



POSTHARVEST INSTITUTE FOR PERISHABLES

DEVELOPMENT OF POSTHARVEST LOSS REDUCTION
& MARKETING SHORT COURSES FOR URUGUAY,
& SCHOOL NUTRITION IMPROVEMENT PROPOSAL FOR ECUADOR

by

Thomas V. Dechert

Cooperative Agreement AID/DAN-1323-A-00-5093-00
USAID Science & Technology Agriculture

GTS Report No. 102

May, 1988

Funded by
Government of Uruguay
Postharvest Institute for Perishables



University of Idaho

College of Agriculture

in cooperation with

**United States Agency for
International Development**

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Postharvest Institute for Perishables
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POSTHARVEST INSTITUTE FOR PERISHABLES

Instituto para el Estudio de Pérdidas Post-cosecha en los Cultivos Perecederos
Institut pour l'Étude des Pertes Post-récolte de Cultures Périssables

September 14, 1988

Ms. Deborah Wilson-Romero
Document Acquisitions
AID/PPC/CDIE/DI
SA-18, Room 209
Washington, D.C. 20523

Dear Ms. Wilson-Romero:

Enclosed is a copy/copies of the report done by Thomas V. Dechert in May, 1988 titled, "Development of Postharvest Loss Reduction & Marketing Short courses for Uruguay, & School Nutrition Improvement Proposal for Ecuador."

Sincerely,

Harvey C. Neese
Acting Director/Field Director

HCN/yds/LTRURURP

Enc: PIP/Uruguay/May 88/No. 102

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EXECUTIVE SUMMARY

The Postharvest Institute for Perishables (PIP) Assistant Field Director was invited to Uruguay to evaluate training needs in the areas of postharvest handling and marketing of fruits and vegetables. In consultation with officials from the Uruguayan Office of the President, the Uruguayan Ministry of Agriculture and Livestock, and the Representative of the U.S. Agency for International Development, a series of three short courses to be organized by PIP were designed and proposed for funding by the Government of Uruguay.

This report includes background information about the Uruguayan need for training in postharvest handling and marketing of perishable commodities for export, three proposals for the short courses with course outlines, a list of Uruguayan contacts who would be interested in and could contribute to the short courses, a list of organizations which are exporting fruits and vegetables from Uruguay, and other background material for the development of the courses.

In addition, the report covers activities in Chile and Ecuador, including tours of the University of Chile and the Chilean fruit and vegetable industry, the development of a field trip in Chile for the Uruguayans, the development of a proposal to improve the nutrition of Ecuadorian school children, and meetings with various Ecuadorian officials regarding PIP activities.

ACKNOWLEDGEMENTS

The trip to develop the short courses described in this report was initiated by invitation from the USAID Representative in Uruguay, and the Office of the President of the Republic of Uruguay. The Postharvest Institute for Perishables (PIP) wishes to acknowledge the major roles of Dr. Paul Fritz and Mr. Brian Braneman from the USAID Representative's Office, and Lcdo. Betolotti and Ing. Agr. San Julian from the Uruguayan President's Office. With the encouragement of the USAID Representative, the Government of Uruguay planned and funded the trip to Uruguay for PIP to evaluate training needs and develop the short courses. The correspondence and agreements setting up the trip are included as Appendix I. The efforts and contributions of all of these gentlemen who made the trip a reality and a success is greatly appreciated.

Taking advantage of the trip to Uruguay, visits were also made to Chile and Ecuador to develop other programs. In Chile, the PIP representative was hosted by Dr. Antonio Lizana, Dean of the College of Agricultural and Forestry Sciences at the University of Chile. Dr. Lizana graciously provided housing in his home as well as guided tours of his college and the fruit and vegetable industry in central Chile. PIP is most grateful to Dr. Lizana for his wonderful hospitality.

EXECUTIVE SUMMARY

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URUGUAY, CHILE, ECUADOR TRIP REPORT

April 8, 1988 -- May 1, 1988

Introduction and Summary

The Assistant Field Director, Thomas V. Dechert, of the Postharvest Institute for Perishables (PIP) from the College of Agriculture at the University of Idaho, travelled to Uruguay, Chile, and Ecuador to discuss with various agencies the development of training courses and other activities utilizing the resources of PIP. The trip was initiated by invitation from the USAID Representative in Uruguay, Dr. Paul Fritz, to review in-country training needs and to discuss with the Government of Uruguay (GOU) the design and financing of a proposed workshop. Copies of three cables containing the USAID/Montevideo request, the PIP response, the USAID/Montevideo confirmation, and the trip itinerary appear as Appendix I.

In addition to the time spent in Uruguay, the trip included travel to the University of Chile in Santiago, Chile to develop a field trip for the Uruguayan participants of the proposed workshops, and travel to Ecuador to meet with USAID Mission personnel and pursue PIP activities there. In Uruguay and Ecuador, I collaborated with Mr. Aidan Gulliver of Deloitte, Haskins and Sells (DHS) in the development of activities for the Agricultural Marketing Improvement Strategies (AMIS) project.

Arriving in Uruguay, I was met at the airport by Ing. Agr. Jorge San Julian, Director of the Northwest Apex Unit (Unidad Vertice Noroeste (UVN)) of the Direccion de Proyectos de Desarrollo (DIPRODE), of the Office of Planning and Budget (OPP) for the President of the Government of Uruguay. DIPRODE is a special unit within the GOU

President's Office to coordinate the implementation of development projects. Ing. San Julian directs a group of projects centered in the Department of Artigas and oriented to the diversification of agricultural production in the region. Ing. San Julian and his office had made arrangements for my trip and were most gracious hosts for my stay in Uruguay. I appreciated all their efforts -- I enjoyed both my work and leisure time in Uruguay which was a result of their generous hospitality.

Ing. San Julian and I began by looking at the alternatives for a short course or courses for the Uruguayans, which included conducting the course in Uruguay, in Chile, in the U.S. -- either in Idaho, or California, or both, -- and covering such topics as marketing and marketing systems, postharvest biology and technologies, systems approaches to project development, degree training, and a field trip to Chile. Given the costs of each alternative, the money the GOU has available, and the needs of the proposed participants, we decided that the best alternatives would be two short courses in Uruguay, one in postharvest biology and technology, and the other in export marketing. In addition, we discussed a possible field trip to Chile after the two short courses in Uruguay to observe how the Chileans are applying postharvest and marketing principles in their successful fruit and vegetable export programs.

The rest of my time in Uruguay was spent meeting with officials of USAID and various Uruguayan government and private sector officials receiving their input for course content, and writing draft outlines for the courses. Ing. San Julian and I agreed that the GOU and the University of Idaho would develop a contract for the courses once we had agreed on the content, participants, trainers, and costs for the courses. The proposals for the two short courses, as

submitted by PIP to the GOU for approval, are included as Appendices II and III. Approval by the GOU is pending.

Background of Uruguayan Short Courses

The agricultural sector is considered critical to the development of the Uruguayan economy. This sector contributes approximately 13% of GDP, employs 17% of the labor force, generates 90% of the country's total exports of basic products and processed goods, and provides almost 100% of the food consumed domestically plus the raw materials needed for the processing industry.

Uruguay's area suitable for agriculture is its greatest known exploitable natural resource -- Uruguay has few other known natural resources which could contribute substantially to its development. Of the 16 million hectares available for agriculture, approximately 60% is suitable for grasses, and the other 40% is suitable for crops; however, only about 10% of the land is currently being cropped. Of the 40% suitable for crops, fully 60% is suitable for intensive cropping. The primary natural constraint to the use of these lands is the variability of temperature and precipitation within growing seasons and from year to year.

In spite of the recognized potential of Uruguay's land, it is minimally exploited. Almost 90% of the country's land is in grasses, and of that 95% is in natural grasses. These lands are used for extensive, rather than intensive, livestock production and have been the backbone of the Uruguayan economy. Because of Uruguay's small population, the 10% of the land which is cultivated for crops is more than adequate for domestic needs. The abundance of land has allowed sufficient production without the introduction of technology and more intensive agricultural practices. The land offers an immense resource available for economic development through intensification.

Uruguay's primary source of capital generation has been the livestock sector, with exports of frozen meat, meat products, and other livestock products. In the last decade, private initiatives have begun exporting milk, rice, citrus fruits, and barley in small quantities. In the same time period, the value of livestock product exports has declined dramatically, by as much as 90% according to some reports. The reasons for the decline in export values include decline in product prices, import quotas or restrictions in other countries, livestock disease problems, lack of technology upgrading in Uruguay, lack of marketing, and other problems which have made Uruguayan export products less competitive world-wide.

Recognizing the dramatic decline in income to the agriculture sector, and the economy as a whole, the GOU has launched several programs to revitalize agriculture. The GOU recognizes that, in the short term, it must revitalize the livestock sector in order to keep the national economy from continuing to worsen. On the other hand, the GOU recognizes that it also must diversify agricultural production in order to avoid the cyclical swings of an economy based on a narrow range of commodities.

Given land as the major exploitable natural resource in the country, and the saturated nature of the domestic markets -- Uruguayans are generally well-fed with a wide range of food available -- export of non-livestock agricultural products appears to be a likely avenue for diversification of the economy. Especially, as the Uruguayans see the success of Chile in the export of fruits and vegetables to northern hemisphere markets, it becomes clear that this is a possible strategy for Uruguay as well.

The GOU has embarked on several programs for diversification of agricultural production for export. In some cases, it has secured loans from international lending agencies for specific projects. Given the fairly narrow focus and non-progressive approach to agriculture in Uruguay in the past, there's a significant lack of agricultural development expertise in the country. Even though Uruguayans in general are fairly well educated, the GOU is currently seeking technical assistance and training in specific areas of expertise which have not been emphasized in the past. Fruit and vegetable production, postharvest handling, and marketing are areas in which the level of understanding and technological development are not adequate to result in competitive products internationally.

The University of Idaho and PIP have become involved in two projects which are receiving funding from the U.S. Agency for International Development (USAID). Dr. Ron Curtis from the University of Idaho Office of International Trade and Development visited Uruguay to review a GOU program to stimulate economic development through agricultural diversification in the Department of Canelones, near Montevideo. Dr. Curtis made four specific recommendations for the development of the project, one of which was training of individuals involved in different aspects of the development projects. My trip to Uruguay to develop training courses was the result of that recommendation.

Results of Trip to Uruguay

Apart from the proposals for the two short courses, which were the expected results from the trip (Appendices II and III), a number of other results are noted as they will be of interest for the implementation of the short courses.

1. Background Materials

In addition to the materials referred to in the course outlines as relevant to the topics to be covered, the following materials were collected and are available at PIP. These are important for an understanding of the Uruguayan agricultural and UVN Project status.

- a) Inter-American Development Bank, 24 November 1987, Project Report: Uruguay Agricultural Technology Generation and Transfer Project, selected pages.
- b) Proyecto de Reestructuración del Subsector Granjero, author, date, and source unknown.
- c) Presidencia de la Republica Oriental del Uruguay, OPP/DIPRODE/UVN, (no date, 1987?), El Plan de Desarrollo Regional del Vertice Noroeste, 55 pp + maps.
- d) Ronald Curtis, 19 October 1987, Memo to Paul Fritz, Subject: Trip Report - Montevideo, October 10-20, 1987. Includes Trip Report.
- e) GOU/Ministerio de Ganaderia, Agricultura y Pesca, Unidad de Apoyo y Evaluacion de Proyectos Agroindustriales para la Granja, Octubre 1987, Perfil de Proyecto Identificación de Oportunidades de Inversión Agroindustrial para la Granja.

2. Change of project area for the training. Dr. Curtis travelled to Uruguay to review the agricultural diversification project in the Department of Canelones. In the intervening six months between his trip and mine, the administration of the Canelones Project largely collapsed. However, since the Canelones Project is very similar to the UVN Project directed by Ing. San Julian, Curtis's observations and recommendations were taken into consideration by personnel of the UVN Project, and the request for training by PIP put forward by them. My observations of the UVN Project area confirm that Curtis's recommendations for Canelones largely apply to the UVN Project. San Julian pointed out that the problems with the

Canelones Project relate to lack of experience in Uruguay in development project implementation. DIPRODE has made its reputation on its ability to implement projects. Still, any material presented in the courses should be made as specific as possible in terms of how it could be implemented in Uruguay.

3. GOJ Ministry Orientation. The UVN Project, an integrated rural development project, is being managed by DIPRODE, which is not in the Ministry of Agriculture (Ministerio de Ganaderia, Agricultura y Pesca (MGAP)). DIPRODE is an umbrella development organization within the GOU President's Office and is able to bring in many different ministries to work on UVN to insure that a broad range of concerns are addressed. Since the training PIP is proposing is agricultural in nature, care must be taken to draw in personnel from the MGAP (see contacts below).

4. UVN Development Orientation. The majority of agricultural and livestock production in Uruguay is in the hands of a relatively few very large land-holders. Livestock ranches run into the tens of thousands of hectares. Most of the crops for export are being produced by family operations with very large holdings which are being diversified. By contrast, the UVN and Canelones Projects are oriented to relatively small land-holders who are organized into cooperatives. The UVN Project is seen as providing opportunities for poorer people to get started farming -- the rapid population growth in the UVN area indicates that the project is succeeding. The proposed training courses should be oriented to cooperatives of small land-holders (10 - 50 ha) and agricultural agents working with them. The total land area being put under irrigation and planned for inputs from the UVN project is less than 10,000 ha. Cooperatives in the UVN are as follows:

CALPICA Cooperative. Was originally set-up as an irrigation system with the cooperators primarily growing sugar cane to provide national needs. As the GOU has decided to withdraw the controls on sugar imports, the cooperators realize that they will have to diversify their production and perhaps stop growing sugar cane altogether.

The UVN project in the CALPICA area will upgrade the irrigation system by installing new pumps and refurbishing the canals, as well as helping the cooperators develop a rational plan for diversification. At the moment almost all of the land, except that involved in the CALVINOR project (discussed below) is still in cane production.

The proposed postharvest and marketing training for the CALPICA cooperators and technicians, therefore, must assume very little prior experience or training in the subject areas. DIPRODE will be able to provide the inputs for production of the fruits and vegetables, but DIPRODE has very few technicians knowledgeable in postharvest handling and marketing. The situation is true for CALAGUA (discussed below), and should be the basis for the short courses.

CALVINOR Cooperative. This cooperative is relatively new and has the goal of diversifying an area of the CALPICA lands into table and wine grapes. A modern packing plant has been built and many grape plantations are already in production. A new winery is scheduled to be built. CALVINOR has been experimenting with different varieties of grapes, and different production techniques. They have been quite successful in their marketing efforts for both table grapes and wines.

The director of the cooperative (whose name I have forgotten) is a university professor returned to the field to implement the production, experimentation, training, postharvest handling, and marketing theories for the integrated development of a grape industry. I was not able to meet the CALVINOR Director of Marketing, Sr. Mercant, but heard from many people that he is doing an excellent job as well. I was quite impressed with the whole CALVINOR operation and think it should be used in the short courses as a good model of diversification.

CALAGUA Cooperative. The CALAGUA area is rather heterogenous with many small irrigation systems, a diversity of products, and very little integration. The area has been developed since the early fifties to provide opportunities for poor people to acquire a small parcel of land and begin farming to support

themselves. The success of the project is indicated by the influx of people and growth in the area. The object of DIPRODE's involvement is to rationalize the development of the area.

In the CALAGUA area, the UVN project is improving and integrating the irrigation system, providing technical inputs to help the cooperators produce other commodities, and constructing a fruit and vegetable processing and freezing plant. In addition, the project has plans for electrifying the areas, building storage facilities, establishing a small experimental/demonstration farm with a system of publications and education, and helping the cooperators acquire the necessary equipment for new products.

For the time being, the planned production of the CALAGUA cooperative will be destined for the freezing plant. The postharvest and marketing presentations in the short courses then should address directly the needs for fruits and vegetables moving into this channel. However, the Uruguayans also plan to export fresh produce, so both should be addressed.

Related Projects. In addition to the above mentioned agricultural production projects, the UVN Project includes several other aspects related to development of the area. One is the complete electrification of all the area impacted by the project. Another important aspect relates to a plan for the rational social development of the area. As the projects increase in size and activity, UVN is giving focused consideration to the impact of population increase in the area. In addition, UVN has plans for the development of bee and honey production, improved irrigation management at the farm level, expansion of the total areas to be irrigated, cooperative level mechanization of production and postharvest activities, and the development of farming systems for the area.

5. Known Uruguayan Producers for Export who might contribute to the short courses.

Monte Paz S.A., Compañia Industrial de Tabacos. An industrial tobacco growing, curing, and exporting company. Is experimenting with diversification into strawberries, raspberries, other berries, asparagus, onions, and melons for export. Contacts: Jorge Luiz Mailhos, Tomas Bense Candelo, Oswaldo Novoa Pizzoino, and Alejandro Clavier.

Migranja, S.A. Is converting some land to apples, peaches and nectarines for export. Contacts: Martin

Apariquian, President, Miriam Apariquian, and Graciela Apariquian.

CALVINOR The cooperative in the UVN area which is producing table grapes and wines for export. Contact: Sr. Mercant (can be contacted through San Julian).

Solari, S.A. One of the oldest exporters of fruits in Uruguay. Came to Uruguay from Algeria and began growing oranges for export when nobody thought it could be done. Is reportedly doing quite well, and the GOU is encouraging growers to copy his model. I saw his oranges in the market in Montevideo and they are definitely top quality. Contact: Pedro Solari.

CALFORU Federation of small and medium sized fruit and vegetable farmers. The cooperatives in the federation work well, but the federation itself is reportedly poorly managed and therefore unable to organize at a level needed for export of perishable commodities. Contact: Juan Carlos Cardenas.

Azucarlito S.A. A large landholder has diversified 2500 ha and has plans to plant 5000 ha more into fruits for the fresh market and for processing into juices and essential oils. Contact: Sr. Fraschini.

6. Uruguayan Marketing Systems. For the information of the trainers for the proposed courses, a note will be made here about the Uruguayan marketing system. The marketing system is private, and largely in the hands of rich, old families. This is especially true for the export marketing of livestock and livestock products. Officially, the GOU operates a hands-off policy on the marketing of agricultural products, unless they perceive that prices are getting too high, in which case they threaten to encourage imports. In actuality, government agents are either present at all major transactions, or are informed about them, and pass judgement whether the deal should be completed or not.

In the case of fruits and vegetables, except for CALVINOR, all exports are being managed by large agroindustrial family operations. For the domestic market, most of the products come from smaller farms. Montevideo and surrounding area, with two-thirds of the population of the country, is the

major market. Montevideo has two central markets: the Mercado Modelo, and the Mercado Agrícola. Both operate on long-established, self-serving auction systems. The Mercado Modelo is part of a very old corporation, and the Mercado Agrícola is a cooperative, with a board of directors of some of the largest growers in the country. In both markets transactions take place through bargaining and agreements of trust with few to no paper records. The farmers don't want a paper trail so they can avoid the 13--21% sales tax they would have to pay. As a result, it has been very difficult to set-up a marketing information system.

7. Contacts in Uruguay: Following is a list of people I met while in Uruguay who will be interested in the courses and could be associated with them as resource-persons or lecturers:

Ing. Agr. Jorge San Julian
Director of the "Unidad Vertice Noroeste" Project
Tel: 598-2-80-81-10, (home--98-70-10)
Oficina de Planeamiento y Presupuesto
Direccion de Proyectos de Desarrollo (DIPRODE)
Edificio "Libertad"
Montevideo, Uruguay

Primary GOU/DIPRODE contact person and most active agent in the development of the short courses. Also, the most active agent in the DIPRODE/UVN Project. Will be the person to write the contract for the short courses, and insure the completion of all activities in Uruguay.

Lcdo. Bertolotti
Director of the DIPRODE Division within the
Oficina de Pleamiento y Presupuesto and
Sr. San Julian's supervisor
same office and address as above

Dr. Paul Fritz, Representative
U.S. Agency for International Development
U.S. Embassy, Montevideo, Uruguay
Tel: 598-2-409-051

Primary initiator for the training project, providing the impetus for DIPRODE to use some of the USAID provided funds for the training courses. A strong supporter of the courses. Unfortunately, Dr. Fritz has been transferred to Chile, and his successor is not yet named.

Mr. Brian Breneman, USAID

Dr. Fritz's assistant and the person who arranged the details of my trip. Unfortunately, Brian too has left Uruguay, leaving little institutional memory for the development of the training within the USAID Office.

Ing. Agr. Mauro Fratocchi
Oficina del Agregado Agricola
U.S. Embassy, Lauro Muller 1776
Montevideo, Uruguay
Tel: 598-2-409-051

Ing. Fratocchi was closely associated with Fritz and Breneman and probably is the best source for tracking information about the development of the training courses within the USAID office. In addition, however, Ing. Fratocchi is an excellent resource for the courses and has agreed to give some lectures. He has had a long association with MGAP, in various high-level positions related to policy, politics, and functioning. Most recently, he has been working for the US Embassy collecting information about agriculture policy and production in Uruguay. He offers a critical view of the agricultural diversification projects in Uruguay.

Cra. Celina M. Leis, Sub-Director
Division Planeamiento General
Oficina de Planeamiento y Presupuesto
Edificio "Libertad"
Montevideo, Uruguay
Tel: 598-2-80-81-10 ext 139

As the organization and administration of the Canelones Project ceased to function, Cra Leis is the interim director of the project. Therefore, she is the person who will make the decision if the project will participate in and help pay for the proposed courses. I met her briefly, and explained the plans and goals for the courses. She agreed that they were needed and that she would consider helping with them. I assume that if the proposals are accepted, Plan Canelones and her group will be included.

John A. Grierson, Director
Direccion de Investigacion Agropecuaria
Programa de Generacion y Transferencia de Tecnologia
Ministerio de Ganaderia, Agricultura y Pesca (MGAP)
Andes 1365 -- Esc. 920
Montevideo, Uruguay
Tels: 90-82-86 or 90-82-71

Sr. Grierson is the director of the agricultural research stations in Uruguay. They are managed by the Agricultural Ministry. Reportedly, there are only two of the research stations which function very well. The GOU recognizes this as a limitation to agricultural diversification. Therefore, Sr. Grierson's office is about to sign a \$20,000,000 loan from the Inter-American Development Bank to upgrade the research stations. Within the total amount, about \$2,000,000 will be allocated for post-graduate degree training. There will be other money allocated for other types of training, and these short courses could set the stage for further involvement by PIP, UC Davis, and the University of Chile.

Ing. Agr. Rodolgo R. Servetti, Director
and
Dr. Carlos M. Tessore, Sub-Director for Horticulture
Direccion de Plan Granjero, MGAP
Avda. Uruguay 832
Montevideo, Uruguay
Tels: 98-37-75 or 90-52-48 or 98-12-45

These two gentlemen are the agents for the GOU/MGAP plan to diversify Uruguayan agriculture into fruits and vegetables. The GOU has developed a "Plan Granjero" (plan for the development of small, diversified farms) within the MGAP. Ing. Fratocchi (see above) was an early director of Plan Granjero. DIPRODE, as an implementation agency for rural development projects, works very closely with Plan Granjero and MGAP.

Augustin E. Leindekar, Exporter
Alvaro Milburn Ltda.
Cerrito 292
Montevideo, Uruguay
Tels: 96-10-80 or 96-14-37
Telex: UY 23149 MILBURN

Sr. Leindekar, as a prominent, long-term exporter and importer of a wide range of products, has an intimate knowledge of the nuts and bolts of the business. He agreed to provide some time for presentations for the short courses. He is also President of the Uruguay Partners of the Americas and so is quite versed in dealing with North Americans.

Milton Reyes, Executive Secretary
Union de Exportadores del Uruguay
Rincon 454, 2.o piso
Edificio Bolsa de Comercio
Montevideo, Uruguay
Tels: 95-60-50 or 95-25-03

As one of the senior members and executive secretary of the exporters union, Sr. Reyes expresses a healthy cynicism of government involvement in any project to increase exports. He was noncommittal when I asked him to make a presentation for the marketing short course. Still, he would make a great resource on the history of exporting from Uruguay.

8. Other Activities in Uruguay. In addition to the time spent developing the short courses, I met and worked with Mr. Aidan Gulliver of DHS in discussions with GOU officials regarding possibilities for working through the Agricultural Marketing Improvement Strategies (AMIS) project. The short courses will be able to provide training and increase the awareness of the Uruguayans on postharvest handling and marketing, but all involved recognize that more long-term efforts will be needed. Possible areas for AMIS involvement are a rapid appraisal of the export marketing system for fruits and vegetables and the GOU's involvement in it; a pilot innovation of a marketing information system; and applied research in terms of feasibility studies to identify potential markets for products that can be produced in Uruguay. At the time this report is being prepared, it appears that the GOU is waiting for the conclusion of the training courses before committing to AMIS activities, which may require better informed GOU personnel involvement.

