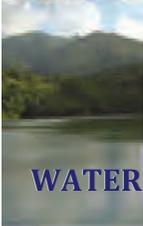
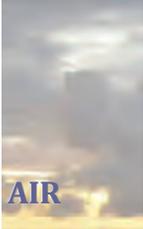




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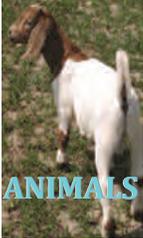
WATER



AIR



PLANTS



ANIMALS



HUMANS



ENERGY

NRCS Caribbean Area Celebrates Earth Day & National Volunteer Week



NRCS Soil Conservationist, Javier Torres (left), describes conservation practices installed on the Patiño farm to RUM students.

To celebrate Earth Day and National Volunteer Week on April 22-26, 2013, NRCS San Sebastián Field Office staff Javier Torres (Soil Conservationist) and Michelle Catoní (Soil Conservation Technician) led 30 University of Puerto Rico - Mayagüez Campus (RUM) Agriculture students on farm visits to learn more about NRCS conservation programs and career opportunities. NRCS staff collaborated with partners from the Northwest Soil Conservation District (SCD), the PR Department of Agriculture and the RUM Agriculture Department on two field visits to the Patiño farm in the Coloso Valley in Aguada, PR.

NRCS staff described the farm's soils and the most common conservation practices applied on the farm, and demonstrated the use of survey instruments used by NRCS to apply the conservation practices. The students received outreach materials detailing the benefits of conservation practices on the Patiño Farm, how to use the Web Soil Survey, the NRCS Backyard Conservation initiative and the Earth Team Volunteer Program. Agronomist Idelisa Acevedo, (SCD supervisor) also provided the students with information about



Utua Field Office volunteers, Eliud Torres Vázquez (left), Erica M Claudio Rivera (center) and Gudianne Romero Méndez (right) assist with pasture field fencing construction.

PR Department of Agriculture programs.

USDA-NRCS celebrated **National Volunteer Week** from April 21 – 27, 2013 by thanking and honoring its Earth Team volunteers for their service to conservation. Earth Team is the agency's volunteer workforce.

NRCS Caribbean Area Director, Edwin Almodóvar, said Earth Team volunteers are making an environmental impact in the Caribbean Area. Last year 38 volunteers donated 3,834 hours. *"That's worth \$85,534.86 of benefit to our customers and the taxpayers,"* said Almodovar. *"These are impressive numbers, and we are grateful for the help, but we also recognize much more conservation work needs to be done."*

For information on Earth Team in the Caribbean Area, contact Hilton Miró at 787-766-5206 x. 126 or Hilton.miro@pr.usda.gov, visit the Earth Team website at: www.nrcs.usda.gov/wps/portal/nrcs/main/national/people/volunteers, or contact your local NRCS Field Office.



NRCS Soil Conservation Technician, Michelle Catoní (right), describes use of survey equipment to RUM students at the Patiño farm.



Director's Corner

Greetings NRCS Caribbean!

I hope you all are enjoying a wonderful summer. I want to take this opportunity to thank you for everything that you do to help the Caribbean Area to fulfill our mission and accomplishments. Without you, we would have never achieved so much!

Recently, we sent a DVD that includes the NRCS Caribbean video production entitled 'NRCS Helping the Land' to all Caribbean Area Field Offices. I also invite you to visit our YouTube page at www.youtube.com/NRCSCaribbean, where you will find three more unique videos.

Once again, thank you for everything that you do. I am extremely proud of our Caribbean Area staff.

Yours in Conservation,

Edwin Almodóvar, Director
USDA-NRCS Caribbean Area

Food waste in the USA is estimated to be between 30-40% of our food supply. Join USDA and U.S. EPA in the U.S. Food Waste Challenge. See what you can do to help at: <http://ow.ly/IHR5T>.

