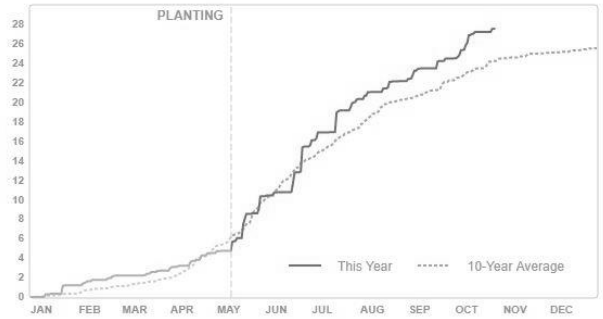
Impact of Seed Treatment and In-Furrow Inoculant on Soybeans

Study ID: 0805047201801
County: Dawson
Soil Type: Cozad silt loam 3-6% slopes; Cozad silt loam 0-1% slope; Cozad silt loam 1-3% slope
Planting Date: 5/10/18
Harvest Date: 9/19/18
Population: 185,000
Row Spacing (in): 30
Variety: Pioneer® P25A12X
Reps: 5
Previous Crop: Corn
Tillage: Strip-Till
Herbicides: ***Pre:*** 5 oz/ac Zidua® PRO and Roundup PowerMAX® on 4/30/18 ***Post:*** 1.5 oz/ac Zidua®, 10 oz/ac Outlook®, and 32 oz/ac Roundup PowerMAX® on 6/1/18

Seed Treatment: Inoculant PPST 120+, Lumisena™ and EverGol™ Energy® (fungicides), Gaucho® (insecticide), and PPST 2030 Biological
Foliar Insecticides: None
Foliar Fungicides: None
Fertilizer: 5 gal/ac 10-34-0 and 5 gal/ac 12-0-0-26S banded with strip-till around April 15
Irrigation: Pivot, Total: 12"
Rainfall (in):



Introduction: The objective of this study was to assess the impact of seed treatment and in-furrow inoculants. The study compared a seed treatment inoculant, PPST 120+, versus the seed treatment inoculant with the addition of an in-furrow inoculant, TerraMax Liquid IF™. TerraMax Liquid IF™ was applied at a rate of 12.8 oz/ac. TerraMax contains two strains of Bradyrhyzobium and two strains of Azospirillum.

Results:

	Harvest Stand Count (plants/ac)	Moisture (%)	Yield† (bu/ac)	Marginal Net Return‡ ($/ac)
Seed-treated Inoculum	161,395 A*	10.9 A	82 A	605.06 A
Seed-treated Inoculum + In-furrow Inoculum	159,885 A	10.7 A	83 A	607.16 A
P-Value	0.678	0.374	0.264	0.701

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre adjusted to 13% moisture.
‡Marginal net return based on $7.40/bu soybean and $45/gal TerraMax Liquid-IF™ Inoculant ($4.50/ac). Seed treatment costs were the same for both treatments so they were not included in marginal net return calculation.

Summary: The addition of TerraMax Liquid IF™ did not result in differences in stand count, grain moisture, soybean yield, or marginal net return.

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