Background for Trip to Chile

While in California in August 1987 presenting the PIP/UCDavis postharvest short course, I met Dr. Antonio Lizana, the Dean of the College of Agricultural and Forestry Sciences at the University of Chile in Santiago. At that time Dr. Lizana expressed an interest in working with PIP to develop a postharvest training center in Chile for Latin America. His point was that Chile had accomplished what many other countries are trying to accomplish. The necessary technology and solutions for the problems in Chile would be more applicable to the needs of other Latin American countries than what they might learn from the U.S. In fact, Chile had already gone through the process of adapting U.S. technology and has a good idea of what works and what doesn't.

Upon the request from the GOU for training in the areas of postharvest handling and marketing of fruits and vegetables, it seemed like an opportune time to develop a collaborative training program with the University of Chile. PIP contacted the GOU and informed them of PIP's intention to draw the University of Chile into the training program. At the same time, PIP asked Dr. Lizana if the University of Chile would be interested in collaborating in the development of the program for Chile. Both expressed interest, which led to the decision for me to travel to Chile and review the resources available for training.

Results of Trip to Chile

Development of Field Trip

In Chile, I was hosted by Dr. Lizana, who set-up tours of the University of Chile College of Agricultural and Forestry Sciences; fruit production areas; fruit storage, handling, and packing facilities; fruit shippers; and the port area. The postharvest laboratory at the University of Chile was in the process of being remodelled, but it is clear that the

facility is adequate for research and teaching. The demand and use of the facility clearly indicates the importance given to postharvest activities by the Chilean fruit and vegetable industry.

In relation to the proposals for the two short courses to be given in Uruguay, Dr. Lizana agreed to participate as a lecturer in the postharvest handling course, and one of his faculty members, Sra. Norma Sepulveda, agreed to lecture in the marketing course. Dr. Lizana, with a PhD in postharvest physiology from the University of California, Davis and two decades of involvement in the development of the fruit export industry in Chile, will contribute considerable expertise to the course. Dr. Sepulveda, a professor of international business and years of assessing the European markets for the Chilean fruit and vegetable industry will be able to address the nuts and bolts of market development. The two Chileans' participation in the short courses will provide a direct link between the courses and the field trip which they will be offering in Chile.

Two days were spent observing selected fruit and vegetable handling facilities within 200 kms of Santiago and talking to fruit exporters. We visited several of the David del Curto packing houses, which is the oldest and largest fruit exporting firm in Chile. We also visited Unifruti and Dole operations, among others, and toured the primary (and crowded) port of Valparaiso. The packing and shipping facilities are modern, clean, and evidently efficiently run. The commitment of the packers and exporters is to efficient handling of the fruits while maintaining the highest quality. Much of the equipment in use is not the most recent, high-tech, but is older, well-maintained, and still very functional. On the other hand, once equipment has served its useful life, the packers are replacing it with the most modern equipment, such as computer-run controlled

atmosphere storage and sorting lines. The lesson to be learned from any tour of the packing houses in the area is that the highest technology machinery is not so necessary as the commitment to efficient management of existing machinery, human resources, and the agricultural products to meet the demand of the consumer.

The growth of the fruit and vegetable export industry in Chile has been phenomenal. Only a few years ago, packing houses in the Central Valley could be counted on your fingers. Today, they number in the hundreds, and many more are under construction. Of the larger packing houses visited, each had its particular fine attribute which could be used to demonstrate a point for a field trip. Clearly, an excellent field trip could be arranged for the Uruguayans which would demonstrate the steps the Chileans have gone through in the development of their industry, and would, at the same time, show them the critical management and decision points in the postharvest handling and marketing system of perishable commodities.

I worked with Dr. Lizana in the development of an eight day field trip to be proposed to Uruguayans. The field trip is proposed for March, 1989, which will be the height of the fruit harvest season and will be after the proposed postharvest handling and marketing courses to be given in Uruguay. The proposed field trip, covering some 1000 km in the Chile's Central Valley, would give the Uruguayans a chance to see postharvest handling of all of the commodities which they have identified as their top priorities. The proposal for the field trip appears as Appendix IV.

Other Activities in Chile

In addition to the development of the proposal for the field trip, I discussed with Dr. Lizana and his faculty possibilities for other collaborative training activities.

Aidan Gulliver of DHS brought up the possibility of a joint DHS, University of Chile, University of Costa Rica, PIP, Michigan State, and University of Florida proposal to provide training for Ecuador researchers and extension agents under an IDB loan. We agreed to look for possibilities of training projects where we could collaborate.

While in Santiago, I took the opportunity to visit the FAO Regional Office for Latin America and the Caribbean. While there I met with Dr. Jose Luis Cordeu, Regional Director of the Basic Agroproducts Programs, and Dr. Ciro J. Arias, Regional Director of the Program for the Prevention of Postharvest Losses of Foodstuffs. I viewed a video they had made on the prevention of postharvest losses in the marketplace in Buenos Aires, which they said they would send to PIP. I met for some time with them, discussing our various programs. FAO has virtually no money for field projects, reportedly at least in part the result of the U.S. not paying its dues to the United Nations. The FAO Regional Office puts together programs at the request of and with the funding of various user agencies.

I met with Dr. John Child, Agricultural Attache at the U.S. Embassy. Dr. Child indicated that he would be supportive of any collaborative activities that might be developed between the University of Chile and the University of Idaho. He would be an excellent resource for the identification of trade possibilities between Idaho and Chile, except that he is scheduled to leave Chile soon.

I met with officials of PRO-Chile, the public relations group for selling Chilean products abroad. This is the group that does the long range planning and marketing of Chilean fruits and vegetables in the U.S. I collected a lot of their information as examples of the sort of work they

do. Not unexpectedly, they were somewhat reluctant to talk in much detail about their operations.

Finally, I met with a gentleman in the Ministry of Agriculture who works with the semi-autonomous agency, CORFU, which does feasibility studies and funds development projects in Chile. This is the organization which identifies potential markets or areas of development and facilitates private sector development in the areas. They have much to do with the long range planning and development of the Chilean economy. Their annual report, available in PIP, is quite impressive.

Background for Trip to Ecuador

Ecuador is one of the countries in Latin American where the University of Idaho is concentrating its international efforts. PIP has been working with USAID/Quito for a number of years, especially in programs to strengthen the University of Ambato's College of Food Science and Engineering. In addition, Ecuador is Idaho's Partner of the Americas. PIP and other University of Idaho personnel are involved in efforts to revitalize this organization. The College of Education has a long-standing program in Ecuador improving educational opportunities for disadvantaged children.

Recently, there has been a major change of personnel in the Mission, and the trip back from Chile offered the opportunity to stop in Quito to inform the new Mission personnel of PIP's capabilities. PIP has been working with the Idaho Partners to develop an unsolicited proposal to improve nutrition programs in the public schools in Ecuador. The stop-over provided the chance to discuss the proposal with Mission personnel in order to begin to identify interest and possible funding. In addition, Ecuador seems

like a likely candidate for AMIS project involvement. Deloitte, Haskins and Sells, a partner in AMIS, has an agricultural development officer in Quito, Mr. Aidan Gulliver, with whom PIP expressed a strong interest for collaboration in projects.

Results of Trip to Ecuador

Upon arrival in Quito, I met with Mr. Richard Peters, Agriculture and Rural Development Officer of the USAID Mission. PIP worked with Mr. Peters when he was ADO in Honduras. Mr. Peters introduced me to Mr. Rich Mangrich, Assistant ADO, and we discussed various possibilities for PIP involvement in USAID supported projects in Ecuador. The Agriculture and Rural Development Office is involved in a number of projects which might require services in the areas of product development and marketing of products. They were able to direct me to other offices that have projects which might require PIP services. Finally, on the last day in Quito, I accompanied Ing. Anibal Saltos, Dean of the Food Science Faculty at the University of Ambato to meet with Mr. Peters. We discussed the joint PIP/Universidad de Ambato activities, and I reported the results of my stay in Quito.

I met with Ms. Katherine Jones-Patron, Assistant Director of the Health Office in the USAID Mission. We discussed at length the possibilities of the PIP/Partners proposal for improving school nutrition programs through the development of potato bars or similar nutritionally balanced meals or snacks. Subsequently, I met with Dr. David Nelson, who consults to USAID and the Ecuadoran Ministry of Health, and we developed the outline of a proposal which he thought would be acceptable to the Mission. The proposal reflecting the input from Ecuador and submitted to USAID/Quito/Health Office "To Conduct a Feasibility Study on the Improvement of School Lunch Programs in Ecuador" appears as Appendix V.

I met with Dr. Jorge Chang, Executive Director of the Fundacion para el Desarrollo Agropecuario (FUNDAGRO), which is a foundation being established by USAID with the goal of funding agricultural research and development projects in Ecuador. FUNDAGRO is just getting started, and as such does not have a large number of projects going yet. I think Dr. Chang appreciates the capabilities of PIP and will request our assistance should the need arise.

Since I didn't have time to go to Ambato, Ing. Saltos came to Quito to meet me. We discussed at length program areas where PIP and the Universidad de Ambato could collaborate. The Universidad de Ambato is included in the nutrition proposal discussed above as the institution that would do the food product development.

Ing. Saltos and I met with Ing. Marco Penaherrera Gallardo, Executive Director of the Ministry of Agriculture and Livestock's (MAG) Programa de Desarrollo Tecnológico Agropecuario (PROTECA). PROTECA is a new project within the Ministry to utilize a \$40,000,000 loan from the Inter-American Development Bank to improve the capabilities of the Ecuadoran agricultural research and extension services. Within the loan, beside the money earmarked for capital improvements, there is a large amount destined for personnel training in both degree and non-degree programs.

Ing. Penaherrera informed us that PROTECA intended to construct new training centers to be managed by MAG for agricultural researcher and extension agents. Ing. Saltos and I both expressed the opinion that the money would be better spent to increase the capabilities of existing agricultural schools as the training centers. The universities are more likely to be able to continue the training once the loan money is exhausted. Ing. Penaherrera expressed the opinion that the universities are too

theoretical and don't provide practical enough training. It has been my observation that the Ecuadoran universities don't provide very practical training, at least in part, because there are no communication linkages from the field researchers and extension agents back to the universities.

PROTECA is planning to release a Request For Proposal for a contract to provide the training outside of Ecuador for the project. DHS has expressed an interest in being the lead organization to bid for the contract, associated with a consortium of universities, including the University of Idaho, University of Florida, University of Chile, University of Costa Rica, Michigan State, and others. As of the date of this report, the RFP has not been released.

In relation to DHS and the AMIS project, Mr. Peters informed me that Ecuador's agricultural diversification project, which is the project with the greatest demand for marketing assistance, is being managed within the USAID/Quito Private Sector Office, which may explain why Ecuador has not expressed interest in the project. The project has completed its first phase and has been reviewed. The review reportedly stated that the project had not addressed marketing problems sufficiently, and that the project should be redesigned before second phase funding would be approved. I met with Sr. David Mantilla Cashmore, the assistant project officer for this project. He expressed interest to me for involvement of AMIS in the project. When Aidan Gulliver visited Sr. Mantilla's superior, Mr. Eric Weaver, on the same subject, Mr. Weaver reportedly indicated that USAID was interested in identifying a manager for the new project. It remains to be seen if AMIS, or the AMIS consortium, will become involved in this project.

APPENDIX I

Department of State

INCOMING TELEGRAM

PAGE 01 MONTEV 08171 112257Z
ACTION AID-08

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ON ESP AGRICULTURAL PROGRAMS.

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ACTION OFFICE 31AG-32
INFO STDP-01 SERP-01 LACH-02 LASA-02 LADR-03 SECS-02 AMAD-01
GC-03 GCLA-03 SIRB-01 MAY-01 PPR-01 SAST-01 ES-01 STFA-01
RELO-01 STRR-01 PRE-06 /032 AD

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AICAC

FOR ST/AG AND ST/RO

E.O. 12356: N/A
SUBJECT: IN-COUNTRY PRODUCE MARKETING WORKSHOP FOR
URUGUAY ECONOMIC DEVELOPMENT PROGRAM SUPPORT

REF: 87 STATE 402691 ✓

1. APPROXIMATELY 60 PER CENT OF LOCAL CURRENCY FUNDS PROVIDED UNDER AID ESP/URUGUAY FOR 1986 AND 1987 ARE DIRECTED FOR RURAL DEVELOPMENT/AGROINDUSTRIAL PROGRAMS. AN IMPORTANT FOCUS OF THE PROGRAMMING IS THE DIVERSIFICATION OF SMALL FARMERS' PRODUCTION INTO NON-TRADITIONAL, HIGH CASH CROPS FOR EXPORT. ONE PROJECT IN THE SOUTHERN REGION INVOLVES EFFORTS TO PROMOTE NEW VEGETABLE AND FRUIT PRODUCTION IN AN AREA PREVIOUSLY DEDICATED TO SUGAR BEET CULTIVATION. BASED ON AN INITIAL APPRAISAL BY AID OFFICER RONALD CURTIS (CURRENTLY ON LEAVE AND WORKING AT THE UNIVERSITY OF IDAHO) DURING A RECENT TDY TO URUGUAY, POST AND GOV PROJECT PERSONNEL ARE INTERESTED IN ARRANGING AN IN-COUNTRY TRAINING EFFORT TO ADDRESS A LACK OF EXPERTISE IN INTERNATIONAL MARKETING OF NON-TRADITIONAL PRODUCTS.

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2. THE FIRST STEP COULD BE A WORKSHOP UNDER THE ST/AG PROJECT POSTHARVEST INSTITUTE FOR PERISHABLES (PIP) OR THE ST/RO AMIS PROJECT. THIS WORKSHOP WOULD PROVIDE VITAL ACCESS TO URUGUAYAN ANALYSTS TO THE SOURCES OF INFORMATION ON GRADES AND STANDARDS, MARKETING TIMING AND PRICE SOURCES. THE WORKSHOP COULD BE DESIGNED IN THREE SEGMENTS: IN-COUNTRY TRAINING IN METHODOLOGY OF CONDUCTING FINANCIAL FEASIBILITY STUDIES OF SPECIFIC PRODUCTS; TRAVEL TO TARGETED COUNTRIES TO VIEW FIRST HAND THE MARKETING SYSTEM AND OBTAIN SECONDARY DATA REQUIRED FOR ANALYSIS AND; IN-COUNTRY PREPARATION OF SEVERAL FEASIBILITY STUDIES FOR PRODUCTS UNDER CONSIDERATION FOR EXPORT.

3. THE OBJECTIVES OF THE WORKSHOP WOULD BE:
- PROVIDE THE HARD MARKETING INFORMATION NEEDED TO MAKE GOOD PRODUCTION DECISIONS WITHIN THE HORTICULTURE DIVERSIFICATION PROJECTS;
 - DEVELOP AND STRENGTHEN CONTACTS BETWEEN URUGUAYAN SUPPLIERS AND TARGET COUNTRY IMPORTERS AND DISTRIBUTORS;
 - TRAIN PRIVATE PRODUCERS AND PUBLIC ANALYSTS TO CARRY-OUT SIMILAR FINANCIAL FEASIBILITY STUDIES IN THE FUTURE AND;
 - ASSIST THE CREATION OF A UNIFORM METHODOLOGY FOR COOPERATION BETWEEN PUBLIC AND PRIVATE SECTOR ENTITIES

4. POST REQUESTS APPROXIMATELY 10 DAY TDY BY PIP COORDINATOR TOM DECHART TO REVIEW IN-COUNTRY TRAINING NEEDS AND TO FURTHER DISCUSSIONS WITH GOV ON THE DESIGN AND FINANCING OF THE PROPOSED WORKSHOP. POST WOULD PROVIDE FOR DECHART'S IN-COUNTRY TRAVEL SUPPORT TO VISIT SOUTHERN REGION PROJECT SITE AS WELL AS ONE OR TWO OTHER GOV PROJECTS WITH AGRICULTURAL MARKETING NEEDS. POST WOULD WELCOME TDY BY TOM HENEN OF ST/RO AMIS PROJECT TO ACCOMPANY DECHART FOR ALL OR AT LEAST THE LAST PORTION OF TDY DURING WHICH IN-COUNTRY WORKSHOP WILL BE DESIGNED AND FINANCING DECISIONS MADE. POST BELIEVES GOV WOULD BE WILLING TO USE ESP LOCAL CURRENCY FOR IN-COUNTRY COST AS WELL AS INTERNATIONAL TRAVEL AND PER DIEM FOR THE WORKSHOP. HOWEVER, SUCH ARRANGEMENTS WOULD HAVE TO BE FORMALIZED DURING DECHART/HENEN TDY.
5. PLEASE ADVISE AVAILABILITY FOR TDY AND SUGGESTED TIMING.
MILKEY

UNCLASSIFIED

TO: Harvey Hortik
USAID/S&T/Ag
Washington, D.C.

FROM: Harvey Neese
Postharvest Institute

Please forward the following message to Mr. Paul Fritz, USAID Representative, U.S. Embassy, Montevideo, Uruguay.

Subject: In-country produce marketing workshop for Uruguay Economic Development Program Support.

In reference to your cable of January 11, 1988, (87 State 402691) the Postharvest Institute for Perishables (PIP) is interested in producing the workshop for GOU officials and Uruguayan agriculturists. Dechert TDY for needs assessment and discussion on design and financing of workshop could be planned for April 1988. As per other communications, PIP proposes workshop for early 1989 to be held in, or at least include a field trip to, Chile to see how they operate their export industry. PIP has contacts with the University of Chile. Workshop should include trip to U.S. for officials to make marketing contacts. December, January, February is window of opportunity here so would seem the appropriate time to study the markets.

PIP would prefer to have Uruguay post pay for Dechert April trip to Uruguay. However, if this is not possible, PIP can pay Dechert air fare so long as post understands that PIP will include this expense in cost of workshop. Due to budget cuts and the fact that Uruguay is a MIC, PIP cannot justify such expenses out of core budget. PIP also requires written statement from post that the local currency funds being planned to pay for the workshop can be converted to dollars to pay for expenses in U.S. This should include 1) clarification that the funds are of the sort that can be converted, and 2) that the GOU does not have a limitation on the amount or means of converting the funds to dollars.

Given goals as stated, PIP suggests GOU consider involving S&T/RD AMIS project for longer-term development of program. The workshop can provide initial training and orientation, but such items as reliable "hard marketing information" and a "methodology for cooperation between public and private sector entities" are long term interventions that are within the scope of the AMIS project. PIP and the University of California, Davis (UCDavis) are part of the AMIS project. PIP is committed to training with follow-up. UCDavis contributed substantially to the Chilean development over 10 years. Hopefully these issues can be discussed in the TDY.

cc: Tom Mehen S&T/RD
J. Martin AMIS Proj Mngr

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NOTATION

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Department of State

INCOMING TELEGRAM

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 ACTION OFFICE STAG-02
 INFO LAEM-02 LASA-02 LADP-04 LADR-03 AMAD-01 STRD-01 KAY-01
 SAST-01 ES-01 STFA-01 RELO-01 STHR-01 /021 A0

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AIDAC

FOR ST/AG AND ST/RD

T. O. 12355: N/A
 SUBJECT: IN-COUNTRY PRODUCE MARKETING WORKSHOP FOR
 URUGUAY ECONOMIC DEVELOPMENT PROGRAM SUPPORT

REF: STATE 026213

1. POST CONFIRMS CONCURRENCE WITH TOY PIP REPRESENTATIVE TOM DECHERT IN LATE APRIL TO DESIGN A PROPOSAL FOR A PRODUCE MARKETING WORKSHOP. GOU IMPLEMENTING AGENCY HAS AGREED VERBALLY TO SEND ONE ROUND TRIP TICKET FOR DECHERT TRAVEL AND ADVANCE LOCAL CURRENCY PER DIEM ON ARRIVAL. POST IS CURRENTLY EXCHANGING LETTERS WITH THE APPROPRIATE GOU OFFICIALS TO CONFIRM THIS ARRANGEMENT. AS REQUESTED, POST VERIFIES THAT URUGUAY MAINTAINS UNLIMITED FREE EXCHANGE OF NEW PESOS TO DOLLARS. ANY PIP SERVICES AFFILIATED WITH THE WORKSHOP PAID FOR IN LOCAL CURRENCY CAN BE READILY CONVERTED.
2. GOU OFFICIALS PREFER THE WORKSHOP TO TAKE PLACE IN URUGUAY FOR GREATER IMPACT ON THE URUGUAYAN AGRICULTURAL COMMUNITY. GOU OFFICIALS RECOGNIZE THE POTENTIAL BENEFIT OF RECEIVING INPUT FROM THE CHILEAN EXPERIENCE AND ARE INTERESTED IN THE WORKSHOP HAVING AN OVERSEAS STUDY-TOUR COMPONENT FOR AT LEAST SOME OF THE PARTICIPANTS AND A COMBINED POSTHARVEST TECHNOLOGY AND MARKETING FOCUS. THESE POINTS CAN BE DISCUSSED IN FURTHER DETAIL DURING THE TOY. PLEASE ADVISE DECHERT OF THESE ARRANGEMENTS.
3. POST HOPES THAT TOM MEHEN OF ST/RD AMIS PROJECT IS AVAILABLE TO ACCOMPANY DECHERT, PARTICULARLY IN LIGHT OF THE REFTEL RECOMMENDATION OF RELEVANCE OF AMIS PROJECT TO STATED URUGUAYAN AGRICULTURAL NEEDS. FYI - GOU WOULD HAVE NO OBJECTION IF ST/PIP/AMIS WERE INTERESTED IN EXPANDING THE PROPOSED URUGUAY WORKSHOP TO A REGIONAL EFFORT WITH PARTICIPANTS FROM OTHER LAC COUNTRIES. MEHEN'S PRESENCE WOULD ALSO BE USEFUL TO PURSUE THIS POSSIBILITY.
WILKEY

To
 DR. Neese
 From:
 F. Mertens

UNCLASSIFIED

TRAVEL ITINERARY

Thomas V. Dechert
trip to
URUGUAY, CHILE, ECUADOR

April 8 -- May 1, 1988

April 8 Travel Moscow to Spokane, overnight Spokane
April 9 & 10 Travel Spokane to Montevideo, met by Sr. San
Julian
April 11 Meet with officials at DIPRODE to develop the
framework for the proposed courses.
April 12 Meet with officials at USAID and DIPRODE to
develop outlines, contacts for, and content
of the courses.
April 13 Meet with GOU officials to receive their
input and solicit their support for the
courses
April 14 Travel to the Department of Artigas and the
UVN Project area around Bella Union in the
extreme northwest corner of the country.
April 15 Tour of the UVN project area, including
CALPICA, CALAGUA, CALVINOR, Bella Union, UVN
housing projects, the new UVN research
station, the pumping stations, the proposed
USAID-funded dam site, various production
areas, the old winery, and the UVN offices.
April 16 Return to Montevideo
April 17 Sunday
April 18 Meet with GOU officials. Arrival of Aidan
Gulliver of DHS and discuss AMIS involvement
in project.
April 19 Meet with various officials and write draft
of the proposed courses
April 20 am Finalize draft proposal for the postharvest
course and the marketing course.

April 20 pm Travel Montevideo to Santiago, met by Dr.
Antonio Lizana of the University of Chile.
April 21 Tour facilities at the University of Chile
College of Agriculture and Forestry Sciences.
April 22 & 23 Tour packing plants and shipping facilities
in Chile
April 24 Return to Santiago
April 25 & 26 Develop outline and proposal for a field trip
in Chile for the Uruguayans.
April 27 Travel from Santiago to Quito, Ecuador.
April 28 & 29 Meet with officials of USAID/Quito, GOE
officials and officials of the FUNDAGRO and
PROTECA Projects.
April 30 Return to U.S.
May 1 Arrive Moscow

d.uru-itn.rpt

APPENDIX II

June 1988

PROPOSAL FOR A SHORT COURSE ON
THE REDUCTION OF POSTHARVEST LOSSES OF SELECTED COMMODITIES
IN URUGUAY

Submitted by:

Postharvest Institute for Perishables
University of Idaho, College of Agriculture

University of California Extension,
International Training and Education
University of California, Davis

Facultad de Ciencias Agrarias y Forestales
Universidad de Chile

Submitted to:

The Government of Uruguay, Oficina de Planeamiento y
Presupuestos, Direccion de Proyectos de Desarrollo

The Postharvest Institute for Perishables (PIP), the University of California Extension (UCE) International Training and Education Office (ITE), and University of Chile (UC) Facultad de Ciencias Agrarias y Forestales (FCAF) propose to collaborate with the Government of Uruguay (GOU) Oficina de Planeamiento y Presupuestos (OPP) Direccion de Proyectos de Desarrollo (DIPRODE) in the planning and presentation of a short course on the reduction of postharvest losses in perishable commodities produced for export from Uruguay.

