total financing has been reserved for the purchase and import of equipment that is unavailable in Uruguay.

##### 1. U. S. Consortium Advisory Services

The U. S. University Consortium operations in Uruguay were initiated in December 1972, with the transfer of Dr. Hitz (Pomologist) from the ex-IDS Contract. During the first phase (i.e. up to 3/31/74) the Plant Pathologist (Dr. R. Stuckey) and Vegetable Specialist (Dr. Morse) were assigned on a long term basis. Also, during this first phase, five short term advisors came to Uruguay to assist on special problems.

The long term staff was completed in July of this year by the assignment of Dr. Taboada, as the Information Advisor. Also, during this second phase, three short term advisors are included.

During the final year of this project (4/1/75 to 3/31/76) it is planned to backstop the long term staff of four advisors with eight short term assignments (See Annex C).

## 2. Other Technical Services

Partly to complement the Consortium's work but mainly to advise on a number of problems of special concern to the MAP, a number of other short term specialists have been budgeted (See Financial Summary).

## 3. Training

The training component of this project has been managed to satisfy the overall needs of the Ministry (MAP), rather than just the specific research requirements. However, since the new approach in this project (i.e. initiation of the U.S. University Consortium Contract) the participant training has tended more towards a research orientation. During the past two years most of the long term becas have been granted to technicians seeking M.S. degrees, with a view to returning to work in agricultural research. At the same time over 50 becas were granted for short-term training in Argentina and other Latinamerican countries.

In general the MAP is extremely interested in the training program and has given it strong financial support, including complete financing of some becas. A summary of the program related to this Project is included in Annex D.

Not included in the above description is the in-service training provided by U.S. advisors through daily association with their counterparts and through numerous meetings or seminars. While this cannot very well be quantified, in-service training is an important project input.

#### 4. Equipment

The equipment allocation for the initial phase of the project was close to US\$ 100,000, including transport cost. Another \$ 20,000 was allocated for the second phase but equipment orders are held up due to delays in contract negotiations. In general the materials being imported include laboratory equipment, technical library acquisitions, communications facilities and other essential needs that are unavailable in Montevideo. The Consortium files have full details.

#### G. O. U. Inputs

The total of GOU inputs to this project during the past two years have been close to US\$ 600,000 per year and it is estimated that this level of contribution will at least be maintained into FY 1976.

The MAP allocates above the equivalent of US\$ 2.0 million annually to support IATA, the Agricultural Research and Technical Assistance Department. IATA is now securing close to half of the total MAP budget. Also, the GOU has utilized local currency generated from PL 480 Title I sales for physical improvements in various experiment stations; notably at Las Brujas, which is the center for work on fruits and vegetables.

Counterpart support directly related to this Project includes :

1. Increase in Uruguayan staff and related equipment (see Logical Framework, Annex B; also Annex E).
2. Agreements and documentation necessary to permit effective utilization of USAID inputs.
3. Administrative support including office space, vehicles, laboratory and field research facilities.
4. Financial resources for operation and maintenance of equipment.
5. In country support for short-term advisors on special problems.
6. Salaries and travel costs for participant training.

Financial Summary

The AID allocations to this project, from FYs 1966 through 1976, will be summarized on the PROP Face Sheet, to be revised in the near future. Details on costs for FYs '74, '75, and '76 may be found in the FY'76 Field Budget Submission of USAID/Uruguay. The past and projected financing directly related to the U.S. University Consortium Contract is shown in the following summary:

(in '000 U.S. Dollars and Man Months)

Cost Components	Three Phases of Consortium Contract						
	Dec.1972 to 3/31/74	4/1/74 to 3/31/75	4/1/75 to 3/31/76	US\$	M/M	US\$	M/M
<u>1. US Technical Assistance</u>							
a. Univ. Consort.	218	45	357	72	266	57	
b. Other Short-term tech. assist.	4	1	124	26	37	8	
Sub-totals :	222	46	481	98	303	65	
<u>2. Participant Training</u>	109	98	85	104	123	153	
<u>3. Equipment, Supplies, etc.</u>	20	-	15	-	1	-	
<b>TOTALS :</b>	<b>351</b>	<b>-</b>	<b>581</b>	<b>-</b>	<b>427</b>	<b>-</b>	

Note : The above summary excludes the Development Planning and Administration Project which finances an Ag. Economist who actually functions as a member of the Consortium Team. This latter project also finances some participant training (see p. 32 of FY'75 FBS).

## Project Outputs

As shown in the Logical Framework Summary (Annex B) the usual tendency is to measure outputs or results only in quantitative terms. In this type of activity, however, the more significant outputs are qualitative and often quite difficult to measure. In-service training, for example, is quite as important as formal participant training, but its results are usually described in such vague terms as changing attitudes and developing leadership qualities.

### 1. Formal Training

As discussed previously and as summarized in Annex D the formal training program, that has been financed in past by this project, has been operated to satisfy overall needs of MAP, not just the more specific needs of IATA. However, during the past couple of years the major emphasis has been on research and on problems or specialties related to fruit and vegetable production. Most of the long term training (18 months becas) has been aimed at securing M.S. degrees. A large number of becas have been for short terms - some of the U.S. but mostly to Argentina and other LA countries.

### 2. In-Service Training

The Consortium files in Montevideo (progress reports) reveal the extent and the emphasis that is being given by all of the U.S. advisors to on-the-job training of their Uruguayan counterparts (See Annex B for numbers).

### 3. Publications and Reports

The divers efforts of the U.S. advisors and their counterparts - usually find expression in MAP publications or unpublished reports. A list of these reports is included as Annex F.

### 4. Research Projects

A useful quantitative measure of output is the number of research projects or trials with respect to various fruits and vegetables disease or pest problems and other related issues (see Annex B for numbers).

