



Nebraska On-Farm Research Network

Foliar Iron Fertilizer on Corn

Study ID: 197029201502

County: Chase

Soil Type: Tassel-Duda loamy sand; Blanche sandy loam;

Planting Date: 4/28/2015

Harvest Date: 10/28/15

Population: 31,000

Row Spacing (in.) 30

Hybrid: Channel 209-69 VT3PRIB

Reps: 4

Previous Crop: Corn

Tillage: No-Till

Herbicides: **Pre:** 0.375 gal/ac LUMAX and 0.25 gal/ac Touchdown on 4/30/15 after planting. **Post:** 0.048 gal/ac Dual II Magnum, 0.45 gal/ac Halex, and 0.25 gal/ac Touchdown on 6/18/15; 25 gal/ac Touchdown on 7/7/15.

Seed Treatment: none

Foliar Insecticides: none

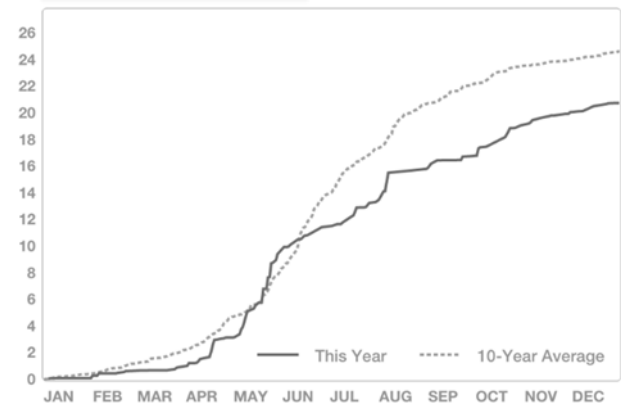
Foliar Fungicides: none

Soil Samples:

Fertilizer: 96 lb/ac 11-50-0 and 63 lb/ac 21-0-0-24 S on 4/24/15; 222 lb/ac 32-0-0 on 4/29/15; 400 lb/ac 28-0-0-5 S sidedress on 6/10/15; 12 gal 26-0-35 + 7 gal 32-0-0 on 6/20/15 and 7/17/15 through pivot.

Irrigation: Pivot, Total:

Rainfall (in.):



Depth	O.M.	pH	C.E.C.	Total NO3	P Bray 1	P Bray 2	K	Mg	Ca	S	Zn	Mn	Fe	Cu	B
	--%--			---lb/ac---						ppm					
0-8"	1.7	7.2	16.9	70.0	44.0	140.0	332	148	2956	13.0	5.6	2.0	13.0	0.6	0.6

Introduction: This study is looking at the effect of foliarly-applied Versa Iron (Fe) liquid Fe on corn yield and nutrient concentrations in leaf tissue samples under high soil pH conditions (pH 7+). The foliar treatment used in this study was applied at a rate of 2.5 qt/ac, mixed with Lockdown surfactant (0.3 lbs/ac), and was applied aerially on June 26th at the V6 growth stage. Leaf samples were collected from treated and untreated strips approximately 1 month after application and analyzed for nutrient concentrations. Yields from treated and untreated strips were recorded with a yield monitor.



Product information from: http://www.agrian.com/pdfs/Versa_Fe_Liquid_Label1.pdf

Results:	Yield (bu/ac)†	Marginal Net Return (\$/ac) ‡
Check	191 A*	\$697.15
Versa Fe liquid Fe + Lockdown surfactant	196 A	\$689.55
P-Value	0.4946	N/A

†Bushels per acre corrected to 15.5% moisture.

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

‡Net return based on \$3.65/bu corn, \$25/gal Versa Fe, \$2.40/lb Lockdown, and \$9.50 aerial application cost.

Plant Tissue Samples												
	N	P	K	Mg	Ca	S	Na	Fe	Mn	B	Cu	Zn
	----- (%) -----							----- ppm -----				
Check	3.27 A	0.36 A	2.63 B	0.15 A	0.44 A	0.22 A	0.0050 A	80 A	48 A	16 A	9.00 A	27 A
Versa Fe	3.45 A	0.39 A	3.05 A	0.13 A	0.40 A	0.23 A	0.0048 A	86 A	66 A	17 A	12.00 A	33 A
P-Value	0.2674	0.1682	0.0443	0.5181	0.4384	0.4444	0.9379	0.7305	0.3526	0.9571	0.5424	0.1266

Summary: The application of Versa Iron did not result in a significant yield difference. Foliar potassium levels were higher for the Versa Iron treatment.



In Partnership with:



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