Dr. Ronald Curtis, Director of the Office of International Trade and Development at the University of Idaho, travelled to Uruguay in late 1987 and identified considerable interest in training for Uruguayans in the postharvest handling and marketing of perishable commodities. Since the USAID sponsored Postharvest Institute for Perishables is located at the University of Idaho, he suggested that DIPRODE work with USAID/Montevideo in soliciting the services of PIP in the development of training courses. This proposal is the result of travel by Mr. Thomas Dechert, Assistant Field Director of PIP, to Uruguay to work with DIPRODE to identify training needs and methods for planning and implementing the training.

The Inter-American Development Bank and the U.S. Agency for International Development have loaned and/or provided money to GOU for the development of

projects with the goal of diversifying agricultural production for export. Two areas of Uruguay identified for diversification of production for export of fruits and vegetables are in the Departments of Artigas and Canelones, and many projects are underway in these areas which will increase the production of fruits and vegetables. However, to date, little attention has been paid to the questions of postharvest handling and marketing of the products which are scheduled to be produced. This proposed short course will concentrate on the postharvest handling problems associated with the primary fruits and vegetables which are or will be grown in these areas. A similar short course--under a different proposal--will concentrate on the marketing of these commodities. A field trip to Chile for both of the short courses will be proposed to take place after the two short courses.

1. Course Goal. The goal of this short course is to train private and public sector agriculturists from Uruguay to identify and evaluate postharvest loss problems with perishable commodities, and to determine potential solutions applicable to the Uruguayan agricultural export diversification programs.
2. Course Objectives for the Participants:
 - a) To understand the nature and causes of postharvest deterioration in perishable commodities, especially related to selected commodities produced in Uruguay;
 - b) To be aware of possible and appropriate technologies and management techniques for reduction of postharvest deterioration and maintenance of product quality;
 - c) To develop an understanding of the importance of postharvest deterioration over time in relation to quality demands of export markets;
 - d) To evaluate postharvest problems from a commodity marketing system point of view.

3. Course Administration and Contract. The course will be developed and implemented by UI/PIP, UCE/ITE, UC/FCAF, and DIPRODE. DIPRODE will be the overall administrator and coordinator for the course. PIP and UCE/ITE will collaborate with technical inputs to be supplied from the U.S. DIPRODE and PIP will develop a contract, or course fee structure, for inputs to be provided from the U.S. and Chile and to be paid for by funds from GOU/OPP.
- a) Ing. Jorge San Julian will be the primary coordinator for the course, and administrator of the inputs provided by DIPRODE. He will identify and approve all participants for the course. He will be the focus for communications with PIP for the inputs from PIP and the contract that will be developed for them.
 - b) Tom Dechert will be the primary course administrator for PIP, UCE/ITE, and UC/FCAF, and will work with DIPRODE in the identification and approval of appropriate professionals who will be lecturers in the course. He will be the contact person for the contract or agreement to be drawn up by the GOU/OPP for services from PIP, UCE/ITE, and UC/FCAF for the course.
4. Course Location, Time, and Approval. It is proposed that the short course be given December 5 through December 16, 1988. The primary location for the course will be in Montevideo, at a site yet to be identified. December 9-10 will be a field trip to the fruit and vegetable production area in either the Department of Artigas or the Department of Canelones. It is expected that the lectures and demonstrations for the course will be from 9:00 a.m.-1:00 p.m. and 2:00 p.m.-6:00 p.m., with the evenings reserved for the participants to study materials to be provided.

Candidates as lecturers and content for the course are identified below. After this proposal for course content, lecturers, and other arrangements have been approved by DIPRODE, Dechert will draft a contract listing the responsibilities of both both PIP and DIPRODE. USAID/Montevideo will act as communication facilitating conduit for materials passing between PIP and DIPRODE. Final approval for the course can be assumed once a contract is completed between the University of Idaho and the GOU/OPP.

5. Course Financing. Arrangements for financing the course are the responsibility of OPP as the guarantor of the contract to be developed for services to be provided through PIP. It is assumed that the course will be financed by funds within the GOU/OPP and possibly from fees charged to participants from other agencies of the GOU and the Uruguayan private sector. It is expected that the GOU will pay PIP for the budgeted costs of the course before the consultants/lecturers begin travel to Uruguay to give the course.

6. Course Participants (Trainees). The participants for the course will be agriculturists from the public and private sectors in Uruguay. Participants should have a minimum level of training of an Ingeniero Agronomo or equivalent experience. Approval of participants will be the responsibility of Ing. San Julian, with communication on any questions with PIP.

The participants are expected to participate full-time in the course, including many evenings and nights for study and group discussions. The field trip to Bella Union or Canelones will require commitment of Saturday, 10 December.

Housing, food and travel for the course will be arranged as appropriate by DIPRODE.

Language for the course will be Spanish. DIPRODE will arrange to have simultaneous translation services available for those lecturers who are not fluent in Spanish.

7. Course Lecturers. Lecturers proposed for the course are from Uruguay, Chile, and the U.S. The technical coordinator for the course will be Dr. Leonard Morris from the University of California, Davis (UCDavis). Dr. Morris has extensive international experience in postharvest handling of fruits and vegetables, including the coordination of courses similar to this proposed course. Dr. Morris will be assisted by Mr. Gordon Mitchell, also from UCDavis, Dr. Antonio Lizana from the University of Chile, Mr. Jack Ross, and professionals from the fruit and vegetable industry in

Uruguay. Mr. Mitchell is the Program Director/Horticulture for UC Davis's statewide programs in horticulture, and also consults with Fundacion Chile on the preparation and handling of fruits for export. Mr. Ross has over 30 years experience in industry and consulting on agro-processing and marketing of fruits and vegetables. Dr. Lizana is Decano de la Facultad de Ciencias Agrarias y Forestales at the University of Chile and has extensive teaching, research and extension experience in Chile related to the export fruit industry there. Other lecturers will be selected by Ing. San Julian from among Uruguayans with training and experience in the fruit and vegetable industry of Uruguay. Final approval for the lecturers, their stipends, travel arrangements, and other requirements will be made in the contract between PIP and DIPRODE.

8. Course Content. The course is organized in two sections: the first part is dedicated to the fundamentals of postharvest biology and technology, and the second is oriented to the application of the fundamentals to reduce postharvest losses of important Uruguayan export fruits and vegetables. A field trip to production areas is to be arranged over the week-end from Friday afternoon through Saturday. Background material for each of the course topics will be provided by PIP to DIPRODE at least two months before the beginning of the course. DIPRODE will translate the materials which will be published jointly by the four collaborating institutions. The published materials for this course will be a concise manual in Spanish of postharvest science and technology for sub-tropical fruits and vegetables.

DAY 1

INTRODUCTION TO COURSE, DIPRODE PROJECTS, & THEIR RATIONALE

Welcome and orientation to course. Discussion of DIPRODE projects in the Departments of Artigas and Canelones, how they came about, how they are planned to be implemented, and their goals. Philosophy for the workshop. (1/4 day) DIPRODE/Bertolotti, San Julian, Dechert, and Morris.

POSTHARVEST BEHAVIOR OF PERISHABLE COMMODITIES

An overview of the important postharvest biological and physiological characteristics of perishable commodities. (1/4 day) Morris/Mitchell/Lizana

CONTROL OF DETERIORATION -- UNDERLYING CONCEPTS

Presentation of the importance of proper temperature and relative humidity at all steps from harvest to the consumer, avoidance of injuries and disease sources, and the overriding concern for timeliness. (1/4 day) All

CITRUS PRODUCTION, POSTHARVEST HANDLING, AND EXPORT -- TIMING AND QUALITY
The citrus industry in Salto, all of the steps involved, how the industry evolved. Postharvest problems with citrus related to its postharvest biology and physiology, and the decisions related to control of postharvest deterioration. (1/4 day) Uruguayan from Azu or Solari or other citrus group

DAY 2

POSTHARVEST HANDLING AS A SUBSET OF AGRICULTURAL MARKETING

An orientation to postharvest considerations within the system of planning, production, harvest, postharvest, and marketing of perishable commodities for export. Assuming the need for a quality product which can be marketed to consumers, this session presents typical institutional and policy constraints and problems for postharvest handling for export. (1/4 day)
Fratocchi/Ross/Lizana

PRE-HARVEST & HARVEST FOR QUALITY POSTHARVEST HANDLING

A large part of postharvest handling to maintain quality is dependent on proper decisions during pre-production planning, production, and harvest. This section examines such questions as whether the proper varieties have been selected, which production practices will result in products the most responsive to good postharvest handling, whether production volumes and times correspond to the postharvest handling planned, and, for the case of cooperatives, how preharvest activities should be coordinated for the required postharvest handling. (1/4 day) Dechert/Lizana/Ross

MATURATION AND MATURITY INDEXES

Fruits and vegetables for export must be harvested at a stage that will allow for maturation and senescence processes between harvest and consumption. This section discusses the natural maturation processes of fruits and vegetables, and indexes of degree of maturity so crops can be harvested at the appropriate times. (1/4 day) Morris/Ross/Mitchell

TABLE GRAPE PRODUCTION AND HARVEST FOR EXPORT MARKETING AND CONSUMER DEMAND

Discussion of the days topics in relation to the table grape production, postharvest handling, and export from the Artigas area. (1/4 day)
Mercant/Manager of CALVINOR

DAY 3

TEMPERATURE MANAGEMENT -- RESPONSES AND REQUIREMENTS

This section examines physical, biological, and physiological responses to temperature control, and how different types of commodities respond differently to different temperatures. (1/4 day) Morris/Lizana

TEMPERATURE MANAGEMENT -- PRECOOLING

Lowering produce temperature as soon as possible after harvest is important to maintaining quality and freshness. Examines the methods available and timeliness required to accomplish this step. (1/4 day) Ross/Mitchell/Lizana

TEMPERATURE MANAGEMENT -- STORAGE, TRANSPORT, DISTRIBUTION, RETAIL MARKETING

Long-term storage and long-distance transportation for export are dependent on proper temperature management. Emphasizes continuous product temperature management in all handling steps, beginning after cooling and continuing

through transportation, loading and unloading, storage when required, any handling necessary to prepare the product for market, the distribution channels, and the retail stores to the consumer. Good management requires recognition and control of each step. Examines small and large scale technologies available and how to make decisions regarding their use. (1/4 - 1/2 day) Ross/Mitchell/Lizana

TEMPERATURE MANAGEMENT -- EXPERIENCES OF URUGUYAN EXPORTERS
Presentation by Uruguayans on their experiences for the need of temperature control from harvest to the retail market. (1/4 day) Monte Paz/Mi Granja/CALVINOR

DAY 4

TRANSPORTATION -- PALLETIZING, LOADING, AND DISTRIBUTION
Session describes the various options for handling produce after packaging, looking at the advantages and disadvantages of manual handling compared to mechanized and unitized handling. Looks at options for unitization of products for shipment and distribution, and compares costs, quality maintenance, acceptability, etc. (1/4 day) All

TRANSPORTATION -- DOMESTIC VS. INTERNATIONAL
Export marketing requires an intimate knowledge of international transportation, which is different in many respects from domestic transportation. This session describes the various options that are available for fruits and vegetables to be exported to Europe and the U.S., including analyses of how to arrange for such shipments to insure good postharvest handling. The distances and time involved require careful attention to details which are often overlooked or assumed in domestic transport. (1/4 day) Ross/Lizana/Mercant/Leindekar

FIELD TRIP TO SEE DOCKS, REGRIGERATED SHIPS AND TRUCKS AROUND MONTEVIDEO
Includes description by exporters of how produce is moved in Uruguay and to the export markets.

DAY 5 & SATURDAY FIELD TRIP

QUALITY STANDARDS, INSPECTION, GRADING
Export marketing requires recognition and insurance of quality standards of the consumers. This session describes the development of systems of standards for different commodities, how to determine the standards required by the importing countries, and systems of inspection and grading to standardize the produce. (1/4 day) All

PACKING HOUSE PROCEDURES AND TREATMENTS
Efficient and quality conscious packing house operations are the key to successful export marketing. From a postharvest handling point-of-view, packing houses are the physical foci of most activities. The session examines the range of information necessary to consider in order to manage a packing house, including the source of the produce, how it is to be graded, handled, packed, and its destination. (1/4 day) Ross/Morris/Lizana

MARKET PREPARATION AND PACKAGING
Numerous packing materials and methods exist, and consumers in different markets may demand different packing. This session provides an overview of

the most common methods for product preparation and packaging, with comments on the trends. Packaging is driven by both market demand and the need to maintain quality. This session presents options for decisions to integrate the two type of demands. (1/4 day) All

FIELD TRIP TO ARTIGAS OR CANELONES TO VIEW RESEARCH, PRODUCTION, AND POSTHARVEST HANDLING FACILITIES FOR EXPORT MARKETING PROJECTS
The field trip will leave Montevideo Friday noon and travel to Bella Union. Saturday will be spent visiting the table grape production and packing operation (CALVINOR), the research farm of CALAGUA, and a citrus operation in Salto. The trip will concentrate on the topics of packing house operations, training of workers for standards and quality, packing house treatments, and how packing houses must respond to consumer and importing country demands.

DAY 6

ETHYLENE PHYSIOLOGY AND ITS ROLE IN FRUIT RIPENING
In most higher plants, ethylene, which is an easily detected plant hormone, has a pronounced effect on fruit ripening, abscission, breaking of dormancy, flowering, and modification of sex expression. This section presents the biological and physiological activity of ethylene in plants. (1/4 day) Mitchell/Lizana/Ross

MODIFIED & CONTROLLED ATMOSPHERE -- COMMERCIAL USES, METHODS OF APPLICATION, PRECAUTIONS
This sections examines the technologies which exist for modified and controlled atmosphere storage of fruits and vegetables, including many of the decisions which must be made before beginning such an operation, and the management that would be necessary to run one. (1/4 day) Morris/Mitchell

POSTHARVEST DISEASES, THEIR CONTROL, AND RESIDUE STANDARDS
Presents the range of diseases and pests which may negatively impact postharvest handling of fruits and vegetables, and some of the most effective control measures, including the acceptability of the control measures in the international market. (1/4 day) Lizana/Morris/Ross

AN OPEN SESSION, TO BE PLANNED AS THE COURSE PROCEEDS, BASED ON NEEDS EXPRESSED BY THE PARTICIPANTS OR THE GOU. (1/4 day) All

DAY 7 -- 10

For each of the commodity groups in the following four days of the course, the same format will be followed. About 1/2 day will be dedicated to each. First, an Uruguayan should present a short background for the commodity in Uruguay, how and why it was selected for an export commodity, what and where its planned production will be, and who the planned consumers are. Following this, training team members will cover each of the topics, as appropriate, of those which were presented in the first 6 days of the course. Materials presented here will be product, even variety specific, covering specific postharvest considerations and postharvest technologies which exist to deal with them.

Grapes and strawberries -- Mitchell/Lizana

Tomatoes and peppers -- Ross/Morris

DAY 8

Pears, Peaches, and Apples -- Ross/Lizana

Potatoes, carrots, beets -- Ross/Morris

DAY 9

Onions, garlic -- Ross/Mitchell

Asparagus, leafy vegetables, inflorescence vegetables, flowers, plant leaves
and stems -- Mitchell/Morris

DAY 10

Sweet corn, melons, winter squash -- Ross

DAY 10 -- AFTERNOON

PANEL DISCUSSIONS

One-half day dedicated to panel discussions answering any problem areas which might have arisen during the course, opinions among the trainers about the state of postharvest handling in Uruguay and how it might proceed, opinions among the trainers about other commodities which might be considered to be produced for export from Uruguay, and a presentation by each Uruguayans and expatriots on sources and resources for postharvest handling information.

DAY 10 -- EVENING

BANQUET AND CLOSING CEREMONIES

ILLUSTRATIVE BUDGET

<u>Salaries:</u>			
Morris ¹	10 + 4 days ² X \$269/day	\$ 3766	
Mitchell	10 + 4 days X \$269/day	3766	
Ross ³	10 + 4 days X \$269/day		3766
Lizano ³	10 + 2 days X \$200/day		2400
Dechert	10 + 4 days X \$125/day		1750
PIP Admin ⁴	10 days X \$125/day		1250
UCE/ITE Admin	5 days X \$125/day	625	
Secretary	20 days X \$60/day	600	600
<u>Fringe benefits for UI and UC Davis faculty & staff:</u>			
UI -- 24.5% X \$3600			882
UC Davis -- 24.5% X \$3766	923		
<u>Per Diem:</u>			
5 persons X 14 days/person X \$55/day	1540		2310
5 persons X 4 travel days/person X \$6/day	48		72
<u>Travel:</u>			
From U.S., 4 persons X \$2500/person ⁵	5000		5000
From Chile, 1 person X \$500/person			500
<u>Other Direct Costs:</u>			
Communications	100		400
Course Materials	1000		2000
DBA Insurance	194		203
SOS Insurance	60		90
<u>Total Direct Costs:</u>	\$17622		\$21223
<u>Indirect Costs:⁶</u>			
UI/PIP--21% X Total Direct Costs(\$38,845)			\$ 8157
UC Davis--21% X their Direct Costs (\$17,622)	\$ 3701		
<u>Grand Total:</u>			\$50703

-
- 1 Team Leader.
 - 2 Days paid are for teaching days plus travel days.
 - 3 Non-UI personnel to be contracted by PIP.
 - 4 PIP administrative time designing and implementing course.
 - 5 Air travel is tourist class, plus cost for one over night stop each way.
 - 6 Since the UC Davis portion is less than \$25,000, by UI regs we must charge indirect costs on all the direct costs of the contract. UC Davis indirect costs are on their portion only.

0346d

Resume

Dr. Leonard MORRIS

Mailing: Mann Laboratory
Department of Vegetable Crops
University of California
Davis, California 95616
(916) 752-1412

Education:

- B.Sc. 1937 Agriculture, Purdue University, Lafayette, Indiana
M.Sc. 1939 Vegetable Crops, Cornell University, Ithaca, New York
Ph.D. 1941 Vegetable Crops, Cornell University, Ithaca, New York

- July 1, 1941 - June 30, 1982 Instructor to Professor, Department of
Vegetable Crops, University of
California, Davis
July 1, 1982 - present Professor Emeritus

Overseas work:

- 1966 External examiner, in horticulture,
University of Khartoum, Sudan.
1967 Taught postharvest portion, vegetable
training course. Venezuela. Sponsored
by OAS and the Shell Foundation.
1969 Same as above.
1971 Same as above.
1978 Assisted with postharvest program at
Queensland Agricultural College,
Queensland, Australia. Also spent time
with Food Preservation Laboratory,
Northridge, Australia.
1958 Consultant to the University of Florida
to establish teaching postharvest program.

1981 National Academy of Science team to attend conference on postharvest losses in New Delhi, India.

1982 FAO consultant to Beijing Vegetable Research Center regarding postharvest program.

1985 Same as above.

1987 Same as above.

1987 Coordinated PIP/University of California, Davis 5 week short course on Reduction of Postharvest Losses in Perishable Commodities.

BIOGRAPHICAL STATEMENT

F. Gordon Mitchell - Program Director-Horticulture (50%)
Extension Pomologist, Marketing (35%) and
Pomologist in the Experiment Station (15%).

Education

1949 B.S. (honors) Plant Science, University of California at Davis.
1960 M.S. Pomology and Plant Physiology, Cornell Univ, Ithaca,
N.Y.

UC Appointment: 1 February 1949

Assignments:

1949-57 Farm Advisor, San Joaquin County. Grapes, small fruit,
plum and peach production.

1957-59 Extension Marketing Technologist. Applied research on
postharvest technology of pomological crops.

1959-___ Extension Pomologist, Marketing. Responsible for statewide
extension and applied research program on postharvest
technology of pomological crops.

1972-___ Adjunct Lecturer, Dept. of Pomology. Classroom and graduate
student teaching; currently Pomology 10 (team teaching),
Pomology 212 (co-teaching), and 3 graduate students.

1981-___ Pomologist (15%) in Experiment Station. Applied research
program on postharvest biology of fruits.

Program Director Appointment:

1 November 1985, 4 year term as Program Director-Horticulture (50%).
Responsible for management of statewide horticulture program involving
21 specialists (17 FTE) and about 60 FTE farm advisor time. Units include
Environmental Horticulture, Pomology, Subtropical Horticulture and
Viticulture & Enology. Line responsibility for 17 FTE specialists.

Honors & Awards:

1974 - Co-recipient of National Cannery Association Award of the
Amer. Soc. for Hort. Sci. for best paper on raw products research.

1977 - Recipient of Carl S. Bittner Extension Award of the Amer.
Soc. Hort. Sci. for outstanding and significant contribution to
horticulture through innovative extension activity.

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- 1977 - Recipient of Carl S. Bittner Extension Award of the Amer.
Soc. Hort. Sci. for outstanding and significant contribution to
horticulture through innovative extension activity.

1977-78 - Research Fellow of South Africa Dept. of Agric., working at Fruit and Fruit Technology Research Institute, Stellenbosch, South Africa.

Special Assignments:

1967 - University of California-University of Chile Convenio. Evaluate postharvest research program in Chile.

1969 - U.N. Advisor in Republic of China. Export handling problems with bananas.

1979-83 - UC-Egypt Program. Collaborate in establishing postharvest research/extension program in Egypt.

1982-____ - Fundacion Chile. Preparation and handling of fruits for export.

1. PROPOSED POSITION:
2. NAME: Jack M. ROSS
3. DATE OF BIRTH:
4. NATIONALITY: United States
5. EDUCATION: B.S., Agricultural Engineering
6. LANGUAGE PROFICIENCY: English, Fluent
Japanese, Fair
Italian, Fair
7. MEMBERSHIP IN PROFESSIONAL SOCIETIES : American Society of Agricultural Engineers
Commercial Aircraft Pilot
8. EXPERIENCE SUMMARY:

Jack Ross has been in the agro-processing field and marketing of fruits and vegetables for over 30 years. In addition to extensive experience in industry, he owns and operates his own consulting service. He has had executive and technical positions with Sunkist Growers, Inc., Dole Corporation and Hawaiian Canneries. His background includes experience in production, packing house operations, packaging, materials handling, transportation-to-market and with all types of agro-processing machinery and equipment. Ross holds eight U.S. patents for various types of agro-processing machinery. He has experience in a number of countries abroad including Jamaica, Egypt, Hong Kong, Philippines, Japan, the Middle East and Europe.

9. EMPLOYMENT RECORD:

International:

FROM: 1984 TO: 1985

POSITION HELD AND

DESCRIPTION OF DUTIES: Europe
Spent one year to set up and manage an operation to pack and market Italian oranges to Western and Eastern Europe and to the Middle East.

FROM: 1983 TO: 1983 (3 months)

POSITION HELD AND

DESCRIPTION OF DUTIES: Japan
Work within the Japanese system to transport and market citrus to various markets.

FROM: 1982 TO: 1982 (1 month)

POSITION HELD AND
DESCRIPTION OF DUTIES: Jamaica
Reviewed and prepared bids for machinery
to process fruits and vegetables.

FROM: 1982 TO: 1982 (1 month)

POSITION HELD AND
DESCRIPTION OF DUTIES: Hong Kong
Set up transportation and marketing
systems for citrus from the U.S.

FROM: 1964 TO: 1965

POSITION HELD AND
DESCRIPTION OF DUTIES: Philippines
Overall engineering responsibilities for
new pineapple plantation which included packinghouses, products
plant, packaging, transportation, advertising and marketing.

U.S. Experience:

FROM: 1981 TO: Present

POSITION HELD AND
DESCRIPTION OF DUTIES: President - ROSS ASSOCIATES
Provide consulting service; US and
international. In Egypt explored post-harvest methods to package
and transport vegetables to market. A system was devised using
plastic boxes which reduced much of the damage to vegetables
during transit. This was with a private contractor working with
AID in Egypt for vegetables grown along the Nile River.

Was in Jamaica several times to prepare
specifications for bidding on equipment to process and pack fruits
and vegetables. This included refrigeration equipment and
facilities.

FROM: 1978 TO: 1985 (retired)

POSITION HELD AND
DESCRIPTION OF DUTIES: Manager, Special Projects
Sunkist Growers, Inc.
California
Worked with numerous fruits and vegetables
from field production through marketing. Included coordination
and management of construction of fiberboard box manufacturing
plant, "cold treating" of oranges on refrigerated ships to control
Mediterranean fruit fly, packing and marketing of potatoes, and
installation of a system to market Italian oranges.

