

International Conference on Enhanced-Efficiency Fertilizers

An IFA-New Ag International Event

23-24 March 2010

Hotel Hyatt Regency, Miami, FL, USA

**IMPROVING PRODUCTIVITY, N-USE EFFICIENCY AND
ENVIRONMENTAL SUSTAINABILITY IN BROAD-ACRE
AGRICULTURE WITH CONTROLLED-RELEASE FERTILIZERS**

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Improving Productivity, N-Use Efficiency, And Environmental Sustainability In Broad-acre Agriculture With Controlled-release Fertilizers.

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Global Need for Better Nitrogen Management

- The world needs increased productivity
- Increased farmer profitability in the face of increasing costs
- Decrease impact of nutrients in the environment
- Pressure to reduce nutrient use



Controlled-release fertilizers can

- Increase crop yields
- Improve grower profitability
- Reduces losses to the environment
- Make N management easier



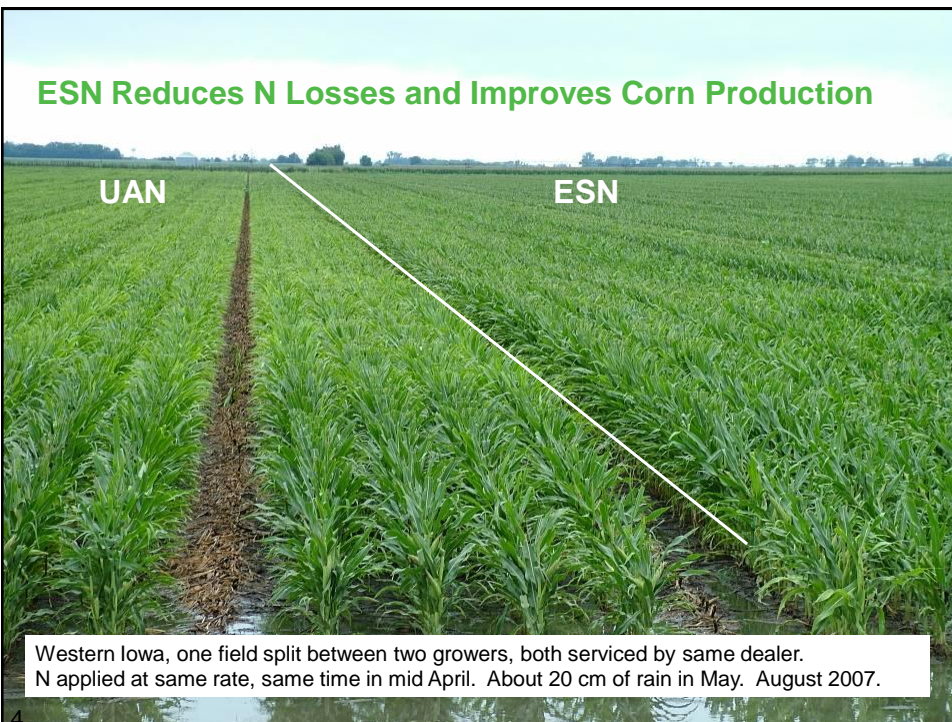
Growers' View of Nutrient Management – Summary of Grower Focus Groups?

- How do growers view efficient application of nutrients?
 - Nutrient application is second in importance to hybrid/seed selection in its impact on the crop outcome
 - Nutrient management decisions have become routine – receive relatively little thought compared with other decisions



In other words, growers see a direct link between nutrients and crop performance, but devote relatively less time & energy to nutrient management decisions. Growers want to simplify N management.

