

PURDUE UNIVERSITY

International Education and Research  
International Programs in Agriculture

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**PORTUGAL UNIVERSITY  
INSTITUTES  
DEVELOPMENT PROJECT**

(Contract AID/NE-C-1701)

**SECOND SEMI-ANNUAL REPORT  
February 26 to August 25, 1981**

PORTUGAL UNIVERSITY INSTITUTES DEVELOPMENT PROJECT  
(AID CONTRACT - AID/NE-C-1701)  
SECOND SEMI-ANNUAL REPORT  
FEBRUARY 26 TO AUGUST 25, 1982

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PORTUGAL UNIVERSITY INSTITUTES DEVELOPMENT PROJECT

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INTRODUCTION AND SUMMARY

This report describes the activities of the second semi-annual period of a project which began August 25, 1980. In the program, Purdue University is assisting in the overall institutional development of three new Portuguese universities:

1. Instituto Universitario da Beira Interior (IUBI) at Covilha.
2. Instituto Universitario de Trás-os-Montes e Alto Douro (IUTAD) at Vila Real.
3. Universidade de Evora (UE) at Evora.

Purdue is assisted in this effort by Clemson University under a subcontract. Clemson assists IUBI with various aspects of its Textile Science and Technology program.

By the early part of this period, the project was fully operational. All long-term advisors were in place and beginning ambitious programs, and the efforts of short-term staff assigned to the project had begun. Participant training programs, which always face some lag time due to language preparation and planning requirements, developed well during the period.

Five individuals served as short-term advisors in Portugal in the areas of agricultural economics, nonwoven textile technology, extension methodology, and forage production and utilization.

Two students continued in academic programs in the US. Five individuals came to the US for short-term training in a variety of areas.

The draft project implementation plan was completed during the period. This involved considerable revision of the original project plans as a result of changes in the nature and objectives of the three Portuguese institutions since the project was conceived. It is being evaluated and revised in Portugal.

Routine procedures for effectively handling administration of short-term staff and trainees were established during the period. Communication linkages between the Portuguese institutions and Purdue were strengthened.

Some administrative problems exist which demand continuing efforts towards resolution. All three institutions face shortages of vehicles for area transportation. Vehicles to be provided by the project through local currency arrangements have not been made available. This hampers activity of both long- and short-term staff.

#### PROJECT STAFF

There has been no change in the long-term, professional staff in residence at the three cooperating university institutes in Portugal. The backstopping staff at Purdue University and Clemson University also remains the same as reported in the previous six-months report. A number of short-term advisors were at the three Portuguese universities during this reporting period.

#### Long-Term Staff In Residence In Portugal

1. Dr. Julian H. Atkinson, Professor of Agricultural Economics at Purdue University, still serves as Purdue University's coordinator in the field and as Project Coordinator at Covilha. Dr. Atkinson will be

terminating his assignment in December, 1981, to return to the United States. A replacement for this position is being sought.

2. Professor John R. Foley, Agricultural Engineer and Extension Specialist at Purdue University, is serving as Project Coordinator at Vila Real. His assignment will be completed in August, 1982.
3. Dr. John H. Sanders, Associate Professor of Agricultural Economics at Purdue University, arrived in Portugal on March 12, 1981, to commence his assignment as Project Coordinator at Evora. His assignment will be completed in March, 1983.
4. Dr. James L. Ahlrichs, Professor of Agronomy at Purdue University, is on long-term assignment at Vila Real as a visiting professor. He is assisting the university at Vila Real in the soil science research and testing programs area and in strengthening their educational programs in agricultural sciences. His tour-of-duty will terminate in January, 1983.

The following illustrates but a few of the activities which the long-term staff members from Purdue have been involved in during this reporting period.

