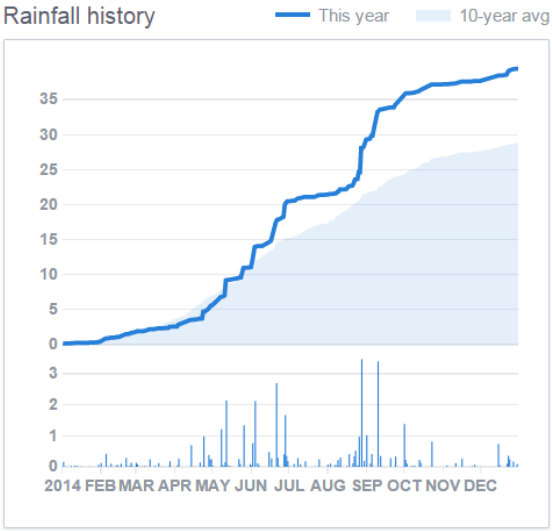
Nebraska On-Farm Research Network

Fall Applied NH3 Fertilizer Rates on Corn

Study ID: 039155201408
County: Saunders
Soil Type: Yutan silty clay loam, Tomek silt loam, Filbert silt loam
Planting Date: 4/25/2014
Harvest Date: 10/31/2014
Population: 31,000 seeds/acre
Row Spaccing: 30”
Hybrid: GH 12H71
Reps: 18
Soil Test Values: not available
Previous Crop: Soybeans
Tillage: No-Till
Herbicides:
Pre: 2 qt/ac Lexar on 5/3/14
22 oz/ac Roundup ProMax on 5/3/14
Post: 0.6 oz/ac Armezon on 6/6/14
Touchdown Total on 6/6/14

Insecticides/Fungicides: Avicta Complete Corn Seed Treatment
Baythroid XL on 6/26/14
4 oz/ac Priaxor on 6/26/14
10 oz/ac Headline AMP on 8/19/14
Irrigation: Not Irrigated



Introduction: The purpose of this study was to determine the most profitable nitrogen rate in the production of rainfed corn. This study is a continuation of a similar study, however in 2013 the rates were slightly different. 160# N/acre and 190# N/acre were applied as anhydrous ammonia in fall 2013.

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Results:

	Yield† (bu/acre)	Moisture (%)	Net Return ‡
160#/acre	231 A*	17.4 A	$747.70
190#/acre	226 B	17.3 A	$718.80
P-Value	*0.0004*	*0.2688*	--

†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, $60.80/acre for 160 lb N/ac, and $72.20/acre for 190 lb N/ac.

Summary: The 160# N/acre treatment was significantly higher yielding than the 190# N/acre treatment.

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