Iowa Nutrient Research Center

Science for Iowa's Water

2020 Annual Review

IOWA STATE UNIVERSITY

THE UNIVERSITY OF IOWA

UNI University of Northern Iowa

Executive Summary

The Iowa Nutrient Research Center (INRC), established in 2013 by the Iowa Board of Regents, has a mandate to pursue science-based approaches to evaluate current and emerging nutrient management practices and help the state meet the goals identified in the Iowa Nutrient Reduction Strategy. The center's annual grant program has supported research to advance new technologies, refine scientific modeling and practice design, and overcome barriers to adoption of conservation practices. Funded research has been conducted by faculty, staff and student scientists at Iowa State University, the University of Iowa and the University of Northern Iowa, in collaboration with many other partners, including farmers and agribusiness. INRC funding is often leveraged to obtain additional resources for state water quality research and demonstration initiatives, while supporting Iowa jobs on and off campuses.

2020 Activities

Iowa Water Quality Research Map

The Iowa Water Quality Research Map, launched February 2020, now includes 42 research projects across the state. Projects include, but are not limited to, those led by Iowa State University, the University of Iowa and the University of Northern Iowa, many funded in whole or part by the Iowa Nutrient Research Center.

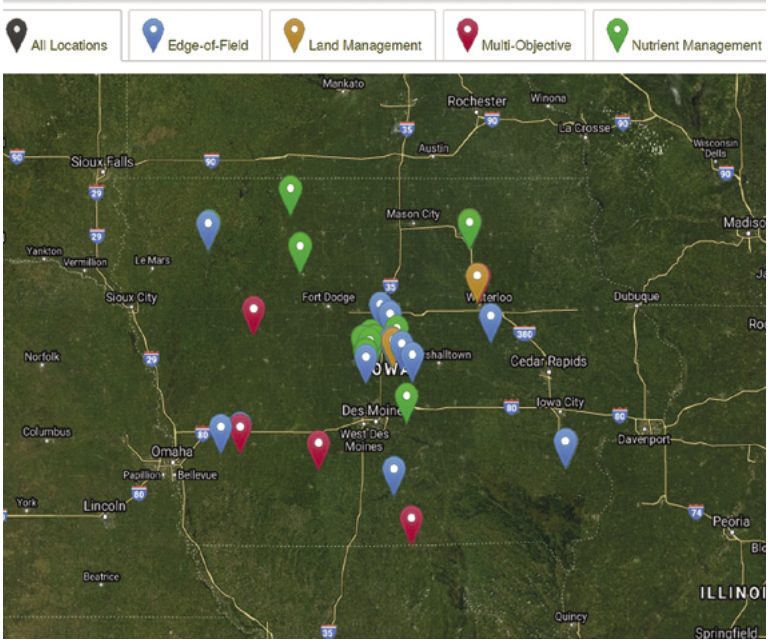
Pins on the zoomable map at **www.cals.iastate.edu/inrc/map/all** are color-coded by the type of project, with each pin connecting to a project with a short description, general location, related findings and more.

Water Research Seminar Series

INRC introduced its water quality research seminar series in Fall 2019, with a set of sessions on "Water Research Past, Present and Future." Since then, seminars have focused on INRC-funded projects and watershed studies around the country. The series' presentations, and one field day, have attracted more than 300 scientists, students, farmers and representatives of agencies and private organizations from Iowa and beyond. Recordings of the events are archived on our website.

New Social Media Presence

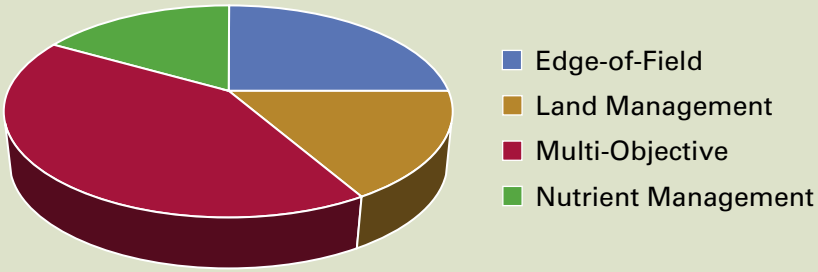
INRC joined the Twitter-scape in Spring 2020 to help increase awareness of Iowa nutrient reduction research and related information. **@inrc_wq** has gained 230 followers so far.



