SOYBEAN FIELD TRIAL PRELIMINARY RESULTS SUMMARY

OBJECTIVE

This field trial will assess the effects of **TrueSolum®**, when added to grower's standard treatment, on the impact of plant growth and structure, nutrient uptake, fertility and yield in **soybeans**.

TRIAL SPECIFICS

- **Location:** Hampstead, MD
- **Area:** 16 acres
  - **Control Area**: 8
  - **Treatment Area:** 8
- **Season:** May 2021 - November 2021
- **Planting Date:** May 13,2021
- **Application:**
  - May 6, 2021 – 1 gallon/acre diluted in 25:1
  - June 29, 2021 – 0.5 gallons/acre diluted 50:1

OVERVIEW

TrueSolum was applied as a pre-treatment to the treated field using a tank sprayer 1 week prior to planting. Grower's standard treatments were applied to both Control and Treated fields on the regular schedule. An additional TrueSolum treatment was applied 50 days post planting on June 29, 2021, in a tank mix with a conventional herbicide in a foliar spray. Initial assessment was completed on July 26, 2021 to assess plant structure and fertility.

RESULTS

TrueSolum treated plants were taller with more roots and leaves versus Control plants. The roots exhibited a higher nodule count and more root hairs. In addition, Treated plants had thicker branches and a fuller structure versus Control. The fertility assessment showed a higher bean pod count on the Treated plants with advanced maturity. Tissue samples showed lower levels of potassium and iron in the leaves but higher levels of these compounds in the beans of the Treated versus Control plants. There were slightly lower levels of nitrogen in Treated plant tissue samples.

Control

Treated with TrueSolum®

Root Structure: Control

Root Structure: Treated with TrueSolum®

Plant Structure: Control vs. Treated

Bean Pod Count: Control vs. Treated

CONCLUSION

Adding **TrueSolum** produced larger and more fertile soybean plants versus control. The tissue samples exhibit a higher transmission of certain elements from the leaves to the beans in the Treated field which explains the advanced maturity seen in the those pods. In addition, the slight reduction seen in nitrogen content in the Treated plants can be explained by the larger, denser plants which consumed the nitrogen that was provided.