

AGRIBUSINESS INVESTMENT OPPORTUNITIES
IN LATIN AMERICA AND THE CARIBBEAN

PROJECT PROFILE SUMMARIES

PREPARED BY
THE AMERICAN SOCIETY OF AGRICULTURAL CONSULTANTS INTERNATIONAL
UNDER GRANT AGREEMENTS WITH THE
U.S. TRADE AND DEVELOPMENT PROGRAM

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AGRIBUSINESS INVESTMENT OPPORTUNITIES IN BELIZE

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Vegetable Production
2. Rice and Cattle Ranch
3. Cashew Growing and Processing
4. Integrated Dairy
5. Export Banana Production
6. Sheep Production for Export
7. Cocoa Production

B. MEMBERS OF THE PROJECT PROFILE SURVEY TEAM--BRIEF RESUMES

Project Name: Vegetable Production for Export

Location: Belize, in the fertile northern sector

Project Proposal:

To participate in the lucrative winter vegetable market in the United States by establishing and operating a 1,000 acre farm with a packing plant.

Potential Profitability:

The capital investment required for a 1,000 acre farm and a packing plant would be \$3,150,000. This will create a company capable of earning nearly \$3,000,000/year after 3 years.

Project Viability:

Market: The winter vegetable market in the U.S. continues to be one of the most attractive opportunities in the fresh food business, since the growing areas that can competitively serve this market are limited.

Production: Northern Belize has a climate that is well suited to the vegetable business. Good sandy loam soils are available. There are two major rivers, and acceptable well water. Land can be purchased by foreigners without problem, \$150 per acre for uncleared, \$250 per acre for cleared. Transportation by truck to McAllen, Texas; biweekly reefer service to Florida; and by daily air freight is all available.

Personnel: While good middle level bilingual managers can be found in Belize, they would have to be trained in the vegetable business. There appears to be a ready supply of low cost migrant farm labor.

Local Investors:

There appears to be very few partners who could assist in the major capital commitment that this sort of venture requires. However, many families are land poor, and might be able to contribute land to the project while the U.S. investor would bring in the equipment and working capital.

Valuable information and assistance can be obtained by contacting the Belize Agribusiness Company (BABCO) and the Belize Export and Investment Promotion Unit (BEIPU).

Project Name: Rice and Cattle Ranch

Location: Belize, in the Cayo District, 25 miles west of Belize City

Project Proposal:

To purchase the existing 7,000 cleared acres of the Big Falls Ranch, its milling facilities, and all existing buildings and equipment. To farm and mill 2,000 acres of rice rotated with red kidney bean, to lease another 2,000 acres to outsiders, mill their production, and use the remaining 3,000 acres of land for a cattle herd of 3,000 head.

The Belize government is actively involved in the sale of Big Falls Ranch.

Potential Profitability:

The required capital investment will be \$4,500,000, which should produce annual operating profits of \$2,388,000 after four years.

Project Viability:

Market: The local market which currently imports rice, and the CARICOM market where Belize has duty free access for its farm products. The CARICOM is a ready market also for beef and red kidney beans.

Production: The property was developed as a rice farm. The red kidney bean fixes nitrogen in the soil. Good pasture exists along with 1,700 head of cattle. A paved road to Belize City exists. Shipping to CARICOM is available.

Personnel: Big Falls is fortunate in having two fine resident managers who can probably be relied upon to be a part of the new management team. Mr. Godwin Hulse is overall ranch manager, and Ms. Pat Shaw manager of the cattle herd.

Credibility of Local Investors:

With his experience as an engineer, banker and manager of Big Falls Ranch Ltd., Mr. Godwin Hulse, receiver of the ranch property can offer valuable assistance and information to the potential U.S. investor.

Project Name: Cashew Growing and Processing for Export

Location: Belize, 30 miles west of Belize City

Project Proposal:

To establish a joint venture with an existing cashew grower with the goal of upgrading and expanding the farm to 400 acres.

Potential Profitability:

The project as prepared would entail a capital investment of \$1,000,000 which would generate an operating profit starting in year 5 and exceeding \$2,000,000/year in year 10.

Project Viability:

Market: The world cashew market grows steadily with prices ranging recently from \$2.50-\$3.50/lb.

Production: Sandy soils, requiring drip irrigation. Climate is suitable. Project program: (1) increase population of older acres, (2) establish a drip irrigation system, (3) begin regular farm practices of pruning, weeding, fertilizing, and pest control, (4) establish a nursery of superior trees for next expansion phase.

Personnel: Given the extent of the new investment targeted for the farm, a good general manager will be required who has an agronomic background and management experience. In addition, it will be necessary to provide top level advice for irrigation, fertilizer and pest management practices. A U.S. consultant should be employed, with visits to the farm at least every 6-8 weeks.

Credibility of the Local Investor:

The Sylvestre family began planting cashews in 1978, and the acreage has been built gradually since then. The family is well known and respected in Belize. They have learned a great deal about cashew cultivation but are interested in the establishment of a joint venture with a partner who will bring in capital for upgrading and expansion measures.

Project Name: Integrated Dairy

Location: Western Belize

Project Proposal:

To purchase a 2,000 acre farm to feed a herd of 800 milking cows with milk production to be packaged in UHT/aseptic containers.

Potential Profitability:

Based upon an assumed capital investment of \$3,951,000, the project will have a payback of 4.6 years, and operating profits of \$2,300,000 per year after ten years.

Project Viability:

Market: Belize is currently importing \$5,655,000/year of dairy products (at least 50% of total demand).

Production: Brown Swiss will be the breed of choice, followed by Holsteins. Though all dairy cattle have to be carefully managed in a tropical environment, these breeds have been managed successfully under Belize conditions in many other locations. Good highways exist to major population centers of Belize City, Belmopan, and Orange Walk. Due to the absence of brucellosis in Belize, special negotiations will have to be conducted to bring in live animals.

Personnel: Needed will be one expatriate general manager, one expatriate dairy manager, and one expatriate creamery manager.

Prospective Partners:

The interested U.S. investor could obtain detailed information on suitable land availability and respectable landowners/prospective partners from the Belize Chamber of Commerce and Industry.

Project Name: Export Banana Production for the United Kingdom

Location: Southern Belize, Toledo District

Project Proposal:

To establish a joint venture with a local partner to install a 500 acre banana farm with all the fruit to be sold to the British company Fyffes.

Potential Profitability:

A 500 acre banana farm would have an investment cost of \$2,283,000 and would be expected to produce an operating profit of \$670,000 per year after three years.

Project Viability:

Market: Belize has a preferred quota of 5,000,000 boxes per year under a special marketing agreement with Fyffe, with 1988 production projected at 2,000,000 boxes. Prices with Fyffes considerably higher than international market.

Production: Soil survey of prospective land sites necessary. Some risk of chill damage but an acceptable risk. Irrigation necessary. Good chance of locating farm within 25 miles of port Big Creek. Migrant labor and Grand Nain seed stock available.

Personnel: An active and respectable local partner is a necessary part of this business. The banana industry is very management intensive, and the banana industry members in Belize are active in their support of industry requirements.

Credibility of Local Partner:

Interested investors wanting to contact potential local partners could contact Mr. Craig Griffith, Executive Chairman, Banana Control Board, Big Creek, Belize.

Project Name: Sheep Production for Export into CARICOM Market

Location: Western Belize, in the Cayo District, approximately 30 miles from the slaughtering and packing facility.

Project Proposal:

The raising of sheep on an established citrus farm, with responsible management and good feed available. Export of lamb and mutton to CARICOM market, using existing facility for slaughtering and packing.

Potential Profitability:

Assuming an investment of \$125,000, the project would produce an operating income of \$160,000 per year within three years.

Project Viability:

Market: The upscale sector of the CARICOM market, mainly the hotel and tourist industry. Economic advantage over direct competitive product, New Zealand grass fed sheep, because of lower transport costs and preferential market.

Production: Haired sheep are well suited to the climate and terrain in mind and pasture facilities are partially established. Project would bring in 30 sheep - St. Croix White Sheep - for breeding stock, and purchase 600 sheep locally - Barbados Black Belly and Mexican Yellow Sheep. Herd would be increased to 2,500 over 4-5 years. Grazed on kudzu and native grasses.

Personnel: An experienced sheep manager will need to be brought in to handle the direct work with the flock.

Credibility of Local Partner:

Parrot Hill Farm is a 9,000 acre farm, with over 400 acres currently planted to citrus, 50 acres in coconuts, and 60 acres in cashews. The American owners, Ralph and Glenn Huff, have invested substantially in the property and are committed to its long term viability.

Project Name: Cocoa Production

Location: Southern Belize, the Toledo District

Project Proposal:

To establish a 200-500 acre cocoa farm in cooperation with Hummingbird Hershey Ltd. which would supply planting stock, technical service, on the farm training, and guaranteed

Potential Profitability:

For the middle to long term investor, an investment of \$420,000 produces a positive cash flow in year seven and a sustained positive cash flow of \$85,000/year in year ten. Cocoa trees bear productively for 30-40 years.

Project Viability:

Market: Hershey has made a commitment to buy all of the cocoa produced in Belize, either in a dry or wet bean form.

Production: Cocoa is well adapted to Belize. Water, labor and available land are present. Use of fertilizers and pesticides is required. Hummingbird Hershey Ltd. has a complete growing and market program for participating growers.

Personnel: The cocoa production venture envisions a U.S. collaborator as a major investor with one to several Belizean counterparts at site for farm management, supervision and accounting control. Growing expertise will be provided by Hershey technicians.

Credibility of Local Partner:

Interested investors could contact Mr. Ricard L. Burn, General Manager, Hummingbird Hershey Ltd., P.O. Box 102, Belmopan, Belize.

AGRIBUSINESS INVESTMENT OPPORTUNITIES IN COSTA RICA

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Ornamental Tropical Foliage
2. Strawberry Export
3. Sesame Seed Growing
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5. Privatizing a Government-Owned Cotton Gin

B. MEMBERS OF THE ASACI CONSULTANT TEAM TO COSTA RICA-BRIEF RESUMES

Project Name: PRODUCTION AND MARKETING OF ORNAMENTAL TROPICAL FOLIAGE

Location: Costa Rica, central area

Project Proposal:

To establish a commercial operation to produce potted ornamental plants on 100 acres for export to the European market.