Inside this Issue:

| | |
|--|---|
| NRCS Caribbean Area Celebrates Earth Day & National Volunteer Week | 1 |
| Director's Corner | 1 |
| Agriculture Partners in PR Celebrate Conservationist Farmers of the Year | 2 |
| NRCS Joins the Caño Boquilla Estuary Festival | 2 |
| NRCS Shares 'Secrets of the Soil' with Agro-Ecology Students | 2 |
| New Videos Showcase NRCS in the Caribbean Area | 3 |
| Emergency Watershed Protection Projects Progress in Puerto Rico | 3 |
| Organic 101: Can GMOs be used in Organic Products? | 3 |
| Building the NRCS Mayagüez People's Garden Step by Step | 4 |
| Activities & Events | 4 |

Agriculture Partners in Puerto Rico Celebrate Conservationist Farmers of the Year during Earth Week 2013



Pictured left to right: Edwin Almodóvar, NRCS-CB Director; Elizabeth Fred, NRCS San Sebastián District Conservationist; Carmen Tubens, farmer's wife; Modesto Velázquez, farmer; Dr. Myrna Comas, Secretary of PR Department of Agriculture; and Octavio Colberg, Mayagüez Regional Director, PR Department of Agriculture.

In celebration of Earth Week, the PR Department of Agriculture (PRDA) organized "*Semana de la Tierra Puertorriqueña 2013*," a variety of activities culminating with the award of the Conservationist Farmer of the Year. PR Conservationist Day was celebrated by PRDA, USDA-NRCS and the 17 Soil & Water Conservation Districts of Puerto Rico on Thursday May 2, 2013 in Guánica, PR. At this event, Mr. Modesto Velázquez, a plantain farmer in Moca, was selected as the Culebrinas District's Conservationist Farmer of the Year and as Conservationist Farmer of the Year amongst all 17 of the SWCDs in Puerto Rico!

The NRCS San Sebastián Field Office (FO) is very proud of Mr. Velázquez' recognition and his contributions in conserving Puerto Rico's natural resources. Since 2010, San Sebastián FO staff have been working with Mr. Velázquez to establish conservation practices on his four farms through the Environmental Quality Incentives Program (EQIP). To date, he has installed hillside ditches, contour farming, mulch till, no till, crop rotation and nutrient management practices on his farms. His conservation efforts have reduced the loss of Consumo soils on his farm by an estimated 47.5 - 65 tons per acre year (according to RUSLE). He has also increased his soils' organic matter, maximizing the management and availability of nutrients in his soils to improve crop yields and quality. For details on EQIP, please visit www.pr.nrcs.usda.gov.

Mayagüez District Conservationist, Zulma García (left), poses with Oeste SWCD "Agricultora Conservacionista," Evelyn Matías (center), and her husband, Efrain Jiménez (right).



NRCS Joins the Caño Boquilla Estuary Festival

On April 26, 2013, the NRCS Mayagüez Field Office staff joined personnel from UPR Sea Grant, the NGO Mayagüezanos Por la Salud y el Ambiente, and the city of Mayagüez at the 2nd *Rediscovering Caño Boquilla Estuary Festival*. The event celebrates the natural resources of Caño Boquilla Estuary, a nature preserve located in Mayagüez and protected by DRNA, and educates the community about its ecological importance.

NRCS Mayagüez Field Office, Soil Science and Ecological Science staff members Yadira Feliciano (SCT), Zulma García (DC), Manuel Matos (SS) and Raquel Robledo (RC) participated in the fair to inform participating school students, teachers, and community members from Mayagüez and Añasco about the area's natural resources and appropriate conservation methods.



Mayagüez Soil Conservation Technician, Yadira Feliciano (2nd from left), and Soil Scientist, Manuel Matos (6th from left), provide resource conservation information to Fair attendees.

NRCS Shares 'Secrets of the Soil' with Agro-Ecology Students



Juan Rodríguez, NRCS Earth Team Volunteer (left), teaches Laura Mercado Agro-Ecology students about the diverse soils found in the Caribbean Area.

The NRCS Caribbean MLRA (Major Land Resource Areas) Soil Survey Office interacted with over 200 students and community members during the Laura Mercado Agro-ecology School Educational Fair held May 3, 2013, in San Germán, PR.

