

ANNUAL REPORT

COOPERATIVE EXTENSION SERVICE

UNIVERSITY OF THE VIRGIN ISLANDS

Fiscal Year 2000

OVERVIEW STATEMENT

**FY 2000 ANNUAL REPORT
UVI/COOPERATIVE EXTENSION SERVICE**

The Cooperative Extension Service (CES) of the University of the Virgin Islands (UVI) is pleased to submit its FY 2000 annual report. This report is based on the 2000-2004 Plan of Work (POW), using the five national goals established within the mission area of the Cooperative State Research, Education and Extension Service of USDA.

Using the five goals and objectives as our main focus, CES developed 16 strategic programs that positively impacted the lives of the people of the Virgin Islands in a manner that is beneficial and long lasting.

GOAL 1: An agricultural system that is highly competitive in the global economy.

Under this goal, one of the programs developed was Sustainable Agriculture. During the reporting period, several activities were undertaken to emphasize alternative agricultural management practices. The Mango Melee, an annual event that is co-sponsored by CES and held on both the districts of St. Croix and St. Thomas, was an outlet where sustainable agriculture practices was demonstrated. Workshops addressed not only sustainable agricultural practices in the culture and production of mangoes, but of bananas, plantains and papayas. Over 3,500 farmers, gardeners and others interested in sustainable agricultural practices attended these workshops. CES also joined in partnerships with other collaborators, namely, the UVI/Agricultural Experiment Station and the VI Department of Agriculture, in hosting town meetings and other workshops to establish awareness of the targeted clientele on sustainable agricultural practices.

Additionally, CES staff continued to provide training, information and technical assistance to strengthen participants of the beef, dairy and small livestock program. Scientific and relevant information to ensure proper management practices were disseminated to program participants, and CES staff conducted workshops and demonstrations for targeted program clientele.

The Eastern Caribbean Extension Outreach and Interchange under this goal enabled CES to participate in the development of agriculture in the Caribbean. Linkages were established with four major agricultural organizations in the wider Caribbean. CES continued to provide leadership to the Caribbean Foods Crops Society in program coordination, publication and planning of its annual meeting.

GOAL 2: A Safe and Secure Food and Fiber System

During this reporting period, CES conducted food safety nutrition education programs that were made available to targeted clientele, i.e., homemakers, restaurateurs, and EFNEP adult and youth clientele. Food safety information was also disseminated accordingly.

GOAL 3: A Healthy Well-Nourished Population

To address health related issues resulting from poor nutrition practices, workshops and other relevant educational activities, including the publication of culturally relevant educational materials relative to nutrition, diet and health, were conducted during this reporting period.

GOAL 4: Greater Harmony Between Agriculture and the Environment

During this reporting period, the urban forestry program has continued to increase the residents' awareness of the importance of preserving plant species native to the Virgin Islands. Backyard composting programs were also instituted in schools and the general community to demonstrate the concept of composting as a viable means of reducing the quantity of biodegradable solid waste found in the territory's landfills. CES staff that are responsible for the urban gardening program have provided technical assistance and information to targeted clientele on the importance of containerized gardening, drip irrigation systems and other principles relative to gardening in an urban setting.

The water quality program continued to assist the community in increasing awareness of health risks associated with water quality impairment, water and waste water treatment systems and improper management of water systems. CES also continued to collaborate with various agencies to develop materials for protecting the overall water quality of the territory.

The natural resources and environmental management program trained and educated clientele on the natural resource and environmental issues of the territory. During this reporting period, the program dealt with such issues and concerns as understanding the human effects on natural resources, solid waste management, proper disposal of household hazardous products, and eco-tours to familiarize youth with the native habitats of the islands. CES also developed resource conservation materials that were locally oriented and suitable for use by teachers in the school system territory-wide. Collaborative efforts continued to be established with other agencies and organizations in implementing the natural resource and environmental management objectives during this reporting period.

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

During this period, several programs were implemented to assist youth and families with limited resources. Workshops were conducted towards assisting families in various aspects of home management and providing training to enable individuals and families to return to the workforce and upgrade employment marketability. Young people, who comprise a large portion of the territory's population, were assisted through activities conducted by the 4-H/youth development programs. An annual summer camp was conducted to provide opportunities for youth to be involved in worthwhile educational activities during the summer.

GOAL 1: AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY

Program 1 Sustainable Agriculture

Narrative Summary of Accomplishment:

During this reporting period, several training activities were held in addition to stakeholders meeting with the farming community.

Our Cooperative Extension Service (CES) Agriculture and Natural Resources (ANR) program staff benefited from attendance at professional development opportunities. The State Coordinator and another member of the local sustainable agriculture team attended the annual State Coordinators' meeting in Jackson, Mississippi in October 1999, where meaningful networking and information exchange were realized. Information gathered at this meeting was subsequently shared for the benefit of fellow staff. Because of this meeting, arrangements were made to acquire a soil testing kit from the North Carolina State University CES office. This package has since been received and a staff person has been identified to hold a training session for the other members of our team, including those from collaborating agencies.

Two CES-ANR staff members and one local crop producer attended the Sustainable Agriculture Research and Education (SARE) Professional Development Program activity in Jekyll Island, Georgia in January 2000. Although this opportunity provided a valuable professional experience for the CES staff, perhaps the greatest benefit was the exposure of one local farmer to an expanded network of producers and agriculture professionals.

The annual World Food Day (WFD) Celebration in October 1999 offered an opportunity to disseminate information on sustainable agricultural practices through workshop presentations on papaya and sweet pepper production. Such practices were included, but were not limited to pest control, irrigation and land preparation. At the conclusion of these workshops, approximately 80 participants, mostly farmers, had benefited from receiving the most current and scientific recommendations for the production of these commodities.

Another outlet for the ANR staff to share information on sustainable agriculture was the annual "*Mango Melee*" activity. The objective of this yearly observance, which is held in collaboration with the St. George Village Botanical Garden and VI Department of Agriculture (VIDA), is to promote and encourage the production and marketing mangoes. On the island of St. Croix, *Mango Melee 2000* was expanded to include displays and workshops on other tropical and subtropical fruits. Thus, the workshops given addressed sustainable agricultural practices in the culture and production of a variety of fruits, including bananas, plantains and papayas. This activity attracted approximately 3,000 farmers, gardeners, and other interested persons. A similar function was held on St. Thomas where more than 500 visitors benefited from a combination of displays and workshops on the production and propagation of the mango.

In addition to workshops, the CES staff, in partnership with the Agricultural Experiment Station (AES) and VIDA, established three on-farm SARE research plots on the island of St. Thomas.

The objective of these experiments were to determine the effects of varying levels of animal manure and mulch materials on the production of basil, chives and thyme. This research is on going and the results will be shared upon the collection of all data and termination of the experiments. The results of these studies are expected to be of great benefit to farmers, since these commodities are in very high demand on the local market.

The professional staff of CES and AES jointly conducted two *town meetings* for farmers throughout the territory. This was to assess their needs and level of satisfaction with the current services being rendered by the respective agencies. This exchange also provided an opportunity to inform farmers about current and upcoming developments within our units, especially with regard to research initiatives. Because of these meetings and in response to the needs of the farming clientele, our sustainable agriculture team will conduct more on-farm research and training opportunities for farmers on organic farm production practices. A total of 45 farmers territory-wide attended these town meetings.

Program 2 Beef, Dairy, and Small Livestock

Narrative Summary of Accomplishment:

The livestock component of CES has been active throughout the year, initiating and continuing program work as outlined in the Plan of Work. Stray and impounded animals have been permanently identified through hot branding, and several farms have been encouraged to permanently identify their livestock in a similar manner. The push towards identification has also been enhanced due to the tick eradication program currently in operation through the cooperative efforts of USDA/Animal and Plant Health Inspection Service (APHIS), VIDA and CES. With the discovery of the *Amblyoma varegatum* tick on the island of St. Croix, in addition to the known population of *Boophilus microplus*, the eradication effort has been significantly increased. The tick teams have concentrated their efforts on the areas of the island that have been known to be infested with the *Amblyoma* tick in the past, and have performed multiple examinations on the animals in those areas, as well as farms in the surrounding regions. Serious attention is being paid to the disease threat presented by the current infestation in order to protect the Virgin Islands ability to export animals to the United States mainland.