Investment Requirements and Returns:

Investment requirements have been projected at \$ 1,050,000, annual operating expenses at \$2,275,000 and yearly sales revenues at \$3,500,000, yielding gross profits of \$1,030,000 per year.

Project Viability:

Production: Land, climate, soils, and water resources are suitable. Of the 100 acres, 70 will be devoted to field production, 15 for a finishing area, and 15 for roads. The basic varieties will be ficus benjamina, dracaena marginata, areca and other palms, and calmondin dwarf ornamental orange trees.

Market: From 1977 to 1981, the wholesale volume of potted plants in Western Europe grew from \$1.26 billion to \$2.19 billion. Central American growers accounted for 29% of world exports of young plants and starter materials for potted plants.

Credibility of Local Partner:

Evergreen Ornamentals, Inc. was established in 1984 to produce and market unfinished ornamental tropical plants. The company is owned by five American partners who have had many years of business experience in Costa Rica, and also in the production and marketing of tropical ornamental plants. They have purchased a 220 acre banana farm and are starting to plant several varieties of plants which will be sold as cuttings to wholesale buyers.

Project Name: STRAWBERRY EXPORT DEVELOPMENT PROJECT

Location: Costa Rica, central area, elevations of 5,000 ft.

Project Proposal:

To produce fresh strawberries on 100 ha. for the U.S. winter market (November through February), principally through contract growing arrangements.

Investment Requirements:

Cooling equipment and prefabricated cold storage equipment would require an investment of some \$200,000. Various services would have to be contributed by the partners or paid for by the project owners, including:

- technical advice to improve growing methods and purchasing procedures to insure that the necessary production materials are available when needed during the growing and harvesting season. And to select proper packaging materials for exporting product.
- engineering assistance to design a cooling and storage facility and to recommend equipment selection.
- technical assistance in grading and packing procedures to meet U.S. marketing standards.
- marketing services in the United States.

Potential Profitability:

The potential exists to generate attractive profit margins with minimal capital risk, by producing a low cost strawberry to be sold on a premium price winter U.S. market.

Project Viability:

Production: The central area has altitude and micro climates suitable for raising strawberries. There are small producers and cooperatives currently growing vegetables and some berries in the region. Contract growing arrangements with emphasis on technical assistance and growing to specification would have to be made.

Market: The large and ever growing U.S. winter fresh produce market.

Credibility of Local Partners:

There are several cooperatives and small growers that the team met with that would offer good potential for establishing satisfactory contract growing arrangements.

Project Name: SESAME SEED GROWING

Location: Costa Rica, the Guanacaste region

Project Proposal:

To develop a sesame seed industry to supply international demand for seed, oil, and meal. Local farmers would provide the land and equipment necessary for planting and harvesting the crop. The American group would supply the special seed varieties and handle the export marketing of the seed.

Potential Profitability:

A ten year estimated cost and profit analysis shows potential annual gross profits of \$4 million.

Capital Requirements:

The fixed capital requirements for this project are minimal as the local farmers would contribute the use of the land and existing equipment while the foreign partners would furnish the proper seed varieties.

Working capital would be needed for the operation to cover costs of purchasing seed from the contract growers, and then processing and exporting it.

Project Viability:

Production: Sesame seed growing was discussed with a number of local upland rice farmers interested in growing sesame as a second alternate crop. The "dehiscent" and the new variety "indehiscent" sesame seeds have been developed for commercial production.

Market: At present there is little competition for sesame as only 11% of world production is marketed internationally with the balance being consumed within the producing countries.

Credibility of Local Partners:

Costa Rican farmers in the Guanacaste region are interested in double cropping sesame seed with rice.

Project Name: FROZEN FRUIT AND VEGETABLE PROCESSING PLANT

Location: Costa Rica

Project Proposal:

To set up a frozen food plant to process and export vegetables and fruits.

Profit Potential:

The possibility of generating attractive profit margins will depend on the project's ability to maintain the quality standards required by the world markets. The project would have a comparative advantage resulting from the low-cost labor needed for the hand harvesting and processing of such vegetables as broccoli, cauliflower, ikara, snow peas, and peppers.

Capital Requirements:

Fixed and working capital requirements total \$1.7 million.

Project Viability:

All of the products mentioned above are now being grown commercially in Costa Rica, so the local farmers have some experience with these crops. It will be necessary, however, to conduct some test plantings with the varieties needed for processing as fresh market produce is not always ideal for freezing.

Credibility of Local Partners:

Two local companies have small commercial operations which they are interested in expanding through a joint venture arrangement: FOODPRO International, Inc. (Chris Dearnley, manager); and Pronto Trading Co., both of San Jose.

Project Name: PRIVATIZING A GOVERNMENT-OWNED COTTON GIN

Location: Costa Rica

Project Proposal:

To enter the cotton industry through a lease/purchase of a government owned cotton gin of two Lummis 3 stand gins.

Profit Potential:

Profit margins would depend on increasing production volumes for greater plant cost efficiency and reducing other operating expenses. It would also require working with cotton producers to lower their production costs through improved variety selection, an increase in plant population/ha and better insect control.

Capital Investment:

It is possible for an American investor to enter the cotton business with a minimum of capital and possibly without equity. Though the government has decided to divest itself of the cotton gin, officials have no specific capital investment requirements and would welcome any reasonable proposal.

Project Viability:

Production: Suitable land is available to cultivate up to 15,000 ha. of cotton under irrigation.

Market: The national fiber requirement in Costa Rica is for approximately 40,000 bales per year. All of the production from the gin would be sold to local textile mills.

Ginning this volume of cotton would also produce about 17,000 MT of cotton seed that can be used for oil and meal. Both of these products are needed in the country as they lack vegetable oils and feed material for their livestock industry.

Credibility of Local Partner:

ALCORSA is the government agency that has been operating the cotton gin.

MEMBERS OF THE ASACI CONSULTANT TEAM TO COSTA RICA

Waldo G. Heron

Team Chairman, Mr. Heron is President of Food Processing Consultants Company. He is an international agribusiness consultant specializing in food processing operations, feasibility studies, marketing, plant engineering and design and providing management for food plants overseas.

Mr. Heron has extensive overseas experience particularly in Latin America and Africa which has included the preparation of feasibility studies, conducted marketing studies, supervised plant engineering layouts, and prepared cost analysis for plants abroad. He is bilingual in Spanish and can also speak French and Portuguese. He was formerly employed by American Can Company as Export Sales Manager and by the Yale and Towne Manufacturing Co. as Latin American Sales Representative.

Mr. Heron has a B.S. in Marketing from the University of Illinois. His professional affiliations include the National Food Processors Association and the Institute of Food Technologists. As the owner of a citrus/avocado farm he belongs to Sunkist Growers Incorporated. He is a certified member and Past President of the American Society of Agricultural Consultants.

C. Harvey Campbell, Jr.

President of Harvey Campbell and Associates, Inc., Mr. Campbell provides domestic and foreign agricultural consultation in resource utilization, market research and feasibility studies, emphasizing land development and cultural practices for agronomic, vegetable, vine and deciduous crops.

Services often encompass consultation in post harvest fruit and vegetable handling, cooling and packaging. His fruit and vegetable cultivation and production consulting involves 15 major clients on more than 75,000 acres.

He was previously employed as Manager of Belridge Packing Company, being responsible for all phases of processing, cooling, packaging and shipping 400 MT of vegetables per day; and as Crop Production Superintendent for the Maui Pineapple Company.

Mr. Campbell has his B.S. Degree in Plant Science and M.S. in Agronomy from the University of California, Davis. His professional affiliations include membership in the Western Growers Association, the American Society of Agronomy, and the Crop Science Society of America. He is a certified member of the American Society of Agricultural Consultants.

James W. Wheyland

Mr. Wheyland, head of Pacific Consultants, provides economic and financial consulting. His services include natural and economic resource evaluation, loan and joint venture analysis, strategic financial planning and implementation of agriculture management strategies.

His varied consulting work has encompassed agricultural feasibility studies for land in the California Coastal Zone, for the development of a diversified orchard and for an integrated tree crop and livestock enterprise.

He was previously employed by Western Agricultural Systems Inc. as Executive and Senior Vice President and by the Imperial-Yuma Production Credit Association. His work included arranging, controlling and supervising a \$23 million line of credit in four states with six banks, and the purchasing, feeding and marketing of 100,000 head of cattle annually.

Mr. Wheyland has his B.S. Degree in Farm Management from the California Polytechnic State University. He is a member of the American Society of Farm Managers and Rural Appraisers and the Western Agricultural Economics Association. He is a certified member of the American Society of Agricultural Consultants.

C.D. "Bud" Purser

Mr. Purser is an international agribusiness consultant specializing in crop selection, production, marketing, soil reclamation and project management. His experience includes preparation of feasibility studies as well as planning, implementation, and project management for agricultural projects and related industries in Latin America, Africa and the Middle East.

Previously Mr. Purser was the Manager of International Agriculture, International Development Department, Tenneco, Inc. where he supervised the preparation of 22 agricultural reports on 9 different countries relating to project design and implementation. Prior employment as Superintendent of Seed Production was with Anderson, Clayton and Co.

Mr. Purser has his B.S. in Agronomy from Texas Technological University. His professional affiliations include membership in the American Society of Agronomy and the Council for Agricultural Science and Technology. He is a certified member of the American Society of Agricultural Consultants.

AGRIBUSINESS INVESTMENT OPPORTUNITIES IN DOMINICAN REPUBLIC

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Cogeneration of Electricity and Steam from Bagasse
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B. MEMBERS OF THE PROJECT PROFILE TEAM--BRIEF RESUMES

Project Name: COGENERATION OF ELECTRICITY AND STEAM FROM BAGASSE

Location: Dominican Republic, near 5 largest sugar cane mills

Project Proposal:

The possible project or projects involve the co-generation of electricity and steam at a sugar factory using bagasse as a fuel, replacing old low pressure boilers with modern high pressure boilers, changes in the use of process steam, and installation of additional steam driven generator capacity.

Potential Profitability:

Assuming the processing of 10,000 short tons of cane per day and a selling electricity price of \$.05 per kwh, a capital investment of \$17 million would return \$2.5 million in yearly profits after taxes.

