

A Report on the Contribution of the Inter-American Institute for Cooperation on Agriculture to the Agricultural Sector of St.Kitts and Nevis during 2002



Basseterre, St.Kitts January 2003

PREFACE

The St Kitts and Nevis Office of the Inter American Institute for Cooperation on Agriculture is pleased to present this report on its contribution to the agricultural sector of the Federation of St Kitts and Nevis during 2002. The activities pursued and the achievements made, represent part of the Institute's Medium Term Programme, which is geared towards building a strong and prosperous agriculture and food sector. It is recognized, that the future strength and prosperity of the agriculture and food sector is vitally based on its ability to adapt to and benefit from the constant change occurring within its diverse and competitive environment. Consequently, the Institute has implemented a series of interventions in strategic areas such as trade and agribusiness development, agricultural Health and Food safety, sustainable rural development, technology and innovation, information and communication and education and training.

In facing the future, the Institute is committed to working closely with its strategic partners- all those participants having a stake in the future of the agriculture and food industry.

As part of this commitment, the office in St. Kitts and Nevis has developed a National Agenda after consultation with all major participants in the industry – including farmers, producers or organizations, researchers, agri-businesses, consumers and other levels of government. Over the next few years, the successful implementation of this agenda will depend on close cooperation and joint effort of the Institution with strategic partners. Together we can enhance the social and economic well being of those within the industry while doing so on a sustainable basis.

The Institution acknowledges the contribution of the private sector, national, regional and international organizations and the farmers for the contribution, which they made towards the achievements that are recorded in this report. Special reference must be made of the Honorable Cedric Liburd and his staff at the Ministry of Agriculture on St.Kitts and the Honorable Livingstone Herbert and his staff at the Ministry of Agriculture on Nevis for the support, which they have given to the National Agenda. The hard work and the

commitment of Miss. Ingrid Greene, Executive Secretary of the Office in St.Kitts and Nevis is also acknowledged. IICA looks forward to the further consolidation of its work and the strengthening its relationship with the other partners in the agriculture and food industry.

Augustine Merchant

Coordinator-Office in St.Kitts and Nevis

OFFICE IN ST. KITTS AND NEVIS

TABLE OF CONTENTS

1.	Executive Summary	1
2.	Current Status of Agriculture and the Rural Milieu in the Country	5
3.	The National Cooperation Agenda	7
4.	Results obtained for each Strategic Area	9
5.	Other Cooperation Activities	18
6.	Relations with Strategic Partners	19
7.	Opportunities for the Future	20
8.	Conclusions	20
Appendix I: (Needs Assessment Report of Agro Industry)		21
Appendix II: Plans and Programmes 2003		27



ANNUAL REPORT 2002

1. EXECUTIVE SUMMARY

In 2002, the Office in St.Kitts and Nevis aggressively pursued the Action Plans, which were documented in the National Agenda for the Federation. These Plans clearly outlined a series of interventions in the various Strategic Areas. In light of the successful implementation of the plans, tremendous results have been achieved. These have contributed towards the promotion of sustainable agricultural development, food security and rural prosperity.

A) Trade and Agribusiness Development

The National Youth Forum was established as a mechanism that will encourage and mobilize the youths as active partners in food production and the entire marketing chain. In addition, it will provide an important avenue for advocacy and dialogue on policies and programmes geared towards sustainable development of agriculture.

St.Kitts and Nevis benefited significantly from trade policy initiatives organized by IICA. These included the presentation of a paper on, "The effects of Trade liberalization on Agricultural Development of St.Kitts and Nevis". In addition, extensive discussions were held with the East Caribbean Institute of Banking regarding a proposed workshop to explore approaches to manage risks associated with credit financing in Agriculture. A Credit Risk Instrument was developed and presented to the Bank for its perusal and comments.

The Institute participated in a conference, which was organized by the Ministry of Agriculture in collaboration with a Team of FAO/CDB consultants. The purpose of the conference was to identify ways of enhancing agricultural diversification in St.Kitts and Nevis. Consequently, a document entitled, "St. Kitts and Nevis Agricultural Diversification Project" was prepared by the FAO/CDB and presented to the government.

Technical assistance was sourced through FAVA/CA to assist the Ministry of Tourism, Nevis in developing an agro-tourism Project. The various stakeholders were met and an initial assessment and evaluation has been made. This project is on going.

B) Science, Technology and natural Resources

Technicians from the Ministry of Agriculture were able to enhance their capabilities in important areas by participating in two regional workshops entitled:

- "Electronic Production of Documents and Management of Agricultural Bibliographic Data Bases"
- "Introduction to Distance Writing for Food and Agricultural Professionals"

The office participated in meetings of the Fruit Crops and Vegetable Committee of Procicaribe and was able to source germplasm critical to the development of the Fruit Crop Programme.