Milk production continues to increase in our dairy operations. Dairy operators are using good management tools and are following good management practices. Dairy producers have continued to perform pregnancy and fertility diagnoses on their cattle, with 100% of the dairy herds now performing these routine exams. Farmers are now able to cull out the non-productive animals and increase the overall fertility of the herds. Bulls are routinely tested for breeding soundness and selections made accordingly. Due to staffing limitations in the farming arena, none of the dairy farms has done significant amounts of artificial insemination at this time, but work continues to encourage the adoption of this practice.

Forage test sites have been established in several areas of the island and tests are being done cooperatively with AES to determine the best combination of pasture forages for certain areas of the Virgin Islands. Studies are being conducted in the areas of drought resistance, palatability,

and nutritional content. Six farmers established new pastures with recommended grasses and legumes.

Farmers have been encouraged to produce and consume their own locally produced animal products through the availability of day-old chicks for sale to the farmers. Both layer and broiler chicks have been made available to interested farmers and hobbyists that would like to produce their own meat and eggs. Instruction and guidance was provided to ensure that they are successful in their endeavor. While this program had met with success, more work needs to be done to encourage the consumption of local red meat products as well. With the overall decrease in the consumption of meat products nationwide, this presents a significant challenge to the livestock producers. 171 people received chicks and raised them for sale or local consumption. Two workshops were conducted for 145 students from the Ricardo Richards Elementary School and Free Will Baptist School.

Program 3 Eastern Caribbean Extension Outreach and Interchange

Narrative Summary of Accomplishment:

Linkages were established with four agricultural organizations in the Caribbean region: Caribbean Food Crops Society (CFCS), Caribbean Council of Higher Education in Agriculture (CACHE), Caribbean Association of Researchers and Herbal Practitioners (CARAPA), and the University of Puerto Rico (UPR). One regional workshop on urban forestry was coordinated by CES, with 150 persons from the different islands of the Caribbean attending. The proceedings of the 1999 regional herb conference was published by CES and distributed to the conference participants. Two newsletters were published for the CFCS to help in information exchange and activities scheduled in the Caribbean region. CES specialists continue to provide consultation on sustainable agriculture, horticulture, livestock production and management to the other Caribbean islands, upon request. Assistance was given to the CFCS in the organization of the 36th annual meeting held in Boca Chica, Dominican Republic. Six CES personnel participated and presented papers and posters at this regional conference.

GOAL 2: A SAFE AND SECURE FOOD AND FIBER SYSTEM

Program 4 Food Safety Nutrition

Using the Food and Nutrition laboratory, community Head Start centers, CES conference room and housing developments' activity centers, *Eating Right is Basic* (3rd ed.) was shared with 21 adults.

In District I, 49 Head Start children and 28 teachers, support staff and volunteer parents from four centers participated in a one-day observance of *The Week of the Young Child*. In District II, 94 Head Start children from three centers received a presentation on healthy snack foods.

21 teenagers participated in the Annual EFNEP (Expanded Foods and Nutrition Education Program) Summer Teen Program. The program provided information on planning meals, buying,

preparing, handling and storage of foods. Dietary handouts, recipe adaptations, video presentations, staff/volunteer presentations and field trips were used to educate the teenagers on the concepts of health and nutrition.

Program 5 Basic Food Safety Education for EFNEP and EFNEP Youth

Narrative Summary of Accomplishment:

Agricultural Food Fairs (St. Croix and St. Thomas) Exhibits focused on food safety practices in the home and for restaurateurs. An interactive food safety quiz was presented for fairgoers to participate in. In both districts, approximately 200 individuals were assisted with questions on food safety.

Twenty-one EFNEP individuals received information on basic food safety practices, i.e., personal hygiene, food preparation, food storage, and basic kitchen safety.

Twenty-one participants of the annual Summer Teen Program received instruction on basic food safety practices related to the kitchen and home.

Three individuals completed the *Safety and Your Food Environment* (SAFE) workshop. The workshop covered the following food safety topics: personal hygiene, food handling, food storage techniques, and time and temperature issues.

Four radio call-in programs on food safety were broadcast to the public.

GOAL 3: A HEALTHY WELL-NOURISHED POPULATION

Program 6 Improving Nutrition, Diet, and Health

Narrative Summary of Accomplishment:

For World Food Day, a one-day fair was held on the University's grounds. The focus foods were tilapia, tomato, and papaya. A demonstration on how to prepare various dishes with these foods was presented to 82 individuals. The nutritional analyses of the items were made available. A recipe booklet was also compiled for sale at this event.

The following presentations were made during this period:

- 15 individuals with disabilities received information of nutrition-related disease through the monthly meeting of the Association for People with Disabilities.
- 27 individuals attended workshops on how to lower cholesterol through a program run by the Virgin Islands Department of Health Chronic Disease Prevention Program and CES.
- 22 staff member of the Juan Luis Hospital were presented information on herbal medicines.
- 44 children from two area elementary schools received an interactive demonstration on how to prepare healthy snacks.

- 5 UVI staff members attended a presentation on *Healthy Eating for the Business Professional*.
- 2 lunch and learn presentations were given to UVI staff. One on weight management techniques (telecast to STT) had 22 people in attendance. One on herbal remedies had 8 in attendance.
- 75 individuals attended a demonstration workshop in conjunction with WFD activities. Demonstrations involved recipes using the papaya, tilapia and tomato.

Participation in Local Fairs

- Agricultural Food Fairs (St. Croix and St. Thomas) Exhibits focused on food safety practices in the home and for restaurateurs. An interactive food safety quiz was presented for fairgoers to participate in. Approximately 200 people from both districts were assisted with questions on food safety.
- In District II, breadbaskets and local drinks, such as star apple, passion fruit and soursop were displayed at the *Afternoon on the Green* annual celebration at UVI campus. Instructions on how to make the items were made available.
- 500 persons attended the *Mango Melee* celebration in District II. Mango drinks and pies were used as tasters' choices.

Television Programs

- A half-hour program on using the *Food Guide Pyramid* when planning for a hurricane aired on public television Channel 12. This station is viewed by residents on all three islands.

Publications

- One article on *Designer Foods: The 'In' Thing for Your Body* was published in the 2000 Agriculture and Food Fair booklet.
- One recipe booklet, entitled *World Food Day Recipes*, containing recipes featuring papaya, tilapia and tomato, was published for the WFD observation.

Other

- 31 contacts were made for individuals requiring assistance in meal planning for diabetes.
- 4 contacts were made for individuals requiring assistance in meal planning for high cholesterol levels.
- 2 contacts were made to individuals requiring assistance in meal planning for hypertension.
- 2 individuals were assisted in analyzing the nutritional value of food products that they were planning on marketing.
- 10 mailings were sent to individuals on various nutrition/health related topics.
- 202 phone contacts were made with individuals having general nutrition/health-related questions.

GOAL 4: GREATER HARMONY BETWEEN AGRICULTURE AND THE ENVIRONMENT

Program 7 Urban Forestry

Narrative Summary of Accomplishment:

CES, in partnership with AES, VIDA and the International Institute of Tropical Forestry (IITF), sponsored the 5th *Annual Caribbean Urban Forestry Conference* on St. Croix, USVI. The theme of the conference was *Reflections of the Past, Visions of the Future*. This was a historic occasion since the meeting was held for the first time outside of Puerto Rico. With a grant from IITF, the conference facilitated interaction among professionals, paraprofessionals, and administrators from national and regional public and private agencies and institutions. 115 delegates attended the successful conference from the United States, Puerto Rico, St. Lucia, Dominica, Jamaica, Trinidad and Tobago, the Dominican Republic, and the USVI. The conference consisted of oral and poster presentations, workshops, and field trips. A significant volume of information was shared among participants on common regional issues in urban forestry, as well as concerns unique to each country. This exchange of information served to strengthen relationships between professionals and institutions, as well as to create new ties towards a unified regional effort to promote and improve the status of urban forestry in the Caribbean.