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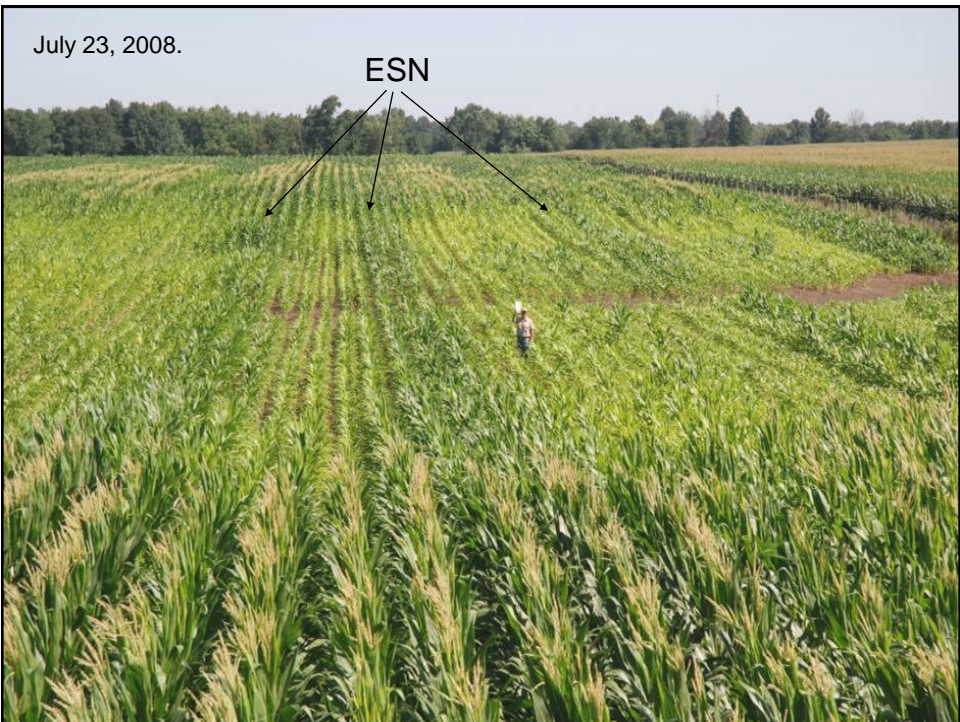
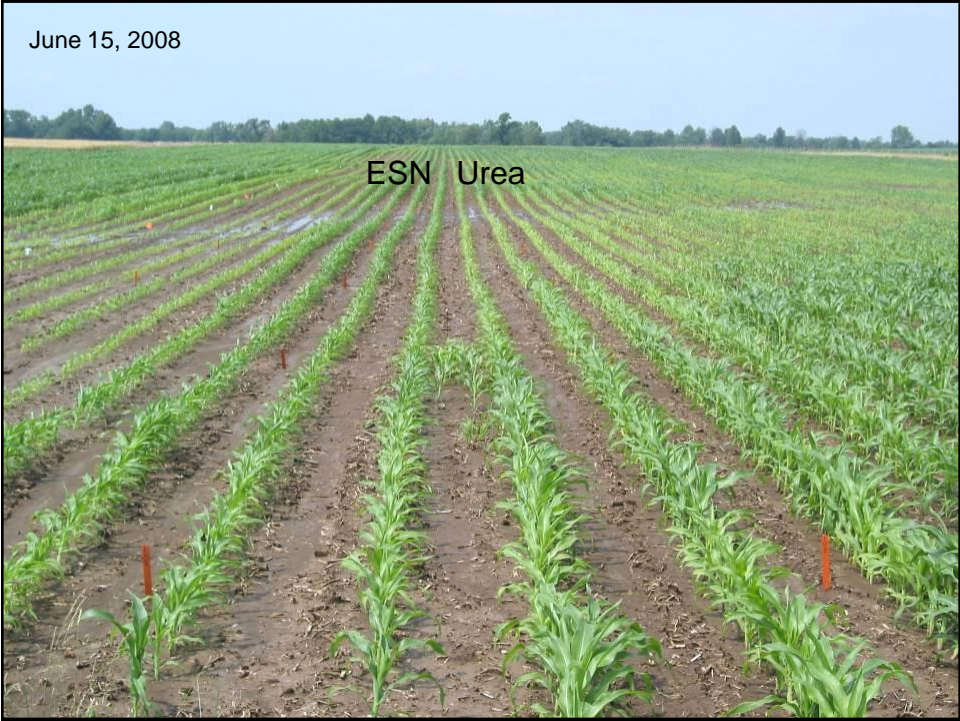
ESN Reduces N Losses and Improves Corn Production