FROM: 1965 TO: 1978

POSITION HELD AND

DESCRIPTION OF DUTIES: Project Engineer
Sunkist Growers, Inc.
California

Involved in orchard operations, packing house operations, packaging, materials handling, transportation to market, and distribution to customers.

Orchard work involved working with agriculturists and horticulturists in orchard layout, tree spacing, cultural practices, harvesting and hauling to packing houses. Irrigation, fertilization, pesticide spray and frost protection were included. Establishing work parameters and mechanization of these functions was a major part of the work.

Work in packing house operations included feasibility studies, packing house layout, materials handling and design of specialized equipment.

Responsible for all packaging of fresh citrus which involved establishing specifications and insuring that materials were available for 80 million cartons of oranges, lemons and grapefruit each year. Palletizing and precooling were included.

Transportation and distribution included working with domestic and export marketing people to develop and establish the methods and standard operating practices for palletizing fresh citrus and loading it in trucks, rail cars, and ships for transportation to market. This included distribution of 80 million cartons of fruit per year to U.S., Canada, Europe, Russia and the Far East. Chartered ships were used for export. Unloading the transport vehicles and being familiar with final distribution methods to customers was a part of this work. Coordinating this work with plant physiologists and postharvest fruit physiologists was important.

FROM: 1955 TO: 1965

POSITION HELD AND

DESCRIPTION OF DUTIES: Plantation Engineer
Dole Corporation
Hawaii

Work included providing equipment and physical facilities for producing pineapple on 30,000 acres of land. This included generation and distribution of electricity, providing drinking water, irrigation water, buildings, trucks, tractors, tillage equipment, spray equipment, irrigation equipment and harvesting equipment. Because pineapple is a specialized

crop, it was necessary to design and construct most of the tillage, spray, irrigation and harvesting equipment in their own shops. Supervised about 100 employees for this purpose. Also responsible for design and development work in special projects such as harvesting the pineapple plants to produce the enzyme bromolain, constructing a facility to dry and cube chopped plants for cattle feed, and development of a pineapple planter.

FROM: 1954 TO: 1955

POSITION HELD AND

DESCRIPTION OF DUTIES: Product Planning Engineer
Ford Motor Co. (Tractor & Implement
Division)
Michigan
Established the performance requirements, specifications and some phases of the design of equipment four years into the future.

FROM: 1950 TO: 1954

POSITION HELD AND

DESCRIPTION OF DUTIES: Plantation Engineer/Plantation
Superintendent
Hawaiian Canneries Co., Ltd.
Hawaii
Superintendent of 2,400 acre pineapple plantation. Work included responsibility for design, construction and maintenance of equipment and facilities for operation of pineapple plantation. Also included responsibility of planting, growing and harvesting pineapple. A portion of the time was spent on engineering of cannery equipment.

10. U.S. PATENTS HELD:

Impact Planter for Pineapple, Tree Fruit Harvesting Platform, Gravity Conveyor, Line Roller Conveyor for Discrete Articles Such as Fruit, Mobile Platform Structure for Fruit Pickers (2), Fruit Slicer, Lemon Sectionizer.

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APPENDIX III

PROPOSAL FOR A SHORT COURSE ON
EXPORT MARKETING FRESH FRUITS AND VEGETABLES FROM URUGUAY

Submitted By: The University of Idaho College of Agriculture
Postharvest Institute for Perishables

Submitted To: The Government of Uruguay Oficina de Planeamiento y
Presupuestos, Direccion de Proyectos de Desarrollo

The Postharvest Institute for Perishables proposes to collaborate with the Government of Uruguay (GOU) Oficina de Planeamiento y Presupuestos (OPP) Direccion de Proyectos de Desarrollo (DIPRODE) in the planning and presentation of a short course on the requirements and means necessary for export marketing of fresh fruits and vegetables produced in Uruguay.

Dr. Ronald Curtis, Director of the Office of International Trade and Development at the University of Idaho, travelled to Uruguay in late 1987 and identified considerable interest in training for Uruguayans in the postharvest handling and marketing of perishable commodities. Since the USAID sponsored Postharvest Institute for Perishables (PIP) is located at the University of Idaho, he suggested that DIPRODE work with USAID/Montevideo in soliciting the services of PIP in the development of training courses. This proposal is the result of travel by Mr. Thomas Dechert, Assistant Field Director of PIP, to Uruguay to work with DIPRODE to identify training needs and methods for planning and implementing the training.

The Inter-American Development Bank and the U.S. Agency for International Development have loaned and/or provided money to the GOU for the development of projects with the goal of diversifying agricultural production for export. The two primary areas of Uruguay identified for diversification of production for export of fruits and vegetables are in the Departments of Artigas and Canelones, and many projects are underway in these areas which will increase the production of fruits and vegetables.

However, to date little attention has been paid to the questions of marketing the products which are scheduled to be produced. Since markets in Uruguay for agricultural products are largely saturated, the only viable markets for

considerable increases in the production of agricultural products will be export markets. This proposed short course will concentrate on the concerns associated with export marketing the fresh fruits and vegetables which are or will be grown in Uruguay. A similar short course--under a different proposal--will concentrate on the postharvest handling of these commodities. A field trip to Chile for both of the short courses will be proposed to take place after the two short courses.

1. Course Goal. The goal of this short course is to train private and public sector agriculturists from Uruguay to identify, produce for, and take advantage of export markets for fruits and vegetables being and/or scheduled to be produced through the Uruguayan agricultural export diversification programs.

2. Course Objectives for the Participants:

- a) To become aware that export marketing is a demand driven function, totally dependent on consumers' requirements and the prices they are willing to pay;
- b) To understand that export marketing requires a readiness on the part of both the public and private sectors, and a long-term commitment to changes in both sectors to adjust to the market requirements;
- c) To understand that marketing is a series of activities, the marketing chain, all of which must be systematically evaluated, including the macro-economy, pre-production planning, institutional and physical inputs, infrastructure, production, postharvest handling, export/import procedures, and marketing, before a decision is made to enter an export market;
- d) To recognize that marketing techniques and organizations are available in Uruguay which can increase the marketability of the export products;
- e) To realize that the ultimate measure of successful export marketing is sound economic business over the long term.

3. Course Administration and Contract. The course will be developed and implemented by PIP and DIPRODE. DIPRODE will be the overall administrator and coordinator for the course. PIP will collaborate with technical inputs to be supplied from the U.S. and Chile. DIPRODE and PIP will develop a contract, or course fee structure, for the inputs to be provided by PIP and paid for by funds from GOU/OPP.
- a) Ing. Jorge San Julian will be the primary coordinator for the course, and administrator of the inputs provided by DIPRODE. He will provide final approval of both private and public sector participants for the course. He will be the focus for communications with PIP for inputs from PIP and the contract that will be developed with PIP.
 - b) Tom Dechert will be the primary course administrator for PIP and will work with DIPRODE to coordinate, organize, and contract the course.
 - c) Dr. Richard Schermerhorn, Chairman of the Agricultural Economics and Rural Sociology Department, University of Idaho, will be the technical coordinator for the course, providing the primary guidance in technical content and organization.
4. Course Location, Time, and Approval. It is proposed that the short course be given January 9 through January 20, 1989. The primary location for the course will be in Montevideo, at a site yet to be identified. It is expected that the lectures and demonstrations for the course will be from 9:00 a.m.-1:00 p.m. and 2:00 p.m.-6:00 p.m., with the evening reserved for the participants to study materials to be provided.

Candidates as lecturers and content for the course are identified below. After this proposal for course content, lecturers, and other arrangements have been approved by DIPRODE, Dechert will draft a contract listing the responsibilities of both PIP and DIPRODE. USAID/Montevideo will act as communication facilitating conduit for materials passing between PIP and DIPRODE. Final approval for the course can be assumed once a contract is completed between the University of Idaho and the GOU/OPP.

5. Course Financing. Arrangements for financing the course are the responsibility of OPP as the guarantor of the contract to be developed for services to be provided through PIP. It is assumed that the course will be financed by funds within the GOU/OPP and from fees charged to participants from other agencies of the GOU and the private sector. It is expected that the GOU will pay PIP for the budgeted costs of the course before the consultants/lecturers begin travel to Uruguay to give the course.

6. Course Participants (Trainees). The twenty to thirty participants for the course will be agriculturists or marketers selected equally from the public and private sectors in Uruguay. Participants should have a minimum level of training of an Ingeniero Agronomo or marketing experience. Approval of participants will be the responsibility of Ing. San Julian, with communication on any questions with PIP.

The participants are expected to participate full-time in the course, including many evenings and nights for study and group discussions.

Housing, food, and travel for the course will be arranged as appropriate by DIPRODE.

Language for the course will be Spanish. DIPRODE will arrange to have simultaneous translation services available for those lecturers who are not fluent in Spanish.

7. Course Lecturers. Lecturers for the proposed course will be marketing professionals from Uruguay, Chile, and the U.S. The technical coordinator for the course will be Dr. Richard Schermerhorn, Head of the Department of Agricultural Economics and Rural Sociology at the University of Idaho. Dr. Schermerhorn has extensive international experience in the development of marketing systems for the export of fruits and vegetables. Dr. Schermerhorn will be assisted by Dr. Larry Makus from the University of Idaho, Mr. William Bolton, a private sector marketing consultant, Dr. Norma Sepulveda from the Universidad de Chile, and marketing specialists from the fruits and vegetable sector in Chile. Dr. Makus is an international marketing specialist with expertise in market

identification, marketing policy, and transportation. Mr. Bolton, who is fluent in Spanish, has broad experience in agricultural project design, implementation, marketing, and marketing organizations in developing countries. Dr. Sepulveda has participated extensively in market identification for the Chilean fruit and vegetable export thrust. Lecturers from Uruguay will include Sr. Mauro Fratocchi, Sr. Augustin Leindekar, Sr. Mercant, and other Uruguayans involved in marketing fruits and vegetables from Uruguay. Final approval for the lecturers, their stipends, travel arrangements, and other requirements will be made in the contract between PIP and DIPRODE.

8. Course Content. The goal of export marketing is the same as domestic marketing--selling to and serving customers--and the different steps in accomplishing this are very much the same. The primary difference is that domestic marketing tends to be a developed skill, almost an art, which receives little analysis, while export marketing must be analyzed from the outset to try to insure success in the venture. This course presents the systematic analyses necessary to insure success of export marketing of fruits and vegetables from Uruguay. The different topics will be examined in an interactive format, with different lecturers presenting their information and calling on the participants to contribute their opinions and experience, resulting in a complete evaluation of the Uruguyan export market initiative.

Background materials for each of the course topics will be provided by PIP to DIPRODE at least two months before the beginning of the course. DIPRODE will translate the materials which will be published jointly by the three collaborating institutions. The published materials for this course will be a concise manual in Spanish for marketing of fruits and vegetables.

DAY 1

I. INTRODUCTION TO COURSE, DIPRODE PROJECTS, & THEIR RATIONALE
Welcome and orientation to course. Discussion of DIPRODE projects in the Departments of Artigas and Canelones, how they came about, how they are planned to be implemented, and their goals. Philosophy for the workshop. (1/4 day) DIPRODE/Bertolotti, San Julian, and Schermerhorn.

II. THE ROLE OF MARKETING IN AGRICULTURAL DEVELOPMENT

A discussion of results expected and problems encountered with traditional agricultural development projects. Conditions required for optimal development projects will be presented. The market-oriented approach to development will be discussed and a brief orientation to the overall process of marketing will be presented. An outline will be presented of a marketing system, the contents of which will be completed as the course progresses. This section of the course will provide the foundation upon which the remainder of the course will be built. (1/4 day) Schermerhorn/Bolton

III. THE HISTORY AND IMPORTANCE OF AGRICULTURAL MARKETING IN URUGUAY

A presentation of the dominance of agricultural export marketing, especially of animal products, to the economy of Uruguay, and the impact of the decline of these markets in recent years. (1/4 day) Fracocchi

IV. PROBLEMS AND CONSTRAINTS WITH TYPICAL MARKETING SYSTEMS

Building upon the optimal agricultural development project conditions, this section will investigate the various problems and constraints evident in typical marketing systems in developing countries that have impact on development of markets, with specific reference to cooperatives entering export markets for perishable fruits and vegetables. (1/4 day) Schermerhorn/Makus.

DAY 2

V. CONDITIONS REQUIRED FOR EFFECTIVE EXPORT MARKETING

A discussion of such factors as willingness of both the private and public sector to provide: 1) support services; 2) adequate and efficient market infrastructure; 3) institutional, including cooperative, organization; and 4) adequate and effective policy framework. Items to be covered include research, extension, market intelligence, market regulation, quality assurance, financing, risk-taking, marketing institutions, transportation, and marketing policy. (1/2 day) Schermerhorn/Makus (Rapid Appraisal Guidelines)

VI. MARKET DEVELOPMENT EXPERIENCES IN URUGUAY, CHILE, OTHERS

A discussion by current (or past) fruit and vegetable Uruguay exports relating problems, constraints, opportunities and needs to facilitate the successful development of export markets for fruits and vegetables. (1/2 day) Uruguayan Exporters--Leindekar, Reyes/Fracocchi/Chile--Sepulveda/Bolton.

DAY 3

VII. INVESTIGATING EXPORT MARKET POTENTIAL

A discussion of specific questions that require investigation before a decision can be made to initiate actions to begin an export marketing venture. (1/2 day) Schermerhorn/Sepulveda (Considering the Export Market)

VIII. MARKET FEASIBILITY

A discussion of conducting a market feasibility study, including how to evaluate current and potential consumption of the export product in the target market area, evaluation of types and locations of potential markets, types of distribution systems, qualities and grades required, ways to enter the market, types of buyers in the market, types of selling arrangements, and the levels of prices that can be charged for the product. (1/2 day) Schermerhorn/Makus

DAY 4

IX. PRODUCTION FEASIBILITY

A discussion of conducting a production feasibility study based on market demand, i.e., can the commodity be produced of the type, quality, quantity demand in the export market and at a cost that will allow for entrance into the market. The discussion will include the process of evaluation of production capabilities, labor costs, land requirements, imports, capital investment required, operational costs and determination of potential returns to growers and the marketing system. (1/2 day) Makus/Bolton

X. EXPORT MARKETING STRATEGY

A discussion of the development and adoption of courses of action and the allocation of resources to achieve the objectives set forth in the strategy. Includes an outline of the various decisions required to establish a marketing strategy and the development of a marketing plan to carry out the strategy (1/2 day) Schermerhorn/Makus/Bolton/Sepulveda

DAY 5

XI. EXPORT MARKET PLAN

Discussion of the need for and how to develop a marketing plan. (1/2 day) Bolton, Sepulveda, Makus

XII. PRODUCTION/MARKETING FEASIBILITY STUDY WORKSHOP

Small groups will be formed and given a case problem which will allow each group to go through the process of developing a feasibility study. (1/2 day) Facilitated by training team and local exporters

WEEK-END

Groups can use week-end to complete the development of their feasibility studies.

DAY 6

XIII. GROUP REPORTS AND DISCUSSION OF FEASIBILITY STUDIES

XIV. PRESENTATION BY TABLE GRAPE AND CITRUS EXPORTERS

Marketing activities of the citrus growers from Saltos and the CALVINOR operation in Artigas. Presentation of the development of their export markets, their successes and failures.

XV. PANEL DISCUSSION OF FEASIBILITY STUDIES BY EXPORTERS

Moderated by Schermerhorn.

DAY 7

XVI. POSTHARVEST HANDLING REQUIRED FOR EFFECTIVE EXPORT MARKETING

A general discussion of the need for various postharvest handling or market preparation steps that must accompany any export market development venture. Activities include pre-cooling, sorting and grading, packaging, fumigation, refrigeration, storage, chemical treatments, transportation, loading and shipping containers, etc. Will rely extensively on audio-visual training materials from PIP. (1 day) Bolton/Exporter/Postharvest Technologist.

XVII. MECHANICS OF EXPORT MARKETING
Bolton, Chilean, Uruguyan Exporter and Banker
USDC--A Basic Guide to Exporting

Pricing, Quotations, and Terms of Sale. How to determine reasonable prices for products based on costs and required profits, and quotations of the product and its price, and the terms of sale of the product.

International Communications. Examines the need for clear and frequent communications and the various systems of communication which are available, and their various uses.

Payment for Exports. Examines the various methods for receiving payment for exported products, and what to do if problems occur.

International Shipping. Examines methods and requirements for shipping products internationally, including considerations for quarantine, import regulations, insurance and handling responsibilities.

Export Documentation. Examines the export documentation required in Uruguay for exportation of fruits and vegetables, and various methods and intermediaries available to help complete them.

Uruguyan Government Export Regulations and Taxes. Examines government regulations which impact on the export of fruits and vegetables from Uruguay. Also any taxes, or tax incentives, for exporting.

Financing Exports. Examines the various banks and other institutions available to help with the financing of the export operation.

Employing Representatives Abroad. Examines the options and precautions for employing a representative abroad for the Uruguyan products to be exported, including how to check reliability, establishing working relations, and drawing up an agreement.

Business Travel Abroad. Provides an idea of expectations, documentation, and other requirements for travel abroad to sell or represent the export of Uruguyan products, including how to establish a positive presence with individuals you meet. Recognizes the need to be sensitive to customs, traditions, and consumer preferences in relation to the product being promoted.

Promotion of Product Sales Abroad. Emphasizes the importance of promotion of Uruguyan products in the international arena, and presents various opportunities and methods for doing so. Focuses on the direct relation between product promotion and the financial success of export enterprises.

Export Assistance Programs and Services. Identifies domestic and international export assistance programs, their goals, and how to access them.

DAY 10

XIX. COMPLETE DESCRIPTION AND ANALYSIS OF MARKETING SYSTEM

The description of the proposed marketing systems for selected fruits and vegetables in Uruguay will be completed and analyzed in groups. Critical impediments to the functioning of the system will be identified and solutions discussed.

XX. SUMMARY & CONCLUDING REMARKS

DAY 10 -- EVENING

XXI. BANQUET & AWARDS CEREMONY

BUDGET

Salaries:

Schermerhorn ¹	12 + 4 days ² X \$240/day	\$ 3840.00	
Bolton ³	10 + 4 days X \$263/day	3682.00	
Sepulveda ³	10 + 2 days X \$170/day	2040.00	
Makus	5 + 4 days X \$170/day	1530.00	
PIP Admin. ⁴	15 days X \$125/day	1875.00	
PIP Secretary	10 days X \$60/day	600.00	
TOTAL SALARIES			\$13,567.00

Fringe benefits for UI faculty & staff:

24.5% X \$7845.00		1,922.03
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Travel:

From U.S., 3 persons X \$2500/person ⁵	7500.00	
From Chile, 1 person X \$500/person	500.00	
TOTAL TRAVEL		8,000.00

Per Diem:

Travel Days:		
From U.S., 3 persons x 4 days/person @ \$6/day	72.00	
From Chile, 1 person x 2 days @ \$6/day	12.00	
14 days x 3 persons @ \$55.00/day	2310.00	
7 days x 1 person @ \$55.00/day	385.00	
TOTAL PER DIEM		2,779.00

Other Direct Costs:

Communications	500.00	
Course Materials	3000.00	
DBA Insurance	285.06	
SOS Insurance	90.00	
TOTAL OTHER		<u>3,875.06</u>

<u>Total Direct Costs:</u>		\$30,213.09
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Indirect Costs:

21% X Total Direct Costs	\$ 6344.75
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<u>Grand Total:</u>		\$36,557.84
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1. Team Leader.
 2. Days paid are for teaching days plus travel days.
 3. Non-UI personnel to be contracted by PIP.
 4. PIP administrative time designing and implementing course.
 5. Air travel is tourist class, plus cost for one over-night stop each way.

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1. PROPOSED POSITION:

2. NAME: William E. Bolton

3. DATE OF BIRTH:

4. NATIONALITY: United States

5. EDUCATION: B.S., Agricultural Economics
INCAE Diploma, Case Histories of
Agricultural Projects
AMA Certificate in Agricultural
Management
Master's Courses (no degree)

6. LANGUAGE PROFICIENCY: English, Fluent
Spanish, Fluent
Portuguese, Good

7. MEMBERSHIP IN
PROFESSIONAL SOCIETIES : Commodity Exchange of Brazil

8. EXPERIENCE SUMMARY:

Mr. William Bolton has broad experience in agricultural project design, implementation, marketing and marketing organizations in developing countries. He has managed several agribusiness and marketing firms in Honduras, Costa Rica, Brazil, Nicaragua and Pakistan. He has numerous consulting assignments in developing countries related to agricultural marketing and marketing organizations with over 30 years experience in numerous international agribusiness projects. Mr. Bolton is part-owner and operator of 3 farms (1200 acres) in Missouri in addition to being owner of several other small businesses.

9. EMPLOYMENT RECORD:

FROM: November 1985 TO: January 1986

POSITION HELD AND

DESCRIPTION OF DUTIES: Consultant
West Indies
Member of nine-person "HIAMP" project
paper team for agricultural project development for export in St.
Kitts, St. Lucia, Antigua, Dominica, Grenada, St. Vincent and
others.

FROM: September 1985 TO: November 1985

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
All Central America & Panama
Member of team for Booz.Allen & Hamilton
in LAAD-CA evaluation. Made recommendations to USAID on
concessional financing/rates for LAAD.

FROM: April 1985 TO: May 1985

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
All Central America & Panama
Prepared project paper for AID in Central
America as non-traditional agricultural crops with export
potential.

FROM: January 1985 TO: February 1985

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Honduras
Member of two-person team for the
Postharvest Institute for Perishables to evaluate the large export
marketing organization FEPROEXAH for export of perishable crops.

FROM: June 1984 TO: July 1984

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Honduras
Member of nine-person team to design the
FEPROEXAH marketing organization.

FROM: February 1984 TO: March 1984

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Caribbean and Central America
Member of fact finding team to determine
the impact of banning EDB use on soft fruits exported to the U.S.
from Caribbean countries.

FROM: January 1983 TO: April 1983

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Pakistan
Member of six-person team to design a
marketing board in the Northwest Frontier Province of Pakistan.
Also member of edible oil team for all of Pakistan.

FROM: July 1983 TO: September 1983

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Panama
Marketing and storage project in grains,
fruits, and vegetables in Panama.

FROM: 1981 TO: Present

POSITION HELD AND
DESCRIPTION OF DUTIES: Consultant
Guatemala
Project in marketing development of coffee
and cardamon, and export of fresh fruits and vegetables for
European and U.S. markets. Firm operated in Honduras, Nicaragua,
Costa Rica, Guatemala and Colombia. Consult six to eight weeks
per year on this project.

FROM: 1977 TO: 1979

POSITION HELD AND
DESCRIPTION OF DUTIES: Vice-President
Agri-business firm (Alexander & Baldwin
Agribusiness)
Guatemala
Vice-president and head administrator of
production, technical and financial staff of firm. Involved large
agri-businness management contracts for coffee, tobacco, cattle,
sugar and various spices.

FROM: August 1969 TO: April 1977

POSITION HELD AND
DESCRIPTION OF DUTIES: Vice-president Diversified Group, United
Brands
Throughout Latin America
Conducted numerous agricultural production
and marketing projects throughout Latin America. Was also
administrative head of Tropical Research Laboratories.

FROM: October 1967 TO: July 1969

POSITION HELD AND

DESCRIPTION OF DUTIES: General Manager
Thompson International
USA
Manufacturing and sales of specialty
agricultural machinery and services to 29 countries.

FROM: May 1960 TO: June 1967

POSITION HELD AND

DESCRIPTION OF DUTIES: Director/Vice President
Brokerage Firm
Central America and Brazil
Established a chain of brokerage agents
and purchasing/shipping offices throughout the area dealing in
various agricultural commodities.

FROM: April 1955 TO: May 1960

POSITION HELD AND

DESCRIPTION OF DUTIES: General Manager/Operator-Co-owner
Bolton Farms
USA (Missouri)
General Manager and director of two farms
(2,800 acres, 1,200 acres in 1986) in cotton, wheat, milo and
soybeans.

