

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

# North Dakota

## Project Highlight: *Long-Term Stability Through Integrated Production*

In recent years, extreme volatility in crop and beef cattle prices, influenced by highly variable weather patterns including drought, has made the business side of commodity farming and ranching difficult to manage. In North Dakota, researchers are suggesting that a sea of calm in this volatility might reside in the soil.

With a five-year SARE grant, North Dakota State University researchers sought to determine if an integrated crop and beef cattle production system, which uses grazing and crop rotation to build soil health, could provide more long-term stability than a conventional system.

Their primary objective was to compare yields and returns of continuous wheat production and wheat grown in a five-year rotation that included cover

crops, forage crops and cattle grazing. At first the yield of continuous wheat was higher, but that gradually changed as the soil in the rotational system grew more productive. By the fifth year, the yield of wheat in rotation was 40 percent higher. “How that occurred is clearly a demonstration of the soil’s power to grow nutrients,” said Douglas Landblom, the project coordinator.

Over five years the net return per acre was \$10 higher for wheat in rotation, and the production cost was lower. The profit margin per steer was \$307 higher when cattle grazed this system and spent 76 fewer days in the feedlot than a control group.

For more information on this project, see [www.sare.org/projects](http://www.sare.org/projects), and search for project number LNC11-335.

## 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.



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

## SARE in North Dakota

[www.northcentralsare.org/north-dakota](http://www.northcentralsare.org/north-dakota)

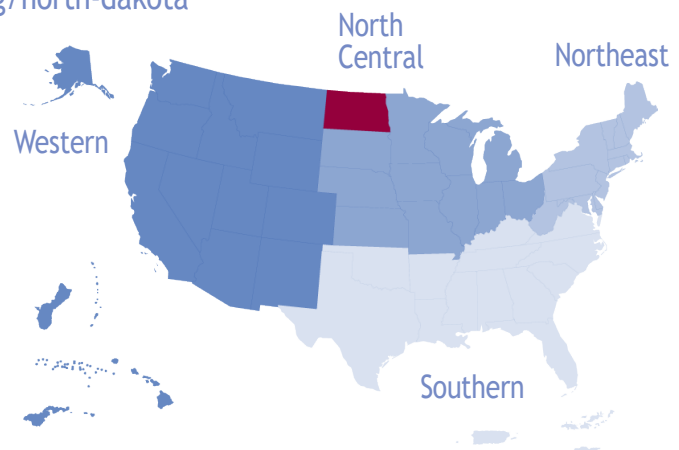
\$5.4 million in total funding

120 grant projects

(since 1988)

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

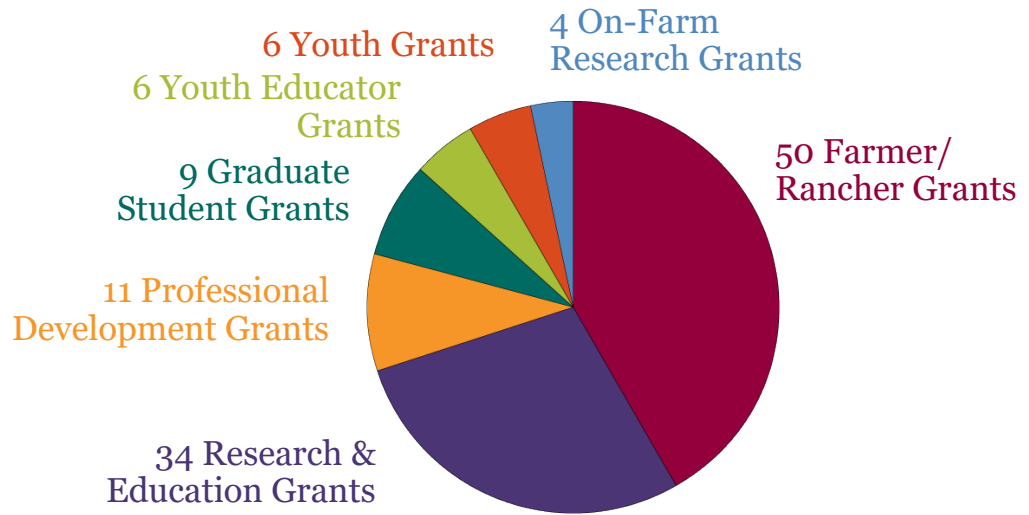
[www.sare.org/state-summaries](http://www.sare.org/state-summaries)



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

# SARE Grants in North Dakota

SARE has awarded a total of **120 grants** in North Dakota 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/north-dakota](http://www.northcentralsare.org/north-dakota) to learn more.

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