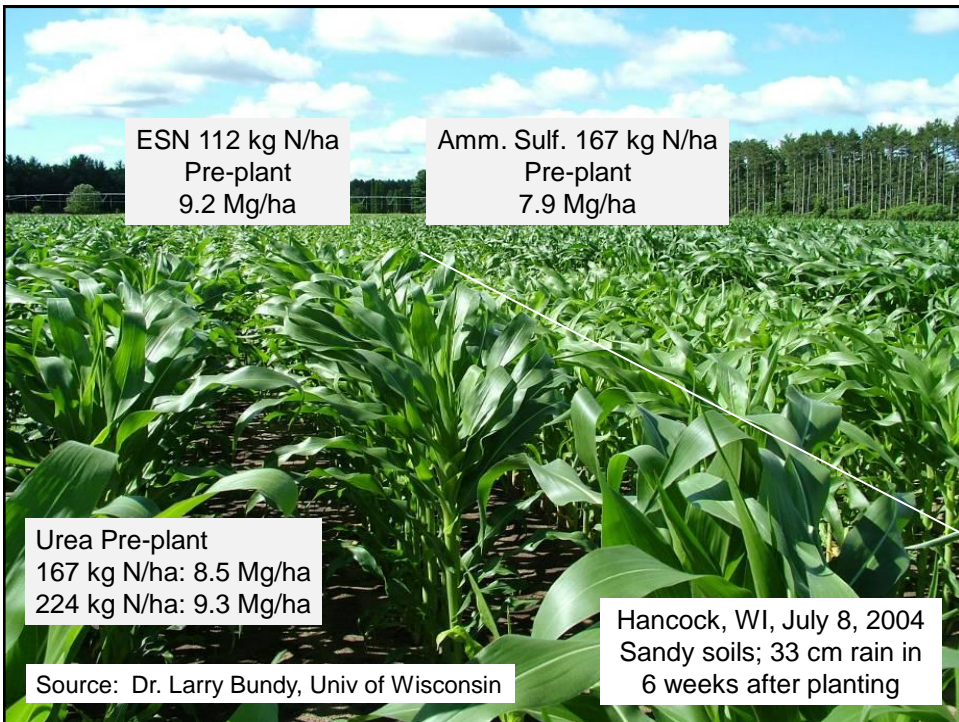
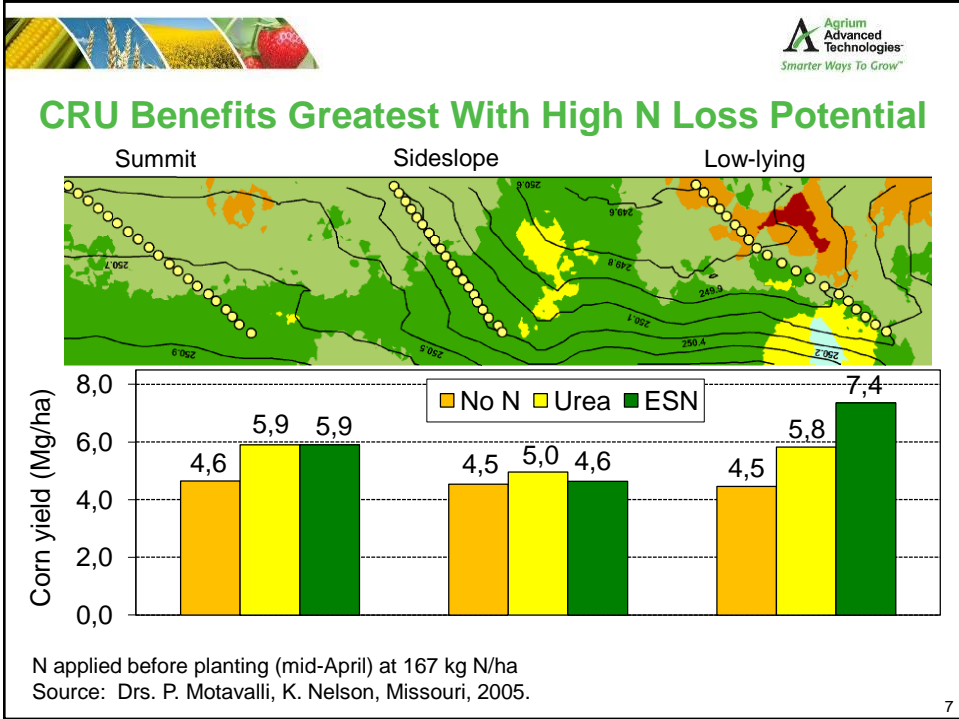
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