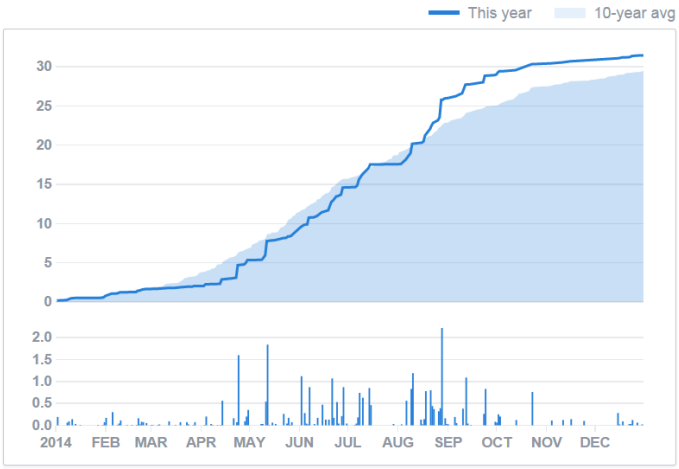
Nebraska On-Farm Research Network

Prolock® on Corn

Study ID: 032035201401
County: Clay
Soil Type: Hastings silt loam
Planting Date: 5/1/2014
Harvest Date: 11/7/2014
Population: 33,000
Row Spacing: 30”
Hybrid: Pioneer 32B16
Reps: 6
Previous Crop: Soybeans
Tillage: No-till
Herbicides: Pre: None
Post: 1.5 qt/ac Lexar on 5/6/2014, 32 oz/ac Touchdown Total on 6/11/2014
Fertilizers: Fall application of 167 lb actual N/ac Anhydrous ammonia with a variable rate application of 11-52-0. 1 gal/ac 28-0-0 on 6/11/2014 and 1 gal/ac 10-0-10 on 7/19/2014.

Insecticides/Fungicides: 1.2 oz/ac Baythoid XL on 5/6/2014, 2 oz/ac Priaxor on 6/11/2014, 10.5 oz/ac Quilt Xcel on 7/19/2014
Additional applications: 1 qt/ac Plen-T-Sweet on 6/11/2014 and 1 qt/ac Sweet’n Eezy on 7/19/2014
Irrigation: Pivot – 6”
Rainfall:



Soil Test: (Average for field)

	pH	BpH	OM	Nitrate	P	K	Ca	Mg	Na	Ca	Zn
			---%---	----------ppm----------							
Average	6	7	3	8	25	366	2001	273	37	10	1

Introduction: In this study, the producers were looking at the effects of Prolock® on corn yield and economics. The check treatment was the producer’s standard starter practice of 3 gal 10-34-0 + 1 qt/acre Micromax (2% Magnesium, 0.25% B, 2% Zn, 1.6% Fe, 0.5%Cu) starter fertilizer. The Prolock® treatment added 1.4 qt/ac Prolock® to the check starter fertilizer treatment. Prolock® is a product sold by Aurora coop and used as an addition to starter fertilizer. Soil test Phosphorus levels ranged from 6-66 ppm in the field where this study occurred with an average P level of 25 ppm which is considered adequate according to UNL research.

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Results:

	Yield† (bu/acre)	Moisture (%)	Stalk Rot (%)	Harvest Pop	Net Return ‡
Check (producer's standard starter practice of 3 gal 10-34-0 plus 1 qt/acre Micromax)	276 A*	17.0 A	3.3 A	30,083 A	$966.00
Check products plus Prolock®	279 A	16.8 A	4.2 A	28,500 A	$966.50
P-Value	*0.3747*	*0.1201*	*0.7412*	*0.3774*	--

†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 price and $10/ac Prolock® cost.

Summary: Results showed no statistical yield difference between the Check and Prolock® for yield, moisture, percent stalk rot, and harvest stand counts.

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In partnership with: Soybeans Nebraska Soybean Board; Nebraska Corn Board; Nebraska Corn Growers Association