

R&PS RESEARCH AND PUBLIC SERVICE NEWSLETTER

UNIVERSITY OF THE VIRGIN ISLANDS

Volume 7, No. 3

News from the UVI Research and Public Service Component

November 2004

CARIBBEAN FOOD CROPS SOCIETY MEETS ON ST. JOHN

THEME WAS 'STRENGTHENING PARTNERSHIPS FOR SUSTAINING CARIBBEAN AGRICULTURE'



Kwame Garcia, Sr., CES State Director and President of this year's CFCS conference accepting award from Dr. Alberto Beale, Chairman of the Board of Directors, Caribbean Food Crops Society

The 40th meeting of the Caribbean Food Crops Society (CFCS) was convened on St. John, USVI, July 19-23, 2004, at the Westin Resort and Villas. The CFCS is an independent, professional organization of agricultural scientists representing 22 countries. Hosted by the University's Extension Service, the annual meetings of the society provide an opportunity for researchers, producers, extension personnel and other professionals to discuss and share information pertaining to the production, processing and distribution of food commodities in the Caribbean. The theme of this year's conference was "Strengthening Partnerships for Sustaining Caribbean Agriculture."

The five-day conference was attended by 175 participants, and it consisted of technical sessions, field tours and a farmers' forum. The technical or scientific

"HOSTED BY THE UNIVERSITY'S EXTENSION SERVICE, THE ANNUAL MEETINGS OF THE SOCIETY PROVIDE AN OPPORTUNITY FOR RESEARCHERS, PRODUCERS, EXTENSION PERSONNEL AND OTHER PROFESSIONALS TO DISCUSS AND SHARE INFORMATION PERTAINING TO THE PRODUCTION, PROCESSING AND DISTRIBUTION OF FOOD COMMODITIES IN THE CARIBBEAN."

presentations covered topics on Information Technology Application, Crop Production, Integrated Pest Management, Agronomy, Livestock Production, Soils and Water, Marketing/Economic Development and Capacity Building for Developing Caribbean Agriculture. These presentations were delivered by a broad representation of scientists from the region and generated meaningful interaction and information exchange. Regional countries and islands represented at the conference included Puerto Rico, St. Martin, Trinidad, Jamaica, Costa Rica, Grenada and St. Vincent. Technical papers were also presented by participants from the U.S. mainland.

Two optional field tours were offered to provide conference participants with an overview of local agricultural production systems. The first tour introduced participants to an integrated crop and livestock farm in Coral Bay, St. John, owned by the Roller family. This farm features a wide variety of organically grown vegetables and culinary herbs which are sold fresh to local restaurants and hotels. It also consists of a small flock of sheep, a pond for the production of tilapia fish, and an active compost operation to recycle all organic waste products generated by the farm. This tour continued with a visit to the farm of Mr. Randy Laplace, a full-time farmer on St. Thomas, who owns a success-

Continued on p. 2

INSIDE

- 2 New Caribbean Writer Published
- 3 SBDC Collaborates on Small Business Resource Guide for USVI and Puerto Rico
- 4 CMES: Is the Nassau Grouper Coming Back?
- 5 SBA Administrator Visits USVI
- 6 Aquaculture Holds 6th Annual Fish Short Course
- 7 CDC Science Briefs
- 7 CES' Charles Smith Retires
- 9 CES Hosts Urban Forestry Conference
- 10 CES Co-recipient of \$60,000 EPA Grant
- 11 UVI Helps St. Croix Celebrate Mango Melee





THE UNIVERSITY OF
THE VIRGIN ISLANDS
RESEARCH & PUBLIC
SERVICE (R&PS)
NEWSLETTER
IS AN INFORMATIONAL
NEWSLETTER ON THE UNITS
THAT MAKE UP THE
R&PS COMPONENT.
[HTTP://RPS.UVI.EDU/](http://rps.uvi.edu/)

VICE PROVOST
HENRY H. SMITH, Ph.D.

EDITORIAL BOARD

VELMA ABRAMSEN,
EXECUTIVE ASSISTANT TO
THE PRESIDENT

LORNA CHESTERFIELD,
ASSISTANT TO THE VICE PROVOST
CLARICE C. CLARKE,
PUBLIC INFORMATION SPECIALIST

HELEN DOOKHAN,
ADMINISTRATIVE SPECIALIST
MANUEL PALADA, Ph.D.

AES RESEARCH ASSOCIATE
PROFESSOR

RAQUEL SANTIAGO SILVER,
ADMINISTRATOR

**JACQUELINE SOMERSALL-
BERRY,**

FORMER ASSISTANT TO THE
ECC DIRECTOR

PATRICE JOHNSON,
DIRECTOR OF PUBLIC RELATIONS

MARVIN WILLIAMS,
EDITOR, THE CARIBBEAN WRITER

LAYOUT & DESIGN
ROBIN STERNS, Ph.D.

DISTRIBUTION

KIMA GATON

MAIL LETTERS OR COMMENTS TO:
LORNA CHESTERFIELD

UVI RESEARCH & PUBLIC SERVICE
#2 JOHN BREWERS BAY
ST. THOMAS, VI 00802

TELEPHONE: (340) 693-1061

FAX: (340) 693-1065

LCHESTE@UVI.EDU

THE UNIVERSITY OF
THE VIRGIN ISLANDS
IS AN EQUAL OPPORTUNITY,
AFFIRMATIVE ACTION,
TITLE IX, SECTION 504,
PL 101-542 EDUCATOR
AND EMPLOYER.

CFCS MEETS ON ST. JOHN

Continued from p. 1



Dr. LaVerne Ragster, UVI President, giving the keynote address at the opening of the 40th Annual Meeting of the Caribbean Food Crops Society on St. John

ful intercropping operation of rare fruits, vegetables, medicinal and culinary herbs. On the final stop of the tour, Mr. Myron Henneman and Mr. Arthur Hartman hosted our group at their sheep and goat farm on St. Thomas, the largest livestock farm on the island.

The second optional tour was conducted on our sister islands in the British Virgin Islands where conference attendees visited several crop and livestock farms in Tortola and Virgin Gorda. This tour was sponsored by the BVI Department of Agriculture and served to strengthen the professional ties between our territories.

