



Summer 2023

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# Tri-Basin Topics

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## Innovative Nitrogen Dashboard to Improve Fertilizer Efficiency, Water Quality

The Nebraska Corn Board, Nebraska Association of Resources Districts (NARD) and 17 of Nebraska's 23 Natural Resources Districts (NRDs) are pleased to announce the development of a nitrogen dashboard in partnership with Longitude 103, a leading provider of agricultural technology solutions.

Producer Connect, a web and mobile application suite, allows producers to access their crop reporting data and includes a fertilizer recommendation based on yield goals. This collaborative effort aims to empower agriculture producers to optimize inputs, which will enhance agricultural profitability, water quality and irrigation efficiency.



*Chemigation Inspection being conducted by Pat Nott, Tri-Basin NRD Water Resources Technician for local producer.*

In the last 10 years, Nebraska has made gains in nitrogen management through split-fertilizer application and irrigation efficiency, but there are opportunities for

further improvement. Nebraska's agricultural economy depends on groundwater and fertilizer; however, overuse of fertilizer can contaminate groundwater, which Nebraskans depend on for drinking water.

"With the growing concern of increased nitrate in groundwater, it is essential for NRDs and ag producers to work together to address the problem," said Dr. Orval Gigstad, NARD president. "By developing a tool that is mutually beneficial for both ag producers and our natural resources it's a win-win situation. We applaud the Nebraska Corn Board for helping lead the way."

The partnership between the Nebraska Corn Board and Natural Resources Districts exemplifies the commitment of key stakeholders to foster a thriving agricultural industry while protecting our water quality and quantity. The Nebraska Corn Board has generously contributed funds to assist with the development of Producer Connect, recognizing the potential it holds in transforming the landscape of modern farming.

"We are proud to support this innovative initiative to provide agriculture producers with more tools for nitrogen management," said Kelly Brunkhorst, Nebraska Corn Board executive director. "By empowering producers with their own data, we can improve fertilizer efficiency, maximize profits and protect our valuable water resources."

Tri-Basin NRD, headquartered in Holdrege, is participating in the Producer Connect project. "Agriculture today is very technology and data intensive. Our farmers need good data about crop fertilizer and irrigation water needs. Producer Connect will help farmers make better-informed decisions about how much nitrogen their crops require to achieve maximum profitability," said Tri-Basin NRD manager, John Thorburn.

Producer Connect will be free to producers and offer a

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<http://www.tribasinnrd.org>

wide range of features designed to simplify nitrogen and water management. Ag producers will have a password-protected log in and only be able to see their own data. A few of the features will include:

**Producer-specific data:** Ag producers will have access to their reported data, which includes previous crops grown, actual yield, fertilizer applied, water usage, expected yield, soil and water test results, and legume or manure credits.

**Protected data:** All data will be held by the local NRD, and individual producer data will not be shared with the public. Aggregate data may be used by the NRD for educational activities, research, certified applicator training and producer meetings.

**Customizable recommendations:** The dashboard will provide a personalized nitrogen recommendation based on yield goals. The efficiency in bushels per pound of applied fertilizer will be displayed and compared to the average of producers within the area. An economic analysis could show cost savings using the calculated nitrogen application versus a typical fertilizer application.

**Irrigation efficiency:** The dashboard will also include the ability to track water-use data.

**Historical data analysis:** By analyzing past nitrogen usage and crop performance, the dashboard will enable producers to identify trends in water use, fertilizer application and crop yield.

**Environmental impact assessment:** The platform will assist farmers in quantifying the impact of their nitrogen usage, aiding in compliance with regulations and demonstrating commitment to sustainable practices.

**Information exchange:** The dashboard will allow for communication between the producer and the local NRD. Users will be able to submit crop reports online. Producers will also be able to view current research results to improve profitability.

Producer Connect is currently in its initial stages of development and is expected to launch in January 2024. The initial roll out will be in Phase 2 and Phase 3 Groundwater Quality Management Areas and areas that have irrigation allocations.

“This partnership between the Nebraska Corn Board and Nebraska’s NRDs showcases the power of collaboration and a shared vision in driving sustainable change to improve producer profitability and nitrogen-use efficiency while protecting Nebraska’s water resources.” Gigstad said. “It exemplifies why Nebraska leads the



## Manager's Message

by John Thorburn

Nebraska has more than eight million acres of irrigated cropland. That’s more irrigated acres than any other state. Thankfully, our farmers are also some of the most efficient irrigators in the world. Tri-Basin NRD wants to reward our most efficient irrigators. We have developed a program called the Water Conservation Incentive Program and it gives farmers new options to manage their irrigation water. The Water Conservation Incentive Program will pay irrigators up to five dollars an acre-inch for saving groundwater.

