

Soybeans

Field Crops Nutrient Enhancer Value

Soybean Grower Success Story

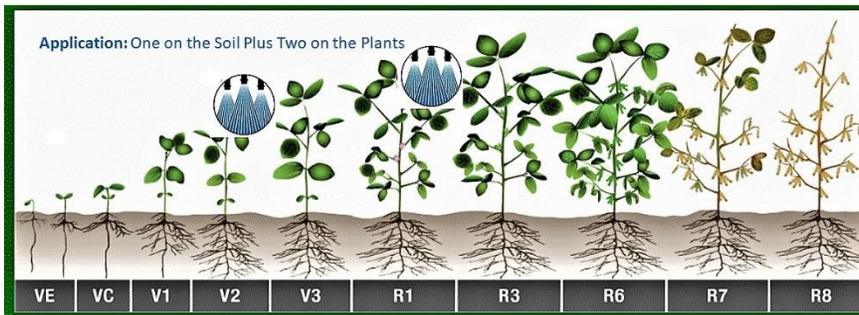
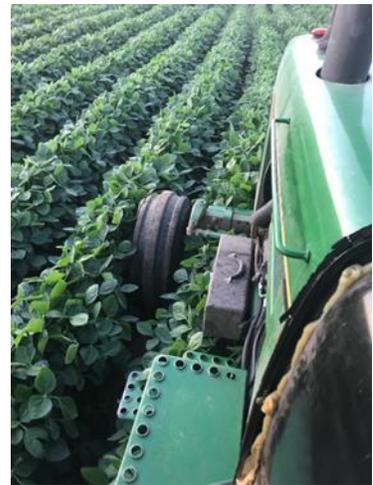
Planting and Early Growth

Liberty Link® soybean seed from Great Heart Seed was planted during late April. It was treated with the Plant Amendment Nutrient Enhancer formulation at 5 ounces per acre after a 6-8-inch cultivation. Ground application rescues soil by chelating excessive salts to remove them from the root zone and increasing cation exchange to improve water and nutrient uptake. This was followed by two applications of the Foliar Spray blend at the V2 - V3 and the R1 Stages. Budding started 12-24-hours after the second plant spray. At that point it is not possible to enter the field to spray without causing a 3-5 bushel per acre crop loss. (A pylon system is being considered, so additional sprays will be possible if warranted for future crops.)



History

The field was planted with corn for 5-years. This evaluation is the second year of soybeans. So, a 10% back-to-back soybean yield reduction is normally expected from 32-34-inch plants.



Early July

Growth to date indicates to the grower the 2018 crop yield will not be less than the 2017 89-bushells per acre. Control and Treated plant size and height photos show why. Michigan State University scientists proved the effectiveness of foliar feeding. They measured a 95% update for foliar applied nutrients compared to 10% with nutrients applied to the soil. They demonstrated that applying nutrients to foliage encourages plants to exude more carbohydrates into the root zone, which in turn increases microbial activity in the root area to increase nutrient uptake.



The side-by-side treated, and control photos show the Nutrient Enhancers' value. The July pictures tell the story. A leaf is touching 50 inches on the tape. The photo on the lower shows nearby plants without Moonshine application.

Nutrient Enhancer applications have the following benefits:

- Substantial yield increases.
- Better root systems.
- Improved growth and stamina.
- Healthier, sturdier, more pest and disease-resistance plants.
- Greater resistance to cold damage and drought.



The grower thinks soybeans will reach 5-6 feet by the season's end in three months.



Stems are already thumb sized. Plant closeup photos (control on the left with Nutrient Enhancer plants on the right) show a significantly greater number of pods. Based upon 65 pods observed on a typical plant and using the usual 65,000 plants per acre, his yield estimate indicates the likelihood to exceed the 109 bu/acre IL existing record.

Late July

Nutrient Enhancers treated plants are significantly taller than those in the control field. The grower counted 204 beans on a representative plant. The plants were five feet tall with weeks to go before harvest. Treated plants had a significantly greater number of pods. Based upon 65 pods observed on a typical plant and using the usual 65,000 plants per acre, the yield estimate indicates the likelihood to exceed the 100 bu./acre.



Harvest Reports

Table 1: Biostimulants Cost

Applications	oz.	gal.	\$\$/gal.	\$\$/acre
1 - Plant Amendment Conc.	5	0.04	\$150	\$5.86
3 - Foliar Sprays Conc.	15	0.12	\$110	\$12.89
GreenSafe™ Growing Cycle Total Cost/Acre				\$18.75

Table 2: Biostimulants Value

Biostimulants Treated Field Acreage Yield (bu.)	106
Control Field Yield (bu)	65
Difference (bu.)	41
Soy \$\$/bu. 2018 Price \$8.83 + 80¢ Gov. Subsidy	\$9.63
Gross Value of Increased Bushels/Acre	\$394.83

Soybean Dollars Gain per Biostimulant Dollar \$21.06

Table 1 shows the GreenSafe™ treated 6-acres produced a yield of 106 bu./acre. This far exceeds expectations from this second-year soybean crop of a reduced 6.5 bu./acre (10% reduction) less than the 65-bushel 2017 farm average. \$21.06 was returned for each Nutrient Enhancer dollar. Soil testing and crop observation can be expected to show added benefits potential from agrichemicals reduction.