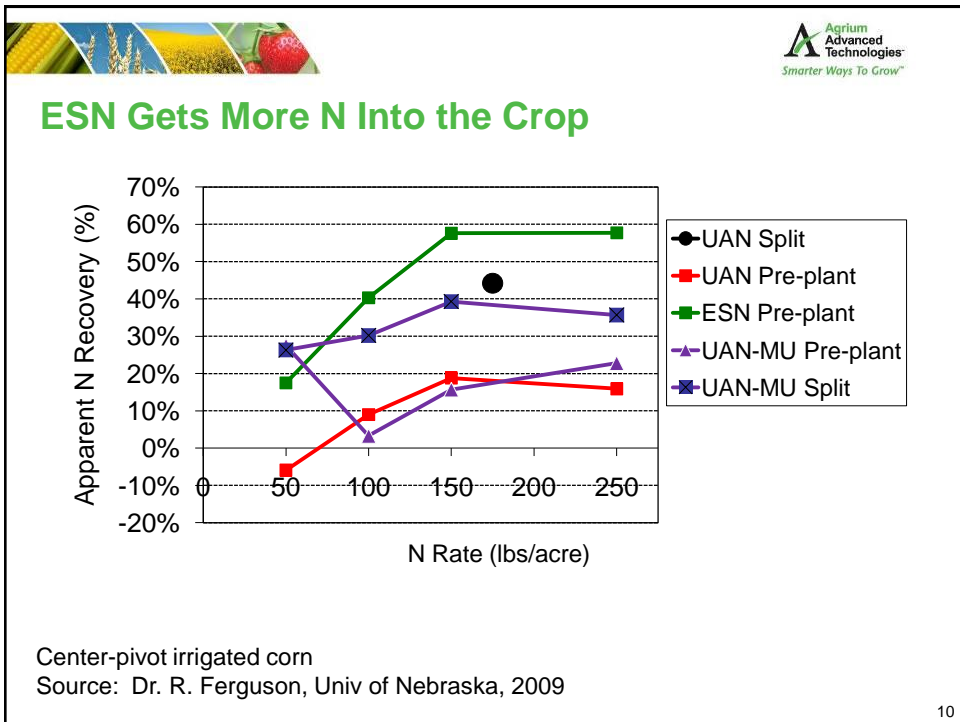
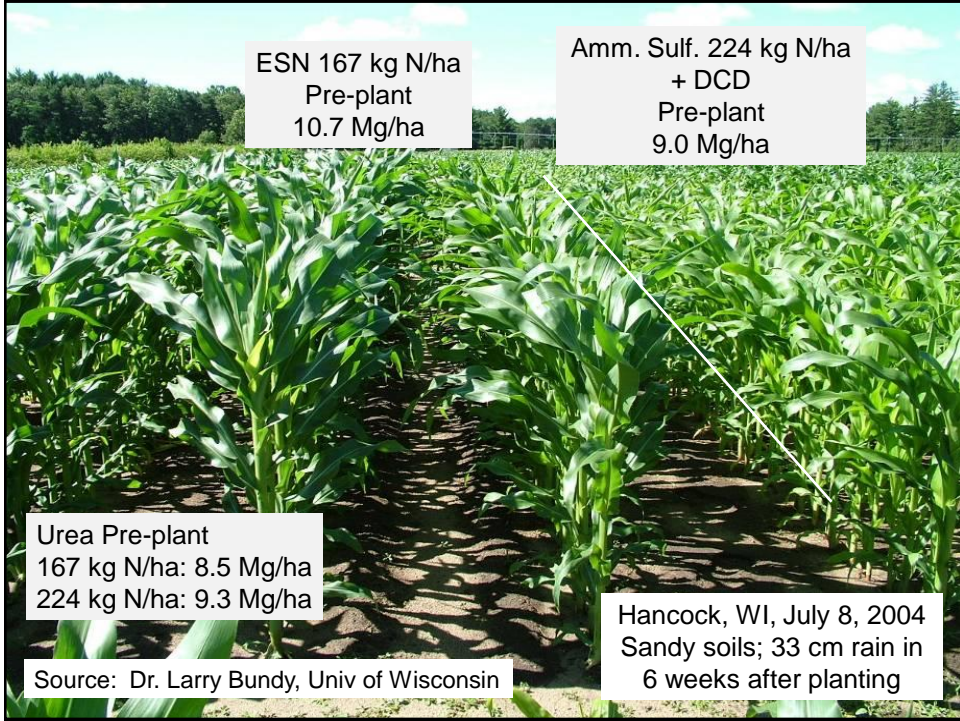
ESN