Project Viability:

Production: There are at least 5 sugar factories of sufficient size to justify co-generation, with all required infrastructure and availability of bagasse fuel directly from the milling process. U.S. technology exists to implement project.

Market: The government electrical power company.

Personnel: Specialized design assistance is available from one of the several U.S. consulting engineering companies specializing in the production of sugar, sugar cane and sugar by-products.

Credibility of Local Partner:

The three companies owning large sugar facilities are the State Sugar Council, Consejo Estatal del Azucar CEA; Central Romana Corporation; three mill companies owned by the Vicini family.

Project Name: CUT FLOWER PRODUCTION FOR EXPORT

Location: Dominican Republic, especially higher central elevations near Jarabacoa, Constanza, Valle Nuevo

Project Proposal:

To establish a commercial operation to produce popular varieties of cut flowers for export

Production and Potential Profitability of Five Varieties:

<u>flower</u>	<u>acres</u>	<u>capital investment</u>	<u>return on equity</u>
orchids	10	\$1,222,000	58%
chrysanthemum	25	\$1,030,500	23%
roses	10	\$1,817,000	61%
anthurium	10	\$952,000	113%
carnations	30	\$940,500	71%

Project Viability:

Production: There exists a wide range of micro-climates which make the production of many floral varieties possible. Soils on higher elevations are relatively good and well drained. Water supplies are deemed adequate. Some shading will be required. Technical equipment, supplies, and expertise would need to be imported from the U.S.

Market: The nearby eastern seaboard of the United States, especially market access through Miami and New York.

Personnel: At the present time, there is no core of good Dominican flower growers with the experience necessary to manage a large export-oriented operation.

Credibility of Local Partner:

Several producers and landowners with suitable sites were visited by the team and prequalified as potential partners interested in joint ventures with prospective U.S. investors. They are listed in the full project investment profile.

Project Name: PINEAPPLE FOR FRESH FRUIT AND PROCESSING

Location: Dominican Republic, esp. lands from Villa Altagracia to Monte Plata

Project Proposal:

To produce pineapple for fresh fruit and processing for concentrated juice on 1,950 acres. Contract grower arrangements and a processing plant are integral parts of the project.

Potential Profitability:

The internal rate of return would be 48%.

Capital Investment:

Fixed investment requirements total \$3,100,000. Project operations reach a steady state in year four with gross profits of \$4.5 million.

Project Viability:

Production: Dominican producers have clearly proven their ability to produce a quality fresh pineapple for the U.S. market. Well drained soils, relatively flat in a dry climate with water steadily available--are available.

Market: The U.S. for both fresh and juice concentrate.

Personnel: Although there are Dominican agronomists with good knowledge of pineapple, it does not appear that there are many who can properly manage a large commercial operation for the export market. An experienced agronomist would be needed to insure good production practices. It is practical to also contract with small landowners to grow to specifications.

Credibility of Local Partners:

Exproco--has experience in marketing fresh pineapple to EC and US, desires technical experts in production and additional marketing assistance.

Frutas Dominicanas--has worked with United Brands and may desire additional financing.

FEDOCA (cane growers assn.)--has land presently in sugar cane, desires technical assistance and marketing expertise.

CEA and IAD--government organizations that have land, especially in can, desire technical assistance and marketing expertise. Lease of land arrangements negotiable.

Project Name: CANTALOUPE PRODUCTION WITH SORGHUM ROTATION

Location: Dominican Republic, especially in northwestern and southwestern areas

Project Proposal:

To set up a commercial operation to produce high quality cantaloupe on 1,000 acres for the U.S. winter market with a rotation of sorghum for domestic consumption.

Potential Profitability:

The internal rate of return on equity would be 65%.

Capital Requirements:

Fixed investment requirements total \$1,650,000, including \$800 per acres for uncleared land at current market price.

Project Viability:

Production: Soils in the north and south west are suitable for melons and other produce. Flood irrigation would be required. Fertilizers and pesticides are in good supply. Careful professional attention must be given to soil and water analysis and management, as well as to the programming, execution, and monitoring of efficient production practices.

Market: The U.S. eastern seaboard represent a good seasonal (November-March) market for Dominican winter fruit and vegetable production, with cantaloupe receiving a 37% premium price increase during the winter months.

Personnel: Manpower is abundant and low-cost in the areas under consideration. Some managerial and technical expertise is available locally.

Credibility of Local Partner:

Three local groups with good business and agricultural talent were prequalified by the team and are listed in the profile. Government agencies owning land negotiable for joint venture arrangements are CEA and IAD.

MEMBERS OF THE ASACI CONSULTANT TEAMS TO DOMINICAN REPUBLIC

Kelly M. Harrison, Ph.D.

Dr. Harrison, team chairman, is President of Kelly Harrison Associates, Inc. a consulting firm specializing in international agribusiness management, finance, trade and development. Formerly, he was Executive Vice President of Jack Zwick Associates and in charge of agribusiness consulting.

From 1977 to 1981, Dr. Harrison served as General Sales Manager and Associate Administrator of the Foreign Agricultural Service, U.S. Department of Agriculture. As agency administrator at USDA, Dr. Harrison managed several major export credit programs disbursing more than \$3 billion annually for export credits to more than forty countries.

Dr. Harrison served on the faculty of the Department of Agricultural Economics at Michigan State University from 1967 to 1977 focusing exclusively on international agribusiness and food policy issues. He has carried out extensive research and consulting assignments in Puerto Rico, Brazil, Colombia, Costa Rica, Mexico, Korea, Egypt and many other countries. He has written five books and numerous research papers and articles.

He is a certified member of the American Society of Agricultural Consultants. Dr. Harrison was also a founding member of ASAC International and served as Chairman of its Board of Governors.

Francis C. Schaffer

Mr. Schaffer, since 1968 President of F.C. Schaffer and Associates, Inc., is a consultant specializing the study, financing, planning, design, construction management and operations of agribusiness projects. Specialties are sugarcane and other tropical crops and the facilities and infrastructure to process them. The firm has current projects in 25 countries including Sudan, Egypt, Ivory Coast, Tanzania, Mexico, Haiti, Colombia, and Central America.

Mr. Schaffer is chief designer of all major projects and participates in the start up of major projects. He has designed seven complete sugar factories, 2 complete refineries and forty of the company's over two hundred expansion projects in thirty countries. From 1979 to 1982 he lived in the Sudan as Factory Manager and General Manager of Sugar Production for the giant Kenana Sugar Refinery.

He received his B.S. degree in Chemical Engineering from Louisiana State University. Mr. Schaffer is a holder of a number of patents on sugar machinery and diffusers, and is author of some 25 articles on the sugar industry.

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AGRIBUSINESS INVESTMENT OPPORTUNITIES IN ECUADOR

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Modern Highland Dairy Farm
2. Modern Lowland Dairy Farm
3. Tissue Culture Laboratory
4. Formulation of the Nematacide "MOCAP"
5. Manufacture of Herbicide "PROPANIL"
6. Rose Production for Export
7. Fresh Strawberry Production
8. Processed Strawberries for Export
9. Integrated Marine Shrimp Production

B. MEMBERS OF PROJECT PROFILE TEAM--BRIEF RESUMES

Name of Project: A MODERN HIGHLAND DAIRY FARM

Location: Ecuador

Project Proposal:

Investment to establish a modern dairy farm which could be used as a staging area for cattle purchased from the USDA dairy herd buy-out program.

Potential Profitability:

Imported heifers at US\$950/head, acclimated and bred through artificial insemination, would be resold on a 90 day basis at US\$1,200. This would give a gross profit of \$200/head, \$30,000/cycle, \$120,000 per year.

Investment/Risk/Ownership:

Total Investment: US\$ 330,000

Foreign partner: 180,000

U.S. partner: 150,000

Resources from local partner: farm, management/labor, capital - 55% equity share.

Resources from U.S. partner: capital (or dairy heifers as equity investment) and technical assistance - 45% equity share.

Project Viability:

Technical Aspects: The USDA dairy herd buy-out would provide prime heifers to expand and upgrade the highland and dairy industry.

Market: The demand in the Quito area is for 350,000 liters per day, while current supply only provides 150,000 liters/day. Increased milk production is needed.

Personnel: Though there are progressive, dedicated local dairymen, technical assistance would be needed to assure good nutrition and genetic practice in project execution.

Credibility of Foreign Investors:

In association with the large SUPER-MAXI Supermarket chain, a group of dairymen own a milk processing plant which produces a quality and hygienic product. These dairymen are the potential local partners who are interested in joint ventures to improve and expand highland dairy production.

Name of Project: A MODERN LOWLAND DAIRY PROJECT

Location: Ecuador

Project Proposal:

To form a joint venture to establish a 500 head dairy farm on the Ecuadorean coast.

Potential Profitability:

The monthly gross profit on a cow producing 35 pounds of milk per day is approximately US\$50 per head.

Investment/Risk/Ownership:

Various joint venture arrangements are negotiable with local dairy farmers.

Resources from local partner: land, basic infrastructure, present herd, management/labor, some capital - 50% equity share.

Resources from U.S. partner: prime dairy cows through the USDA dairy buy-out program (as capital contribution), technical advice and supervision.

Project Viability:

Technical Aspects: An upgrading of herd genetics will be accomplished by bringing U.S. dairy heifers. U.S. technical assistance will be required to establish nutrition programs.

Market: The Guayaquil market demand is for 500,000 liters daily and current supply provides only 50,000 liters per day. A current loosening of price controls will improve margins to producers.

Personnel: Certain local dairymen are progressive and dedicated to modernizing their operations. Technical assistance is needed to help them establish and maintain proper nutrition, genetic, and herd management programs.

Credibility of Foreign Investors:

There are progressive and dedicated young dairymen like Nicky Olsen and his family who would welcome an opportunity to form a joint venture to convert his operation into a model dairy farm.

Name of Project: TISSUE CULTURE LABORATORY

Location: Ecuador

Project Proposal:

The new development of a Tissue Culture laboratory to produce 8-10 million pieces a year to service agro needs of Ecuador and Andean Pact countries.

Potential Profitability:

An initial capital investment of \$750,000 would produce yearly gross sales revenues of \$1,800,000.

