

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

West Virginia

Project Highlight: *Innovations that deter the pervasive stink bug*

In 2011, the brown marmorated stink bug destroyed 30 percent of the harvest at Redbud Farm in Inwood, W.V. To avoid another devastating loss the next year, Clarissa Mathews used a SARE grant to determine whether perimeter trap cropping would deter the pests, without the need for pesticides.

After planting okra, sweet pepper, tomato and summer squash in eight study plots, Mathews and her team found that the trap crop system succeeded and attracted twice as many stink bugs to the perimeters as to the cash crops. The trap crop system consisted of three-foot-wide plots of sunflower and amaranth surrounding the cash crops, and included pheromone lures. Mathews' findings represent an important contribution to the growing body of knowledge on the management

of stink bugs, a pest that has become a severe agricultural nuisance in West Virginia and other mid-Atlantic states.

The team was surprised to find that plot history affected pest populations the most. Half of the plots used in the study had been previously planted with vegetables, flowers, herbs and small fruits, while the remaining had been planted with a corn-soybean-hay rotation. Crops that were planted over the grain rotation were less affected and had a 14-day delay in colonization as compared to those planted in the other plots. Researchers also observed that okra was an extreme attractant while the squash was barely affected by the bug.

For more information on this project, see www.sare.org/projects, and search for project number FNE12-759.

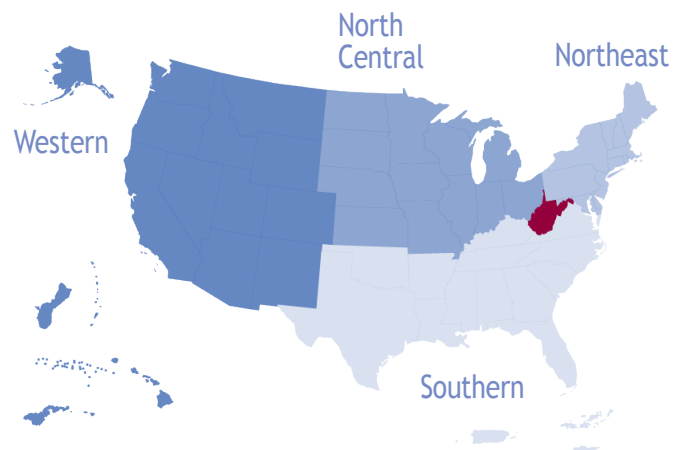
SARE in West Virginia

\$1.7 million in total funding

69 grant projects

(since 1988)

For a complete list of grant projects state by state, go to www.sare.org/state-summaries



SARE's four regional programs and outreach office work to advance sustainable innovations to the whole of American agriculture.

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 \$204 million for more than 5,100 initiatives.

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 the SARE Learning Center—a library of practical publications, grantee-produced information products and other educational materials.

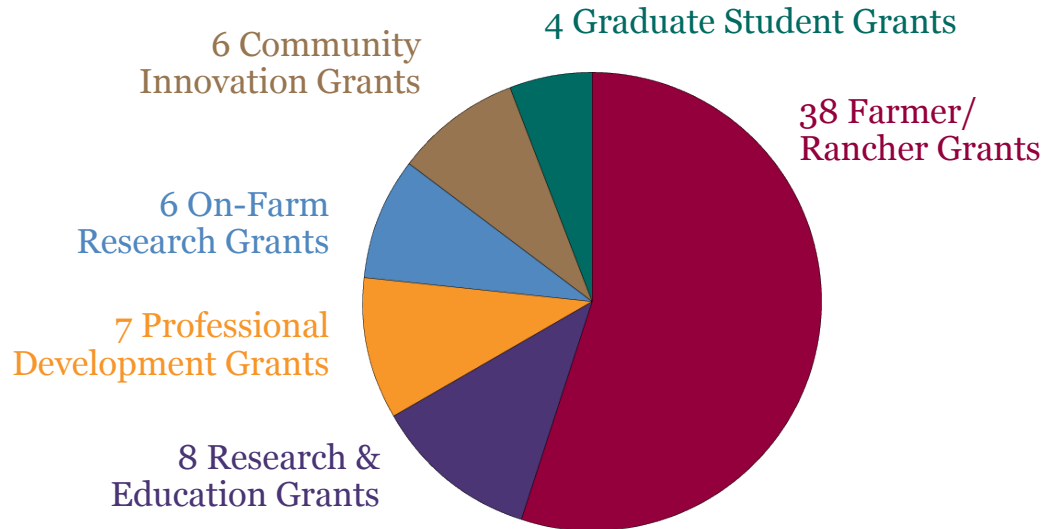


Sustainable Agriculture Research & Education

www.sare.org

SARE Grants in West Virginia

SARE has awarded a total of **69 grants** in West Virginia since 1988



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

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.

Doolarie Singh-Knights
West Virginia State University
2038 Agricultural Sciences Bldg.
P.O. Box 6108
Morgantown, WV 26506-6108
(304) 293-7606
dosingh-knights@mail.wvu.edu

Barbara Liedl
West Virginia State University
100 Toney House
Institute, WV 25112-1000
(304) 932-0834
liedlbe@wvstateu.edu



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