C) Agricultural Health and Food Safety

Agricultural health and food safety as they apply to trade and as a health concern, are extremely important issues that have been given increased attention by St.Kitts and Nevis. Personnel from the Ministries of Agriculture and the farming community benefited from national, regional and international seminars and workshops on the following topics:

Sanitary and Phytosanitary measures; good agricultural practices; pest risk analysis; plant Quarantine; traceability; food

safety; and Giant African Snail Control. In addition, the Member State is being assisted in developing an emergency plan for exotic livestock pest and diseases.

The office collaborated with FAVA/CA in the implementation of a Bio-Control Project for Fruit Flies on St.Kitts and Nevis. The two entomologists provided one week of appropriate training for the local technicians. IICA, Mexico provided financial resources to assist with the rearing of the parasitoids. It is anticipated that the experience and skills gained from this Project will be used to assist other member states in the sub regional, which are affected by the Fruit Flies.

As part of its contribution to the commercialization of peanut, the office prepared a manual entitled, "The Production and Marketing of Peanuts on St. Kitts".

D) Rural and Sustainable Development

The office continued to focus on strengthening the productive capacities of various groups and organizations. In this regards, the newly formed St.Kitts Beekeepers' Cooperative was able to procure equipment valuing CDN\$12,000 from a grant which the Institute assisted in securing. In addition, an evaluation was done by FAVA/CA on the disease status of bees on both St.Kitts and Nevis. The Nevis Beekeepers' Association was provided with a computer to assist in establishing an information database. The Association has been recently informed that a Grant of US\$10,000 has been approved for the procurement of equipment.

The office also successfully collaborated with a Farmer's Group and the Ministry of Agriculture, Nevis in the formulation of a US\$ 10,000 irrigation Project that has been approved.

The Ministry of Community Affairs was assisted with the establishment of a Community Computer Laboratory. The lab, which has Internet access is used for the training of computer Courses for members of the Community.

An evaluation was conducted on the status of Agro-processing in St.Kitts and Nevis. As a result of certain needs, which were identified, a 4-day workshop was held. 37 persons benefited from this workshop are able to produce better quality-controlled products.

E) Education and Training

The government has indicated that training and education would be important vehicles for the transformation of the agricultural sector. In support of this emphasis, the Institute officially opened its Agricultural Distance Learning Centre on October 25, 2002. National Capacity was also developed through the training of one officer on the preparation of multimedia Courseware.

2. CURRENT STATUS OF AGRICULTURE AND THE RURAL MILIEU IN THE COUNTRY

The economy of St. Kitts and Nevis was traditionally dominated by sugar production. Since the mid 1970's, however, a gradual economic diversification has taken place, resulting in reduced importance of sugar in the economy. In the year 2001, sugar cane accounted for only about five percent of the Gross Domestic Product (GDP), with tourism replacing sugar as the main foreign exchange earner. Within the agricultural sector however, sugar cane is still the most important crop, and accounts for about 40 percent of agricultural GDP. Livestock production and fishing are becoming important activities. Over the last five years, the contribution to GDP of crops, livestock and fisheries sub-sectors averaged 1.0%, 0.5% and 1.5% respectively. The rapid growth in tourism has resulted in a substantial increase in the importation of goods and services in order to cater for the development and operation of the sector. The food import bill has increased annually from \$50 million in 1991 to \$84 million in 2001. The government is therefore implementing an Agricultural Diversification Programme, which seeks to bring about structural changes within the sector and to reverse certain negative trends.

In and effort to fully address the constraints to agricultural development, which would ultimately increase domestic food production and foreign exchange savings, the government of St.Kitts and Nevis intends to:

- a. Facilitate the establishment of four irrigated farm settlements for vegetable production in order to extend the period of production for the major vegetables from four to six months, and facilitate the establishment of two economic sized unit farms (13 acres) for fruit and tree crop production.
- b. Train farmers in good agricultural practices, post harvest handling and marketing of selected crops;
- c. Provide training to commercial farmers in an effort to develop a business approach to farming;

- d. Encourage more persons to become involved in farming;
- e. Facilitate the establishment of farmers organizations;
- f. Extend the period in which farmers are able to produce vegetables under rainfed farming by making water available for supplemental irrigation;
- g. Strengthen technology generation, extension and transfer; and
- h. Promote further development and optimum functioning of the marketing unit at the Department of Agriculture.

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3. THE NATIONAL COOPERATION AGENDA

The Office in St. Kitts and Nevis was established in 1992 on the signature of the basic Agreement for Cooperation between the Inter-American Institute for Cooperation on Agriculture (IICA) and the Government of the Federation of St. Kitts and Nevis.

