Quick Facts

- 14,736 acres of conservation planning completed
- 6,024 acres of cropland conservation applied to improve soil quality
- 17,081 acres of conservation applied to improve water quality
- 685 acres of irrigation improvements
- 18,082 acres of grazing land with conservation applied to protect/improve the resource
- 908 acres of conservation applied to protect fish & wildlife habitat
- Over 70% of financial assistance provided to beginning, limited-resource or socially-disadvantaged farmers
- Almost $3.8 Million in financial assistance to Caribbean Area producers & landowners to improve 8,852 acres

Message From Our State Conservationist

Season’s Greetings Caribbean NRCS Employees and Partners!

Happy Holidays to all of you and Happy New Year. This past year has been a unique one. We’ve had many accomplishments and successes. I am proud of all of you for being part of a great team. Enjoy this wonderful Annual Report which captures a few of the great stories you all have worked on so hard. My appreciation to all for a fantastic year. Keep up the good work, and keep on shining!

Yours in Conservation,

Edwin Almodóvar, Director
Caribbean Area Natural Resources Conservation Service
Environmental Quality Incentives Program (EQIP)

EQIP is a voluntary conservation program to provide farmers with technical and financial assistance to install and implement conservation practices on eligible agricultural lands. Through EQIP, farmers in Puerto Rico and the U.S. Virgin Islands receive assistance for agricultural production and environmental quality as compatible goals.

In FY 2014, NRCS approved 400 contracts providing $3,769,980 in financial assistance to benefit 8,852 acres in the Caribbean Area, including contracts specific to 5 major initiatives: Guánica Bay, Santa Isabel Water Management, On-Farm Energy, Seasonal High Tunnel, USVI Projects & Pineapple Specialty Crop. Approximately 70% of these funds were provided to beginning, limited-resource or socially-disadvantaged farmers.

EQIP On-Farm Energy Initiative

NRCS & the Puerto Rico Milk Industry Development Fund are helping dairy producers transition to more energy efficient operations. The On-Farm Energy Initiative funds individual on-farm energy audits to save farmers both money and energy. This year, NRCS approved 5 Energy Audit contracts for $52,849 and signed 92 On-Farm Energy contracts for $150,986 to implement energy audit recommendations. Auditors will conduct on-farm energy audits for eligible participants to identify how farm operations can become more energy-efficient, and use audit results to develop cost-effective Agricultural Energy Management Plans (AgEMPs).

EQIP Coral Reef Initiative

The Guánica-Río Loco Watershed Project is located in the southwest corner of Puerto Rico and covers portions of Guánica, Yauco, Lajas and Cabo Rojo. Since 2009, NRCS has been helping producers in the watershed to voluntarily install conservation practices to reduce and trap sediment and nutrient runoff, improve wildlife habitat, and maintain agricultural productivity. The project is a multiagency effort to support the U.S. Coral Reef Task Force and reduce the impacts of land-based sources of pollution on coral reefs.

To date, NRCS has allocated over $2.68 million in EQIP funds and conservation technical assistance to conserve resources on over 2,629 acres of farmland in the Río Loco watershed. In the Upper Río Loco watershed, over $92,430 has been obligated to convert 1,284 acres of sun-grown coffee plantations to shade-grown coffee on 50 farms. To date, over 31,930 native trees have been planted and over $71,229 has been paid to farmers for reforestation of 747 acres and other conservation practices. Practices installed include: 4 3-acre irrigation reservoirs; 3 water & sediment control basins; 3,720 feet of open channels; 6,630 feet of irrigation pipeline; 545 acres of terraces; 10,877 feet of fencing; 6 livestock watering facilities; 6 waste facilities; 127 acres of pasture and hayland planting; 128 acres of access control; 12 acres of critical area plantings; 717 acres of multi-story cropping; 43 acres of riparian forest buffer; 520 acres of brush management; 255 ft2 of heavy use area protection; 1,768 acres of nutrient management; and 986 acres of integrated pest management.
EQIP Santa Isabel Water Management Project
NRCS is partnering with Caribe SWCD and the PR Department of Agriculture on a water management project in Santa Isabel. The area has a severe water crisis due to aquifer drawdown by irrigation wells. Pumping more water out of the aquifer through wells than is recharged through rainfall has led to salt water intrusion of the coastal aquifer. Salt water intrusion degrades water quality in the aquifer, making it unsuitable for growing crops. To remedy the situation, NRCS and partners are promoting the use of an existing irrigation channel that runs along the north side of the area and provides an excellent source of high quality water. In FY 2014, 1 contract was obligated for a total of $279,205 to protect over 2,101 acres of cropland.