The week-long meeting concluded with a Farmers' Forum which focused on the economic develop-



Above, participants visit a small pineapple plot at the Department of Agriculture on Tortola

ment of the territory through agricultural initiatives. Organizations represented at the Farmers Forum included the St. Croix Farmers in Action, We Grow Food, Inc., and the V.I. Institute for Agricultural Development.

Representatives of the local organizations delivered presentations on their respective organizations' plans for the development of agricultural initiatives, and subsequent economic benefits for the territory. Ideas and comments from farmers included:

- the development of a farm land tax
- the construction of farmers' market facilities
- the construction of processing facilities
- the re-instatement of an agriculture curriculum in grades K-12, and at the University of the Virgin Islands.

As a result of this conference many professional and institutional partnerships were strengthened and new linkages were formed for future regional collaborations. Sponsors of the conference were the V.I. Department of Agriculture, the V.I. Port Authority, the Department of Tourism, the West Indian Company, Ltd., and the Caribbean Food Crops Society.

NEW CARIBBEAN WRITER PUBLISHED

The Caribbean Writer, an international literary anthology published in the summer of each year by the University of the Virgin Islands, has recently released Volume 18 in its series. The anthology retains a Caribbean focus and features the work of writers in the region and abroad.

Among the highlights in the current volume are a special section on the renowned Haitian writer, Edwidge Danticat, and on two cultural icons from the U.S. Virgin Islands, the semi-mythical Butty and the influential artist Charles Abramson.

The poetry and fiction components include work by Virgil Suarez, Thomas Reiter, Garfield Ellis and Kei Miller. Finally, the journal highlights art by Virgin Islanders and book reviews by an international gathering of critics and intellectuals.

Prize winners of the previous volume include the



Daily News Prize for poetry awarded to Berkley Wendell Semple, The Canute A. Brodhurst Prize for short fiction won by Opal Palmer Adisa, The Charlotte and Isidor Paiewonsky Prize for first-time publication earned by Michael Winston Bachoo, The David Hough Literary Prize for an author residing in the Caribbean awarded to Willi Chen, and The Marguerite Cobb McKay Prize for a Virgin Islands author received by Winston Nugent.

Volume 18 of *The Caribbean Writer* is available at Education Central, Memories of St. Croix, Undercover Books, Dockside Bookshop on St. Thomas and both UVI bookstores. Copies can also be ordered directly from *The Caribbean Writer's* office by calling (340) 692-4152, e-mailing qmars@uvi.edu or orders@thecaribbeanwriter.com or from our secure server website at www.TheCaribbeanWriter.com.

CES EXPANDS TO CARIBBEAN AREA

On June 9-10, 2004, the Cooperative Extension Service, in collaboration with the University of Florida Extension, held the first of three workshops as part of a National Initiative of Internationalizing Extension. Funded by CSREES- United States Department of Agriculture (USDA), these new initiatives are designed to assist land-grant universities in bringing an international focus to extension programming. Funded for the first year with a \$9,000 grant, the program involves collaborative work with institutions in Grenada, Dominica and the British Virgin Islands.

Greetings were extended by Mr. Kwame Garcia, CES State Director; Mr. Kofi Boateng, Associate Director; and Ms. Jennifer Jackson, Chancellor of the St. Croix Campus.

Dr. Peter Vergott and Ms. Monica Brinkley from the University of Florida opened the session, laying the foundation for understanding the internationalizing of extension efforts. Mr. Alex Bolques further expanded the discussion on extension by sharing information regarding Florida A & M University. A former 4-H Program employee at UVI-CES, Mr. Bolques, who is now employed with the University of Florida, presented a valuable, unique perspective.

Over 25 participants engaged in two days of information sharing, experiences, and expertise relative to the Extension Service. Presentations were made by representatives from the British Virgin Islands, Mr. Urban Martin, Chief Agriculture Officer; Dr. Malachy Dottin from Grenada who is the Director of Research; and Mr. Kwame Garcia, UVI Extension Director.

Cross-cultural Communication and Participatory Methodologies presentations were made by UVI's Dr. Jeannette Lovern and Dr. Aletha Baumann, respectively, to assist in putting the varied complexi-



Participants in the workshop included Kwame Garcia, Sr., CES State Director (3rd left), Sommer Sibilly, Extension Assistant (center) and Lois Sanders, CES Assistant Director (right)

ties and issues in perspective as internationalization occurs.

The next session, on Global Exchange and Interdependence presented by Dr. Solomon Kabuka, focused on globalization and its implications related to agriculture and consumer consumption and other issues inextricably related to the interdependence of varied facets within society.

The final session allowed for professional exchange and questions and answers. Participants also had an opportunity to visit a local farm to view an animal production and horticulture production site.

Participants were asked to complete a workshop evaluation and to make suggestions regarding the next workshop on internationalization and globalization.

For more information on the internationalizing extension effort go to www.msue.msu.edu/intext/natinit.htm, or to speak with the CES contact, Mr. Kofi Boateng, call (340) 692-4066, or e-mail: kboateng@uvi.edu.

"THESE NEW INITIATIVES ARE DESIGNED TO ASSIST LAND-GRANT UNIVERSITIES IN BRINGING AN INTERNATIONAL FOCUS TO EXTENSION PROGRAMMING. FUNDED FOR THE FIRST YEAR WITH A \$9,000 GRANT, THE PROGRAM INVOLVES COLLABORATIVE WORK WITH INSTITUTIONS IN GRENADA, DOMINICA AND THE BRITISH VIRGIN ISLANDS."

SMALL BUSINESS RESOURCE GUIDE FOR USVI AND PUERTO RICO

Recently, UVI-SBDC, in collaboration with the United States Small Business Administration, Puerto Rico and U.S. Virgin Islands District Office and RENI Publishing, produced a comprehensive Small Business Resource Guide for the USVI and Puerto Rican districts.

This guide is targeted for use by emerging, existing and expanding entrepreneurs who may need assistance with understanding the various resources and procedures inherent in doing business in Puerto Rico and the U.S. Virgin Islands.