In 2000, the Institute conducted and analysis of its available strengths and opportunities for providing technical cooperation to agricultural sector institutions. In doing so, it took into account the priorities defined in each country and the Institute's technical cooperation contributing to economic development. One outcome of this analysis was the development of the Institute's Corporate Strategy for 2000-2001. This Strategy defined ways to revitalize the thematic focus of the Institute. Moreover, it upgraded the operational efficiency through strategic actions 'that enable the institute to play an active role in building the future'. In light of this strategic adjustment, the CA was able to contribute significantly to agricultural and rural development in St.Kitts and Nevis.

IICA, as an Organization, took an active role in the 2001 Summit. It was significantly named in the Plan of Action as having a role to play in the follow-up and implementation. This inclusion as an active partner changes the role which IICA as and organization has played in the past and makes it more prominent in the future in terms of promoting dialogue and better hemispheric integration. The immediate challenge, which faces the Institution, is to take full advantage of this opportunity during the process of discharging this new responsibility. However, the Institution's principal challenge continues to be one of supporting the efforts of its member countries to incorporate agriculture successfully into the changing context of the new economy. Within the changing context, agriculture must adapt to the new economy of information and knowledge, globalization and integration.

The National Agenda for St.Kitts and Nevis has been prepared to strongly support the implementation of IICA MTP for 2002-2006 and the priorities identified by the stakeholders. The new general strategy, which will guide the Institute in that period, will reflect the approach and priorities.

"The Institute will continue to modernize its operations to create a culture of excellence. It will provide visionary leadership, relevant know-how, technical support and information for contributing to attaining the Strategic Objectives. It will support dialogue and consensus building among the members of the Community of Agriculture and Rural Life regarding its Strategic Actions. It will also provide the technical cooperation necessary for agriculture to continue contributing to economic prosperity, food security and, consequently, to social stability in the countries. IICA will be a strategic organization that seeks to anticipate the emerging problems and opportunities of agriculture and rural life and work in close partnership with leaders and organization."

The process that was followed by the office in St.Kitts and Nevis during 2002 was guided by the following principles:

- i) Client-oriented approach in providing services
- ii) Proactive action
- iii) Focused action and technical excellence
- iv) Strategic Alliances
- v) Commitment to the Inter-America Agenda.

The National Agenda therefore establishes the Strategic Framework that will contribute towards improving Agriculture and the quality of life in rural communities in St Kitts and Nevis. In addition, it is expected to enhance food security and contribute to the alleviation of rural poverty. To achieve these goals the Office focused its technical cooperation actions on the six (6) strategic areas:

- i) Trade and Agribusiness Development
- ii) Agricultural Health and Food Safety
- iii) Sustainable Rural Development
- iv) Technology and Innovation
- v) Information and Communication
- vi) Education and Training

4. RESULTS OBTAINED FOR EACH STRATEGIC AREA (Progress made in executing National Cooperation Agenda)

The following is a narrative summary of the principal results obtained from each of the strategic areas:

1. Trade and Agri-business Development

Trade and Agri-business development are expected to have significant influence on the development of agriculture. As a result the office was involved in the following activities:

- i) The Institution participated in a number of consultations with stakeholders. Two of such meetings included:
 - The Annual Planning and Review Meeting, which was held by the Department of Agriculture (St.Kitts). At this meeting, the Minister of Agriculture outlined his Ministry's policies and the feature address, "The effects of Trade Liberalization on Agricultural Development on St.Kitts", was delivered by Dr. Barbara Graham, the Eastern Caribbean's Representative. A visual aided presentation was made by the Coordinator on the:
 - a. Mission, vision and general strategy of IICA
 - b. Achievement of CA for 2001
 - c. Proposed plans for 2002

The Ministry of Agriculture (Nevis) Annual Retreat was held on February 13th. The theme for this activity was "Identifying and pursuing opportunities for sustainable social and economic development". The stated goal of the Retreat was "To develop a skeleton program for the ensuing 12 months, focusing on sectoral linkages with tourism.

The outputs from the various meetings indicated the priorities of the stakeholders and formed the basis for the development of the National Agenda.

ii) The Institute has recognized the importance of Youth involvement in sustainable development and has been in the forefront of ensuring that the necessary institutional arrangement is put in place for this to occur. After months of intense preparatory discussions and arrangement, the 23 member St.Kitts Youth Forum was launched on October 24, 2002. The Governor General of St.Kitts and Nevis, the Minister of Agriculture, the Director of Caribbean Region and Special Advisor to Director General and the Representative for the Eastern Caribbean State were among the distinguished persons who attended this launching Ceremony.