Dr. Julian H. Atkinson made the necessary arrangements for the arrival of two short-term advisors to Covilha, Dr. Robert L. Thompson and Dr. Hassan Behery. A great deal of his time was spent in preparing for and coordinating the Extension Training Workshop which was held at Covilha June 15-26, 1981. Dr. Atkinson presented three seminars on Research Methods and a seminar on Institution Building. He assisted Professors Lisboa and Lucas in their preparation and departure plans for short-term training in the United States. He was involved in two meetings held by the three Joint Institutes which helped to clarify project operations and to promote cooperation with other agencies. Dr. Atkinson has also been dealing with the problem of English training for the

Covilha staff members and short-term trainees, since the person hired to provide the training was not able to fulfill his obligation due to illness. A considerable amount of his time continues to be spent on administrative duties, meetings with USAID and university administrators, and preparing for short-term advisors at Covilha and preparing participants for training in the US.

Professor Foley assisted Dr. Atkinson in preparing for, coordinating, and presenting the Extension Training Workshop. He attended the two Joint Institutes Program meetings which were held during this period, one which was hosted by Vila Real. Preparing for the arrival of two short-term advisors, Drs. Robert L. Thompson and Charles L. Rhykerd, and making preparations for Prof. Francisco Rego to obtain short-term training in the US consumed a considerable amount of Professor Foley's time. As Project Coordinator at Vila Real, much of his time was spent performing administrative duties, attending meetings, and presenting seminars. He was also involved, jointly, with the Institute and the Regional Directorate of the Ministry of Agriculture to further develop the concepts of an extension role for the Institute.

Dr. James L. Ahlrichs initiated a new soil sample handling system in May. This system is more efficient and has eliminated the need for expensive and bulky storage jars. He is also developing a collection of soil monoliths for use in teaching and extension. Almost total agreement was reached on plans proposed for remodeling and equipping the soil testing laboratories of Portugal. Further study and preparation was conducted in the areas of soil characterization and forage and fertility. Dr. Ahlrichs presented several seminars, attended conferences and visited the National Agricultural Fair at Santarem. The program which Dr. Ahlrichs initiated to improve the research library facilities at IUTAD by obtaining sets of scientific journals from his colleagues at Purdue is beginning to show results. Several sets of scientific

Journals have been sent to Vila Real with the promise of more sets which will be made available.

Dr. Sanders arrived at the University of Evora in March 1981. The beginning of his assignment was spent in getting acquainted with the administrators and faculty at Evora, as well as visiting farms and research stations in the Alentejo. Discussions were held with the eight departments at the University to discuss their research projects and plans. Dr. Sanders organized two seminars which were presented by Dr. Robert L. Thompson and Dr. Ferrelra de Miranda, as well as a lecture presented by Dr. James Ahlrichs. He planned and made preparations for Dr. Thompson's short-term assignment and for three Evora staff members to come to the US for short-term training. The possibility of obtaining English training for professors at Evora was discussed with university administrators and, as a result, an English teacher was hired who will provide training for university personnel and World Bank and MAP personnel.

#### Short-Term Professional Advisors

Dr. Robert L. Thompson, Professor of Agricultural Economics, Purdue University, served as a short-term advisor from April 20 - May 24, 1981, at the universities of Evora and Vila Real. He spent three-and-one-half weeks at Evora. He met with faculty members to plan future applied research and extension as it pertains to the impact on Alentejo agriculture upon entry to the European Common Market. He presented seminars on this subject and made inputs into the university's course curricula. During the week he was at Vila Real, Dr. Thompson met with each faculty member in the Department of Agricultural Economics and helped organize and presented four opening presentations at a Symposium on the European Common Market. Approximately 70

People attended the Symposium from the three universities, various agricultural organizations and governmental representatives. He spent two-and-one-half days at Covilha and met with administrators and staff of the Department of Management. He also presented a seminar while at Covilha.