Investment/Risk/Ownership:

Capital Investment Required: US\$750,000
Fixed: US\$500,000
Working: US\$250,000

Ownership/Risk Structure

Foreign Investor: Provides 50% of capital, local/regional distribution network.

U.S. Investor: Provides 50% of capital, state of the art technology.

Project Viability:

Production: The technology does exist in the States and is applicable to Ecuador.

Market: An identified need for disease-free and resistant varieties of bananas, coffee, cocoa, tropical flowers, etc.

Personnel: Experienced U.S. personnel would have to be brought in until local managers and technicians can be trained.

Credibility of Foreign Investors:

CLASAGRO is a newly created and wholly owned subsidiary of CLASE ECUADOR, a large holding company controlling ten different Ecuadorean corporations which include a petroleum exploration company, a finance company, an automobile assembly plant, and two London and Miami based trading companies. International Clyde Petroleum Corporation is one owner of the holding company.

The SAN CARLOS Corporation is a long established and diversified agro-industrial firm which is looking for investment and production alternatives in agribusiness.

Name of Project: FORMULATION OF THE NEMATACIDE "MOCAP"

Location: Ecuador

Project Proposal:

Investment of US\$100,000 to purchase machinery for the formulation of MOCAP, a nematocide used in the production of bananas.

The project has the full support of Rhone-Poulenc, the manufacturer of MOCAP. This is an expansion of an ongoing business, to be set up as a new company.

Potential Profitability:

A gross annual operating profit of US\$100,000 is projected on estimated yearly sales of US\$1.2 million.

Investment/Risk/Ownership:

Total Project Cost: US\$300,000
Resources from local company: land, capital, plant/equipment, and a trained sales force - 70% equity share.
Resources from U.S. investor: equity investment capital (US\$100,000), equipment supply, and technical assistance - 30% equity share.

Project Viability:

Technical Aspects: The local company has been given exclusive rights to formulate the proprietary nematocide MOCAP by the manufacturer. Technical assistance will be required.

Market: Primarily, the Ecuadorean banana growers, a total potential market of US\$6.25 million, projected market share of 20%. Export of formulated product to Andean Pact nations is also projected and would have preferred status, and tax-free advantages.

Personnel: Local managerial and sales staff is competent. Installation/production technical personnel would be needed.

Credibility of Foreign Investor:

FITOSAN S.A., established in 1973 is a distributor of agricultural pesticides with 1985 sales of US\$4.4 million, and 70 employees. Owner and manager is Mr. Andres Argudo. Financial references: Banco del Pacifico, Banco Bolivariano, Guayaquil.

Name of Project: MANUFACTURE OF HERBICIDE "PROPANIL"

Location: Ecuador

Project Proposal:

Investment of from US\$250,000 to US\$1,000,000 for working capital to purchase raw materials and cover labor costs for the fabrication and formulation of PROPANIL, a weed killer vital to rice production.

Potential Profitability:

Projected sales are US\$3 million to the local markets with a net profit before taxes of US\$1 million, and sales of US\$3 to US\$6 million for the export market with a net profit of US\$500,000 to US\$1 million.

Investment/Risk/Ownership:

Resources from local company: land, capital, industrial plant and equipment, production and distribution expertise - 51% equity share.
Resources from U.S. partner: equity investment (working) capital for raw materials and start-up operations - 49%.

Project Viability:

Technical Aspects: The plant is in the final stages of construction and should be in production by July/August 1986.
Market: Local Ecuadorean rice producers either directly or through a dealer, and the export market of the Andean Pact nations. Virtual monopoly for the product.
Personnel: Competent technicians and managers are available from the international company with years of experience in the Latin American market.

Credibility of the Foreign Investor:

Interamerica Cris-Quim, established in 1984, has as its parent company Crystal Chemical Interamerica, with offices in Houston; San Jose, Costa Rica; and Bogota, Colombia. Local Financial Reference: Banco de Guayaquil. Mr. Ronald Amack is the managing director and part owner.

Name of Project: ROSE PRODUCTION FOR EXPORT

Location: Ecuador

Project Proposal:

U.S. investment of \$350,000 to permit expansion of present rose growing operation for export to U.S. and Europe. 7,000 square meters of plastic covered grow-out houses will be built. Area in plants will increase from present 6.17 acres to 8.6 acres.

Potential Profitability:

Gross operation profits of US\$421,200 would be earned on gross sales US\$3,240,000.

Investment/Risk/Ownership:

Resources from local company: land, capital, plant, equipment, and management - 60% equity share.
Resources from U.S. company: capital investment of \$350,000, some management/marketing assistance - 40% equity share.

Project Viability:

Technical Aspects: Excellent growing conditions, export-grade product being grown and exported now.
Market: United States and Europe.
Personnel: Competent and experienced technicians and managers now on hand. Some managerial/marketing assistance desired.

Credibility of Foreign Investor:

El Rosedal, S.A., established in 1985, is a stock company with current assets of US\$406,250. Current debt slightly more than net worth. Annual sales of US\$500,000 to \$1,000,000. Number of employees: 25-50. Financial References: Banco de Fomento, Quito, Ecuador.

Other Potential Joint Venture Opportunities:

FLORSANBA, ROSAS de CUSIN, FLOREXPORT.

Name of Project: FRESH STRAWBERRY PRODUCTION

Location: Ecuador

Project Proposal:

The expansion of the growing/export potential of successful Ecuadorean producers by contributing capital and post harvest handling and marketing knowledge.

Potential Profitability:

A four hectare expansion requiring US\$50,000 in investment would bring a minimum of US\$150,000 in gross annual sales revenues.

Investment/Risk/Ownership:

Capital Investment Required: US\$50,000

Fixed: US\$35,000

Working: US\$15,000

Ownership/Risk Structure, 50-50%

Foreign Investor: Provides land, production capability, capital.

U.S. Investor: Provides capital, post harvest and marketing assistance.

Project Viability:

Production: Current production is cost efficient, good quality strawberry.

Market: U.S. and European market window. Improvement needed in storing, shipping, and marketing product.

Personnel: Production capability is good. Marketing and post harvest handling people will be needed.

Credibility of Foreign Investor:

Mr. Rafael Davila. Sole owner and manager of a very sophisticated and high density planting system on four hectares. In operation for seven years. Financial and personal reference data available by contacting: Mr. Rafael Davila.

Name of Project: PROCESSED STRAWBERRIES FOR EXPORT

Location: Ecuador

Project Proposal:

Investor to take a 50% equity position in an existing Ecuadorean company now growing, processing, freezing, and exporting frozen strawberry, products to the United States.

Capital is needed to retire short term debt, expand growing areas, and improve on plant and equipment, to increase gross sales potential and improve earnings.

Potential Profitability:

A yearly gross operating profit of US\$480,000 is earned on US\$2,760,000 of gross sales.

Investment/Risk/Ownership:

Total Investment: \$1,132,000
Foreign: \$ 632,000
U.S.: \$ 500,000

Project Viability:

Technical Aspects: Growing conditions are excellent, present product is good, but production/cost efficiency needs to be increased and improved. Processing plant has to be brought up to full capacity.

Market: Currently the United States. Hopefully, the U.S. partner would be integrated into the wholesale/distribution channels and/or be an end user of the products.

Personnel: A U.S. partner is needed with industry knowledge at the growing and processing ends to improve efficiency.

Credibility of Foreign Investor:

The 12 AGROMOD corporate investors have paid in capital of US\$632,000. If no joint venture, they intend to invest US\$375,000 more. Bank references: COFIEC and Banco de Pichincha. Mr. Diego Iragorri is managing director.

Name of Project: INTEGRATED MARINE SHRIMP PRODUCTION

Location: Ecuador

Project Proposal:

Contribution of capital and production/managerial expertise to a marine shrimp project which would integrate hatchery and grow-out operations.

Potential Profitability:

Hatchery: To set up a facility to produce 8-12 million larvae per month. A capital investment of US\$1.1 million would be required and would produce US\$1.2 million in gross annual sales, with net profits before taxes and debt amortization of US\$700,000.

Grow-out: A 250 hectare grow-out facility would require a capital investment of US\$3 million, with gross annual sales of US\$2.5 million, with net profits before taxes and debt amortization of US\$1.5 million.

Investment/Risk/Ownership:

Various joint venture arrangements are currently negotiable, ranging from acquiring a minority share to purchasing a controlling interest in a shrimp farm.

Project Viability:

Technical Aspects: Shrimp production has suffered from lack of supply of seed stock. Integrating a hatchery to grow-out ponds is vital for profitable production.

Market: The world market for shrimp remains strong, and is expanding faster than current supply.

Personnel: Experienced production technicians would be needed.

Credibility of Foreign Investor

Ecuadminsa. A large management company which controls the activities of 22 subsidiaries is valued at US\$30 million and is willing to sell portions of their holdings not logistically well positioned to their main effort. One example is a 1,033 ha. farm, 169 ha. of which have been developed into shrimp ponds.

Prexamar - Ecualarva. Mr. Felipe Orellana, founder of the Ecuadorean Shrimp Growers Association, is the majority owner of this integrated operation. He is willing to offer a minority share to an active U.S. investor.

MEMBERS OF THE ASACI CONSULTANT TEAMS TO ECUADOR

Walter W. Minger

An agricultural finance counsellor and consultant since February, 1984, Mr. Minger draws upon 38 years of experience as a commercial agribusiness lending officer in a large private bank. He specializes in the review and critique of foreign agricultural projects as also in the analysis of agricultural credit delivery systems.

Among his other executive duties, Mr. Minger currently serves as President of the Agricultural Banking Institute, President also of the U.S. Agricultural Development Corporation, and Director of the Tri-Valley Growers Association, San Francisco.

Mr. Minger served in 1984 as a member of the U.S. Presidential Agricultural Mission to Ecuador, and was chosen by ASAC International to act as Team Chairman for the Reconnaissance Survey and Project Profile Teams to Ecuador.

