MEASURE AND MANAGE

Nitrogen Recommendations 2006 for Corn

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The recent introduction of the Ontario Nitrogen Calculator has stirred interest and debate concerning nitrogen rates for Corn. Nitrogen can and must be managed. The economic impact of the correct rate cannot be over-estimated and the negative impact on excess Nitrogen on the environment can not be underestimated.

We do know that corn needs Nitrogen. We must appreciate all of the sources of nitrogen supply to the corn crop in any given field in order to maximize profit and minimize environmental concerns.

With nitrogen priced near $0.50 per pound actual and commodity prices challenged the economics may dictate reduced Nitrogen rates. What is required is an awareness of Nitrogen uptake requirements and all of the sources that can meet that supply. The amount of nitrogen contained in an entire plant to grow a bushel of corn is universal.

What is not universal is the nitrogen supply that comes from soil characteristics, previous crop residues, manures, seasonal carryover and spring mineralization from organic matter. There are as many computations and permutations on nitrogen sources as there are farmers however a universal approach to these factors can occur.

The Ontario Corn Nitrogen Calculator provides a format to consider some of these factors. Heat unit, yield, soil type, crop residue, and application method provides a step wise procedure to consider these impacts on determining a Nitrogen rate.

www.gocorn.net look under" tools"

Manure credits are not included in the Calculator but can be considered after the calculations are completed.

The Pre-Sidedress Nitrate Soil Test (PSNT) is also a tool that can be used at sidedress time to determine a nitrogen rate. See article #86 – Got Nitrogen?

Our soil test reports at this time do not include any of these considerations other than organic matter and yield goal. We encourage farmers to link to the website to assess the Ontario Nitrogen Calculator and familiarize themselves with the additional considerations for determination of Nitrogen rates.

We are supporters of the PSNT for sidedress determinations. This approach relies less on yield goal and more on Nitrogen response. Fields with high yield potential usually have soil conditions conducive to support high yields by being well structured, high in organic matter and high levels of plant available water. These attributes produce large supplies of soil nitrate and are least responsive to Nitrogen applications. When corn economics are challenging growing corn on high yielding fields is a must. Yield Matters!

Also visit Agtest ^{N} to see the future of Nitrogen Management.