EQIP Seasonal High Tunnel
EQIP’s Seasonal High Tunnel Initiative offers financial and technical assistance to farmers to meet increased demand for specialty and organic products. The Seasonal High Tunnel practice is a polyethylene-covered structure called a Hoop House—similar to a greenhouse but with no electrical, heating, and/or mechanical ventilation system—that is used to cover high-value crops to extend the growing season in an environmentally safe manner. In FY 2014, NRCS approved 20 Seasonal High Tunnel contracts for local producers for a total of $189,851.

EQIP Pineapple Specialty Crop
Pineapples are re-emerging as a popular crop in Puerto Rico with the introduction of a sweeter variety, called Golden Pineapple (Ananas Comosus var MD2). The new variety produces so much more fruit than the traditional Cabezonita pineapple that farm acreage planted in pineapples has doubled from 250 acres in 2011 to 500 acres this year. The Pineapple Specialty Crop Initiative offers farmers financial and technical assistance to help prevent erosion, improve soil health and keep water clean downstream by encouraging them to use conservation practices. This year, NRCS approved 9 Pineapple Specialty Crop contracts for $174,056 to conserve resources on pineapple farms in southwest Puerto Rico.

Conservation Innovation Grants (CIG)
CIG is a voluntary program to stimulate innovative conservation projects in conjunction with agricultural production. CIG allows NRCS to work with public and private entities to promote promising technologies to address resource concerns (soil, water, air, plants, animals, energy). In FY 2014, the Caribbean Area NRCS awarded $120,305 to 3 projects in Puerto Rico to develop and demonstrate cutting-edge conservation in the Caribbean Area:

Project 1: Agro Tropical Inc. was awarded $62,449 for their project, “Mechanized Cover Crops Management for improving soil health on steep and mountainous plantain farming areas in Puerto Rico”

Project 2: UPR – Estación Experimental Jardín Botánico was awarded $27,271 for their project, “Appropriate On-Farm Compost Management of Agricultural Manures and Organic Residues”

Project 3: UPR – Estación Experimental Jardín Botánico was awarded $30,585 for their project, “Biological Tillage with Non-Conventional Cover Crops for Improving Soil Health”
National Resources Inventory (NRI)

The NRI provides natural resource managers, policy makers and the public with scientifically valid, timely, and relevant information on the natural resources and environment of the Caribbean Area. This data provides the scientific basis for effective public policies, sound agricultural and natural resource legislation, sensible local and national conservation programs, and targeted USDA financial and technical assistance to address natural resource concerns.

The 2010 NRI is the latest in a series of national resource inventories conducted by USDA-NRCS throughout the United States. It provides a summary of the status, condition, and trends of land, soil, water, and related resources on the nation’s private lands across from 1982 to 2010. The NRI provides a record of the Nation's conservation accomplishments and future program needs. Caribbean Area highlights include: continued decline in cropland and pastureland acreage from 2007 to 2010 and increased erosion rates from cultivated cropland, from 9.3 tons/acre in 2007 to 10.9 tons/acre in 2010, likely due to extreme storm events. During FY 2014, Caribbean Area NRI staff began data collection for 2013 NRI segments.

Plant Materials Program (PMP)

This fiscal year, the NRCS-CB Plant Materials Program published a new factsheet, “Caribbean Pollinator Bees,” in both English and Spanish. The factsheet provides information on native pollinator bees, and the wild flowers that attract them, to help farmers and property owners increase pollinator habitat and preserve our food supply. The factsheets are available online at: www.pr.nrcs.usda.gov.