NRCS MLRA Soil Scientist, Samuel Ríos, and Student Earth Team Volunteer, Juan Rodríguez, welcomed agro-ecology students and

members of the public to the NRCS Soils booth where displays, educational materials, and brochures explained our Agency's mission and vision and the benefits of conservation. Visitors to the NRCS booth discovered the diversity of Caribbean Area Soils through a profile display of the 10 soil survey orders found in the islands. Agro-ecology students and Poblado Rosario community members learned how to retrieve soil survey information from Web Soil Survey, and about the importance of protecting all our natural resources, including soils.

More information on the NRCS Caribbean Area Soils Program can be found online at www.pr.nrcs.usda.gov/technical/Soil_Survey/index.htm.



Reduce, Reuse & Recycle in Your Garden!

Your egg carton can double as a seedling starter to help grow herbs like cilantro, basil and mint.

New Videos Showcase NRCS in the Caribbean Area

New videos highlighting some of the major accomplishments of NRCS in the Caribbean Area are now available. Visit our NRCS Caribbean Area YouTube page at www.youtube.com/NRCSCaribbean to view three short (30 second) videos and one 39 minute production, created in partnership with Caribbean Environmental Films, Inc. and GeoAmbiente del Caribe, Inc. The videos are subtitled in both English and Spanish.



Emergency Watershed Protection Projects Progress in Puerto Rico



Installation of articulated block revetments in Los Muertos Creek, Caguas, to protect stream banks.

USDA-NRCS allocated \$1,800,000 in Emergency Watershed Protection (EWP) funds in January, 2012, to help six (6) communities in Puerto Rico recover from damages caused by Hurricane Irene in August 2011.

Hurricane Irene hit Puerto Rico on August 21, 2011, with 75 mile per hour winds and pummeled the island with torrential rainfall up to 3 days after, causing widespread damage from flooding, severe erosion and landslides. The northeastern and central portions of the island were most severely hit, with a maximum 22.05 inches of rainfall recorded in Gurabo Abajo. President Barack Obama declared a state of emergency for Puerto Rico after the storm, enabling federal agencies to provide disaster assistance to recover from the storm.

The NRCS Emergency Watershed Protection program is designed to reduce threats to life and property from watershed impairment, such as erosion, debris, and sediment. These damages can cause additional flooding, soil erosion, and harm infrastructure. Most projects require a 25 percent local cost-share and local sponsors must provide land rights and any needed permits. NRCS provides 75 percent of the cost, assesses the damage, and plans or designs the repairs needed.

To date, three EWP projects are complete, one is underway, and two are planned to begin this month to reduce threats to life and property in Caguas, Humacao, Las Piedras, Maunabo, and Yabucoa counties:

- **Los Muertos Creek, Caguas:** Project sponsors began construction in November 2012 to install an articulated block revetment along approximately 365 feet of the creek to control erosion and protect stream banks. The project is about 30 percent complete. Partner share: \$250,000; NRCS share: \$750,000.
- **La Ponderosa Creek, Caguas:** Project sponsors have contracted the design and applied for permits to install a gabion wall on roughly 150 feet of the creek to control erosion and protect stream banks. Construction is slated to begin this month. Partner share: \$15,000; NRCS share: \$45,000.

- **Candelero River, Humacao:** Project sponsors removed debris and cleared and shaped approximately 1300 feet of the river. The project was completed on October 5, 2012. Partner share: \$6,250; NRCS share: \$18,750.
- **Quebrada Arenas Creek, Las Piedras:** Project sponsors removed debris and cleared and shaped approximately 4000 meters of the creek. The project was completed on October 10, 2012. Partner share: \$22,500; NRCS share: \$67,500.
- **California Creek, Maunabo:** Project sponsors installed a gabion wall on approximately 100 feet of the creek to control erosion and protect stream banks. The project was completed on February 25, 2013. Partner share: \$11,250; NRCS share: \$33,750.
- **Los Méndez Creek, Yabucoa:** Project sponsors contracted the design and applied for permits to install a gabion wall on roughly 1200 feet of the creek to control erosion and protect stream banks. Construction is slated to begin this month and complete in August. Partner share: \$176,500; NRCS share: \$529,500.

