



Effects of timing of biostimulants on soybean yield with and without a foliar fertilizer

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

PLANTING RATE: 128,800 plants/ac

DESIGN: Replicated third party strip plots, 3 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 current study was conducted to determine the effects of Timac Agro USA's foliar biostimulant products on final soybean grain yields at different rates and timings.

MATERIALS AND METHODS

There were four treatments compared to a control:

1. Fertiactyl GZ was applied at V3 at 1 qt/ac.
2. Fertileader Elite was applied at V3 at 1.5 pt/ac of biostimulant
3. Fertileader Elite + a 12-6-9 nutritional were applied at V3 at 1.5 pt/ac of biostimulant.
4. Fertileader Gold was applied at R1 at 1.5 pt/ac.

The field was irrigated and did not receive any additional fertilizer applications.

DETAILED RESULTS

Results are shown in Table 1. All Timac Agro USA products resulted in higher yields than the control. The Fertileader products, Elite and Gold, had higher yields than the Fertiactyl GZ product and the effect of product timing seemed to have little effect on overall yield. The addition of a 12-9-6 foliar fertilizer also had negligible effect.

The Fertileader products contain a unique chelating agent called, Seactiv Complex, that is designed to optimize foliar nutrient uptake, reduce stress and maintain growth. While Fertiactyl GZ did show some effect as a foliar biostimulant, the Seactiv technology likely made the Fertileader products more effective in this situation.

Table 1. Grain Yield and Gross Revenue

Treatment	Yield (bu/ac)*	Yield Difference vs. Control	Gross Revenue/ac @ \$9.90/bu
Fertileader Elite @ V3	52 ^a	+5 bu/ac	\$514.80
Fertileader Elite @ V3 + Fertilizer	52 ^a	+5 bu/ac	\$514.80
Fertileader Gold @ R1	51 ^{a,b}	+4 bu/ac	\$504.90
Fertiactyl GZ @ V3	48 ^{b,c}	+1 bu/ac	\$475.20
Control	47 ^c	-	\$465.30

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