

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

# Oregon

## Project Highlight: *Insect Pathogens Control Clover Pest*

**R**ed clover seed is produced commercially in western Oregon and Washington, and one of its major pests is the clover root borer. The clover root borer develops underground in the roots of red clover and controlling it has proven to be very difficult. Growers once used toxic organochlorine insecticides to battle the borer, but they have been banned from use. Since then, growers have seen a return of the root borer and typically manage it by rotating fields every two years.

With SARE funding, Oregon State University graduate student Anis Lestari studied whether insect pathogens, in particular naturally occurring fungi, have potential as biocontrol agents for controlling the root borer. Lestari collected clover root borers from four local

Willamette Valley farms and isolated and identified pathogens associated with adults and larvae. She compared their virulence against the pest with commercially available microbial products and found that entomopathogenic fungi (a fungus that can act as a parasite) have the potential for use as a biological control of the clover root borer in western Oregon red clover fields.

More research and validation are needed before official recommendations can be made, but Lestari's promising results show that a sustainable method for controlling the clover root borer is possible.

For more information on this project, see [www.sare.org/projects](http://www.sare.org/projects), and search for project number GW15-018.

## SARE in Oregon

[www.westernsare.org/oregon](http://www.westernsare.org/oregon)

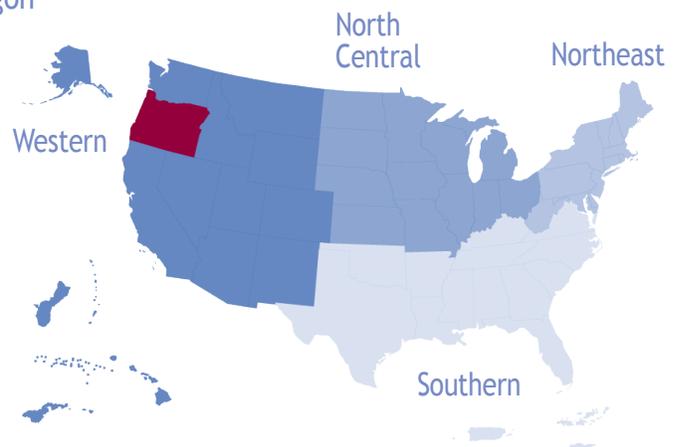
**\$9.7 million in total funding**

**163 grant projects**

(since 1988)

For a complete list of grant projects state by state, go to

[www.sare.org/state-summaries](http://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 over \$287 million to more than 7,000 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.

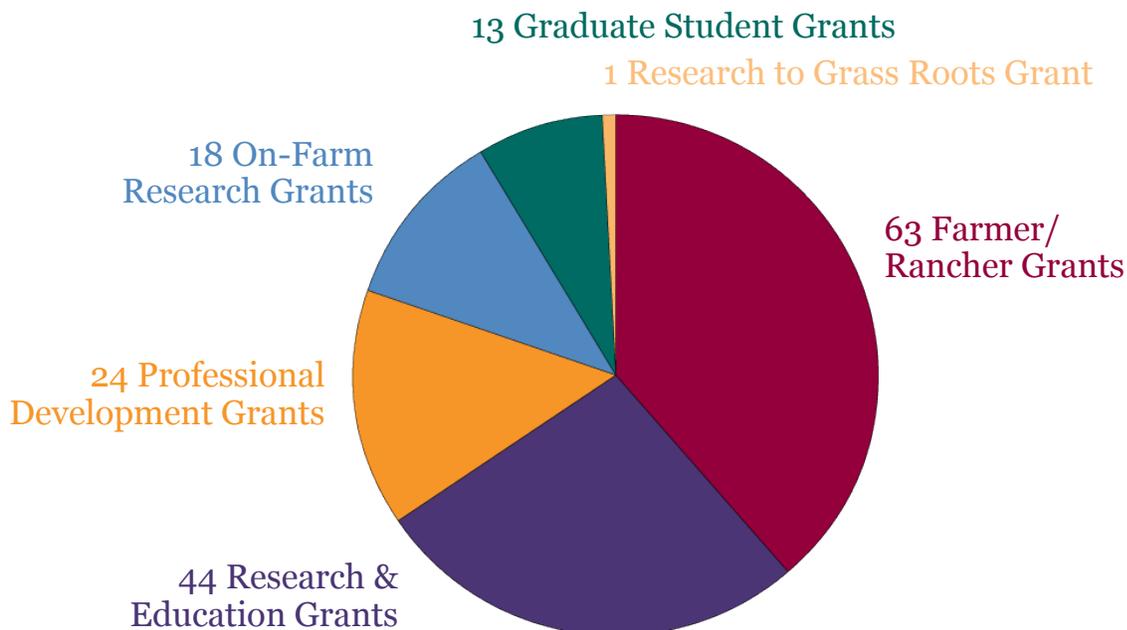


**Sustainable Agriculture Research & Education**

[www.sare.org](http://www.sare.org)

# SARE Grants in Oregon

SARE has  
awarded a  
total of  
**163 grants**  
in Oregon  
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. Visit [www.westernsare.org/oregon](http://www.westernsare.org/oregon) to learn more.

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For detailed information on SARE projects, go to

[www.SARE.org](http://www.SARE.org)