For more information about the Emergency Watershed Protection Program or current EWP projects, contact Damaris Medina at damaris.medina@pr.usda.gov or 787-766-5206 x125 or visit www.pr.nrcs.usda.gov.

Organic 101: Can GMOs be used in Organic Products?



The use of genetic engineering, or genetically modified organisms (GMOs), is prohibited in organic products. This means an organic farmer can't plant GMO seeds, an organic cow can't eat GMO alfalfa or corn, and an organic soup producer can't use any GMO ingredients. To meet USDA organic regulations, farmers and processors must show they aren't using GMOs and that they are protecting their products from contact with GMOs from farm to table.

Organic operations implement preventive practices based on site-specific risk factors, such as neighboring conventional farms or shared farm equipment or processing facilities. For example, some farmers plant their seeds early or late to avoid organic and GMO crops flowering at the same time (which can cause cross-pollination). Others harvest crops before flowering or sign cooperative agreements with neighboring farms to avoid planting GMO crops next to organic ones. Farmers also use the edges of their land as a buffer zone where the land is managed or-

ganically, but the crops aren't sold as organic. Any shared farm or processing equipment must be thoroughly cleaned to prevent unintended exposure to GMOs or prohibited substances.

All of these measures are documented in the organic farmer's organic system plan. This written plan describes the substances and practices to be used, including physical barriers to prevent contact of organic crops with prohibited substances or the products of "excluded methods" such as GMOs. On-site inspections and records verify that farmers are following their organic system plan. Additionally, certifying agents conduct residue testing to determine if these preventive practices are adequate to avoid contact with substances such as prohibited pesticides, antibiotics, and GMOs.

Any certified organic operation found to use prohibited substances or GMOs may face enforcement actions, including loss of certification and financial penalties. However, unlike many pesticides, there aren't specific tolerance levels in the USDA organic regulations for GMOs. Na-

tional Organic Program policy states that trace amounts of GMOs don't automatically mean the farm is in violation of USDA organic regulations. In these cases, the certifying agent will investigate how the inadvertent presence occurred and recommend how it can be better prevented in the future. For example, they may require a larger buffer zone or more thorough cleaning of a shared grain mill.

Consumers buy organic products expecting that they maintain their organic integrity from farm to market. USDA is committed to meeting these expectations. No matter where it was grown, if a product has the USDA Organic label on it, it wasn't produced with GMO.

Reprinted from the USDA Organic 101 blog series exploring USDA's organic regulations. Posted by Miles McEvoy, National Organic Program Deputy Director.

Building the NRCS Mayagüez People's Garden Step by Step



The first NRCS Caribbean Area People's Garden is thriving in Mayagüez! Inaugurated on February 28, 2013, the garden began taking shape in Spring 2013 as a collaborative effort between NRCS, UPR Mayagüez, TARS, the UPR

Agricultural Experiment Station, UPR Cooperative Extension Service, UPR Sea Grant, the Oeste Soil & Water Conservation District (SWCD), Casa Belén, and Mayagüezanos Pro Salud y Ambiente.

To kick-start the project, NRCS Pathways student employee, Lucas Birriel, was selected as coordinator to plan and organize the garden, with orientation and guidance from Plant Materials Specialist, Edwin Más, and Resource Conservationist, Raquel Robledo.

Tasks were handed out to each employee. First, soil classification was done by MLRA Soil Survey Team Leader, Manuel Matos, and Earth Team volunteer, Juan Rodríguez. Next, the vegetable bed was prepared, seed was collected, and propagation trays were planted. Every employee volunteered their time and resources to help build the garden.

While planning the garden, NRCS staff worked together to choose the best management strategies for irrigation, plant health and nutrition, seed selection (for adaptation to local conditions), and conservation practices. Staff consulted and collaborated before making decisions regarding the best methods of crop management, seed propagation and weed control. Even though there were differences of opinion, such as about the type of production (organic, sustainable or conventional) to be used, everyone contributed their conservation knowledge to achieve success.

