

Impact of Commence® Seed Treatment on Corn

Study ID: 0007155201803

County: Saunders

Soil Type: Yutan, eroded-Aksarben silty clay loam 2-6% slopes; Yutan, eroded-Judson complex 6-11% slopes; Aksarben silty clay loam 0-2% slope

Planting Date: 5/5/18

Harvest Date: 11/2/18

Population: 30,000

Row Spacing (in): 15

Hybrid: Channel® 209-53STX

Reps: 11

Previous Crop: Soybean

Tillage: No-Till

Herbicides: **Pre:** 36 oz/ac Buccaneer® 5 and 8.5 lb/100 lb dry AMS on 5/1/18 to terminate rye cover crop; 4.5 oz/ac Corvus® and 1 lb/ac Atrazine on 5/9/18 **Post:** 24 oz/ac Buccaneer® 5, 8.5 lb/100 gal dry AMS, 3 oz/ac Mesotrione, and 5 gal/1,200 gal crop oil concentrate on 6/6/18

Soil Test (Oct. 2018) average of 17 sample points in field:

| Soil pH | Buffer pH | OM % | Bray 1 P | K | Mg | Ca | Na | S | Zn | CEC | H | K | Mg | Ca | Na |
|---------|-----------|---------|----------|-------|-------|--------|------|-----|-----|------|------|-----|------|------|-----|
| | | | | | | ppm | | | | | | | % | | |
| 6.4 | 6.7 | 2.9 | 25.4 | 254.5 | 373.5 | 2506.9 | 11.2 | 4.9 | 1.4 | 19.3 | 15.9 | 6.8 | 29.7 | 47.4 | 0.2 |

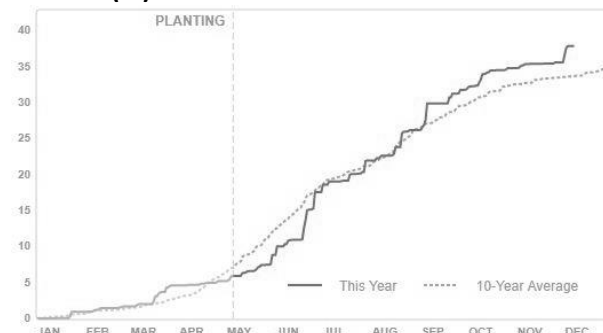
Seed Treatment: Acceleron® Basic 500

Foliar Fungicides: 13.7 oz/ac Trivapro® fungicide with 2 oz/ac WETCIT®

Fertilizer: 170 lb/ac N as 32% UAN and 1 gal/ac Humate on 5/9/18; 7 gal/ac 6-24-6 and zinc in furrow at planting

Irrigation: None

Rainfall (in):



Introduction: The purpose of this study was to evaluate Commence® seed treatment. Commence® was applied at a rate of 6 oz/100 lb of seed. Product information is at right.

GUARANTEED ANALYSIS

Cobalt (Co) 1.58%
Copper (Cu) 0.33%
Iron (Fe) 0.85%
Manganese (Mn) 0.49%
Zinc (Zn) 0.27%

DERIVED FROM: Cobalt Carbonate, Cobalt Sulfate, Copper (II) Carbonate, Iron (III) Oxide, Manganese (II) Oxide, Manganese (II) Sulfate, Zinc Carbonate, Zinc Sulfate

Product information from: *Aqniton*

Results:

| | Early Season Stand Count (plants/ac) | Moisture (%) | Yield† (bu/ac) | Marginal Net Return‡ (\$/ac) |
|----------|---|-----------------|-------------------|---------------------------------|
| Check | 31,456 A* | 14.7 A | 260 A | 838.03 A |
| Commence | 30,928 A | 14.8 A | 253 B | 808.95 B |
| P-Value | 0.541 | 0.422 | <0.0001 | <0.0001 |

*Values with the same letter are not significantly different at a 90% confidence level.

†Bushels per acre adjusted to 15.5% moisture.

‡Marginal net return based on \$3.23/bu corn, \$7/ac for Commence seed treatment, and \$2/ac for seed treating.

Summary:

- There were no differences in stand counts or grain moisture between the Commence® treated seed and the untreated check.
- The Commence® seed treatment was significantly lower yielding and lower in net return than the untreated check.

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