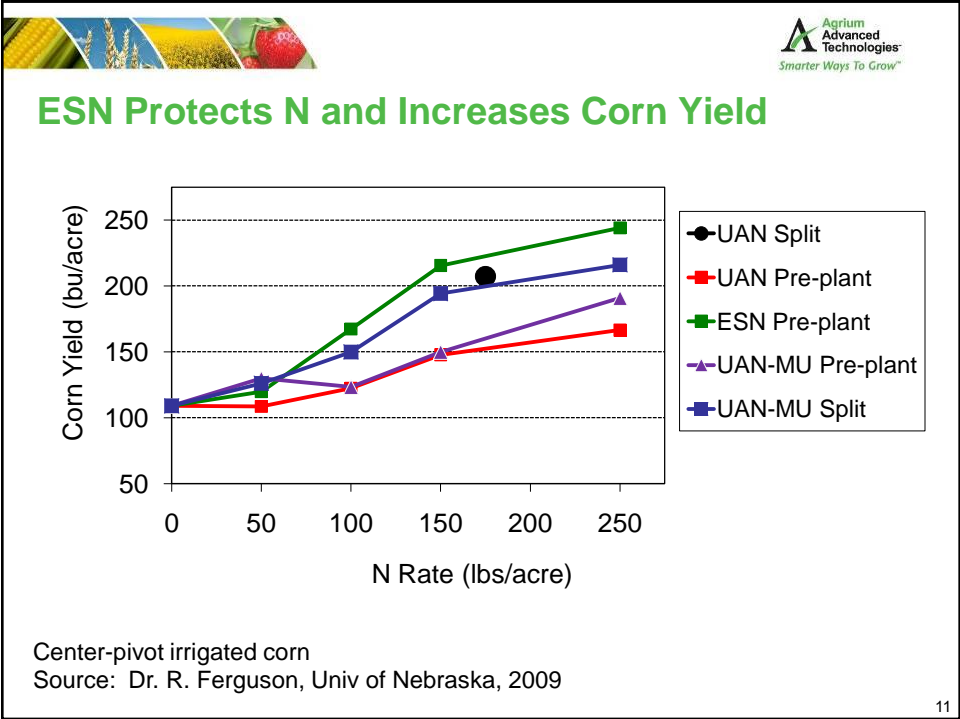
Western Iowa, one field split between two growers, both serviced by same dealer.
N applied at same rate, same time in mid April. About 20 cm of rain in May. August 2007.