Minister of Agriculture, Cedric Liburd and IICA's Officials with members of Youth Forum.

iii) One of the objectives of the Institute is to work with the Member States to further develop their capabilities to negotiate and administer agricultural trade agreements. In this regards, 2 technicians participated in a Sanitary and Phytosanitary Meeting, which was held in Geneva, Switzerland, during the period November 4th – 9th.

2. Sustainable and Rural Development

Sustainable Rural Development is viewed as a powerful way to focus actions to boost competitiveness, upgrade human capabilities and alleviate imbalances occurring in the country. In this area, the emphasis was on:

1. Beekeeping Development

The interventions made by the Institute not only contributed to increased income by the beekeepers but significantly enhanced the development of beekeeping in the Federation.

Such interventions included:

- The procurement of beekeeping equipment from a CDN\$12000 grant which the Institute assisted the St.Kitts Beekeepers Association in securing from CIDA.
- An assessment of the disease status of bees on both St. Kitts and Nevis. Mr Thomas Mozar, a beekeeping consultant with the Florida Association of Voluntary Agencies for Caribbean Action (FAVA/CA), visited the Federation during the period June 22 30. During his visit, more than 50 hives were inspected. Training sessions were held and pheromone traps for monitoring exotic bees were installed on both islands.
- A computer was presented to the Nevis Beekeepers Cooperative to assist in establishing an information database.

2. Enhancing Agro-processing Skills and Product Development

During the period October 2 - 6, 2002, Drs. Bob Bates and Mike Talbot of FAVA/CA conducted an on site assessment/evaluation of the agro-industry in St. Kitts and Nevis (See report in Appendix I).

As a follow-up to the above activity, Ms Judith-Ann Francis, Regional Specialist conducted a very successful 4 days Agroprocessing Workshop during the period November 15 - 19.

Two days were devoted to theoretical areas such as:

- The Need for Standards
- Good Manufacturing Practices
- Strengths and Threats of the local/regional markets for the development of agro-processing.

The other two days were used for practical training. The participants were able to utilize the new information gained in producing better quality-controlled products of 6 of the items, which they are already marketing.

This workshop will assist the participants to succeed in the competitive local and foreign markets by providing them with the information to identify market opportunities for "niche" or high-value products, understand regulatory requirements and provide product safety and quality assurances to buyers.





Participants at Agro-Processing Workshop

- iii) From the 29th May to June 2nd, Dr Ted Baker, a Volunteer for FAVA/CA visited Nevis. The purpose of the visit was to conduct an initial assessment and evaluation of the Bath Hotel and Spring House and to consider the way in which the site could be landscaped and developed as a tourism attraction. During the visit, Dr. Baker held meetings with various stakeholders and conducted searches at the National Archive.
- iv) The office participated in the official Handing Over Ceremony of a Community Computer Laboratory on March 12. Ten computers were received from the Agri-Future Foundation in 2001. The computers were serviced, fitted with CDRom Drives, Windows 98 and were presented to the Ministry of Agriculture. A computer laboratory with full Internet access has been established for the St. Peter's Parish of St. Kitts. The laboratory was officially handed over to the Community Affairs Department, which has organized a number of courses for members of the community. This activity has enhanced the computer literacy of the community. In addition, they are better able to access information.



Seated: Hon. Cedric Liburd, Minister of Agriculture Standing: Hon. Rupert Herbert, Minister of Community Development (right) Augustine Merchant, IICA Coordinator (left)

V) Greater collaboration was developed between FAO and IICA. Mr. Emerson Beckles, FAO Project Officer in Barbados, visited the Federation from February 18 - 22. Discussions were held with him regarding FAO's Telefood Project Fund (TPF). The TPF provides a maximum grant of US\$10,000 for projects that involve farmers' groups. The Institute collaborated with FAO in conducting a project-writing workshop on February 20 -21 for extension officers, beekeepers, farmers and fishermen groups. A total of 18 persons participated and developed the rudimentary skills in project writing. The Institute subsequently assisted them in submitting three project proposals to FAO for funding. Two of the three projects have been approved. The Nevis Beekeepers' Cooperative has received funding for beekeeping equipment and the Cades Bay Farmers' Cooperative would receive assistance in procuring irrigation equipment.

3. Technology Innovation

The objective of this Strategic Area is to assist St. Kitts and Nevis to further develop its capabilities to: 1) Create and consolidate national Innovation Systems and (ii) facilitate the interventional transfer of knowledge. The activities that the office was involved in included:

- i) Participation in the Fruit Crop and Vegetable Committee Meetings. These meetings were primarily for planning and reviewing of activities for the respective work programmes. In addition, a meeting of the Steering Committee of the Procicaribe was attended during the reporting period.
- ii) Mrs. Ilis Palmer-Rannie of the Department of Agriculture, participated in a workshop entitled, "
 Electronic Production of Documents and Management of Agricultural Bibliographic Databases". This workshop was held at the

- University of the West Indies, Mona Campus from May 20 23. The Officer is now competent in this area of expertise.
- iii) Mr Stephen Duggins participated in a workshop, "Introduction to Distance Writing for Food and Agricultural Professionals". This Workshop was held at the University of the West Indies, St. Augustine Campus from May 20 24.

4. Agricultural Health and Food Safety

This strategic area is aimed at further developing the capabilities of the institutions involved in agricultural health and food safety to formulate and execute policies and programmes aimed at ensuring that animal and plant products comply with the health and hygiene standards in order to be able to compete successfully on the international market. The following activities were undertaken by the office:

Mr Everton Ambrose, Plant Protection Specialist, conducted a very informative 4 day Plant Quarantine Workshop on St. Kitts and Nevis. A total of 30 Persons, drawn from the Ministry of Agriculture, Port Authority, Customs Department and the Private Sector participated in the workshop.

The topics covered included:

- Principle of Plant Quarantine and its Implementation
- World Trade Organization SPS Agreements
- Pest and Disease of Plant Quarantine Importance
- Plant Quarantine Legislation
- Pest Risk Analysis
- Survey Methods
- Inspection methodology
- Export Certification

As a result of this workshop, the participants are better able to understand the critical role of plant quarantine. In addition, efforts have been initiated to review and enhance the quarantine system.

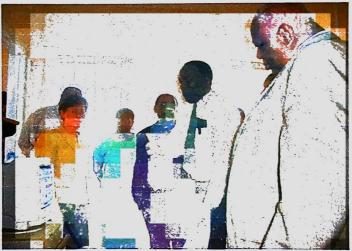
- Practices (GAPs) were conducted.

 St.Kitts and Nevis was the venue for the training of 15 technicians from the OECS in general practices related to GAPs. Four selected commodities were the focus of the training. Training manuals were finalized and officially disseminated to the participants. Subsequently, a national workshop was held with local farmers. 35 farmers participated in the workshop. During November 18 23, two technicians from the Department of Agriculture participated in a Traceability Workshop in St. Lucia.
- Training Seminars were conducted on matters relating to Food Safety. Mr. Perry Peets of the Department of Consumer Affairs attended a seminar in Belize. In addition, a meeting to sensitize policy makers and other stakeholders was held on November 4 and 5. Forty five (45) persons attended the workshop. The ultimate goal is the establishment of National Food Safety Council for St.Kitts and Nevis. The Terms of Reference for the Council has been developed. National Food Safety Council is an essential component of the institutional infrastructure required to increase the knowledge of stakeholders regarding food safety, including issues of agricultural health.
- A bio-control programme for the fruit fly has been initiated. The fruit fly, *Anestrepha Obliqua* attacks a wide range of fruits on St. Kitts and is one of the major constraints to the development of the fruit sector. To address this problem, the Institute in collaboration with FAVA/CA recently implemented a bio-control programme. This programme involved:
 - Training of technicians in the procedures for handling and the releasing of parasitoids.
 - Survey protocols for determining presence and level of indigenous natural enemies and monitoring of parasitoid levels.
 - Preparation, introduction and release of parasitoid and associate activities

It is anticipated that there will be a reduction in the incidence of hfruit fly and an increase in production & productivity.

5. Education and Training

Training and Education have been identified as important vehicles for transforming the agricultural sector on St. Kitts and Nevis. The Institute has recognized the enormous potential of information technology and is therefore promoting Distance Learning Centre as a means of training and education in the member states. At a very impressive ceremony on October 25, 2002, the Governor General cut the ribbon to signal the official opening of the Distance Learning Center. Some of the other distinguished persons who were present included the Minister of Agriculture, Hon. Cedric Liburd, Director for the Caribbean Region and Special Advisor to the Director General, Dr. Arlington Chesney and the Representative for the Eastern Caribbean States, Dr. L Barbara Graham.



The Governor General and the Ambassador to the Republic of China being given a demonstration of Distance Learning Center by IICA's Officials

Approximately 15 events (workshops, conferences) were held by the office during the past year. It is estimated that 265 persons benefited from the training.

6. Information & Communication

The Office continues to be a valuable source of information to the agricultural sector. The following publications were distributed:

- i) In a Nutshell
- ii) AgriView Newsletter
- iii) Commuiica

5. OTHER COOPERATION ACTIVITIES

The Office was involved in other cooperation activities that were not described above. These included:

- i) Attending meetings of the National Pesticide Board Committee. The meetings were primarily aimed at reviewing the legislation pertaining to pesticides. In addition, other sub-committees were established in order to revitalize the Board, which has been in a state of dormancy.
- ii) Attending meetings of the National Climate Change Committee.