Joseph H. Marshall

Dr. Marshall is President and Managing Director of Southern Plantations Group, Inc, (SPG), Albany, Georgia. In 1978, he co-organized SPG, which is a professional land management and consulting organization providing services to investors in agricultural and rural land. Before 1978, he was employed by Gold Kist, Inc., Atlanta, Georgia, for 15 years. Gold Kist is a regional Agricultural Cooperative operating in 13 southern states. Dr. Marshall's last position was Vice President, Corporate Development, which included responsibility for the administration of the company's activities in strategic planning, research and development, engineering and related services.

Dr. Marshall has a doctoral degree in Agricultural Economics and has been a certified member of ASAC since 1982, serving as the Society's Secretary-Treasurer and Eastern Director. He is past President of the Georgia Association of Agricultural Economists, and of the Georgia Chapter of the American Society of Farm Managers and Rural Appraisers.

Dr. Jack E. Martin

Dr. Martin is President of Sterling Nutritional Services, Inc. which he established in 1971 in Sterling, Colorado. The company specializes in ruminant nutrition and management services.

Prior to 1971, Dr. Martin was employed as Product Supervisor in the Agriculture Division of Monsanto Company; as Beef Cattle Research Consultant with Ralston Purina Company; and as Nutritionist and General Manager of the Feed Division, Ceres Land Company.

Dr. Martin received his B.S. and M.S. Degrees in Agriculture from the University of Missouri, and his Ph.D. in Animal Science from the University of Florida. He is a member of the American Society of Animal Science, the National Cattlemen's Association and other numerous industry organizations and service clubs. Dr. Martin is a long time Certified Member of the American Society of Agricultural Consultants, and is currently serving as its President-Elect.

Dr. George L. Greene

Dr. Greene obtained his Ph.D. from the University of Michigan in 1960 in Plant Sciences and Microbial Physiology. While in graduate school he worked on pesticide control of apple and cherry diseases at the Peninsula Experiment Station in Door County, Wisconsin.

On graduation, he accepted a position with the United Fruit Company research division in Honduras, there studying postharvest diseases of bananas and pineapples. Moving to the Interamerican Institute of Agricultural Sciences at Turrialba, Costa Rica, he did research on the effects of radiation on tropical crops under a U.S. Atomic Energy Commission grant, then went back to the States where he owned and ran a floral greenhouse operation for two years. He then took a short assignment at the Panamerican Agricultural School at El Zamorano, Honduras before returning to Costa Rica as fungicides Technical Service Representative, Latin America, for Merck Sharp & Dohme International doing pesticide related field work throughout the Caribbean basin region and northern South America.

He became an associate member of the American Society of Agricultural Consultants (ASAC) in 1976 and that same year joined Crystal Chemical Interamerica as Vice President for Product Development and Marketing. In 1979 he took a position at Dynamac Corporation in Rockville, Maryland as Program Manager for several EPA pesticides contracts, and became a certified ASAC member in 1983. He is a charter member of ASAC International.

James R. Rinella

Mr. Rinella, of Fort Myers, Florida brings more than twenty years of international agribusiness development experience to his current position as President and Chief Executive Officer of James Rinella & Associates, Inc. During this period, he held senior executive positions with two of the premier international food companies in the United States as Vice President of Production for Castle & Cooke Foods and as President of Tropical Operations for United Brands, where he managed 25 companies in 14 different foreign countries from South America to the Far East.

Most recently, Mr. Rinella was responsible for developing a program of agricultural redevelopment for Jamaica under the auspices of the U.S. Agency for International Development and for managing this program as Executive Director for two years. The project involved the strategic

and tactical repositioning of Jamaica's traditional export crops and the development of new non-traditional export agribusiness opportunities targeted to the U.S., Canadian, and European markets.

Mr. Rinella is a graduate Civil Engineer from Washington State University, having received his Bachelor in Science degree in 1960. Prior to this, he had attended the University of Illinois School of Engineering for two and one half years prior to entering the U.S. Army Combat Construction Engineers. He attended the Stanford University Executive Program at the Stanford Business School in 1973.

Michael W. Hurley

Mr. Hurley is the ASACI Director of International Agribusiness Teams, working under the 1985 and 1986 grant agreements with the U.S. Trade and Development Program. His previous experience includes nine years of work in Latin America as sales and marketing manager for an agricultural development company, and as project director for the design and installation of grain storage, handling, and processing facilities.

Mr. Hurley's previous experience includes nine years of work in Latin America as sales and marketing manager for an agricultural development company, and as project director for the design and installation of grain storage, handling and processing facilities. His agricultural marketing and development work encompassed nearly all countries of Latin America.

Mr. Hurley has a Masters Degree in Spanish with a concentration in Latin American studies from St. Louis University. He is fluent in Spanish and has a working knowledge of French and Portuguese.

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AGRIBUSINESS INVESTMENT OPPORTUNITIES IN GRENADA

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Carriacou Fish Purchasing, Processing and Marketing
2. Grenada Fruit and Vegetable Marketing Association
3. Banana and Nutmeg Production
4. Lisbon Yam Production and Marketing
5. Exotic Tropical Cut Flower Production
6. Commercial Shrimp Hatchery
7. Small Scale Shrimp Production

B. MEMBERS OF THE PROJECT PROFILE TEAM--BRIEF RESUMES

Name of Project: CARRIACOU FISH PURCHASING, PROCESSING AND MARKETING PROJECT

Location: Carriacou Island, Grenada

Project Proposal:

Establishing a facility to purchase, process and ship high quality fish caught by local fishermen on Carriacou.

Potential Profitability:

A capital investment of US\$460,173 to complete facilities and start up. This investment will produce profits of US\$207,236 annually. The total investment is returned in the first year.

Investment/Risk/Ownership:

Capital Investment Required:	US\$460,173
Fixed:	188,148
Working:	272,025

Ownership/Risk Structure:

U.S. Investor:	Provides US\$460,173 to augment more than US\$180,000 presently committed to the project and receives 30% ownership.
Grenadian Investor:	Provides facilities and management and established market for 70% of the venture.

Project Viability:

Production: Established fishermen will provide fish to the facility. Projected catch is a small percentage of the estimated local resource.

Market: The export price for the project product of US\$2.27 per pound is almost twice the controlled government rate for purchase. Markets are well established by the local partner.

Personnel: Partner on Grenada is experienced in fishing, fish marketing and management.

Credibility of Foreign Investors:

Mrs. A. deB Bartels has been involved in the fishing industry in Florida and the Gulf for more than 20 years. She has established ties with Grenadian counterparts to establish the basis for this venture. Equity venture capital is required to complete the financial needs.

Name of Project: BANANA AND NUTMEG PRODUCTION

Location: Grenada

Project Proposal:

Contribution of capital and managerial expertise for the production of bananas and nutmeg on 50 acres of leased land.

Potential Profitability:

An initial capital investment of US\$92,500 would produce annual operating profits of US\$28,000 at the beginning of the third year on leased land. A return of over 75% annually is projected starting the fourth year if 60% of the total investment on leased land is borrowed at 9.5% interest.

Investment/Risks/Ownership:

Various joint venture arrangements are currently negotiable, ranging from requiring a share of ownership in productive land to leasing land from an individual or the government.

Project Viability:

Production: Technology does exist for banana and nutmeg production in Grenada

Market: The United Kingdom is a ready market for bananas and there is a market for nutmeg to buyers in West Germany and Holland

Personnel: An experienced manager would be needed.

Credibility of Foreign Investor:

Mr. Will Branch, Dougaldston Estate, owns one of the largest estates in Grenada consisting of over 800 acres. Mr. Branch is partner in a mushroom operation on his property and he is considering a small start in cut flower production.

Celia Clyne is an attorney in St. George's and owns 300 acres. She is an established professional who is looking for alternatives for her land.

Name of Project: LISBON YAM PRODUCTION AND MARKETING

Location: Grenada, West Indies

Project Proposal:

This project would produce, harvest, clean and sort, package, ship and market Lisbon yams to the United Kingdom market. The yams would be produced on 40 acres of leased land and yearly product would be about 1.6 million pounds. It is estimated that 1.2 million pounds would be exported to the U.K. market. Shipping would be done on the Geest banana ship.

Potential Profitability:

An initial investment of US\$349,800 could produce yearly gross sales revenues of US\$788,000. It is estimated that net profit after taxes would be US\$498,447.

Investment/Risk/Ownership:

Capital Investment Required: US\$349,861
Fixed: 60,000
Working: 289,861

Ownership/Risk Structure:

Foreign Investor: Obtains land lease and manages production

U.S. Investor: Provides tractor with equipment and operating capital. Bank loan should provide 70% of total capital.

Project Viability:

Production: Yams have been grown for years in Grenada and do very well there.

Market: The Lisbon yam market in the U.K. is very good in February-March. The favorable trade relationship between Grenada and the U.K. as well as the regular, inexpensive shipping on the Geest banana freighter helps to penetrate this market.

Personnel: Experienced personnel are required to put the whole program together particularly the marketing. The knowledge of growing yams is well known in Grenada.

Credibility of Foreign Investors:

Marydale Industries, Ltd. owned and operated by Mr. Alphonsus Antoine is currently growing Lisbon yams for export.

Mr. Marsden was raised in the nursery business in Massachusetts and has extensive training and experience in landscape design, interior plant-scape design as well as the production of nursery and floral crops.

As a private sector consultant, Mr. Marsden has designed and implemented such projects as a four acre greenhouse vegetable production facility in Jeddah, Saudi-Arabia; a totally enclosed grass fodder production system in Holland; a poultry-broiler project in Nigeria and an 18 acre greenhouse flower and vegetable production facility in Riyadh, Saudi Arabia.

Mr. Marsden is a Certified Member of the American Society of Agricultural Consultants, a member of the American Society of Agricultural Engineers, and of the Ohio Florists Association.

David C. Hamblin

Mr. Hamblin is President of Hamblin and Associates, Salt Lake City, Utah. The company offers domestic and international consulting services for doing market research and agribusiness planning and development with specialization in the production and marketing of eggs and fresh fruits/vegetables.

Of the twelve agribusiness ventures which Mr. Hamblin has organized and developed - eight in the United States and four overseas - eleven are still operational and profitable. His on-hands experience also includes the building and/or management of more than 20 poultry facilities.

Mr. Hamblin graduated in 1965 with a B.S. in Experimental Biology from Brigham Young University. He received his MBA in Marketing from New York University.

