



Effect of a foliar biostimulant (Fertileader) as a herbicide tank-mix partner on soybean yield

Trial ID: 73-O (MO) - The Farm Research Center, LLC

PLANTING RATE: 128,800 plants/ac

DESIGN: Randomized strip plots with 3 replicates per treatment

RESEARCHER(S): Data compiled and submitted by The Farm Research Center, LLC, Garden City, MO. Write up of results by Kyle Lilly, CCA and Dr. John D. Bailey, PhD, Timac Agro USA.

OBJECTIVE

The objective of this trial was to determine the effects of Fertileader Elite on soybean stunting and final yields when added as a tank-mix partner in a single glyphosate application.

MATERIALS AND METHODS

Fertileader Elite was added at 1 qt/ac with 1 qt/ac of glyphosate and applied at V3 on soybeans. This was compared to BigSoy100 (Intellifarms, LLC) which at 1 lb/ac mixed with the same rate of glyphosate and an untreated glyphosate control. The field was irrigated and did not receive any additional fertilizer applications.

DETAILED RESULTS

Results are shown in Table 1. Soybeans treated with Fertileader Elite showed less yield loss due to herbicide stress, resulting in significantly higher yields compared to control glyphosate application and a glucose supplement, BigSoy100. The BigSoy100 product had similar yields to the Control, suggesting no benefit.

All Fertileader products contain the patented Seactiv Complex that is designed to help crops recover from abiotic stresses and improve growth. This formula likely helped alleviate oxidative stress, a known effect of herbicide application on soybeans. By reducing herbicide-induced stress, Fertileader Elite treated soybeans would likely be able to maintain growth and metabolism through the stress of herbicide application, compared to the other treatments. Fertileader is also shown to improve sap flow from the leaves to the roots and pods, which may help further explain the better yields.

Table 1. Grain Yield and Gross Revenue

Treatment	Yield (bu/ac)*	Yield Difference vs. Control	Gross Revenue/ac @ \$9.90/bu
Fertileader Elite	65 ^a	+4 bu/ac	\$643.50
BigSoy100 (Glucose, Intellifarms, LLC)	62 ^b	+1 bu/ac	\$613.80
Control	61 ^b	-	\$603.90

*Means with different superscripts are statistically different ($P < 0.05$)