A feature of the program is that landowners agree to limit irrigation (allocation) for five years. Landowners who enroll in the program are allowed the flexibility to apply irrigation water on land that isn’t certified for irrigation. Participants also have opportunities to market water credits to other irrigators. Best of all, your partici-



pation in the program will help protect the quality and quantity of our groundwater resources.

The application process is simple, and landowners decide which fields they want to enroll in the program. Enrollment is limited to a total of eight thousand acres within the district. To learn more about Tri-Basin’s new water management tool, the Water Conservation Incentive Program, and how it can work for you, call us at 308-995-6688 or you can read the program description on our website [tribasinnr.org](http://www.tribasinnr.org).



# 25 years of TBNRD Internships

Tri-Basin NRD has been employing summer interns for 25 years. The district's internship program allows college students the opportunity to gain natural resources conservation experience. Interns collect and test groundwater quality samples, monitor wildlife habitat, test irrigation system efficiency, and help maintain drainage improvement project areas (IPAs). The interns also work with staff from Central Nebraska Public Power and Irrigation District, and the USDA Natural Resources Conservation Service.

Two new interns were hired by Tri-Basin NRD to work across the district this summer: Amanda Cline and Jefferson Delesgues.

Amanda attends the University of Nebraska at Lincoln and is majoring in Fisheries and Wildlife and Environmental Science. She is a member of the UNL Wildlife Club and UNL Navigators Bible Study. She is a graduate of Axtell High School. She enjoys playing and watching sports, watching movies, hanging out with friends and family, as well as being involved with campus activities at UNL.

Jefferson, of Miami, Florida, attends Florida State University where he is pursuing a bachelors degree in Environmental Science with an interest in marine biology and water. On campus he is a member of the French



*Interns, Amanada Cline and Jefferson Delesgues*

Club and participates in intramural sports. He enjoys reading manga, playing soccer, working out, going for nature walks, hiking, and water sports.

Many of the district's former interns have pursued careers in agriculture and natural resources, taking jobs with agri-businesses, NRDs, NRCS and various state agencies. Dalton Refior, TBNRD's current Land Resources Technician, spent three summers working as a district intern.

## Free ET Data Texting

ET Data (Evapotranspiration Data) can be useful in making decisions about your irrigation, fertilizer and chemical application schedule. Texts are sent Monday through Friday from June through August. Texts contain: *Daily (D) and Future 3 Days (F3d) estimated water use for both Corn and Soybeans (Beans) at three locations across the district: Holdrege 5N (Hld), Axtell 5NE (Axt) and Smithfield 2E (Smfld).*

*Additional Weekly Text for all three locations includes: Weekly Precipitation (Wk Precip), Corn Growing Degree Days (Corn GDD), and Beans Growing Degree Days (Beans GDD)*

**Subscribe one of these ways:**

- Scan the **QR Code** on the right and submit your information,
- Text **START** to **855-743-2457**, or
- Call Tri-Basin NRD at 308-995-6688 and request to receive ET Data texting.





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1723 Burlington St. Holdrege, NE 68949  
(308) 995-6688  
email: [tribasin@tribasinncrd.org](mailto:tribasin@tribasinncrd.org)  
[www.tribasinncrd.org](http://www.tribasinncrd.org)

**RETURN SERVICE REQUESTED**

*Nebraska's NRDs: Protecting Lives, Protecting Property, Protecting the Future*

## Calendar

July 4 ..... NRD Closed for Independence Day  
July 11 ..... NRD Board Meeting, 1:30 p.m.\*  
August 8 ..... NRD Board Tour and Meeting, 1:30 p.m.  
Windmill Studio, Minden, NE  
August 25-September 4 ..... Nebraska State Fair  
September 4 ..... NRD Closed for Labor Day  
September 12 ..... NRD Board meeting, 7:30 p.m.\*  
September 12-14 ..... Husker Harvest Days  
September 20 ..... Range Judging Contest  
September 28 ..... Rainwater Basin Conservation Day  
October 9 ..... NRD Closed for Columbus Day  
October 10 ..... NRD Board Meeting, 7:30 p.m.\*

\* Times are tentative. All meetings are at TBNRD office in Holdrege unless otherwise noted.

### TRI-BASIN NRD BOARD OF DIRECTORS

Todd Garrelts, Chairman .....	Holdrege
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John Thorburn .....	General Manager
Jeff VanEperen .....	Water Resources Technician

A mailing list is maintained and requests to be placed on the list should be sent to the above address. Comments and suggestions may be addressed to the General Manager.

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***Get Tri-Basin Topics in your inbox instead of your mailbox!***

To request an electronic version of this newsletter, send an email [shahn@tribasinncrd.org](mailto:shahn@tribasinncrd.org).