Dr. Hassan Behery, Professor of Textile Science, Clemson University, was at Covilha from May 15 - June 15, 1981. Dr. Behery's assignment was in the area of textile technology with emphasis on nonwoven technology. He taught a course on nonwoven technology which was attended by university students, industry representatives, and the faculty of IUBI. Slides and transparencies used during the course were presented to IUBI for their use. Dr. Behery also presented seminars on nonwoven technology; three seminars were given for individuals from industry, IUBI faculty and the Textile Institute at Covilha. Discussions were held with the Reitor and IUBI staff about their interest in commencing work in the area of rheology. Publications and references were presented to the university on this subject. Discussions were also held with the university administrators on the overall needs of IUBI and recommendations were made on how Clemson could best help. At the request of the Reitor, Dr. Behery presented a seminar on Textile Physics and Technology. He assisted in setting up new equipment received by the Textile Institute and held private consultations at the textile mills on construction of new nonwoven plants.

Dr. Robert J. Frist of Purdue's Cooperative Extension Service was at the University of Covilha from June 4 - July 3, 1981. During the first week of his assignment, Dr. Frist assisted Dr. Atkinson with preparation for the Extension Training Workshop. The following two weeks, he and Dr. Robert W. Pricer conducted the workshop. The remainder of his stay was spent in workshop wrap-up activities; meetings with the Covilha/Vila Real Reitors and staff; meetings with the regional office of the Ministry of Agriculture personnel;

touring nine farms with Portuguese colleagues to observe on-going research and extension programs; and developed recommendations for extension. Details of the workshop can be found in this report under the heading of "Educational and Training Programs."

Dr. Robert W. Pricer was at the University of Covilha from June 4-July 3, 1981. Dr. Pricer is the Director of the Small Business Development Center at the University of Wisconsin. He was hired as a consultant by Purdue University to conduct the Extension Training Workshop along with Dr. Frist. Dr. Pricer's first week was spent helping to coordinate and finalize plans for the workshop. The next two weeks he and Dr. Frist conducted and made presentations at the workshop. The final week was spent in wrap-up activities of these meetings.

Dr. Charles L. Rhykerd, Department of Agronomy, Purdue, was on short-term assignment at Vila Real and Evora from June 14 - August 14, 1981. He fulfilled the request for an advisor in the areas of pasture and forage. While at Vila Real, he gave four conferences; advised and assisted IUTAD specialists in forage, animal nutrition and soil fertility; and helped to design research experiments in these three areas. Two hundred forage and grape samples were collected and brought back to Purdue for mineral analysis.

At Evora, Dr. Rhykerd gave three seminars, one of which was presented to the National Livestock Center at Santarem. He met with personnel of the World Bank to discuss forage production and utilization in southern Portugal.

Dr. Rhykerd was at Covilha informally to visit with Dr. Atkinson and to meet members of the faculty at the Instituto Universitario da Beira Interior. During his stay in Portugal, he met USAID representatives and discussed his research activities.

Informal visits were made by Purdue University staff to Vila Real and Evora during this reporting period. These visits were made by:

Drs. Clifford Spies and Edward Ferringer were in Portugal from April 18 - May 9, 1981, as members of a Study Team for the USDA PROCALFER Project. The main objective of their assignment was to assist in the planning and development of educational materials and programs aimed at promoting limestone and fertilizer use in Portugal. While in Portugal, they traveled to Vila Real and met with the Region III PROCALFER coordinator, the Regional Director of Extension, and Foley and Ahlrichs to review extension organization and problems.

Dr. Roy Bronson visited Vila Real on May 25, 1981. Dr. Bronson is a professor in the Department of Agronomy at Purdue and is currently on assignment to Abidjan, Ivory Coast, under the Purdue/AID Contract to provide agricultural technical skills and institutional services to the Regional Economic Development Services office in West Africa. Dr. Bronson who is a soils scientist with testing laboratory experience, made useful suggestions and recommendations for developing an efficient laboratory design.

Dr. John D. Axtell, Professor of Agronomy at Purdue University and a key member of a group of sorghum researchers from major US universities, spent several days at the University of Evora. While there, he presented several seminars on sorghum research and discussed interest and opportunity for initiating several types of sorghum research at the University of Evora.

#### On-Campus Staff -- Purdue University and Clemson University

There have been no changes in the professional and administrative staff at the Purdue or Clemson campuses. Dr. Hassan Behery remains as on-campus coordinator for the subcontract between Purdue and Clemson. At Purdue, Dr. James Collom is on-campus coordinator, and Vivian Rider serves the project as administrative assistant/executive secretary.