Initial garden bed preparation was completed by mid-February. Compost was mixed into the top 3 inches of the soil, along with

algae and fish extract with Azomite fertilizer (it contains every mineral which science text books list as beneficial, in addition to a full range of trace elements). Fifteen days after the first plants sprouted, 20-20-20 (N-P-K) fertilizer was incorporated. After the first fertilization, the garden was fertilized every 2 weeks with "Miracle Grow 26-8-16 with Micro-nutrients." To help with soil fertility, all pulled weeds and crop residue is used as mulch to retain soil moisture and stabilize soil temperature. This garden recycles its organic matter, making it sustainable!

The garden is intensively managed — when one crop is harvested, a new crop is planted immediately—ensuring all space in the garden is in continuous use so the garden is always lush and green. Weeds are removed manually and insects are biologically managed (they are auto-controlled by competition created by the insects attracted by other plants in the garden).

In NRCS, helping people is part of our nature. The vegetables produced in the People's Garden are being donated to the Sociedad Fraterna de Misericordia Comunidad de Belén (Casa Belén) Nursing Home in Barrio Leguisamo, Mayagüez. In March, Father Carlos González, Director of Casa Belén, accepted a small initial harvest as a token of our future food donations. It's gratifying to contribute to helping feed the people in need. NRCS has 12 employees volunteering their time to produce vegetables to donate to Casa Belén where 10 to 15 residents will benefit from the harvest. NRCS also plan to propose to Father González to train and help Casa Belén staff to build and prepare their own People's Garden.

For more information on the Mayagüez People's Garden, please contact the Mayagüez Field Office at 787-831-3464 or People's Garden Coordinator, Jaime Valentín, at jaime.valentin@pr.usda.gov or 787-766-5206 x.121.



Left to right: Mayagüez District Conservationist, Zulma García; Oeste SWCD Director, Jose Rodríguez; Father Carlos González, Director of Casa Belén; and Manuel Matos, NRCS Soils Division.

Activities & Events

- ENTSC Webinar: Conserving Pollinators While Addressing Other Resource Concerns, June 25, 2:00—3:00 p.m.
- ENTSC Webinar: Planning and Design of Livestock Watering Systems, June 26, 2:00—3:00 p.m.
- Forestry Webinar: Influence of Forest Cover Loss and Land Use Change on Water Quantity and Quality, July 9, 12:00—1:00 p.m.
- ENTSC Webinar: Farming for Beneficial Insects: Pollinators, Predators and Parasitoids, July 11, 2:00—3:00 p.m.
- ENTSC Webinar: What are FSGs, Why Do I Need Them, and How Can They Help?, July 16, 2:00—3:00 p.m.
- ENTSC Webinar: Environmental Evaluation Series: Planning for Floodplain & Riparian Area Special Environmental Concerns, July 17, 2:00—3:30 p.m.
- ENTSC Webinar: Lessons Learned from Natural Stream Restoration/Enhancement, July 31, 2:00—3:00 p.m.
- ENTSC Webinar: Dragonfly Conservation: Habitat Needs, WRP, Mosquito Control, and Migratory Species, August 1, 2:00—3:00 p.m.
- Forestry Webinar: Application of Forestry Best Management Practices for Water Quality Protection, August 6, 12:00—1:00 p.m.
- ENTSC Webinar: Crop Rotations on Diversified Farms, August 6, 3:00—4:00 p.m.
- ENTSC Webinar: Managing Water Regimes and Invasive Mammals in WRP Sites, August 8, 2:00—3:00 p.m.
- ENTSC Webinar: Using Livestock as Biological Control for Invasive Species, August 13, 2:00—3:00 p.m.
- ENTSC Webinar: Small-scale Micro-Irrigation Design & Components, August 28, 2:00—3:00 p.m.
- ENTSC Webinar: Pollinator Pesticide Risk Reduction, August 29, 2:00—3:00 p.m.

Pollinators: How Much do You Know?

More than 80% of the world's plants need pollinators to survive, including many that provide our food. But today, many pollinators are in trouble. To find out how you can help them, visit: www.nrcs.usda.gov.

Helping People Help the Land...

USDA-NRCS Caribbean Area

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