The PMP conducted field demonstrations of the native grass, Uniolla Virgata (wire grass), for use as a vegetative barrier to control soil erosion, trap sediment and improve habitat and water quality. The project was funded by a $28,000 grant from the National PMP. PMP staff collaborated with the University of Puerto Rico (UPR) to produce a technical note on the use of Maralfalfa grass for dairy operations, including management and production; and partnered with the US Fish & Wildlife Service to distribute over 2,000 native trees to reforest farmland. PMP staff also provided technical assistance and support to:

- The PR Department of Agriculture to identify salt-tolerant vegetation to reclaim land for new rice producers in Puerto Rico
- The UPR Marine Science Department to evaluate agricultural impacts on seagrass in southern PR
- UPR SeaGrant to develop guide of conservation practices for the Caribbean Area

Below left: Mayagüez People’s Garden team replant the garden in February; Right: Puerto Rico First Lady Wilma Pastrana Jiménez; NRCS-CB Director, Edwin Almodóvar; Mayagüez College of Agricultural Sciences Dean of Campus, Dr. Gladys González; and Puerto Rico Secretary of Agriculture, Dr. Myrna Comas, plant seedlings in La Fortaleza People’s Garden.

Uniolla virgata (wire grass).
Soil Survey Program

The NRCS Caribbean Area Soils Survey Division is part of the National Cooperative Soil Survey (NCSS) program, a nationwide partnership of federal, regional, state and local agencies and institutions. This partnership works together to cooperatively investigate, inventory, document, classify, and interpret soils and to disseminate, publish, and promote the use of soils data for the United States and its territories.

During FY 2014, the Mayagüez MLRA SSO completed the evaluation and update of eight Soil Data Joint Recorrelation (SDJR) projects and submitted them to MO Region #3 in Raleigh, NC, for Soil Quality Assurance. The SDJR initiative consolidates map units across soil survey areas. The eight SDJR projects update soil information for a total of 26,655 acres for the 8 Caribbean Area map units.

Caribbean Area Soil Survey Division staff also completed soil sample collection for phase II of the Rapid Carbon Assessment (RaCA) Initiative. RaCA provides NRCS-CB the opportunity to inventory the effects of soil properties, agricultural management and land use on soil carbon stocks. The Caribbean RaCA project studied 30 sites throughout Puerto Rico and the USVI. In FY14, soil samples were collected for the remaining 15 RaCA sites in Cayey (2), San Lorenzo, Yabucoa, Rio Grande, Cidra, Loiza, Toa Alta, Barceloneta, Vega Alta, Lares, Salinas, Ponce (2) and St. Thomas, USVI. These 15 sites collectively represent a diversity of soils from different MLRAs (including 270-Humid Mountain and Valleys, 271-Semiarid Mountain and Valleys, 272-Humid Coastal Plains and 273-Semiarid Coastal Plains) and under different land uses including cropland, pastureland, forestland and wetlands.

The NRCS Caribbean Area Soils Ecological Science Divisions signed a Cooperative Ecosystem Studies Unit (CESU) agreement with the UPR-Mayaguez Biology Department to collect information to develop Ecological Site Descriptions (ESDs) for four Maricao Forest Soils Associations. The Maricao Forest is an area of special concern – It has been identified by the Puerto Rico Department of Natural and Environmental Resources (DNER) and the US Fish and Wildlife Service (USFWS) as a release site for the endemic, endangered Puerto Rican parrot (Amazona vittata vittata). ESDs for Maricao are a critical tool to manage this habitat to reduce this parrot species’ risk of extinction. A second CESU agreement was signed with the UPR-Mayaguez Soils’ Department to revise and update “Bulletin 303 – Updated Taxonomic Classification of the Soils of Puerto Rico, 2002.”