 During the period a St. Kitts and Nevis Climate Change Action
 Plan was developed.
- iii) Delivering the featured address at the Gingerland Secondary School Graduation Ceremony. The Topic was "Embracing meaningful Changes with a positive attitude".

6. RELATIONS WITH STRATEGIC PARTNERS

During 2002, the relationship with established partners were strengthened. In addition, new relationships were forged with national, regional and international organizations. The activities that were conducted in partnership with the strategic partners range from training of nationals, to conducting of needs assessment to joint execution of projects.

The following National, Regional and International organizations were actively involved in joint actions during the reporting period.

National

- Ministry of Agriculture, Lands, Housing, Fisheries and Cooperatives
- Ministry of Tourism
- St. Kitts Beekeepers' Association
- Nevis Beekeepers' Association
- Farmers' Association
- Small Enterprise Development Unit (SEDU)
- Agro-processing Association

Regional

- Caribbean Agri Research and Development Institute (CARDI)
- East Caribbean Institute of Banking (ECIB)

International

- Food and Agriculture Organisation (FAO)
- Florida Association of Voluntary Agencies for Caribbean Action (FAVA/CA)

7. OPPORTUNITIES FOR THE FUTURE

Agri-processing, Agro-tourism and Distance Learning have been identified as areas, which have considerable opportunities for the future.

- As regards Agri-processing, primary attention should be paid to the existing and potential small processors. The aim should be to add value to local food items and increase the safety, quality, production efficiency and market appeal of existing and potential processed products. Local self-sufficiency should be the initial goal.
- The enhancement of the landscape within the rural communities could improve our tourism product and add value
- In light of present global trends, the knowledge base of our farmers and other stakeholders are very critical. The traditional means of education and training have become inadequate and there is now a greater need to utilize modern information technology, which is afforded by the Distance Learning medium.

8. CONCLUSION

The St. Kitts and Nevis Office's contribution to Agricultural Development has raised the profile of the Institution. Consequently, IICA is recognized for its leadership role in technical cooperation activities

The potential exist for the Institute to impact positively on the agricultural sector of St. Kitts and Nevis. This would be achieved by pursuing the plans and programmes outlined in the National Agenda.

APPENDIX I

FAVA/CA's Trip Report on Needs Assessment of Agro-Industry

Countries of Assignment: St. Kitts and Nevis

Volunteer Names: Bob Bates and Mike Talbot

Length of Project: October 2-6, 2002

<u>Description of Recipient Organization</u>: Primarily The Inter-American Institute for Cooperation on Agriculture (IICA). This Caribbean-wide organization promotes agriculture development and commerce within and among island states and nations on the Caribbean.

In St Kitts IICA is cooperating with the Small Enterprise Development Unit (SEDU). In Nevis the cooperating agency is the Ministry of Agriculture (NMAG). In the case of IICA and Nevis MAG, the relationships and programs are directed toward promoting cooperation in agricultural and agro-industry development, working primarily with small scale, cottage industry. SEDU has additional non-agriculture programs, in which we weren't involved.

Scope of Work: To assist IICA in determining and addressing the needs of the agro-industry in St Kitts/Nevis with primary attention to the existing and potential small processors. The aim being to add value to local food items and increase the safety, quality, production efficiency, and market appeal of existing and potential processed products. Local self-sufficiency is the initial goal, with inter-island export a distant and much more ambitious task.

IICA's charge to us:

- 1. Conduct an on site assessment/evaluation of 15 agro-processors
- 2. Develop a training program to address:

 Fundamentals of processing improvement/improve methodology

Presentation and labeling, packaging and closure Quality control

3. Advise on extending shelf-life of products

4. Advise on small-scale equipment to enhance productivity

Results/Impact of Assignment: We and all parties with whom we met now have a much better idea as to the logistical and training needs of agro processors. The important role of IICA, SEDU, and NMAG was clarified and an action plan is under development. Informative literature had been left with IICA for copying and distribution to key individuals and follow-up information — suppliers, websites, literature will soon be provided.