## PROJECT ACTIVITIES

Many of the project activities have already been covered under the long-term and short-term staff assignment sections of this report. Other project activities are:

### Project Implementation Plan

A draft of the Project Implementation Plan was completed by Purdue. Copies for review and revision were sent to the AID/Washington Contracting Officer, the AID Mission in Lisbon, and the Rectors at each of the three Portuguese universities. The Implementation Plan was developed by Dr. James L. Collom, Purdue University's on-campus project coordinator. After the document has been reviewed and revised, it will be used as a guideline for the project operation.

### PROCALFER (Ministry of Agriculture/USDA) Project

As referenced above, some ties are being created between activities of the University Institutes Project and the PROCALFER Project for which USDA is the prime contractor. An advisory committee for the PROCALFER Project has been established composed of representatives of USDA and those US universities who are assisting in the project. Dr. Collom represents Purdue and serves as co-chairman. A number of activities have occurred which compliment both projects. The soils laboratory at Vila Real will carry out soil analyses for the PROCALFER Project and will receive equipment from that Project. Dr. Ahlrichs is, of course, helping to develop more rapid analysis techniques and is otherwise advising Ministry soils personnel.

A number of activities have involved both Ministry (PROCALFER) Staff and

University Institute staff in efforts to determine how extension activities can be improved and expanded by joint actions between these two groups. The Extension Training Workshop at Covilha included Ministry of Agriculture as well as University staff.

Purdue also served as host for several PROCALFER trainees in the US for specialized training during this reporting period.

#### Identification of Short-Term Professional Advisors

Identifying appropriate short-term professional advisors is an on-going part of on-campus project activities. Every effort is made to find advisors which will meet the needs of the universities in Portugal. Several advisors have been identified for assignments at Evora and Covilha, including Dr. Jules Janick of Purdue's Horticulture Department who will be assigned to the project during the period of September 10 - October 10, 1981.

### EDUCATIONAL AND TRAINING PROGRAMS

#### Extension Training Workshop

An Extension Training Workshop was held at the University of Covilha from June 15 - 26, 1981. The purpose of the workshop was to assist faculty from the three Portuguese universities to develop expertise required to organize and conduct short courses for training extension workers and to provide faculty with the required knowledge to train other university staff to carry out present and planned extension programs.

Professors Atkinson and Foley planned and organized the workshop cooperatively with faculty from the three universities. Drs. Robert W. Pricer and Robert J. Frist conducted the workshop.

Over twenty participants attended the workshop. Seventeen of the twenty took part in all of the sessions and completed all assignments. Attendees included faculty from Vila Real, Covilha and Evora, representatives from the Ministry of Agriculture's extension agency and other organizations.

A major part of the instructional time and group discussions were devoted to the following topics:

- Needs, assessment and program planning
- Involvement of advisory groups in program planning
- Mission and purpose of extension in Portugal
- Professional growth and staff development
- Developing linkages among/between agencies and organizations
- Descriptions of numerous forms and worksheets used for conducting extension conferences, workshops and meetings.

At the completion of the workshop, certificates were presented to the participants by administrators of the three universities and the Ministry of Agriculture.

The workshop was evaluated as highly successful. Plans were made by the participants to conduct follow-up evaluations on the effectiveness and results of the workshop. It is hoped that the workshop will help to provide action towards furthering extension education programs at the universities.

#### Advanced Degree Educational Programs

As reported in the First Six-Months Report, two Portuguese faculty members are in training for advanced degrees. They are:

Manuel Teles Oliveira, Vila Real, Portugal. Mr. Oliveira will complete his studies at the University of Wisconsin for the Master of Science Degree in Agronomy in December, 1981. He has requested an extension in order to obtain

his Ph.D. degree before returning to Portugal.

Carlos Alberto Sequeira, Vila Real, Portugal, will complete the requirements for a Ph.D. degree in Animal Nutrition from Cornell University in December, 1981.