He is a member of the American Society of Animal Science, the Pacific Egg and Poultry Association and is a Certified Member of the American Society of Agricultural Consultants.

Robert Shleser, Ph.D.

Since 1984, Dr. Shleser, has been President of Aquacultural Concepts, Inc., Waimanalo, Hawaii. The firm conducts feasibility studies for shrimp farming and other aquacultural projects, and handles site selection, facility design and construction, supervision, management, and training in project implementation.

Dr. Shleser previously worked as Director and Vice-President of the Oceanic Institute in Waimanalo for six years, and as the Director of the Bodega Bay Marine Laboratory, University of California, for three years. His international consulting in aquaculture development to both private and private sector organizations has involved work in Ecuador, Indonesia, the Philippines, Panama, Brazil, Guatemala, Egypt, Jamaica, and Trinidad.

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Dr. Shleser did his degree work at Purdue University - a Ph.D. in Biophysics and Molecular Genetics, an M.S. in Genetics, and a B.S. in Agriculture. He is a member of the World Mariculture Society and the American Society of Agricultural Consultants.

Michael W. Hurley

Mr. Hurley is the ASACI Director of International Agribusiness Teams, working under the 1985 and 1986 grant agreements with the U.S. Trade and Development Program. To date, he has directed teams to the Ivory Coast, the Dominican Republic, Ecuador, Malaysia, Grenada, and Kenya

Mr. Hurley's previous experience includes nine years of work in Latin America as sales and marketing manager for an agricultural development company, and as project director for the design and installation of grain storage, handling, and processing facilities. His agricultural marketing and development work encompassed nearly all countries of Latin America.

Mr. Hurley has a Master's Degree in Spanish with a concentration in Latin American studies. He is completely fluent in Spanish and has a working knowledge of Portuguese and French.

AGRIBUSINESS INVESTMENT OPPORTUNITIES IN GUATEMALA

A. PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Asparagus Production for Export
2. Cantaloupe Production
3. Production of Herbs, Spices and Botanicals
4. Frozen and Dehydrated Fruits and Vegetables
5. Seed Production
6. Production of Cut Flowers and Ornamental Plants

B. MEMBERS OF THE PROJECT PROFILE TEAM--BRIEF RESUMES

Project Name: Asparagus Production for Export

Location: Guatemala - Highlands between Guatemala City and Antigua

Project Proposal:

To participate in a farm and packing enterprise supplying fresh asparagus to the U.S. market during the November - January high price season.

Potential Profitability: A capital investment of \$176,000 is required.

Based on average market estimates, a 43 acre farm would produce a net income of \$75,000 in year five on \$110,000 in sales. Time needed for establishment precludes heavy early returns.

A feasibility study is needed to gain confidence in the long term market trends and costs of production. Profitability is probably higher than current estimates indicate.

Capital Investment:

Capital costs would total \$176,000 including irrigation equipment costs at \$1,000 per acre or \$43,000. Other equipment needs would be very minimal.

Project Viability:

Production: Know-how and experienced management is available. Land in a good area is available for lease.

Packing: Facility, know-how and management are available.

Market: Market channels are already set up. The asparagus market is well established in the U.S. as a premium market.

Credibility of Foreign Investors:

Gerardo Bianchi Azurdia who proposes a farm project has been in the marketing business for several years, already has the packing plant facilities and has been marketing fresh vegetables for a Guatemalan firm for some time. His planning seems careful and conservative.

Louis Fernando Arias of Finca Calderas and John Luthman of Finca Santa Anita may have opportunities for participation involving equity contribution which would finance expansion of growing areas and the establishment of packing and cooling facilities. Both are experienced and have been producing and marketing successfully.

Project Name: Cantaloupe Production

Project Location: Guatemala, in the southwestern coastal area

Project Proposal:

To set up a commercial operation for producing high quality cantaloupe for the U.S. winter market.

Potential Profitability:

With yields of 470 boxes (40 lb.) per acre, a market price of \$16.63/box and total production costs of \$700/acre, operating income per acre per year would be \$4,450. A thousand acre farm would produce an annual operating income of \$4,450,000.

Project Viability:

Market: Over the last few years, U.S. demand for melons has grown at an annual rate of 5%. Guatemala is a competitive grower and shipper of melons for the U.S. winter market.

Production: The hot and dry climate on Guatemala's southern coast is ideal for melons. Ground water for irrigation is sufficient. Melons are currently being produced on a commercial scale in the area. Roads are good.

Personnel: Labor is low cost and in good supply, management would have to be provided.

Local Investors and Prospective Partners:

There are several producers of melons in Guatemala at this time who would welcome discussion of a potential joint venture:

Agencias Agrícolas, Jorge R. Pontaza
CATI, Carlos Giron
CAPCO, S.A., William Hubbell

Project Name: Production of Herbs, Spices and Botanicals

Project Location:

Guatemala, varied climatic and topographic production regions available

Project Proposal:

Particularly for an established U.S. spice company, to source a variety of herbs and spices from Guatemala first under contract production, and then under a joint venture arrangement entailing production facilities and a quality control laboratory.

Capital Investment Required:

Because of the wide range of project possibilities depending on the kinds of spices, herbs or botanicals selected and volumes required, capital investments would vary accordingly.

Project Viability:

Market: In the rather narrow markets which spices and herbs represent, a reliable production source in Guatemala would enable a U.S. spice company to better serve its clients needs for quality, variety, quantity and consistency.

Production: Varying climatic conditions make possible the year round production of a wide variety of plant kinds including cumin, thyme, cloves and cayenne pepper.

Personnel: Groups of small producers have been effectively organized for production of fresh vegetables and some herbs and spices.

Prospective Partners:

Farm cooperatives and other similar organizations would be very interested in investigating specialty crop kinds that fit the interest and abilities of the small farmer, especially:

- Union de Cuatro Pinos, Mr. Tulio Garcia M.
- Salinas Nu-Atzan, Mr. Juan Luis Miron
- Productos Agricolas Superb, Mr. Oscar Ufer
- Alpine Export Company, Mr. Alfonso Aycinena

Project Name: Seed Production

Project Location:

Guatemala, suitable growing environments in the highlands (up to 7,500 ft) and coastal lowlands

Project Proposal:

For a U.S. seed company, to establish a joint venture arrangement with Guatemalan growers to expand its seed production under contracting arrangements, including complex multiplication activities once technical and infrastructural capabilities are achieved.

Capital Investment:

A seed production program is not envisioned to require large amount of money but, more importantly, the managerial capability to set up and supervise proper cultural procedures.

Project Viability:

Market: Seeds would be produced in Guatemala for export back to the U.S. American companies have a continuing need for quality seed which would be multiplied for inventory and put into their own marketing system. A competitive international price is possible with Guatemala's efficient, low cost labor, and its proximity to the U.S.

Production: Most crops considered for seed production are already produced in Guatemala. The production of seed, including hybrid flower seed, already has been done for some years. A wide range of growing environments, fertilizers and chemicals, and private processing facilities are available.

Personnel: There are well trained technicians and managers within the country, and would be instrumental in expansion of the seed industry. Details and monitoring of culture procedures would be provided by the breeding company. Labor is low cost and efficient.

Prospective Partners:

The following experienced growers in Guatemala would be willing to consider a joint venture arrangement with a U.S. company:

- Productos Agricolas Superb, Mr. Oscar Ufer
- Rancho Virginia, Mr. Mario Calderon
- Finca La Igualdad, Mr. Federico Weller
- La Meseta, Mr. Alberto Yahri
- Alpine Export Company, Mr. Alfonso Aycinena

PREVIOUS PAGE MISSING

Project Name: Production of Cut Flowers and Ornamental Plants

Location: Guatemala - the Central Highlands

Project Proposal:

To participate in the production and marketing of ornamental plants, flowers and cut flowers in Guatemala which has a wide variety of micro-climates, good air transport to markets and available land, water and labor at low or reasonable cost.

Profit Potential:

Projected returns on flower projects indicate early and large returns. Returns on ornamental plants would also be good but might not have as early a payback. Payback in flowers occurs in the second year with substantial return against the investment in the first year.

Capital Investment:

Ornamental plants and flowers are land and technology intensive, and at the beginning capital intensive. Investments of \$217,000 and \$443,000 for each 2.5 acres are required for the start up of two varieties of flowers.

Project Viability:

Production: Ornamental plants and flowers are being successfully produced and shipped currently to the U.S. and Europe. Management and technical know-how for production is vital, much is available but more is needed.

Markets: The markets in the U.S. and Europe have been expanding for some years. With the short time needed to get into production, investors must be sensitive to possible temporary market saturation and must develop a strategy of diversification. Careful market studies should be conducted.

Credibility of Foreign Investors:

There are now 18 members of the Association of Ornamental Plant Exporters who are producing and exporting. Many more are anxious to get into the business. Information about the availability of foreign partners and investors could be obtained from:

Eduardo Gonzalez Castillo, President GEXPO - Gremial de Exportadores de Plantas Ornamentales.

Ing. Richardo Santa Cruz Rubi, Sub-gerente Tecnico, Gremial de Exportadories de Productos non Tradicionales.

AGRIBUSINESS INVESTMENT OPPORTUNITIES IN HAITI

A: PROJECT INVESTMENT PROFILES--ONE PAGE SUMMARIES

1. Vegetable Production for Export
2. Tropical Fruit Processing
3. Feed Milling for Meat Production
4. Peanut Production
5. Integrated Fish Farming
6. Marine Shrimp Farming Project

B. MEMBERS OF THE PROJECT PROFILE TEAM--BRIEF RESUMES

Name of Project: VEGETABLE PROJECT

Location: Haiti

Project Proposal:

To establish a joint venture which will grow, harvest, process, export and market appropriate winter vegetables during the U.S. and/or European winter season.

Potential Profitability:

For an example, calculated for the Leogone Plain area near the capital, Port-au-Prince, using a farm of 800-1000 acres, with packing plant, a net profit of \$430,000 in the third year was projected. The estimated internal rate of return on equity was 24-32% during the first ten years.

Investment/Risk/Ownership:

Investment estimated for the sample project is \$2.7 million, and would be contributed approximately equally by the Haitian partners and the U.S. investor(s). The U.S. investor would need to furnish expertise in growing vegetables for the winter market, as well as processing technology, and market knowledge and connections.

