



## EnSoil Algae Dryland & Irrigated Soybean Trial

### Higher Soybean Yields and ROI in Kansas Field Trials

#### Results

##### Dryland Soybean Yield:

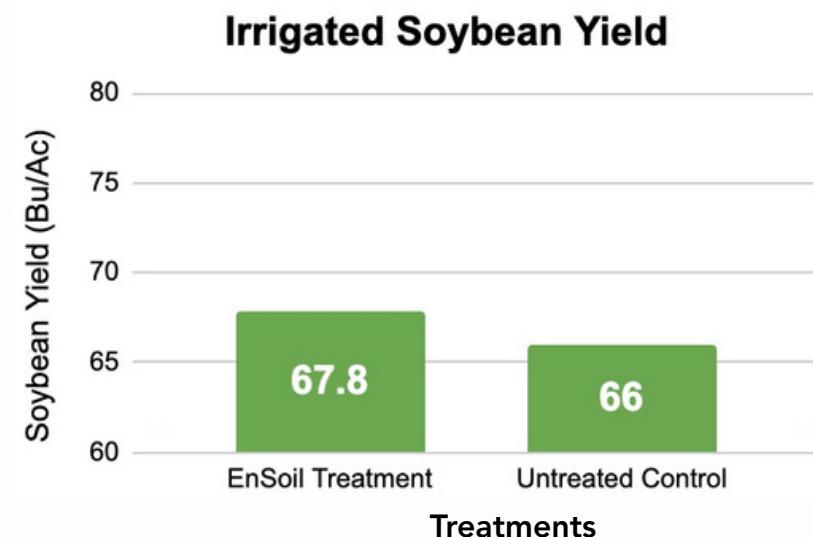
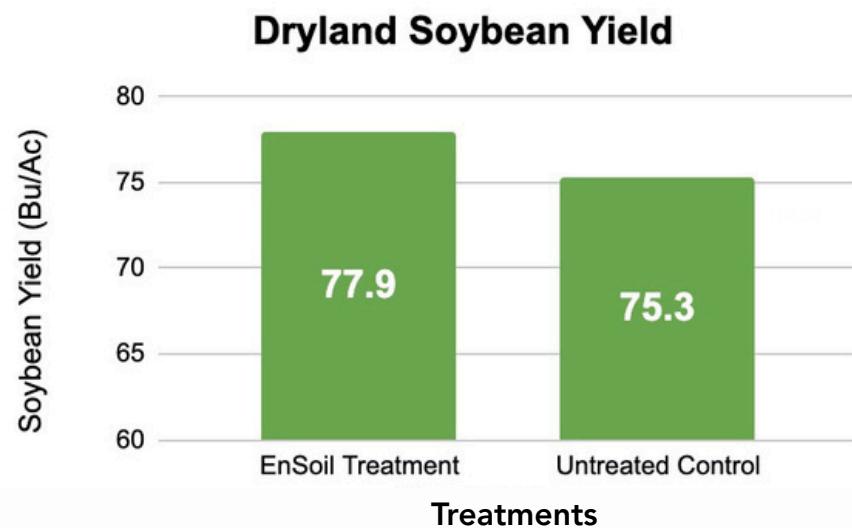
- EnSoil Treatment: **77.9 bu/ac**
- Untreated Control: **75.3 bu/ac**
- Yield increase: **+2.6 bu/ac**
- Soybean price: **\$11.11/bushel**
- Revenue increase: **\$28.86/acre**
- ROI: **\$10.86/acre (60.33%)**

##### Irrigated Soybean Yield:

- EnSoil Treatment: **67.8 bu/ac**
- Untreated Control: **66.0 bu/ac**
- Yield increase: **+1.8 bu/ac**
- Soybean price: **\$11.11/bushel**
- Revenue increase: **\$20.00/acre**
- ROI: **\$2.00/acre (11.10%)**

##### Conclusion:

- EnSoil Algae treatment resulted in increased soybean yields for both dryland and irrigated conditions, with greater yield and ROI observed in the dryland trial when accounting for the EnSoil product cost and assuming a soybean bushel value of \$11.11



**Trial Description:** These trials were conducted by Performance Crop Research. The dryland field is located 5 miles southeast of Junction City, KS in Geary County. The irrigated field is located in Stafford County near Great Bend, Kansas. Soil type is Farnum and Funmar loams. The soil type is Reading Silty Clay Loam. The irrigated field is located in Stafford County near Great Bend, Kansas. The soil type is Farnum and Funmar loams. Both experiments were conducted as randomized complete block designs with four replications. Plot size was 10 ft by 30 ft (300 ft<sup>2</sup>). Row spacing was 30 in.

**Application Description:** EnSoil Algae was applied as a soil broadcast at planting and again at V3 as a foliar spray. Both applications consisted of a rate of 8 oz EnSoil per acre



# EnSoil Algae



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## Trial Design

**Grower:** Performance Crop Research



**Researcher:** Performance Crop Research

**Locations:**

- Dryland trial: 5 miles southeast of Junction City, Geary County, Kansas (Reading Silty Clay Loam soil)
- Irrigated trial: Near Great Bend, Stafford County, Kansas (Farnum and Funmar loams)
- **Number of Treatment Plots:** Each trial used a randomized complete block design with four replications.
  - Each treatment (EnSoil Algae and untreated control) was tested in 4 plots.
  - Total number of treatment plots per trial: 4 (EnSoil) + 4 (Control) = 8 plots
  - Across both trials: 8 plots (dryland) + 8 plots (irrigated) = 16 total plots

**Planting Date:** 5/10/2025 for dryland, 5/16/2025 for irrigated

**Treatments Given to Plots:**

- Treatment given to plots:
- EnSoil Algae biostimulant was applied to designated treatment plots.
- Application details:
- First application: Soil broadcast at planting
- Second application: Foliar spray at V3 growth stage
- Rate: 8 oz EnSoil per acre for each application
- Untreated control plots received no EnSoil Algae applications.

**Goal:** To evaluate the effect of EnSoil Algae biostimulant applications on soybean yield in both dryland and irrigated field conditions compared to untreated controls.

**Measurements Taken:**

- Soybean yield (bushels per acre) for each plot
- Economic calculations:
  - Yield difference between EnSoil treatment and untreated control
  - Revenue increase per acre (based on local soybean price)
  - Return on investment (ROI) per acre and ROI percentage

## Trial Results

Performance Crop Research conducted a series of field trials in Kansas to evaluate the impact of EnSoil Algae biostimulant on soybean yields under both dryland and irrigated conditions.

The research featured robust experimental designs, including randomized complete block layouts with four replications per treatment, at two carefully selected locations: the dryland plots were established southeast of Junction City in Geary County, while the irrigated counterparts were near Great Bend in Stafford County.

EnSoil Algae was applied to treatment plots as a soil broadcast at planting, followed by a foliar spray at the V3 growth stage, each at a rate of 8 ounces per acre. Results from both environments showed a positive response to the EnSoil treatment: dryland soybean yields increased by 2.6 bushels per acre and irrigated yields by 1.8 bushels per acre, resulting in meaningful ROI figures for growers.

These findings highlight EnSoil Algae's potential to boost productivity in varying field conditions, offering promising data for continued research and application.



**EnSoil Algae not only increases soybean yields under both dryland and irrigated conditions, but also delivers a strong return on investment!**