USDA United States Department of Agriculture

Natural Resources Conservation Service
Caribbean Area

Factsheet

November 2015

INVESTING IN WATER CONSERVATION

Starving cattle in decimated pastures on St. Croix.

Puerto Rico and the U.S. Virgin Islands (USVI) are in the grip of a historic drought. Eastern Puerto Rico, eastern parts of St. Thomas and St. John, and the entire islands of Vieques, Culebra, and St. Croix have suffered through over three months without significant rainfall.

Over 86% of Puerto Rico and the USVI are under a water deficit. Almost 25% of Puerto Rico is under ***extreme drought*** and 45% is under ***severe drought***. This is the third driest period in Puerto Rico since 1898, and it is expected to last through the end of the year. Puerto Rico's severe drought is affecting humans and animals as well as crops. Severe drought in St. Croix has parched pastures, dried up ponds, and killed a large number of livestock.

Although little can be done to control rainfall events, technical experts at NRCS can help producers in Puerto Rico and the USVI apply science-based conservation solutions to build resilience in their operations and mitigate against the impacts of drought.

Below are examples of NRCS conservation practices that can help farmers to deal with the impacts of drought.

- ***Irrigation water management*** assessments to identify water application inefficiencies by comparing crop water uptake to the existing irrigation system. Assessments help produce more efficient irrigation system designs using NRCS standards and specifications to increase efficient water use. Benefits for farmers include higher yields, as well as reduced water demands, environmental impacts and costs.
- ***Water management practices*** provide farmers and ranchers with tools to improve water resource management, monitoring and crop and pasture quality. Better management means better efficiency, more available water, and lower costs.
- ***Watering system designs*** provide better distribution of livestock watering facilities to boost pasture and rangeland use. Producers are challenged to provide livestock with plenty of good, clean water and shade during times of drought. Many producers are now opting to install and manage more efficient livestock watering equipment. Water availability is critical. Water can be supplied by ponds, wells, springs, and water conveyance systems. NRCS can help producers design and install more efficient livestock watering systems.

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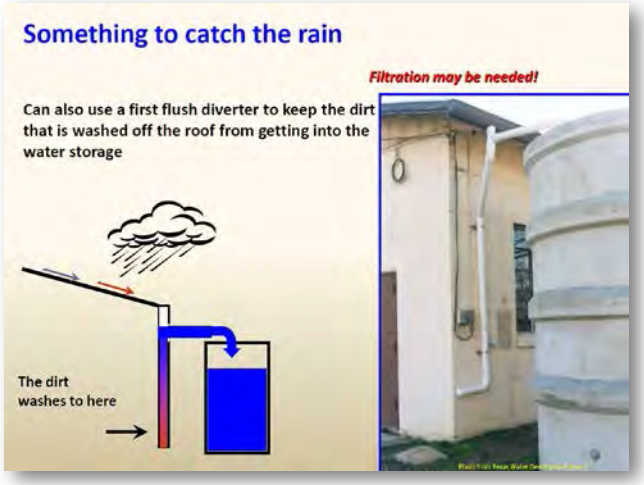
NRCS Assistance

NRCS offers technical and financial assistance to Caribbean Area producers to conserve resources through the ***Environmental Quality Incentives Program (EQIP)*** and Farm Bill initiatives such as the ***Strike Force for Rural Growth & Opportunity***.

Since 2010, NRCS has invested over $12 million to provide more than 130 Mgals of irrigation water to Caribbean Area producers by funding irrigation reservoirs and water and sediment control basins, responding to frequent droughts and farmers' concerns,. NRCS has also planned and obligated funds to build over 30 additional irrigation reservoirs in the near future.

Water can also be harvested from impervious areas and farm buildings' roof runoff, and stored in tanks or cisterns. NRCS Caribbean Area had included new Practices/Scenarios in the Payment Schedule for FY 2016 that will help producers to collect and store rainwater for agricultural uses.

- ***Water Harvesting Catchment - Practice 636*** - These are facilities for collecting and storing runoff from precipitation. The purpose of a water harvesting catchment is to provide water for livestock, fish, wildlife, and/or other uses by sealing contributing areas, or the construction of elevated roof structures, to increase, collect, and store runoff water for future use.
  Total cost per sq. yd. of Surface Catchment Area = $61.51 (NRCS share (75%) =$46)
  Total cost per sq. yd. of Elevated Catchment Area = $89.21 (NRCS Share (75%) =$67)



- ***Roof Runoff Structure - Practice 558*** – New Scenario: Roof Gutter, 6 inches wide with runoff Storage Tank – Is a roof runoff structure, consisting of gutter(s), downspout(s), and a storage tank. It is used to keep water runoff from roof, clean and uncontaminated; provide storage for on-farm use and a stable outlet for any excess to ground surface in a way that avoids erosion.
  Total cost per foot of gutter = $16.43 (NRCS share (75%) =$12.32)

- ***Underground Outlet- Practice 620*** - Install plastic pipe (12, 18 or 24 inches in dia) to convey storm water from one location to a suitable and stable outlet. Practice is often installed in conjunction with terraces, diversions, sediment control basins, waterways or similar practices.
  Total cost per foot of pipe - 24 in = $30.95 (NRCS Share (75%) =$23.21)
  Total cost per foot of pipe -18 in = $20.36 (NRCS Share (75%) =$15.27)
  Total cost per foot of pipe -12 in = $9.38 (NRCS Share (75%) =$7.04)

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