The contents of the guide include the following key points:

- **Getting Started:** everything you need to know about setting up, marketing and managing the revenue of a business;
- **Regulations:** what local and federal authorities want from you and the best way to meet the requirements;
- **Websites of Interest:** the best business resources that cyberspace has to offer;
- **Entrepreneurial Development:** resources, like the UVI-SBDC and others, who can help guide an entrepreneur through the process;

- **Financing:** where to look for it and what to do to get the financing you need. This section also includes the various types of SBA loan programs, business financing requirements and a listing of the Territory's business lending institutions;
- **Government Contracting:** find out how to become a partner with local and federal agencies;
- **Minority Business Development:** outlines federal programs that are designed specifically to help minorities with starting their own business.

The uniqueness of this guide is that it is presented in English and Spanish which accommodates the English- and Spanish-speaking residents in both districts.

It is also free and will help to foster inter-island business exchange. Residents in Puerto Rico who are interested in doing business in the Virgin Islands and vice versa will have all of the necessary contact information at their disposal to facilitate that process.

For more information on the guide and for a copy, please contact the SBDC offices at (340) 776-3206 (STT) and (340) 692-5270 (STX).



[HTTP://RPS.UVI.EDU/](http://RPS.UVI.EDU/)

IS THE NASSAU GROUPEER COMING BACK?

Perhaps one of the most popular fish in the Bahamas and the northern Caribbean is the Nassau grouper (*Epinephelus striatus*). A large and very striking fish, the once prolific Nassau grouper has been historically dominant both culturally and economically in Caribbean fisheries. In a book written in 1900 on the fish of Puerto Rico and the Virgin Islands, the Nassau grouper is described as "a common and very important food fish, reaching a weight of 50 pounds or more." Today the fish is virtually extinct over most of its historical range. Of over 150 large tropical groupers worldwide, of which most are severely over-harvested and threatened, the Nassau is considered one of the most endangered.

Besides being an extremely palatable fish, several of the Nassau grouper's behaviors and life history characteristics have contributed to its decline. It is a naturally curious and aggressive fish and approaches spear fishers and traps without hesitation. The fish occurs in shallow water close to shore during much of its lifetime and is fairly omnivorous, making it easily caught by both traps and hook and line. Probably most instrumental in its demise, however, is the fact that Nassau grouper aggregates in huge groups each year in order to spawn.

During the non-reproductive time of the year, the Nassau grouper is a solitary and territorial fish, exhibiting a strong affinity for a particular home site. One month prior to spawning, fish abandon their territories and swim sometimes over 100 miles to an established aggregation site. It is unknown how the grouper find the site, but it is believed to be at least partly learned behavior. Typically the aggregation builds up for a period of days prior to spawning. In healthy aggregations, thousands of fish may be present by the time reproduction finally occurs. Most known spawning aggregations in the Caribbean coincide with the full moon of two consecutive months between November and March. Because of their predictability and the sheer density of fish, spawning aggregations of Nassau grouper in the Caribbean have been targeted by fishermen for generations. Over the past 30 years, severe overfishing of these sites has led to the collapse of stocks in Puerto Rico and the Virgin Islands, mandating a federal closure of the fishery in the 1990's. In 1996 the Nassau grouper was listed as endangered on the IUCN (the World Conservation Union) and it is currently a candidate under the United States Endangered Species Act.

The historical spawning site of the Nassau grouper in the USVI lies approximately 10 miles south of St. Thomas on a relatively small deep-water coral reef, at the edge of the Puerto Rican shelf. Thou-



Dr. Rick Nemeth holding a Nassau grouper which was tagged and released on the grouper bank in March 2004

sands of pounds of Nassau were harvested annually from this one-mile-long bank in the 1980's. By 1990 the stock had collapsed. Since then the bank is fished by only a few fishermen who are now targeting the yellowfin grouper (*Mycteroperca venenosa*), a species that also uses the site to spawn. In March of 2003 researchers from UVI's Center for Marine and Environmental Studies (CMES), headed by Dr. Richard Nemeth, surveyed the deep-water bank using scuba as part of an investigation into the status of the yellowfin grouper spawning aggregation that reportedly occurs there. A small number of Nassau groupers were seen on the bank along with other large groupers, including the yellowfin, tiger (*Mycteroperca tigris*) and yellowmouth (*Mycteroperca interstitialis*). In 2004 the bank was surveyed again and fished more extensively by the CMES research team. They were surprised to find many more fish, measuring and tagging over 70 Nassau grouper in March and April. Although no actual spawning was observed, it appeared that the grouper were again using the site for that purpose. Pre-spawning behavior and coloration were observed, and the majority of fish tested with ultrasound equipment contained ripe ovaries and testes.

Based on this data, CMES biologists have recommended that the spawning bank be closed to fishing during the months of February through May. Although illegal for possession or sale, the Nassau grouper is still in danger on the unprotected bank because it arrives to spawn at the same time of year as the yellowfin grouper and is a bycatch of that fishery. The Caribbean Fisheries Management Council has agreed, and the area will be temporarily closed to all fishing from February through April beginning in 2005. Although the numbers are still relatively very small, with careful management of the species and the aggregation site, perhaps the waters of the Virgin Islands can again become the home of the Nassau grouper.



Nassau grouper in its natural habitat

ADMINISTRATOR OF U.S. SMALL BUSINESS ADMINISTRATION VISITS USVI



Pictured from left to right are Warren T. Bush, UVI-SBDC State Director; Hon. Hector V. Barreto, Administrator, U.S. SBA; Carmen Culpepper, U.S. SBA's District Manager; Carl Christensen, U.S. SBA's USVI Officer in Charge

The University of the Virgin Islands Small Business Development Center, in collaboration with corporate sponsors, FirstBank Virgin Islands and the St. Thomas/St. John Chamber of Commerce, played host to the Honorable Hector V. Barreto, the 21st Administrator of the United States Small Business Administration (SBA). The July 2004 trip was the first official U.S. Virgin Islands visit by the Administrator since he was unanimously confirmed by the U.S. Senate in July 2001. Mr. Barreto was accompanied by a traveling delegation of SBA executives which also included SBA's District Manager, Ms. Carmen Culpepper; USVI Project Officer, Carl Christensen; and SBA's Assistant Administrator (Office of Public Communications), Mr. Raul Cisneros.