Community outreach is a vital part of the Caribbean Area Soils Program, helping our users understand and properly use soil survey information. In FY 2014, we helped over 4,347 users through direct soil technical assistance and active participation in various activities such as: on-site investigations, agricultural fairs, workshops, trainings, environmental impact statement evaluations, soil tours, soil site description studies, university and school students’ educational events. Soils information was also circulated to over 1,100 members of the public through 67 social media posts (Twitter, FaceBook, GovDelivery) and NRCS-CB Soils webpages.
Conservation Technical Assistance (CTA)

NRCS provides conservation technical assistance (CTA) to land users to help them make sound natural resource management decisions. Assistance includes resource assessment, practice design, resource monitoring, or follow-up of installed conservation practices. NRCS also holds outreach activities to increase participation of socially-disadvantaged farmers and ranchers in our programs and to provide information to underserved groups and individuals.

Outreach: In FY 2014, NRCS provided CTA to over 8,400 clients and media outreach to over 150,000 residents through over 1,330 activities and contacts including: training workshops, onsite investigations and evaluations, conservation plans, technical consultations, advisory committees, newspaper and newsletter articles, radio appearances, conference presentations, public meetings, informational mailings and email blasts, outreach publications, posters and exhibits, the NRCS Caribbean Area website and FaceBook page, Twitter, and personal contacts.

CTA Outreach highlights include:

- The Ecological Sciences Division and the USVI NRCS Office hosted a livestream down-link of the National Cover Crops & Soil Health Forum for over 30 NRCS staff members and local and federal partners.
- Two outreach workshops were held for 60 farmers in Maricao and Adjuntas to provide information on NRCS Programs and their benefits to local agriculture. The workshops were facilitated by Envirosurvey Inc. in collaboration with the U.S. Fish & Wildlife Service, PR Department of Natural and Environmental Resources (DNER) and NRCS. To solicit farmer feedback, a questionnaire was used to lead round table discussions of NRCS and FWS programs.
- CB staff participated in at least 8 outreach workshops/meetings throughout Puerto Rico and the U.S. Virgin Islands to provide NRCS programs, 2014 Farm Bill and area resource information to over 275 area farmers.
- To kick-off the Pineapple Specialty Crop Initiative, staff met with 10 pineapple growers from Lajas, San Germán and Sabana Grande counties to explain EQIP program benefits and describe conservation practices recommended for pineapple farms, helping each farmer complete a conservation program application.
- CB staff assisted with training workshops on Citrus Greening, Cover Crops & Soil Health, Composting, Energy Efficiency, and Sugar Cane Planting for over 125 agronomists, researchers, State Technical Committee members, SWCD members, and residents.
- CB staff provided CTA to at least 3 inter-agency workgroups re: updating USVI storm water rules, regulations & practices; protecting Cano Boquilla Natural Reserve; and implementing the Coloso Valley water project.
Partnerships

During FY 2014, The PR Department of Agriculture and Caribbean Area NRCS hosted the Board of Supervisors Assembly for the el Norte Soil & Water Conservation District (SWCD) on August 27, 2014, at the Magueyes Neighborhood Community Center in Barceloneta. Over 25 farmers from the municipalities that form the Norte SWCD (Manati, Barceloneta, Florida, Ciales, Vega Alta, Vega Baja and Morovis) participated in the meeting.

NRCS continued our efforts to re-activate Caribbean Area Soil & Water Conservation Districts, in partnership with the PR Department of Agriculture. In FY2014, 3 SWCDs in Puerto Rico were re-activated: el Norte SWCD, which receives assistance from the Arecibo FO, el Este SWCD, which receives assistance from the Caguas FO, and Suroeste SWCD, which receives assistance from the Juana Diaz FO. Over 70 farmers attended the Suroeste Annual Meeting held in Arroyo to select their new Board of Directors, and 23 farmers met in Arecibo in August to select the new Noreste Board of Directors.

A new era for Virgin Islands’ agriculture began March 28, 2014, when Caribbean Area NRCS representatives signed a Memorandum of Understanding (MOU) with the Virgin Islands Department of Agriculture (VIDOA) and the newly-reactivated Virgin Islands Conservation District (VICD or “the District”) to help improve water supplies for local farmers. Under this MOU, NRCS contracted with VICD to...

