

# **ANNUAL REPORT**

**University of the Virgin Islands  
Cooperative Extension Service**

**Fiscal Year 2004**

OVERVIEW STATEMENT  
FY 2004 ANNUAL REPORT  
UNIVERSITY OF THE VIRGIN ISLANDS  
COOPERATIVE EXTENSION SERVICE

The University of the Virgin Islands' Cooperative Extension Service (UVI-CES) is pleased to submit its FY-2004 Annual Report which is based on the 2000-2004 Plan of Work, outlined by the national goals established within the mission of the Cooperative State Research, Education and Extension Service of USDA.

Using the attached goals and objectives, CES developed 16 strategic innovative projects and activities that positively impacted and changed the lives of many Virgin Islanders.

**GOAL 1: An Agricultural System that is Highly Competitive in the Global Economy**

Sustainable Agriculture, Beef Dairy and Livestock and Eastern Caribbean Extension Outreach and Interchange are programs featured in this unit. The V.I. Sustainable Agriculture Network, through collaboration with local and federal agencies, provided training and professional development activities to staff and producers for the promotion of sustainable agriculture practices. One of the most significant activities during this period was a collaborative effort between CES and the V.I. Resource Conservation Development Council, the U.S. Forest Service-IITF, and Alcorn State University in sponsoring a Sustainable Agriculture Training Institute. As a result, seven young adults participated in an intensive eight-week training to increase their level of sustainable agricultural principles and practices. The Beef Dairy and Livestock program focused on animal care and productivity. A small livestock production and management workshop trained 26 young producers over a six-week period in livestock management and marketing practices. This workshop was jointly sponsored by CES, the V.I. Department of Agriculture, UVI/Agricultural Experiment Station, and the St. Croix Farmers in Action, Inc. CES staff provided technical assistance to farmers by monitoring the performance of the beef and dairy animals. Staff also assisted the Virgin Islands Department of Agriculture with the implementation of the Livestock Identification Program. The youth education programs continued to be active in the schools.

**GOAL 2: A Safe and Secure Food and Fiber System**

This includes Food Safety nutrition, Basic Food Safety Education for EFNEP and EFNEP Youth. Again, this year, staff attended a workshop on food safety cosponsored by the CES and the V.I. Department of Licensing and Consumer Affairs. The Puerto Rico's federal Food and Drug Administration (FDA) conducted the workshop. Currently, CES staff is serving as co-chair for the local FDA and worked and

implemented a local Health Fraud Task Force. Teaching Virgin Islands' adults and youth healthy, dietary practices, budgeting and food preparation continues to be the focus of the Basic Food Safety Education Program. The annual Agriculture and Food Fair, World Food Day, Mango Melee and Tropical Fruit Festival, and the CYFAR program provided additional venues for information to be disseminated about the program.

### GOAL 3: A Healthy Well-Nourished Population

Improving Nutrition, Diet and Health is the focus of this program. Through educational activities such as World Food Day, Agriculture and Food Fairs, hands-on demonstrations were conducted to educate Virgin Islanders on basic nutrition, food preparation, and food safety. Since the territory has a high level of individuals who suffer with diabetes and hypertension, CES and the Virgin Islands Department of Health held sessions on obesity hypertension, and diabetes. Also, a local Diabetes Association was formed to assist clientele with a support group to help prevent and combat diabetes.

### GOAL 4: Greater Harmony Between Agriculture and the Environment

CES continues to educate Virgin Islanders about the benefits and importance of properly planting, maintaining urban trees, and composting. Through programs such as Urban Forestry, Backyard Composting, Urban Gardening, Water Quality Protection, Natural Resource and Environmental Management, staff provided workshops, demonstrations, shortcourse, and exhibits for residents. Collaborative efforts with the International Society of Arborist, USDA Forest Service's International Institute of Tropical Forestry and the Puerto Rico Conservation Foundation sponsored activities such as the Arborist shortcourse. In addition, CES staff conducted "train the trainer" composting workshops for teachers, government officials and personnel. School gardens continue to be implemented at various schools throughout the territory. Other programs that enhance the quality of life are discussed in this unit.

### GOAL 5: Enhanced Economic Opportunity and Quality of Life for Americans

This unit covers Limited Resources: Individuals and Families, Marketable Skills, Volunteer and Youth Leadership, 4-H Club Systems, and 4-H Summer Day Camp.

CES provided programs to Virgin Islanders, particularly the unemployed and underemployed with short courses and workshops that will enhance or teach marketable skills. Courses in basic computer technology, adult sitting, child care and day care were taught so that unemployed adults can enter the world of work and provide the quality care that is needed in the territory.

Working collaboratively with the Virgin Islands Department of Human Services, CES held a self-esteem workshop with 22 persons in attendance. There were eight (8) presenters giving information and demonstration on topics such as self-esteem, dressing appropriately, spiritual radiance, hair care styling and alternatives, facial and skin care, fitness, charm, poise, and manners.

Finally, CES' 4-H programs are involved in many community activities. The 4-H Summer Academy was a tremendous success and provided 300 of the territory's youth with educational and fun activities. Additionally, programs such as CYFAR, focused on community-based educational program for children, youth, parents and families. In collaboration with the Mini-Society's effort, CES staff trained teachers, and individuals from other community groups who received training in the concept of Mini-Society - entrepreneurship, economics and citizenship concepts for students ages 8-12.

## **GOAL 1: An Agricultural System that is Highly Competitive in the Global Economy**

### **Program 1 - Sustainable Agriculture**

#### **2004 St. Thomas-St. John Agriculture & Food Fair**

The 22<sup>nd</sup> annual St. Thomas-St. John Agriculture and Food Fair was held as a joint initiative between the VI Department of Agriculture, and the UVI Cooperative Extension Service. The basic function of this yearly activity is to showcase the cultural and agricultural potential of the Virgin Islands through displays, exhibits, product sales, and interactive presentations. This year's activity attracted more than 6000 participants who benefited from a diverse presentation of educational displays. Approximately 600 fairgoers, including farmers and members of farm families, visited the CES displays and increased their knowledge of the Sustainable Agriculture Research and Education (SARE) program.

The SARE program featured a poster display, which highlighted the successful 2004 Sustainable Agriculture Training Institute, which was jointly sponsored by the VI Resource Conservation & Development Council, the US Forest Service-IITF, Alcorn State University, and the UVI-CES. As a result of this initiative seven young adults participated in an intensive eight-week training to increase their level of sustainable agricultural principles and practices. Upon completion of the training all of the participants expressed an interest in pursuing careers in various aspects of Agriculture with emphasis on organic and sustainable principles and methods.

Many young adults who visited the exhibit on the Sustainable Agriculture Training Institute expressed an interest in participating in future activities of this nature. This level of enthusiasm reflects a positive outlook for the future of Sustainable Agriculture in the Virgin Islands.

A second poster at the CES educational booth summarized a shortcourse which was conducted to provide farmers and members of farm families with training in computer literacy, and the application of computer skills to record keeping in crop and livestock. All farmers who visited the exhibit area overwhelmingly expressed an interest in participating and benefiting from a similar workshop in the St. Thomas-St. John district. This workshop is tentatively planned for April 2005.

In addition to the poster displays a variety of literature and SARE publications were made available to provide regional and national information about SARE, including funding opportunities and examples of successfully funded projects. Consequently, several farmers requested assistance in developing and submitting grant proposals to SARE for various on-farm projects. This increased interest indicates an increased awareness of the program, related practices, and its benefits to farmers.

Approximately 25 fair participants, including farmers benefited from one workshop on Creating / Developing Your Product, and a second presentation on Marketing Your Product. These presentations were delivered by Ms. Cheryl Miller, a CES client and entrepreneur who adds value to farm commodities by processing. Ms. Miller related her personal experiences of challenges and successes, and offered suggestions regarding marketing and value added strategies. As a result of her efforts participants increased knowledge and awareness of value added alternatives to increase profit and sustain agribusiness enterprises.

### **World Food Day**

The annual World Food Day activity attracted approximately 2000 residents, and featured crop and livestock production workshops, farmers' booths, and hands-on demonstrations. Workshops on eggplant and passion fruit production provided information on appropriate production and marketing practices to an audience of 80 participants, including producers and food processors, and other interested St. Croix residents. The workshop participants increased their knowledge of crop variety selection, and cultural practices such as drip irrigation, pest control, and fertilizing. Information on marketing strategies to enhance and sustain farm operations was also disseminated.

Approximately 25 workshop participants, including livestock farmers and other interested individuals increased their awareness of production and marketing practices which can contribute to a sustained beef cattle production / marketing operation for farmers.

The staff of the Family and Consumer Science presented two hands-on demonstrations utilizing local fruits to prepare tasty juices and beverages. A total of 80 workshop attendees increased their knowledge of alternative, value added products which can be prepared from a variety of local fruit and vegetable commodities.

### **Computer Literacy / Record Keeping Shortcourse**

Twenty five (25) crop and livestock producers, and members of farm families successfully completed a 12 week Computer Literacy and Record Keeping Shortcourse which was sponsored by the CES Agriculture & Natural Resources Program in conjunction with the CES Children Youth & Family at Risk Program. All participants were encouraged to use their newly acquired knowledge to enhance the efficiency and sustainability of their farm enterprises.

One of the most outstanding participants of this course was a nine-year-old girl who demonstrated the knowledge and application level of an adult, especially in the areas of record keeping, basic computer tasks, and the usage of electronic mail. Another participant, Ms. Brown, developed such an advanced understanding of computer design and construction that she conducted minor computer repair tasks for family members and friends, who realized financial savings as a result.

### **Small Livestock Production Shortcourse**

A six-week shortcourse was conducted to address the need to increase the level of knowledge of small livestock producers, especially with respect to management and marketing. Topics covered during the course included record keeping, poultry, swine and goat production and management, health and sanitation, abattoir procedures, pasture establishment and management, financial management, and marketing.

Twenty-six participants were enrolled in this training, which was jointly sponsored by the VI Department of Agriculture, The UVI-AES, Farmers in Action, Inc., and the UVI-CES. As a result of this educational activity the participants increased their level of knowledge and awareness regarding the latest research based information on small livestock management and marketing practices. The incorporation of these strategies into their operation routine will enhance the efficiency and sustainability of their small livestock enterprises.

### **Livestock Breeding & Management Workshop**

A group of fifteen (15) livestock farmers increased their level of knowledge and awareness of animal care and stock selection for breeding / marketing purposes. The participants were also exposed to strategies for preparing and protecting livestock enterprises from potential loss and damage due to hurricane incidents.

In order to improve livestock herds through breeding, farmers were taught data collection techniques to establish selection criteria for desirable traits. The importance of 'timed breeding' was also discussed as a management tool to yield marketable products at desired times during the year.

As a result of this workshop livestock producers were better prepared to administer improved healthcare practices, and improve their general management, stock selection, and herd improvement techniques to sustain productive, viable farm enterprises. This educational opportunity was jointly sponsored by the V.I. Department of Agriculture and the UVI Cooperative Extension Service's Agriculture and Natural Resources program.

### **New Collaboration / National Organic Program**

The University of the Virgin Islands Cooperative Extension Service (UVI-CES) established a 'Train the Trainer' initiative in partnership with the University of Florida to develop and teach a curriculum pertaining to the USDA National Organic Program's (NOP) regulations and guidelines. This training will mainly target Extension staff and other outreach personnel throughout the southern region who will disseminate this information to farmers.

In preparation for this training a staff member of the UVI-CES participated in regional meetings to formulate a training curriculum. In the US Virgin Islands a team of agricultural professionals has been identified to conduct training for the territory during a two-day workshop scheduled for Spring 2005. As a result of this initiative Extension and other outreach staff will have an increased awareness of the NOP's rules

and regulations which govern organic farm production and certification. Consequently, these ‘Trainers’ will be better prepared to instruct crop and livestock producers who endeavor to develop organic production enterprises Virgin Islands.

### **Caribbean Food Crops Society Conference**

The 40<sup>th</sup> annual Caribbean Food Crops Society Meeting was convened on St. John, US Virgin Islands July 19 - 23, 2004. The conference theme was “Strengthening Partnerships for Sustaining Caribbean Agriculture”. Approximately 175 participants from several Countries throughout the Caribbean, the US mainland, and the US Virgin Islands benefited from technical sessions on various topics, field tours, and a farmers forum.

The technical sessions included presentations on Information Technology, Crop Production, Integrated Pest Management, Agronomy, Livestock Production, Soils & Water, Rural Development, Economic Development, and Marketing.

Field Tours to diverse farm operations provided participants with an appreciation of crop and livestock production issues and practices in the US and British Virgin Islands. These tours also provided an opportunity for local farmers to interact and exchange information with agricultural professionals and producers from other islands of the Caribbean.

The weeklong conference concluded with a farmers' forum, which allowed local farmers to share ideas and suggestions regarding plans to revitalize the agricultural industry in the Virgin Islands. Suggested initiatives included educational programs, the establishment of a Farm Capital Development Fund, and the construction of processing facilities for agricultural commodities.

### **Northeast SARE Conference**

Two members of the USVI SARE team, including a farmer attended the 2004 Northeast SARE conference which was held in Burlington, Vermont. This professional development activity featured technical sessions and tours in addition to an award ceremony to recognize farmers who have been advocates and practitioners of sustainable agricultural principles and practices through farm stewardship.

Our participation in the conference served to strengthen efforts to network with regional and national institutions and organizations. One important contact was established with the University of Vermont Cooperative Extension Service which employs one of the nation’s first outreach staff that is trained in organic farm principles and practices. This contact should definitely enhance local initiatives to disseminate information, and train farmers and outreach personnel in the Virgin Islands about issues related to organic farming.

### **Estate Bordeaux Agricultural and Cultural Fair**

The annual Estate Bordeaux Fair attracted more than 3000 participants including farmers from the Estate Bordeaux area, and producers from various other



parts of the territory. The two-day activity was held primarily to showcase the efforts of crop farmers in the Estate Bordeaux area. In addition to a display of agricultural products, the fair also featured a series of workshops and lecture presentations on traditional and sustainable production practices, including terracing, drip irrigation, mulching, and composting.

The staff of the Cooperative Extension Service conducted a workshop on composting to recycle organic matter produced on the farm. Approximately 25 clients, including farmers and other interested individuals increased their awareness of the principles and procedures involved in the art and science of composting. All workshop attendees expressed a commitment to practicing composting as a part of their farm or crop production activities.

During the question and answer segment of the workshop CES staff also responded to numerous questions about pest problems, drip irrigation, and crop varietal selection.

### **2004 Sustainable Agriculture Training Institute**

As the result of a joint initiative between federal and local agencies seven (7) young adults from the Virgin Islands who aspire to pursue careers as farmers or professionals in agriculture were provided an opportunity to participate in a six-week training institute at Alcorn State University. As a result of this initiative these young Virgin Islanders from limited resource families increased their awareness of the academic and professional areas of work in agricultural science. Some of the subjects taught included Apiculture, Veterinary Science, Dairy Science, Aquaculture, Fruit and Vegetable Crop Production, Marketing, Farm Planning, and Forestry. The classroom instruction was supplemented with practical, hands-on activities.

All participants of the 2004 Sustainable Agriculture Training Institute expressed an interest in pursuing further studies in various aspects of Agricultural Science.

The project was jointly sponsored by the US Forest Service - International institute for Tropical Forestry, the Virgin Islands Resource Conservation and Development Council, and the University of the Virgin Islands Cooperative Extension Service.

### **SARE Advisory Committee**

The reporting period concluded with a very productive meeting of the local Advisory Committee. During the meeting suggestions were offered regarding the direction of the local SARE initiative as well as current and future training needs of the territory. Outreach programming will continue in the areas of record keeping, computer literacy, and sustainable agricultural practices in crop and livestock production. New or renewed areas of concern / priority will include alternative / renewable energy initiatives for farmers, root crop production, waste management practices for livestock producers, and grantsmanship training for farmers. In addition, the general thrust of the USVI SARE program during the following reporting period will be to develop a

**Model State Program** as described by the Southern Sustainable Agriculture Research and Education program.

**Output / Outcome:**

1. Local and regional (Caribbean and US Southern region) networks were strengthened, mainly through new partnerships with academic institutions.
2. At least 85% of producers and food processors increased their knowledge and awareness of sustainable agriculture issues, practices, and systems.
3. More than 80% of producers trained through outreach initiatives expressed a commitment to adapting / implementing at least two sustainable agricultural practices.

Source of Funding: CES/USDA: Smith-Lever, V.I. RC&D, SARE

Scope of Impact: Territory wide

**Program 2 - Beef, Dairy, and Livestock**

The livestock program serviced the producers on the island throughout the year.

Beef cattle farmers were given assistance in the management of their herds through assistance in gathering data such as growth and reproductive indicators. Data were gathered periodically and assessments made. In addition, farmers were supplied with information and assistance in the areas of parasite control, pasture management, identification breeding selection and marketing. Two major beef producers and several small producers totaling approximately 2000 cattle were impacted by staff efforts.

Dairy farmers were assisted in their participation in the Dairy Herd Improvement Program through periodic (monthly) production testing and evaluation. Other assistance was given in the areas of parasite control, identification, reproductive monitoring, pasture management, and sanitation and health. All three dairy farms (approximately 1500 cattle) and the milk processing plant were impacted through staff work.

Small livestock farmers were assisted with management techniques and seedstock acquisition. Consultation was also given in the areas of housing, parasite control and identification. Approximately 120 producers were impacted.

Additional activities included youth education in the schools in the areas of animal care (approximately 500 youth), and the Agriculture and Food Fair in the areas of animal care and reproduction (total fair attendance approximately 30,000).

Output/Outcome:

1. Fifteen beef producers adopted new management practices.
2. Ten dairy workers improved their management skills.

Source of Funding: USDA: Smith-Lever

Scope of Impact: Territory-wide

### **Program 3 - Eastern Caribbean Extension Outreach and Interchange**

The CES continues to provide leadership and coordination for the four agricultural organizations that have linkages in the Caribbean region: the Caribbean Food Crops Society (CFCS), the Caribbean Association of Researchers and Herbal Practitioners (CARAPA), the Caribbean Council of Higher Education in Agriculture (CACHE), and the University of Puerto Rico.

This year, CES sponsored the 9<sup>th</sup> Annual Caribbean Urban and Community Forestry Conference. This conference was held on the island of St. John, Virgin Islands, and gave participants the opportunity to visit the ecosystem of the island, which is 50% natural reserve. A total of 150 participants from the Caribbean islands attended this conference. The CES also sponsored the 40<sup>th</sup> Annual Caribbean Food Crops Society Meeting. This meeting brought scientists from the Caribbean, the southern U.S., and other foreign countries. A total of 70 papers and 10 posters were presented with a unique farmers' forum attended by farmers from all three Virgin Islands -- St. Thomas, St. Croix and St. John. A total of 200 participants attended this important conference.

During this period, CES received a \$9,000 grant as part of the national initiative on internationalizing extension. These initiatives were designed to assist land-grant universities in bringing about an international focus to extension programming. This program involved collaboration with other institutions in the Caribbean, such as Dominica, Grenada, the British Virgin Islands, with the University of Florida collaborating with the V.I. Extension Service.

A series of workshops and training were conducted in the Virgin Islands and Grenada. A total of 25 persons attended the workshops in the V.I. and 35 persons attended on the island of Grenada. In Grenada, participants from the University of Florida and the V.I. were able to share their experiences in the aftermath of a hurricane with the Grenadians who had just experienced Hurricane Ivan, a category 4 hurricane.

Workshop sessions covered: cross-cultural communication, Caribbean and international extension programs, participatory methodologies, and global exchange and interdependence.

Participants increased their organizational capacities in working effectively on local, regional, and international levels with diverse stakeholder groups. Extension educators were able to seek out and integrate information from international sources and experiences into local programs. The extension educators were able to help their clientele understand international perspectives and global interconnection. Also, participants were able to enhance their institution and professional network within extension delivery agencies in the V.I., Florida, and the Caribbean.

Output/Outcome:

1. Sixty-five persons increased their organizational capacity in working effectively on local, regional and international levels with their diverse stakeholder groups.
2. Sixty-five extension educators increased knowledge that would enable them to help their clientele understand international perspective and global interconnection.
3. Sixty-five participants were able to enhance their institutional and professional network within the extension system delivery agencies of the Virgin Islands, Florida, and the Caribbean.
4. Thirty-five extension personnel gained knowledge in hurricane preparedness.

Source of Funding: Internationalizing Extension - Capacity Building grant: \$9,000  
USDA-CES Smith Lever

Scope of Impact: Caribbean region

## **GOAL 2: A Safe and Secure Food and Fiber System**

### **Program 4 - Food Safety Education Program**

During the first quarter, thirty (30) participants took part in the Nutrition Short Course on St. Croix and St. Thomas. They received information on the basic food groups, food safety, and nutrition including the nutritional value of various foods, budgeting, reading labels, meal planning, and food preparation.

In October, the annual World Food Day observance was held and attended by 2,000 individuals. The nutrition component focused on preparation of goat meat, cucumbers and avocado for the seventy (70) participants who took part in the food demonstrations.

In November, in St. Croix, a pumpkin workshop was held with eighteen (18) adult participants and twenty-four (24) teens learned to prepare a variety of dishes made with pumpkin. They also learned about the nutrients contained therein. Some of the dishes were pumpkin bread, pumpkin cake, pumpkin tart, pie and ice cream. In St. Thomas, 10 persons attended the pumpkin workshop.

In December, the annual holiday baking workshop was held which included preparation of sweetbread, tarts, pies, fruitcakes and holiday drinks, i.e., Christmas punch and coquito. Approximately 35 persons attended over the two days. In St. Thomas, thirty (30) individuals took part in the Sweet Bread Workshop.

#### Impacts/Outcomes:

1. The thirty (30) participants in the nutrition short course experienced an increase in awareness of the importance of eight (8) sound nutrition principles in preparing meals for families and friends. They made an agreement to use 50% of those principles within the next two months during meal preparation.
2. The sixty-five (65) persons participating in the holiday baking classes received information on how to prepare sweet bread, tarts, fruit cakes and holiday drinks. This information will be initiated over the next month as preparations are made for the holidays. Considerable emphasis was placed on healthy substitutes for some of the more popular ingredients with little to no nutritional value.
3. Over 2,000 participants received information targeting healthy preparation of meals for families. They now know the 4 basic principles of nutrition ABC's received as a part of the World Food Day activities.
4. Two hundred, seventeen (217) persons took part in workshops and related program activities during this year. Of the 217 persons receiving information, 80% expressed a commitment to utilize the principles involved in preparing nutritious dishes.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

#### **Program 5 - Basic Food Safety Education for EFNEP and EFNEP Youth**

The annual Agriculture and Food Fair was held in February 2003 in St. Croix where over 30,000 persons attended. Several displays and exhibits focused on various components of the nutrition program including the food pyramid and proper serving sizes. Brochures to reinforce disease prevention messages were also disseminated.

The EFNEP clients were served on a continuing basis on both St. Croix and St. Thomas. Special recruitment efforts occurred in St. Thomas, resulting in 12 new EFNEP clients. Emphasis was placed on food preparation, basic food safety practices, personal hygiene and basic kitchen safety in working with these clients.

During this quarter, three (3) Head Start Centers were assisted with a total of 20 persons participating on St. Thomas. Parents and teachers were given information and demonstrations on food preparation, basic food safety practices, personal hygiene and basic kitchen safety.

Thirty-two (32) youth participated in the EFNEP Summer Teen Program on St. Croix. The program provided youth with information on planning, buying, preparing, handling, measurement, safety and storage of foods. Proper serving sizes and the importance of vitamins were also explained. The importance of using the proper utensils and equipment in the kitchen was also stressed. Teens also had the opportunity to engage in physical exercises to support an understanding of the relationship of good eating habits, fitness and generally healthy living. Forty-five (45) youth participated in this activity in St. John, and thirty-five (35) in St. Thomas.

#### Impacts/Outcomes:

1. Over 30,000 persons attended the Agricultural and Food Fair in St. Croix and St. Thomas, many of whom visited the EFNEP display which focused on information about hypertension, diabetes and cholesterol. Approximately 1,000 individuals received brochures and leaflets explaining the importance of taking care of ones' health by receiving routine screenings. Also, recipes developed to allow for nutritious meal planning were distributed. Nutritious food demonstrations were also conducted with approximately 200 persons taking part.
2. Many of the teenagers in the St. Croix, St. Thomas, and St. John Summer Program seemed to enjoy the opportunity to learn about nutrition basics as evidenced by their excitement for this class each day. Over 80% expressed an interest in attending this component if allowed after summer camp.
3. EFNEP clients received information and demonstrations on food preparation, basic food safety practices, personal hygiene and basic kitchen safety with emphasis on maintaining practices learned.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

### **GOAL 3: A Healthy Well-Nourished Population**

#### **Program 6 - Improving Nutrition, Diet and Health**

March 2004 was designated nationally as Nutrition Month with emphasis on obesity in children. This was observed locally in conjunction with the Department of Education on St. Thomas. A total of 180 students and teachers attended the meeting.

In St. Croix, a nutritious breakfast was held for the CES staff. Regular nutrition classes were also held during this month. Three vegetarian workshops were held with a total of 35 participants who had a chance to learn how to make walnut balls, carrot-mushroom loaf, sweet and sour tofu, brown rice and also fresh carrot juice. A diabetes workshop was also held with Dr. Letitia Henry who stressed the importance of recognizing the warning signs of diabetes as well as the importance of good nutrition in dealing with the disease, 55 persons attended.

April 2004, the Week of the Young Child Observance was held in St. Croix. Forty (40) parents and one hundred-thirty (130) pre-schoolers visited the Agricultural Experiment Station's sheep and fish farm on the UVI campus. These parents and pre-schoolers were given the 5 keys to good nutrition information and received demonstrations focused on how to prepare a nutritious snack.

In St. Thomas, May 2004, a pre-mother's day workshop was held in conjunction with the CYFAR Program where fifteen (15) persons participated. Individuals received the keys to preparing a nutritious meal for mother's special day with emphasis on low-fat, sugar-free, treats.

At the culmination of the nutrition short courses and workshops, a closing program was held to acknowledge participants' hard work in completing their cooking and baking projects over the six-week period. Twenty-three (23) persons participated and provided samples of dishes and baked goods to demonstrate their achievements to families and friends. Participants also were so enthusiastic about the classes that they wrote poems and read others to show their appreciation for the program.

During the month of September, staff planned for the fiscal year by preparing lesson plans, revising recipes and handouts to be disseminated for the next year.

#### **Impacts/Outcomes:**

1. Over four hundred and seventy (470) persons participated in nutrition and health workshops during the fiscal year; approximately 35% of all participants were youth. Participants indicated that they learned the importance of healthy eating, food safety, alternative ways of preparing appetizing and healthy foods and exercise.

2. Seventy-five per cent (75%) of participants expressed a change in behavior as a result of learning about the food groups, pyramid, diabetes, etc. which will lead to healthier food preparation and exercise

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

#### **Goal 4: A Greater Harmony Between Agriculture and the Environment**

##### **Program 7 - Urban Forestry**

The inventory of Remarkable Big Trees of the Virgin Islands continued and is in its final stages. Extension staff participated in television and radio interviews and other programs as well as the annual Caribbean Urban and Community Forestry Conference to educate the public as to the value and significance of these trees.

Neighborhood forestry programs are virtually non-existent and many homeowners only pay attention to trees if they create a problem for the house or are a source of friction between neighbors. To assist neighborhoods to develop an appreciation for trees, CES sent out questionnaires to two neighborhood associations -- Estate Bovoni on St. Thomas and a group of homeowners on Water Island. Water Island is of particular interest to CES because we have never held a workshop or seminar on that island. This would give CES some baseline information from which to develop programs to meet the need of each respective neighborhood.

##### **Impact/Outcome**

1. As a result of the television and radio interviews, Extension staff along with U.V.I. Professor, Dr. Robert Nicholls, the principal investigator, have been made aware of many more trees that will be part of the overall inventory. School teachers are now calling for lectures and presentations for their classes and for assemblies.
2. Preliminary results of the questionnaire indicate that many of individuals have very limited knowledge of tree care. The heads of both neighborhood organizations expressed the need for workshops and training and were quite enthused to know of CES' willingness to help improve the quality of life for the residents. They are looking forward to partnering with CES in the upcoming year.

Source of Funding: USDA: Smith-Lever

Scope of Impact: Territory-wide



## **Program 8 - Backyard Composting**

The University of the Virgin Islands Cooperative Extension Service received a \$5,590 grant from RCAP Solutions, Inc., of New Hampshire, to conduct two train-the-trainer composting workshops (one each on St. Croix and St. Thomas). These workshops were conducted in partnership with the Virgin Islands Department of Agriculture, V.I. Antilitter and Beautification Commission, and RCAP Solutions. Specifically targeted groups who were invited to send representatives included governmental agencies, non-profit organizations and environmental associations.

A total of 40 participants from 12 organizations increased their knowledge of composting by attending the rigorous two-day training activity, which included lectures, video presentations and practical 'hands-on' exercises. The classroom topics included the following: introduction to and history of composting, composting site selection, composting systems, structures and equipment, biology of composting, the ingredients and process of composting, compost pile management, and testing of compost. The practical exercises involved building, monitoring and troubleshooting the compost pile. A follow-up survey has been distributed to participants in determining how many residents have adopted the practices of composting.

Each attendee who participated in the training received a free compost bin and a compost thermometer. They were required to become actively involved in composting and encourage at least ten other persons from their agency or their neighborhood to become involved in composting.

During this reporting period a third composting workshop was conducted at the annual Estate Bordeaux Agricultural Fair, which primarily targeted farmers. Approximately 25 clients increased their awareness of the principles and procedures involved in the art and science of composting. All attendees expressed a commitment to practicing composting as a part of their farm or crop production activities. Thus far, approximately 20% of the participants have adopted the practice of composting on their farms.

Source of Funding: RCAP Solutions, Inc. grant

Scope of Impact: Territory wide

## **Program 9 - Urban Gardening**

Preparing the youth for a future in the field of agriculture will always be a primary objective of the urban gardening program. Presenting lectures and demonstrations to young people is one of the many avenues Extension staff uses to convey our messages. During the reporting period, extension Staff presented lectures about agriculture in general to three (3) Headstart programs in the district.

Approximately 21 children and 12 adults were introduced to imported and exported vegetables and culinary herbs.

Encouraging the creation and maintenance of school gardens is one of the many objectives of the urban gardening program. Extension staff assisted the Joseph Sibilly Elementary School in reestablishing their school garden. One teacher and approximately 25 students were involved in the project. Collectively and with the assistance of Extension staff the students were able to restore the garden that was destroyed by hurricanes and other storms since 1995.

Extension staff continued the tradition of assisting the 4-H summer camp giving young people an opportunity to grow a vegetable or herb seedling to maturity. Eighty (80) campers and 12 staff members learned how to transplant and care for tomato, okra, pak choi, sweet pepper, basil and lemon grass.

The University's Family Life Center conducted a six-week summer program for at risk youth on the St. Thomas campus. As part of their learning experience they were given the option of choosing learning tracks of interest. Eleven of the 34 students chose the agriculture track. As part of their learning experience, Extension staff partnered with the Family Life Center counselors to provide instruction on several subjects including identification of local fruit trees, preparing book reports about particular fruits and various types of gardens. They were also taught how to transplant and care for vegetable seedlings.

As part of the Seventh-day Adventist School's nutrition program, Extension staff gave a series of lectures to four classes on the uses of medicinal plants based on the CES publication "Traditional Medicinal Plants of St. Thomas St. Croix and St. John." The students also had the chance to handle live specimens of some of the plants that were registered in the book. Approximately 45 students and 4 teachers participated in the learning sessions.

A group of teachers from the E. Benjamin Oliver School held a five week summer tutorial for elementary school aged children. As part of the overall learning process, Extension staff was invited to speak to the students about plants and gardening. Twenty-two (22) students and three (3) staff members were given tomato, basil, or sweet pepper plants donated by the Department of Agriculture to transplant from seedling trays into larger pots. These plants were then taken home by the students to raise.

#### Impact/Outcome

1. The Joseph Sibilly School Garden Club was able to grow enough salad vegetables (lettuce, tomatoes, radishes, sweet pepper) that during one lunch period, they provided the entire class a salad for lunch. The students are so enthusiastic about gardening that more than half the club has started container gardens at home. The club has grown as a result of the enthusiasm of the current club members.

2. Students that attended and participated in the medicinal plant lecture increased their knowledge in identifying local herb. Extension staff has been responding to calls and requests for more information from parents and relatives of student that attended the lecture. Some call also included the possibilities of growing some herbs in their garden.
3. Parents of some of the 4- H campers expressed appreciation to Extension staff for exposing their children to caring for plants. Some of the children had become so attached to their plants so that those who had been growing basil wouldn't allow their parents to use the plants in cooking or tea. Others actually saw a tomato grow for the first time and tasted a fresh tomato for the first time.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory wide

### **Program 10 - Water Quality Protection**

***Brief Description:*** Educational programs targeting the general public, youth, businesses, professionals, government agency personnel, homeowner associations and community organizations were conducted to teach individuals about drinking water quality (specifically related to cisterns), septic system operation & maintenance, pollution prevention on construction sites, nonpoint source pollution, wastewater management, least-toxic household products, watershed management & land use, and coastal water quality. Home water quality test kits were distributed to individuals in both districts, and results and information on practice implementation collected. Training and demonstration projects in erosion, sediment & stormwater control, and alternative onsite sewage disposal system design & installation provided excellent "hands-on" experiences for local government personnel and professionals.

Impact/Accomplishments:

1. Ten (10) people tested their cistern water with the last of the water testing kits procured with the EPA Environmental Education grant and 3 indicated that they implemented recommended treatment practices (monthly chlorination, filtering, cistern pipe screening, replace piping, clean gutters).
2. Over 300 (SCI 100) youth & 1600 (NPS Newsletter), 1151 (healthy homes, etc.) adults increased their knowledge and awareness of NPS pollution issues and best management practices to protect and improve surface and ground water through workshops, presentations, fairs, media outreach (TV & radio talk shows, radio PSAs), CES publications, demonstration sites, and individual contacts. Over 200 clients reported passing along information & materials to friends, family, clients, and adopting best management practices, such as using native or water-conserving plant materials, soil conservation methods, environmental

landscaping, proper septic system siting, design, operation & maintenance, use of least-toxic household products, reducing NPS pollution.

3. Over 80 (NPS Conference) business people, local government personnel, decision-makers and development professionals increased knowledge and awareness of nonpoint source pollution issues through training, conferences and technical assistance consultations, and 92% adopted at least one BMP to protect drinking water, or to protect and improve surface and ground water by implementing erosion & sediment control practices, retrofitting failing septic systems, stream restoration, using least-toxic household products or properly disposing of household hazardous waste.

Sources of Funding:

CSREES Regional Water Quality Coordination Grant – \$137,671.10 (FY 2001-2003)

DPNR §319 Magens Bay alternative OSDS grant – \$64,000 (FY 2000 multi-year grant)

EPA Environmental Education grant (VI\*A\*Syst outreach) – \$14,130 (FY 2001-2003)  
– completed

CSREES/HUD Healthy Homes grant – \$4,300 (FY 2001-2003)

NOAA/DPNR-CZM Smart Growth grant – \$18,000 (FY 2002-2004)

DPNR §319 ESC Education & Outreach grant – \$20,000 – two-year grant extended to year 3 (FY 2000-2003)

V.I. Newsletter – \$19,570 §319 grant (remainder FY 2000 grant + FY 2002 2-year grant, continuing project renewed bi-annually)

V.I. Nonpoint Source Committee – \$6,600 §319 grant (continuing project renewed yearly) Smith-Lever

Scope of Impact: Territory-wide; also with Region 2 water quality coordination project (UPR, Rutgers, Cornell, Region 2 EPA/CSREES Liaison); assistance/information provided to New York, Florida, Virginia, Wisconsin, Puerto Rico, British Virgin Islands, USDA-NRCS, U.S. EPA.

### **Program 11- Natural Resources and Environmental Management**

***Brief Description:*** Educational programs targeting the general public, youth, businesses, professionals, government agency personnel, homeowner associations, community organizations, and the university community were conducted to teach individuals about urban forestry, habitat preservation, native & endangered plant species, native plant propagation, invasive plants, environmental landscaping, and ethnobotany. Training, demonstration and research projects in tree conservation and restoration (urban forestry), environmental landscaping, Virgin Islands natural history (for ecotourism), building nature trails, medicinal properties of native plants, natural products, and rapid ecological assessment provided excellent “hands-on” experiences for local government personnel, educators and professionals.

Impact/Accomplishments:

1. Over 2300 youths and adults increased their knowledge and awareness of V.I. natural resource management issues and best management practices to preserve & protect native plants & habitats, implement environmental landscaping, conserve resources and promote ecotourism through workshops; classroom, youth & community group presentations, hikes, fairs, exhibits and media outreach (TV & radio talk shows, radio PSAs), and individual contacts. About 75 % indicated (through testing, letters and personal communications) that they became more aware of natural resource management issues and the value of adopting BMPs to protect native trees and habitats, and resource conservation.
2. Over 30 business people, local government personnel (including teachers), decision-makers and development professionals increased knowledge and awareness of habitat protection, environmental management and resource conservation issues through demonstrations, conferences, training and technical assistance consultations, and at least 30 adopted BMPs to protect native trees and habitats, and conserve resources or indicated that they would introduce this information to their students.
3. CES continued its partnership with the UVI Science and Math, History Divisions to incorporate lessons on native plants, Virgin Islands vegetation communities, resource conservation, and chemistry of commonly used medicinal plants into class curriculums, helped maintain of grant-funded campus beautification and informal learning projects, and collaborated with UVI researchers & students on projects to propagate native trees to restore vegetation patches on the UVI St. Thomas campus, investigate native plant biochemistry for a natural products research project, and inventor landmark trees of cultural interest in the Virgin Islands. CES also continued to work closely with the UVI St. Thomas Physical plant, providing assistance with campus beautification projects, developing tree maintenance & landscape plans for both campuses, training staff in proper erosion & sediment control practice installation, and developing a Magens Bay beach beautification, maintenance and management plan.
4. CES, in partnership with UVI's Conservation Data Center and, is nearing completion of a 150-page field guide depicting Virgin Islands vegetation and marine communities and classification systems. CES is co-researching a 100-page publication featuring Virgin Islands landmark trees including natural and cultural history, as well as a tree inventory.

Source of Funding: Smith-Lever

Urban & Community Forestry VI Habitats Field Guide grants –  
\$40,000

Scope of Impact: Territory-specific; also consultation with Sweet Briar College and Univ. of Santo Domingo researchers, assistance/ information provided to New York, Florida, Georgia, Puerto Rico, British Virgin Islands, Harvard Univ., USDA-NRCS, US-FWS.

**Key Theme - Soil Erosion (this theme is also included under reporting for the Water Quality theme)**

**Brief Description:** Soil erosion continues to be a considerable water quality and environmental threat in the Virgin Islands. Poor land clearing and landscaping practices are negatively impact flora, wildlife, soil, and water resources. Sediment resulting from soil erosion on construction sites, dirt roads and other disturbed areas is the largest pollutant of Virgin Island waters, by volume. Recent studies conducted by V.I. National Park researches have documented significant coral reef ecosystem degradation resulting from the effects of sedimentation. UVI-CES was awarded a two-year \$319 grant to provide education and training in the design and implementation of low-impact developments and successful erosion and sediment control practices (BMPS) to the construction industry (architects, contractors, draftsmen, developers, and engineers).

Impact/Accomplishments:

1. Ground cover and vetiver demonstration plots and the porous pavement parking lot at the CES St. Thomas Home Demonstration Garden were maintained. Erosion control demonstrations were expanded to the UVI's Rock Archive Display site near the UVI Sports and Fitness Center, where native ground covers & other plants were continually propagated & planted to test the stabilizing effects of various ground covers and to demonstrate vegetative stabilization. Terraces, porous surface walkways, irrigation and interpretive signs were installed to demonstrate erosion & stormwater control.
2. CES completed the Erosion & Sediment Control Demonstration Project with the printing of the ***Sediment & Erosion Control for Construction Sites*** field guide, a reference companion to the *V.I. Environmental Protection Handbook* (a guidance manual produced for the V.I. Department of Planning & Natural Resources which describes planning, erosion, sediment and stormwater control practices for use on construction sites) revised in 2002. This field guidebook was developed for use by contractors in the field, and also for distribution to the general public. CES delivered a poster presentation at the NPS conference describing the V.I. Environmental Protection Handbook and pocket field guide. The *Sediment & Erosion Control On Construction Sites Field Guide* and the handbook were promoted and distributed and advertised in local media. To date, over 150 Field Guides and 200 Handbooks have been distributed.
3. CES successfully promoted water quality Best Management Practices (BMP's) by assisting with the proper installation of silt fences on over 35 construction sites.

Based on CES recommendations, more than 47 homeowners planted ground covers on their properties to control erosion, 5 livestock farmers adopted BMP's by reducing the number of animals in pasture, and more than 7 unpaved roads were paved to reduce the polluting effects of sediments in stormwater runoff.

4. The St. Thomas hydroseeder was loaned out on 2 different occasions to stabilize disturbed areas at government construction sites including the Housing and Finance Authority Fortuna development on St. Thomas. Increased use of this practice by the construction industry in St. Thomas is a success story of this project. Assistance was also provided to over 20 clients, by request, on erosion and sediment control practices, plant materials, and stormwater control.

Source of Funding: DPNR §319 ESC Education & Outreach grant – \$20,000 – two-year grant extended to year 3 (FY 2000-2003 *[completed in Dec. 2003]*)

Scope of Impact: Territory-wide; technical assistance also provided to local government agency personnel and professionals in Puerto Rico and the British Virgin Islands.

**Key Theme - Environmental Public Policy (*this theme is also included under reporting for the Water Quality themes*)**

***Brief Description:*** Local policy-makers and regulators lack access to complete and unbiased information on which to base their decisions and, often, have an incomplete understanding of complex environmental issues. Local agencies charged with environmental regulation and stewardship lack the resources, personnel and expertise to deal with the myriad of problems they are faced with on a daily basis. Extension has the unique opportunity to play a critical and lead role in collecting, developing and disseminating information relating to water resources, water quality and watershed management and promoting public awareness of environmental issues, with special emphasis on water resource protection and watershed planning. In addition, Extension is in a position to facilitate the interaction of community groups and local leaders to address these problems.

**Impact/Accomplishments:**

1. Extension is the primary technical assistance resource for the Magens Bay Authority, a semi-autonomous government agency that manages the 57-acre Magens Bay beach and park property, assisting in securing grant funding for projects, providing recommendations for landscaping, resource management and conservation, trail development, arboretum restoration, and wastewater management. Extension partners with the National Park Service to implement the restoration of Buck Island Reef National Monument by providing training and demonstrations regarding the removal of invasive plant species. CES is also a

primary technical assistance resource on trail building, mangrove restoration and conservation strategies for the 60-acre South Gate Nature Preserve managed by the St. Croix Environmental Association.

2. Extension is a significant technical assistance resource for the Virgin Islands Department of Planning and Natural Resources (DPNR), the local environmental regulatory agency. CES routinely provides input and assistance to DPNR's Divisions of Environmental Protection & Coastal Zone Management in regards to policy issues related to land development and habitat protection, technical review of environmental assessment reports, watershed management plans and The Comprehensive Land and Water Use Plan, provision of information on plant materials for erosion control and alternative wastewater treatment systems, and training in stormwater runoff estimation and BMP design and construction. Extension is also a significant leader in DPNR advisory committees, especially the V.I. Nonpoint Source Pollution Committee, for which CES manages the Committee's operating budget, funded by a \$319 grant; produces the Committee's quarterly newsletter, funded by a separate \$319 grant; and coordinated the Committee's 8<sup>th</sup> annual Nonpoint Source Pollution conference on December 4-5, 2003. CES also provides DPNR's Historic Preservation Division with information on cultural and natural history.
3. Extension provides technical assistance to and is a primary participant in numerous government/NGO advisory committees, including the Urban Forestry Council, VI RC&D, Great Pond Advisory Committee, Marine Park Advisory Committee, Forest Stewardship Committee, Anti-Litter & Beautification Commission, and The Nature Conservancy Forest Legacy Program advisory committee.

Source of Funding:

V.I. Newsletter – \$19,570 §319 grant

V.I. Nonpoint Source Committee – \$6,600 §319 grant (continuing project renewed yearly)

Smith-Lever

Smart Growth - \$18,000 subcontract to DPNR-CZM for NOAA-CSC grant (FY 2002-2004 project)

Scope of Impact: Territory-specific



## **GOAL 5: Enhanced Economic Opportunity and Quality of Life for Americans**

### **Program 12/Program 13 – Limited Resources Individuals and Families / Marketable Skills**

During October, eight (8) participants completed the Beginner's Sewing/Clothing Construction class. Participants completed skirts, blouses, shirts, pants, lingerie and dresses. The Home Décor and Gift Items Workshop were held with fifteen (15) persons enthusiastically making items for the home and for holiday gifts. Items made include decorative towels, curtains, throw pillows, place mats, tablecloths, napkins, bag dolls and floral arrangements for the home. A prominent part of the workshop was the closing program where family and friends had an opportunity to view the many items completed.

During the second quarter, from January to March 2004, eight (8) participants worked on recycling items for display at the Agriculture and Food Fair. Over 30,000 persons visited the annual fair. As part of the Family & Consumer Sciences display, participants in the clothing construction and arts and crafts classes provided items for review by the fair's participants. Materials used included plastic bottles, toilet paper and paper towel cylinders, foam, egg cartons, cardboard, newspapers, scrap fabric, cans, wire hangers and other discarded items. From these discarded items produced baskets, flowers, place mats, wall hangings, piggy banks, rag rugs, rag dolls, handbags, throw pillows, pot holders, mocko jumbies, origami, wind chimes and swans. The Beginners' Sewing Class was initiated with six (6) participants. An Intermediate/Advanced class began with twelve (12) participants.

During the third quarter, clothing construction participants continued to work on garments for modeling and displaying at the closing program for the fifteen (15) participants.

A one day workshop was held entitled, "Color, Lines and Designs" in April where a total of fifteen (15) participants were exposed to knowledge regarding colors and personality, impact of color in our lives, elements of design and the effects of lines and the types of lines in clothing.

Also during this quarter, a two-day workshop entitled, "Inner & Outer Beauty" was held in May with twenty-two (22) persons in attendance. There were eight (8) presenters giving information and demonstrations on topics, such as: self-esteem, dressing appropriately, spiritual radiance, hair care styling and alternatives, facial and skin care, fitness, charm, poise and manners. A closing ceremony and display activity was held in June with all participants receiving certificates.

Thirty-two (32) youth involved in the Summer Academy received information on basic sewing machine operations and sewing machine techniques and skills were a part of the curriculum. Some students had not attempted to sew previously but were able to

make -dresses, skirts, capris, shorts, skirts, shirts, blouses, tank tops and pullovers- by the end of the summer. Many decorated potholders, throw pillows and hair scrunches. Participants got an opportunity to model their items before family and friends at a closing program. Certificates of participation were also given.

A seven-week, Basic Computer Training Course was held during the first quarter which focused on how to use Microsoft Windows 2000, including word processing, drag and drop, boot up, shut down, right click, setting-up e-mail accounts, etc. This short course instruction strategy included inviting family members to assist in helping participants become familiar with the computer – to offset some of the anxiety associated with using the equipment the first time. Participants met twice per week in the evenings, with individual tutorials available on a third evening. Seven (7) adults received instruction, with 85% completing the course.

#### Impacts/Outcomes:

1. Over one hundred eighteen (118) persons gained information and skills in gift item and home decoration making and clothing construction; forty-seven (45%) were youth. Low-income families were targeted for marketable skills development. Tremendous savings were anticipated by families whose youth planned to make clothes for the coming school year.
2. New skills and techniques were acquired by all participants, both at the beginners and advanced level. Over 35% had never sewn previously.
3. Over 20% of the home decorating items on display were purchased due to their uniqueness and the creativity demonstrated, i.e. potholders, pillowcases, aprons, decorative towels.
4. New skills were achieved by the basic computer training participants, many of whom had not attempted to use a computer previously. Eighty-five percent (85%) completed the seven-week course and can now use Microsoft Windows 2000.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

### **Program 14 - Volunteer and Youth Leadership**

Volunteer Leader Orientation and Training was held during the first quarter of the year - for 12 adult volunteers and 3 teen leaders. The participants were 80% females, and 86% black. Workshops and hands-on training were provided on the following topics: UVI as a land-grant institution; 4-H as the leading youth-development outreach program of the land-grant system; orientation to 4-H program goals and objectives and

the program calendar of activities. Participants also received information on the ages and stages of youth development, as well as interest motivated project development.