## 5. Communications

Considerable emphasis is now being placed on communications techniques as a means of getting research results into the hands of producers. An excellent example is the recent establishment of an effective alarm system for noting critical periods in the build up of insect or plant disease infestations. Besides the setting of traps in strategic places the alarm system has involved information specialists in (1) recruiting the cooperation of farmers to observe the traps and report results to the Las Brujas station, (2) in arranging for radio reporting when it is time to spray orchards or gardens, and (3) issuance of a spray calander explaining to farmers the details of spraying techniques. By application of this alarm system the farmer sprays only when he is advised, rather than the old system of regular periods of spraying. In this way the farmer can save perhaps 50% of his former annual expense of spraying with high cost chemicals. Once the farmer realizes this he becomes a staunch friend of the researcher.

## 6. Other Examples of Indicators

There are numerous examples in the files to indicate that the U.S. advisors also exert an influence on IATA that results in improvements. For example :

- a. One short-term advisor pointed out the need for a plant pathology lab at Las Brujas and prepared specs on equipment requirements.
- b. A Citrus specialist, after surveying various zones recommended that work be concentrated in the Salto region and that research of citrus at Las Brujas be halted.
- c. Another advisor helped to work out ways and means for Uruguay to produce much of its own seed and thus to reduce seed imports.
- d. The more recent efforts to improve communications services and outputs of information materials may point the way to a reorganization of this office in MAP.

- e. New "pear" tomatoes have been introduced as being suitable for processing.
- f. New disease-tolerant varieties of lentils have been introduced.
- g. Measures introduced for the control of post-harvest diseases of peaches will improve their exportability.
- h. New chemical treatments have been demonstrated to improve exportability of Uruguayan apples.

Estimated Project Status on 4/1/76

1. Ability of Las Brujas Station to Carry On

Well-understood objectives for each University advisor is to train his counterparts to carry on the significant research at Las Brujas, to recognize arising production problems and to organize research to solve the problems. The U. S. advisors have confidence in the research capabilities of counterparts and expect that they will be able to maintain significant research programs if personnel and financial support are accorded to them.

Some situations prevail that might negate the above statement. In Plant Pathology, for example, there are only two counterparts. If one should leave probably both would leave, leaving the section without qualified personnel.

2. Ability of Farmers to Produce Better Quality Fruits and Vegetables.

It has not been a primary objective of the University Consortium to evaluate or improve the ability of growers to produce quality fruits and vegetables. By the nature of their work, which is research as contracted to extension, advisors have relatively few contacts with growers. Rather, it has been to increase the capability of MAP and other agencies to improve the Uruguayan research capabilities in order that better production will result. It is hoped that the information service now being organized by Consortium personnel will link the producers more closely with research personnel.

### 3. Ability of IATA to go Forward with an Expanded Program

First, considering only the Las Brujas station, IATA is faced with a considerable expense to complete the planned construction, to improve irrigation and drainage facilities and to furnish the necessary additional equipment and supplies.

In considering, then, an expanded (nationwide) program it is apparent that the Uruguay budgetary problem will be greatly magnified. The proposed AID loan to IATA contemplates substantial increases in GOU allocations to IATA. This problem will undoubtedly be carefully scrutinized during the CAP intensive review process.

### Relation of Project to Other Agency Activities.

This Project is essentially a highly centralized research effort, aimed at improving the quality and stimulating the production of certain fruits and vegetables - especially those having good prospects for export to Brazil and other international markets. In an important sense this Project also is serving as the forerunner of a much more ambitious nationwide program, for which AID loan financing has been requested (see Oct. '74 IRR on "Agricultural Research/Technical Assistance Loan).

The Project goal can be achieved only if other types of activity (supervised credit, marketing facilities, cooperative development and so forth) are integrated with the research work in a well coordinated manner. The responsible GOU officials are keenly aware of this need for an integrated program and many steps are being taken to improve coordination. For example, the proposed AID loan to IATA is specially significant as a new approach aimed at improving coordination between experiment stations and various action agencies that have more direct access to the farmers.

### Activities of Major Cooperating Agencies

1. The Plan Agropecuario, which has been heavily supported by the World Bank for over ten years, is oriented towards traditional rather than non-traditional exports. Yet it is important to the purposes of this Project as perhaps the best example of a supervised credit program.

The World Bank has made four loans totalling close to US\$ 55.0 million to help finance the Plan Agropecuario. A large fifth loan is now being considered that will broaden the scope of this Plan to include cereal grains and other field crops as well as livestock.

Technicians of the Plan Agropecuario maintain a close working relationship with IATA, especially at the La Estanzuela Experiment Station.

2. The Plan Citrícola, supported by a US\$ 3.1 million IDB loan comes closer to the specific purposes of this Project in that it is concerned with stimulating citrus production. This plan will operate mainly in the Salto region and will maintain close contact with IATA's research station in Salto.

3. The Plan Granjero which now has pending a proposed US\$ 7.9 million loan from IDB is of most direct importance to this Project, since it will operate in the same zone of influence as the Las Brujas Station and it also will be concerned exclusively with fruits and vegetables. Thus, the Plan Granjero will provide credit and technical assistance to the small farm producers based on Las Brujas research findings.

4. Continued growth of the Cooperative movement also is important in considering project goals, especially since the farms in the fruit and vegetable area are characteristically quite small, so that the farmers gain strength only through group action or cooperatives, for purchase of inputs and marketing of their products. In this respect the proposed AID loan to CALFORU takes on special significance.

5. The UNDP through FAO will continue its grant assistance that, since 1950, has provided about 2,300 man months of technical assistance. The present and proposed FAO assistance, that is most directly related to IATA and to this project, are complementary and do not represent any duplication of efforts. All project plans of FAO are discussed with USAID.

6. The OAS through IICA maintains a regional office in Montevideo. The modest annual budget for Uruguay is being used mostly for helping to finance seminars for some agricultural services and for some special assistance to a regional marketing project.

