



IOWA LEARNING FARMS
BUILDING A CULTURE OF CONSERVATION - FARMER TO FARMER: IOWAN TO IOWAN

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May 8, 2024

Iowa Learning Farms Webinar: Managing Water Levels and Sediment Geomorphology to Reduce Nitrate Loads

May 15 presentation by Iowa Geological Survey's Matthew Streeter and Keith Schilling will share a novel approach to nitrate reduction and water quality improvement at Lake Red Rock

Ames, Iowa – The [Iowa Learning Farms](#) (ILF) conservation webinar taking place May 15 at noon CDT will feature [Matthew T. Streeter, assistant research scientist, Iowa Geological Survey, University of Iowa](#), and [Keith E. Schilling, state geologist and director, Iowa Geological Survey, University of Iowa](#). Streeter is a soil scientist who researches agricultural conservation practices for soil health and water quality improvements. Schilling is a groundwater hydrologist who researches groundwater contributions of agricultural nutrients to streams and rivers. They work as a team to reduce nutrient losses from Iowa's soil and water.

In the webinar, "Using Delta Sediments and Pool Levels to Increase Nitrate-Nitrogen Load Reductions at Lake Red Rock," Streeter and Schilling will discuss an innovative approach to nutrient reduction through greater understanding of the delta formed in Lake Red Rock at the mouth of the Des Moines River. Schilling will share nitrate loss and water quality data gathered in the study. Streeter will discuss the geomorphology of the delta and will also share estimates of nutrient loss potential caused by manipulating lake pool levels to inundate delta sediments thereby causing nitrate reduction.

"Lake Red Rock is a critical natural water resource for Iowa, and it is important to understand and manage the makeup of the tremendous sediment load which is derived primarily from agricultural soil erosion," said Streeter. "By mapping the geomorphology of the delta and manipulating lake levels by as little as 0.1 meters, we may be able to remove as much nitrogen from the Des Moines River equivalent to the expected performance of some 125 bioreactors."

Participants are encouraged to ask questions of the presenters. People from all backgrounds and areas of interest are encouraged to join.

Don't miss this webinar!

DATE: Wednesday, May 15, 2024

TIME: Noon CDT

HOW TO PARTICIPATE:

Shortly before noon CDT, click the link below or type this web address into your internet

browser:

https://iastate.zoom.us/webinar/register/WN_xtAwWXycQZW8iwtNLz34GA#/registration

Or, go to <https://iastate.zoom.us/join> and enter webinar ID: 999 3709 5398

Or, join via phone:

Dial: 646-876-9923

Webinar ID: 999 3709 5398

The webinar will also be recorded and archived. All archived webinars are available on the [ILF website](#), so that they can be watched at any time.

ILF has applied for a Certified Crop Adviser board-approved continuing education unit (CEU) for attending this webinar. Those who participate in the live webinar are eligible. Information about how to apply to receive the credit will be provided at the end of the live webinar.

Upcoming Webinars in the Series:

Up Next: Wednesday, May 22, “Solid-State Anaerobic Digestion of Prairie Biomass and Beef Manure,” with Abigail Schulte, Iowa State University.

About Iowa Learning Farms:

Established in 2004, Iowa Learning Farms (ILF) is building a Culture of Conservation by encouraging adoption of conservation practices. Farmers, researchers and ILF team members are working together to identify and implement the best management practices that improve water quality and soil health while remaining profitable. Partners of Iowa Learning Farms include the [Iowa Department of Agriculture and Land Stewardship](#), [Iowa State University Extension and Outreach](#), [Leopold Center for Sustainable Agriculture](#), [USDA Natural Resources Conservation Service](#), and [Iowa Department of Natural Resources](#), [EPA Section 319 Grant Program](#) and [GROWMARK, Inc.](#)

Additional Publications:

Related Links:

<https://www.iowalearningfarms.org/>

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Images:

Streeter and Schilling collecting sediment samples for assessment.