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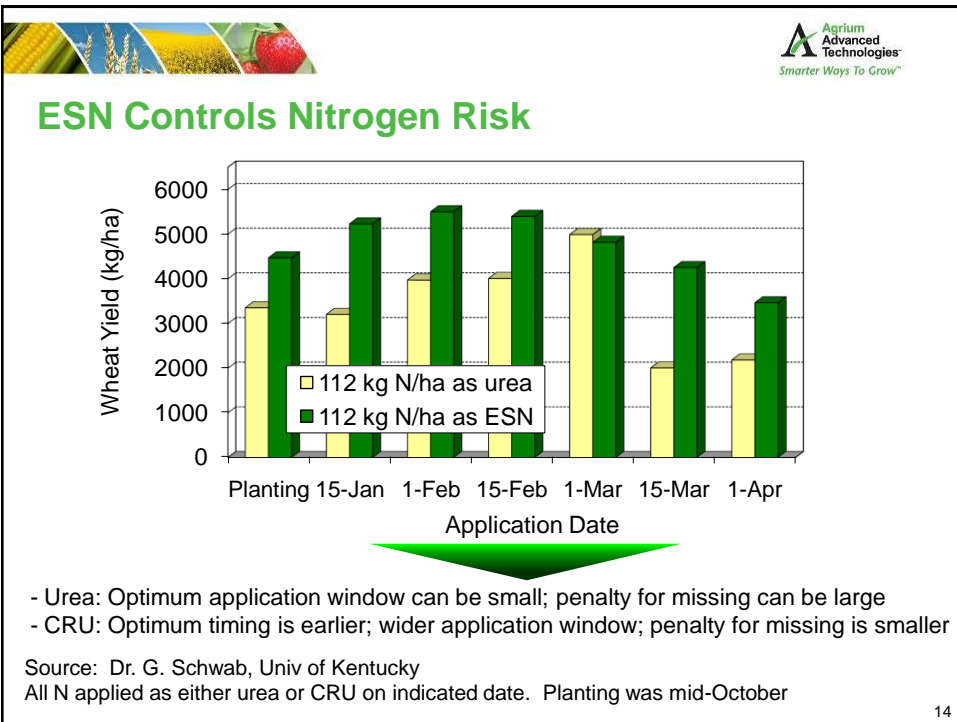
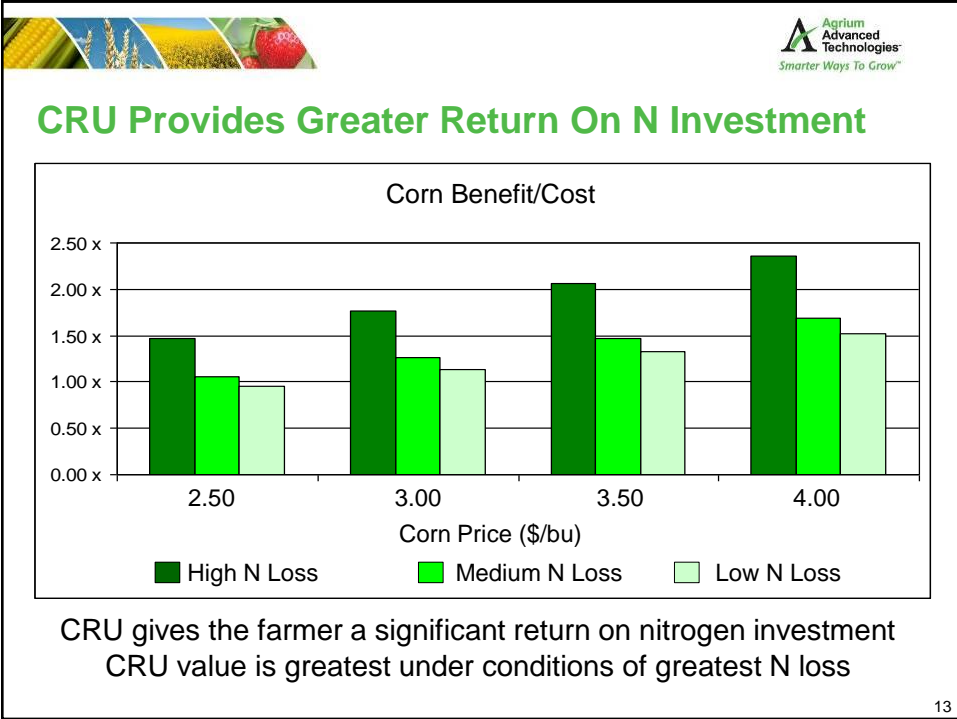