Recommendations Made:

- 1. The highest priority need is for training in food safety and preservation. We were impressed by the food processing and business know-how of many of the individual processors, restaurant managers, hotel executives, and supermarket executives with whom we met. Most are doing a very good job of processing and/or distributing safe, high quality local items. However, there are a few home processors who do not understand food safety and whose practices and concepts are questionable. For them especially, and for all cottage-scale processors, a comprehensive workshop in the principles and practices of small scale food processing is essential. This would include information on the proper packaging and labeling of processed foods, a need emphasized by marketing authorities. In St. Kitts the sponsoring agency should be the Small Enterprise Development Group, assisted by IICA. The Ministry of Agriculture, St. Kitts and a government food laboratory (in St. Kitts) were not visited but should be involved in training. In Nevis, the Ministry of Agriculture is quite capable of orchestrating workshops.
- 2. A major goal of training should be to train the trainers. That is, identify capable individuals in both St. Kitts and Nevis with interest and experience in home food preservation and provide them with the information and resources to eventually serve local training needs on a continuing basis. This cadre should be encouraged to participate in training activities initially to refresh their food safety/processing skills and later to provide the training.
- 3. IICA in cooperation with SEDU in St. Kitts and NMAG in Nevis should encourage and assist local processors in the formation of a cooperative to serve as the focus for small processing agro-industry. All activities –

training, equipment/container procurement, and marketing efficiencies - dictate some degree of mutual assistance and cooperation at the community level. It is very difficult for individual processors to achieve economies of scale to serve the potential demand for local processed products. It should be emphasized that only through mutual cooperation can the appreciable potential of the local small agro-industry be realized. There is a level at which competition among processors is healthy, but industry-wide cooperation is the place to start. (Our initial impression is that this is easier to accomplish in Nevis than in St. Kitts.)

- 4. In relation to processing cooperatives in both islands, the feasibility of establishing Community Food Preservation Centers should be explored. Such center, common in the U.S. during and after World War II, served as a very effective mechanism for processing excess food crops, training individuals in safe food preservation, and providing markets for these items. The centers spread cost of equipment, containers, and utilities (electricity, steam, water) over many users, thus greatly simplifying logistics for all.
- 5. On an individual scale, processors should be provided with sources of equipment, supplies, and packaging. Small processors badly need information on packaging alternatives and small scale equipment for conducting the various food processing operations slicing, shredding, pureeing, grinding, cooking, pasteurization, etc. Actually, the house ware section of many retail chains Sears, Wal-Mart, Target sells units of the appropriate size for in-kitchen operations. For a larger scale, restaurant supply sources are useful. Some of the literature we left with IICA addresses this need, and additional information will be provided.
- 6. The quality of home-produced wine needs improvement. In addition, fruit wine can serve as the starting material for vinegar production. A reliable source of quality vinegar is an essential ingredient in many processed products and local manufacture should be encouraged.
- 7. Our counterparts, Mr. Augustine Merchant, IICA and Mr. Sam Franks, SEDU should have the opportunity to visit the University of Florida and become familiar with resources facilities, personnel, information media, and community/industry practices relevant to St. Kitts/Nevis.
- 8. There are a number of key text and Internet websites dealing with issues discussed. These texts/sites should be made available for training purposes

and as general information for interested parties. Also, IICA and SEDU managers should peruse this information and suggest pertinent material for purchase and websites for reference. For example, http://www.amazon.com lists many useful books at reasonable prices and their link to processing equipment is likewise noteworthy,

Follow-up Required/Planned (numbers refer to recommendations, above):

- 1. A workshop on food safety can be put together utilizing FAVA/CA volunteers, but organized by the cited organizations IICA, SEDU, NMAG. Participation from UWI and appropriate institutions with Agriculture development responsibilities and experience in the Caribbean is highly desirable. Since Bob Bates cannot be involved in November, planned date of follow-up, he is exploring alternate instructors from the University of Florida and elsewhere.
- 2. IICA, SEDU, and NMAG administrators have a good idea as to individuals and organizations with food preservation experience who should be involved in training and as trainers.
- 3. Mike Talbot is aware of contacts and organizations with expertise in forming and operating Agriculture Cooperatives. Assistance with establishing cooperatives might be available from the Department of Agriculture and Consumers Services (FDACS) and Florida A&M University (FAMU). FDACS has worked with the Florida Sweet Onion Growers Coop and Florida Wildflower Growers (Nelson Pugh, pughn@doacs.state.fl.us and amisonl@doacs.state.fl.us , FDACS, 850-488-4031, Larry Amison, marketing/business plan personnel met with wildflower growers) with product definition, name recognition, prioritization of essential tasks. The Florida A&M University associated coop -- New North Florida Cooperative (NNFC), 3806 Union Road, Marianna, FL 32446, 850-352-2400, fax -9986, Email nnfc@digitalexp.com, Glyen Holmes, Liaison NNFC and Vonda Richardson, Director, Small Farm Outreachy, Training & Assistance, FAMU -- has successfully developed a small farm cooperative. (Attachment). Presumably other Caribbean nations have accomplished this - i.e. Dominica. Their experience can be most helpful.
- 4. The director of Food Preservation Systems has been contacted for information on Community Food Preservation Centers. His extensive knowledge regarding equipment suppliers, facilities construction, training

and center operation is essential. Even if commercial processing operations continue at a low level, complementary centers in St. Kitts and Nevis can foster food safety and food self-sufficiency, prevent waste, and make users aware of the untapped potential of processed local foods.