CES staff assisted the Magens Bay Authority (MBA) with assessing the health of some of their trees on the beachfront and public parking area of Magens Bay Beach. Several trees that were infected with unknown pest, and trees with major structural defects that needed immediate attention. Recommendations were given to the MBA staff on correcting the structural problems. The CES specialist on pest management provided pest identification and appropriate control measures.

CES staff also appeared on the *Paradise Communiqué* with Monifae Stout, a call-in talk show on a local radio station to discuss tree pruning. This particular program was considered so important by the station's producer that it was re-aired during the preparation for Hurricane Debbie.

In preparation for hurricane season, CES staff conducted workshops on tree pruning at the Roosevelt Park on St. Thomas and the UVI campus on St. Croix. The primary purpose of the workshop was to demonstrate the proper techniques for the removal of the stems and branches from trees. Part of the lecture involved learning to recognize hazardous structural conditions, such as dead branches, crossing stems and branches, and symptoms of internal decay. The 45 attendees were also instructed in the proper selection and use of pruning tools, and tool safety. After the lectures and demonstrations, the attendees took part in demonstrating what they had learned by pointing out trees with structural problems and getting an opportunity to prune trees. The overall goal of the workshops was to train residents to properly prune their trees in order to minimize damage caused by strong winds, tropical storms, and even hurricanes.

The University is undertaking a massive tree replacement and landscaping project on the St. Thomas campus. CES staff has been actively involved in the planning and overseeing of all phases of this project. Most recently, CES staff oversaw the planting of over 150 trees at Reichhold Center and John Brewers Bay. CES's role was to ensure that proper planting procedures were adhered to. CES continues to be involved in the project.

During National 4-H Week, CES participated in a tree planting ceremony at the Michael J. Kirwan Terrace Elementary School. CES staff spoke to approximately 75 students about the

umbrella tree or “shefflera” as it is also known in the landscape trade. The students also learned how to properly plant a tree and were instructed on how to care for and maintain trees.

CES staff is working with the Mid-Island Rotary Club on a project to plant 1000 trees on the island of St. Croix.

In response to a request from the VI Anti-Litter & Beautification Commission (ALBC), CES staff conducted a series of plant care workshops on St. Croix for over 120 participants in their Commission’s annual Youth Environmental Summer (*YES*) program. The program involves planting of trees at selected public parks, roadsides, and schools as part of a beautification drive.

Program 8 Backyard Composting

Narrative Summary of Accomplishment:

Two staff members attended the University of Maine CES Compost School. The objective of the school is to provide training to persons interested and/or involved in composting operations. The course is offered as a certificate program by the University of Maine CES to train personnel as qualified compost site operators. This training was obtained specifically in preparation for the performance of the backyard composting project.

The CES ANR (Horticulture) Program held two *Train-the-Trainer backyard composting* workshops (one each on St. Croix and St. Thomas). These workshops were conducted in partnership with the Virgin Islands Resource Conservation and Development (RC&D) Council and VIDA. Specifically targeted groups who were invited to send representatives included governmental departments/agencies, non-profit organizations, homeowners associations, community and neighborhood groups, civic organizations, and environmental associations. Representatives from 16 agencies/organizations (9 on St. Croix and 7 on St. Thomas/St. John/Water Island) attended the rigorous two-day training activity, which included lectures, video presentations and practical “hands-on” exercises. The classroom topics that were discussed included the following: introduction to and history of composting; composting site selection; composting systems; structures and equipment; biology of composting; composting ingredients; the composting process; compost pile management; duration of the composting process; and testing of compost. The practical exercises involved building, monitoring, and troubleshooting the compost pile.

Attendees who came from all four Virgin Islands were required to become actively involved in composting and to encourage at least ten other persons from their agency/organization to also become involved in composting. Composting demonstration sites are now in place on both campuses of UVI adjacent to the CES urban gardening demonstration areas.

A similar workshop was conducted on St. Croix, specifically targeted for elementary and junior high school science teachers from the Virgin Islands Department of Education. A total of 21 teachers attended this workshop.

The objectives of the *train-the-trainer* workshops were to: increase awareness about the importance of backyard composting; train residents how to compost their backyard and household organic waste; and provide education about the benefits of using compost. The overall goal of the backyard composting project is to substantially reduce the amount of yard waste in the Virgin Islands solid waste stream, which ultimately enters the landfills.

All persons who attended the train-the-trainer workshops received certificates of participation, earth machine compost bins, and a compost thermometers.

Backyard composting demonstrations were conducted at both the 1999 and 2000 Agriculture and Food Fairs. Compost bins, composting ingredients and compost piles were displayed for the entire duration of the fairs, while demonstration workshops were conducted at specifically designated times. Over 1,000 residents visited the composting display area.

A display of backyard composting was presented at the 2000 Virgin Islands Agriculture and Food Fair held on St. Croix, as part of the CES ANR (Horticulture) Program exhibit. Information about composting was disseminated to persons visited the display area. During the fair, approximately 5,000 fairgoers visited the UVI exhibit area.

During the past four months, the *St. Croix Avis* newspaper has published a series of articles about composting. These articles were submitted to the newspaper to serve as part of a general public education campaign on composting.

Backyard composting workshops were conducted on both St. Croix (November 17-18, 2000) and St. John (November 2 & 5, 2000), with 27 participants.

Program 9 Urban Gardening

Narrative Summary of Accomplishment:

Presenting lectures and participating in special events at various schools has been an annual event for CES staff. Our involvement included participating in career fairs in which selected topics such as grafting, composting, and plant identification were presented. Educators use expertise available at CES to supplement/augment portions of their lesson plans. They also reinforce certain concepts, principles, and practices by developing their own gardens projects, visiting local farms, and/or the CES demonstration gardens.

During this year, CES staff, along with VIDA, participated in a career fair at the Jane E. Tuitt Elementary School on St. Thomas. Approximately 110 students, as well as teachers and paraprofessionals, participated in this event. CES presented available course in horticulture.

At the Addelita Cancryn Junior High School, eight teachers and 152 students interacted with CES staff on agriculture as a viable career choice. A lot of myths about agriculture were debunked. Each attendee was presented with a list of 100 agriculture-related careers.

The Caribbean Studies class at the Ivanna Eudora Kean High School invited CES to make a presentation about the history of agriculture in the Virgin Islands and to answer the question - *Is there a future in agriculture for VI youth?* After delivering a brief history of agriculture, CES staff presented a list of 25 agriculture-related jobs available in the territory to the class. The discussion was very spirited and interactive. The students were very appreciative of the historical information, much of which was unknown to them.

CES staff also presented lectures and demonstrations on fruit and vegetable identification, and ornamental plant care to approximately 40 students of the Antilles School and J. Antonio Jarvis Elementary School on St. Thomas. From that presentation, the Antilles School has asked CES to assist them in developing a garden at their school.

Because of our participation in a career fair at the Joseph Gomez Elementary School last year, 86 students and 15 chaperones visited the CES demonstration gardens during this period. For many of the students and chaperones alike, this was the first time that they had seen plants such as the maubi bark tree, pain killer bush (noni), cauliflower, and peanuts under normal growing conditions. They also saw how yard waste (dried leaves, stems and branches) is turned into a valuable soil enriching material (compost).

In St. John, CES assisted the Guy Benjamin School with the initial manual preparation of the garden plot for their school. Because of the size of the area and the lack of resources to do the job, Mrs. Harley, an elementary school teacher, asked CES for assistance with plowing the soil. CES also provided a layout design of the garden and a list of vegetables that could be planted. Because of this plan, the garden has been established and the plants are doing well. CES plans to make periodic follow up visits to the school to ensure its success.

The St. John Environmental Awareness Group (Green Up) had an after-school environmental program that involved young people of the Coral Bay area. CES staff presented a demonstration on grafting procedures to 10 children and 25 adults of this organization.

As part of our public education campaign, CES staff was interviewed on WVWI's *Paradise Communiqué* on Gardening Essentials for Beginning Home Gardeners.

During the annual 4-H summer camp, CES staff conducted a five weeks mini course in growing and taking care of seedlings. 120 campers and 12 staffers in the St. Thomas/St. John district learned how deep to plant seeds, when and how often to water, using fertilizers wisely, and transplanting seedlings. At the end of the five weeks, every camper took home a basil seedling and a package of bean seeds. The enthusiasm of the campers was very high. All of the campers were so happy to see their seedlings grow right before their eyes. After the camp was over, campers who met CES staff in public places gave progress reports of the growth of their plants.

The radio stations were a means of getting information out to people in the community that have never heard of CES. CES appeared on the *Leona Bryant Talk Show* on WVWI Radio One to provide information and answer questions on to home gardening. This led to numerous phone calls and inquiries from previously unreached people in the community. Ms. Bryant entertained

the idea of having CES on her program on a monthly basis. CES will be cooperating with Radio One to make this radio program a success.

CES also displayed several types of compost bins and active compost piles at the fair. Those displays were augmented by four lectures on backyard composting that were well received by the audience.

CES staff continued to respond to requests from homeowners needing information, home visits, and general information on gardening. On St. Croix, CES displayed and conducted a demonstration workshop on box and container gardening to 35 students at the Ricardo Richards Elementary School. Over 375 plants (including pakchoy, cabbage, and thyme) were donated to the schools. CES has continued to keep the box gardening and container gardening program ongoing at the Claude O'Markoe School and the Ricardo Richards Elementary School. The Ricardo Richards school, in particular, has also helped in the nurturing of small livestock such as rabbits and chicken.

CES worked with four home gardeners: Mr. Tousient, a model box gardener, who now maintains four vegetable and herb gardens; Mr. Clay, who maintains eight box gardens; Dr. Beagle, who maintains one 20 ft box garden; and Mr. Georges, who now maintains two 20 ft boxes.

Workshops were also given to the UVI staff, with 25 in attendance. CES also visited ten farmers to see how productive their farms have been.

Program 10 $\frac{3}{4}$ Water Quality Protection

Narrative Summary of Accomplishment:

Grant-funded Programs

VI Farm*A*Syst/Home*A*Syst (VI*A*Syst): VI*A*Syst is a partner in the national Farm*A*Syst/ Home*A*Syst Program sponsored by USDA-CSREES, US EPA, and USDA-NRCS. It is a voluntary pollution prevention program offering Virgin Islanders simple and effective ways to help protect water quality, public health and their quality of life by helping residents change behaviors or implement practices to reduce pollution risks in and around their homes, yards or farms. This program is grant-funded through:

Train-the-Trainer Workshops. The *Train-the-Trainer* workshop series funded by a \$4,750 FY 1997 grant from the VI RC&D Council Inc. (through the Department of Planning and Natural Resources (DPNR) Nonpoint Source (NPS) Pollution Management Program grant monies) was completed, and the final project report was produced and delivered to RC&D. Train-the-trainer workshops, through a \$25,000 FY 1998 grant from the DPNR NPS Pollution Management Program, continue to be conducted to promote the program. This year's accomplishments included:

- 2 *Safe & Healthy Home* workshops that provided information on potential health and pollution hazards of common household products, least toxic alternatives to common

household products, proper disposal of household hazardous waste, waste reduction and water and energy conservation to 30 attendees.

- 3 *Safe & Healthy Water Supply* workshops that provided training on cistern care and maintenance, how to test drinking water and what to test for, understanding water test reports, water treatment methods and how to choose a home water filter (32 attendees, one workshop per island).
- A *VI*A*Syst Safe & Healthy Home* mini-workshop conducted for 55 elementary school teachers on St. Croix. Five teachers requested class presentations and additional publications to distribute to students and colleagues.
- 3 radio public service announcements recorded and now airing on radio stations across the territory. Copies of the *VI*A*Syst* brochure, *10 Steps to Protect Water Quality* factsheet, and *Recipes for a Non-Toxic Household* booklet were distributed to the programming managers at seven radio stations in the territory to promote the program. 260 *Recipes for a Non-Toxic Household* booklets were distributed to clients who requested them after hearing radio PSAs and to the VIHA Weed & Seed program, Head Start teachers, EPA Region IV, the UVI Bookstore, the UVI Counseling & Placement program, the St. Croix ALBC summer camp program, and the UVI-St. Thomas Human Resources Fair. Staff also promoted the program during a live interview on local radio.
- A *Recipes for a Non-Toxic Kitchen* poster was developed depicting alternative, less-toxic kitchen cleaners. This poster was the centerpiece of the *VI*A*Syst* display at the St. Croix Agriculture and Food Fair. 115 posters were distributed to teachers, students, and government agency personnel during the Fair and to Head Start teachers for their summer program.

Base Program. The CES Water Quality Program received a \$10,000 grant from USDA-CSREES to fund *Farm*A*Syst/ Home*A*Syst* base programming in the VI. The following publications were printed through this grant: introductory *VI*A*Syst* brochures describing the program, *Assessing Your Pastureland to Protect Water Quality* factsheets, *Lawn & Garden Tips to Protect Water Quality* factsheets, and *Assessing Your Septic System to Protect Water Quality* factsheets. An *Assessing Your Cropland to Protect Water Quality* factsheet was developed and is awaiting printing. A web page describing *VI*A*Syst* was uploaded onto the CES Water Quality home page. *VI*A*Syst* factsheets were also uploaded onto the website and linked to the main *VI*A*Syst* web page. *Assessing Your Pastureland to Protect Water Quality* factsheets were distributed to USDA-Natural Resources Conservation Service (NRCS), AES, and VIDA staff as tools in pasture condition and pollution risk in working with livestock farmers. Staff also participated in telephone conference calls with the national program office and other state coordinators to develop a national grant proposal to fund *Farm*A*Syst/ Home*A*Syst*.

NPS Newsletter. The fiscal year 1998 grant cycle of the DPNR-grant funded V.I Nonpoint Source Newsletter project was completed with the publishing and distribution of the 7th and 8th issues to a mailing list of over 1,100 architects, engineers, contractors, developers, inspectors, government personnel and other interested persons. The final project report and budget for the year were produced and delivered to DPNR. The 8th issue of the newsletter included a CES article on severe flooding and erosion caused by fall hurricanes and heavy

storm events. The fiscal year 1999-2000 cycle began with the modification of the layout and design of the newsletter to incorporate styles learned at a SkillPath seminar attended in February. Three additional issues (issues 9 through 11) were published and distributed to a mailing list of over 1,250 individuals (local realtors were added to the list) and to DPNR offices on St. Croix and St. Thomas. These newsletter issues included articles on EPA meetings in the territory, upcoming CES workshops, a UVI senior's award-winning research project, UVI Center for Data Conservation (CDC) Photo-Interpretation classes, the upcoming 6th Annual NPS Pollution Conference (planned and coordinated by CES), successes of the VI*A*Syst *Safe & Healthy Home* program, the unveiling of the UVI-CDC's St. Croix Rapid Ecological Assessment maps, St. Croix Virgin Islands Marine Advisory Service (VIMAS) storm drain stenciling project, new draft NPS Pollution Control regulations from DPNR, this fall's Coastweeks program, DPNR-Department of Environmental Protection new NPS pollution management grant projects, hydroseeding projects on St. Thomas, resource manager training on storm-caused coastal erosion, EPA's new Pollution Prevention Center, the VI visit of EPA's research ship, EPA's approval of the VI NPS management plan, mangrove restoration at the St. Croix UVI Wetlands Reserve, Sugar Bay mangrove restoration update, available grants, web resources and upcoming events (local, regional and national).

Erosion & Sediment Control Project. CES continued to maintain and repair the erosion and sediment control demonstrations at the St. Thomas CES Home Demonstration Garden. Signs for the silt fences and parking lot portion of project were installed. Four tours of the demonstration area were conducted for individuals interested in vegetative erosion control practices.

Community Education & Outreach

Two *Hydroseeding Certification Training* workshops (St. Croix and St. Thomas) were conducted to train 28 UVI and government personnel, contractors and landscapers on the proper use and operation of DPNR's hydroseeders for erosion control. Workshop participants attended a two-hour in-class workshop and a one-hour demonstration prior to taking the certification exam. 22 attendees were certified. 24 employees of various local government agencies participated in the TR55 (Urban Hydrology for Small Watersheds) Computer Training Course sponsored by the CES water quality program, DPNR's Coastal Zone Management (CZM) and USDA Natural Resources Conservation Service (NRCS) on April 6, 2000, at the UVI St. Thomas Campus. During the five-hour classroom session, NRCS engineers described engineering methods to estimate runoff volume and velocity, calculate travel time within a watershed, and calculate the detention basin storage volume required for a given runoff event. They also demonstrated how to use the USDA-NRCS TR-55 computer model to carry out each type of calculation described. CES organized the training and produced and distributed certificates of completion to workshop attendees.

Staff assisted US EPA Region II and Caribbean Region representatives in coordinating two workshops. An *Environmental Justice* workshop was held at UVI on St. Thomas and staff developed and distributed workshop announcements to local government agency representatives

and non-governmental organizations, and conducted a tour of the CES Home Demonstration Garden for the EPA representatives. CES also hosted and co-sponsored US EPA Region II's open forum meetings held between federal agency representatives. Over 45 participants from UVI, local government agencies, community groups and interested individuals discussed environmental protection issues that are affecting the VI community. EPA representatives informed attendees about ongoing activities to enhance or protect the territory's environment and answered questions about ongoing pollution issues (such as the landfills on both islands, state of disrepair of the territory's sewage treatment systems, public drinking water consumer confidence reports, used oil collection program and hazardous waste clean-ups).

CES sponsored a seminar to introduce the Nonpoint Education for Municipal Officials (NEMO) project, a national CSREES program, designed to solicit potential partners to develop grants to initiate a NEMO project in the Virgin Islands. NEMO utilizes advanced technologies, such as geographic information systems (GIS), remote sensing and the Internet, as tools to educate local decision makers and the public about the links between land use and water quality. 19 local and federal government agency, UVI and non-governmental organization representatives attended the seminar. Seminar information was also forwarded to two representatives who could not attend the seminar. A follow-up meeting was held to solicit ideas on project scope, target audience, partners, collaborators, pilot areas and potential funding sources (10 attendees) and various grant opportunities were researched.

A *Mangrove Ecology Teacher-Training* workshop at Great Pond Bay on St. Croix (48 science teachers) provided detailed training and educational materials about the ecology of mangrove forest ecosystems. The human, archaeological, and cultural history of Salt River Park and the marine and terrestrial ecology of the area were discussed with 18 attendees at the *Cultural and Ecological History of Salt River Park* workshop held on St. Croix. CES co-sponsored the St. Croix Environmental Association (SEA) *Sewage Summit*, which addressed VI sewage problems, those in St. Croix in particular, and featured a panel of federal and territorial agency representatives (20 attendees). The summit was broadcast live on WRRR radio.

Staff attended the national CSREES Water Quality Coordinators meeting to determine the status of water quality (WQ) program funding and network with coordinators from across the country. Information was provided to regional leaders on the impacts (project and monetary) of CSREES WQ program funds on programs in the VI. This information was included in a report to CSREES headquarters. CES participated in the *Opportunities for Farm*Home*Watershed Planning Conference*, held at the Atlanta EPA Region 4 headquarters, displaying an exhibit highlighting the successes of the Virgin Islands Farm*Home*Watershed program (VI*Home*Watershed). VI*Home*Watershed materials were distributed to local and federal government personnel from across Region 4, including 55 *Recipes for a Non-Toxic Household* booklet, 20 *Recipes for a Non-Toxic Kitchen* posters and 21 *VI*Home*Watershed Assessment* books. A *Home*Watershed* workshop presentation was also delivered describing the VI*Home*Watershed Safe & Healthy Homes program. The CSREES-EPA Region IV liaison also displayed VI*Home*Watershed materials at EPA's regional Environmental Justice workshop held in May.

Nonpoint Source Conference. CES convened and chaired three meetings of the NPS Conference Planning Committee to initiate planning for the 6th Annual VI NPS Pollution Conference. Tasks were assigned to committee members and progress on the conference venue, program, youth education program, and promotion monitored. CES staff developed the conference main web page and subpages for the conference call for presentations, hotel information and registration, and the conference flyer and registration form. NR staff also developed and mailed out the conference call for presentations, announcement flyers/registration forms, and newspaper ads and coordinated the contract for the hotel/conference venues.

Slides and information on threats to VI coral reef systems were provided to USDA-NRCS for inclusion in their presentation to the Department of Interior Coral Reef Task Force Meeting. CES staff also attended the meeting, participated in discussions, and delivered a presentation on the issues surrounding the Great Pond land swap issue - government swapping land surrounding Great Pond and within an area of particular concern (APC) to a company to build rockets - to 68 attendees at meetings at the St. Croix Educational Complex. The VI Housing and Finance Authority (VIHFA.) invited CES staff to make a presentation on the *Preservation of Native Plants and Other Vegetation in Their Natural Habitats* to over 50 lot purchasers at VIHFA's Construction Development Seminar. Information on preserving native vegetation and minimizing environmental impact to home sites to protect water quality was provided, along with information on alternative onsite sewage disposal systems and cisterns.

Media Outreach. VI*A*Syst and soil conservation programs were promoted through the media this year. A 60-second spot on erosion and sediment control was videotaped for the St. Croix ALBC's television show and live announcements for the hydroseeding workshops were delivered on local radio. Seven radio stations are airing VI*A*Syst PSAs throughout the territory and staff appeared on a local radio show hosted by the UVI radio club to promote the VI*A*Syst Safe & Healthy Home program. An article describing the *VI Hydroseeding Demonstration Project* was printed in the national magazine *Land & Water* (January/February 2000 issue), and an article on the CES Erosion and Sediment Control Demonstration Project was published in the March/April 2000 issue of that magazine.

Site Visits. Over 20 site visits were conducted to evaluate erosion and sediment control problems and recommend erosion and sediment control practices. Botany Bay was visited at the request of a local architect to evaluate environmental conditions in relationship to developing the site (for potential buyers of the 388-acre property). A report was submitted, including information about vegetation, slopes, hydrology and soils observed, and recommendations were provided on methods to minimize environmental impact from future development.

Program 11 Natural Resources and Environmental Management

Narrative Summary of Accomplishment:

Grant-funded Programs

Magens Bay Tree Restoration Project. This project, funded by a \$10,000 Urban and Community Forestry Assistance Program (UCFAP) grant, received its third and final funding installment. Several buttonwood trees were obtained to create a hedge around the bathhouses to absorb the brackish runoff from the showers while beautifying the unattractive building exterior. Project volunteers were supervised and trees were planted, watered, fertilized and pruned. ANR staff held an informal *tree pruning and plant identification-training workshop* for the Magens Bay landscaping crew (a follow-up to training provided previously). Signs describing the tree restoration project and the nature trail were developed and installed at the beach. Following Hurricane Lenny and other heavy rainstorms, the Magens Bay General Manager was advised to discourage the public from swimming because of possible contamination due to heavy runoff of pollutants into the bay. The Nature Trail through mangroves and coastal thickets behind the beach area was cleared of overgrowth in preparation for resumption of youth group tours. The trail had been originally cut in the early 1980's but was destroyed by Hurricane Marilyn. Volunteers are helping CES develop a trail guide featuring the plants, birds, other wildlife, and cultural history of the area to be used in school tours. CES staff and project volunteers met with The Nature Conservancy (TNC) to discuss developing ecotours using the nature trail and other areas of Magens Bay to help generate revenues to preserve the area. Volunteers are also developing a demonstration tour of the beachfront and rocky coastline to present to TNC, with assistance from CES.