Relation to Proposed Loan

The IRR on a proposed US\$ 4.9 million loan to the MAP-IATA for "Agricultural Research and Technical Assistance" would, in effect, serve as a substantial expansion of this grant project. The total results of this grant project should have a direct and beneficial effect on the proposed loan activity. In the event that the loan is negotiated and ready for disbursements prior to termination of this grant project, the Mission foresees no conflict. In fact, an overlap of a few months should be desirable.

## Conclusions and Observations

In general it is felt that this project, as described above, is well conceived and is now being carried out in a satisfactory manner. The University Consortium activity, focusing on the small farm fruit and vegetable production area surrounding Montevideo, is filling a critical need that is clearly expressed in GOU Development Plans and that is quite appropriate for AID grant financing assistance. The following remarks are reflected, for the most part, in a Logical Framework Summary draft, which has been revised to reflect present conditions.

### A. Project Objectives

1. The goal of this project is broad enough to cover all international agency activities in Uruguay. The purposes as stated in Annex B are certainly valid but they can be further refined somewhat as follows :

a. "To assist the Ministry of Agriculture (MAP) - especially IATA - in its well planned program to stimulate production and improve marketing through a reorientation of its research work coordinated with an expansion of technical assistance and other services to producers".

b. "More specifically, to demonstrate the effectiveness of this new IATA nationwide program by concentrating on fruit and vegetable production for export".

2. Under present circumstances the above refined purposes are in line with the on-going project; if and when the proposed loan to IATA is approved, paragraph (b) above would no longer apply.

### B. Progress to Date in Attaining Objectives

1. It is exceeding difficult to measure progress in this kind of research activity in terms of production and export increases. While there are indications of good progress

(higher value of non-traditional exports, etc.) it is difficult to relate this directly to the work of IATA. Unfortunately, we are dealing with a long range enterprise at a time when the GOU has an urgent need to reduce imports and increase exports. Establishment of a fruit orchard requires several years. Increases of vegetable production are constrained by such problems as selection of varieties, seed production, and disease control.

2. Rather than attempt to measure progress at this time, it appears to be more appropriate to think in terms of prospects, as indicated by Annex A. It is noteworthy to add that by virtue of the U. S. advisory assistance to date: (a) the crops with best export prospects have been selected, (b) major pest and disease problems have been identified, (c) control measures are being demonstrated, and (d) some storage problems are being tackled (see Annex F).

#### C. Effectiveness of the Consortium

1. It is my general impression that the U.S. University Consortium arrangement has been quite effective. For the job being done I cannot visualize any alternative arrangement that might work better.

a. It appears that the three Universities (Penn State, Michigan State and Texas A&M) have done a good job of selecting advisors with appropriate qualifications who also are able to accomodate themselves to the Uruguayan conditions (ambiente). These men definitely have much to offer to their Uruguayan counterparts and they are doing it (see Annex C).

b. Aside from the four long-term U.S. advisors a substantial part of the budget has been reserved for short-term assignments on special problems; usually for three months each. Such assignments often boomerang for one reason or another. With this contract, however, it appears that these short termers have been quite successful. I can only assume from this that future assignments will be equally well planned and successful.

c. I do not see language as a serious problem or constraint in this case. The few advisors, whose ability to converse in Spanish may be deficient, are able to find bilingual help.

d. Agricultural Economics Research

In one sense it is fortunate that the Consortium group includes Ag. Economics services, furnished by Texas A & M. In another sense it is unfortunate that this important segment of the Consortium Team is tied to a separate AID project (Development Planning) which in turn is tied to a separate branch of MAP - i.e. outside of the IATA bailiwick. The upshot of this situation is that the Ag Economist is, for most practical purposes, isolated from the rest of the U.S. advisory team. The issue is described in Annex H.

If this situation must prevail (i.e. if the Development Planning project cannot be absorbed into this Ag. Production project) I feel that serious consideration should be given to adding a full time Ag. Economist to the Consortium team. The issue has added importance in view of the proposed AID loan, in which major emphasis is being placed on "economic aspects".

D. GOU Counterpart Support

1. As mentioned in page 6 the GOU support of this project has been exceptional. This is especially significant in view of Uruguay's tight economic situation and in view of the fact that MAP must struggle with an inadequate budget. IATA, by virtue of its excellent administration has been able to command about half of MAP's total budget. The support given to this project is estimated to be at the level of the equivalent of about US\$ 600,000 annually.

2. The gripes about lack of funds, tight restrictions on spending, inadequate maintenance of equipment, tickets for gasoline, on ad finitum, are really part of the game. We hear these gripes everywhere and we learn to live with them. If these deficiencies did not exist perhaps Uruguay would not need U. S. technical assistance.

3. In the particular case of the Las Brujas station the job performed by IATA during the past two years, to build up this station virtually from scratch, has been outstanding.

4. I have been favorably impressed by the Uruguayan technicians whom I met at Las Brujas, La Estanzuela and in Montevideo, They appear to me to be mature, cooperative and quite receptive to the U.S. advisory assistance. The Director of IATA, in my opinion, is an outstanding individual with a keen perception of where IATA should be going and of how to get there.

#### E. Training Program

1. As mentioned above (page 5) the substantial outlays for participant training have been used to satisfy needs of the MAP as a whole - not just those of the Consortium activity. During the past two years, however, major emphasis has been given to the specific needs of Las Brujas.

2. It is my understanding that trainees are carefully selected in accordance with a long range plan. The particular needs of IATA have recently been defined in a separate, five year plan. The GOU pays salaries and international travel costs and the participants are required to return to assignments for which they were trained. The retention rate is very high.

3. Long term training (usually 18 months) is mostly aimed at securing MS degrees in a wide range of disciplines. Considerable emphasis is given to short term courses, many of them in Argentina and other LA countries (see Annex D).

#### F. Equipment or Commodities

Obviously a project of this kind suffers if there are delays in obtaining necessary equipment or supplies. This is a problem here, which I understand is complicated by delays in signing the Consortium contract for the second phase of operations. This problem is further aggravated, in Uruguay, by delays in the installation of equipment, improper maintenance and lack of spare parts. I do not know just how serious this problem is but it may deserve special study.

