

## NITROGEN MANAGEMENT SYSTEM

**Objective:** To improve farm profitability and minimize environmental impact of nitrogen (N) use by reducing N losses and increasing harvest yield.

**Nitrogen Management System:** A planned approach to N use that achieves better plant utilization and higher harvest yield with less environmental loss. It promotes a multiple application approach to N Management. It reduces early N application rates while emphasizing post-emerge N nutrition. It is about making incremental N applications that will <u>M</u>inimize environmental impact, <u>O</u>ptimize harvest yield, and <u>M</u>aximize input utilization. It is about focusing on <u>M.O.M.</u>

### **Components of a Nitrogen Management System**

- Plan on a N System with two or more N applications
- Fall Applications: Apply no more than 50 to 60% of total N
- Start with land-grant guidelines for N rate
- Use a nitrification inhibitor with fall and early pre-plant N applications
- Include applications with differences in placement of N (knifed and surface broadcast)
- Include a late pre-plant, pre-emerge or post-emerge N application as part of the system
- Utilize **N-WATCH<sup>1</sup>** to inventory and track plant-available N from harvest to knee-high corn
- Search for the optimum N rate for your specific farming practices (N Rate Studies)
- Stay focused on sound scientific principles and strategies

#### Impact of a Nitrogen Management System

- Increased investment in N input. Cost of different N sources, application, and use of N enhancements will add to the N input cost.
- ✓ Improved farm profitability and minimized N losses. Split application of N has provided over an average of 15 bushels per acre across 60+ sites over four years (2009-2012).
- ✓ Provides a convincing reason to change the way N is managed through <u>Maximizing N</u> utilization, <u>O</u>ptimizing harvest yield, while <u>Minimizing environmental impact (M.O.M.</u>).

"To sustain higher corn yields will require a change in the way crop inputs are managed. It is not about applying more N to produce more grain, but how the N is utilized. It is not about managing the field, but managing environments within the field. Adoption of an N Management System is one step toward **Maximizing Every Acre**."

**For more information about** a N Management System for your farming operation contact your local Ag retailer or the Illinois Council for Best Management Practices (<u>leslief@ifca.com</u> or 309-827-2774).

<sup>&</sup>lt;sup>1</sup> N-WATCH is a management tool that provides an estimate of plant-available N over time at one point in a field. Visit with your participating Ag retailer or the CBMP (<u>leslief@ifca.com</u> or 309-827-2774) for more information about N-WATCH.

**PROCEEDINGS OF THE** 

# **43**<sup>rd</sup>

# NORTH CENTRAL EXTENSION-INDUSTRY SOIL FERTILITY CONFERENCE

### Volume 29

November 20-21, 2013 Holiday Inn Airport Des Moines, IA

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PUBLISHED BY:

International Plant Nutrition Institute 2301 Research Park Way, Suite 126 Brookings, SD 57006 (605) 692-6280 Web page: www.IPNI.net

ON-LINE PROCEEDINGS: http://extension.agron.iastate.edu/NCE/