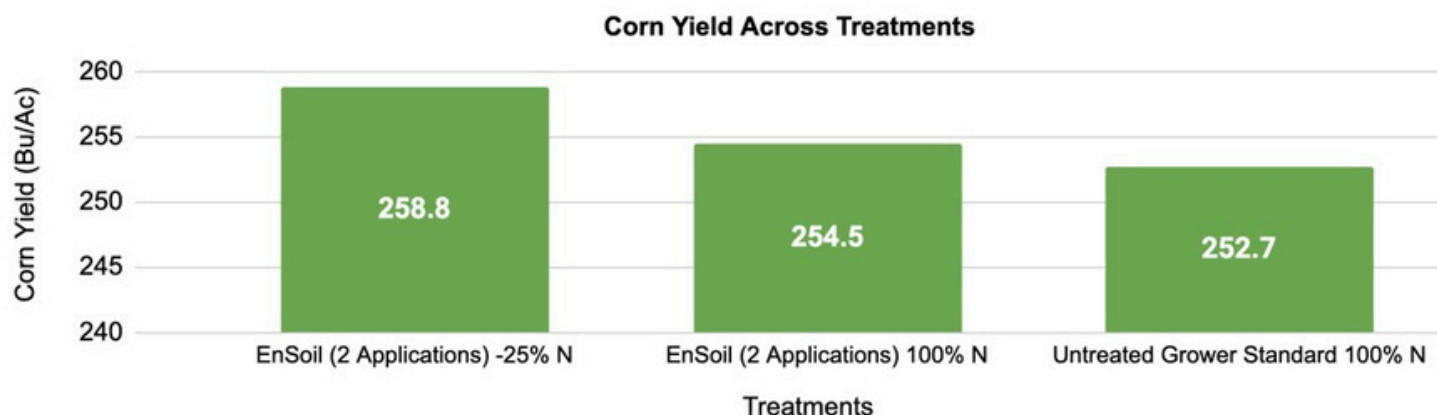


EnSoil Algae Irrigated Corn Trial

Increased Corn Yields with 25% Less Nitrogen in Great Bend, KS



Results

EnSoil (2 applications) with 25% reduction in N fertilizer:

- Yield: 258.8 bushels/acre
- Yield increase over untreated control: +6.1 bushels/acre
- Achieved higher yields while using 106 lbs less urea per acre

EnSoil (2 applications) with 100% N fertilizer:

- Yield: 254.5 bushels/acre
- Yield increase over untreated control: +1.8 bushels/acre

Untreated (Grower Standard, 100% N fertilizer):

- Yield: 252.7 bushels/acre

Key findings and ROI:

- Applying EnSoil Algae, even with a 25% reduction in nitrogen fertilizer, resulted in **superior yields** compared to the control plot receiving full fertilizer rates.
- Both EnSoil programs provided a yield benefit over the control.
- The yield gain alone in the EnSoil -25% N reduction treatment resulted in an **ROI of \$8.17 per acre (45% ROI)** when accounting for the cost of the EnSoil product and assuming a corn bushel price of \$4.29.
- When the 25% urea reduction is factored into ROI calculations this results in an **ROI of \$38.91 per acre (216% ROI)** when accounting for the cost of the EnSoil and assuming a urea per lb price of \$0.29 and corn bushel price of \$4.29.

Trial Description: This trial was conducted by Performance Crop Research. The irrigated field is located in Barton County near Great Bend, Kansas. The soil type is Pratt Loamy Sand. The experiment was conducted as a randomized complete block design with one replication. Plots size was 10 ft by 30 ft (300ft²). Row spacing was 30 inches. The grower standard fertility program included 329 lb/ac urea, 130 lb/ DAP, and 85 lb/ac AMS, while the -25% N EnSoil treatment received only 223lb/ac urea.

Application Description: The EnSoil applications consisted of both a broadcast treatment tank mixed with pre-emergent herbicide and a second application tank mixed with the post-emergent herbicide. One EnSoil treatment received the grower standard soil fertilizer program, while the other EnSoil treatment received a 25% reduction in lbs of N applied. All applications were conducted with an EnSoil application rate of 8 oz per acre.



EnSoil Algae



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Trial Design

Researcher: Performance Crop Research



Location:

- Great Bend, Kansas.
- The soil type at this study location is Pratt Loamy Sand.

Treatment Plot Specifications:

- The experiment utilized a randomized complete block design with one replication.
- Two EnSoil treatment programs were tested, with each consisting of two total EnSoil applications applied as herbicide tank-mixes. One EnSoil treatment received a 25% nitrogen fertility reduction while the other received a full 100% nitrogen fertility program identical to the control.
- Each plot measured 10 feet by 30 feet (300 ft²) with 30-inch row spacing.

Planting Date: May 16, 2025

Treatments Given to Plots:

EnSoil (2 applications) with 25% reduction in N fertilizer

- 223 lb/ac urea (vs. standard 329 lb/ac)
- Two EnSoil applications (8 oz/ac each): one with pre-emergent herbicide before planting, one with post-emergent herbicide 24 days after planting

EnSoil (2 applications) with 100% N fertilizer

- 329 lb/ac urea (standard rate)
- Two EnSoil applications (8 oz/ac each): same timing and method as above

Untreated Grower Standard (control)

- 329 lb/ac urea (standard rate)
- No EnSoil applications

Goal:

- To determine whether using EnSoil Algae, an algal biostimulant, allows farmers to reduce nitrogen fertilizer inputs without sacrificing—and potentially even increasing—corn yield.
- To evaluate if EnSoil, when tank mixed with standard crop protection products, remains effective.
- To assess the potential for cost savings and yield improvements when integrating EnSoil Algae into a conventional corn fertility program.

Measurements Taken:

- Corn grain yield (measured in bushels per acre) for each treatment plot
- Yield difference compared to the untreated grower standard control (bushels/acre)
- Amount of urea (nitrogen fertilizer) applied per treatment (lb/ac)
- Observations on the effectiveness of tank mixing EnSoil with crop protection products

Trial Results

In a field trial conducted in Barton County, Kansas, Performance Crop Research evaluated the impact of EnSoil Algae biostimulant on irrigated corn yields while reducing nitrogen fertilizer input.

The study scope featured here tested two EnSoil application programs, including a treatment where nitrogen fertilizer was cut by 25% compared to the standard. Notably, the EnSoil treatment with reduced nitrogen produced the highest yield, outperforming the control plot that received the full fertilizer rate by 6.1 bushels per acre. Both EnSoil-treated plots showed a yield increase over the untreated standard program.

These findings suggest that farmers can maintain or even improve corn yields with less nitrogen fertilizer by incorporating EnSoil Algae, potentially increasing profits by saving on input costs.



EnSoil Algae boosted yields by over 6 bushels per acre—even while cutting nitrogen fertilizer by 25%. Save money and grow more with EnSoil!