Community Education & Outreach

Staff assisted US EPA Region II and Caribbean Region representatives in coordinating two workshops. An *Environmental Justice* workshop was held at UVI on St. Thomas and St. Croix, and staff developed and distributed workshop announcements to local government agency representatives and non-governmental organizations, and conducted a tour of the CES Home Demonstration Garden for the EPA representatives. UVI-CES also hosted and co-sponsored US EPA Region II's *Open Forum* meetings held between federal agency representatives, and over 45 participants from UVI, local government agencies, community groups and interested individuals to discuss, one-on-one, environmental protection issues that are affecting the VI community. EPA representatives informed attendees about on-going activities to enhance or protect the territory's environment and answered questions about on-going pollution issues (such as the landfills on both islands, state of disrepair of the territory's sewage treatment systems, public drinking water consumer confidence reports, used oil collection program and hazardous waste clean-ups).

CES sponsored a seminar to introduce the *Nonpoint Education for Municipal Officials (NEMO)* project, a national CSREES program, designed to solicit potential partners to develop grants to initiate a NEMO project in the Virgin Islands. NEMO utilizes advanced technologies such as geographic information systems (GIS), remote sensing and the Internet as tools to educate local decision-makers and the public about the links between land use and water quality. 19 local and federal government agency, UVI and non-governmental organization representatives attended the seminar. Seminar information was also forwarded to two representatives who could not attend the seminar. A follow-up meeting was held to solicit ideas on project scope, target

audience, partners, collaborators, pilot areas and potential funding sources (10 attendees) and various grant opportunities were researched.

A *Natural History of VI Sea Turtles* workshop was conducted for 25 participants on St. Croix, who learned about sea turtle ecology, the impact of human activities on sea turtles habitats, and research being conducted at Sandy Point National Wildlife Refuge. A *Mangrove Ecology Teacher Training* workshop, providing detailed training and educational materials about the ecology of mangrove forest ecosystems, was conducted at Great Pond Bay for 48 science teachers. 43 *tour guide training* participants learned how mangrove, dry and moist forest ecosystems function, the historical and cultural resources of various trail areas around St. Croix, and the importance of wildlife in our environment. Potential eco-tour guides also viewed videos describing different methods of conducting a tour. After the class lecture, a practice tour was conducted at Sandy Point National Wildlife Refuge. *Medicinal plant* workshops were conducted on St. Thomas and St. John (19 attendees), presenting information on the local history of herb usage. The human, archaeological, and cultural history of Salt River Park and the ecology (marine and terrestrial) of the area were discussed with 18 attendees at the *Cultural and Ecological History of Salt River Park* workshop held on St. Croix. CES co-sponsored the *St. Croix Environmental Association (SEA) Sewage Summit*, which addressed VI sewage problems in St. Croix, in particular, and featured a panel of federal and territorial agency representatives (20 attendees). The summit was broadcast live on local radio. CES and UVI-Center for Marine & Environmental Studies (CMES) held a joint St. Thomas - St. Croix video-conference seminar on *Energy Use, Energy Prices, the Economy and the Environment: Deja-vu All Over Again* in remembrance of the 30th anniversary of Earth Day. Over 30 UVI students, faculty and staff and local business and community representatives attended a presentation by Dr. Cutler J. Cleveland, Director of the Center for Energy & Environmental Studies at Boston University.

CES was represented at the *Second National Extension Natural Resources Conference* held May 15 - 18, 2000 in South Lake Tahoe, Nevada with a poster presentation on *Watershed Protection in the USVI - Magens Bay Tree Restoration, Revegetation and Watershed Planning, St. Thomas*. Over 200 conference participants viewed the poster that described reforestation, restoration and pollution abatement projects coordinated by CES staff at Magens Bay. Staff also attended and presented posters on *The Magens Bay Tree Restoration Project: Accomplishments and Setbacks* and *Baobab: The Perfect Tree For Virgin Islands Landscape* at the 5th Annual Caribbean Urban Forestry Conference held in St. Croix on May 23-25. Staff also attended and participated in the CFCS conference held August 2000 in the Dominican Republic. The meetings helped strengthen agriculture and natural resource collaboration between UVI-CES and other Caribbean islands.

Earth Day Presentations. A poster on *Ticking Time Bombs of the Virgin Islands*, depicting nonpoint source pollution problems (erosion, sedimentation and failing septic systems) on St. Thomas was displayed for a week at Coral World's Earth Day education exhibits, during which time 1,788 adults and 588 children visited the marine park. *VI*A*Syst Safe and Healthy Home* presentations were delivered by NR staff at the St. Croix Eco-Fair, held on April 27-29, 2000. Presentations were given every twenty minutes to a total of 1,315 students and about 60 adults. This event received local TV news coverage and was written up on the front page of a local

newspaper. NR staff explained the potential health effects and pollution problems related to chemicals found in common household products and presented less toxic alternatives, as well as proper ways to discard household hazardous wastes and toxic products. The presentation was complemented by demonstrations conducted by the St. Croix Central High School's (CHS) Principles of Technology second period class with their teacher (who participated in the UVI-CES December VI*A*Syst *Safe and Healthy Homes* Train-the-Trainer workshop). The CHS student facilitators taught younger Eco-Fair attendees on making less-toxic cleaning product recipes and helped the youngsters demonstrate recipe effectiveness.

Media Outreach. VI*A*Syst, soil conservation, composting and horticulture programs were promoted through the media this year. A 60-second spot on erosion and sediment control was videotaped for the St. Croix ALBC's television show, and live announcements for the hydroseeding workshops were delivered on WSTA radio. Seven radio stations are airing VI*A*Syst PSAs throughout the territory and staff appeared on a local radio show to promote the VI*A*Syst *Safe & Healthy Home* program. Two articles appeared in the Daily News, featuring CES staff discussing composting, tree and vegetable planting. Print media coverage for donation of RC&D forestry library materials to UVI and CES libraries on both islands was also arranged. An article describing the *VI Hydroseeding Demonstration project* was printed in the National magazine *Land & Water* (January/February 2000 issue), and an article on the *Erosion and Sediment Control Demonstration Project* was published in the magazine's March/April 2000 issue. CES staff and Magens Bay volunteers were interviewed for an article, *Magens Bay Nature Trail Reopening*, featured in the St. Thomas Source, an Internet newspaper.

Publications. A booklet was published by Dr. Martin B. Adjei and Mr. Olasee Davis, entitled *Pasture Brush Weed Control in the Virgin Islands*, providing information on a joint research project between AES and CES on the best methods to control noxious weeds in pastures. Three brochures, one on the *Magens Bay tree restoration project*, *VI Beauty Begins with Your Yard*, and *Preserving Native Plants in the Landscape*, were drafted and approved for printing. Information about the tropical forest history of St. Croix was provided to the St. Croix Landmarks Society for inclusion in the St. Croix Heritage Trail map, 25,000 copies of which were published for distribution to hospitality businesses and tourists.

Site Visits. Over 40 site visits were conducted to evaluate erosion and sediment control problems, recommend erosion and sediment control practices, identify grasses, trees and other plants, and provide information on tree care and native habitats. Botany Bay was visited at the request of a local architect to evaluate environmental conditions in relationship to developing the site (for potential buyers of the 388-acre property). A report was submitted about the sites and recommendations were made on future development. NR staff hiked UVI's recently purchased property along the eastern side of Perseverance Bay and Black Point to examine hurricane damage to the area's mangrove forests and vegetation on coastal hills. CES staff examined pastureland vegetation with the VIDA veterinarian, Dr. Bradford, to determine if the death of several goats grazing in the pasture was related to poisonous plants.

