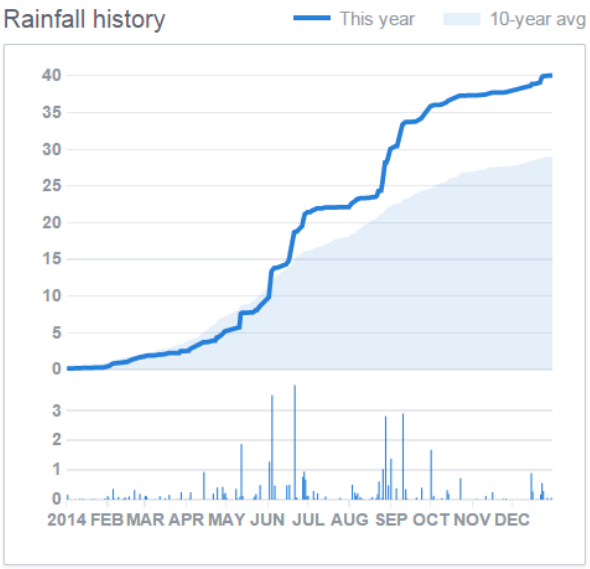
Nebraska On-Farm Research Network

Rainfed Corn Population Study

Study ID: 018177201401
County: Washington
Soil Type: Moody silty clay loam
Planting Date: 5/5/2014
Harvest Date: 11/3/2014
Row Spacing: 30”
Hybrid: DKC 62-98
Reps: 5
Previous Crop: Soybeans
Tillage: no-till corn into soybeans (till before soybeans)
Herbicides:
Pre: 4 oz/ac Corvus, 2 pt/ac Atrazine 4L, and 8 oz/ac 2,4-D on 4/18/14
Post: 30 oz/ac Roundup PowerMAX and 1.5 – 2 oz/ac Laudis on 6/20/14
Insecticides/Fungicides: none
Fertilizer: 140# actual N/ac as UAN 32% on 4/18/14
Note: Hail at end of May at V6



Introduction: The purpose of this study was to determine which of the three planting rates selected, were the most profitable. The populations chosen in this study represent a range often used by many growers in Eastern Nebraska to grow rainfed corn.

Results:

	Yield† (bu/acre)	Harvest Pop (plants/acre)	Net Return ‡
26,000 seeds/ac	194 B*	26,468 C	$574.74
30,000 seeds/ac	200 B	29,866 B	$579.70
34,000 seeds/ac	208 A	34,034 A	$591.66
P-Value	*0.0071*	*<0.0001*	--

†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 $320.80/bag of 80,000 seeds.

Summary: The highest yielding planting population was 34,000 seeds/acre. This rate was significantly higher yielding than the 30,000 and 26,000 seeds/acre rate. The highest net return came from the 34,000 seeds/acre rate.

Sponsored by: University of Nebraska Lincoln

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