Cover crops bring many benefits to farming systems, from protecting the soil against erosion to suppressing weeds to improving yields and profitability through healthier soil. In Puerto Rico, a team of researchers, educators and service providers used a SARE grant to start bringing these benefits to one of the island’s main crops, the plantain.

Starting in 2013, the research team conducted on-farm experiments to identify cover crops species that could be intercropped with plantains to improve soil health. They focused on jack beans, sunnhemp and sorghum, planted as cover crops both individually and as mixes. The team collected soil samples to measure soil fertility, microbial activity and other indicators of soil health, and they made some important discoveries that should help Puerto Rico farmers make informed decisions about using cover crops. Jack beans established most successfully and showed the most promise overall, whereas rodents and heavy rains impacted the sorghum, and the sunnhemp performed well but was more susceptible to weather conditions than the jack beans.

Most importantly, the cover crop trials revealed an economic benefit. To achieve yields of high-quality plantains by market standards, no nematicides were needed and fungicide applications were reduced 78 percent—representing a cost savings to the farmer.

For more information on this project, see www.sare.org/projects, and search for project number FS13-271.
SARE Grants in Puerto Rico

SARE has awarded a total of 20 grants in Puerto Rico since 1988.

- 6 Research & Education Grants
- 8 Farmer/Rancher Grants
- 2 On-Farm Research Grants
- 2 Professional Development Grants
- 1 Community Innovation Grant
- 1 Graduate Student Grant

SARE’s Impact

- 53 percent of producers report using a new production technique after reading a SARE publication.
- 79 percent of producers said they improved soil quality through their SARE project.
- 64 percent of producers said their SARE project helped them achieve higher sales.

Contact Your SARE State Coordinator

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SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit www.southernsare.org/puertorico to learn more.

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA). For detailed information on SARE projects, go to www.SARE.org.