

# How Much Nitrogen Do We Need? (A09-hoeft080754-Oral)

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## Abstract:

Many agronomists have devoted their entire career to develop a system that would accurately predict nitrogen need. Unfortunately all of that work has not produced a system that accurately predicts nitrogen need for every field in every year. In fact, few systems precisely predict nitrogen need for any field in any year. This is not a condemnation of scientists, but rather a fact that there are numerous environmental factors that influence nitrogen need that are not predictable in advance of when the crop is grown. Although they are not precise for every year, most recommendation systems provide a reliable guide for nitrogen need over the long term. The importance of factors such as mineralization, denitrification, leaching, crop demand, and legume and manure contributions on nitrogen need will be reviewed. The advantages and disadvantages of recommendation systems being used by Cornbelt states will be reviewed.

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## Presentation Information:

Presentation Date: Tuesday, November 12, 2002

Presentation Time: 11:00 am

## Keywords:

Nitrogen rate, Nitrogen recommendations, Optimum yield, Optimum N rate