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1. PROPOSED POSITION:

2. NAME: Richard W. SCHERMERHORN

3. DATE OF BIRTH:

4. NATIONALITY: United States

5. EDUCATION: Ph.D., Agricultural Economics
M.S., Agricultural Economics
B.S., Agricultural Economics
AAS, Dairy Technology

6. LANGUAGE PROFICIENCY: English, Fluent
Spanish, Fair

7. MEMBERSHIP IN PROFESSIONAL SOCIETIES: American Society for Horticultural Science
American Agricultural Economics Association
International Association of Agricultural Economists

8. EXPERIENCE SUMMARY:

Dr. Schermerhorn has over 30 years of agricultural experience ranging from teaching, extension, research and administration to private consulting in international marketing and agribusiness management - both in the U.S. and in other countries including Morocco, Libya, The Gambia, Philippines, Sri Lanka and the Caribbean. He has authored numerous publications and articles.

9. EMPLOYMENT RECORD:

FROM: May 1986 TO: July 1986

POSITION HELD AND DESCRIPTION OF DUTIES: Marketing Consultant
Sri Lanka
Advised Ministry of Agriculture on designing a more efficient marketing system for vegetables and subsidiary field crops.

FROM: February 1986 TO: February 1986

POSITION HELD AND DESCRIPTION OF DUTIES: Extension Economist - International Trade
Japan
Evaluated potential market demand for various Idaho produced commodities.

FROM: 1 October 1985 Present

POSITION HELD AND Extension Economist, International Trade
DESCRIPTION OF DUTIES: U.S.A. (University of Idaho)
Responsible for conducting an educational program on international trade and market development with existing and potential Idaho exporters of agricultural products. Also assist potential exporters of these products to develop international markets.

FROM: 1 May 1983 30 September 1985

POSITION HELD AND Marketing Consultant/Advisor
DESCRIPTION OF DUTIES: Jamaica
Advised Ministry of Agriculture on the development of and policies related to the marketing of agricultural products in Jamaica and for export. Also established organizational structure for Marketing Division of the Ministry and developed training programs for managers, members and boards of directors of marketing cooperatives.

FROM: 1 August 1971 1 May 1983

POSITION HELD AND Head, Department of Agricultural Economics
DESCRIPTION OF DUTIES: U.S.A. (University of Idaho)
Administered all research, extension and teaching programs in the Department. Taught courses in Agribusiness Management and Marketing. Conducted research in marketing and economic feasibility of agricultural enterprises.

FROM: 17 March 1982 12 April 1982

POSITION HELD AND Marketing Consultant
DESCRIPTION OF DUTIES: Philippines
Evaluated Philippines Government proposal for a loan request to the Asian Development Bank designed to initiate and implement a more effective marketing system for fruits and vegetables country-wide. A \$35 million loan was eventually made to the National Food Authority/Food Terminal Complex.

FROM: October 1981 November 1981

POSITION HELD AND Marketing Consultant
DESCRIPTION OF DUTIES: Eastern Caribbean
Determined and evaluated postharvest losses of perishable agricultural commodities in Barbados, St. Lucia, St. Vincent and Dominica. Recommended marketing alternatives for reducing the losses.

FROM: September 1981 December 1981

POSITION HELD AND Marketing Consultant
DESCRIPTION OF DUTIES: U.S.A. (Hawaii)
Conducted in-depth evaluation of the market structure of the Hawaiian livestock industry and recommended reorganization of the industry to improve marketing efficiency.

FROM: 1980 1981

POSITION HELD AND Acting Director, Postharvest Institute for Perishables
DESCRIPTION OF DUTIES: U.S.A. (University of Idaho)
Administered all activities of the Institute, set up initial procedures and other start-up operations from PIP's inception until a permanent Director was employed (nine months).

FROM: September 1980 September 1980

POSITION HELD AND Consultant
DESCRIPTION OF DUTIES: The Gambia
Analysis of livestock development proposal.

FROM: January 1978 September 1978

POSITION HELD AND Visiting Professor
DESCRIPTION OF DUTIES: U.S.A. (University of Hawaii)
Evaluated extension programs in the College of Agriculture and made recommendations for reorganization to better serve the needs of its clientele. Conducted feasibility study for alfalfa production and marketing venture on Molakai.

FROM: February 1977 February 1977

POSITION HELD AND Consultant
DESCRIPTION OF DUTIES: Libya
Analysis of economic development strategies.

FROM: September 1974 September 1974

POSITION HELD AND Consultant
DESCRIPTION OF DUTIES: Morocco
Analysis of Peace Corps Program.

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PUBLICATIONS:

Journal Articles:

"Identifying Extension's Marketing Clientele and Adapting Economic Information to Their Needs," Southern Journal of Agricultural Economics, December 1969.

"The Economic Feasibility of an Integrated Broiler Operation," American Journal of Agricultural Economics, Volume 51, Number 5, December 1969.

Research Bulletin:

A Description of the Market Organization of the Hawaii Beef Cattle Industry, Hawaii Institute of Tropical Agriculture and Human Resources, Information Text Series O11, University of Hawaii, Honolulu, Hawaii, August 1982.

Experiment Station Bulletins:

A Planning Guide for an Egg Marketing Cooperative, Bulletin N.S. 87, Georgia Agricultural Experiment Station, University of Georgia, College of Agriculture, Athens, Georgia, December 1961.

The Changing Pacific Northwest Fruit and Vegetable Canning Industry, Circular of Information 612, Agricultural Experiment Station, Oregon State University, Corvallis, Oregon, September 1962.

An Economic Feasibility Study of Shooting Preserves in Maryland (Co-authored), MP 584, University of Maryland Experiment Station, University of Maryland, College Park, Maryland, June 1966.

The Market Structure and Organization of the Maryland Table Egg Industry (Co-authored), MP 596, University of Maryland Experiment Station, University of Maryland, College Park, Maryland, November 1966.

Economic Analysis of the Potential for Developing Overnight Camping Facilities On or Near Major Highways in Oklahoma, Bulletin B-660, Agricultural Research Experiment Station, Oklahoma State University, Stillwater, Oklahoma, September 1968.

The Movement of Cattle and Calves Within Idaho (Co-authored), Idaho Agricultural Experiment Station, Bulletin No. 559, University of Idaho, Moscow, Idaho, March 1976.

The Interstate Movement of Beef and Beef Products (Co-authored), Idaho Agricultural Experiment Station, Bulletin No. 557, University of Idaho, Moscow, Idaho, March 1976.

The Economic Impact of the Idaho Beef Industry on the State's Growth and Development (Co-authored), Idaho Agricultural Experiment Station, Bulletin No. 563, University of Idaho, Moscow, Idaho, March 1976.

Experiment Station Bulletins (cont.):

Fertilizer Use in Idaho--Too Much or Too Little? Agricultural Experiment Station, Current Information Series No. 383, University of Idaho, Moscow, Idaho, March 1977.

Idaho Agricultural Commodity Statistics--Historical Series 1900-1976 (Co-authored), Agricultural Experiment Station, Miscellaneous Series No. 43, University of Idaho, Moscow, Idaho, May 1978.

Transportation Costs of Idaho's Beef and Beef Products Movement (co-authored) Agricultural Experiment Station, Bulletin No. 583, University of Idaho, Moscow, Idaho, January 1930.

The Supply and Demand Situation for Irrigated Wheat in Idaho, 1950-1978 (Co-authored), Agricultural Experiment Station, Research Bulletin No. 114, University of Idaho, Moscow, Idaho, March 1980.

Agricultural Economics Department Publications:

Financial Statement Analysis for Agricultural Marketing Firms, Agricultural Economics Information Series Number 24, College of Agriculture, University of Maryland, College Park, Maryland, February 1964.

"Market Structure Characteristics of Agribusiness Firms in Maryland" (Co-authored), Maryland Agri-Economics, Department of Agricultural Economics, University of Maryland, June 1964.

Costs and Returns from Table-Egg and Hatching-Egg Production in Maryland (Co-authored), Agricultural Economics Information Series Number 26, College of Agriculture, University of Maryland, College Park, Maryland, November 1964.

Management Guide to Cost Control: Average Cost to Pack Whole Kernel Corn (Co-authored), Agricultural Economics Information Series Number 29, College of Agriculture, University of Maryland, College Park, Maryland, November 1965.

Management Guide to Cost Control: Average Cost to Pack Sweet Potatoes (Co-authored), Agricultural Economics Information Series No. 31, College of Agriculture, University of Maryland, College Park, Maryland, November 1965.

Management Guide to Cost Control: Average Cost to Pack Tomatoes (Co-authored), Agricultural Economics Information Series No. 30, College of Agriculture, University of Maryland, College Park, Maryland, November 1965.

A Survey of Southern Maryland Marine Facilities, Agricultural Economics Information Series Number 34, College of Agriculture, University of Maryland, College Park, Maryland, April 1966.

An Economic Feasibility Analysis of an Integrated Broiler Operation in Oklahoma, A.E. 6716, Department of Agricultural Economics, Oklahoma State University, Stillwater, Oklahoma, June 1967.

Agricultural Economics Department Publications (cont.):

Feasibility Analysis--An Integral Part of Growth, Ag. Economics Series No. 102, College of Agriculture, University of Idaho, Moscow, Idaho, November 1971.

The Role of Marketing in the Future Livestock Industry, Ag. Economics Series No. 103, College of Agriculture, University of Idaho, Moscow, Idaho, November 1971.

Improving Board Members, Ag. Economics Series No. 104, College of Agriculture, University of Idaho, Moscow, Idaho, November 1971.

How to Improve Employee Relations, Ag. Economics Series No. 108, College of Agriculture, University of Idaho, Moscow, Idaho, January 1972.

Why Do We Have Problem Employees? Ag. Economics Series No. 109, College of Agriculture, University of Idaho, Moscow, Idaho, January 1972.

Management Succession--Is There a Plan? Ag. Economics Series No. 111, College of Agriculture, University of Idaho, Moscow, Idaho, January 1972.

A Management Tool - Financial Analysis, Ag. Economics Series 121, College of Agriculture, University of Idaho, Moscow, Idaho, June 1972.

Expansion Prospects of Idaho Cattle Feeders, Ag. Economics Series 131, College of Agriculture, University of Idaho, Moscow, Idaho, July 1973.

Feasibility Studies--What Are They and How Are They Conducted? Ag. Economics Series 132, College of Agriculture, University of Idaho, Moscow, Idaho, September 1973.

Economics of Feeding Cattle in Idaho, Ag. Economics Series 134, College of Agriculture, University of Idaho, Moscow, Idaho, November 1973.

A Look at Forward Contracting, Ag. Economics Series 138, College of Agriculture, University of Idaho, Moscow, Idaho, May 1974.

The World of Agribusiness, Ag. Economics Series No. 156, College of Agriculture, University of Idaho, Moscow, Idaho, August 1974.

A Dynamic Regional Impact Analysis of Federal Expenditures on a Water and Related Land Resource Project--An Example of Interdisciplinary and Interagency Research, Ag. Economics Series No. 161, College of Agriculture, University of Idaho, Moscow, Idaho, January 1975.

The Future Environment Faced by Idaho Agriculture, Ag. Economics Series No. 173, College of Agriculture, University of Idaho, Moscow, Idaho, November 1975.

The Economics of Agriculture, Ag. Economics Series No. 300, College of Agriculture, University of Idaho, Moscow, Idaho, December 1975.

Agricultural Economics Department Publications (cont.):

Management by Objectives, Ag. Economics Series No. 302, College of Agriculture, University of Idaho, Moscow, Idaho, January 1976.

The New Manager in the Agricultural Industry, Ag. Economics Series No. 317, College of Agriculture, University of Idaho, Moscow, Idaho, June 1976.

Marketplace Aspects of Desert Land Conversion, Ag. Economics Series No. 207, College of Agriculture, University of Idaho, Moscow, Idaho, February 1977.

Management Succession, Ag. Economics Series No. 348, College of Agriculture, University of Idaho, Moscow, Idaho, February 1979.

Roles and Relationships in Cooperatives, Ag. Economics Series No. 368, College of Agriculture, University of Idaho, November 1980.

Extension Service Publications:

Appraising the Problems and Opportunities of Merger (Co-authored), Northeast Extension Marketing Publication No. 1, Extension Bulletin 203, Cooperative Extension Service, University of Maryland, College Park, Maryland, April 1965.

Marinas in Southern Maryland, Leaflet 43, Cooperative Extension Service, University of Maryland, College Park, Maryland, March 1966.

Effective Personnel Management, O.S.U. Extension Facts No. 804, Oklahoma State University Extension Service, Stillwater, Oklahoma, May 1967.

Financial Statement Analysis for Agribusiness Firms, Circular E-812, Oklahoma State University Extension, Stillwater, Oklahoma, February 1970.

Considerations in Establishing Transient Campgrounds, Oklahoma State University Extension Facts No. 812, Oklahoma State University Extension Service, Stillwater, Oklahoma, June 1970.

Financial Analysis of Grain and Supply Cooperatives in Oklahoma (Co-authored), Circular E-813, Oklahoma State University Extension, Stillwater, Oklahoma, June 1970.

Board of Director Practices for Grain Firms, Oklahoma State University Extension Facts No. 115, Oklahoma State University Extension Service, Stillwater, Oklahoma, August 1970.

Feasibility of "Put and Take" Fee Fishing Ponds, Oklahoma State University Extension Facts No. 9003, Oklahoma State University Extension Service, Stillwater, Oklahoma, November 1970.

Evaluating the Opportunities and Problems of Merger, Oklahoma State University Extension Facts No. 818, Oklahoma State University Extension Service, Stillwater, Oklahoma, August 1971.

Extension Service Publications (cont.):

Effective Personnel Leadership, University of Idaho Cooperative Extension Service Current Information Series No. 402, Moscow, Idaho, July 1977.

A Look at Idaho Farm Income, University of Idaho Cooperative Extension Service, Current Information Series No. 420, Moscow, Idaho, November 1977.

Economic Feasibility Analysis--What Is It and How Should It Be Done? Cooperative Extension Service, Miscellaneous Publication 153, University of Hawaii, Honolulu, Hawaii, February 1978.

Merger--Is It the Answer? Cooperative Extension Service, Miscellaneous Publication 155, University of Hawaii, Honolulu, Hawaii, July 1978.

A Study of the Economic Feasibility of Producing, Harvesting and Marketing Alfalfa or Molokai, Hawaii, Cooperative Extension Service, Miscellaneous Publication 160, University of Hawaii, Honolulu, Hawaii, July 1978.

An Exploration of Marketing, 4-H Member Manual, MA-6, Cooperative Extension Service, University of Idaho, Moscow, Idaho, October 1980.

An Exploration of Marketing, 4-H Record Book, MA-7, Cooperative Extension Service, University of Idaho, Moscow, Idaho, October 1980.

Business Exploration, 4-H Record Book, MA-3, Cooperative Extension Service, University of Idaho, Moscow, Idaho, October 1980.

Management by Objectives, University of Idaho, Cooperative Extension Service Cow-Calf Management Guide, Cattleman's Library, CL920, January 1981.

Public Investment in Wheat Research--Economic Impact in the Western Region, University of Idaho, Cooperative Extension Service Current Information Series No. 571, Moscow, Idaho, February 1981.

Personnel Management--Effective Personnel Leadership, University of Idaho, Cooperative Extension Service Current Information Series No. 610, Moscow, Idaho, October 1981.

Personnel Management--Recruiting and Retaining Good Personnel, University of Idaho, Cooperative Extension Service Current Information Series No. 611, Moscow, Idaho, October 1981.

Personnel Management--Management Succession, University of Idaho, Cooperative Extension Service Current Information Series No. 612, Moscow, Idaho, October 1981.

Personnel Management--Problem Employees, University of Idaho, Cooperative Extension Service Current Information Series No. 613, Moscow, Idaho, October 1981.

Extension Service Publications (cont):

The Impact of Agricultural Research, University of Idaho, Cooperative Extension Service Current Information Series No. 730, Moscow, Idaho, February 1984.

An International Market Profile: Rapeseed, University of Idaho, Cooperative Extension Service Extension Bulletin No. 660, August 1986.

Idaho's Agriculture: A Changing Industry, University of Idaho, Cooperative Extension Service Extension Bulletin No. 662, August 1986.

Non-Scientific Publications:

"What Does It Cost...To Build and Operate An Egg Processing Plant?" Poultry Tribune, February 1963.

"Ten Ways to Improve Efficiency," Poultry Processing and Marketing, June 1964.

"Will Delmarve Produce More Hatching Eggs" (Co-authored), Poultry Meat, February 1965.

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PROFESSIONAL

ACTIVITIES: Member - American Agricultural Economics Association (member of the Outstanding Master's Thesis Awards Committee - 1984-87), Southern Agricultural Economics Association, Western Agricultural Economics Association, Gamma Sigma Delta (Charter Member of Oklahoma State University Chapter), Phi Kappa Phi (Texas A&M Chapter).

COLLEGE

ACTIVITIES: Member - College of Agriculture Resident Instruction Advisory Committee (RIAC), University of Idaho.

DEPARTMENT

ACTIVITIES: University of Idaho - Member of Undergraduate Curriculum Committee, 1986/87 and 1987/88. Advisor of Agricultural Economics Club, 1986/87 and 1987/88.

Oklahoma State University - Member and Chair of Agricultural Economics Contest Committee, 1983 - 1986. Advisor, Agricultural Economics Club (Aggie-X), 1984 - 1986.

University of Wisconsin - Platteville - Advisor, Agricultural Economics and Agribusiness Club, 1977/78.

AWARDS: University of Idaho - Agricultural Economics and Agribusiness Club Special Recognition Award for Excellence in Teaching, 1988.

Oklahoma State University - Aggie-X Club Superior Teaching Award, 1985.

Texas A&M University - Agricultural Economics Club, Outstanding Teacher Award, 1982; Special Recognition Award for Teaching, 1981.

University of Wisconsin - Platteville - Agricultural Economics and Agribusiness Club Special Appreciation Award for Instructional Services, 1979.

PUBLICATIONS: Authored or co-authored over 25 professional publications in area of ag. marketing, ag. transportation, and feasibility analysis. Also have several publications in popular magazines. A publications list is attached.

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APPENDIX IV

PROPOSAL FOR A FIELD TRIP TO SELECTED FRUIT AND VEGETABLE
POSTHARVEST HANDLING AND MARKETING SITES IN CHILE

Submitted by:
Facultad de Ciencias Agrarias y Forestales
Universidad de Chile, Santiago, Chile

Submitted to:
The Government of Uruguay, Oficina de Planeamiento y
Presupuestos, Direccion de Proyectos de Desarrollo

The University of Chile (UC) Facultad de Ciencias Agrarias y Forestales (FCAF) proposes to collaborate with the Government of Uruguay (GOU) Oficina de Planeamiento y Presupuestos (OPP) Direccion de Proyectos de Desarrollo (DIPRODE) in the planning and presentation of a field trip on the reduction of postharvest losses and marketing of perishable commodities produced for export from Chile. The field trip is a follow-up to two short courses organized and presented in Uruguay by the Postharvest Institute for Perishables (PIP), University of Idaho, USA, and the University of California, Davis, USA, and will show the Uruguayans how Chile has applied postharvest handling and marketing principals for their export markets.

The Inter-American Development Bank and the U.S. Agency for International Development have loaned and/or provided money to GOU for the development of projects with the goal of diversifying agricultural production for export. Two areas of Uruguay identified for diversification of production for export of fruits and vegetables are in the Departments of Artigas and Canelones, and many projects are underway in these areas which will increase the production of fruits and vegetables. However, to date, little attention has been paid to the questions of postharvest handling and marketing of the products which are scheduled to be produced. Mr. Thomas Dechert, Assistant Field Director of PIP, travelled to Uruguay to work with DIPRODE in identifying training needs and methods for planning and implementing the training. Mr. Dechert then contacted Dr. Lizana, Decano de la Facultad de Ciencias Agrarias y Forestales (FCAF) to prepare this proposal for a field trip to complement the training to be offered in Uruguay.

This proposed field trip will concentrate on the postharvest handling and marketing problems associated with the primary fruits and vegetables which are being considered for diversification and export programs in Uruguay. These are the same commodities which will have been emphasized in the two short courses presented in Uruguay in December 1988 and January 1989.

1. Field Trip Goal. The goal of this field trip is to show private and public sector agriculturists from Uruguay how postharvest handling and marketing principles and techniques are being implemented in Chile in their successful crop diversification and marketing program.
2. Field Trip Objectives for the Participants:
 - a) To see applications of some of the principles and technologies presented in the postharvest loss reduction and marketing short courses presented in Uruguay in December 1988 and January 1989;
 - b) To see the use of possible appropriate technologies and management techniques for reduction of postharvest deterioration and maintenance of product quality;
 - c) To bear all the steps over time of the Chilean public and private sectors in the development of successful export markets;
 - d) To see the linkages among market planning, production planning, production, harvest, postharvest handling, and marketing;
 - e) To meet and talk with managers from the fruit and vegetable handling and marketing sector to develop an appreciation of the critical need for excellence in management.
3. Field Trip Administration and Contract. The field trip will be developed and implemented by UC/FCAF and DIPRODE. UC/FCAF will be the overall administrator and coordinator for the course. DIPRODE and UC/FCAF will develop a contract for the field trip based on inputs to be provided by UC/FCAF to be paid for by funds from GOU/OPP.

- a) Ing. Jorge San Julian will be the Uruguayan coordinator for the field trip, and administrator of the inputs provided by DIPRODE. He will identify and approve all participants for the field trip. He will be the focus for communications with FCAF for the development of the field trip and for the contract that will be developed for it.
 - b) Dr. Antonio Lizana will be the primary course administrator for UC/FCAF, and will work with DIPRODE in the identification and approval of an appropriate itinerary for the field trip. He will be the contact person for the contract or agreement to be drawn up by the GOU/OPP for services from UC/FCAF for the field trip.
4. Field Trip Time, Location, and Approval. It is proposed that the field trip be given March 2, through March 8, 1989. The location for the course will be the fruit and vegetable growing, packing, and shipping areas of central Chile around Santiago. It is expected that the daily trips will run at different hours based on the operations of the industry to be visited.

The itinerary of the field trip is presented below. After this proposal for the field trip has been approved by DIPRODE, a contract will be drafted listing the responsibilities of both UC/FCAF and DIPRODE. Final approval for the course can be assumed once a contract is completed between the Universidad de Chile and the GOU/OPP.

5. Financing. Arrangements for financing the field trip are the responsibility of OPP as the guarantor of the contract to be developed for services to be provided through UC/FCAF. It is assumed that the field trip will be financed by funds within the GOU/OPP and possibly from fees charged to participants from other agencies of the GOU and the Uruguayan private sector. It is expected that the GOU will pay UC/FCAF for the budgeted costs of the field trip before the participants begin travel to Chile for the field trip.

6. Participants. The participants in the field trip will be agriculturists from the public and private sectors in Uruguay. Participants should have a minimum level of training of an Ingeniero Agronomo or equivalent experience. Approval of participants will be the responsibility of Ing. San Julian, with communication on any questions with UC/FCAF.

The participants are expected to participate full-time in the field trip, including early mornings or nights as required by the industry being visited.

Housing, food and travel for the field trip will be arranged as appropriate by UC/FCAF and is included in the proposed budget. All will be selected to be in the moderately priced range. Generally, housing and field travel will have been reserved to be facilitate daily travel and, therefore, no option will be available for change. In most cases, the participants will be responsible for buying their own food. Exceptions will be when travel to smaller towns requires reservations at restaurants be made in order to insure the availability of sufficient food.

Language for the field trip will be Spanish.

7. Field Trip Contacts. Contacts or stops proposed for the field trip are selected from the Chilean private and public sector in the commodity and export areas corresponding to the Uruguayan priority commodities. The technical coordinator for the field trip will be Dr. Horst Berger from the UC/FCAF. Dr. Berger has extensive experience working with the fruit and vegetable export industry in Chile and coordinating field trips similar to this proposed field trip. Dr. Berger will be assisted by Dr. Lizana and Dr. Sepulveda. Each day will include stops and discussions with different growers, exporters, government officials, and viewing their facilities. Final approval for the lecturers, their stipends, travel arrangements, and other requirements will be made in the contract between UC/FCAF and DIPRODE.

8. Content. The field trip is organized to allow the participants to develop an appreciation of the complexity of the Chilean fruit and vegetable marketing system and the long-term commitment of funds and organization that has been required. The history of the development of the operation will be presented, followed by a series of stops to view different postharvest handling and marketing operations that are currently operating. Each stop is selected to emphasize one or two particularly significant aspects of the system. Since the timing for the field trip has been selected so the participants will see harvest, postharvest handling, and shipping in full operation, opportunities to discuss what is being seen in a particular day will be provided in the evenings. In addition to the technologies seen at the various stops, management of the technologies will be stressed as critical to an economically viable operation.