Youth Education & Outreach

UVI Classes. Fourteen Science 100 classes (~300 students) were led on tours of the CES Home Demonstration Garden and given presentations on the different vegetation found on the island and how the vegetation is related to rainfall, topography and types of soil in the VI. Over 123 students territory-wide were provided with information for research papers on medicinal and endangered plants, agriculture, soils, historical buildings, wildlife, the human impact on mangroves in St. Thomas, landscaping with native plants and erosion and sediment control in the Virgin Islands. Biology students were assisted in using CES's drying oven to prepare pressed plant samples, the St. Thomas CES herbarium collections and plant collecting equipment. A presentation on septic system design, operation, and maintenance has been incorporated into the Science 301 curriculum (15 students participating last semester) and a presentation on Virgin Islands Environmental Problems and Solutions was delivered to 41 Upward Bound students and 3 professors. Staff also led a campus tour for a UVI biology class (14 students) focusing on native plant communities. An exhibit on the CES Natural Resources program was displayed and discussed with 45 students at the St. Croix UVI Career Day, including information on different careers in natural resources. A UVI English class (17 students) participated in an environmental educational hike of the UVI wetland, to learn about its ecological resources. CES also worked with UVI Student Affairs and the Science 100 Coordinator to further develop and expand student service-learning projects. Staff provided the Student Government Association (SGA) with technical assistance in developing weekly activities to improve the campus and efforts were made to monitor these activities.

Hikes. 1290 students from 17 private and public schools participated in different eco-educational hikes on St. Croix. Students and teachers learned about the cultural, natural, historical, and environmental resources of the Virgin Islands, the geology of St. Croix, and conservation issues, such as erosion control and the ecology of the marine and terrestrial environment. All school hikes were linked to classroom lesson plans and students wrote essays about what they learned from their outdoor adventure. Some students developed classroom projects, which included the role that mangroves play in wetland ecosystems.

201 youths from six summer St. Croix summer camp programs were led on hikes to Jack and Isaac's Bays and St. Croix's moist forest and coastal environments. Students learned about water quality, medicinal plants, dry forest ecosystems, and coral reefs and the functions and benefits of these habitats to the island economy. They also learned about different types of forest plants, stream fishes, endangered plants and animals, different types of mangrove plants and the important role these plants play in the wetland marine ecosystem, history and uses of medicinal plants, and the natural history of the sites visited on St. Thomas. A nature tour of Magens Bay was also conducted for 30 students from St. Croix's Seventh Day Adventist School visiting St. Thomas.

17 staff members from the VI Tourism Department, Martin Public Relations, and other national tourist agencies were guided on a hike of Estate Great Pond Bay and Camp Arawak. Hikers learned about the area's history, culture, and ecology. An outdoor *watershed workshop* was conducted for 28 teachers in the area surrounding Blue Mountain. Teachers hiked to the top of Blue Mountain and learned how vegetation, soils, topography, and animals interact and inter-

relate within watersheds. Consequently, one teacher led a hike for her students and taught them about the function of VI watersheds.

GOAL 5: ENHANCED ECONOMIC OPPORTUNITY AND QUALITY OF LIFE FOR AMERICANS

Program 12 Limited Resources Individuals and Families

Narrative Summary of Accomplishment:

The following programs/presentations were offered during the fiscal year 1999-2000:

Orientation for Adult Sitter Volunteers at Herbert Grigg Home for the Aged. This orientation was held for 12 graduates of the CES Adult Sitters workshop. As volunteers, they were provided with information on what their duties/roles would be as sitters for the elderly at this residential home for the aged.

Basic Money Management Short Course. This was a six-week short course, with 13 participants, that covered the basics of managing one's money: budgeting, handling credit, handling bills, etc.

Tax Workshops: Two one-day tax workshops provided information on the fundamentals of tax preparation, with 34 persons in attendance. 27 persons prepared their taxes using the information they received.

Home Safety Workshops. Four workshops were held for the residents of four separate senior centers. Concepts regarding various aspects of home safety were presented to 74 persons who attended this workshop.

"Women Take Charge" Workshop: This three-session workshop covered topics of interest to 52 women who were interested in managing their lives. The three topics presented were: (1) Banking and credit; (2) Decide "What If?" (discussing various situations that women may face and help them determine how they would cope discussed); (3) Professional Help (exploring various community agencies and the services they offered).

Table Setting and Manners for Adults: A one-day workshop that covered various aspects of table setting and etiquette was conducted for 12 people.

Money Management Workshop for Disabled Persons: This one-day workshop specifically targeted person with disabilities. Seven participants were provided basic money management techniques, along with topics of interest related to persons with disabilities.

Adult Sitter Workshop: This five-day workshop was held in District II (St. Thomas), with 24 participants. The workshop was geared towards individuals wanting to act as caretakers for adults. The concepts of the role of the caregiver as part of the team, including physicians, nurses,

etc., were taught. Topics, such as helping with medical procedures and therapy, assisting with meals, personal care and transportation, were discussed.

Child Care Provider Short Course: This 24-session workshop was an entry-level course that assisted individuals in building proficiency in providing quality childcare services in the VI. 24 people received certificates for this course.

Consumer Credit Counseling Course: This ten-session workshop was geared towards individuals wanting to learn the basics aspects of consumer credit. The following topics were covered: money choices, how to be a smart consumer, planning your budget, departmental management, and credit. Ten persons attended this course.

Summer Teen Program: This six-week camp for teenagers covered the following topics: etiquette, skin/body care, AIDS, computer classes (3), super sitters, etiquette, table setting, positive self-esteem, dating/teenagers, table manners, and modeling. The goal of this portion of the summer program was to enhance the self-esteem and self-awareness of teenagers. 24 teens participated in the summer teen program.

Program 13 Marketable Skills

Narrative Summary of Accomplishment:

33 persons participated in three beginners clothing construction classes. Participants learned how to operate the sewing machine and its various functions, how to select fabrics, patterns and sewing notions, and body measurements, pattern sizes, grain line, fibers, and textures of fabrics. Participants in these classes were also able to do samples of seam finishes, darts and zipper applications, layout, cutout and completion of garments. The garments completed by the course participants were 33 skirts, 1 vest, 2 pants, 32 blouses, 2 jackets, and 2 t-shirt dresses.

20 participants were involved in three intermediate clothing classes that provided more advanced sewing skills and techniques. These included more detailed seam finishes, lapped zipper applications, buttonhole making and the use of the serger in finishes. The garments made were also more detailed. The garments completed by the course participants were 20 dresses, 9 skirts, 11 tops, 3 pants, 2 shorts, 3 vests, and 4 jackets.

Sewing with Knits. Fifteen participants were exposed to different types of knit fabrics, how to handle and work with knits, and the different garments that can be made from this material. Participants had a greater experience working on the serger. The garments completed were 2 swimsuits, 13 skirts, 16 dresses, 4 pants, 19 blouses, 2 shirts, and 4 hats.

Home Decoration & Gift Items: 18 participants had the opportunity to make numerous items for their homes and as gifts for friends and families. These items were also made to generate income. Many of the items were done using the sewing machine and the serger. Others were done by hand and involved the use of craft tools and items. The items completed by the course

participants included 30 decorated towel sets, 23 throw pillows, 4 cushions, 8 decorated soaps, 6 mitts, 14 potholders, 4 t-shirts, 10 floral arrangements, 16 toilet paper holders, 14 clothes pin bags, 4 soap hangers, 2 bathroom sets, 14 lamps, and 2 pillow shams.

Lingerie: Eight persons took part in this course that involved making a variety of articles. Most of this work was done using the serger. Participants were exposed to using and handling more delicate and intricate fabrics and additional sewing techniques. Garments completed by course participants were 10 nightgowns, 1 pair of pajamas, 3 half slips, 4 panties, 1 robe, 3 babydolls, and 4 dusters.

The total number of certificates given for Marketable Skills was 93.

Program 14 Volunteer and Youth Leadership

Narrative Summary of Accomplishment:

For FY 2000, 4-H enrollment statistics reflected that there were approximately 46 volunteer leaders working with a variety of 4-H program delivery modes. 23 volunteer leaders (21 adults and 2 teens) provided leadership for seven organized 4-H clubs; 18 adults and 2 teens leaders worked with seven special interest groups; one volunteer facilitated a school enrichment project and two volunteers served as key resource leaders to various 4-H projects. These volunteer leaders provided leadership for the following projects and interest areas: arts and crafts, bicycle safety, community service, computers, cultural awareness, entomology, environmental education, gardening, horses, international foods, livestock, public speaking, rabbits and veterinary science. Fifteen volunteer leaders served as middle-managers and provided assistance to the 4-H staff in planning and implementing 4-H participation in 4-H Week, the Agriculture and Food Fairs, 4-H Project Expo, the 4-H Carnival Troupe, and a variety of fund raising activities that garnered over \$2,000.00 in support of the above mentioned events.

Of these 46 leaders, 11 were males and 35 were females; 33 were black, five were Hispanic, six were white, and two defined themselves as bi-racial. Four were teen leaders, six were between the ages of 20-29; four were 30-39; 19 were 40-49 and 13 were 50+.

In addition to our 41 volunteer and teen leaders trained on chartering a 4-H club, setting up a yearly club program, and adults working with youth as partners, 26 4-H club officers (4-H youth, ages 9-17), representing six organized 4-H clubs on St. Croix, participated in a five-part 4-H Junior Leadership Training covering such leadership competencies as: Understanding Yourself, Leadership Styles, Teamwork and Cooperation, Making Meetings Work, and Recreational Leadership. Two volunteer leaders and one staff member attended the Southern Region 4-H Volunteer Leaders Forum on September 29 - October 2, where they received hands-on training in a variety of workshops including Entomology, Putting Fun in Your 4-H Meetings, Leadership 2000 and other topics readily implementable in their 4-H clubs and groups.

Program 15 4-H Club System

Narrative Summary of Accomplishment:

For FY 2000, the Virgin Islands 4-H club system included seven organized 4-H clubs, seven special interest groups and one school enrichment project, representing 364 members and 46 volunteer leaders. These clubs, special interest groups and school enrichment projects offered “hands on” experiential learning opportunities to 4-H members in over 14 diverse projects and interest areas, including arts and crafts, bicycle safety, community service, computers, cultural awareness, entomology, environmental education, gardening, horses, international foods, livestock, public speaking, rabbits and veterinary science.

One new community based 4-H club was formed on St. Croix enrolling 15 members and three leaders. A new school-based program was initiated in St. Thomas at the Michael J. Kirwan Terrace Elementary School. Through this effort, 23 children were enrolled in 4-H and participated in the 4-H Carnival Troupe; two new volunteer leaders were recruited.

The 4-H membership profile is as follows: 175 (48%) were boys and 189 (52%) were girls; over 60% were in grades 4-6; 12% (45) were in the 8th grade or above (ages 13 - 19); 86% were black, 11% were Hispanic and 2-3% were white or bi-racial. Our male enrollment for this fiscal year increased by 22.

Over the program year, 4-H members had two important opportunities to showcase their project work and achievements. Three organized 4-H clubs and four special interest groups participated in the annual VI Agriculture and Food Fair by presenting a club booth, displaying their project work, exhibiting their garden produce or taking part in the 4-H/Youth Livestock Showmanship Show. Six clubs, and our special interest group with over 120 individual project entries attended our annual 4-H Project Expo, held at the UVI Student Center. Twelve 4-H members presented educational demonstrations as well. The 4-H Carnival Troupe, *Y2K, Bugs* received recognition as first-runner up in the Troupe division.

Program 16 4-H Summer Day Camp

Narrative Summary of Accomplishment:

The Virgin Islands 4-H Day Camp Program, in FY 2000 enrolled 244 school-aged youth in a six-week day camp setting from June 19th- July 28th. St. Croix hosted three sites, with a total enrollment of 141; St. Thomas had one site with 62 youth enrolled; and St. John hosted one site with 52 children enrolled. Based on parent support and satisfaction, 39 or 16% of our total enrollment of 244 were returning campers.

On St. Croix, 40 campers signed up for *Kaleidoscope for Kids*, a self-discovery program for Cloverbud (ages 5-8) members; 9 kids, ages 8-10, explored their cultural heritage in the *Look Back and See, Discover Me* camp; 48 children, ages 9-12, had the opportunity to learn more about science and technology in the *Explore, Discover, Question* camps; 19 campers increased their knowledge and developed new skills in natural resources and the marine environment while enrolled in the *Naturally Science* camp; and 25 teens, ages 13-15, explored the world of work

and honed their career readiness skills as part of the *Career Choices and Challenges* camp. Highlights of the 2000 Summer Camp included the publication of a camp newsletter by 4-H campers and building on their technology application abilities, special field trips to the Sandy Point Wildlife Refuge to take part in a turtle watch, and the inclusion of a computer lab at one of the sites.

On St. Thomas, 62 children, ages 4-13, participated in experiential learning activities that focused on *cultural heritage* for the Cloverbuds, agriculture for those ages 8-9 and *sea environment* for our older campers, ages 10-13. On St. John, 52 campers, ages 5-12, had the opportunity to learn more about agriculture and natural resources, marine ecology and culture.

In addition to enrollment of nearly 250 school-aged children, the 4-H Summer Day Camp afforded 14 teachers, 13 college students, approximately 11 high school students and seven foster grandparents employment as counselors for the six weeks of camp. Counselors participated in a one-week orientation and training workshop where they further developed their skills in lesson planning, group management, dealing with children of all ages, discipline and guidance, conflict resolution, bringing out the best in children and camp policies and procedures.

ACRONYMYS

AES	Agricultural Experiment Station
ALBC	Anti-Litter and Beautification Commission
ANR	Agriculture and Natural Resources Program
APC	Area of Particular Concern
APHIS	Animal and Plant Health Inspection Service
CACHE	Caribbean Council of Higher Education in Agriculture
CARAPA	Caribbean Association of Researchers and Herbal Practitioners
CDC	Center for Data Conservation
CES	Cooperative Extension Service
CFCS	Caribbean Food Crops Society
CHS	Central High School
CMES	Center for Marine & Environmental Studies
CSREES	Cooperative State Research, Education and Extension Service

CZM	Coastal Zone Management
DPNR	Department of Planning and Natural Resources
EFNEP	Expanded Foods and Nutrition Education Program
EPA	Environmental Protection Agency
GIS	Geographic Information System
IITF	International Institute of Tropical Forestry
MBA	Magens Bay Authority
NEMO	Nonpoint Education for Municipal Officers
NR	Natural Resources
NRCS	Natural Resources Conservation Service
NPS	Nonpoint Source
PSAs	Public Service Announcements
RC&D	Resource Conservation and Development
SAFE	Safety and Your Food Environment
SARE	Sustainable Agriculture Research and Education
SEA	St. Croix Environmental Association
SGA	Student Government Association
TNC	The Nature Conservancy
UCFAP	Urban and Community Forestry Assistance Program
UPR	University of Puerto Rico
USDA	United States Department of Agriculture
USVI	United States Virgin Islands
UVI	University of the Virgin Islands
VI	Virgin Islands
VIDA	Virgin Islands Department of Agriculture
VIHA	Virgin Islands Housing Authority
VIHFA	Virgin Islands Housing and Finance Authority
VIMAS	Virgin Islands Marine Advisory Service
WFD	World Food Day
WQ	Water Quality
YES	Youth Environmental Summer