

N-WATCH is a program created by CBMP in 2012 to inventory and track residual N remaining in the soil from the 2012 drought. N-WATCH samples revealed approximately 120 lbs of N in the soil's surface after corn harvest, prior to any fall N applications. The lesson learned from 2012 is that prevention of nitrate loading is about management of soil N for the crop, not just about the time of application.

N-WATCH helps to estimate plant available N at a point-in-time at a specific field location. It is designed to provide a way for a farmer to better understand the dynamics of soil N and better manage N inputs. N-WATCH demonstrates to farmers that nitrogen should be managed as a system rather than an application. Utilization of the N-WATCH tool provides a way to **Minimize** environmental impact by **Optimizing** harvest yield and **Maximizing** nutrient utilization.

Remember, it's all about **MOM**.



N-WATCH is available to ag retailers, certified crop advisors and farmers in the KIC priority watersheds, which include Lake Bloomington/Evergreen, Lake Decatur, Lake Springfield, Vermilion River, Lake Vermilion, Salt Fork Vermilion River and Lake Mauvaise Terra. CBMP will provide funding for the costs of the N-WATCH program including shipping and soil analysis.



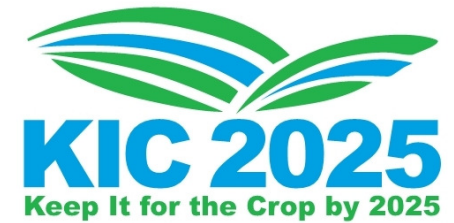
To enroll in N-WATCH consult first with your ag retailer or certified crop advisor. To ensure meaningful results, there are UI developed protocols for the program along with precise sample collection and shipping procedures. CBMP can only reimburse costs for

N-WATCH if you are properly enrolled in the program. Call CBMP at 309.827.2774 to inquire.

The Illinois Nutrient Research & Education Council (NREC) provides funding to CBMP to support KIC and N-WATCH. NREC is also funding research on methods to improve crop yields in Illinois. For more information on NREC, go to: [www.illinoisnrec.org](http://www.illinoisnrec.org)



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**NITROGEN STEWARDSHIP**  
*THROUGH*  
**ENHANCED NITROGEN**  
**MANAGEMENT**

**MINIMIZE ENVIRONMENTAL IMPACT**  
**OPTIMIZE HARVEST YIELD**  
**MAXIMIZE INPUT UTILIZATION**



**Right Source**  
**Right Rate**  
**Right Time**  
**Right Place**

[www.nutrientstewardship.com](http://www.nutrientstewardship.com)



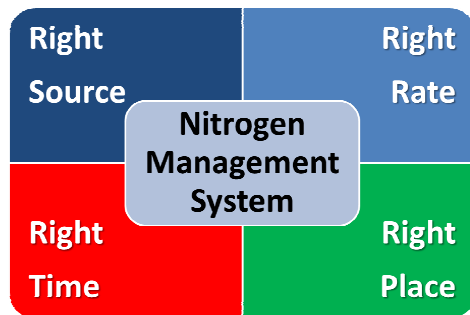
The Illinois Council on Best Management Practices (CBMP) encourages farmers, agricultural retailers and crop advisors to promote the MOM approach:

Minimize Environmental Impact

Optimize Harvest Yield

Maximize Input Utilization

This concept is based on the 4Rs of nutrient stewardship: Right Source, Right Rate, Right Time, Right Place.



CBMP is a coalition of agriculture organizations including:

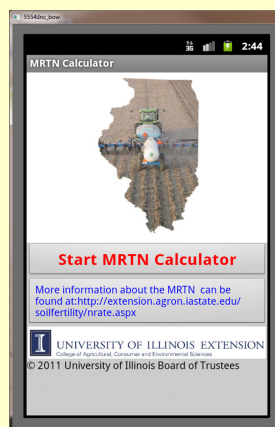
- Illinois Corn Growers Association
- Illinois Farm Bureau
- Illinois Fertilizer & Chemical Association
- Illinois Pork Producers
- Illinois Soybean Association
- Syngenta Crop Protection
- Monsanto Company
- GROWMARK, Inc.

For more information on CBMP, go to [www.illinoiscbmp.org](http://www.illinoiscbmp.org)

## ENHANCED NITROGEN MANAGEMENT RECOMMENDATIONS

- **Manage N as a system**, not as an application. Why risk losing N? We don't know when the corn price will be at its peak, so we market corn over time to hedge risk. We don't know what the weather will be, so why not make multiple N applications over time to reduce the risk of loss?
- **Make N applications at strategic times.** A nitrogen management system will improve utilization of what is applied. It's not just about how much N is applied. It's about making sure the N is there when the plant needs it.
- **Start with the appropriate N rate.** Use the Maximum Return to Nitrogen (MRTN) calculator suggested by the University of Illinois—it's a great place to start. CBMP has a free nitrogen rate calculator that provides an easy way to determine the crop's N requirement based upon UI research. It contains a tool to split-apply N in up to three applications, allows for cost of product, application costs and N enhancement such as N-Serv™ and Agrotain™. Enter "MRTN Calculator" in the iPhone store. For the DROID version visit:

[https://dl.dropbox.com/u/40660246/MRTN\\_full2.apk](https://dl.dropbox.com/u/40660246/MRTN_full2.apk)



## ENHANCED NITROGEN MANAGEMENT, CONT.

**Fall application of anhydrous ammonia** is considered an N management tool when sound management practices are followed. These include:

1. Calculate the N rate using the MRTN calculator\* (see previous page) or use another accepted method to estimate corn N requirements.
2. Wait for the soil temperature to reach a stable 50° maximum daily soil temperature at the 4-inch depth before making an application. Soil temps are posted at [www.ifca.com](http://www.ifca.com)
3. Use a nitrification inhibitor to minimize N loss from leaching (movement with soil water) or denitrification (conversion of ammonium to nitrate in saturated soil by microbial activity).
4. Do not fall apply N to coarse textured soils or to soils that cool down late and warm up early in the spring. IL Route 16 is commonly used as the lower geographic limit for fall applied N.
5. Only apply a part of the crop's total N need in the fall. By utilizing a N management system of multiple applications, you can limit possible economic and environmental risks associated with applying full rates of N in the fall.
6. Utilize N-WATCH\* to inventory and track plant-available N before and after N applications. It will provide a new perspective on managing soil N.

\* To learn more about N-WATCH contact CBMP at 309.827.2774 or email [jeanp@ifca.com](mailto:jeanp@ifca.com)

\*To learn more about the Maximum Return to Nitrogen (MRTN) Calculator visit the Illinois Agronomy Handbook online at <http://extension.cropsi.illinois.edu/handbook> and view Chapter 9: Managing Nitrogen.