DAY 0 -- March 1

Arrive Santiago from Montevideo

DAY 1 -- March 2

Introductions, Orientation, and Background. This first day will be spent at the Universidad de Chile campus of the FCAF. The participants will be introduced to each other and the Chilean organizers, the history of the development of the fruit and vegetable industry in Chile, the contributions and facilities of the UC/FCAF for the industry, an overview of the technologies to be seen on the field trip, the importance of understanding consumer demand in the development of exports, and other background materials. Hotel in Santiago.

DAY 2 -- March 3

Travel to Aconagua. Visit harvest and packing house operations of table grapes, nectarines, peaches, plums, melons, pears, and tomatoes. Hotel in Santiago.

DAY 3 -- March 4

Santiago Area. Visit harvest and packing house operations of table grapes, nectarines, peaches, plums, and pears. Hotel in Santiago.

DAY 4 -- March 5

Travel to Ralpo. Visit operations along the way. Hotel in Ralpo.

DAY 5 -- March 6

Travel to Vina. Free day except for travel. Hotel in Vina.

DAY 6 -- March 7

Visit Port Facilities. Valparaiso. 1/2 day.

Travel to Rancagua. Visit operations along way. Apples, pears, table grapes, plums, kiwis. Hotel in Curico.

DAY 7 -- March 8

Visit Curico Area. Visit apples, table grapes, kiwis. Hotel in Curico.

DAY 8 -- March 9

Return to Montevideo

Just for your information in putting together your budget, here are the notes I took when we were discussing it. We were talking about 20 participants, so you probably need to specify which items would increase or decrease with different numbers of participants.

Bus @ \$140/day X 6 days = \$ 840.00

Hotel @ 44/day for a double, breakfast and taxes included, Hotel Tupahue

Per diem @ \$35/day X 20 persons X 8 days = \$5600.00

Airfare round trip from Montevideo

20 persons X \$360.00/person = \$7200.00

UC/FCAF salaries

2 persons X \$100/day X 5 days = \$1000.00

UC/FCAF per diem

2 persons X \$35/day X 5 days = \$350.00

Other lecturers/consultants = \$1000.00

Materials = \$500.00

Indirect Costs (Overhead) @ 20% = \$750.00

(I don't think you'll be able to charge indirect costs on the airfare or the per diem of the participants because the GOU will want to pay for that themselves.)

We discussed that you might want to simply make your proposal in the form that the costs for the field trip would be \$6500, which would include bus for travel, lecturers, materials, trainers fees, administrative costs. Not included in these costs would be the round trip airfare from Montevideo to Santiago, and the participant per diem. You estimate that the participant per diem would be approximately \$35.00/day, based on a \$45/night double occupancy room, including taxes and breakfast, and \$12.50/day for meals and miscellaneous expenses.

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APPENDIX V

PROPOSAL TO CONDUCT A FEASIBILITY STUDY ON
THE IMPROVEMENT OF SCHOOL LUNCH PROGRAMS IN ECUADOR

Submitted to:

Katherine Jones-Patron, MSPH
Assistant Director, Health Office
USAID/Quito

Submitted by:

Partners of the Americas -- Ecuador/Idaho
Postharvest Institute for Perishables, University of Idaho
Centro de Reconversion Economica de Azuay, Canar y Morona Santiago
Universidad Tecnica de Ambato, Fac. de C e I en Alimentos

The Idaho/Ecuador Partners of the Americas, the Postharvest Institute for Perishables (PIP) at the University of Idaho, the Centro de Reconversion Economica de Azuay, Canar, y Morona Santiago (CREA), and the Facultad de Ciencias e Ingenieria en Alimentos (FCIAL) at the Universidad Tecnica de Ambato propose to collaborate in a feasibility study of improving the nutritional quality of foods available in the public schools in Ecuador. The study proposes to determine whether nutritionally balanced foods could be identified or developed which would be inexpensive, would be accepted by the students, and could be incorporated into the private sector canteens provided at the schools by local women. The study will focus on methods within the private sector and local institutions to improve the nutrition of students in schools which do not receive donations from the World Food Program.

Background and Statement of Purpose

A primary concern in the education of children is that their diets should be adequate to allow them to be reasonably well-fed and comfortable while in the learning environment and, at the same time, provide the quality nutrition that will enhance child development and retention of learning. The Ecuadoran Ministry of Public Health recognizes this need, but does not have sufficient funding to ensure that all school children are adequately fed at school.

At present, food for Ecuador's 1.2 million primary school children is being provided through two mechanisms. First, food sufficient for about 250,000 children is being provided by World Food Program donations. The Ministry of Public Health estimates that it is able to distribute this food at a cost of

about three or four sucres (about one penny U.S.) per meal. The meals distributed include both breakfast and lunch, and often are distributed through community feeding centers, rather than specifically for the schools. Policies about the future of donations through this program are confused, but professional opinion in Ecuador expects that the amount of World Food Program donations will increase. Still, a viable, long-term school nutrition program should not be based on donations dependent on the policies of other countries, but upon Ecuador's ability to produce and distribute its own resources.

Second, for those schools which do not receive World Food Program donations, food for school children is provided by local women or women's organizations which bid on the right to set up a canteen at the school where children can buy food or snacks as they need, or are able. Reportedly, even poor children are usually able to buy five to ten sucres of food most days. However, the nutritional quality of these canteen foods is poor. It is this private sector food system that Partners, PIP, CPEA, and FCIAL are proposing to study. The purpose of this project is to determine whether it is possible to modify and/or add to the private canteen system in such a way as to improve the nutritional quality of the foods available.

The proposed feasibility study will look at the availability, nutritional attributes, food safety concerns, and costs of local foods to determine possible strategies for improving nutrition by introducing modifications to the available food supply through existing domestic socio-economic systems. Probably, it will not be possible to identify nutritious foods which could be made available at an unsubsidized cost comparable to those of the World Food Program donations. Never-the-less, there is a need to identify locally produced agricultural products that have potential as economically and nutritionally wise food choices.

The idea for this study grew out of the popularity of "potato bars" in U.S. schools and the question of how potato bars or something similar could be introduced into Ecuadoran schools. This study will evaluate the possibility of introducing potato bars, coupled with the development of nutritionally complementary toppings, and the introduction by PIP of low-cost potato storage facilities to allow purchase and storage of potatoes when they are at their lowest price. However, this is only one model of a multi-faceted

approach to the problem; other strategies for modifying foods and food delivery systems will be designed and evaluated by the team, as time and opportunity allow.

Partners, PIP, CREA, and FCIAL have access to professional resources in Ecuador and the U.S. to design and implement modifications to foods and food supply systems available for Ecuadoran public schools. It is assumed that the private sector food supply system is probably working fairly efficiently, given the technology and products available, but that technological and managerial inputs can be identified that would increase the availability and desirability of nutritional foods, and reduce their costs.

The proposed feasibility study will be administered by the Postharvest Institute for Perishables. However, the feasibility study should result in the identification of a long-term nutrition program that will function as a Partners activity. The school nutrition improvement program will be designed by the feasibility team to include the exchanges of personnel between Ecuador and Idaho, most likely for technical assistance and training, which are the hallmark of Partners.

Objectives of the Feasibility Study

Partners, PIP, CREA, and FCIAL propose to provide a team of professionals to study the existing school foods and food supply systems, and to design modifications of existing private sector food supply systems which have the potential of improving the nutrition of school children. The objectives of the study will be to:

1. Review the major nutritional problems affecting school age children in the Cuenca area and compare the nutritional intake of children receiving donated foods with those in more traditional situations.
2. Study existing school food supply systems to describe the functioning and economics of those operating without donations from the World Food Program or other non-Ecuadoran based supply.
3. Study the availability and nutritional quality of low cost foods produced in Ecuador, including those generally available at the school canteens, and those such as potatoes, fava beans, fish, milk products, etc., which have potential as high quality, low cost food items for schools, with or without the introduction of improved handling, processing, or marketing.

4. Identify and study alternative foods and food delivery systems for the public schools and design school nutrition programs which have the potential of operating within the domestic Ecuadoran social and economic systems.
5. Study the implementation system necessary within the framework of Partners and CREA which would allow a multi-year involvement in the introduction of nutritionally improved foods into school-based canteens. The team will concentrate on identifying the potentials and needs of Partners/Cuenca, with support from Partners/Idaho, PIP, and FCIAL, to implement any proposed food improvement program.
6. Analyze the economic feasibility and evaluate the social acceptability of the proposed nutritionally improved foods into the school food delivery system, both in regards to the women supplying the foods and the school children buying the foods. The economic feasibility study will assume that the research and development costs can be covered by grants from USAID or other funding agencies.

Outputs of the Feasibility Study

The feasibility study team will write a report containing the data and analyses and present a draft of the report to USAID/Quito before the consultants leave Ecuador. The draft report will contain one to several project profiles which have potential to improve school food programs in the Cuenca area of Ecuador, and which could be implemented through Partners. The team will receive comments from USAID as to the possibilities and needs for funding the implementation of a school nutrition improvement project, should one be determined feasible.

The feasibility study will result in a concise statement of the current status of nutrition in the schools in and around Cuenca, particularly those schools not receiving donated foods. It will include discussions and analyses of one to several strategies for improving the quantity or quality of food provided in the local school systems. In addition, it will contain conclusions as to the economic and social feasibility of improving the quantity and quality of the food available to school children. The analyses, conclusions and project profiles will be thorough enough to assure USAID or other funding agencies that the proposed follow-on programs have a strong possibility of success, within the Ecuadoran social and economic situation.

Implementation of the Feasibility Study

The feasibility study is the initial step in what is planned to be a long-term collaboration of Partners, PIP, CREA, and FCIAL in the improvement of school feeding programs in Ecuador. Each organization has unique capabilities to contribute to the project and part of the feasibility study will determine how these organizations could manage the implementation of a longer-term nutrition improvement project. The implementation of the feasibility study itself will be a collaborative effort of the four organizations to study the problem and design potential solutions based on their resources. PIP will be the lead organization to coordinate the feasibility study, while Partners and CREA will coordinate any long-term project identified. It is expected that USAID or another funding agency will be asked to collaborate in any proposed long-term project.

The feasibility study will be conducted by professionals from Idaho Partners, PIP, the UTA/FCIAL, CREA, and Ecuador/Cuenca Partners. The primary areas of interest to solve the problem are nutrition, food handling and processing, economics, and sociology; the proposed feasibility study team includes Idahoan and Ecuadoran Partners in the four categories. It is estimated that the feasibility study to be conducted in Cuenca will require from three to four weeks to complete, including travel and preparation of the draft report. Office space and administrative support for the study will be provided by CREA in Cuenca and PIP in Idaho.

In addition to the time spent studying the schools, the social situation, available foods, and the economics of the food systems around Cuenca, it is proposed that the feasibility team travel to and collect information from appropriate Ecuadoran Government agencies in Quito and the International Agricultural Research Centers in Cali, Colombia (CIAT) and in Lima, Peru (CIP). In this way, the study results will be set within existing or planned government institutions and policies and will incorporate research results and studies which have already been accumulated nationally and internationally.

The proposed time for the study is October–November, 1988.

The proposed feasibility study team is as follows:

Lcdo. Justo Andrade, Executive Director Partners/Cuenca, Co-team Leader

Dr. Marilyn Swanson, UI Nutritionist and Co-Team Leader

Prof. Anibal de los Reyes,

Dr. Neil Meyer, UI Agricultural Economist

Ing. Guillermo , CREA Economist

Dr. Lee Parks, UI Special Education

Ing. Anibal Saltos, UTA/FCIAL Food Scientist

The proposed team members from Idaho speak fair to good Spanish.

Capabilities of Collaborating Institutions

Idaho/Ecuador Partners of the Americas offers a unique blend of resources and personnel to conduct this feasibility study. The Idaho/Cuenca-Ecuador Partnership has been in existence for 25 years and has successfully completed numerous projects and information exchanges involving a wide range of expertise and resource people. The Partnership has a growing membership in both Idaho and Ecuador, and the number of projects is increasing. The Partnership is most actively involved with projects in health, education, human and community development, women's development, and institutional strengthening. The 1988 work plan calls for activities in over thirty different project, with ten to twenty exchanges of personnel between Idaho and Ecuador.

The Partnership initiated and later secured funding from USAID/Ecuador for the implementation of the FASINARM project to help children and young adults with vocational and education special needs. This three-year, \$170,000 project established a training center and began programs or workshops with trained adolescents and young adults to be productive by taking in contract work. In addition, the project assisted the development of a resource center/library, set-up a pre-school, and developed training materials which are currently being used in many part of Latin America. In Ecuador, the project trained over 100 teachers to work with children and young adults with special needs.

The Postharvest Institute for Perishables at the University of Idaho has operated under a cooperative agreement with USAID since 1980. PIP has completed over 100 projects in numerous developing countries, including most in the Andean region. With its concern for increasing food availability and suitability through appropriate postharvest handling of commodities, PIP has developed an information center and human resources to develop integrated and innovative approaches to nutrition problems such as those being addressed in this study. PIP's status as a USAID related organization insures that administration of the project and funds will follow USAID guidelines.

The Centro de Reconversion Economica de Azuay, Canar y Morona de Santiago is a vital development institution in the region. Their charge from the Government of Ecuador is to revitalize and strengthen the economic and social

institutions of the area in and around Cuenca. CREA offers adequate administrative and technical support within the framework of their existing organization. The proposed project fits well with their long-term goals for the region.

The Facultad de Ciencias e Ingenieria en Alimentos at the Universidad Tecnica de Ambato includes numerous faculty and programs in the preservation and development of food products from locally grown commodities. FCIAL has been strengthened over the years through its involvement in research programs funded by the Government of Ecuador and various other organizations. The laboratories have been maintained and developed to provide an adequate research facility, with faculty trained to develop foods with suitable nutrition and tastes for the Ecuadoran palate.

Illustrative Budget

The estimated costs for the consultants from the U.S. are as follows:

Salaries:

3 persons X 20 days/person X \$150/day ----- \$9,000.00

University of Idaho Fringe Benefits:

24% X \$9,000----- 2,160.00

Travel to Ecuador-round trip:

3 persons X \$2000/person----- 6,000.00

Travel to Bogota/Cali and Lima:

6 persons X \$300/person----- 1,800.00

Local Travel:----- 500.00

Perdiem:

3 persons X 30 days/person X \$50/day----- 4,500.00

PIP Administration:

5 days X \$125/day----- 625.00

Total -----\$24,585.00

University of Idaho Indirect Costs:

27.7% X \$24,585----- 6,810.05

Grand Total -----\$31,395.05

This budget is only illustrative and is presented to give an idea of the costs for the Idaho participants in the study. A final budget for a contract or a PIO/T will be developed when USAID decides to move forward with the project.

0622C

C U R R I C U L U M V I T A E

University of Idaho
Moscow, Idaho 83843

NAME: Swanson, Marilyn A.

DATE: November 10, 1987

RANK OR TITLE: Associate Extension Professor
Extension Food and Nutrition Specialist

DEPARTMENT: Cooperative Extension Service - Home Economics

OFFICE LOCATION: Home Economics Building, Room 108A OFFICE PHONE: 208-895-6972

DATE OF FIRST EMPLOYMENT AT UI: July 1974 (part-time)

DATE OF TENURE: July 1986

DATE OF PRESENT RANK OR TITLE: July 1986

EDUCATION BEYOND HIGH SCHOOL:

B.S., Foods and Nutrition, 1967, University of Delaware (Newark)
M.S., Foods and Nutrition/Food Science, 1969, University of Wisconsin
(Madison)
R.D., Registered Dietitian, 1971, The American Dietetic Association
Ph.D., Nutrition, 1987, Washington State University (Pullman)
Washington State University, 104 credits
University of Idaho, 17 credits
Oregon State University, 1 credit
Louisiana State University, 1 credit

EXPERIENCE:

In Educational Institutions Since Receipt of Bachelor's Degree:

Teaching and Research:

Graduate Student Committees:
Julie Aitchinson, M.S., Home Economics, 1986-87
Marsha Howell, M.S., Home Economics, 1986-present
Clinical Faculty, University of Minnesota, School of Public Health
Program in Health Services Administration, Independent Study
Program, 1985-86
Sponsoring Registered Dietitian for Dr. Renee E. W. Birch (6 month
advanced degree qualifying experience for the American Dietetic
Association), 1986
HEc 403/503, Solar Drying: Process and Products, 3 credits, University
of Idaho, Moscow, Idaho, 1985
Part-time Lecturer in Nutrition, Lewis & Clark State College, Lewiston,
Idaho, 1974-75
Teaching Assistant, Department of Foods, Nutrition and Institution
Management, Washington State University, Pullman, Washington, 1974
Research Assistant, Department of Animal Science, Washington State
University, Pullman, Washington, 1973

Teaching and Research (cont.):

Instructor in Adult Education in Colfax, Washington, Washington State
Community College, Spokane, Washington, 1973-74
Program Associate, Department of Nutritional Sciences, University of
Wisconsin, Madison, 1971-72
Nutritionist, Harry A. Waisman Center on Mental Retardation & Human
Development, Madison, Wisconsin, 1969-72
Research Assistant, Food Research Institute, University of Wisconsin,
Madison, 1967-69

Extension and Service:

Extension Food and Nutrition Specialist, Assistant Extension Professor,
University of Idaho, 1979-86
Extension Food and Nutrition Specialist, Associate Extension Professor,
University of Idaho, 1986-present

Major Committee Assignments:

National:

CES/ES/HNIS Consulting Group, 1987-present

Regional:

Tri-State 4-H Food and Nutrition Committee, 1985-present

University of Idaho:

Chair, DiNoto Promotion Appeal Committee, 1982
Affirmative Action Committee, 1983-84
Centennial Commission, 1984-87

College of Agriculture:

Executive Council, 1981-82
Search Committee, Director of Cooperative Extension, 1981
Computer Advisory Committee, 1982
Agricultural Communications Center Advisory Committee, 1983
Search Committee, Dean, College of Agriculture, 1985-86
Promotion and Tenure Committee, 1986
Search Committee, Agricultural Computing Support Staff and Faculty,
1987
Search Committee, Bacteriology and Biochemistry Faculty Position,
1987-88

School of Home Economics:

Curriculum Committee, 1983-84
Secretary, 1983-84
Search Committee, Housing and Home Furnishings Specialist, 1985
Faculty Development Committee, 1985-86
Coordinating Council, 1986-87
Area Co-Chair Foods and Nutrition, 1986-87
Technology Transfer Committee, 1986-87
Chair, Search Committee, EFNEP Home Economist, 1986
Centennial Committee, 1987-88
Recruitment Committee, 1987-88

Other Professional:Consulting:

Nutrition Consultant, Cooperative Extension Service, University of Idaho, 1974-76
 Consultant Dietitian, Benewah Community Hospital, St. Maries, Idaho, 1973-79
 Public Health Nutritionist, North Idaho Indian Health Service, Lapwai, Idaho, 1977-79

Membership in Professional and Scholarly Organizations:

American Agri-Women, 1983-84
 American Council on Science and Health, 1982-present
 American Dietetic Association, 1972-present
 American Home Economics Association, 1980-present
 American Public Health Association, 1980-83
 Association for Women in Development, 1984-present
 Idaho Association of Extension Home Economists, 1983-present
 Idaho Consulting Dietitians, 1975-80
 Area Representative, 1975-77
 President, 1978-79
 Idaho Dietetic Association, 1972-present
 Career Guidance Chairman, 1973-77
 Education Chairman, 1980-81
 Nominating Committee Chairman, 1976-77
 President-Elect, 1981-82
 President, 1982-83
 Idaho Home Economics Association, 1980-present
 Idaho Public Health Association, 1980-present
 Executive Board Member, 1985-89
 Institute of Food Technologists, 1980-present
 Lewis-Clark Section, 1980-present
 Secretary, 1984-85
 Microbiology Division, 1982-present
 Nutrition Division, 1980-present
 Extension Technology Section, 1984-present
 National Nominating Committee, 1984-85
 Secretary/Treasurer, 1985-86
 International Federation of Home Economics, 1987-present
 National Association of Extension Home Economists, 1985-present
 Society for Nutrition Education, 1979-present
 National Nominating Committee, 1985-87

Other Experience:Community and Service:

Emmanuel Lutheran Church, 1972-present
 Social and Fellowship Committee, 1980-83
 Sunday School Teacher, 1977-78, 1981-84
 Worship Committee, 1979-84
 Emmanuel Lutheran Preschool
 Advisory Council

Community and Service (cont.):

Meals on Wheels
 Executive Board
 Nominating Committee Chairman
 Lutheran Marriage Encounter
 Presenting Couple
 Moscow Community Theatre, 1982-86
 Historian, 1983-84
 Palouse Association for International Development, 1984-present

PUBLICATIONS:Thesis:

- Ribbe, Marilyn A. 1969. Location of "Free" and "Buried" Tyrosyl Residues in Staphylococcal Enterotoxin B. M.S. Thesis, University of Wisconsin, Madison, Wisconsin.
- Swanson, Marilyn A. 1987. Nutritional Significance and Acceptance of Solar Dried Foods of Rural Leyte Philippines. Ph.D. Dissertation, Washington State University, Pullman, Washington.

Books:

- Cinnamon, P.A., and Swanson, M.A. 1973. Everything You Always Wanted to Know (But Were Unable to Find Out) About Exchange Values for Foods. University Cities Diabetes Education Program, Moscow, Idaho.
- Cinnamon, P.A., and Swanson, M.A. 1976. Everything You Always Wanted to Know (But Were Unable to Find Out) About Exchange Values for Foods. Rev. ed., University Press of Idaho.
- Cinnamon, P.A., and Swanson, M.A. 1981. Everything About Exchange Values for Foods. 3rd ed. University Press of Idaho.
- Swanson, M.A., and Cinnamon, P.A. 1986. Everything About Exchange Values for Foods. 4th ed. University of Idaho Press.

Referaed Publications:

- Brown, E.S., Waisman, H.A., Swanson, M.A., Colwell, R.E., Banks, M.E., and Gerritsen, T. 1973. Effects of Oral Contraceptives and Obesity on Carrier Tests for Phenylketonuria. Clinica Chimica Acta, 44, 183-192.
- Lines, D.R., and Swanson, M.A. 1973. Dietary Requirements of Phenylalanine in Infants with Hyperphenylalaninaemia. Arch. Dis. Childhd., 48, 648-65

Other Publications:

- Swanson, M.A., and Dyer, I.A. 1975. Cholesterol Content of Beef Cooked by Braising, Roasting, and Broiling. Washington State University Agricultural Experiment Station Bulletin No. 587.

Other Publications (cont.):

- Swanson, M.A. 1976. Food for All Seasons. 4-H Leader's Guide and Manual, Cooperative Extension Service, University of Idaho.
- Swanson, M.A. 1976. Protein Power. 4-H Leader's Guide and Manual, Cooperative Extension Service, University of Idaho.
- Swanson, M.A. 1980. Food Additives in the 80's. University of Idaho Current Information Series No. 535.
- Monteure, J.E., Peterson, S.G., and Swanson, M.A. 1980. Dry Beans--A Convenience-Type Food. University of Idaho Current Information Series No. 537.
- Swanson, M.A. 1980. Snacks: Chance or Choice. University of Idaho Current Information Series No. 562.
- Swanson, M.A. 1981. Master Food Preserver Agent Handbook. University of Idaho.
- Swanson, M.A. 1981. Caring for Your Pressure Canner. University of Idaho Current Information Series No. 560.
- Swanson, M.A. 1982. Baby Food From Your Kitchen. University of Idaho Current Information Series No. 438.
- Colt, W.M., Swanson, M.A., and Simpson, W.R. 1982. When to Harvest Garden Vegetables. University of Idaho Bulletin No. 617.
- Colt, W.M., Gardner, G.F., Menser, H.A., Swanson, M.A., and Sandvol, L.E. 1982. Growing Cole Crops. University of Idaho Current Information Series No. 661.
- Colt, W.M., Gardner, G.F., Simpson, W.R., Swanson, M.A., Boe, A.A., and Sandvol, L.E. 1982. Tomatoes for the Home Garden. University of Idaho Current Information Series No. 667.
- Swanson, M.A., and L. Dickenson. 1982. Home Food Storage - Microcomputer Program and User's Guide. University of Idaho MCUG 10.
- Swanson, M.A., and L. Dickenson. 1982. Weight Planning - Microcomputer Program and User's Guide. University of Idaho MCUG 11.
- Swanson, M.A., and B. Gore. 1983. Idaho Diet Analysis Microcomputer Program and User's Guide. University of Idaho MCUG 15.
- Beaver, G., W.M. Colt, and M.A. Swanson. 1983. Growing Garlic. University of Idaho Current Information Series No. 686.
- Hoyt, K.D., and M.A. Swanson. 1983. Training Course on Preservation of Tropical Fruits and Vegetables by Solar Drying with Supplemental Heat. Postharvest Institute for Perishables. University of Idaho. GTS Report No. 9. PIP/Philippines/June-August.

