SOYBEAN QUICKROOTS® PRESCRIPTION

TRIAL OVERVIEW

- Soybeans respond to fertilizer inputs and can make efficient use of residual soil nutrients.
- Higher-yield soybean products demand proper nutrition to take advantage of high yield potential.
- QuickRoots® is a microbial seed inoculant with *Trichoderma virens* and *Bacillus amyloliquefaciens* that can help release nitrogen (N), phosphorus (P), and potassium (K) in the soil that are not available to the plant.
- Although P and K may test high in a soil, these nutrients must be in the soil solution to be available for soybean root uptake into the plant.

RESEARCH OBJECTIVE

- The trial was designed to demonstrate the benefit of adding QuickRoots® as a dry planter box treatment to soybean seed treated with Acceleron® Standard at planting time.
- Compare the yield response of soybean seed treated with Acceleron® Standard to the same soybean product treated with Acceleron® Standard and QuickRoots® dry planter box formulation.
- Determine if designed prescription zones are an effective way to conduct yield comparison trials. Variable-rate prescription writing software, Script Creator for Climate FieldView™ Plus (http://www.climatematerials.com/pdfs/Climate_FV_Pro_Script_Creator_v.2_3_17.pdf) was used to create planting prescriptions to utilize the dual product planting capabilities to compare both seed treatments in each soil zone in the field. The soil zones are based on USDA/NRCS SSURGO databases.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Victor, IA	Silty Clay Loam	Corn	Conventional	05/06/2016	10/04/2016	50-60 bu/acre	140,000 seeds/acre

SITE NOTES:

- A single 3.4 maturity group soybean product was planted with two different treatments.
- A treatment with Acceleron® Standard fungicide/insecticide seed treatment was compared to a second treatment that included Acceleron® Standard fungicide/insecticide seed treatment plus Quickroots® dry planter box at planting.
- The prescription was written to utilize the dual product planting capabilities and to place both treatments in all soil zones as the planter moved across the field rather than conducting a side-by-side comparison.
- The trial site had optimum to high fertility, average rainfall, and no disease pressure.

UNDERSTANDING THE RESULTS

Figure 1. Random prescription excluding soil type boundaries created in Climate FieldViewPlus®

Figure 2. Yield result report derived from Climate FieldViewPlus®

- Acceleron® Standard plus QuickRoots® demonstrated a 0.5 bu/acre yield advantage compared to Acceleron® Standard alone in a field with optimum to high fertility.

- Based on this trial in this given year, the QuickRoots® treatment provided a 0.5 bu/acre yield advantage. The historical response for QuickRoots® on soybeans is typically about 2.0 bu/acre with a 72% win rate compared to a check treatment.

WHAT DOES THIS MEAN FOR YOUR FARM?

- QuickRoots® can help make N, P, and K more available to the soybean plant. This increased nutrient availability can lead to enhanced root and shoot growth, increased plant health, and higher yield potential.