INRC Projects by the Numbers

- 12 new projects funded in 2020
- 104 total projects funded 2013–2020
- $1.3 Million awarded for 2020–2021
- Over $12 million awarded 2013–2020
- 26 undergraduate and 14 graduate students supported by projects finished in FY2020–2021

2020 Project Breakdown by Category



Stakeholder Roundtables

In February 2020, the INRC hosted two roundtable sessions for researchers and stakeholders to discuss needs and priorities for nutrient reduction research. The meetings attracted more than 65 participants with an active interest in water quality research and nutrient reduction.

Their extensive input has guided development of INRC's 2020 and 2021 requests for proposals.

Outreach and Education

Center staff have given presentations to diverse groups including farmers, researchers, the Iowa Legislature, the National Academy of Sciences and the Iowa Agribusiness Association.

The center has also co-sponsored many webinars and field days with partners such as the Iowa Learning Farms weekly webinars, Partners of Scott County Watershed grants webinar and the Drainage Research Forum.

Research News

The center released more than 25 news stories in the last year to bring highlights of INRC-funded research to readers of farm publications and other audiences. Staff also contributed to a number of other articles and interviews. Find them all at **www.cals.iastate.edu/inrc/** along with videos and a list of research publications with findings from INRC-supported projects.

"I commend the work of the INRC and its innovative efforts like the creation of the Iowa Water Quality Research map. INRC's leadership and support for sound, interdisciplinary water quality research is building a network of knowledge about effective ways to stem nutrient loss, improve agricultural efficiency, and enhance water quality, that will benefit Iowa now and in the future—and have positive impacts far beyond our state boundaries."

—Daniel J. Robison, *Endowed Dean's Chair, College of Agriculture and Life Sciences*

"Research supported through the INRC is a critical piece in Iowa's efforts to reduce nutrient loss and improve water quality. The discoveries have already led to new conservation practices that didn't exist before, such as saturated buffers, and improved the performance of existing practices like cover crops. This work has dramatically advanced Iowa's ability to craft smart, effective policy and approaches to tackle difficult water quality problems."

—Adam Schnieders, *Water Quality Resource Coordinator, Iowa Department of Natural Resources*

"The research done on my farm through involvement with the Iowa Nutrient Research Center has been valuable in increasing my understanding of how conservation practices affect water quality and soil health, and the role this plays in the Iowa Nutrient Reduction Strategy. It has shown that we can profitably add cover crops in a corn soybean rotation and improve water quality at the same time. Seeing the benefits caused me to want to do more, resulting in my addition of an edge-of-field bioreactor and hosting several field days."

—Rob Stout, *Farmer and Conservation Leader, Washington County, Iowa*

Iowa Nutrient Research Center Advisory Council

- Iowa Secretary of Agriculture
- Administrative Director, Iowa Department of Agriculture and Land Stewardship Division of Soil Conservation
- Iowa Department of Natural Resources
- Nutrient researcher, University of Northern Iowa
- Nutrient researcher, State Association of Private Colleges
- Iowa Institute of Hydraulic Research (IIHR)–Hydroscience and Engineering, University of Iowa
- Vice President, Iowa State University Extension and Outreach
- Dean, College of Agriculture and Life Sciences, Iowa State University

Iowa Nutrient Research Center

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INRC is an equal opportunity center, administered by Iowa State University. ISU's full non-discrimination policy and contacts for accommodation inquiries, are found at www.policy.iastate.edu/policy/discrimination.