NRCS also partnered with NOAA and F&WS to provide technical assistance to Rio Loco Watershed farmers to protect coral reefs in Yauco municipality by implementing conservation measures to enhance wildlife habitat and control soil erosion on uplands.

Emergency Watershed Protection (EWP)

The Emergency Watershed Protection (EWP) program helps communities implement emergency measures, including purchase of flood plain easements, to relieve imminent hazards to life and property created by a natural disaster. EWP can install practices to help areas recover from flood, drought, erosion, landslides and sedimentation on any watershed whenever fire, flood, storms or any other natural disaster has caused a sudden impairment of the watershed.

In the aftermath of Hurricane Irene on August 21, 2011, NRCS awarded $1.8 million in EWP funds to 6 communities in Puerto Rico. During FY 2014, the last 3 of these projects were completed: Bank stabilization of 365 feet of Los Muertos Creek in Caguas completed in October 2013; Bank stabilization of 1,200 feet of Los Méndez Creek in Yabucoa completed in March 2014; and Bank stabilization of 150 feet of La Ponderosa Creek in Caguas completed in April 2014. NRCS invested $1,538,960 to construct the 6 EWP projects, with sponsors contributing $220,935. EWP project partners cleared and snagged over 7,240 feet of water courses and installed about 1,940 feet of gabion protection on damaged streambanks, protecting 14,672 residents and benefitting 97 private homes, 3 recreational facilities, 1 hospital, 5 bridges, roads, sidewalks, sewer lines, light poles and fences.
Civil Rights Advisory Committee (CRAC)

NRCS Caribbean Area CRAC members represent field and state office employees from Puerto Rico and the US Virgin Islands, serving in an advisory role to the Director, to provide civil rights counsel and recommendations for all clients and employees.

There are eight Special Emphasis Programs (SEPs) that are part of the Civil Rights Advisory Committee and each has its own SEP Manager (or SEPM): African Americans; American Indians/Alaska Natives; Asian Americans/Pacific Islanders; Persons with Disabilities; Lesbian, Gay, Bisexual and Transgender (LGBT) Individuals; Hispanics; Veterans; and Women. Fiscal year 2014 CRAC member accomplishments include:

- 70% of FY14 Farm Bill Program participants were Beginner, Limited-Resource, or Socially-Disadvantaged Farmers.
- 8% of FY14 Farm Bill Program participants were Women, 1% were Veterans, and 94% were Hispanic.
- Directly provided career, employment and internship information to over 170 students the UPR Mayagüez Annual Job Fair.
- Celebrated LGBT Pride Month with USDA-APHIS staff at their headquarters in Carolina, PR, hosting 40 participants.
- Participated in at least 10 Agricultural & Environmental Fairs & Festivals (including Agropolis, UPR-Mayagüez “Cinco Días con Nuestra Tierra,” “Festival del Café” in Jayuya) with over 3,000 attendees visiting the NRCS booths and displays to learn about NRCS programs, conservation issues and practices, and soil health.
- Participated in 5 Veterans Job Fairs to provide outreach on USDA-NRCS programs and employment opportunities for over 600 attendees.
- Participated in 6 Job Training workshops to conduct classes on resume building, USAJOBS website, VA E-benefits and American Jobs Act review of benefits for 300 participants including over 150 veterans.
- Provided NRCS program and funding information to over 300 participants at COMA Congress; PR Market Expansion Conference in San Juan and USVI Agriculture Marketing Conference.
- Delivered presentations on conservation, soil health and careers in agriculture & natural sciences to over 650 elementary to high school students during at least 8 youth fairs/camps/activities, including Fort Buchanan Earth Day Fair, Rediscover Boquilla Estuary Fair, UPR Utuado Festival Tierra Adentro, and Feria Expo Ambiente.
- San Sebastián FO conducted outreach Field Tours and demonstrations on conservation planning techniques, conservation practices, and instruments & technologies for 11 University of Puerto Rico students.
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