

2006 Solution Days Sensor-Based In-Season Nitrogen Management

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2006 University of Nebraska-Lincoln Extension
Solution Days

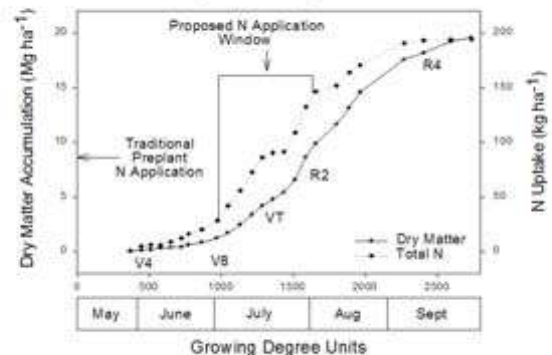
Sensor-Based In-Season Nitrogen Management

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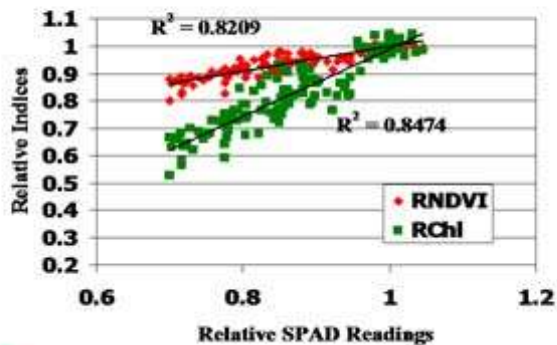
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Pattern of Biomass Accumulation and N Uptake by Corn



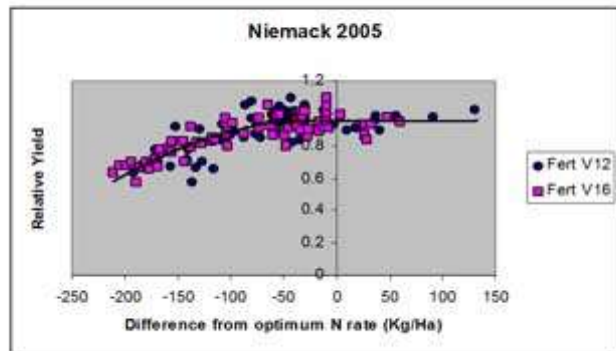
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Relationship of Vegetation Indices to Chlorophyll Meter



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Sensor Yield Prediction



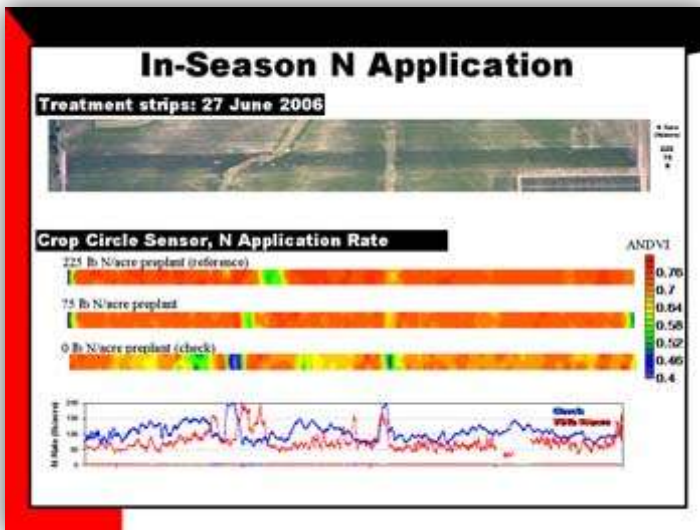
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Predictive Nitrogen Management

Illinois Soil Test

- Measure of labile soil N pools related to N mineralization

Corn Belt Regional N Rate Guidelines for corn

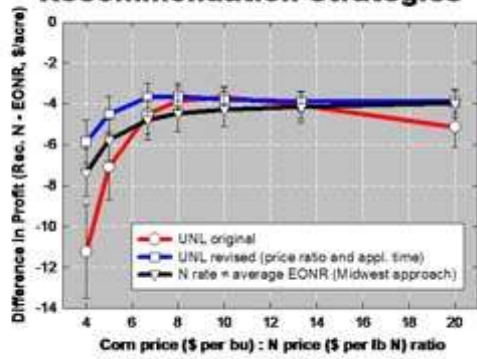
- Iowa, Illinois, Minnesota, Wisconsin, Indiana, Ohio
- Removes expected yield as a predictor of N requirement
- Does not use soil test information
- Adjusts for optimum profit based on fertilizer price and grain value

University of Nebraska N Rate Algorithm for corn

- Relies on soil sampling for soil organic matter and residual nitrate-N
- Includes expected yield
- Adjusts for optimum profit based on fertilizer price and grain value
- Based on 34 site-years of detailed research, 2002-2004

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Economic Comparison of N Recommendation Strategies



Means and standard errors of 22 sub-years (CC and CS, Nebraska, 2002-2004)

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