

# Soybean Foliar Fertilization

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## Objective

To determine if mid- and late-season foliar fertilization with two different liquid fertilizers or growth regulator products can boost soybean yield.

## Background

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Cooperator:	Nate Andre	Variety:	Garst 295
County:	Fulton	Planting Date:	5/18/04
Soil Type:	Granby	Seeding Rate:	200,000 seeds/A
Tillage:	No-till	Row Width:	10 inches
Previous Crop:	Corn	Herbicides:	26 oz Roundup
Soil Test:	6.3 pH, P 117 ppm, K 128 ppm, OM 1.4%, CEC 5.3 meq/100g	Harvest Pop:	180,000 plants/A
Fertilizer Rate:	non-broadcast	Harvest Date:	10/5/2004

## Methods

Soybean yields have been a concern locally as yields have stagnated or declined over the past 5 years. The current study was designed to assess the potential use of new foliar fertilizer products with growth regulators to coax more yield out of the soybean plant in an area of the field where other inputs would be in place to maximize yield. Plots 10 ft by 40 ft were established with 5 replications in a randomized complete block design. Foliar products were applied at three stages R1, R3 and R4. R1 applications were made on July 9 which was a sunny day with a light wind and an air temperature of 75 degrees F. R3 treatments were applied on July 22 and weather conditions of 83 degrees sunny with a light wind and rainfall event on 7/21. R4 applications were made on August 8<sup>th</sup> and conditions were 84 degrees F, sunny, and humid with a rainfall event on 8/4. Applications were made with a CO2 sprayer with a 10 foot boom; nozzles were TeeJet XR11004VS, 20 gallons of water was applied per acre at 20 PSI pressure.

## Results

Product (Rate per acre)	Timing	Yield
20-0-10 (8 gal)	R1	68.3
Bioforge (1 qt)	R3	66.6
5-10-27 (5 lbs) + Bioforge (8 oz) at R1 + SETT (2 qt)	R3	63.8
20-0-10 (8 gal)	R3	62.6
5-10-27 (5 lbs) + Bioforge (8 oz)	R1	58.2
20-0-10 (8 gal)	R4	57.7
5-10-27 (5 lbs) + Bioforge (8 oz) at R1 + SETT (2 qt)	R4	56.6
Control	na	55.8
LSD (0.05)		11.5

For additional information, contact:

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