#### Non-Degree Specialized Training Programs

Maria Mendonca Covas, Evora, Portugal. Mrs. Covas arrived in the United States on June 15, and returned to Evora on August 15, 1981. She spent two months at the University of Georgia, Athens, Georgia, under the supervision of Dr. Amanda Brown. The program was designed to provide her with an introduction to the latest developments in teaching and research in the field of Family Resource Economics, and for training to implement these methods. Topics of her program included: Identification and solution of problems of teaching Family Resource Management and use of the problem solving approach in finding solutions. To complete her program, Mrs. Covas designed an extension short course and a unit of instruction on money management. As a supplement to her program, she attended the American Home Economics Association Meetings in Atlantic City, Georgia.

Mr. Victor M. C. Dordio, Evora, Portugal. Mr. Dordio spent two months at Iowa State University from June 1 - September 1, 1981. Dr. Peter Calkins, Iowa State University, supervised his program. Mr. Dordio attended a short course at the Agriculture Credit School until June 19. During Iowa State's summer session, he enrolled in two courses -- Agriculture Finance and Economics of Agriculture Production and Farm Management Decisions. In July, he attended the American Agriculture Association Conference at Clemson, South Carolina. He came to Purdue in August and attended the Top Crop Farmers Workshop, conferred with agricultural economists, and attended several activities with extension

specialists from the Department of Agricultural Economics.

Mrs. Leonor Maria Carvalho, Evora, Portugal. Mrs. Carvalho arrived at Purdue University on August 24, 1981, to commence short-term training. She is attending graduate courses in the Department of Agricultural Economics, which include Mathematical Programming and Advanced Agricultural International Trade. She is also auditing Economics of Production and an English course. She will return to Evora on December 19, 1981.

Mr. Francisco Rego, Vila Real, Portugal. Mr. Rego is enrolled at the University of Idaho under the supervision of Dr. Lee Sharp, Department of Range Resources, and Dr. Abel, Department of Forest Resources. Mr. Rego arrived at the University of Idaho on August 22, and will depart on December 19, 1981. His training includes planning and planting for fire control in mountainous regions. Also included in his training are methods of planning and planting to improve mountain pastures for sheep and goats. He is also studying and observing research being done on forest variety improvement, selection of varieties for maximum production, and research in production, management and harvesting methods.

Jose Mendes Lucas, Covilha, Portugal. Dr. Hassan Behery has been supervising Mr. Lucas' work since his arrival at Clemson University on August 16. Mr. Lucas is enrolled in courses on Fiber Physics, Advances in Textile Processing and English Fundamentals. Dr. Behery has also arranged for Mr. Lucas to enroll in a one-week short course on cotton testing, classing and marketing. A number of field trips to the USDA research facilities in fiber quality have been scheduled, as well as visits to various textile manufacturing facilities. Mr. Lucas will complete his training and return to Portugal on December 15, 1981.

Maria Barrisco, University of Evora. Training for Gra. Barrisco continued

during this reporting period. She has worked on animal reproduction problems in Texas, Colorado, New Mexico, Davis, California, and at Purdue. She returned to Portugal in March.

#### COMMODITIES FOR PROJECT USE

During the second six months of the project, the following items were purchased and sent to the three institutions in Portugal:

1. An additional set of stainless steel soil scoops for testing soil at Vila Real.
2. Miracloth filter requested by Vila Real.
3. Heavy duty converters needed to operate office equipment.
4. Two letter boards and a large quantity of changeable letters for use at Vila Real.
5. A number of books and publications for each of the institutions.

#### ADMINISTRATIVE AND LOGISTICAL ISSUES

##### Local Currency Support

1. Project Vehicles - Each of the three Portuguese institutions face some difficulty in having adequate vehicles to provide for their program requirements. In order to ensure support for project activities, the local currency budgets have included funds for purchase of 4 vehicles. Government restrictions have so far prevented purchase of any of these vehicles. Project staff are using personal vehicles, and existing University vehicles are made available as is possible. Nevertheless, lack of readily available vehicles

which can be dedicated to meet requirements of project activities by either long- or short-term staff constitutes a handicap.