- 5. We are identifying additional sources of equipment, containers, training material for IICA dissemination. Both printed and Internet available material will be emphasized, as well as the websites and listservs of institutions and businesses handling such items.
- 6. A number of home processors produce wines from various fruits and vegetables. While the quality of these items varied widely, the legal ramifications are unclear. No one had any idea as to the strength of these beverages. (Since they were bottle stable the alcohol is probably >12%v/v.) Information on wine making and vinegar production will be provided.
- 7. From personal experience it is valuable for in-country counterparts to observe our facilities and operations. While it may be outside the scope of FAVA/CA activities, such an orientation visit can be almost as valuable as our initial trip in fostering efficient cooperation and providing long-term benefits to St. Kitts/Nevis.
- 8. We left some useful texts that require replacement purchase. These are: Putting Food By ~\$15 from Amazon.com

Appropriate Technology Sourcebook, out of print, but equivalent literature and much more available from: http://www.itdgpublishing.org.uk/ (see also http://www.itdg.org/).

Principles & Practices of Small/Medium Scale Fruit Juice Processing, FAO Agricultural Services Bulletin 146.

UC Davis ANR Pub. 21595, Marine Container Transport of Chilled Perishable Produce

USDA Handbook No. 66, The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks

USDA Handbook No. 668, Agricultural Tropical Products Transportation Handbook http://www.ams.usda.gov/tmd/tropical/

USDA Handbook No. 669, Agricultural Trucking Perishables Handbook http://www.ams.usda.gov/tmd/truckhandbook.pdf

USDA Handbook No. 700, Agricultural Export Transportation Handbook http://www.ams.usda.gov/tmd/export/

Florida Millennium Agricultural Export Directory, http://www.fl-ag.com/export/

Talbot, M.T., C.D. Baird, S.A. Sargent, and J.K. Brecht. Improving Forced-air Cooler Performance. IFAS CES Cir AE 108. 1992. 10 p. Talbot, M.T., S.A. Sargent, and J.K. Brecht. Cooling Florida sweet corn. IFAS Circular 941. 991.20 p.

Several others are recommended:

From Kitchen to Consumer: The Entrepreneur's Guide to Commercial Food Production, Barbara Nelson-Stafford, Academic Press 1991. – Out of print, but available from Amazon.com.

Complete Guide to Home Canning and Preserving, USDA, on-line at: http://www.fcs.uga.edu/pubs/current/FDNS-E-39.html

- 9. From observation and discussions, there is a need for improved handling of perishable commodities: eggs, ice cream, fresh vegetables, fruits, and peanuts.
- 10. Assistance with containers and container labels might be available through the Packaging Science Program of the Agricultural and Biological Engineer Department, Institute of Food and Agricultural Sciences, University of Florida. A graduate student research project might be appropriate. Training of selected individuals at the University of Florida is also a potential benefit.
- 11. Potential Market Locations must be identified and developed: grocery stores, hotel/resorts, airport, tourist sites, i.e. on St. Kitts the Gardens with Caribelle Batik and the new cruise ship port, local stores, and possible schools and prisons. Containers should use distinctive decorations (i.e. Caribelle Batik ribbons) related to St. Kitts and Nevis to appeal to tourist as souvenirs.

APPENDIX II (Plans & Programmes for 2003)

The following have been planned for 2003 under the specified strategic Area:

(a) Agricultural Health and Food Safety

- Facilitate Consultations and workshop towards the establishment of the National Agricultural Health and Food Safety Entity
- Development of an Animal Disease Preparedness Plan
- Implementation of Bio-Fruit fly Control Programme (Ongoing)
- Support to the Ministry of Agriculture Pest Control Operators Certificates Training
- □ Facilitate the Institutionization of Gap's in selected commodities

(b) Trade and Agribusiness Development

- Seminar/training for agricultural technicians and policy makers on the multilateral trading system
- □ Inter-Agency Forum on the impact of Trade liberalization on local agricultural development
- □ Institution strengthening for the National Youth Forum

(c) Sustainable Rural Development

- Provide support to the Ministry of Tourism for
 - a) Agro-Tourism Plan
 - b) Landscape design for historical site
- Provide training in Agro-Processing
- Conduct business management and group dynamic workshops

(d) Technology Training and Innovation

- , D Facilitate Training in fruit trees propagation
- Support training in soil and water conservation technology
- Support the construction of simple facility for the multiplication of pineapple planting material
- Assist in procuring exotic Germplasm for fruit crop development Programmes.

