

On-Farm Network Stalk Nitrate Testing

Nutrient Management

"The combination of the test results and the aerial imagery will help the producer make better agronomic, economic and environmental decisions." - Mark Lefebvre, Stearns County SWCD Nutrient Management Specialist



Practice :

Nutrient Management

Target Waters :

Sauk River Watershed -MRBI Target Area

Year:

2010-2014
(Funded through USDA EQIP-MRBI)

Benefits :

- Pollution Reduction
- Reduces Excessive Application of Nitrogen Fertilizer (Saving on Input Costs)

Partners :

- Landowner
- Stearns County SWCD
- USDA NRCS

Watershed :

Sauk River

Results :

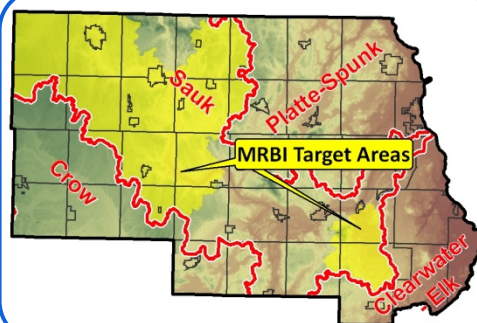
Testing results are available on the Stearns County SWCD website here:

stearnscountyswcd.net

Agricultural Resource Management > On-Farm Network

Project Description : The Stearns County SWCD has been partnering with the On-Farm Network® since 2010 to assist farmers in implementing stalk nitrate evaluations that will help improve nitrogen management in corn production. The On-Farm Network®, a program developed by the Iowa Soybean Association, focuses on precision agriculture tools and technology to collect information that can increase producers' profits from crop production. This program is available to producers in the upper Sauk River Watershed through the Mississippi River Basin Initiative. There is an increasing interest in improving nitrogen management due to higher fertilizer prices and environmental quality concerns. The end-of-season stalk nitrate test can be used to evaluate the availability of nitrogen to the corn crop, which varies dramatically across the field.

Notes : Samples taken in 2012: 35 participants x 3-4 fields per participant for 112 fields. 40 samples per field X 112 fields = 4,480 samples taken!
- There were also 4 replicated strip trials conducted where different nitrogen rates and nitrification inhibitors were evaluated in side by side tests
- The producers can use these results to adjust their application rates to save on input costs and reduce leaching potential.



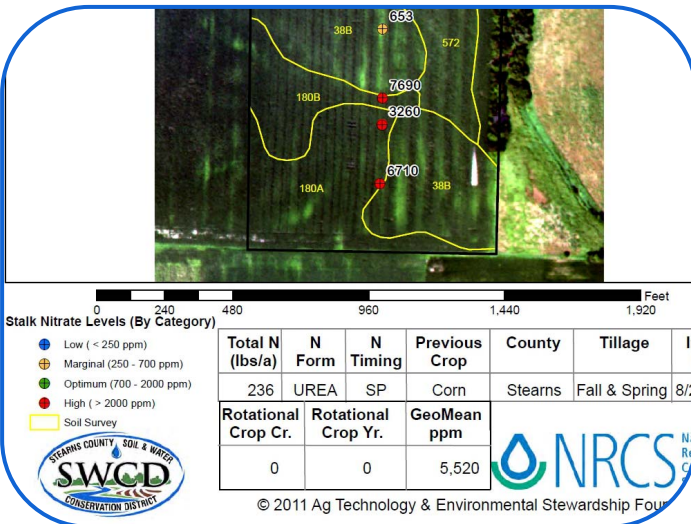
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Collecting Stalk Nitrate Samples

"I really like the guided stalk sampling program because it has helped me verify and fine tune my nitrogen applications to corn, especially following alfalfa." - Ken Schefers (participating producer)



Aerial and Stalk Testing Results Map



Using GPS to Find Sampling Locations



Sample Collection and Data Recording



Aerial and Stalk Testing Results Map

Funding :

Federal Funds to Landowners *
\$ 45,492

*Aerial flights and testing were partially paid for through USDA EQIP funding, specifically the USDA Mississippi River Basin Healthy Watersheds Initiative (MRBI) Program