To commemorate the occasion, UVI-SBDC and co-sponsors FirstBank Virgin Islands and the St. Thomas/St. John Chamber of Commerce, coordinated a private USVI welcoming reception at the Marriott Frenchman's Reef and Morningstar Beach Resort.

Invited public and private sector partners and stakeholders had this opportunity to meet and interact with the Administrator and his delegation in a very relaxed, social atmosphere.

UVI-SBDC also sponsored a Bankers' Roundtable at the SBDC's Training Facility (Nisky Center, St. Thomas), where Mr. Barreto delivered the keynote address to the Territory's banking community and other stakeholders.

Mr. Barreto's position, and his lifetime of involvement with the small business commu-

those priorities with the President of the United States.

President Bush has said that Barreto is "a fine leader who cares deeply about the small businesses of America...and he and I know that small businesses are the backbone of our economy." The President has also pointed out that Barreto "understands that the role of government is not to create wealth, but to create an environment in which entrepreneurs from all walks of life have a chance to succeed."

Barreto has received special recognition for his contributions to America's small business community from the U.S. Congress, the California Legislature, the American Heart Association and the American Red Cross. Recognized by *Hispanic Business* magazine as one of America's "100 Most Influential Hispanics," he has also been praised by the Latino Coalition for being a role model to Latino youth, and the Hispanic College Fund has also commended his leadership in advancing Hispanic businesses.

The Management and Leadership of the University of the Virgin Islands Small Business Development Center, FirstBank Virgin Islands and the St. Thomas/St. John Chamber of Commerce are particularly proud of the opportunity to have hosted the SBA's Administrator. With a portfolio of direct and guaranteed business loans worth more than \$45 billion, SBA is the largest single financial backer and facilitator of technical assistance and contracting opportunities for the nation's small businesses. Administrator Barreto's commentary was centered

"THE JULY 2004 TRIP BY HONORABLE HECTOR V. BARRETO, THE 21ST ADMINISTRATOR OF THE UNITED STATES SMALL BUSINESS ADMINISTRATION, WAS THE FIRST OFFICIAL U.S. VIRGIN ISLANDS VISIT BY THE ADMINISTRATOR SINCE HE WAS UNANIMOUSLY CONFIRMED BY THE U.S. SENATE IN JULY 2001."

nity, has also made him America's highest-ranking small business advocate.

In his capacity as SBA's Administrator, he meets daily with small business owners and trade associations that represent them. This affords him the opportunity and privilege of keeping in constant touch with the needs and priorities of America's small businesses and sharing

on the premise that small businesses drive the economy. The 25 million small businesses in the United States, he said, employ 50 percent of the workforce.

"They are the engine that fuels the economy," and the SBA provides much of the capital - \$220 billion since its inception in the 1950s - that Barreto called "the oxygen that small businesses breathe."

Barreto added that in the USVI, there is a definite opportunity to capitalize on the SBA's 504 Guaranty Program, a program specifically earmarked for real estate or large equipment purchases by what Barreto called "certified development companies." "I have \$5 billion I can put in the hands of small businesses for buildings and large equipment," he said.

The SBDC, SBA, and the USVI's community lending partners are all encouraged to continue collaborating with and assisting the small business owners in every way feasible. Warren Bush, UVI-SBDC State Director, was very pleased to have had the opportunity for the SBDC (and co-sponsors) to be a part of this historic visit.

Mr. Bush added, "it is an honor and distinct privilege for the Administrator and his delegation to visit the United States Virgin Islands. There is also a deep sense of appreciation for the vast support and cooperation received by the primary co-sponsors, FirstBank Virgin Islands and the St. Thomas/St. John Chamber of Commerce. Mr. Cassan Pancham, First Vice President and General Manager of FirstBank Virgin Islands, as well as President of the STT/STJ Chamber of Commerce, has always demonstrated a committed dedication to the upward mobility of the Territory's economic development initiatives. FirstBank's and the Chamber's invaluable cooperation and contribution were a true testament of their continuing support of the U.S. Small Business Administration, the UVI-SBDC, and the USVI community in general."

Mr. Barreto made a similar visit to neighboring Puerto Rico to attend similar activities before returning to the U.S. mainland. He has visited 55 of the 77 Small Business Development Center facilities in the United States and its territories as part of his commitment to the entrepreneurs he serves.

AQUACULTURE HOLDS 6TH ANNUAL FISH SHORT COURSE

"UVI'S GREENWATER AND AQUAPONIC SYSTEMS REPRESENT A WINNING COMBINATION OF LOADS OF FISH, SMALL LAND REQUIREMENT, WATER REUSE, NUTRIENT RECOVERY AND VALUABLE PLANT BYPRODUCTS. IN THE AQUAPONIC SYSTEM THE PLANTS NOT ONLY RECOVER NUTRIENTS BUT ALSO PURIFY THE CULTURE WATER. WHAT STARTED OUT AS A SMALL PROJECT TO ADDRESS A LOCAL PROBLEM HAS GROWN INTO A POPULAR TOPIC WITH WORLDWIDE APPEAL."



AES Aquaculture Short Course Class of 2004

The Agricultural Experiment Station's Aquaculture Program hosted another successful "Aquaponics and Tilapia Aquaculture Short Course," June 20-26, 2004. For the second straight year, attendance reached full capacity of 33 students. The students came from three territories (U.S. Virgin Islands, Puerto Rico and American Samoa), 12 states (Alabama, Arizona, California, Florida, Georgia, Illinois, New York, Oregon, Pennsylvania, Texas, Washington and West Virginia) and five countries (Canada, Dominican Republic, Grand Cayman, St. Martin and South Africa). In six offerings, the course has attracted 141 students from 26 states, four territories and 25 countries.

The popularity of the course is due to the two unique and relevant technologies that have been developed by the Aquaculture Program. Greenwater tank culture and aquaponics are very attractive production systems for many regions because they produce fish very intensively, conserve water and recycle nutrients. As a result, these systems use very little land and water resources and produce valuable plant crops from nutrients that normally are discharged into water bodies where they may cause pollution.