### G. Project Management

1. The Chief of Party (COP) of the local Consortium team (Dr. Hitz) is an eminent Pomologist (fruits) with considerable Argentine and Uruguay experience and is senior member of the team. He is the obvious choice to be COP. He has a thankless job that steals much time from his important research work. There appears to be no alternative at this time, so that Dr. Hitz should continue to shoulder this added burden.

2. Whatever can be done to lessen the load of the COP responsibility should be all to the good. For example, if Mr. Stephens could be given a bright, young bilingual administrative assistant, this would help. Also, it seems to me that the progress reporting chore, affecting all advisors, might be simplified. Perhaps Dr. Taboada could be assigned central responsibility for a monthly or bi-monthly progress reports based on rough notes from other team members.

### H. Adequacy of the Research Work

The Research work being done is apparently in accord with IATA plans as modified by agreement with the Consortium team. Essentially, the experiments are oriented towards priority crops (Annex A) and major problems to be solved. It is apparent to this observer that the Las Brujas staff and U.S. Advisors are quite conscious of the objectives: i.e. to increase quality production for export as well as domestic consumption. In Annex B some additional indicators are suggested that would help to prove the effectiveness of research. The IATA technicians and the Consortium group are agreed that their time is being well spent. The IATA Director has no complaints. I see no basis for second guessing them except on the aspect of economic research or studies, which was mentioned above under item C-4.

## I. Marketing

1. As now constituted the word "marketing" in this project's title appears to be superfluous. Formerly, under the IDS contract, marketing was an important consideration. Today, the main thrust of the project is research to improve production. Marketing aspects are conspicuous by their absence (see Annex H).

2. Much has been written and much concern is being evidenced by the GOU over marketing constraints. It might be assumed that this problem is being taken care of by other assistance agencies but it is doubtful that this is a valid assumption.

3. It is suggested that the future technical assistance to be offered under this project should include some special attention to marketing problems - i.e. product handling and storage, processing and exporting. The numerous past studies should be reviewed and up-dated. Major bottlenecks should be defined. It would be interesting to develop a critical path analysis for one or more export commodities, describing the many steps and the time schedules involved in handling the products from the farm in Uruguay to the buyer in Brazil. This has been done elsewhere (e.g. Gerald Horne for ROCAP in Central America) and it should not be a difficult exercise. Perhaps Dr. McGrann would be in a position to do such a critical path analysis.

## J. Coordination - Relations with Other Agencies

1. The relation of this project to other agency activities has been discussed above (see page 11). Coordination is not an important factor at this time - as it would be under the proposed loan to IATA. The Plan Citrícola and Plan Granjero, both with IDB loan support, are of special importance to this project. Thus, it is expected that as these two Plans become more fully operational there will be an increasing demand from the technical staffs working in these Plans for research information from the Las Brujas and Salto stations. The research program now in operation is designed to satisfy these demands.

2. One very important constraint is the prevailing situation at the Faculty (College) of Agronomy which nominally is responsible for providing Ingeniero Agrónomos (BS degree) for work in IATA and other agencies. Due to well known political

problems the former Faculty of this University has been decimated to the point where it is said that the College has been set back ten years. The UNDP through FAO has given this College support valued at close to US\$ 1.5 million during the past five years but they recently phased out of this project. We can only hope that this situation will be cleared up soon, so that foreign aid from some international agency might be resumed.

#### K. Transition to the Proposed Loan Project

1. As mentioned above (page 13) this project may be viewed as a pilot-type of operation that IATA is now in process of expanding onto a nationwide basis. Thus, the Las Brujas activity should serve to demonstrate the efficacy of reorienting research to satisfy the GOU goals of increased exports, decreased food imports and a better distribution of wealth. It also should demonstrate how research results can best be sold to farmers through improved communications and more technical assistance. The basic concepts of this new IATA program - a package approach to production, as opposed to concentration on single elements in the package - appear to be quite sound as well as pragmatic. Once the best of various alternative production systems are proven and demonstrated to the farmers the impact should be quite dramatic (see Annex G).

2. The importance of farm management studies in the expanded program is clearly recognized by the IATA administration. This has been demonstrated recently in a study of various production systems in Tacuarembó which pointed out the most profitable system. More of this kind of costs and returns research is needed now.

3. In the expanded program IATA plans, over the course of the next four years, to add some 80 information specialists who would serve as a sort of liaison between the researcher and the technicians, who have more direct access to the farmer. This vital function is recognized in the present grant project by providing information specialists on the U.S. advisors team. The rightful functions of an effective Communications office, however, are not yet too well recognized. It is hoped that this situation will be improved soon (i.e. giving the Communications function more stature and autonomy) so that modern techniques can be properly demonstrated.

Annexes

- A. Fruits and Vegetables with Best Prospects for Export.
- B. Logical Framework Summary.
- C. List of Advisors Under U.S. University Consortium Contract.
- D. Agricultural Production and Marketing Project - Training Summary.
- E. Counterpart Personnel at Las Brujas.
- F. Publications and Special Reports.
- G. Sketch Map - Fruit and Vegetable Centers.
- H. Importance of Agricultural Economics.