Project Viability:

Technical Aspects: Climate, soil and water conditions have been proven suitable for winter vegetable production in Haiti by pilot production in several areas. Adequate refrigerated transport to the U.S. is available.

Market: The U.S. market for winter vegetables is growing, and is not fully supplied by the areas currently producing for it. Thus reliably warm and fertile areas such as Haiti can fill seasonal market niches to advantage.

Personnel: Potential Haitian partners are available, as is abundant farm labor, readily trainable to do packing house work as well. The greatest lack is familiarity with and contacts in the target market.

Credibility of Haitian Investors:

Interested Haitian investors are already organized in at least two locations for the project. All are experienced, successful businessmen, and have already produced winter vegetables. One group has a detailed business plan which would be available to interested U.S. investors.

Name of Project: TROPICAL FRUIT PROCESSING

Location: Haiti

Project Proposal:

Investment to establish a tropical fruit processing facility that utilizes Haiti's abundant supply of mangoes. Other potential fruits are guava and passion fruit.

Potential Profitability:

Gross margin after processing, packaging and transportation to the United States was estimated to be about 40 percent. Processing volumes were estimated at between 12 and 15 million pounds per year.

Investment/Risk/Ownership

The Haitian partners will furnish a cost effective raw material supply, which is important because Haiti's agricultural production is highly fragmented. The United States partner will furnish technical and market expertise. The business would be a joint venture and depending upon the Haitian business partner, the United States investor would need to furnish the capital for the processing facility.

Project Viability:

Technical Aspects: The United States food processor would need to conduct research on the proper blending of mango varieties to achieve a uniform juice blend.

Market: The fruit juice market in the United States is estimated to be more than 1.52 billion gallons. Tropical fruit bases are one of the fastest growing market segments. Currently mango is an unexploited flavor.

Personnel: One Haitian firm is experienced in food processing, while the others have no food processing experience. Marketing experience would be provided by the U.S. food processor.

Credibility of Foreign Investors:

All interested Haitian investors have established and successful businesses. They are interested in joint ventures that require their active participation. One group has a detailed business plan that would be available to an interested U.S. investor.

Name of Project: FEED MILLING FOR MEAT PRODUCTION

Location: Haiti

Project Proposal:

Investment to develop a completely integrated feed milling operation to provide meat and eggs economically for the Haitian population.

Potential Profitability:

The gross margin on a completely integrated feed milling operation will run about 40% based on 200,000 hogs, over 3 1/2 million broilers, and 1 1/2 million layers. This does not include dairy production, fish production, and cattle production which will require additional feed.

Investment/Risk/Ownership:

There are several qualified Haitian partners available for an integrated feed milling operation with a qualified American partner. The Haitian partners will be able to furnish in country management, contract growing, assistance in executing contract growing programs utilizing their experience with the local producers. The U.S. company must provide the necessary financing to put in 30,000 MT of bulk storage and refurbish the government feed mill for feed production along with technical assistance and a marketing program.

Project Viability:

Technical Aspects: The United States milling company would have to establish strong contract growing with an incentive program for the poultry and hog industry. The building of sufficient bulk storage for feed grains to be imported from the United States at competitive prices.

Market: The livestock market in Haiti is so fragmented and on the down turn that with the above program in place, the Haitian people will consume all the production of the joint venture.

Personnel: There are several private sector Haitian firms well qualified and trained in the U.S. in feed milling and livestock and/or poultry production that can provide the necessary in country support for a successful joint venture in the feed milling industry.

Name of Project: PEANUT PRODUCTION

Project Location: Haiti

Project Proposal:

To establish commercial scale peanut production on a 2,700 hectare farm, in rotation with corn production and fallow period.

Potential Profitability:

An operating profit is established in year two and at steady state of operations in year seven amounts to \$3.7 million/yr. Investment capital is fully paid back in year 8. Net profits over 10 years amount to \$10.1 million.

Investment:

A fixed capital investment of \$13.3 million is required. Operating costs are \$860,000/yr at steady state of operations. Yearly gross profits are \$4.6 million.

Project Viability:

Market: The domestic market for human consumption. More than 6 million population on a subsistence diet low in protein.

Production: U.S. farming methods will be used. Land from the declining sugar cane industry would be available.

Personnel: An experienced U.S. farming company would have to be involved as the technical partner to assure cost efficient production from the mechanized, large scale production system proposed.

Local Prospective Partners:

Large landholders and successful agribusinessmen have expressed interest in this project proposal. They may be identified and contacted through the Agricultural Producers Association.

Name of Project: INTEGRATED FISH FARMING

Location: Haiti, Coastal areas

Project Proposal:

To establish, through a joint venture, a 60 hectare fish farm to breed and produce 240 MT of fresh fish for local marketing.

Potential Profitability:

Positive cash flow realized in year three, with steady operating profits of \$360,000 per year.

Investment/Risk/Ownership:

A capital investment of \$275,000 is required. The Haitian partners will furnish capital and the land which tested suitable for this venture by FAO. All landowners are members of the Agricultural Producers Association (APA). The U.S. partner will furnish technical expertise and limited capital to this project.

Project Viability:

Technical Aspects: The water and soil have both tested favorably for this project. The Haitian partner will need working expertise of experienced U.S. commercial producers.

Market: All of the fish harvested annually from the project would be sold on the fresh market.

Personnel: Combining a U.S. technical management team, Haitian agribusiness managers and local low cost labor for efficient production costs.

Credibility of Foreign Investors:

The interested Haitian investors met with the Profile Team to discuss the project and review the survey done on each of their sites by the FAO aquaculture advisors. All are successful agribusinessmen and rural land owners.

Name of Project: MARINE SHRIMP FARMING PROJECT

Location: Haiti, flat coastal areas near seawater.

Project Proposal:

To establish a 60 acre shrimp farm to produce and process the shrimp into packaged and frozen shrimp tails to be exported to the U.S.

Potential Profitability:

Annual operating costs of \$600,000 at a steady state of operations produce yearly revenues of \$830,000. Operating profits of \$230,000 per year are achieved. Payback of invested capital in year three.

Investment/Risk/Ownership:

A fixed capital investment of \$650,000 is required. The Haitian partners will furnish majority of capital and the land, which tested good for a venture in aquaculture by FAO. The U.S. partner will furnish technical expertise and some capital to this project.

Project Viability:

Technical Aspects: Seed stock will be purchased from commercial hatcheries in Florida or Texas. Sorting, processing and packaging of the shrimp will be done by hand. Existing feed mills could formulate shrimp feeds for the project.

Market: All of the shrimp harvested from the project are to be exported to the United States.

Personnel: U.S. technical management will be needed.

Credibility of Foreign Investors:

All interested Haitian investors are members of the Agricultural Producers Association (APA). Two of them met with the Profile Team to discuss the project and review the survey done on each site by the FAO aquaculture advisors. They own suitable project sites, and are successful agribusinessmen.

MEMBERS OF THE PROJECT PROFILE SURVEY TEAM

Daniel W. Cassard, Ph.D.

Dr. Cassard, team chairman, is owner of Cassard Associates of Texas, agribusiness consultants specializing in animal health product and livestock related business development and technology transfer, domestic and international. He is based in Brownsville, Texas.

His broad experience includes fifteen years of product and business development with Pfizer International, Inc., preceded by livestock and pasture development work in Brazil, and by seventeen years of research, extension, teaching and administrative work at the University of California and the University of Nevada. He has worked extensively in Latin America, Africa and the Middle East.

Dr. Cassard received his Ph.D. in Animal Genetics from the University of California at Davis in 1952, and his B.S. in Agricultural Education from the same institution in 1947. He is a Member of the American Society of Animal Science, the American Institute of Biological Science, and the American Forage and Grasslands Council, holds certification as a Professional Animal Scientist, and is a Certified Member of the American Society of Agricultural Consultants, currently serving on the Board of Governors of ASAC International.

Mark D. La Grange, III

Mr. La Grange has 25 years of experience relating to domestic and international agricultural projects. In the past 15 years he has been completely dedicated to the development of international agriculture as consultant and executive manager of various projects throughout the world.

Mr. La Grange has worked internationally in developing agricultural projects in Latin American, Africa and Asia. This work has required the preparation of feasibility studies in order to evaluate potential areas of development and the recruiting of specialized teams for the proper implementation of the projects. In many cases he has been involved in the implementation of all phases of the project, from land clearing, soil preparation, crop planning, design and installation supervision of grain processing and storage systems, management consulting, training of local personnel, and marketing of agricultural products. He has also negotiated international contracts acting as liaison between companies in the private sector and government personnel of various foreign countries.

Mr. La Grange has a Bachelor of Science degree in Agricultural Science and Animal Husbandry from South Dakota State University. He is a member of the Grain Elevator and Processing Society and a Certified Member of the American Society of Agricultural Consultants.

Dr. William E. Riddle

Dr. Riddle is President of AgriTech, Inc., Columbus, Ohio. AgriTech was established in 1985 and specializes in technology planning, technology forecasting, technology transfer, and market assessment programs for food processors and allied agribusinesses.

Prior to 1985, Dr. Riddle was Research Leader of the agribusiness group at Battelle Memorial Institute, Columbus Division where he directed more than 100 programs for industrial and government clients. During the time at Battelle, he also acted as a short term economic consultant to Food and Drug Administration (Bureau of Foods), the Consumer Products Safety Commission, the Cost of Living Council and the Price Commission. He began his career as an operations and market analyst for Borden, Inc.

Dr. Riddle received his B.S. in Agricultural and Biological Sciences from the Pennsylvania State University, his M.S. in Dairy and Food Industries from the University of Wisconsin, and his Ph.D. in Agricultural Economics from the Pennsylvania State University. He is a certified member of the American Society of Agricultural Consultants, a member of the Institute of Food Technologists, the American Agricultural Economics Association and the American Dairy Science Association.

Michael W. Hurley

Mr. Hurley is the ASACI Vice President of Agribusiness Projects, working for the last three years under grant agreements with the U.S. Trade and Development Program. To date, he has directed teams to the Ivory Coast, the Dominican Republic, Ecuador, Grenada, Malaysia, Kenya, the Philippines, Belize, Guatemala, and Haiti.