UVI's greenwater and aquaponic systems represent a winning combination of loads of fish, small land requirement, water reuse, nutrient recovery and valuable plant byproducts. In the aquaponic system the plants not only recover nutrients but also purify the culture water. What started out as a small project to address a local problem has grown into a popular topic with worldwide appeal. It turns out there are many other

areas in the world with limited land and water resources and the need for locally grown fish and vegetables.

As stated in the June 26 *St. Croix Avis*, student Joel Francis from the Cayman Islands said he took the course to explore the benefits of combining aquaculture with hydroponics. He said one "tremendous" benefit of aquaponics is that it is ideal for regions where water is scarce and the soil is not fit for farming.

Another attractive feature of the UVI greenwater tank culture and aquaponic systems is that they are relatively simple to construct and easy to manage. They represent appropriate or intermediate technology, and the systems have proven to be reliable and robust.

The course was team-taught by James Rakocy, Donald Bailey, Eric Thoman and Charlie Shultz. Help was also provided this year by Gaetan Gentius, a UVI undergraduate student in math and science. With 24 hours of classroom instruction and 24 hours of hands-on fieldwork, it is a challenge to provide a seamless educational experience to students ranging from Ph.D.s in aquaculture to entrepreneurs with no fish culture experience at all. The goal is to train everyone to a level where they will be able to design and construct a commercial operation, raise tons of fresh fish and vegetables, and then sell their products at a profit. Students are encouraged to keep in touch, continue to ask questions and communicate their successes.

It is a pleasure to report the recent news that there is a new UVI aquaponic system producing tilapia and fresh vegetables for the citizens of Beirut, Lebanon. The Aquaculture Program is truly "globally interactive."

R&PS

[HTTP://RPS.UVI.EDU/](http://rps.uvi.edu/)

CDC SCIENCE BRIEFS

CORAL BAY WATERSHED ASSOC.

Through a USGS/WRI grant of \$38,000, the Conservation Data Center is assisting the residents of the Coral Bay Watershed, St. John, to organize a Residents Association to address pressing environmental and social concerns. One of the largest and fastest growing areas in the Virgin Islands, more than 150 residents and volunteers have joined the non-profit Coral Bay Community Council. The group is hosting informational meetings, working with DPNR/CZM and V.I. Police to protect the quality of life and address emerging issues. The grant is providing funds for organization, printing, an informational brochure, a preliminary Stormwater Management Plan, a GIS Watershed Atlas for planning, stormwater chemistry sampling and a road/home locator system for emergency services.

V.I. STATE OF THE REEFS REPORT

The CDC has partnered with Nicolas Drayton of The Ocean Conservancy and Caroline Rogers of USGS to complete the technical editing of a publication funded by the National Fish and Wildlife Federation. The report, being published by The Ocean Conservancy, is meant to be used to inform the public, decision makers and visitors about coral reef resources and issues that threaten their health. Scientists from around the Territory have assisted with preparing individual sections. Publication and local unveiling is scheduled for January 2005 when Dr. Sylvia Earle will introduce the booklet.

WETLANDS AND RIPARIAN AREAS FINAL REPORT

The CDC Chief Scientist, Principal Investigator for the project, has completed the final report for Phase I. Stevie Henry, CDC Data Manager, and Pedro Nieves, Assistant Data Manager and field scientist, helped produce the final deliverables for the project. Partnered with Island Resources Foundation, the two groups completed a pilot study of 18 priority watersheds and the wetland systems they contain. These data will help to characterize the rare wetland communities of the V.I. and provide the first comprehensive data about ecological health, water quality, vegetation communities and sedimentation history for use in DPNR management efforts. Phase II of this project will refine these methods and complete the inventory and assessment of many of the 600+ wetlands in the Territory.

DISNEY CONSERVATION FUNDS CORAL DISEASE RESEARCH

In late July, aboard the cruise ship "Disney Magic," a \$14,000 donation from the Disney Conservation Fund was made to Friends of the Virgin Islands National Park. CDC, partnering with Caroline Rogers of USGS, prepared a grant request to Disney for continuing research into the health of Elkhorn Coral Reefs around St. John.

The funds will allow CDC and USGS to map the incidence of White Band Disease and White Pox around the island. Data on the patterns of disease can be used to determine outbreak locations and possible sources of pathogens decimating valuable nearshore reefs.

YACHT HAVEN WATER TESTING

The CDC was hired by Island Development and IN-USVI to provide the field team to monitor water quality during the restoration of the Yacht Haven site. In May 2004, preliminary testing on dissolved oxygen, fecal coliform and turbidity were done to establish baseline values for Charlotte Harbor. In July, over water and dredging work began. CDC is monitoring water quality twice weekly and providing records and reports to DPNR and CZM inspectors.

RECENT DEPOSITIONAL HISTORY OF ST. THOMAS AND ST. JOHN

The CDC, partnering with Eckerd College, St. Petersburg, Fla., has completed a field study and report entitled "Detecting Anthropogenic Impacts in the Sedimentary Record." More than 20 sediment cores were taken from 13 coastal wetlands surrounding St. Thomas-St. John, some pristine and some highly disturbed. The cores, when analyzed, record the natural coastal development of the islands during the last sea-level rise and show a final disturbing phase of human impact from the excesses of development. The record of human impact is most evident in wetlands below heavily developed areas along the west coast of St. John and the east and southeast coasts of St. Thomas. These data will assist DPNR in setting priorities for management efforts in preserving and protecting coastal environments.

COASTAL AREA IMPACT MAPPING FOR PRIORITY BAYS

CDC has been notified of the approval of a \$24,500 grant from the V.I. Non-Point Source Committee to complete sediment core work primarily in St. Croix and St. Thomas in priority watersheds and bays. Working with Eckerd College Marine Laboratory, CDC will sample many bays for the first time and use an X-Ray Diffraction (XRD) technique to determine the extent of the marine impact area for coastal watersheds. While watersheds are easily defined, the size of the marine area they can influence is largely unknown. The data will be applied by DPNR in its Watershed Restoration Action Strategies.

