



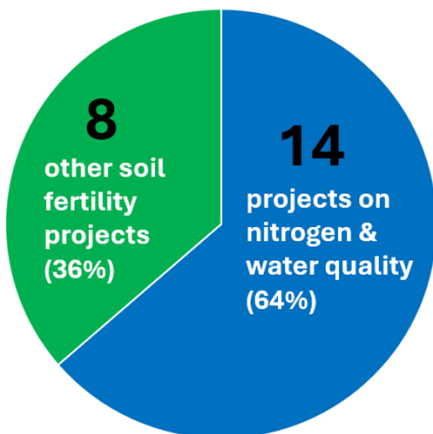
# 5 Things to Know about AFREC’s Role in Protecting Water Quality

AFREC, the Agricultural Fertilizer Research and Education Council, has been funding Minnesota soil science research since 2008. AFREC funding has helped turn the University of Minnesota’s team of soil science researchers and educators working on crop nutrient management into one of the top groups in the country. Without AFREC, significantly less important Minnesota-specific research would be conducted.

## #1 AFREC funds a wide variety of research related to nitrogen and water quality issues

Fourteen of the 22 (64%) research projects AFREC funded in 2023 dealt with nitrogen and water quality. These projects looked at issues such as:

- Cover crops
- Soil health
- Manure management
- Nitrogen-fixing biological products
- Nitrogen inhibitors
- Irrigation and nitrogen
- Variable rate technologies



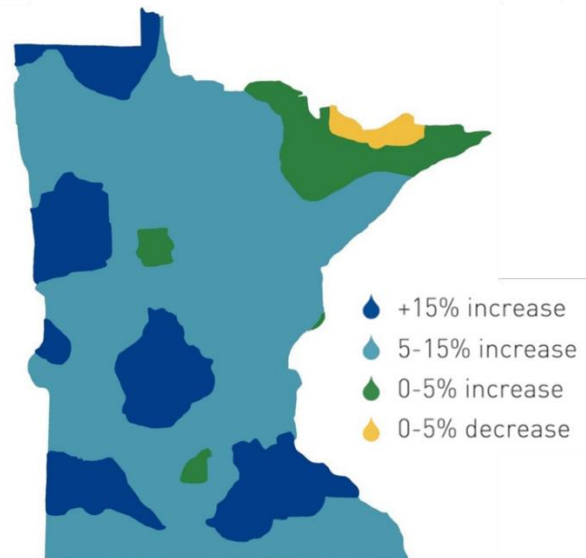
Agricultural Fertilizer Research & Education Council

## #2 The climate – and agriculture – are changing. AFREC funding helps keep the U of M’s fertilizer guidelines up to date.

Minnesota is getting warmer and wetter, which has big implications for nitrogen management on Minnesota farms. Adapting to climate change requires continuous research. In addition, new agricultural products, practices, and technologies need to be tested to see if they work as advertised.

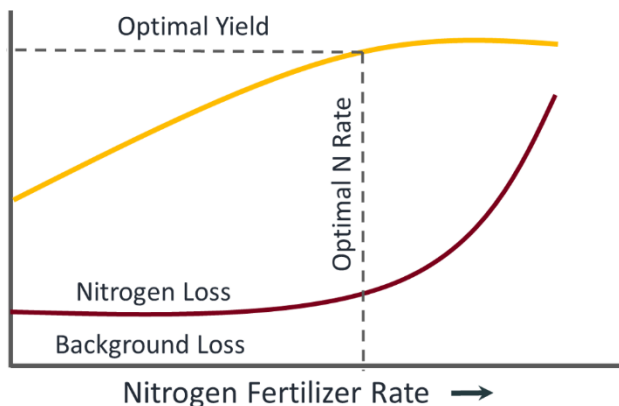
### MORE RAIN IN MINNESOTA

Change in average rainfall from 1901-1960 to 1991-2012



### #3 AFREC research contributes to the Corn Nitrogen Rate Calculator

One of the best tools that Minnesota farmers can use to positively impact water quality is the Corn Nitrogen Rate Calculator ([cornNrateCalc.org](http://cornNrateCalc.org)). It uses data from research trials around the state to determine the most efficient nitrogen rate based on current corn and nitrogen fertilizer prices. Our research shows that the most profitable rate for farmers can improve water quality.



### #4 AFREC also funds educational events and outreach activities to Minnesota farmers and agricultural professionals

Research results are only valuable if they find their way to the farmers and ag professionals who can use them. That's why AFREC funds the annual Nitrogen Conference and a suite of communications efforts by the U of M to provide education about the latest research and recommendations. Watch videos, listen to podcast episodes, read blog posts, and more at [z.umn.edu/NMlinks](http://z.umn.edu/NMlinks).

Tues. Feb 13, 2024 · St. Cloud

10th Annual

## NITROGEN: Minnesota's Grand Challenge & Compelling Opportunity Conference

### #5 AFREC invests in the infrastructure and people needed to conduct rigorous research

The U of M's nutrient management research team is widely regarded as one of the best in the nation. AFREC funding plays a big part in attracting talented researchers, graduate students, and federal grant funding. In addition, AFREC helps researchers establish state-of-the-art laboratories and field plots, and purchase the equipment we need.



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Learn more about AFREC at [MNsoilFertility.com](http://MNsoilFertility.com)

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