Twenty-eight (28), 9-12<sup>th</sup> graders from the St. Croix Educational Complex Vocational School, Volunteers Learning Through Service (VLTS) and the Vocational School National Honor Society chapter, formed a teen leadership and service group to assist the 4-H/Youth Development program in its implementation of our annual World Food Day and V.I. Agriculture and Food Fair Youth Activities. In addition to learning such valuable life skills as organizational and time management, and project planning and development, teens earned credit for school-based community service requirements while fulfilling their responsibilities with this effort. Of the 28 youth involved, it is worth noting that 18 or (65%) were males!

Recognizing the importance and impact of community-based service learning to positive youth development, our Extension Agent and CYFAR Program Assistant participated in and completed the online course: Community-Based Service Learning 101, offered through the Michigan State University 4-H Youth Development Program and the Michigan Community Service Commission, with support from the Corporation for National and Community Service under Learn and Serve Grant.

During the spring quarter, the 4-H program received notification that the V.I. Healthy Start Initiative – Healthy Lifestyles Grant had been funded. A small grant was awarded to target the growing problem of obesity, especially among the youth population. Twenty-two (22) youth, 50% boys and 50% girls, learned about the many components of developing and maintaining a healthy lifestyle. Two teens served as junior counselors. The grant package was developed by the V.I. Healthy Start Initiative, a youth-adult partnership led by the UVI-CES 4-H Youth Development and CYFAR Programs; in conjunction with partners which included the St. Croix Vocational School Nursing Program, UVI Nursing Division, Per Ankh Center, V.I. Department of Health – Chronic Disease and WIC Programs, and the Leatherback Clovers 4-H Club Foods Project.

#### Impacts/Outcomes:

1. Over forty (40) youth, staff and volunteers participated in volunteer and youth leadership development activities. Leadership development and service learning were the most prominently emphasized topics.
2. As a result of staff participation in the Community-Based Service Learning 101 Online Course, they are now energized and look forward to reemphasizing the positive youth development attributes that evolve through community service. Community service will continue to be a key component in our club system.
3. The 4-H/Family and Consumer Sciences Program was funded to conduct a Healthy Lifestyles Program designed to educate young people, ages 8-12, on developing healthy lifestyles and preventing obesity. Youth received this

information and demonstrations over a period of six weeks during the 4-H Summer Academy. As a result of an initial survey, only 20% of the youth ate breakfast regularly. At the end of the program, 80% reported doing so.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

### **Program 15 - 4-H Club Systems**

The eight (8) 4-H clubs in St. Croix, St. Thomas and St. John had a total enrollment of 460 members, 28 adults and 8 teen leaders.

The 4-H clubs in St. Croix had a total enrollment of 278 members with 19 adults and 5 teen leaders. In addition to community service - project work included: arts and crafts, bicycles, biotechnology, communication arts, computers, foods and nutrition, gardening, health and fitness, horses, leadership development, pocket pets, rabbits, and sewing. St. Thomas/St. John 4-Hers participated in similar activities and focused on the annual King and Queen of the band competition and Children's Carnival Troupe, where they were awarded first and second place respectively. The 4-H troupe has won an award for the past 11 years!

Program staff participated in the planning and implementation of World Food Day in October on St. Croix. For the first time, youth activities included the "Hunger Banquet" involving five (5) schools and two (2) youth groups. As a result of this activity, students realized the importance of and challenges to equitable distribution of food around the world. In addition, eight (8) schools joined hands in the "Kids CAN Make a Difference" Food Drive. They were able to collect nearly 2,000 pounds of non-perishable food items. Foods collected were then donated to My Brother's Table and Caribbean Catholic Charities. The "House of Cans" Competition provided seven (7) participating teams the opportunity to don hardhats and special t-shirts as they demonstrated their creativity, teamwork and community spirit in building a House of Cans. St. Croix Rotary Mid-Isle helped to defray the cost of these valuable educational activities.

Under the leadership of the Office of Highway Safety, 4-H, along with the Virgin Islands Police Department Bicycle Patrol, Grove Place Weed and Seed and the VI Boy Scout Council, continued to work to promote bicycle safety. As a part of this effort, the second Bicycle Rodeo was held in Estate Grove Place during October. Thirty-five (35) youth and adults presented their bikes for inspection and identification, and completed the bicycle-driving course. Twenty-eight (28) youth and seven (7) adults received their official bicycle license and registration in accordance with the V.I. Code.

The 4-H and CYFAR staff on St. Croix attended the Community Cuisine train-the-trainer workshop during the first quarter. As a result of this training, a

train-the-trainer workshop resulting in eighteen (18) youth and adults representing 4-H, CYFAR (STT), UVI-CES staff and student assistants, Boys and Girls Club, Helping Children Work (HCW), St. Croix Christian Academy and St. Mary's School, received training in foods, nutrition, and the culinary arts.

In St. Thomas/St. John and St. Croix, there is an ongoing collaboration between 4-H/CYFAR which includes, but is not limited to: homework assistance, agricultural projects, dance, baking and other special activities within CES which impacted seventy-five (75) at-risk youth from 5-18 years of age.

The V.I. Agriculture and Food Fair in February provided one of the biggest opportunities to celebrate the success of 4-H programs. Three project groups conducted illustrated talks/demonstrations under the UVI-CES Workshop Tent. Topics included: Healthy Snacks for a Healthy Heart; DNA separation; and "Hop Into It". A Bottle Composting Workshop was also presented by the Anti-Litter and Beautification Commission Education Program.

Community service projects in the St. Croix district included: Happy Hoppers Rabbit + 4-H Club assistance with traffic control on the bike route of the St. Croix International Half-Ironman Triathlon in May. The St. Croix program also joined hands with the St. Thomas 4-H program to bring holiday cheer to the residents of the Queen Louise Home for Children in Estate Concordia. Caroling, gifts and goodie bags were prepared by 4-Hers and shared with holiday spirit with the kids.

#### Impacts/Outcomes:

1. The eight (8) 4-H clubs in the territory (St. Croix - 5, St. Thomas- 2 and St. John - 1) had a total enrollment of 460 members, 28 adults and 8 teen leaders. Two hundred and seventy-eight (278) members of 4-H clubs, 19 adults and 5 teen leaders participated in 4-H activities on St. Croix. Other clubs also participated in similar activities in St. John and St. Thomas. One hundred percent (100%) of the youth and adult participants increased their knowledge through 4-H project work as exemplified by the positive feedback indicating improved self-esteem and the desire to stay in 4-H; 22% of the youth strengthened their communications skills by presenting illustrated talks/demonstrations at a club meeting or other 4-H activity. Other 4-H participants reported that they were able to successfully sell produce from their gardens, utilize their computer skills in putting together a Power Point presentation, and use the science information and research techniques to strengthen their science fair entries.
2. 4-Hers and other youth learned the importance of bicycle safety through the seven steps to safe bicycling. This increased awareness of the 35 youth and their peers will have a much wider influence leading increased bicycle safety on the islands. Thirty-three youth and adults received their official bicycle license and registration as required by law.

3. Through community service efforts, ten (10) 4-Hers visited a foster program and gave gifts to the children building both hope and inspiration for the youth.
4. Twenty-two (22) youth gave educational presentations at the V.I. Agriculture and Food Fair. As a result of their participation, they improved their public speaking and presentation skills, won awards and demonstrated the benefits derived from becoming involved in 4-H.
5. Through the 4-H Bicycle Safety Project, partnerships were formed with Boy Scouts, Department of Public Safety- Office of Highway Safety and the Grove Place Weed & Seed Program.