Mr. Hurley's previous experience includes nine years of work in Latin America as sales and marketing manager for an agricultural development company, and as project director for the design and installation of grain storage, handling, and processing facilities. His agricultural marketing and development work encompassed nearly all countries of Latin America.

Mr. Hurley has a Master's degree in Spanish with a concentration in Latin American studies. He is completely fluent in Spanish and has a working knowledge of Portuguese and French.

MEMBERS OF THE PROJECT PROFILE SURVEY TEAM

Dr. Gary O. Conley, Ph.D.

Dr. Conley, team chairman, is president of Conley Farms, Inc., a consulting and management organization with headquarters in the high plains of the Central U.S. He provides consulting services to livestock producers, agribusiness firms, development groups and government agencies. These services include breeding programs, genetic analyses, employee training, and the design and supervision of production programs.

Using his broad experience in agricultural research and production, Dr. Conley has designed breeding, research and development programs for major corporations as well as implementing production and marketing programs. He has also reviewed projects for development programs in Latin countries and supervised training programs for participants in new livestock development programs. Dr. Conley also supervises the operation of his own ranching and farming operation which includes a beef cattle breeding program.

Dr. Conley received his B.S. in Animal Science and Agricultural Economics from Iowa State University in 1954 and his M. S. in Beef Breeding in 1956 from Oklahoma State University. He received his Ph.D. from Iowa State University in 1968 in Biometrics. He is a member of both the American Society of Animal Science and American Genetics Associations. He is a Certified Member of the American Society of Agricultural Consultants and is currently serving as a member of the Board of Governors of ASAC International.

Michael W. Chilton

Michael W. Chilton is owner and president of Agricultural Alternatives, an Oregon-based company offering production, research, and consulting services in seed and specialty plant materials. Numerous vegetable, flower, field, forage, and specialty seed crops are produced for international seed companies requiring proprietary seed production in the Northwest or other specific U.S. locations. In conjunction with the private sector and Oregon State University, training programs are designed for international participants in seed technology emphasizing hands-on training under practical field conditions.

His tropical experience draws from over fifteen years of living and working in Southeast Asia, especially Thailand and South Vietnam, in agricultural development of field, plantations and horticultural crops. Commercial experience entails twelve years of agricultural business development in Japan, South and Southeast Asia, and Europe with extensive travel in each area. Production and research into herbal and special use crops have been ongoing during that time. He has also participated in several agricultural consultation missions to West Africa and South Asia.

Mr. Chilton is a graduate of Iowa State University with an M.S. degree in Seed Technology and Economic Botany. He is a member of American Society of Horticultural Sciences, a Certified Professional Agronomist (CPAg), a member of American Seed Trade Association, and a Certified Member of American Society of Agricultural Consultants.

John D. Baker, Ph.D.

Dr. Baker is President of John D. Baker & Associates. He is a consultant to domestic food processors having volatile input costs advising them on commodity purchasing organization, business and procurement planning, training, price and profit risk control, price forecasting methods, market research, project feasibility and overseas sourcing. The firm also works in international agribusiness management and integrated rural development programs.

Prior to establishing the consulting business Dr. Baker was vice president of a large international food, pet food and confectionary manufacturing firm with responsibilities in purchasing and commodity organization, training and sourcing throughout the world. Commodity price forecasting, risk control methods and use of futures markets were significant activities. He has also worked for a large vegetable, fruit and vegetable oil processor as director of material.

Dr. Baker has a B.S. degree in Animal Husbandry and a M.S. in Agricultural Marketing from Utah State University and a Ph.D. in Agricultural Economics from Purdue University. He is a member of the American Society of Agricultural Consultants, the American Agricultural Economics Association, Sigma Xi, served as an officer of the Purchasing Management Association of Washington, D.C. 1984/5 and has been a member of the National Advisory Council, School of Management, Brigham Young University.

Wayne Sweatt

Mr. Sweatt, President of Golden Spread International Services, Inc., Memphis, Texas, is an international consultant for irrigation equipment and farm machinery requirements. Through his company, he offers a range of services including feasibility studies, analysis and designing of irrigation systems, technical services and training, and implementation and management of agricultural projects.

Mr. Sweatt who has been designing and installing irrigation systems for clients in the United States for more than 16 years began his international consulting work in 1983 as a member of the TEXAG Trade Mission to the African countries of Nigeria, Ivory Coast, Cameroon and Gabon. He was subsequently invited by the President of Gabon to be a member of the U.S. Feed Grain Council team to do a feasibility study for the investment of American agribusiness in Gabon. More recent work has had Mr. Sweatt providing consulting and management services to clients in Saudi Arabia, Nigeria, Dominican Republic and Mexico.

Mr. Sweatt has a B.S. from Texas Tech University with Agricultural Engineering as a major field of study. He is an Associate Member of American Society of Agricultural Consultants, a past Associate Director at Large of ASAC, District Export Council Member for North Texas District, Member of the U.S. Committee on Irrigation and Drainage, and a member of the Irrigation Association.

Michael W. Hurley

Mr. Hurley is the ASACI Director of International Agribusiness Teams, working under the 1985, 1986 and 1987 grant agreements with the U.S. Trade and Development Program. To date, he has directed teams to the Ivory Coast, the Dominican Republic, Ecuador, Grenada, Malaysia, Kenya, the Philippines, Belize, Guatemala, and Haiti.

Mr. Hurley's previous experience includes nine years of work in Latin America as sales and marketing manager for an agricultural development company, and as project director for the design and installation of grain storage, handling, and processing facilities. His agricultural marketing and development work encompassed nearly all countries of Latin America.

Mr. Hurley has a Master's degree in Spanish with a concentration in Latin American studies. He is completely fluent in Spanish and has a working knowledge of Portuguese and French.

MEMBERS OF THE PROJECT PROFILE SURVEY TEAM

Glenn E. Taylor, D.V.M.

Dr. Taylor, team chairman, is President of Agro Financial Management, Oakdale, California. He is a consultant and management advisor for animal agriculture projects, and a member of management groups which can supply experienced assistance with crops, trees, vines and livestock. Dr. Taylor remains a practicing veterinarian.

Dr. Taylor has experience in production, processing and marketing of beef, lamb, pork and other meat and dairy products. Through the years he has organized and restructured integrated livestock enterprises, working in the Continental United States and in 24 foreign countries with projects in Central and South America, Africa, the Middle and Far East. He has a long time association with Belize, having worked in developing both the cattle and sugar industries there.

Dr. Taylor received his education as a Doctor of Veterinary Medicine from Washington State University as also his B.S. Degree in Agriculture. He is a long standing Associate Member of The American Society of Agricultural Consultants.

Robert E. Ascheman, Ph.D.

Dr. Ascheman established Ascheman Associates Consulting in 1979. The firm provides crop scouting, soil testing, contract research, and consulting services to grower, dealer, and manufacturer clients. consulting activities include these areas as well as claims investigation and expert witness testimony. A junior executive training program is also available.

Dr. Ascheman has agriculture chemical research and development experience in all major crop production areas in the U.S. through various aspects of the introduction of Treflan, Basagran, and experimental pesticides. He and his firm have conducted research with herbicides, growth regulators, soil sterilants, insecticides, fungicides, seed, equipment, and soil fertility. He has wide range consulting experience in claims investigation, expert witness testimony, and in litigation about crops and soils related matters in areas throughout the U.S.

Dr. Ascheman received his B.S. and M.A. from the University of Minnesota and his Ph.D. degree from Ohio State University. He has been an active member and has served in elected or appointed offices in several professional organizations including the following: American Society of Agricultural Consultants, National Alliance of Independent Crop Consultants, American Society of Agronomy, Weed Science Society of America, North Central Weed Control conference, and the advisory board for the Cooperative Extension Service in both Iowa and Minnesota. Dr. Ascheman is the current President of ASAC and was elected to the Crop Professionals Hall of Fame. he is an ARCPACS Certified Professional Agronomist/Crop Specialist.

Robert H. Fulton, Ph.D.

Dr. Fulton, tropical crop specialist, is a private consultant for production and pest management of exotic tropical fruits and plantation crops - banana, cocoa, cashew, and coffee. The services are embodied in a Program Package Approach, which integrates skilled on-site fact finding and implementation that results in effective cash flow of diversified fruit crop production.

Dr. Fulton has been doing tropical crop management problems for the last 29 years. This has encompassed living in several Latin Countries while directing team research - production efforts leading to cost - savings for clients and profit makers for the agricultural chemical industry. Today he is considered as instrumental in low-volume spraying as well as exploiting pest life cycles to enhance effective - cheap management.

Dr. Fulton's educational, background includes a B.S., Master's and Ph.D. degrees in horticulture, Chemistry and Plant Pathology from Michigan State University. He is an author of over 80 scientific papers and has implemented a host of training manuals for use in pesticide safety/pest management/extension training. He is a member of the professional organizations of APS, ALAF, Sigma Xi and ASAC.

H.R. Winogron

Mr. Winogron is President of HRW Associates, Inc., Harrington Park, New Jersey. The firm provides marketing, financial, production, and overall project consulting services to the fruit and vegetable industry. Both domestic and international consulting are done, with a concentration in the tropical fruits and high value vegetables.

Mr. Winogron has had extensive experience in the fruit and vegetable business, having worked for Castle and Cooke for nearly fifteen years in both the tropics and California. He spent twelve years in Central America, the Philippines, and Thailand, and was the Manager of large Banana and Pineapple operations. He then worked in the vegetable business while based in California. In addition, Mr. Winogron managed a produce marketing company, specializing in the sales and marketing of branded produce.

Mr. Winogron received his MBA Degree from Stanford University, where he specialized in Finance. He also received his B.A. Degree from the University of Wisconsin, where he majored in Philosophy and Languages. He is currently a Certified Member of the American Society of Agricultural Consultants, and is a member of the Board of Governors of the American Society of Agricultural Consultants International.

Michael W. Hurley

Mr. Hurley is the ASACI Director of International Agribusiness Teams, working under the 1985, 1986 and 1987 grant agreements with the U.S. Trade and Development Program. To date, he has directed teams to the Ivory Coast, the Dominican Republic, Ecuador, Malaysia, Grenada, Kenya, the Philippines, Belize, Guatemala, and Haiti.

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