

# Fine-Tuning Nitrogen Management on Corn

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## Nutrient Management Tools and Curriculum

### Tool

*Nitrogen Management Evaluation Tool* is a Microsoft Excel-based calculator that incorporates multiple Cornell guides and tools such as:

- New York State Corn Nitrogen calculator.
- Crop Available Nutrients from Manure calculator.
- Expected Nitrogen Credits from Plowed Sods calculator.
- Interpretations for the Presidedress Nitrate Test (PSNT).
- Illinois Soil Nitrogen Test (ISNT) and Loss-on-Ignition (LOI) Interpretations for Corn calculator.

This tool was designed to be used at the farm to analyze farm specific nitrogen management alternatives or in the classroom with a producer, extension or student audience to teach concepts associated with nitrogen management. This tool can be used as an extension tool on its own and/or integrated into a complete 4-hour nutrient management curriculum (1-hour lecture, 2-hour engaged activities, and 1-hour advanced concepts). All components can be downloaded.

### Curriculum

The nutrient management curriculum; *Fine-Tuning Nitrogen Management on Corn* includes 8 parts:

#### Teaching Guides

- Background Lecture (1 hour)
- Tutorial Workbook Teaching Guide
  - Software Demonstration (1 hour)
  - Instructional Examples (1 hour)
  - Advanced Exercises (1 hour)

#### Materials

- Tool (Software and Data Collection Sheet)
- User Manual
- Tutorial Workbook
  - Software Demonstration (1 hour)
  - Instructional Examples (1 hour)
  - Advanced Exercises (1 hour)
- Glossary

#### Fact Sheets and Extension Material

- Nitrogen Guidelines for Field Crops in New York
- Pre-Sidedress Nitrogen Test (PSNT) Refresher
- Agronomy Fact Sheet #2: Nitrogen Basics
- Agronomy Fact Sheet #3: Pre-Sidedress Nitrate Test
- Agronomy Fact Sheet #4: Nitrogen Credits from Manure
- Agronomy Fact Sheet #21: Nitrogen Needs of 1<sup>st</sup> Year Corn

- Agronomy Fact Sheet #22: Cation Exchange Capacity (CEC)
- Agronomy Fact Sheet #30: Soybean N Credits
- Agronomy Fact Sheet #31: Late Season Stalk Nitrate Test
- Agronomy Fact Sheet #35: N Guidelines for Corn
- Agronomy Fact Sheet #36: Illinois Soil Nitrogen Test
- Agronomy Fact Sheet #39: Nitrogen Fixation
- Agronomy Fact Sheet #41: Soil Organic Matter
- Agronomy Fact Sheet #44: Nitrogen Fertilizers for Field Crops
- Agronomy Fact Sheet #45: Enhanced-Efficiency Nitrogen Sources

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