ADDITIONAL PROJECTS

- Comprehensive Land and Water Use Plan maps
- Lameshur Bay Mangrove Restoration Assessment
- VIERS Laboratory Renovation and Permitting



Charles Smith (left) at his retirement party. Stafford Crossman (right), Deputy Commissioner of Agriculture, gives remarks. Kwame Garcia (center), UVI Extension Director

CES' SMITH RETIRES

After working 22 years at UVI, Charles Smith, who had been an Extension Assistant IV with the Cooperative Extension Service, retired. He was instrumental in selling the concept of box gardening to Virgin Islanders, particularly those on St. Croix.

"When we think of the Agriculture and Food Fair, Mango Melee, World Food Day, Box Gardening in the Schools and the Farmers' Committee," said Kwame Garcia, Sr., Extension State Director, we think of Charles Smith. "When we look at the letters of appreciation and the certificates awarded by schools, Virgin Islands' Housing Authority, and institutions like the University of the West Indies, we applaud Charles Smith. When, at CES, we celebrated birthdays, births, and when we offered condolences and grieved with colleagues, we thank Charles Smith, because he was a member of CES' Sunshine Committee."

Smith received awards for his urban gardening exhibit for World Food Day. A very resourceful person, Smith usually anticipated problems, knew how to overcome them, and resolved them successfully.

Smith worked with the Young Farmers and Beautification Club of the St. Patrick Catholic School, with the REACH Gardening Cluster Activity at the Ricardo Richards Elementary School, the Flamboyant Gardens for the Elderly and introduced organic farming to participants in the Virgin Islands' Housing Authority's After-School Tutorial Program.

He was commended for his participation in the Organic Farming and Extension Workshop on St. Vincent and the Grenadines, sponsored by the University of the West Indies, and he also worked extensively with the small livestock program.

"The Extension staff extends sincere gratitude to Charles Smith for his invaluable contribution to the University, to the community and to the Caribbean region. We will fill your place, but we can never fill your shoes," Mr. Garcia said.



Pictured above: Cassan Pancham (left), First Vice President and General Manager of FirstBank Virgin Islands accepts FirstBank's 2004 SBDC's V.I. Community Advocate of the Year Award from Warren T. Bush, SBDC's State Director and Carl Christensen, U.S. SBA's USVI Officer in Charge.

Pictured at right: STX honorees assemble for a group picture including (from left) Banco Popular de Puerto Rico's Abraham Edwards; Gertrude Restaurant's Gertrude Gumbs; Two Plus Two Owner Elsworth Jones; Angela Weber, 2004 UVI-SBDC Business Advocate of the Year Award Recipient; Dive Experience's Michelle Pugh; and Beatrice Ramos of Wild Orchid and Gifts

SBDC, SBA RECOGNIZE VI ENTREPRENEURS AT AWARDS BANQUETS

In recognition of the small business community's contributions to the American economy and society, the President of The United States designates one week each year as National Small Business Week. The U.S. Small Business Administration (SBA) celebrated National Small Business Week the week of May 9, 2004.

The highlight of the week is the presentation of awards in recognition of the outstanding contributions of small business persons and advocates at the territorial and national levels.

The 2004 SBDC Awards were presented in St. Thomas as part of the St. Thomas/St. John Chamber of Commerce's Business After Hours Reception. This event was hosted by the SBDC from its lead office in Nisky Center. It was a resounding success, attended by an estimated 100 guests and supporters.

A similar SBDC awards banquet was held on the island of St. Croix the following day in collaboration with the St. Croix Chamber of Commerce. SBDC is pleased once again to recognize and congratulate the following honorees:

2004 UVI-SBDC Small Business Person of the Year Award Recipients

-Mariel, Akinyemi, and Felicia Blake, co-owners, Ital Ase Botanica and Wedding Services (STT)
 -Mr. Jason Budsan, owner, Caribbean Herbals & Candles (STT)
 -Ulysess and Ulric Pilgrim, co-owners, Pilgrim Terrace (STT)
 -Ms. Beatrice Ramos, owner, Wild Orchid Gift & Flowers (STX)
 -Ms. Gertrude Gumbs, Gertrude's Restaurant (STX)
 -Mr. Elsworth Jones, owner, Two Plus Two Night Club & Restaurant, Inc. (STX)

2004 UVI-SBDC Citizen Award - V.I. Community Advocate of the Year

-Dr. Alexander Randall V (STT)

2004 UVI-SBDC Corporate Awards - V.I. Community Advocates of the Year

-FirstBank VI, Mr. Cassan Pancham, First Senior Vice President/General Manager
 -V.I. Economic Development Authority, Mr. Frank Schulerbrandt, Chief Executive Officer

2004 UVI-SBDC Entrepreneurial Success Award Recipient

-Ms. Michelle Pugh, Dive Experience (STX)

2004 UVI-SBDC Business Advocate of the Year Award Recipient

-Ms. Angela Weber (STX)

Mr. Carl Christensen, USVI Officer in Charge of the U.S. SBA, presented awards to the following USVI honorees:

U.S. Small Business Administration's Small Business Persons of the Year

-Anton and Kelly Kuipers, Frederiksted Hotel (STX)
 -Allison and Beverly Petrus, Subway Franchise Owners (STT)

U.S. Small Business Administration's USVI Bank of the Year

-Banco Popular de Puerto Rico

Warren Bush, State Director, applauded the efforts of the deserving entrepreneurs and institutions recognized at these ceremonies: "To their credit, they have all persevered and have attained major milestones that they, and all of their supporters, should be extremely proud of." Mr. Bush went on to thank the STT/STJ Chamber of Commerce and his (SBDC) staff for their efforts in helping to establish first-rate ceremonies.

SBDC'S THIRD-QUARTER TRAINING AND BUSINESS COUNSELING RESULTS

The SBDC is pleased to report that for the third quarter of fiscal year 2004, the Center conducted 63 training programs territorywide, serving approximately 412 attendees. The Center also has received a highly favorable approval rating on these programs as verified from stakeholder evaluations. The trainings conducted included collaborative programming with the Family Life Center (Basic Business Exposure), U.S. SBA (St. John and St. Thomas informational session), Women in Business (featuring USVI female entrepreneurs Yvette deLaubaque, Joan

Lynch, Lorna Webster), New Image Foundation (Grant Writing), and St. Croix Credit Bureau (Credit Report).