Other Publications (cont.):

- Swanson, M.A., and K.D. Hoyt. 1983. Training Manual - Solar Drying and Food Processing of Tropical Crops. Postharvest Institute for Perishables. University of Idaho.
- Colt, W.M., M.A. Swanson, R.G. Beaver, and W.R. Simpson. 1984. Vegetables for Freezing or Canning. University of Idaho Current Information Series No. 427.
- Swanson, M.A., and C.A. Ray. 1984. Food and Fitness - Microcomputer Program and User's Guide. University of Idaho MCUG 22.
- Swanson, M.A., 1984. Solar Dryer Project: One Year Later - Leyte, Philippines. Postharvest Institute for Perishables, University of Idaho, GTS Report No. 63.
- Bunderson, M.S., and M.A. Swanson. 1984. "Two for Twenty" - A 20-week Weight Control Program - Agent Handbook. University of Idaho.
- Coit, W.M., M.A. Swanson, G. Beaver, W.R. Simpson, and G.F. Gardner. 1984. Growing Cucumbers. University of Idaho Current Information Series No. 756.
- Hoyt, K.D., and M.A. Swanson. 1984. Burundi Training Program in Food Preservation by Solar Drying with Supplemental Heat. Postharvest Institute for Perishables, University of Idaho, GTS Report No. 56.
- Swanson, M.A., and C.A. Ray. 1985. Risko - Microcomputer Program and User's Guide. University of Idaho MCUG 28.
- Williams, L.G., and M.A. Swanson. 1985. Solar Drying Notes for Solar Drying: Process and Products. University of Idaho.
- Swanson, M.A., and L.G. Williams. 1985. Eastern Caribbean Solar Drying and Food Preservation Workshop. Postharvest Institute for Perishables, University of Idaho, GTS Report No. 74.
- Swanson, M.A., and B.J. Gore. 1986. Idaho Diet Analysis - IBM - Microcomputer Program and User's Guide. University of Idaho MCUG 15 (IBM).
- Swanson, M.A. 1986. Master Food Preserver Agent Handbook. University of Idaho.

Radio Releases:

- Idaho Agriculture Today. Issue No. 49, August 1985, "Solar Food Drying."
- AgLine News Service, October 1985, "EFNFP."
- Idaho Agriculture Today. Issue No. 60, November 1985, "EFNEP: A Program That's Working."
- Idaho Agriculture Today. Issue No. 66, January 1986, "International Development - A Personal View."

Radio Releases (cont.):

Idaho Agriculture Today. Issue No. 80, April 1986, "A Rational Approach to Weight Loss."

AgLine News Service, October 14, 1986, "Labeling Lean Meat."

AgLine News Service, October 16, 1986, "World Food Day."

Idaho Agriculture Today. Issue No. 111, October 1986, "The Master Food Preserver Program."

Idaho Agriculture Today. Issue No. 128, March 1987, "Fresh Isn't Always Best."

Idaho Agriculture Today. Issue No. 129, March 1987, "The Changing American Diet."

Idaho Agriculture Today. Issue No. 130, March 1987, "NCI Nutrition Guidelines."

Idaho Agriculture Today. Issue No. 131, March 1987, "Good Nutrition - A Personal Choice."

Idaho Agriculture Today. Issue No. 150, August 1987, "Food Research."

Idaho Agriculture Today. Issue No. 151, August 1987, "Consumer Nutrition Survey."

Television Releases:

Idaho Agricultural Television News, "Christmas Cookie Safety," December 1980, Release 8C-9, distributed statewide.

Agriculture Today, "Solar Dryer Workshop," aired KHQ-TV, Spokane, Washington.

Idaho Agricultural Television News, "Solar Dryer News Story," August 1985, Release 85-15, distributed statewide.

4-TEL, KAID-TV, "Food and Nutrition Update," June 27, 1987, aired statewide.

PAPERS PRESENTED AT SCHOLARLY MEETINGS:

"Diet Discontinuation in Phenylketonuria." Third Nutritionists' Conference, PKU Collaborative Study, February 23, 1971, Vail, Colorado.

"Recent Knowledge in Dietary Treatment of Inborn Errors of Metabolism." Wisconsin Dietetic Association, April 23, 1971, Oshkosh, Wisconsin.

"Idaho Contributes." American Dietetic Association Annual Meeting, September 14, 1983, Anaheim, California.

"Idaho Diet Analysis." American Dietetic Association Annual Meeting, October 15, 1984, Washington, D.C.

PAPERS PRESENTED AT SCHOLARLY MEETINGS (cont.):

- "Brine Composition, Acidity and Texture of Home Canned, Fresh-Pack Pickles. Abstract #270, Institute of Food Technologists Annual Meeting, June 11, 1985, Atlanta, Georgia.
- "Comprehensive Training Resources for EFNEP Aides." Abstract #136, Society for Nutrition Education Annual Meeting, July 8, 1986, Washington, D.C.
- "Spreading the Word with Master Teachers." ECOP Food and Nutrition National Workshop, September 16, 1986, Atlanta, Georgia.
- "Nutrient Retention of Tropical Solar Dried Foods." Abstract #428, Institute of Food Technologists Annual Meeting, June 19, 1986, Las Vegas, Nevada.

OTHER PRESENTATIONS:

- "Food and Nutrition Choices: Risks/Benefits," Staff Development for Extension Home Economists, September 26, 1979, Moscow, Idaho.
- "Nutrition Controversies," North Idaho Dental Hygiene Association, December 3, 1979, Moscow, Idaho.
- "The Knack of Snacking," Idaho 4-H Club Congress, June 13, 1980, Moscow, Idaho.
- "Sugar, Fat, Salt, and Fiber Controversies," Idaho Home Economics Association Annual Meeting, October 4, 1980, Twin Falls, Idaho.
- "Your Diet and Your Heart," College Days, April 2, 1981, Moscow, Idaho.
- "Good Eating Can Be Habit Forming," College Days, March 23, 1982, Moscow, Idaho.
- "Natural or Organic: Boon or Boondoggle," Idaho Home Economics Association Southeastern District Meeting, May 15, 1982, Pocatello, Idaho.
- "Nutrition, Diet and You," Idaho 4-H Club Congress, June 9, 1982, Moscow, Idaho.
- "Obesity: Causes, Hazards and Solutions," TOPS Regional Convention, September 17, 1982, Grangeville, Idaho.
- "Food Preservation Update" and "Nutrition Education via Microcomputers," Staff Development for Extension Home Economists, September 20, 21, 23, 29, 1982; Boise, Twin Falls, Idaho Falls, Moscow, Idaho.
- "How Microcomputers Help Home Economists," Idaho Home Economics Association Annual Meeting, October 8, 1982, Moscow, Idaho.
- "Diets - The Good, Bad and Indifferent," College Days, March 22-24, 1983, Moscow, Idaho.

OTHER PRESENTATIONS (cont.):

- "Communicating with Computers," College Days, March 22-23, 1983, Moscow, Idaho.
- "Scandinavian Heritage Foods," College Days, March 23, 1983, Moscow, Idaho.
- "Dairy Food Seminar - Real vs. Unreal," Idaho Dairy Wives State Meeting, April 11, 1983, Boise, Idaho.
- "The Computer and Dietetics," Idaho Dietetic Association Annual Meeting, April 15, 1983, Sun Valley, Idaho.
- "The Expanding World of the Micro-Computer in Health Education," Idaho Public Health Association Annual Meeting, May 20, 1983, Pocatello, Idaho.
- "Scandinavian Heritage Foods," Idaho 4-H Club Congress, June 9, 1983, Moscow, Idaho.
- "Solar Dryer with Supplemental Heat - Drying of Native Foods," Short Course: Postharvest Loss Prevention of Perishable Crops, PIP/UI, October 10, 1983, Moscow, Idaho.
- "Nutrition for the Older American," Food and Fitness Seminar, March 17, 1984, Coeur d'Alene, Idaho.
- "Computing Nutrition," College Days, University of Idaho, March 20, 1984, Moscow, Idaho.
- "Scandinavian Heritage Foods," College Days, University of Idaho, March 22, 1984, Moscow, Idaho.
- "Nutrition for the Older American," Food and Fitness Seminar, University of Idaho, March 24, 1984, Moscow, Idaho.
- "Evaluating Weight Loss Programs," Food and Fitness Seminar, Lewis Clark State College, May 12, 1984, Lewiston, Idaho.
- "Improved Health Through Nutritional Self-Sufficiency," Nutrition Month Celebration, Visayas State College of Agriculture, July 31, 1984, Bay Bay, Leyte, Philippines.
- "Solar Drying and Food Processing of Tropical Crops," Faculty Seminar, Visayas State College of Agriculture, August 3, 1984, Bay Bay, Leyte, Philippines.
- "Sensory Evaluation - Theory and Practice," Faculty Seminar, Philippine Root Crop Research and Training Center, Visayas State College of Agriculture, August 10, 1984, Bay Bay, Leyte, Philippines.
- "Solar Drying of Tropical Crops," Short course: Postharvest Loss Prevention of Perishable Crops, PIP/UI, October 2, 1984, Moscow, Idaho.
- "Food Around the World: Scarcity vs. Variety," National Extension Homemakers Council Annual Meeting, September 11, 1985, Estes Park, Colorado.

OTHER PRESENTATIONS (cont.):

- "Mini Solar Drying Workshop," University of Idaho, September 18-20, 1985, Moscow, Idaho.
- "Use of Appropriate Technology in Developing Countries," Washington State University, February 5, 1986, Pullman, Washington.
- "Nutrition Education in Developing Countries: Experiences in the Philippines," University of Delaware, March 11, 1986, Newark, Delaware.
- "Solar Drying and Food Preservation in the Eastern Caribbean," Office of Training and Programs, United States Peace Corps, March 12, 1986, Washington, D.C.
- "Use of Dietary Guidelines," "Current Food and Nutrition Topics of Concern," and "Update in Food Preservation," Faculty Development for Extension Home Economists, April 17, 18, 21, 23, 24, 1986, Moscow, Caldwell, Twin Falls, and Idaho Falls, Idaho.
- "If It Sounds too Good to be True," Nutrition-Diet-Fitness Conference, May 8, 1986, Lewiston, Idaho.
- "Computing Nutrition - How Accurate Is It?" Idaho Vocational Home Economics Association Annual Meeting, August 6, 1986 Boise, Idaho.
- "Motivation - A Key Factor in Weight Reduction," TOPS Annual Regional Meeting, September 15, 1986, Potlatch, Idaho.
- "World Food Day Teleconference," University of Idaho Coordinator and Moderator, October 16, 1986, University of Idaho, Moscow, Idaho.
- "What American Consumers Think About the Food Industry - 1986," Institute of Food Technologists Regional Communicator Meeting, October 20, 1986, Chicago, Illinois.
- "Malnutrition in Developing Countries," Moscow-Pullman Dietetics Association, November 14, 1986, Moscow, Idaho.
- "Evaluate Yourself Scientifically," Idaho 4-H Teen Conference, June 10, 1987, Moscow, Idaho.
- "Nutrition Education in Developing Countries," University of Idaho Faculty Seminar, September 8, 1987, Moscow, Idaho.
- "Affirm Yourself to Your Ideal Weight," TOPS Regional Convention, September 19, 1987, Grangeville, Idaho.
- "Nutritious Snacks," District IV Annual Homemakers Council Convention, October 6, 1987, Shelley, Idaho.
- "What American Consumers Think About The Food Industry - 1987," Institute of Food Technologists Regional Communicator Meeting, October 29, 1987, Chicago, Illinois.

GRANTS AND CONTRACTS:

Food Focus Group, Institute of Food Technologists, 1986, \$350.

International Development Conference, 1987, \$350.

Food Focus Group, Institute of Food Technologists, 1987, \$350.

INTERNATIONAL EXPERIENCE:

Attended 4th International Congress of Food Science and Technology, Madrid, Spain, September 1974.

Visit Institute for Nutrition of Central America and Panama (INCAP) and Native Villages for Nutritional Awareness, Guatemala, November 28-December 2, 1981.

Visit and tour Mayaguez Institute for Tropical Agriculture (MITA), Mayaguez, Puerto Rico, December 2-4, 1981.

"Solar Dryer Construction and Food Processing of Tropical Crops," Visayas State College of Agriculture, Bay Bay, Leyte, Philippines. Postharvest Institute for Perishables (UI) and USAID. June 29-August 25, 1983.

Evaluation of "Solar Dryer Construction and Food Processing of Tropical Crops" Training Course and collection of dissertation research. Visayas State College of Agriculture, Bay Bay, Leyte, Philippines, and rural Leyte, Philippines, July 11-August 19, 1984.

Nutrition Research Consultation, University of the Philippines at Los Banos, Luzon, Philippines, July 9, 1984; August 20-21, 1984.

"Solar Dryer Construction and Food Preservation of Tropical Crops Training Course." University of Burundi, Bujumbura, Burundi, Africa. Post-harvest Institute for Perishables (UI) and USAID, November 9-28, 1984.

"Solar Dryer Construction and Food Preservation Training Course." United States Peace Corps/USAID/Postharvest Institute for Perishables (UI), St. Georges, Grenada, November 18-December 6, 1985.

HONORS AND AWARDS:

1964, Freshman William H. Danforth Award (Outstanding Freshman in Home Economics), University of Delaware

1967, Omicron Nu (Home Economics Honor Society), University of Delaware

1967, Amy Rextrew Award (Outstanding Senior in Home Economics), University of Delaware

1969, Sigma Delta Epsilon (Graduate Women in Science Honorary), University of Wisconsin

1975, Who's Who of American Women, ninth edition

1982, Phi Kappa Phi (Academic Achievement Honorary), Washington State University

1985, Gamma Sigma Delta (Honor Society for Agriculture), University of Idaho

HONORS AND AWARDS (cont.):

- 1985, Sigma Xi (Honor Society for Scientists and Engineers), Washington State University
- 1986, Selected as Institute of Food Technologist's Regional Communicator for State of Idaho
- 1987, Golden Key National Honor Society, Washington State University

CURRICULUM VITAE

University of Idaho
Moscow, Idaho 83843

NAME: Meyer, Neil Larry

DATE: March 29, 1988

RANK OR TITLE: Professor and Extension Economist Public Policy

DEPARTMENT: Agricultural Economics

OFFICE LOCATION: Agricultural Science 24

OFFICE PHONE: 208-882-6335

DEPENDENTS NAMES AND BIRTHDATES:

DATE OF FIRST EMPLOYMENT AT UI: 1975

EDUC. BEYOND HIGH SCHOOL:

B.S., Agricultural Economics & Animal Science, 1964, University of Minnesota
M.S., Agricultural Economics, Economic Development, 1969, University of Florida
Ph.D., Agricultural Economics, Natural Resources Economics/Rural Policy, 1974,
University of Wisconsin

EXPERIENCE:

Work Completed Outside Continental United States:

August 1986 to July 1987, Saskatchewan, Canada.

Estimated producers gains from rationalizing the Canadian Grain Transportation System.

July 1986, Argentina.

Present seminars on the potential effects of the 1985 United States Food Security Act on: - World Trade in Agricultural Commodities.

- Implications of 1985 Food Security Act for Argentina producers of Food and Feed Grains.

November 1981, Dominican Republic.

- Conducted assessment of postharvest potatoe and onion losses including evaluation of alternatives to reduce losses.

July 1970-February 1971, Philippines.

- Designed training program for Peace Corps volunteers work in rural areas to assist in the production of horticultural crops and rice. Then served as in-country director for training.

Work Completed Outside Continental United States:

September 1968-July 1969, Colombia.

- Evaluated the possibility for settling small producers on INCORA irrigation development project. Efforts included development of enterprise budgets, estimating credit needs, and other additional supports needed for specified income levels.

July 1967-August 1967, Puerto Rico

- Developed and conducted training in small business coop development for Peace Corps Trainees destined to Central and South America at the Peace Corps Training camp in Arecibo, Puerto Rico.

September 1964 to June 1966, Venezuela.

- As a Peace Corps volunteer, conducted an extension program in agriculture and small business for agrarian reform participants and fishermen in Carabobo province.

In Educational Institutions Since Receipt of Bachelor's Degree:

Teaching and Research:

1987-Present, Public education on policy factors affecting rural areas.

1980-1987, Research on Agricultural Commodity Transportation and Idaho Economic Interrelationships and Extension on Public Policy Issues affecting Rural Idaho Residents.

1979-1980, Specialist, Farm Management. Taught Farm Management 205.

1975-1979, State Extension Specialist in Rural Development.

August 1970-February 1971, Training Program Director, Peace Corps, Philippines. Taught Production and Marketing Horticultural Products.

September 1969-August 1970 and February 1971-August 1973, Research Assistant, University of Wisconsin. Research on the Interregional Impacts of Alternative Water Policies in the Western United States.

September 1967-August 1969, Research Assistant, University of Florida. Research on the Minimum Resource Requirements for Specified Income Levels on Crop-Livestock Farms in the Sinu Valley of Colombia.

July 1966-April 1967, Instructor, Catholic University of Puerto Rico for Peace Corps training.

Taught Small Business Administration and Livestock Production.

Extension and Service:

1980-present, Extension Economist, Public Policy, University of Idaho.

1979-1980, Extension Economist, Farm Management, University of Idaho.

1975-1979, Extension Specialist and Unit Program Leader for Rural Development, University of Idaho.

1973-1975, Area Extension Agent, S.W. Minnesota, University of Minnesota Extension Service.

Administration:

1981-1984, Project Leader, Northwest Grain Transportation Project.

1981, Project Leader, Evaluating Postharvest Potato and Onion Losses in Dominican Republic.

1977-79, Project Leader, AAEA Award Winning Extension Project, "Coping with the Impacts of Growth".

1975-1979, Unit Leader, Rural Development Program, Cooperative Extension.

1970-1971, Training Program Director, Peace Corps, Philippines.

Scholarly and Creative Activities:

Professional Publications:

- Meyer, N.L. & G. Sparks. "The Economic Cost of Transporting Grains from Farm to Market". Journal of Transportation Research Forum, Vol. 28, 1987.
- Meyer, N. L. & G. Sparks. "The Economic Cost of Transporting Grains from Farm to Market". Canadian Transportation Research Forum, Vol 22, 1987.
- Meyer, N.L. & R. Pheips. "Impacts of Transport Costs Changes on Potato Producer's and Processor's Regional Market Competitiveness". Transportation Research Forum, Vol. 27, Sept., 1986 (Refereed).
- Meyer, N.L. "Changes in the Farm Truck Fleet as the Result of Adjustments in Rural Freight Rates". Canadian Transportation Research Forum, Vol. 19, May, 1984.
- Calkins, B.L. and N.L. Meyer. "Direct Shipment of Idaho Grain from Farm to Market", Transportation Research Forum, Vol. 25, Oct. 1984. (Refereed).
- Meyer, N.L. "Field to Market Transportation of South Idaho Wheat Implications for Rural Transportation". Transportation Research Forum, Vol XXIV, Washington, D.C., November, 1983. (Refereed).
- Meyer, N.L. "South Idaho Rural Grain Movements:." Proceedings of 18th Canadian Transport Research Forum, Regina, Saskatchewan. June, 1983.
- Meyer, N.L. "Coping with the Impacts of Growth." Proceedings of the Ex Ante Growth Impact Models Conference, North Central Regional Center of Rural Development, Iowa State University, Ames, Iowa. 1979.
- Meyer, N.L. and D.W. Bromley. Interregional Impacts of Alternative Water Policies for Irrigation in Western United States. Tech. Report OWRR B-057-Wis, Water Resources Center, University of Wisconsin, Madison. 1974.
- Bromley, D.W. and N.L. Meyer. "Empirical Study of Economic-Ecologic Linkages in a Coastal Area: Comment." Water Resource Research, Vol. 8, No. 5. October 1972.
- Bromley, D.W., N.L. Meyer, J. Stolzenberg and M Warner. Water Resource Projects and Environmental Impacts: Toward a Conceptual Model. Tech. Report OWRR B-057-Wis. Water Resources Center, University of Wisconsin, Madison. 1972.
- Eddleman, B.R. and N.L. Meyer. Minimum Land Requirements for Specified Income Levels, Lower Sinu River Valley of Colombia. Ag. Econ. Report 30, Institute of Food and Agriculture Sciences, University of Florida, Gainesville. September 1971.

Research Bulletins

- Meyer, N.L. and W. D. Harris. Transporting Idaho's Wheats and Barley's. Experiment Station Bulletin #653. December, 1985.
- Meyer, N.L. and W. D. Harris. Marketing Idaho's Dry Edible Beans. Exp. #649. November 1985.
- Meyer, N.L. and N. Konn. Agricultural and Food Policy Issues: Idaho Producer's Views. Exp. #642. February 1985.

- Calkins, B.L. and N.L. Meyer. Adoption of New Marketing Methods by Idaho Grain Producers. #636. January 1985.
- Long, R.B. and N.L. Meyer. The Economic Structure of Blaine County, Idaho 1979. #613. January 1982. Agricultural Experiment Station, University of Idaho.

Extension Bulletins:

- Harris, W. and N.L. Meyer. Transporting and Marketing Idaho's Dry Edible Peas and Lentils. Bulletin 667, March, 1987.
- Gardner, R., N.L. Meyer and D. Walker. The Financial Condition of Idaho Farmers: Deterioration in 1986. Bulletin 663, September, 1986.
- Jones, J.R. and N.L. Meyer, editors. Agricultural Export Issues in the Post Seventies. Ext. 648. November 1985.
- Meyer, N.L. and R.L. Gardner. The Financial Condition of Idaho Farmers: Signs of Stress in 1985. Bulletin 646, June 1985.
- Meyer, N.L. and W. Dishman. Power Clusters: How Public Policy Originates. Bulletin 628, April, 1984.
- Meyer, N.L. and H. Radtke. Health Care in Rural Idaho Economics of Nurse Practitioner Clinics - A Planning Model. Bulletin 611, August, 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Education. June 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Fire Protection. July 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Police Protection. July 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Sewage Collection and Treatment. July 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Sheriff Protection. July 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Solid Waste Disposal. July 1981.
- Rimbey, N. and N.L. Meyer. Cost of Public Services - Water Supply. July 1981.
- Meyer, N.L. and N. Rimbey. Residential Growth: Its Benefits and Costs to the Local Community. June 1981.

Western Rural Development Center:

- Meyer, N.L. Programming Capital Improvements. WREP #30. 1980.
- Radtke, H.D., N.L. Meyer, and H. Ferguson. Health Care for Western Rural Communities, a workbook for considering alternatives. OSU, Corvallis, Oregon. WREP #7. 1979. Revised 1982.
- Siegler, T. and N.L. Meyer. Assessing the Fiscal Impact of Rural Growth. WREP #29. 1979.

Pacific Northwest Publications:

- Meyer, N.L. "Impact of 1985 Food Security Act and Consumer Food Costs." Pacific Northwest Outlook and Situation, January, 1988.
- Meyer, N.L. "Agriculture and Food Legislation." Pacific Northwest Outlook and Situation. January 1985.
- Meyer, N.L. "Transportation" Pacific Northwest Economic Outlook and Situation. January, 1984.
- Casavant, K., J. Mehringer, and N.L. Meyer. Waterway User Fees and Wheat Transportation. PNW #230. March 1983.
- Meyer, N.L. "Farm Production Inputs." Pacific Northwest Agricultural Situation and Outlook. January 1981.

Current Information Series, University of Idaho:

- Meyer, N.L. Monetary and Fiscal Effects and U.S. Exports. #695 July, 1983.
 Meyer, N.L. Agricultural Trade Policy: Who Are the Actors? #683. March 1983.
 Casavant, K., F. Dooley, and N.L. Meyer. Railroad Transportation Issues Affecting Idaho Wheat. #681. February 1983.
 Meyer, N.L. and S.E. Grace. Inflation and Ideas for Managing It. CIS678, September, 1982.

Pacific Northwest Publications:

- Meyer, N.L. and S.E. Grace. Parity. #663, September 1982.
 Meyer, N.L. and T. Powell. Idaho Enterprise Budget Generator. #590. June 1981.
 Meyer, N.L. Sharing Public Service Development Costs Using Average or Marginal Pricing Systems. #509. October 1979.
 Walker, N. and N.L. Meyer. Assessing Growth Impacts - Are You Asking the Right Questions? #478. May 1979.
 Smith, D. and N.L. Meyer. General Revenue Sharing. #452. October 1978.
 Smith, D. and N.L. Meyer. Idaho Sales Tax. #451. October 1978.
 Smith, D. and N.L. Meyer. Property Taxes, How Do They Work? #450. October 1978.
 Smith, D. and N.L. Meyer. County Revenue Sources. #456. October 1978.
 Smith, D. and N.L. Meyer. Special Districts. #455. October 1978.
 Meyer, N.L. Why Planning? #444. July 1978.
 Harker, M., E. Michalson and N.L. Meyer. Erosion Control - An Issue in American Farm Policy. #415. October 1977.