Source of Funding: USDA Smith-Lever

Scope of Impact: Territory-wide

### **Program 16 - 4-H Summer Day Camp Program**

Over two hundred seventy-five (275) youth, ages 5-14 attended the summer day camp program in St. Thomas, St. John and St. Croix. Three site coordinators, twenty senior counselors, twenty-five junior counselors, five instructors, and fifteen volunteers served as the staff for this past summer camp. Participants took part in several educational field trips, i.e. America's Paradise Gym, Per Ankh Center, Estate Caledonia, Very Long Base Array Telescope, St. George Botanical Gardens, Territorial Court, WTJX Channel 12, WJKC Isle 95, Fire Station, St. Croix Dairy Products, the Nature Conservancy and Fort Frederik Museum.

This year, 22 summer camp participants on St. Croix had the unique opportunity to learn about nutrition, diet and health via funding from a Healthy Lifestyles Grant from the National 4-H Council. When surveyed, 30% of the campers indicated that they did not eat breakfast regularly. As a result, we incorporated a "Breakfast Club" one morning per week. Easy to prepare, tasty recipes were introduced, made and sampled to the delight of the kids. Cardiovascular measurements were taken; and fun, dynamic exercise was included in our daily plans. One hundred percent (100%) of the participants indicated that they would enroll in a similar program again. Parents were also very supportive of this effort to teach them and their children about how to adopt healthy lifestyles.

Once again, the 4-H/FCS staff received funds from the VI Energy Office (VIEO) to purchase materials and supplies in furtherance of our science education initiative. Through more Extension collaboration and partnership with the VIEO and the Environmental Protection Agency (EPA), the UVI-CES 4-H Summer Day Camp Program received funding to host and implement a pilot energy education program entitled, "Camp KEEP" on St. Thomas. Twenty-four (24) youth, ages 11-14, learned about the different forms of energy, new and emerging technologies with application to

the Virgin Islands, energy conservation strategies and the importance of renewable energy resources.

Remaining an integral part of our youth development efforts, over 100 youth on all three islands, ages 8-12, took part in the Mini-Society program. Participants began the program by experiencing scarcity situations that ultimately motivated them to establish their own society, complete with name, flag and currency. Within this self-organizing, experience-based society, they independently evolved businesses to meet market opportunities. As a result, they developed and utilized critical thinking, problem solving, practical arts and cooperative learning skills.

Other areas of note in our summer program included: computer technology, clothing construction, nutrition, art, modeling and personal development, English, mathematics and science.

#### Impacts/Outcomes:

1. Ten percent (10%) of the Summer Camp participants expressed an interest in pursuing energy- related vocations.
2. Summer camp participants were exposed to a minimum of four educational field trips to enhance their camp experience.
3. Youth learned the four steps to developing a business plan, working with a make-believe country, setting up currency, and other aspects of starting a business.

Source of Funding: USDA Smith-Lever; Kauffman Foundation Grant; VI Energy Office; Healthy Start-National 4-H Council; CYFAR Grant, (Weed & Seed Program & Department of Labor/In-kind)

Scope of Impact: Territory-wide

#### **Stakeholders' Input:**

The Cooperative Extension Service (CES) seeks to involve all the stakeholders or their representatives in the process of developing educational activities. The CES Advisory Council is comprised of nine community leaders who are representatives of the respective programs in Extension. Their main purpose is to provide guidance and direction to the agency in its community outreach activities. They advise, counsel, and confer on the development of annual and long-range plans; represent the attitudes, opinions and feelings of stakeholders with regards to CES' outreach activities and to assist in the development of new activities; assist in communication between CES and its stakeholders. These nine members are also members of different community groups and some are also members of the 4-H Advisory Council and the Homemakers Club. This group meets every quarter. Special meetings are held as needed by the Council or

are called at the discretion of the CES State Director. This group evaluates Extension programs and makes recommendations that are used to modify or refocus the different programs. Community groups are sometimes invited to enable them to give ideas and information to be used in their development of CES programs. The Chairman of the CES Advisory Group is also a member of the Research and Public Service (RPS) Advisory Council. CES is a unit within the Research and Public Service component of the University of the Virgin Islands.

An evaluation form is given to participants at all seminars, meetings, and workshops. Participants normally fill out these forms and a computation is made at the end of the session to determine clientele response and needs. Farm and clientele visits are made occasionally to determine the impact of the program and suggestions made by clientele are recorded and are used to make improvements in educational activities.

CES, in conjunction with the V.I. Department of Agriculture, St. Croix Farmers in Action, Inc. – a local farmers group, conducted a Farmers' Forum for local producers and policy makers. Out of this forum, CES conducted a six-week livestock production and management shortcourse. CES in conjunction with the USDA Environmental Protection Agency and the local Department of Planning and Natural Resources conducted public listening sessions in both districts. These listening sessions were advertised through the two local newspapers, the University and RPS newsletters and the local television and radio stations.

Stakeholders' involvement in Extension programs has helped CES in providing a good public image in the community and has also helped CES in setting priorities and addressing emerging issues in the community.

CES has also established collaboration with the Department of Health, the Department of Human Services, the Department of Labor, the Virgin Islands Housing Authority, UVI Social Sciences and Humanities Divisions, and the office of the Governor to help address at risk issues in the community.

### **Program Review Process:**

No significant changes have been made in the program review process for the five-year Plan of Work.

### **Evaluation of the Success of Multi and Joint Activities:**

Three main joint research and extension programs were undertaken to address the critical need of the farming community in the Virgin Islands: the Sustainable Agriculture Program, the Beef Dairy and Livestock Program, and Crop Production Shortcourse. Under the Sustainable Agriculture program, several activities were undertaken to emphasize alternative agricultural management practices. Workshops, seminars, and demonstrations conducted addressed sustainable agriculture practices in the production of various fruits and vegetables in the Virgin Islands. CES, AES and



their collaborators worked jointly in hosting a farmer's day that was attended by the targeted clientele on sustainable agricultural practices. This clientele consisted of all the small farmers, medium and large producers and urban and home gardeners interested in sustainable agriculture practices.

The objectives of these programs were to combine resources and also provide a holistic approach in addressing producers concerns. The response has been overwhelming; there has been an increase in program participation and producer confidence in having their concerns addressed in a timely manner. There has also been an increase in the number of producers selling their produce in the farmers' market. Resources are also being utilized more efficiently.

Joint CES and AES staff provided training, information and technical assistance to strengthen participants in the beef, dairy and small livestock program. AES conducted semen evaluations on breeding bulls for local farmers, especially those who could not own their own bulls to use in breeding and improving their animals. Scientific and relevant information to ensure proper management practices were disseminated to program participants, and both CES and AES staff conducted workshops and demonstrations for these producers. CES, AES, and the Department of Agriculture staff joined together in helping livestock producers in identifying their animals.

These joint programs assisted Virgin Islands' farmers in being able to produce vegetables and culinary herbs out of season by utilizing irrigation and organic mulching techniques. The program also encouraged more producers and home gardeners to start producing more organic vegetables for sale at the farmers' market. Livestock producers have also started identifying their animals and using quality bulls for their breeding program. This has also helped to increase the rolling herd average of the dairy farms in the Virgin Islands. These programs have been very effective by allowing more people to participate in educational activities and utilize services of the research and extension specialists. These joint programs have also brought research and extension scientists together to address critical agricultural concerns of the farming community.

### **Multistate Extension:**

N/A. Although there are no formal multistate extension activities at this time, there is significant inter-agency coordination and collaboration of extension programs. Also, UVI/CES, the University of Florida-Institute of Food and Agricultural Sciences collaborated in conducting training and exchange of personnel in fulfillment of a Capacity Building Grant in Internationalizing Extension. CES conducted two workshops, one in St. Croix and the other in Grenada, with personnel from the University of Florida-IFAS Extension and Florida A&M University. Other collaborations were between the University of Puerto Rico and the University of the Virgin Islands in a grazing management and sustainable agriculture project.

In an effort to reach the greatest number of stakeholders and also maximize resources of CES, we have been involved with other government and private agencies in

collaboration and coordination of programs and activities. Programs have been held with the USDA Farm Service Agency, Department of Health, Department of Housing, Department of Labor, Department of Education, Department of Justice, Department of Human Services, and the Department of Agriculture.

These inter-agency coordination and collaborations have made CES more efficient in reaching target audience, leveraging resources to cover more program activities and have also enhanced program delivery. These joint efforts have also helped in providing a holistic approach to the needs of the clientele.