ANNEX A

Fruits and Vegetables with Best Prospects for Export

<u>Crop</u>	<u>Import Country</u>	<u>Why From Uruguay</u>
Peaches	Brazil	800 miles closer to market than is the Mendoza area. The well-adapted local variety, Rey del Monte, is of export quality. Precocity permits early financial reward from improved cultural practices. Modern methods of rot control permit marketing of fresh fruit in Brazil.
Apples	Brazil	1000 miles nearer Brazilian market than is Rio Negro Valley of Argentina; wider use of "sports" permits sale of more attractive fresh product; improved pest control, fertilization, pruning will lower cost of production, making fruit more competitive. Form can be improved.
Pears	Brazil	Brazil is a reportedly excellent market for all deciduous fruits. The pears Williams (Bartlett) and Packham's, are well adapted to Uruguay. Uruguay is 800 miles closer to Brazil than are the Mendoza and Rio Negro areas in Argentina. Pears, like apples, are relatively easy to transport.
Onion and Garlic	Brazil	High quality, well-adapted production in Uruguay; Uruguay production would extend Brazilian season.
Pulse Crops	Brazil	These crops, high in content of protein and energy are in great world demand; Brazil, a heavy consumer of pulse crops, is barely self sufficient; beans are easily handled and transported. Disease resistant lentils are being tested in Uruguay.
Cauliflower	Brazil	Quality of native production, and length of harvest season, superior to Brazilian production. Insect control not a problem in Uruguay.

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 66 to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: 11/2/74

Project Title & Number : AGRICULTURAL PRODUCTION AND MARKETING

PAGE 1 of 4

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Goal</u></p> <p>achieve a substantial increase in agricultural exports as a base for overall economic expansion.</p>	<p><u>Measures of Goal Achievement</u></p> <p>Increases in both dollar value and amount of both traditional and non-traditional exports.</p>	<p><u>Verification :</u></p> <p>1. CIAP Analyses IBRD Analyses Central Bank Analyses Bank of the Republic Reports.</p>	<p><u>Assumptions :</u></p> <p>1. International market opportunities at reasonable prices will be available.</p> <p>2. Climatic conditions will be favorable or can be modified by irrigation, drainage and mulching, by improved pest and weed control and by use of hormones.</p> <p>3. Proposed AID loans will be approved and implemented.</p>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Project Title &amp; Number : AGRICULTURAL PRODUCTION AND MARKETING

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_PAGE 2  
of 4

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Project Purpose :</u></p> <p>1. Increase the capability of the MAP and other agencies assisting the agricultural sector so as to increase production and improve the marketing of agricultural products.</p> <p>2. Specifically provide improved agric. research with emphasis on development of new procedures that are economically attractive and effectively introduced in commercial agriculture.</p>	<p><u>Conditions that will indicate purpose has been achieved:</u></p> <p>End of Project Status :</p> <p>1. Technicians trained will occupy key positions.</p> <p>2. A permanent and modern research system in fruits and vegetables production will be operating.</p> <p>3. Farmers will have adopted new production systems and techniques.</p>	<p>1. USAID Reports.</p> <p>2. MAP Files.</p> <p>3. Experiment Station Reports and Files.</p> <p>4. FAO and IDB Reports</p> <p>5. Surveys of research results.</p> <p>6. Special reports by U.S. advisors.</p>	<p>1. Returned participants will occupy key positions, and sufficient incentives will be provided to retain qualified technicians.</p> <p>2. MAP priorities will remain the same.</p> <p>3. Coordination between all agencies involved in agriculture production and marketing will have improved</p>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Project Title & Number : AGRICULTURAL PRODUCTION AND MARKETING

Life of Project:  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																																
<u>Outputs:</u>	Magnitude of Outputs:	USAID Files.																																	
1) More Trained Technicians.	<table border="1"> <tr> <td></td> <td>Prior</td> <td>FY</td> <td>FY</td> <td>FY</td> </tr> <tr> <td></td> <td>Years</td> <td>74</td> <td>75</td> <td>76</td> </tr> </table>		Prior	FY	FY	FY		Years	74	75	76	Las Brujas Files.	1) Qualified participants will be available for training on time.																						
	Prior	FY	FY	FY																															
	Years	74	75	76																															
2) Greater GOU support of Station research.	<table border="1"> <tr> <td>Participant trained:</td> <td>89</td> <td>25</td> <td>29</td> <td>20</td> </tr> <tr> <td>Total: 163 participants.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Participant trained:	89	25	29	20	Total: 163 participants.					Technicians Reports.	2) GOU will continue to make available US\$ 600,000 per year of counterpart support.																						
Participant trained:	89	25	29	20																															
Total: 163 participants.																																			
3) More meetings with growers.	<table border="1"> <tr> <td>No. of research projects.</td> <td>CY</td> <td>CY</td> <td>CY</td> <td>CY</td> </tr> <tr> <td></td> <td>70</td> <td>74</td> <td>75</td> <td>76</td> </tr> </table>	No. of research projects.	CY	CY	CY	CY		70	74	75	76	Participant Trainees Log.	2) GOU will continue to make available US\$ 600,000 per year of counterpart support.																						
No. of research projects.	CY	CY	CY	CY																															
	70	74	75	76																															
4) Increased research activity in fruits and vegetables.	<table border="1"> <tr> <td>Total:</td> <td>30</td> <td>78</td> <td>91</td> <td>102</td> </tr> <tr> <td>Fruits</td> <td></td> <td>24</td> <td>26</td> <td>27</td> </tr> <tr> <td>Veget.</td> <td></td> <td>16</td> <td>20</td> <td>23</td> </tr> <tr> <td>Plant</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Total:	30	78	91	102	Fruits		24	26	27	Veget.		16	20	23	Plant					Surveys.	3) Technical aid will be available and supplied by the Consortium, as needed.												
Total:	30	78	91	102																															
Fruits		24	26	27																															
Veget.		16	20	23																															
Plant																																			
5) More technical publications	<table border="1"> <tr> <td>protect.</td> <td>30</td> <td>35</td> <td>39</td> </tr> <tr> <td>Potatoes</td> <td>8</td> <td>10</td> <td>13</td> </tr> </table>	protect.	30	35	39	Potatoes	8	10	13																										
protect.	30	35	39																																
Potatoes	8	10	13																																
6) Improved staffing at Las Brujas.	<table border="1"> <tr> <td colspan="4">Publications and Reports:</td> </tr> <tr> <td>1) Printed or in process</td> <td></td> <td></td> <td>6</td> </tr> <tr> <td>2) Proposed</td> <td></td> <td></td> <td>31</td> </tr> <tr> <td>3) Special Reports</td> <td></td> <td></td> <td>7</td> </tr> </table>	Publications and Reports:				1) Printed or in process			6	2) Proposed			31	3) Special Reports			7																		
Publications and Reports:																																			
1) Printed or in process			6																																
2) Proposed			31																																
3) Special Reports			7																																
	<table border="1"> <tr> <td>No. of personnel</td> <td>CY</td> <td>CY</td> <td>CY</td> </tr> <tr> <td>Las Brujas</td> <td>73</td> <td>75</td> <td>77</td> </tr> <tr> <td>Technicians</td> <td>15</td> <td>21</td> <td>29</td> </tr> <tr> <td>Assist. Tech.</td> <td>8</td> <td>11</td> <td>13</td> </tr> <tr> <td>Operation Serv.</td> <td>12</td> <td>16</td> <td>16</td> </tr> <tr> <td>Administrative</td> <td>4</td> <td>6</td> <td>8</td> </tr> <tr> <td>Field Personnel</td> <td>15</td> <td>16</td> <td>20</td> </tr> <tr> <td>Total:</td> <td>54</td> <td>70</td> <td>86</td> </tr> </table>	No. of personnel	CY	CY	CY	Las Brujas	73	75	77	Technicians	15	21	29	Assist. Tech.	8	11	13	Operation Serv.	12	16	16	Administrative	4	6	8	Field Personnel	15	16	20	Total:	54	70	86		
No. of personnel	CY	CY	CY																																
Las Brujas	73	75	77																																
Technicians	15	21	29																																
Assist. Tech.	8	11	13																																
Operation Serv.	12	16	16																																
Administrative	4	6	8																																
Field Personnel	15	16	20																																
Total:	54	70	86																																
	<p>Other indices: No. of grower meetings in which L. B. personnel participate; change in No. of station visitors; changes in No. of varieties tested and recommended; survey of No. of production practices modified; evaluation of research methods employed</p>																																		