Popular or Trade Publications:

- "Can You Afford Not to Comply?" Idaho Farmer Stockman, December, 1987.
 "Farm Finance Decline in 1986." Idaho Farmer Stockman, July, 1986.
 "Focus on Pacific Northwest Grain Transportation Issues" Northwest Farmer Stockman Magazine, January 1985.
 "New Grain Handling Patterns: Effect on Rural Roads" Northwest Farmer-Stockman Magazine, Sept. 6, 1984.
 "Export-Grain Assembly: How Farmers Are Reacting to the Changing System" Northwest Farmer-Stockman Magazine, August 2, 1984. "Agricultural Trade Policy: Who are the Actors?" The National Wheat Grower, February, 1984. (Adaptation of CIS 683).
 "Waterway User Fees and Wheat Transportation in the Pacific Northwest" The National Wheat Grower, December, 1983. (Adaptation of PNW 230).
 "Waterway User Fees." Idaho Wheat Grower. April 1983. (Adaptation of PNW 230 by Casavant, Mehringer, and Meyer.)
 "Inflation's Affect on Wheat Farmers." Idaho Wheat Grower. June, August 1981.
 "The Price of Development - Who Pays?" Idaho Cities. December 1977.
 "Evaluating Circumstances and Opportunities in the Business Sector of Your Community." Idaho Cities. May 1977.
 "Determining and Evaluating Community Wants and Needs." Idaho Cities. February 1977.
 "Population Changes in Small Towns: Economic Effects." Idaho Cities. November 1976.

Agricultural Economics Extension Series:

- Macro Policy Effects on Idaho Wheat. #402, Nov. 1985.
The Financial Conditions of Idaho Farmers; Signs of Stress 1985. #397, May 1985.
How Idaho Farmers View Agricultural and Food Policy Issues #391, Nov. 1984.
Idaho Farm Real Estate Tax Burden 1954 to 1978. #386, September, 1983.
Transportation Issues Important to Idaho Wheat Growers. #388, Nov. 1983.
Year End Tax Management Workshop. #366. 1980.
Growth: Its Benefits and Costs to the Local Community. #359. 1979.
Economic Analysis Health Care Alternatives Fremont County, Idaho. #355. 1978.

Idaho Economics: (Ag Econ Departments' Extension publication to Lay audiences)

- Likely Policy Initiatives in 1985 Farm Bill. July 1985. (Walker, D. & N. Meyer)
Farm Programs and the Strong Dollars Effect on Exports. May 1985. (Adapted
 from R. Sargent)
Refinancing Agriculture. September 1984. (Adapted from Knutson, R. & J.
 Richardson)
Career Conscious Students Look at Agribusiness. July 1984. (Adapted from T.
 Brewer)
The Agriculture and Food Act of 1981. March 1982. (Meyer, N.)
Idaho Population Change, 1970-1980. September 1981. (Meyer, N.)
1981 Food and Agriculture Legislation. June 1981. (Meyer, N.)
Electronic Decision Aids: New Management Tools. June 1980. (Meyer, N.)
Sharing Development Costs: A Problem for Local Government. June 1979.
 (Meyer, N.)
Rural Health Care - The Role of Nurse Practitioners. June 1978. (Meyer, N.)

Progress Reports:

- Long, R.B., S.G. Adams and N.L. Meyer. The Economic Structure of Benewah
 County, Idaho 1979. #219. April 1981. Agricultural Experiment Station,
 University of Idaho.

Economic Issues (Issue Letters to County Agents)

- Meyer, N.L. 1988 Wheat and Feed Grain Program, February, 1988.
 Smathers, R. & N. Meyer. 1985 Food Security Act: Implications for Producers.
 November, 1987.
 Meyer, N.L. (adapted) The Wheat Poll: Do Producers Favor Mandatory Limits on
 Production? June, 1986.
 Meyer, N.L., R. Smathers, W. Gray. 1985 Food Security Act (Tentative). March,
 1986.
 Meyer, N.L. Impacts of a Market Oriented Agricultural Policy. September 1985.
 Meyer, N.L. 1985 Agricultural Legislation. Sept. 1985.
 Meyer, N.L. The Bankruptcy Alternative to Farm Debt Problems. August 1985.
 Meyer, N.L. 1984 Wheat and Feed Grain Program. Oct. 1984.
 Meyer, N.L. 1984 Wheat Program. Sept. 1984.
 Meyer, N.L. Agricultural Programs Adjustment Act of 1984. April, 1984.
 Meyer, N.L. The 1983 PIK Program. February, 1983.
 Meyer, N.L. How Social Security Reform Would Affect Farmers. March, 1983.
 Meyer, N.L. Probable 1983 Wheat Program. September 16, 1982.

Meyer, N.L. Statistical Intelligence: Crop and Livestock Estimates.
September 9, 1982.

Economic Issues:

- Gray, C.W. and N.L. Meyer. The General Economic Recovery Is... July 13, 1982.
Meyer, N.L. and C.W. Gray. 1981 Farm Bill Implications for the Dairy Industry.
March 15, 1982.
Meyer, N.L., J.O. Early, C.W. Gray, and J.F. Guenther. The 1981 Tax Law:
Financial Management Strategies for Farmers. October 16, 1981.
Meyer, N.L. and J.F. Guenther. FCIC All-Risk Crop Insurance. October 8, 1981.
Meyer, N.L. Management and Inflation. June 10, 1981.

Peace Corps Publications:

- Meyer, N.L. Training Document for Philippines 40 Food Production Project.
Manila, Philippines. 1970.
Meyer, N.L. Swine Production Manual - Crianza de Cerdos Peace Corps Puerto
Rico. 1966.
Meyer, N.L. Training Plan for First Peace Corps - Venezuela Agrarian Reform
Project, Caracas, Venezuela. 1966.

Other Publications:

- Meyer, N.L. and R. Phelps, G. Kleinschmidt, R. Beaver, & M. Devoy The Economic
Importance of Bruising To Idaho Potatoes in Transit. American Society of
Agricultural Engineers, Paper #85-6022, St. Joseph, MI. June 1, 1985.
Meyer, N.L. "Local Impacts of Changes in a Major Transportation Mode for
Benewah County, Idaho," Proceedings of the Governor's Economic Outlook
Conference, Division of Financial Management, State of Idaho, Boise.
November 1981.
Meyer, N.L. and W.R. Simpson. Methods of Reducing Storage Losses of Potatoes
and Onions in the Dominican Republic. #81-03. Postharvest Institute for
Perishables, College of Agriculture, University of Idaho. December 1981.
Powell, T.A., C.E. Drury and N.L. Meyer. Idaho Livestock Enterprise Budgets.
Agricultural Experiment Station, University of Idaho. Miscellaneous Series
#71. October 1981.
Meyer, N.L. "Food-Fuel-Feed-Foreign Exchange," Biofuel Potential in the Pacific
Northwest: A Technical Workshop. Proceedings. Feb. 24-25, 1981.
Cooperative Extension Service and Agricultural Experiment Station, University
of Idaho.
Meyer, N.L., J.O. Early and R.W. Schermerhorn. Final Report - Economic Analysis
- Impacts of May 18, 1981 Volcanic Ash Fallout on 8 North Idaho Counties.
Report to the Division of Economic and Communities Affairs, State of Idaho.
July 1980.
Meyer, N.L. The Economic and Social Impacts of Power Plant Construction.
Presented at Idaho's Energy Future: Choices for Southern Idaho. Conferences
Sponsored by Idaho Conservation League, March 3, 1978 at Burley and March
4, 1978 at Twin Falls.

Micro Computer Programs Developed with Leroy Stodick

- 1986 Food and Feed Grain Program Evaluation for Producers
1985 Food and Feed Grain Program
1984 Feed Grain Program

1984 Wheat Program
1984 Dairy Diversion
Agricultural Commodity Transportation Cost Analysis
1983 PIK

Honors and Awards:

Outstanding Extension Program, Western Agricultural Economics Assn. for Coping with the Impacts of Growth, Awarded August 1980, Las Cruces, New Mexico.

Outstanding Group Extension Program, American Agricultural Economics Assn. Coping with the Impacts of Growth. Awarded August 1982, Logan, Utah. (Project Chairman).

Honorary State Farmer degree awarded by Idaho Future Farmers of America. March, 1985.

Research in use of music as a reinforcer, electro-mechanical communication device, control of bruxing, and systematic self-management; and
Workshop presenter for the Center for Business Development & Research, University of Idaho (1981-present).

1972-1975, Special Educator and Assistant Professor, Nisonger Center, Ohio State University, Columbus, Ohio.
Duties included Director of University-based preschool for handicapped children where various training and research activities occur.
Directed university/public school project for integrating exceptional children into regular classroom.
Taught courses including learning problems in children, behavior analysis in the classroom, seminar in interdisciplinary problem solving, and advanced developmental assessment.
Coordinated training and research in educational units.
Research in varied areas including behavior analysis in the classroom, reinforcement of divergent behaviors, self-management, study of rate of response as a critical variable, and use of music as a reinforcer for humans and primates, control of bruxing.

1969-1972, Bureau of Child Research Trainee, Bureau of Child Research, University of Kansas, Lawrence, Kansas.
Duties included coordinator of research in University Affiliated Learning Center for Retarded Children.
General research in the areas of application of behavior modification principles to classroom behaviors, use of automatic recording devices in classrooms, and learned helplessness.

Summer 1967, Educational Psychologist, Migrant Indian Program, Puyallup, Washington.
Duties included testing of children and evaluation of program effectiveness.

1967-1969, Instructor, University of Puget Sound, Tacoma, Washington.
Taught courses in general psychology; advanced general psychology: psychology of adjustment; psychology of learning.

1966-1969, School Psychologist, Public School District, Fife, Washington.
Duties included district wide development of special education program, working with teachers and parents to develop/change programs for children, and teaching high school psychology classes.

1965-1966, Teaching Assistant, Central Washington State College,
Department of Psychology, Ellensburg, Washington.

Other Professional:

International Consultant

1980-Present, Consultant to Ecuador to develop programs for
handicapped children and to develop materials and training
center that provides service to all provinces of the country.

Membership in Professional and Scholarly Organizations:

Council for Exceptional Children
Association for Behavior Analysis

Presentations:

Parks, A. L. Trends in special education. Paper presented at Ohio
Association for Teacher of Retarded Children, Columbus, Ohio,
March, 1973.

Loadman, W. E., and Parks, A. L. Increasing performance of
culturally disadvantaged students: A diamond among the glass
or the possibility of a type I error. Paper presented by Parks
at International Symposium on Learning Disabilities, Miami,
October, 1973.

Parks, A. L. Mid-career education, an accountability model.
Presented at Ohio Association for Retarded Children, Cleveland,
Ohio, November, 1973.

Parks, A. L., Frey, D., Watson, K., and Borchart, K. A system for
educating exceptional children in the regular classroom. Paper
presented at Symposium on Trends in Education, Nisonger Center,
Columbus, Ohio, 1973.

Parks, A. L., Fine, M. T., and Hopkins, B. A study of
teacher-managed and self-managed reinforcement with young
children on an academic task. Paper presented at 5th Annual
Conference on Behavior Analysis in Education, University of
Kansas, Kansas City, Kansas, October, 1974.

Loadman, W. E., and Parks, A. L. The education of inner-city
elementary school children. Paper presented by Loadman at
Spring Conference of American Education Research Association,
1974.

Zartman, S., and Parks, A. L. The use of self-recording vs.
pupil-recordings of teacher behavior. Paper presented by
Zartman at Council for Exceptional Children, New York, 1974.

- Parks, A. L., and Deutsch, M. The use of music as a reinforcer to foster academic and adaptive behaviors. Paper presented at the National Association of School Psychologist, Atlanta, April, 1975.
- Parks, A. L., Berkwitt, J. G., Wyant, S. L., and Gerhardstein, M. E. A preschool for applied research with emphasis on development and dissemination of procedures to the local community. Paper presented at the American Association of Mental Deficiency, Portland, May, 1974.
- Parks, A. L. Applied behavior analysis and hyperactivity: Focus on Self-Management. Paper presented at the 33rd Annual American Psychological Association Convention, Chicago, August, 1975.
- Parks, A. L. and Henson, F. O. An experimental analysis of the effects of contingent music on severely delayed preschool children. Presented at the International Conference for the Association of Children with Learning Disabilities, Seattle, March, 1974.
- Parks, A. L. Data-based training in applied settings: An approach to training university students. Presented at the American Association of Mental Deficiency, Chicago, May, 1974.
- Parks, A. L. The use of contingent music to teach new behaviors to retarded children in classroom settings. Paper presented at the American Association for Mental Deficiency, Chicago, Illinois, 1976.
- Parks, A. L. Use of self-management procedures with gifted and talented children. Conference on Exceptional Children, Boise, Idaho, 1977.
- Parks, A. L. The learning disabled child and behavior management. The Third Annual Special Education Conference, Lewiston, Idaho, 1977.
- Parks, A. L. Management of behavior problems in the regular classroom. Conference on Mainstreaming, Ellensburg, Washington, 1978.
- Parks, A. L. Secondary special education programs--alternative approaches. Paper presented at Council on Exceptional Children Conference, Sun Valley, Idaho, 1978.
- Parks, A. L. Planning for development of educational programs of gifted children. Paper presented at Western Exchange for Gifted and Talented Conference, Coeur d'Alene, Idaho, 1978.

- Parks, A. L. Programming for the handicapped child at the secondary level. Division of Learning Disabilities, Council for Exceptional Children Conference, Denver, Colorado, 1980.
- Parks, A. L. Mainstreaming the Exceptional Child. Regional Conference, Youngstown, Ohio, 1980.
- Parks, A. L. Special Education in 1984. Will it be like Orwell's 1984? Paper presented at Council for Exceptional Children Conference, Boise, Idaho, 1981.
- Parks, A. L. Tell us, Mr. Disney, how can we provide better services to students: A study of best practices in business. Paper presented at Council for Exceptional Children Conference, Boise, 1983.
- Parks, A. L. A study of best practices in private sector management. Paper presented at the Third Annual College of Education Homecoming Symposium entitled Perspectives on Merit/Incentive Pay Plans, October, 1983.
- Parks, A. L. Business practices in management of people. Idaho School Board Association, Moscow, Idaho, 1983.
- Parks, A. L. Business practices that schools could adopt, College of Education Homecoming Conference, Moscow, Idaho, 1983.
- Parks, A. L. Human resource management practices public school could use. Western States American School Board Conference, Tucson, Arizona, 1983.
- Parks, A. L. Best practices in business. Inland Empire Association of Businesses and Industries, Spokane, Washington, 1984.
- Parks, A. L. Teacher burnout. Consortium for Excellence for Child Care. Pullman, Washington, 1984.
- Parks, A. L. Business practices for principals. Idaho Elementary School Principals Workshop, McCall, Idaho, 1984.
- Parks, A. L. Best practices in human resource management. Workshop sponsored by University of Idaho Free Enterprise Chair and A. D. Davis Foundation, 1984.
- Parks, A. L. Teacher perceptions of manager styles. College of Education Homecoming Conference, Moscow, Idaho 1984.
- Parks, A. L. Human resource management lessons from well-management companies. Colorado School Board Association Conference. Colorado Springs, Colorado, 1984.

- Parks, A. L. Business management for school managers. North Idaho superintendents meeting. Coeur d'Alene, Idaho, 1985.
- Parks, A. L. Business practices in human resource management. Idaho Association of Secondary School Principals Conference, Boise, Idaho, 1986.
- Parks, A. L. Medical immunity and special education cooperation in providing services to handicapped students. Invited presentation to be made at Children's Hospital, Guayaquil, Ecuador, June, 1986.

Honors and Awards

- A. D. Davis Free Enterprise Award to fund summer research on well-managed businesses. Funding \$4,000.00.

Publications:

- Deutsch, H., Parks, A. L., and Aylesworth, J. (1976). The use of contingents to increase on-task academic behavior in children with emotional problems. Behavioral Engineering, 3(3), 77-79.
- Deutsch, M., and Parks, A. L. (1978). The use of Contingent Music to increase appropriate Conversational Speech, American Journal of Mental Deficiency.
- Fairchild, T. N., and Parks, A. L. (1976). Mainstreaming the mentally retarded child. Austin: Learning Concepts.
- Fine, M. J., and Parks, A. L. (1973). The social and personal competence of educable retarded children: A proposal for secondary level programs. In J. Gowan and D. Demos (Editors), The Guidance of Exceptional Children.
- Gentry, D. G., and Parks, A. L. (1978). Educating the Severely/ Profoundly Handicapped: What is the least restrictive alternative. New York: Teaching Resources.
- Gibson, W., and Parks, A. L. (1977). Human Dignity for Mental Retardates. Journal for Special Education of the Mentally Retarded. 13(2), 119-120.
- Henson, F. O., and Parks, A. L. (1977). A technique for analyzing rhythmic drum responses. Behavioral Engineering.
- Law, J., Lewis, J., and Parks, A. L. (1978). Using the Verbalizer with a nonverbal cerebral palsied child: A Case History. Behavioral Engineering, 5(1).

- Loadman, W. E., and Parks, A. L. (1973). Increasing the academic performance of culturally disadvantaged students: A diamond among the glass or the possibility of type I error. Proceedings from International Symposium on Learning Disabilities.
- Parks, A. L. (1971). The use of self-management of reinforcement with elementary school children. In M. J. Chrin (Ed.) Crisis '71: Survival Through Accountability. NASP Publications, Ken, Ohio.
- Parks, A. L. (1972). Changes in proficiency of work recognition in young children through self-management of contingencies. Working paper, University of Kansas.
- Parks, A. L., and Peterson, N. L. (1972). Habit control in young children through self-management of contingencies. Working paper, University of Kansas.
- Parks, A. L., Watson, K., Frey, D., and Brochart, K. (1973). Behavior analysis in public school classrooms. Nisonger Technical Report Series, Ohio State University.
- Parks, A. L. and Berkwitz, J. (1974). Cueing systems to reduce bruxing in young handicapped children. The Nisonger Center, The Ohio State University.
- Parks, A. L. (1974). Education for every child. Context, Vol 1 (3) 6-7.
- Parks, A. L. and Peterson, N. L. (1974). Fostering productive independence in the classroom - a self-management approach. Instructor, Vo. 84 (1) 162-164.
- Parks, A. L. Fery D., Borchart, K., and Watson, K. A non-categorical approach to the education of exceptional children. In K. Kluss, et al. (Ed.) Trends in Individualizing Instruction. Ohio State University.
- Parks, A. L. and Rousseau, M. K. (1976). The public law supporting mainstreaming. Austin: Learning Concepts.
- Parks, A. L., Fine, M. J., and Hopkins, B. (1980). A study of teacher-managed and self-managed reinforcement with young children on an academic task. In T. A. Brigham (Ed.), Behavior Analysis in Education, Self-Management and Reading. Dubuque, Kendall/Hunt.

- Parks, A. L. (1979). Behavior management for teachers with teaching disabilities. Journal of the National Society for Performance and Instruction. 18 (2) 25-28.
- Parks, A. L. and Sherbenou, R. J. (1980). The development of reading skills in a hyperactive child using self-management. In M. J. Fine (Ed.) Management of Hyperactive Children. Duboque, Kendal/Hunt.
- Sherbenou, R. J. and Parks, A. L. (1981). The use of peers to assist handicapped learners. Education and Treatment of Children,.
- Parks, A. L. and Taylor, G. C. (1981). Secondary Special Education: A procedures manual. Boise, Idaho.
- Parks, A. L. and Fairchild, T. (1982). How to Survive Education Burnout. Dayton: Kids Come in Special Flavors Company.
- Fletcher, J. and Parks, A. L. (1983). Adaption of facilities, equipment, instruction and curriculum to the needs of handicapped adolescent students. Working Paper. University of Idaho.
- Cherasia, M. and Parks, A. L. (1986). Suggestions for use of behavioral measures in treating bruxism. Psychological Reports, in press.
- Parks, A. L. (1985). R for managers. American School and University Magazine^x. Schulman Publishers, April.
- Parks, A. L. (1986). Managing violent and disruptive students. In T. N. Fairchild (Ed.), Crisis intervention strategies for school-based helpers, (in press). Springfield, Ill: Charles C. Thomas.

Manuscripts Pending:

- Parks, A. L. and Cotter, V. Contingent use of music to reduce self-abusive behavior in autistic students.
- Parks, A. L. Assessment of handicapped students school environments.
- Parks, A. L. Management with people: a trend for the 80's.

GRANTS AND CONTRACTS WRITTEN AND SUBMITTED

- The Contingent Use of Music to Reduce Self-Abusive Behavior in Autistic Children (with Vance Cotter, 1973). Submitted to the Ohio State University Graduate School. Funding: \$4,000.
- Handicapped personnel Preparation: Master's level training (1976). Submitted to Division of Personnel Preparation; Bureau of Education for the Handicapped. Funding: \$41,000 per year for 3 years.
- Development of a Device to aid Non-verbal Persons in Communication (with John Law, Department of Electrical Engineering, 1976). Submitted to the University of Idaho Short-term applied Research Fund. Funding: \$7,000.
- Study of Best Practices for Services to Severely Handicapped Persons (1976). Submitted to the Oregon Regional Resource Center, Eugene, Oregon. Funding: \$1,000.
- An Investigation of the Effect of Student Tutors on the Implementation of Individual Education Programs (with Dale Gentry, Corrine McGuyigan, and Rita Sherbenou, 1977). Submitted to Research Division, Bureau of Education for the Handicapped. Funding: \$13,500.
- Home Education for Latah Parents: A program for Service Delivery in Homes of Handicapped Children (written with Kathleen McCartan, 1977). Submitted to Idaho State Board of Education. Funding: \$21,956.
- Training teachers in Parent/Teacher Conferencing (with Jennifer Olson, 1978 1979). Submitted to Idaho State Board of Education. Funding: \$20,054.
- A Study of Architectural Design of Idaho State School & Hospital (written with an interdisciplinary team of architects, psychologists, and special educators, 1978). Submitted to Idaho Department of Health and Welfare. Funding: \$17,000.
- Handicapped Personnel Preparation: Master's Level Training (with Margo Berkler, 1979). Submitted to division of Personnel Preparation; Bureau of Education for the Handicapped. Funding: \$30,00 per year for 3 years.
- Regular Education Inservice: An Adaptive Approach to Inservice Training For Regular Educators (originally written by Dale Gentry and Janice Fletcher, I served as director for 3 years, 1979). Funding: \$56,000 per year for 3 years.

Procedures Manual for Development of Vocational Secondary Special Education Programs (written with Cleve Taylor, 1980). Submitted to Idaho Department of Education, Division of Vocational Education. Funding: \$5,000.

Preparation of Leadership Personnel: Doctoral Level Training for Teacher Trainers, Administrators, and Researchers (with Dale Gentry, 1983). Submitted to U. S. Department of Education, Office of Special Education and Rehabilitation Services, Division of Personnel Preparation. Funding: \$78,091. per year for 3 years.

Monitoring Masseter Muscle Tension Through EMG Telemetry (with Alex McNeil, 1985). Submitted to the College of Education, University of Idaho. Funding: \$1,600.

Behavioral Control of Bruxing (written with Mike Cherasia, 1985). Submitted to National Institute of Dental Research. Funding Requested: \$200,000 per year for 3 years. Review Pending.

A Multi-University System for Inservice in Secondary Special Education (written with personnel from 4 Universities in Idaho, 1986). Submitted to U.S. Department of Education Office of Special Education and Rehabilitation Services, Division of Personnel Preparation. Funding Requested: \$80,000 per year for 3 years. Review Pending.

Handicapped Personnel Preparation: Master's Level Training for Special Educators in the Areas of Early Childhood and Secondary Special Educators in Rural Areas (written with Diane Baumgart, 1985). Submitted to U.S. Department of Education, Office of Special Education and Rehabilitation Services, Division of Personnel Preparation. Funding Requested: \$45,000 per year for 3 years. Review Pending.

International Projects

Country: Ecuador

Purpose: Assistance to Ecuador to develop a model of services for handicapped children and youth.

Funding Source: Agency for International Development and the Organization of American States

Project Director: E. Samuelson, Dean, College of Education, University of Idaho

Role: Consultant and Trainer