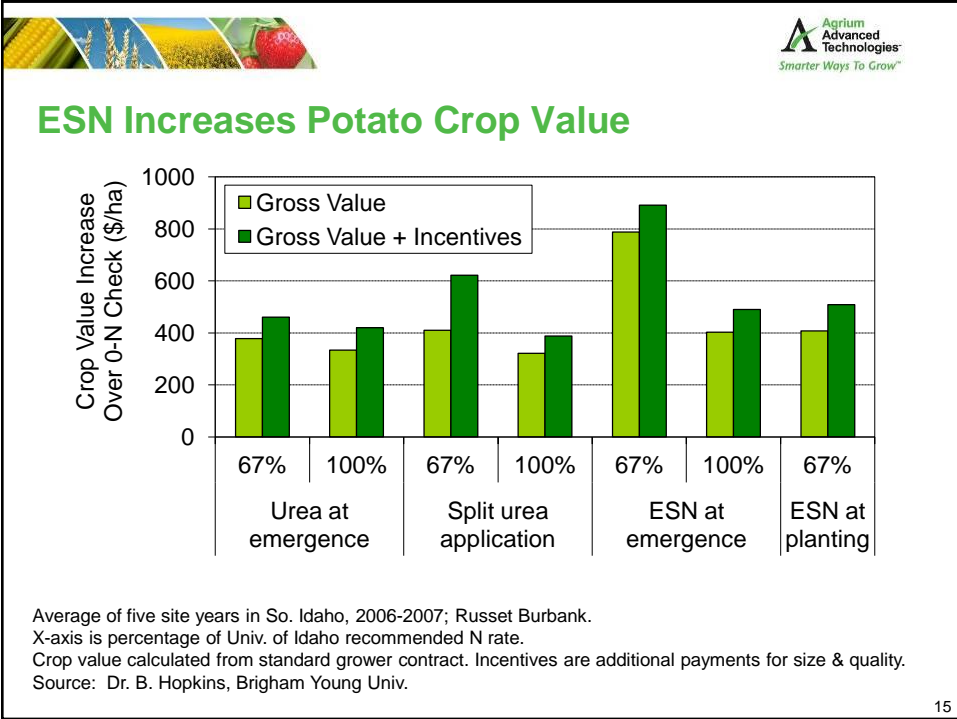




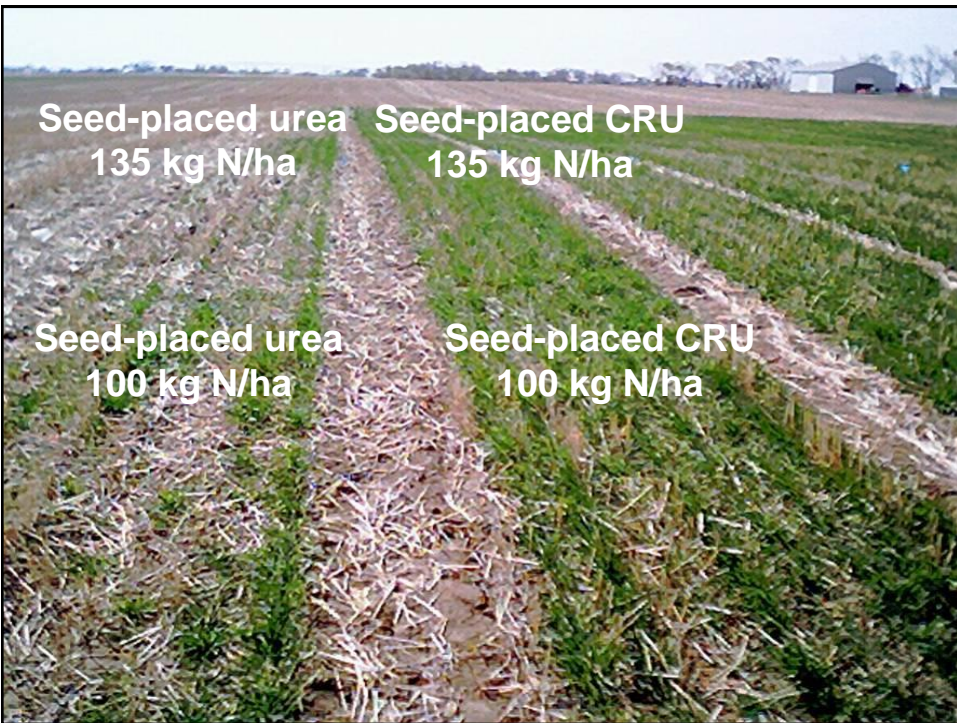


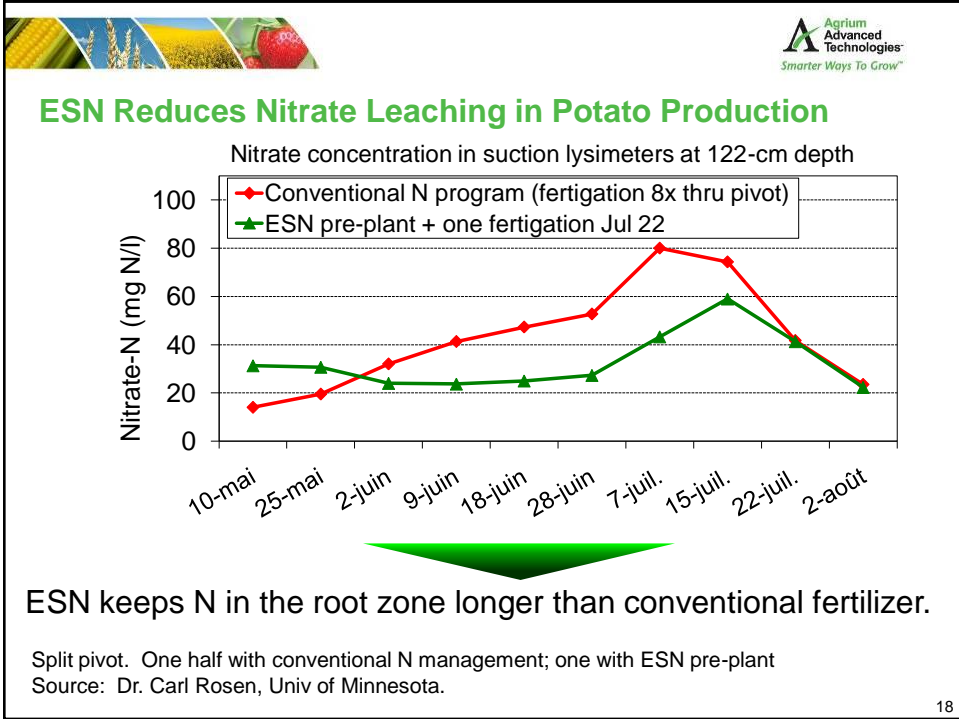
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- ESN Value From Compilation of Research Data**
- Over 500 site-years of research in No. America since 2000
 - University and government scientists
 - Crop yield response over many environments and soils