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number : AGRICULTURAL PRODUCTION AND MARKETING.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																																																							
<p><b>Inputs:</b></p> <p><b>USAID:</b> 1. Participant training - 165 man/months of both short and long term training in agricultural related areas.</p> <p>2. Commodities.</p> <p>3. 174 man/months of contractual technical assistance in the fields of vegetable production, pomology, agronomy, communications, citrus, plant pathology, etc.</p> <p>4. Special agric. advisory services for 35 man/months.</p> <p><b>GOU:</b> 1. Ministry of Agriculture and Fisheries Research Stations Budget (Las Brujas and Salto).</p>	<p>Implementation Target (Type and Quantity)</p> <p><u>USAID</u> cumulative obligations through FY 76:</p> <table border="1"> <thead> <tr> <th></th> <th>FY 75</th> <th>FY 76</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">(in 1000 US\$)</td> </tr> <tr> <td>Tech. Assist.</td> <td></td> <td></td> </tr> <tr> <td>Contract</td> <td>180</td> <td>130</td> </tr> <tr> <td>T. A. Other</td> <td>60</td> <td>15</td> </tr> <tr> <td>Training</td> <td>135</td> <td>30</td> </tr> <tr> <td>Commodities</td> <td>20</td> <td>10</td> </tr> <tr> <td>Other costs</td> <td>0.5</td> <td>0.5</td> </tr> <tr> <td></td> <td><u>395.5</u></td> <td><u>185.5</u></td> </tr> </tbody> </table> <p><u>GOU</u> Las Brujas Station (in thousands of US\$)</p> <table border="1"> <thead> <tr> <th></th> <th>FY74</th> <th>FY75</th> <th>FY76</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>100</td> <td>200</td> <td>200</td> </tr> <tr> <td>Operation</td> <td>34</td> <td>60</td> <td>60</td> </tr> <tr> <td>Investments</td> <td>32</td> <td>50</td> <td>50</td> </tr> <tr> <td>Total:</td> <td><u>166</u></td> <td><u>310</u></td> <td><u>310</u></td> </tr> <tr> <td>Salto St.:</td> <td>150</td> <td>250</td> <td>250</td> </tr> <tr> <td>Total :</td> <td><u>316</u></td> <td><u>560</u></td> <td><u>560</u></td> </tr> </tbody> </table>		FY 75	FY 76	(in 1000 US\$)			Tech. Assist.			Contract	180	130	T. A. Other	60	15	Training	135	30	Commodities	20	10	Other costs	0.5	0.5		<u>395.5</u>	<u>185.5</u>		FY74	FY75	FY76	Personnel	100	200	200	Operation	34	60	60	Investments	32	50	50	Total:	<u>166</u>	<u>310</u>	<u>310</u>	Salto St.:	150	250	250	Total :	<u>316</u>	<u>560</u>	<u>560</u>	<p>AID/W approved PROPs and Evaluation Reports</p>	<ol style="list-style-type: none"> <li>1) The GOU will pay international travel and salaries for all participants.</li> <li>2) Other donors will continue to give priorities to this sector.</li> <li>3) GOU budgetary allocations will be sufficient to adequately support this project.</li> </ol>
	FY 75	FY 76																																																								
(in 1000 US\$)																																																										
Tech. Assist.																																																										
Contract	180	130																																																								
T. A. Other	60	15																																																								
Training	135	30																																																								
Commodities	20	10																																																								
Other costs	0.5	0.5																																																								
	<u>395.5</u>	<u>185.5</u>																																																								
	FY74	FY75	FY76																																																							
Personnel	100	200	200																																																							
Operation	34	60	60																																																							
Investments	32	50	50																																																							
Total:	<u>166</u>	<u>310</u>	<u>310</u>																																																							
Salto St.:	150	250	250																																																							
Total :	<u>316</u>	<u>560</u>	<u>560</u>																																																							

C. List of U. S. Advisors Under the University Consortium Contract.

(Including past, present and proposed).

Name and/or Title	Specialty	Dates		Man/Months
		From	To	
<u>A. Past - Terminated</u>				
Dr. John S. Boyle	Plant Pathology	1/15/73-	4/15/73	3
Dr. Rafael Cintron	Citrus	2/1/73 -	3/30/73	2
Dr. Rafael Cintron	Citrus	11/2/73 -	2/ 2/74	3
Dr. Anthony Hatch	Pomology	8/13/73-	11/13/73	3
Dr. Angus J. Howitt	Entomology	10/1/73 -	12/31/73	3
Dr. Wilford R. Mills	Potato Pathology	1/1/74 -	3/31/74	3
				<u>17</u>
<u>B. Present</u>				
Dr. William Hooker	Potato Pathology	9/29/74-	12/29/74	3
Mr. Stanley Mahaffy	Information	10/4/74 -	1/ 4/75	3
Dr. Oscar Taboada	Information	7/12/74-	3/31/76	20 $\frac{1}{2}$
Dr. Richard Stuckey	Plant Pathology	8/20/73-	3/31/76	31 1/3
Dr. Ronald Morse	Vegetable Spec.	7/ 1/73-	3/31/76	33
Dr. Chester W. Hitz	Pomologist, COP	12/10/72-	3/31/76	39 2/3
				<u>140<math>\frac{1}{2}</math></u>
<u>C. Proposed <sup>1/</sup></u>				
Mr. Art. Wells	Entomology	Jan. -	Mar. 1975	3
--	Agr. Economist	Mar. Apr. May,	75	3
Dr. Rafael Cintron	Citrus	Jan. - Mar.,	1975	3
--	Veget. Spec.	Feb. - Apr.	1975	3
--	Citrus Pathology	---		3
--	" Production	---		3
Dr. Bowen	Peach varieties	---		3
Dr. Howitt	Entomology	---		3
--		---		3
Unspecified		---		6
				<u>33</u>
TOTAL :				190 $\frac{1}{2}$

<sup>1/</sup> The difficulty from signing the contract between AID/W and PSU has delayed some assignments. The delay in the reorganization of citrus research at Salto has postponed or delayed other assignments.

Agricultural Production and Marketing ProjectTraining Summary

	<u>Long Term</u>		<u>Short Term</u>	
	<u>No. of Becas</u>	<u>Man/ Months</u>	<u>No. of Becas</u>	<u>Man/ Months</u>
<u>A. FYs 1968 thru 1972</u>				
1. In the U. S. A.	22	398	22	34
2. In third Countries	2	46	36	35
Sub-Totals :	24	444	58	69
<u>B. FYs 1973 and 1974</u>				
1. In the U. S. A.	14	159	5	5
2. In third Countries	3	57	39	163
Sub-Totals :	17	216	44	168
<u>C. Projected FY 1975</u>				
1. In the U. S. A.	7	108	-	-
2. In third Countries	-	-	12	10
Sub-Totals :	7	108	12	10

ANNEX E

Counterpart Personnel at Las Brujas

Fruits : 5 Ing. Agr. at Las Brujas including group leader.  
1 helper " " "  
1 Ing. Agr. at Wash. State Univ. for M.S.

Potatoes : 2 Ing. Agr. at Las Brujas including group leader.  
1 M.S. (Iowa State) at N. C. U. for Ph. D.

General Vegetables :

3 Ing. Agr. at Las Brujas.

Plant Pathology :

1 Ing. Agr. at Las Brujas.  
1 Student (all Ing. Agr. work completed) at Las Brujas.  
1 helper (part-time).

Entomology : 2 Ing. Agr. at Las Brujas, including group leader.  
3 helpers.

Information :

1 Ing. Agr. at Sayago.

Administration :

1 Ing. Agr. at Las Brujas and others, as helpers.

Publications and Special Reports

Published - 1. Fertilización de Frutales  
2. Calendario de Pulverizaciones (Spray Calendar)

Coming Out - 1. El Piojo de San José (San Jose Scale)

Awaiting Publication :

1. Poda del Duraznero (Peach Pruning)
2. Soils Erosion.

Pending : Brown Rot of Peach.

