

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

# Iowa

## Project Highlight: *Preparing Iowa corn for biofuel's future*

While most of today's ethanol derives from corn starch, projected improvements in refining technology could make corn residue the feedstock of choice, and boost the market demand for residue to as high as 600 million tons per year.

Along with advances in cellulosic refining that still must occur, Iowa farmers need to learn more about the implications of taking huge quantities of valuable residue off their fields.

That is why Iowa State University graduate student José Guzman used a 2009 SARE grant to study the effect on soil fertility, erosion, carbon sequestration and yield when corn residue is removed under various tillage practices. He shaped his work based on surveys of farmers' most pressing questions.

In two years of trials so far, Guzman has made some important findings. For example, grain yields held steady when residue was removed. But soil organic carbon began decreasing, although that slide could be offset by no-till and increased nitrogen applications. The carbon sequestration potential of a field dropped after 9 percent to 15 percent of residue was removed. Soil density, a factor in erosion, increased under no-till when half the residue was removed.

With three more years of research left, Guzman's findings are going a long way toward helping Iowa farmers and fellow scientists understand this topic of emerging importance.

For more information on this project, see [www.sare.org/projects](http://www.sare.org/projects), and search for project number GNC09-111.

## SARE in Iowa

[www.northcentralsare.org/iowa](http://www.northcentralsare.org/iowa)

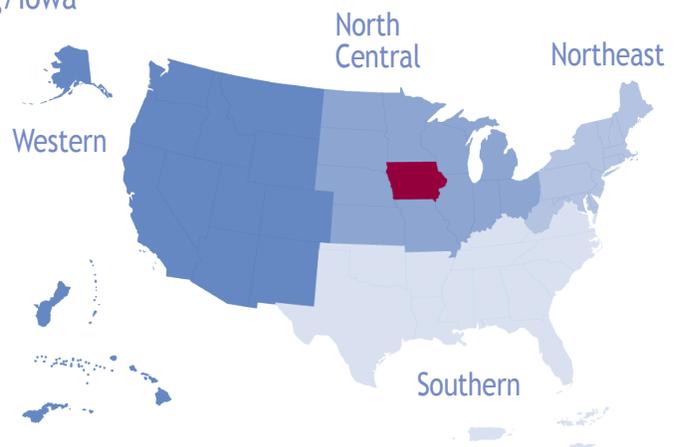
**\$6.3 million in total funding**

**180 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 \$245 million for more than 6,100 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.

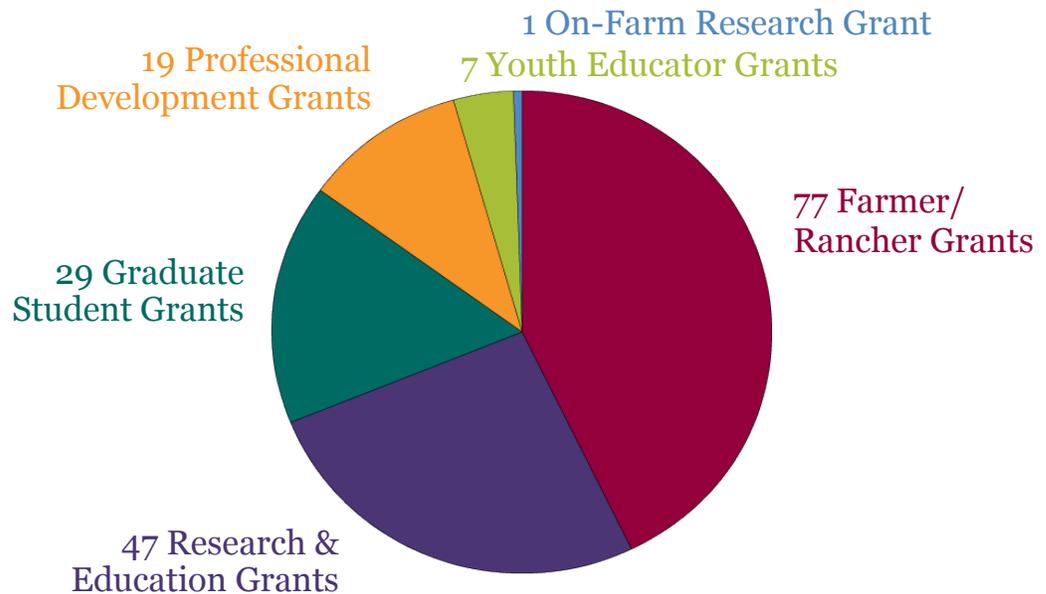


**Sustainable Agriculture Research & Education**

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

# SARE Grants in Iowa

SARE has  
awarded a  
total of  
**180 grants**  
in Iowa  
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.northcentralsare.org/iowa](http://www.northcentralsare.org/iowa) to learn more.

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For detailed information on SARE projects, go to  
[www.SARE.org](http://www.SARE.org)