

## What is SARE?

Since 1988, the Sustainable Agriculture Research & Education (SARE) program has been the go-to USDA grants and outreach program for farmers, ranchers, researchers and educators who want to develop innovations that improve farm profitability, protect water and land, and revitalize communities. To date, SARE has awarded over \$3.2 million to more than 59 initiatives [1].

### SARE is grassroots with far-reaching impact

Four regional councils of expert practitioners set priorities and make grants in every state and island protectorate.

### SARE communicates results

SARE shares project results by requiring grantees to conduct outreach and grower engagement; and by maintaining an online library of practical publications, grantee-produced information products and other educational materials.

## SARE: Advancing the Frontier of Sustainable Agriculture in...

# Guam

Project Highlight: *Sheet Mulch Using Cardboard and NFTs*

Weeds grow at a very fast pace in Guam. Hand weeding, herbicides, and bush cutting (commercial high powered gas trimmers) are common methods to suppress weeds. However, bush cutters can damage crops and be costly and hand weeding takes a lot of labor.

In this project, farmer Glen Takai proposed testing sheet mulch and nitrogen fixing trees (NFTs) as a solution. Sheet mulching is a layered method of mulching. Typical sheet mulching methods consists of initially laying single or multiple layers of cardboard over a targeted area. Cardboard layers can be topped with shredded/chipped organic waste material. Cardboard is an abundant resource on this remote island due to high imports, and it creates much waste into the landfill. The use of cardboard and NFTs as sheet mulch to manage weeds could also improve soil quality through adding organic matter.

The project has demonstrated significant differences in labor cost savings using sheet mulch compared to not using sheet mulch. Yield data shows that plants using sheet mulch produced significantly higher than plants not mulched. The common use of herbicides was completely eliminated. Lastly, the project promotes the idea of reduce, reuse, and recycle.

For more information on this project, see [sare.org/projects](http://sare.org/projects), and search for project number [FW19-348](#).

## SARE in Guam

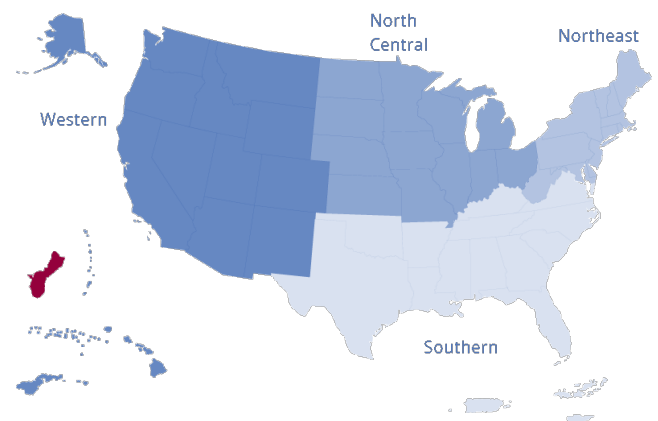
[western.sare.org/state-profiles/guam/](http://western.sare.org/state-profiles/guam/)

**\$3,210,364**  
in total funding

**59 grant projects**

(since 1988 [1])

For a complete list of grant projects state by state, go to [projects.sare.org/state-fact-sheets/](http://projects.sare.org/state-fact-sheets/)



[1] These totals reflect available data; complete information may not be available for all grant programs prior to 2016.

# SARE in Guam, 2019–2024

This is a summary of recent SARE-funded activities and impacts in the state. To search all SARE projects visit [projects.sare.org](https://projects.sare.org). For a list of all projects in this state visit [projects.sare.org/state-fact-sheets/](https://projects.sare.org/state-fact-sheets/).

## Grants awarded

Total awards: **16 grants**

- 2 Farmer/Rancher
- 2 Research and Education
- 5 Professional Development Program
- 1 On Farm Research/Partnership
- 4 PDP State Program [2]
- 2 Local Ed & Demo (formerly RGR)

Total funding: **\$1,640,976**

- \$35,612 Farmer/Rancher
- \$654,254 Research and Education
- \$413,072 Professional Development Program
- \$58,401 On Farm Research/Partnership
- \$307,390 PDP State Program [2]
- \$172,247 Local Ed & Demo (formerly RGR)

[2] The Professional Development Program (PDP) State Program is a non-competitive award that funds the activities of the state coordinator(s). See more below.

For a complete list of awards by state, visit: [projects.sare.org/state-fact-sheets/](https://projects.sare.org/state-fact-sheets/)

## Farmer and rancher impacts

SARE grantees have reported the following impacts from their projects:

**481 farmers participated in a SARE-funded project**

**31 farmers reported a change in knowledge, awareness, skills or attitude**

**10 farmers changed a practice**



Photo credit: University of Guam

Learn about local impacts at: [western.sare.org/sare-in-your-state/guam/](https://western.sare.org/sare-in-your-state/guam/)

## Contact Your SARE State Coordinator

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 [western.sare.org/state-profiles/guam/](https://western.sare.org/state-profiles/guam/) to learn more.

Mark Acosta  
University of Guam  
(671) 735-2092  
[macosta@triton.uog.edu](mailto:macosta@triton.uog.edu)

Bob Barber  
University of Guam Cooperative Extension  
(671) 787-7391  
[bbarber@triton.uog.edu](mailto:bbarber@triton.uog.edu)



SARE is funded by the USDA's National Institute of Food and Agriculture (NIFA).