

Coffee Conservation Pilot Project



Coffee in Decline

Coffee production in Puerto Rico is in decline due to extreme weather fluctuations that also threaten natural resources, soil and water quality, and depleted water reserves. Rising temperatures and altered rainfall patterns are threatening coffee producers. Temperature increases reduce coffee plant growth and flowering ability, diminishing coffee berry production.

The USDA Natural Resources Conservation Service (NRCS) has identified action strategies at the local level to reduce key threats to coffee production and natural resources. These strategies were developed collaboratively with the Puerto Rico Department of Agriculture (PRDA) and will be implemented on a pilot basis in Adjuntas, Ciales, Jayuya and Utuado.

The **NRCS Coffee Conservation Pilot Project** aims to improve water quantity, soil and water quality, and coffee production to sustain market trends and harvest quality and yields.

Pilot Project goals are:

- High Quality and Productive Soils
- Reduced Soil Erosion
- Clean and Available Water
- Healthy Plant and Animal Communities
- Clean Air
- Sustainable Working Farms

NRCS seeks to reduce coffee production-related management system contributions to land based sources of marine pollution by reducing soil erosion, improving soil cover and managing other natural resources. NRCS and partners will promote adoption of integrated land use management practices on agricultural lands in targeted communities through identified core conservation practices.

Coffee Recovery & Resiliency

Core conservation practices are science-based measures designed to conserve natural resources – soil, water, air, plants, animals, and energy – and improve natural resource quality while increasing resiliency to climate variability.



NRCS will provide technical and financial assistance to eligible land users on eligible lands to improve soil conditions and water quality and increase water management efficiency for agricultural purposes.

The agricultural operations identified for this initiative are croplands under coffee, citrus, plantain and starchy crops in the upper mountains in central Puerto Rico.

Programs

- Conservation Technical Assistance (CTA)
- Environmental Quality Incentives Program (EQIP)

Resource Concerns

Resource Concern	Source
Water Quality	> Pollutant transport on soil particles.
	> Concentrated cropland runoff
Water Quantity	> Nutrient, pesticide, sediment and other contaminant loads
	> Moisture management
Soil Quality	> Organic matter depletion
	> Compaction
	> Subsidence
Soil Erosion	> Soil erosion on steep cropland and farm roads
	> Concentrated flow erosion
	> Excessive bank erosion from streams, shorelines or water conveyance channels
Fish & Wildlife	> Habitat degradation
	> Habitat fragmentation
	> Habitat loss
Degraded Plant Condition	> Inadequate structure and composition
	> Undesirable plant productivity and health

Coffee Conservation Practices & Activities

Proposed conservation technologies and approaches to address the specific problems identified in these watersheds include the NRCS Field Office Technical Guide conservation practices listed below.

CORE Conservation Practices	
Conservation Cover	327
Contour Orchard and Other Fruit Area	331
Residue and Tillage Management, Mulch Till	345
Residue and Tillage Management, No-Till/Strip Till/Direct Seed	329
Nutrient Management	590
Pest Management	595
Multi Story Cropping	379
Supporting Conservation Practices	
Access Control	472
Tree/Shrub Pruning	660
Trails and Walkways	568
Streambank and Shoreline Protection	580
Critical Area Planting	342
Heavy Use Area Protection	561
Hillside Ditch	423
Individual Terrace (751)	751
Tree/shrub Site Preparation	490
Stream Crossing	578
Access Road	560
Tree/Shrub Establishment	612
Riparian Herbaceous Cover	390
Filter Strip	393
Vegetative Barrier	601
Riparian Forest Buffer	391



NRCS works with private landowners to help them conserve, maintain and improve their natural resources. NRCS emphasizes voluntary, science-based conservation; technical assistance; partnerships; incentive-based programs; and cooperative problem-solving at the community level.



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