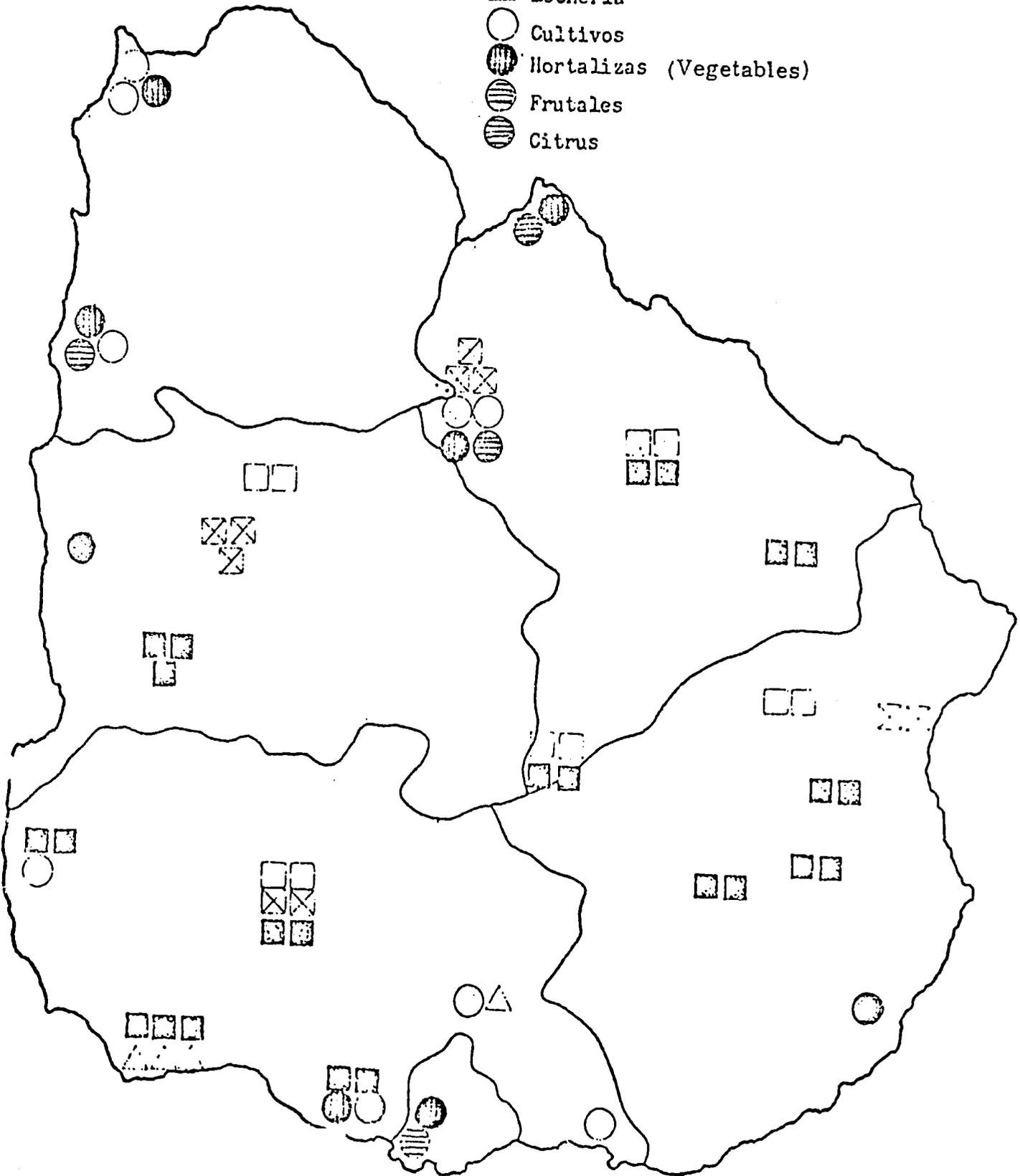
Proposed Publications

1. Chemical weed control in Vegetables
2. Chemical weed control in Fruit.
3. Disease & Insect Control of Vegetables.
4. Insect & Disease Control in Grapes.
5. Insect and Disease Control in Strawberries.
6. Fertilizing Potatoes.
7. Fertilizing Vegetables.
8. Field Crops.
9. Post Harvest Diseases of Fruits & Control
10. Post Harvest Diseases of Potatoes & Control.
11. Virus Resistant Pimientos.
12. Potato Storage.
13. Apple Storage.
14. Vegetable Storage.
15. Growing Tomatoes.
16. Onion Production.
17. Lentil Production.
18. Strawberry Production.
19. Green Bean Production.
20. Dry Bean Production.
21. Producing Melons.
22. Fig Culture.
23. Pear Culture
24. Peach Culture.
25. Almond Culture.
26. Apple Culture.
27. Cherry Culture.
28. Grape Culture.
29. Fruit Grading.
30. Hot bed & Greenhouse Plant Production.
31. Honey Bees - Pollination & Honey.

Special Manuscripts Prepared by Consortium Specialists

- Morse, R. Processing Tomatoes in Uruguay.  
12 pages. April, 1974.
- Stuckey, R. Apple Scab Research at Las Brujas.  
8 pages. May, 1974.
- Hitz, C. W. Post-harvest Control of Monelia and Rhizopus  
Rots of Peach. 21 pages. June, 1974.
- Morse, R. Increasing the Productivity and Storage Capacity  
of Dry Onions. 22 pages. July, 1974.
- Stuckey, R. Experimentation of Early and Late Blight  
Diseases of Potatoes. 11 pages. Oct. 1974.
- Hitz, C. W. A. Formento and R. Tállice. Fruit Shape of the  
Delicious Apple. 13 pages. October, 1974.
- Izquierdo, J. A. and R. Morse. First Selection for Wilt  
Resistance in Lentil (Lens Culinaris Medikus)  
Manuscript to be submitted for publication in U.S.A.  
7 pages. November, 1974.

- Cría/Lana
- ⊗ Cría/Agricultura
- Engorde/Agricultura
- △ Lechería
- Cultivos
- Hortalizas (Vegetables)
- ◐ Frutales
- ◑ Citrus



Mapa 4.03.4. Ubicación de las Unidades Experimentales y Demostrativas de Producción y los sistemas de producción que se desarrollarán en cada una.

Importance of Agricultural Economics \*

Agricultural production and marketing economic research is necessary to more fully complete the interdisciplinary research effort. This is based on the four following considerations :

1. The Uruguayan technician is in general poorly trained in applied economics and the MAP does not have an economic service that assists the technician in selection of research priorities, experimental design nor evaluation and communications of results based on economic criteria.
2. Due to the adverse price-cost relationship in Uruguay the economic evaluation of production increasing technology, often based on off farm inputs, is essential to define practices that can be implemented by producers whose primary objective is increasing profits.
3. Research is primarily concerned with highly perishable commodities. There has been only limited consideration of the marketing problems associated with increasing production both at domestic and foreign level (in channels, as well as form of product, i.e. grading, processing, etc.). The competitive position has not been established for the different potential export commodities, an essential point in establishment of research priorities.
4. There is a lack of credibility of research effort in Uruguay in the eyes of the producers and policy makers. Communication of research results in as complete a "package" as possible including economic implications is required to overcome this view of research and strengthen a supportive relationship between the technician, producers and those who determine agriculture policy.

An initial effort in agricultural economic research could serve as an orientation and take off point for future effort as one might anticipate in the proposed AID loan project and the OPYPA support of the Plan Granjero.

---

\* Ideas requested of Dr. James McGrann.