

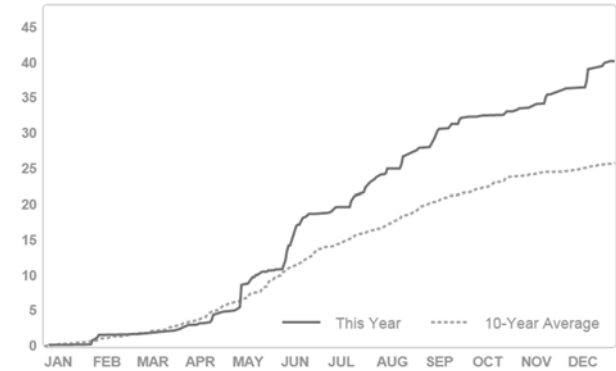
Nebraska On-Farm Research Network

Irrigated Soybean Population Study

Study ID: 006159201501
County: Seward
Soil Type: Hastings silt loam; Fillmore silt loam;
Planting Date: 5/13/15
Harvest Date: 10/7/15
Population: 120-150-180
Row Spacing (in.) 10
Hybrid: Channel 3402r2
Reps: 4
Previous Crop: Seed Corn
Tillage: No-Till
Herbicides: Pre: 3.2 oz/ac Authority First, 8 oz/ac 2-4,D and 22 oz/ac PowerMax on 4/15/15 **Post:** 32 oz/ac PowerMax, 0.8 oz/ac Cadet, 1.5 qt/ac Warrant, and 6 oz/ac Avatar on 6/21/15; 30 oz/ac PowerMax and 10 oz/ac UltraBlazer on 7/8/15
Seed Treatment: Dealer applied fungicide and insecticide
Soil Sample:

Foliar Insecticides: none
Foliar Fungicides: none
Fertilizer: none

Irrigation: Pivot, Total: 4"
Rainfall (in.):



Sample	pH	Buffer pH	% OM	NO3-N Ppm 0-2'	Legume or Cover Crop	Lbs N Avail	P 1 ppm	P1 Level	K ppm	K level	Zn ppm	Zn level	S ppm	S level
1	5.5	6.6	3.3	10.3	25	118	22	H	281	VH	0.9	M	7	L
2	5.7	6.7	3.2	11.2	25	126	24	H	276	VH	1.1	H	9	L
3	5.8	6.9	3.2	9.9	25	114	21	H	296	VH	1.3	H	8	L
4	5.6	6.6	3.1	10.7	25	121	17	M	301	VH	1.1	H	8	L
5	5.6	6.7	3.2	8.9	25	105	18	M	297	VH	0.9	M	8	L
6	5.8	6.8	3.3	8.3	25	100	21	H	288	VH	1	H	10	M

Introduction: Previous on-farm research has demonstrated that planting rates of 80,000 to 120,000 seeds/acre generally result in the highest profitability. The purpose of this study was to determine the most profitable soybean seeding rate. The populations chosen in this study are common to growers in the area. Soybeans were drilled in 10" rows on May 13, 2015.

Results:

	Yield (bu/ac)†	Moisture (%)	Marginal Net Return (\$/ac)‡
120,000 seeds/acre	77 A*	11.7 A	644.16
150,000 seeds/acre	76 AB	11.6 A	624.97
180,000 seeds/acre	75 B	11.7 A	605.79
P-Value	0.0906	0.8206	N/A

†Bushels per acre corrected to 13% moisture.

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

‡Net Return based on \$8.90/bu soybeans and \$48/unit seed (140,000 seeds/unit).

Summary: No yield increase was seen for planting higher than 150,000 seeds/acre. Based on the cost of seed, planting 120,000 seeds per acre rate maximized net returns.



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