Seed crop growers of cucumbers, squash, melons, gourds and watermelons have faced severe losses in Virginia from downy mildew. To stem these losses and to reduce the economic impact, seed grower Edmund Frost used a SARE grant to find varieties of melons, cucumbers and winter squash able to withstand downy mildew. By finding such varieties, he could share results with other seed growers and gather information needed to make progress with seed production and breeding of the resistant varieties.

Frost conducted trials that identified 15 cucumber varieties with the ability to produce twice as much as standard varieties labeled “resistant,” 20 winter squash and tropical pumpkin varieties with better downy mildew resistance than other varieties, and several varieties that produce good-quality melons in areas with high downy mildew pressure.

While the identified pumpkin varieties showed downy mildew resistance, there were quality problems that Frost looked at in a second SARE-funded project. Frost made significant progress with three pumpkin varieties and shared the results with growers at two conferences. One of the seeds bred during the project, F6 Seminole-Waltham seed, is now being sold to growers.

For more information on these projects, see [www.sare.org/projects](http://www.sare.org/projects), and search for project numbers FS13-273 and FS16-291.
SARE Grants in Virginia

SARE has awarded a total of 112 grants in Virginia since 1988.

- 44 Farmer/Rancher Grants
- 20 Research & Education Grants
- 12 On-Farm Research Grants
- 9 Community Innovation Grants
- 20 Graduate Student Grants
- 7 Professional Development Grants
- 9 Community Innovation Grants
- 7 Professional Development Grants
- 20 Graduate Student Grants
- 20 Research & Education Grants
- 44 Farmer/Rancher Grants

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. Visit www.southernsare.org/virginia to learn more.

Eric Bendfeldt
Virginia Tech
(540) 432-6029 ext. 106
ebendfel@vt.edu

Christopher Mullins
Virginia State University
(804) 524-5834
cmullins@vsu.edu

For detailed information on SARE projects, go to www.SARE.org

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