2. AirLine Tickets - Under the procedure used to provide airline tickets in this project, the appropriate Portuguese institution requests that a pre-paid authorization to issue a ticket be provided through Air Portugal at the origin in the US. Thus, US staff who are going to Portugal advise the routing to Portugal and Air Portugal either emits a ticket in New York and mails it to the individual or asks the initial carrier to emit it. In virtually all cases to date, this has not worked as predicted. Numerous errors have occurred, great confusion marks every ticket emission, and substantial time and effort is being invested by Purdue in complicated efforts to achieve what should be a simple process. Individual staff have also been inconvenienced by this process.

3. Educational Allowances - Considerable confusion has occurred during the period in regard to payment of educational allowances for dependents of Purdue staff assigned to the project. The difficulty arises from the fact that while the original RFTP and the Purdue/AID Contract describe educational allowances as payable from escudo funds, the agreement between AID and the Government of Portugal specifies such costs be paid from dollar budgets. While some payments are being made in escudos, it has been difficult to get payments arranged for promptly as a result of the discrepancy. It is anticipated that a contract amendment will eventually resolve this issue.

#### PROJECTED ACTIVITIES FOR NEXT SIX MONTHS

In addition to activities already in place, Purdue University anticipates that the following activities will be initiated and/or continued:

1. Prepare and submit a proposal for a two-year extension of the project.
2. Identification and placement of a long-term project coordinator to fill the position at Covilha left vacant by Dr. Julian Atkinson.
3. Revision and finalization of the Program Implementation Plan.
4. A visit to Portugal by Dr. D. Woods Thomas, Director of International Education and Research and International Programs in Agriculture at Purdue University, to participate in meetings with Mission personnel and the Purdue Project Coordinators.
5. Continue to identify short-term trainees, and assist them by making arrangements to come for US training and by administering their programs of study in the US.
6. Provide short-term advisors for appropriate assignments at the three Institutions.

#### PROJECT BUDGETARY SUPPORT

##### Contract Dollar Budget and Expenditures

Funds available for year one in the dollar budget totaled \$870,284. At the end of this reporting period, expenditures totaled \$460,698. Table I of this report gives a summary of the dollar budget.

Purdue University does not have available information on use of escudo funds in support of project activity.

TABLE 1

Dollar Budget  
Portugal University Institutes Development Project  
Life of Project Funding, 1980-1984

TABLE 1. Dollar Budget, Portugal University Institutes Development Project  
Life of Project Funding, 1980-1984

Budget Item	Total 4 Year Budget	Year 1 Budget	Spent/ Committed Thru 8/31/81	Balance Year 1	Year 2 Budget	Year 3 Budget	Year 4 Budget	Four Year Balance
Salaries and Wages	\$1,152,472	\$362,010	\$249,400	\$112,610	\$ 451,036	\$246,413	\$ 93,013	\$ 903,072
Fringe Benefits	330,543	107,054	45,144	61,910	127,669	70,545	25,275	285,099
Travel & Transportation	43,015	16,175	14,938	1,237	9,670	13,170	4,000	28,077
Participant Training	629,695	152,250	36,915	115,335	245,775	87,820	143,850	592,780
Other Direct Costs	46,700	15,500	13,256	2,244	15,500	11,400	4,300	33,444
Indirect Costs	695,000	217,295	101,045	116,250	262,813	152,387	62,505	593,955
TOTAL	<u>\$2,897,425</u>	<u>\$870,284</u>	<u>\$460,698*</u>	<u>\$409,586</u>	<u>\$1,112,463</u>	<u>\$581,735</u>	<u>\$332,943</u>	<u>\$2,436,727</u>

\* Actual expenses for Purdue portion of contract thru 8/31/81. Clemson subcontract only billed for expenses through 6/30/81 so figure shown includes estimates for Clemson in July and August, 1981.