 - Analysis of combined data to determine:
 - CRU value to the grower
 - High value environments and soils



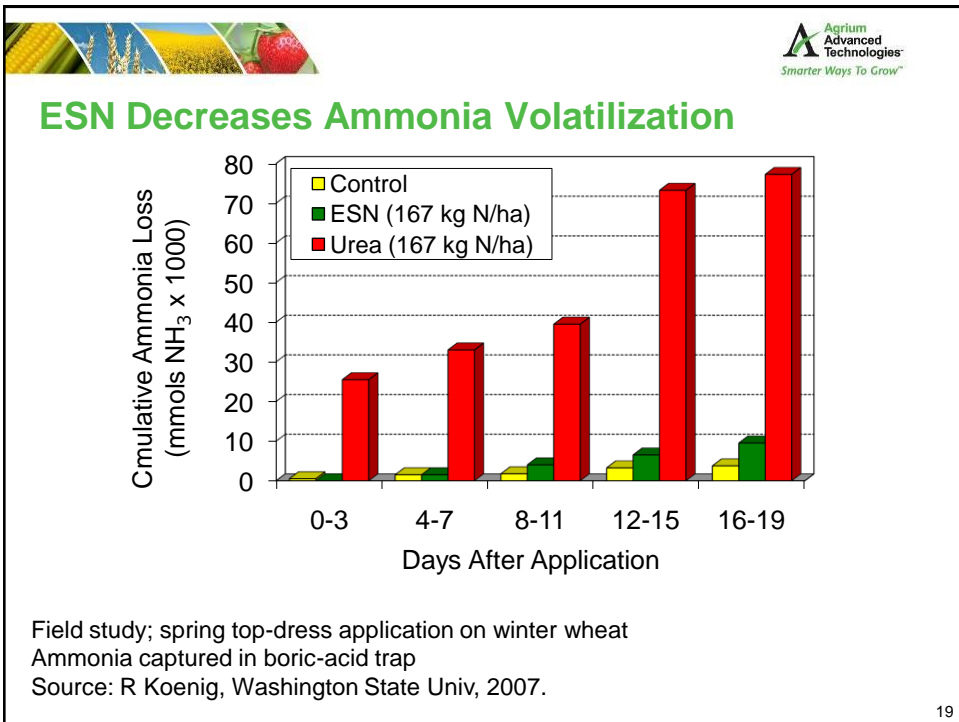


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Benefits of Controlled-Release Nitrogen

- Improved N-use efficiency → greater yields
- Greater profit for grower
- Single-application N management
- Reduced N losses → reduced environmental impact