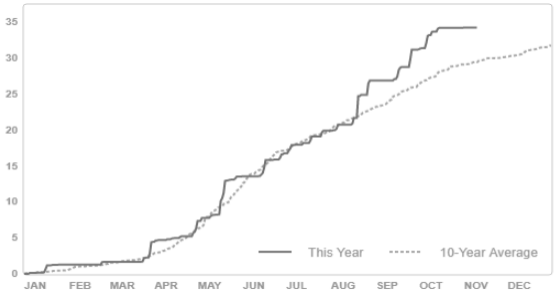
Impact of Commence® Seed Treatment at Planting on Soybean Yield

Study ID: 704151201701
County: Saline
Soil Type: Muir silt loam rarely flooded; Zook silt loam occasionally flooded
Planting Date: 5/6/17
Harvest Date: 10/20/17
Population: 140,000
Row Spacing (in) 30
Variety: Asgrow 3231
Reps: 7
Previous Crop: Corn
Tillage: No-Till
Herbicides: ***Pre:*** 0.5 lb/acre Sencor®, 1 qt/acre Dual®, 5 oz/acre Valor® XLT, 0.5 pt/acre 2,4D ***Post:*** 1 qt/acre Roundup®, 1 qt/acre Dual®

Seed Treatment: Fungicide, Cruiser®, and 1/2 rate of ILeVO®
Foliar Insecticides/Fungicides: None
Fertilizer: 100 lb/ac 11-52-0, 2 lb/ac Zn, 4 lb/ac S applied broadcast in the spring
Irrigation: Pivot, Total: 6"
Rainfall (in.):



Soil Tests (2015):

OM (%)	**pH**	**Buffer pH**	**Bray P1** (ppm)	**K** (ppm)	**Zinc** (ppm)	**Sulfate S** (ppm)	**NO3-N**
2.4	6.1	6.8	28	261	0.7	8	6.9
2.9	6.0	6.7	16	273	0.8	8	6.4

Introduction: This study was looking at Commence® seed treatment applied to soybeans. The product was applied at 4 oz/100 lb of seed. This product was applied following other seed treatments applied to the soybeans. Product information is at right. Yield was recorded using a weigh wagon *(Table 1, Figure 1)*.

GUARANTEED ANALYSIS		PLANT NUTRIENT DERIVED
Cobalt (Co)	1.90%	**FROM:** Cobalt Carbonate, Cobalt
Copper (Cu)	0.45%	Sulfate, Copper (II) Carbonate,
Iron (Fe)	0.94%	Iron (III) Oxide, Manganese (II)
Manganese (Mn)	0.61%	Oxide, Manganese (II) Sulfate,
Zinc (Zn)	0.38%	Zinc Carbonate, Zinc Sulfate

Product information from:
http://www.kellysolutions.com/erenewals/documentsubmit/KellyData/ND%5CFertilizer%5CProduct%20Label%5CCommence_for_Soybeans_9_1_2015_10_52_24_AM.pdf

Results:

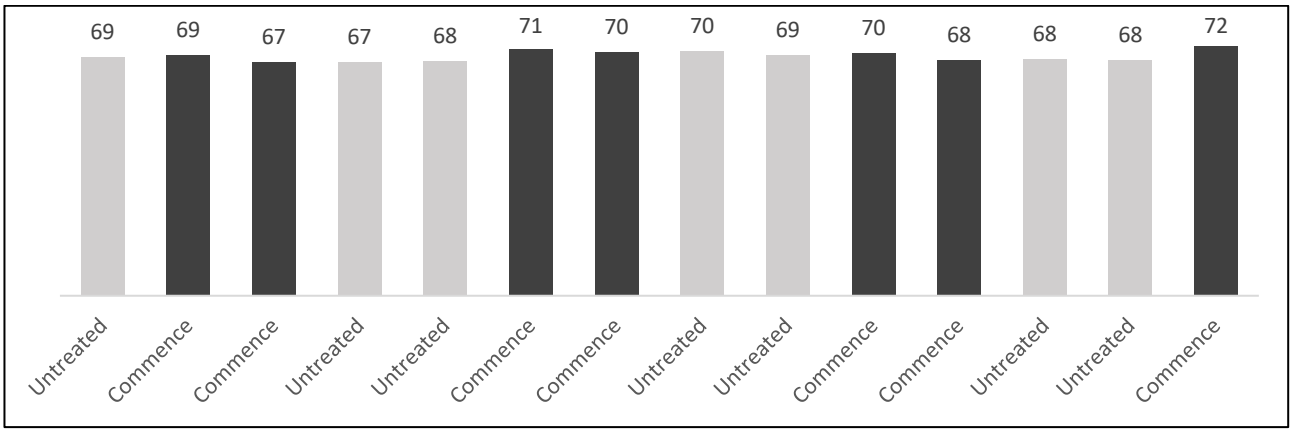


Figure 1. Yield average by treatment (bu/ac) across the field.

	Harvest Stand Count (plants/ac)	Test Weight (lb/bu)	Moisture (%)	Yield (bu/acre)†	Marginal Net Return‡ ($/ac)
Check	110,571 A*	56 A	12.3 A	68.4 A	608.93 A
Commence	107,000 A	56 A	12.3 A	69.5 A	612.70 A
P-Value	0.317	0.362	0.778	0.162	0.561

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 13% moisture.
‡Marginal net return based on $8.90/bu soybean and $6/ac Commence product and application cost.

Summary: There were no differences in test weight, moisture, harvest stand counts, yield, or net return between the Commence® treated seed and the untreated seed. Some lodging and stem breakage noted at harvest.

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