In addition, approximately 162 client cases were handled territorywide via the Center's free business counseling services. A total of 862 hours were spent providing business counseling assistance, an average of 5.32 hours spent per case.

The SBDC will continue to sponsor innovative and cutting-edge training and counseling to address the entrepreneurial and economic development potential of aspiring and existing business owners and their employees. For more information on these past programs and upcoming events, please contact the SBDC at (340) 776-3206 (STT) or (340) 692-5270 (STX).

UVI EXTENSION HOSTS CARIBBEAN URBAN FORESTRY CONFERENCE

The 9th Annual Caribbean Urban and Community Forestry Conference was held June 14-18, 2004, at the beautiful Westin Resort and Villas in St. John, U.S. Virgin Islands. Approximately 100 individuals participated in the five-day event which included poster and oral presentations, a working field trip and an awards ceremony and banquet. There were three keynote addresses centering on the conference theme "Managing the Caribbean Urban and Community Forest."

The conference officially opened with Dr. Louis E. Petersen, Jr., District Supervisor of UVI Cooperative Extension Service, followed by remarks by Mr. Kwame Garcia, State Director of Cooperative Extension Service. The other speakers were Mr. Terry Hueth, S.P.F. Manager, USDA Forest Service; Hon. Lawrence Lewis, Ph.D., Commissioner of the V.I. Department of Agriculture; Dr. Henry Smith, UVI Vice Provost for Research and Public Service; and Hon. Louis P. Hill, Chair of Planning and Environmental Protection Committee of the Virgin Islands Legislature.

The keynote addresses on the opening day were given by Mark Buscaino who spoke on the "National Program for Urban and Community Forestry." Eleanor Gibney, who has lived on St. John for many years, spoke on "The St. John Forest Through Time: An Overview of the Climate and Human Influences That Have Shaped the Forest Vegetation Today." The final keynote address was given on Wednesday by John Pipoly III and was entitled "Organization of the Caribbean Vegetation Monitoring Network."

Over the course of three days, participants listened to presentations in four general categories: Agency Program Overview which dealt with government agencies that produce urban forestry programs, Management of Urban Forest, Community Initiative and Hazard Assessment Workshop. The latter presentations highlighted the efforts of non-profit and community-based groups that manage the urban forest in their neighborhood or region. One of the more interactive sessions was the Hazard Tree Assessment Workshop. The presenters helped the audience to access three actual examples where trees were involved in hazardous situations.

Each year, the conference planners include a field trip or technical tour to an urban forest or botanical garden or some related site as a means of adding an "in the field" experience for the participants. Thomas Brandeis and a team from the U.S. Forest Service conducted a Tree Inventory demonstration at the Cinnamon Bay campground trails. For three hours, participants were involved in measuring tree height and diameter, sampling soil and characterizing the understory of small shrub trees. It involved the use of tools and equip-



UVI's Cooperative Extension Service State Director Kwame Garcia bestows the conference's "Outstanding Professional" award on Carlos Robles, CES Extension Specialist



James Elden displaying items made from St. Croix mahogany

ment necessary for such a job. This type of activity was a first of its kind for the conference.

Another highlight was the annual banquet and awards ceremony. What made this event very special was that UVI received two of the seven awards given that evening. The St. Croix campus received the "Project Award" for its grounds restoration and Extension Specialist Carlos Robles received the "Outstanding Professional" award for his work in Urban Forestry in the Virgin Islands.

By all accounts the conference was a success, and participants benefited not only from the presentations but from the networking that occurred throughout the five days. For further information regarding the conference, please contact Dr. Louis Petersen at (340) 693-1071 or at lpeters@uvi.edu.

R&P
S

[HTTP://RPS.UVI.EDU/](http://RPS.UVI.EDU/)

LOCAL COMMUNITY, RC&D COUNCIL AND UVI EXTENSION TO BENEFIT FROM \$60,000 EPA GRANT

"THE EPA GRANT WILL HELP REVITALIZE VIRGIN ISLANDS 'BROWNFIELDS,' REAL PROPERTY, THE EXPANSION, REDEVELOPMENT, OR REUSE OF WHICH MAY BE COMPLICATED BY THE PRESENCE OR POTENTIAL PRESENCE OF A HAZARDOUS SUBSTANCE, POLLUTANT OR CONTAMINANT. CLEANING UP AND REINVESTING IN THESE PROPERTIES TAKE DEVELOPMENT PRESSURES OFF OF UNDEVELOPED, OPEN LAND AND BOTH IMPROVE AND PROTECT THE ENVIRONMENT."



Kwame Garcia, Sr., CES State Director, left, accepting the \$60,000 EPA check that CES will use along with RC&D to keep the St. Croix community informed and develop and maintain a repository of environmental information

U.S. Environmental Protection Agency (EPA) Regional Administrator Jane M. Kenny visited the St. Croix campus of the University of the Virgin Islands and announced the awarding of federal grants that will benefit the local community and help revitalize Virgin Islands "brownfields." Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. Cleaning up and reinvesting in these properties take development pressures off of undeveloped, open land and both improve and protect the environment.

The first grant of \$417,000 was presented to the

Department of Planning and Natural Resources. Kenny also announced that the Virgin Islands Resource Conservation & Development Council, Inc. (RC&D) was selected to receive a \$60,000 grant. The University of the Virgin Islands Cooperative Extension Service is a collaborator with RC&D and along with RC&D will use the grant to keep the St. Croix community informed and develop and maintain a repository of environmental information.

"The two grants will benefit local communities by promoting the revitalization of abandoned or underused properties and by enhancing the environmental information available to the citizens," Kenny said.

R&P
S

[HTTP://RPS.UVI.EDU/](http://rps.uvi.edu/)

SBDC'S COMPUTER TRAINING HELPS BUSINESS OWNERS COMPETE



The UVI Small Business Development Center has hosted several computer based training sessions over the past months, with special emphasis in the St. Croix District. SBDC conducted sessions on QuickBooks Pro, Microsoft Excel, Word, Publisher and Power Point. Many of these modules were introductory. Intermediate and advanced modules will be offered in later sessions and on an as-needed basis.

The community has responded quite favorably to these sessions and has expressed interest for continued programming since these applications play such a pivotal role in a business owner's ability to aggressively compete in today's market.

