

FACTS FROM THE FIELD

ESN® Performance Expectations in Corn

ESN Benefit is Greatest Where Nitrogen Loss Potential is High

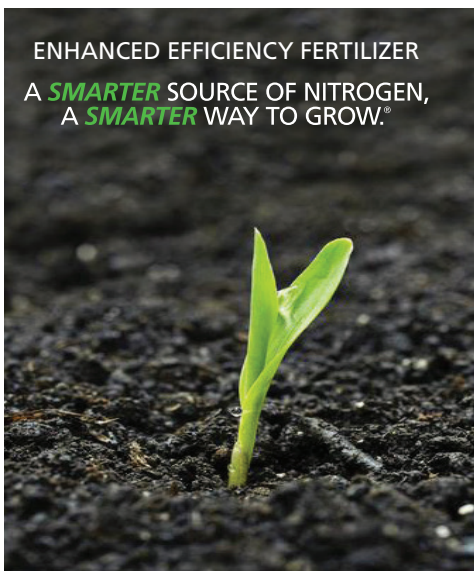
ESN is a valuable tool in nitrogen (N) management. ESN protects against the losses to which other N forms are subject. By reducing losses and improving N-use efficiency, ESN can produce significant corn yield increases. Corn nitrogen response studies were conducted at many locations over a six-year period by university and independent researchers. Relationships between yield results and soil and weather conditions were statistically analyzed to define potential yield benefits under varying conditions. This analysis indicated three significant factors determining potential ESN yield benefit: 1) early season rainfall, which often causes much of the N loss; 2) soil drainage class, which impacts the type of N loss; and 3) soil organic matter, which can indicate the soil's natural ability to mitigate loss by N mineralization.

The table below describes yield benefit expectations in corn from using ESN in various soil and weather conditions. It can be used as a guideline to estimate how ESN may perform in a variety of conditions and where one can expect the greatest benefit.

	Greater Precipitation or Irrigated		Lower Precipitation	
	Lower Organic Matter	Higher Organic Matter	Lower Organic Matter	Higher Organic Matter
	<i>Values are typical yield increase in bu/acre</i>			
Poorly Drained	15-20	8-10	0-5	0-5
Moderately Well Drained	15-20	8-10	0-5	0-5
Well Drained	15-20	8-10	5-15	0-5

- Expectations are based on 80% of N coming in the form of ESN
- Greater precipitation is defined as more than 6 – 8 inches of combined rainfall in May and June (the majority of the corn belt)
- Higher organic matter represents greater than 3 - 4% soil organic matter

Example. If you're in an area that receives over 6 inches of rainfall in the first 2 months after application of ESN and have soil organic matter of less than 3-4%, the typical yield increase observed over urea or UAN applied at the same rate and time in those studies was about 15 – 20 bu/acre. While this is not a guarantee of your actual performance, it illustrates the conditions under which ESN has the greatest return on investment.



ENHANCED EFFICIENCY FERTILIZER
A **SMARTER** SOURCE OF NITROGEN,
A **SMARTER** WAY TO GROW.®

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To make ESN a part of your nitrogen management program, contact an authorized retailer or ESN representative.

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www.SmartNitrogen.com

ESN Representative: