

10-34-0 and TJ Micromix® Starter Fertilizer on Rainfed Corn

Study ID: 030109201602

County: Lancaster

Soil Type: Aksarben silty clay loam 2-6% slopes; Aksarben silty clay loam 6-11% slopes; Crete silty clay loam 1-3% slope; Judson silt loam 2-6% slopes

Planting Date: 4/7/16

Harvest Date: 10/10/16

Population: 30,000

Row Spacing (in): 30

Hybrid: Dekalb 61-88

Reps: 8

Previous Crop: Soybean

Tillage: No-Till

Herbicides: Pre: 1.5 qt/ac Bicep® **Post:** 3 oz/ac

Callisto® plus 32 oz/ac RoundUp PowerMAX®

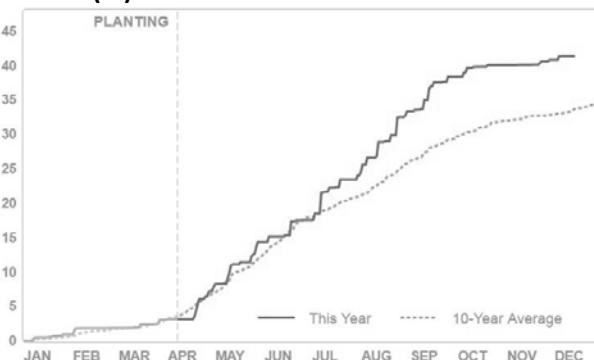
Foliar Insecticides: None

Foliar Fungicides: None

Fertilizer: 150 lb/ac actual N as fall applied NH3

Irrigation: None

Rainfall (in):



Soil Test:

O.M.	pH	BpH	C.E.C.	Total NO3 (0-8")	Total NO3 (8-24")	P		K	Mg	Ca	S	%K	%Mg	%Ca	%H	%Na
				lb/ac	lb/ac	Bray 1	Bray 2									
2.8	5.5	6.4	26.1	36	19	24	41	240	546	2799	35	2.4	17.4	53.6	26.0	0.6

Approximately 27 ton/ac bio-solids were applied eight to ten years ago. The field received bio-solid cake material two times prior to 2007.

Introduction: The objective of this study was to determine if using 5 gal/acre of 10-34-0 starter fertilizer (6 lb/acre actual N and 20 lb/acre actual P) with Capture® LFR® insecticide and TJ Micromix® Liquid at planting resulted in higher yield and profit. Product information is at right.

Results:

TJ Micromix® Liquid CORN		Guaranteed Analysis		INSECTICIDE	
Boron (B)	0.08%				
Copper (Cu).....	0.25%	0.25%...Chelated Copper (Cu)			
Iron (Fe).....	0.50%	0.50%...Chelated Iron (Fe)			
Manganese (Mn).....	0.42%	0.42%...Chelated Manganese (Mn)			
Zinc (Zn).....	2.14%	2.14%...Chelated Zinc (Zn)			
EPA Reg. No. 279-3302	EPA Est. 279-NY-1				
Active Ingredient: (1) Bifenthrin:.....	By Wt. 17.15%				
Other Ingredients:*	82.85%				
	100.0%				
**Cis isomers 97% minimum, trans isomers 3% maximum.					
This product contains 1.5 pounds active ingredient per gallon.					

Product information from:
http://www.fmccrop.com/Portals/_default/Media/PDF/fmc-capture-lfr-label.pdf?C

	Moisture (%)	Yield (bu/acre)†	Marginal Net Return‡ (\$/ac)
Check	15.0 A	201 A	613.05
Starter (5 gal 10-34-0) with Capture and Micromix	14.8 B	203 A	593.98
P-Value	0.0691	0.4087	N/A

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

†Bushels per acre corrected to 15.5% moisture.

‡Marginal net return based on \$3.05/bu corn and \$25.17/ac starter fertilizer, Capture, and Micromax cost.

Summary: There was no yield difference between the starter treatment and the unfertilized check. Due to the additional starter fertilizer cost, the check was more profitable. Because Capture was added to the starter fertilizer treatment, this is a confounding variable, making it impossible to draw conclusions about the starter fertilizer treatment.

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