UVI HELPS ST. CROIX CELEBRATE ANNUAL MANGO MELEE FESTIVAL



Left: Children compete in the mango-eating competition; the contest is a major highlight of the festival. Right, Carlos Robles, Extension Specialist, and Errol Chichester, Horticulturist from the V.I. Department of Agriculture, assist with workshop on grafting tropical fruit trees during Mango Melee



"OVER 3,000 COMMUNITY RESIDENTS AND VISITORS STROLLED THROUGHOUT THE BEAUTIFUL SETTING OF ST. GEORGE VILLAGE BOTANICAL GARDEN GROUNDS TO OBSERVE AND PARTAKE OF SOME OF THE MOST SUMPTUOUS MANGOES, OTHER TROPICAL FRUITS AND RELATED VALUE-ADDED PRODUCTS THAT ARE AVAILABLE IN THE VIRGIN ISLANDS."

In an effort to continue the promotion of mango and other tropical fruits production as a potential viable industry for the Virgin Islands, the UVI Cooperative Extension Service in partnership with the UVI Agricultural Experiment Station, the St. George Village Botanical Garden, the V.I. Department of Agriculture, the V.I. Department of Tourism, and BioImpact, Inc., celebrated the 8th Annual Mango Melee and Tropical Fruits Festival July 11, on St. Croix.

Over 3,000 community residents and visitors strolled throughout the beautiful setting of St. George Village Botanical Garden grounds to observe and partake of some of the most sumptuous mangoes, other tropical fruits and related value-added products that are available in the Virgin Islands.

The one-day celebration offered family enjoyment with games for our youth, lots of local food and drinks to sample, lively music, nursery plants

for sale, and a farmers' market. Taking center stage was a colorful display of over 40 varieties of mangoes, as well as a large assortment of exotic tropical fruits that are grown on St. Croix.

This year's activities included a "mango dis and dat" competition, mango tasting and evaluation, tropical fruits identification, a silent auction of tropical fruits, and a mango eating contest.

As a result of a previous year's workshop on the processing of tropical fruits delivered by a food technologist from the Caribbean Industrial Research Institute in Trinidad, our farmers and their families displayed and sold a significantly greater amount of processed fruit products at this year's event.

Other educational activities included hands-on demonstrations on how to make mango and tropical fruits ice cream and on the propagation of tropical fruits.

YOUTH OUTREACH AND CASE WORKER TRAINING SBDC FOCAL POINTS

The SBDC continues to assist our islands' youths by increasing their awareness and potential regarding financial, business and other issues. To help reinforce this mission, the SBDC has put on presentations in the Youth Outreach Program for the high schools on St. Croix and St. Thomas regarding "Steps to Starting a Business in the USVI." SBDC has also been asked to assist the schools in their programs of Life Skills. As a result, the SBDC has been instrumental in helping various groups with the concept of money management. By showing the students how to save, when to save and what they can do with saved money, over 35 students at the St. Croix Educational Complex learned the basics of money management during the two-day module. Through this

type of program, the SBDC is providing the students with the full educational value of basic money management and ethics.

The Department of Human Services, Office of Intake and Emergency Services, and the SBDC collaborated in the same basic skills sets for training case workers. This session helped case workers/counselors learn how to stress to their clients the importance of understanding revenue and expenses and how to "make ends meet" financially. The Department has a growing concern that too many of their clients do not have a complete understanding of the concept. Therefore, with the SBDC's assistance, an immediate, positive impact can be registered on the residents regarding their overall financial management skills.





RESEARCH & PUBLIC SERVICE UPCOMING EVENTS NOVEMBER - DECEMBER 2004

NOVEMBER

- 1-DEC 8 SMALL LIVESTOCK COURSE/CES
- 3 YOUTH OUTREACH PROGRAM: FBIA - BUSINESS PLAN DEVELOPMENT SERIES/SBDC
- 4 INSURANCE PLANNING BASICS FOR BUSINESSES/SBDC
- 8 CHECKLIST FOR STARTING A BUSINESS - CHOOSING A BUSINESS/SBDC
- 9 CHECKLIST FOR STARTING A BUSINESS - FORM OF OWNERSHIP/SBDC
- 14 TURKEY CARVING DEMONSTRATION & PUMPKIN WORKSHOP/CES
- 15 CHECKLIST FOR STARTING A BUSINESS - WRITING A BUSINESS PLAN-NARRATIVE/SBDC
- 16 WNET ROUNDTABLE/SBDC
- 16 CHECKLIST FOR STARTING A BUSINESS - WRITING A BUSINESS PLAN-FINANCIALS/SBDC
- 17 PRICING YOUR GOODS AND SERVICES/SBDC
- 17 & 18 PUMPKIN WORKSHOP/CES
- 19 WNET TRAINING/SBDC
- 29 CHECKLIST FOR STARTING A BUSINESS - WRITING A BUSINESS PLAN-BUSINESS REGISTRATIONS/SBDC
- 30 CHECKLIST FOR STARTING A BUSINESS - WRITING A BUSINESS PLAN-BUSINESS LICENSES & ZONING/SBDC

DECEMBER

- 1-2 HOLIDAY BAKING WORKSHOP/CES
- 1 YOUTH OUTREACH PROGRAM: FBIA BUSINESS PLAN DEVELOPMENT SERIES/SBDC
- 2 CHECKLIST FOR STARTING A BUSINESS - WRITING A BUSINESS PLAN-TAX COMPLIANCE & RECORD-KEEPING/SBDC
- 3 HOW TO EFFECTIVELY ADVERTISE YOUR BUSINESS/SBDC
- 6-7 ALTERNATIVE SEPTIC SYSTEM DESIGN/CES
- 9 MARKETING STRATEGIES THAT GET RESULTS/SBDC
- 10 HOME DECORATION & GIFT IDEAS DISPLAY/CES
- 12 ECO-HIKE TRAINING WORKSHOP/CES
- 14 YOUTH OUTREACH/SBDC
- 14-16 HOLIDAY BAKING WORKSHOP/CES

**For more information on these events, contact the sponsoring department.*



UVI RESEARCH & PUBLIC SERVICE
#2 JOHN BREWERS BAY
ST. THOMAS, VI 00802