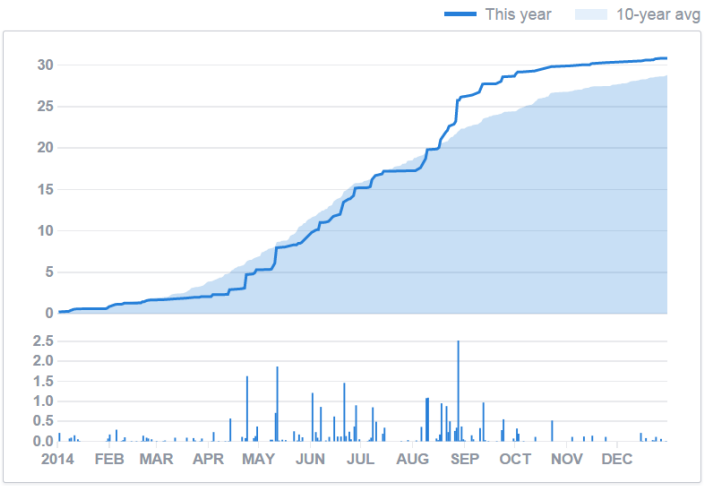
Nebraska On-Farm Research Network

Helena Nucleus® O-Phos Nutrient Starter Application on Corn

Study ID: 032035201403
County: Clay
Soil Type: Hastings silt loam
Planting Date: 4/21/2014
Harvest Date: 10/27/2014
Population: 33,000 seeds/acre
Row Spacing: 30”
Hybrid: DKC 62-97
Reps: 6
Soil Test Values: not available
Previous Crop: Corn
Tillage: Conventional Till
Herbicides: 13 oz/ac Verdict on 5/7/14
3.6 pt/ac Halex GT on 6/11/14
1 pt/ac Atrazine 4L on 6/11/14
Insecticides/Fungicides: 1.2 oz/ac Baythroid XL on 5/7/14
10.5 oz/ac Quilt Xcel on 7/28/14
Other Applications: 1 qt/ac Plen-T Sweet

Fertilizer: 200 lb actual N/acre as Anhydrous ammonia in fall 2013, 11-52-0 variable rate application in fall 2013, 109 # actual N/acre as UAN 32% on 5/7/14, 1 gal/acre of XRN (28-0-0) on 6/11/14, 1 gal/acre Coron (10-0-10) on 7/28/14 **Irrigation:** Pivot irrigated, Total: 6”
Rainfall:



Introduction: In this study the grower wished to test the effects of Nucleus® O-Phos starter on corn yield and economics. The check treatment was 3 gallons 10-34-0 + 1 qt/acre Micromax (2% Magnesium, 0.25% B, 2% Zn, 1.6% Fe, 0.5%Cu). The Helena Nucleus® O-Phos product was applied at 1 gal/ac in addition to the check treatment. Both the check and Nucleus® O-Phos treatments were applied at planting. The guaranteed analysis for the product tested is shown at right.

Nucleus ORTHO-PHOS NPK Zn

7-21-2

GUARANTEED ANALYSIS:
Total Nitrogen (N) 7.00%
7.00% Ammoniacal Nitrogen
Available Phosphate (P_2O_5) 21.00%
Soluble Potash (K_2O) 2.00%
Zinc (Zn) 0.10%
0.10% Chelated Zinc (Zn)
Derived from: Ammonium phosphate, potassium hydroxide and Zinc EDTA

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Results:

	Yield† (bu/acre)	Moisture (%)	Harvest Pop (plants/ac)	Stalk Rot (%)	Net Return ‡
Check (producer's standard starter practice of 3 gal 10-34-0 plus 1 qt/acre Micromax)	266 A*	16.2% A	29,300 B	3.3% B	$931.00
Check products plus Helena Nucleus® O-Phos	265 A	16.2% A	31,600 A	5.8% A	$920.25
P-Value	*0.2490*	*0.4838*	*0.0687*	*0.0756*	--

†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 $3.50/bu corn, $7.25/gal Nulceus® O-Phos.

Summary: Results showed no statistical yield differences on moisture or yield between the check and Nucleus® O-Phos. There was a statistical difference in stalk rot (less stalk rot in check treatment) and also in stand count (higher stand count in the Nucleus® O-Phos treatment).

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