Soybean Seeding Rate Trial

Trial ID: 2025-SSR02 – R.M. of St. Andrews

Objective: Quantify the agronomic and economic impacts of different soybean seeding rates.

Summary: There were no significant yield differences among seeding rates of 150,000, 180,000 and 210,000 seeds/ac. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

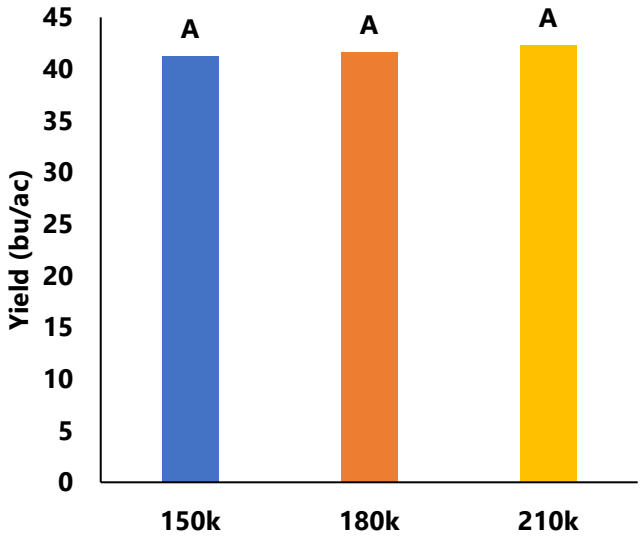
Treatment	150k vs. 180k vs. 210k
Soil Texture	Clay
Previous Crop	Wheat
Tillage	Zero Tillage
Seeding Equipment	50 ft Air Drill
Seeding Date	5/12/2025
Variety	Oslo XF
Germination	88%
Row Spacing	4 / 6 in. paired
Fertilizer Applied	30 lbs P
Harvest Date	9/26/2025

NDVI Field Image August 13

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	23.5	29.8	29.1	116.8	199.2
Normal	64.02	94	83.76	79.33	321.11
% Norm	37%	32%	35%	147%	62%

Yield by Treatment



Plant Stand (plants/ac)

	R1	R6
150k	113,375 B	112,250 B
180k	144,000 A	151,500 A
210k	142,750 A	144,750 A

ǂ Values in columns followed by different letters are significantly different (p-value <0.05).

Plant Establishment and Survivability ǂ

	Establishment at R1	Survivability to R6	Change R1 to R6
150k	76%	75%	1%
180k	80%	84%	-4%
210k	68%	69%	-1%

ǂ % establishment = plant count at V stages/seeding rate; % survivability = plant count at R stages/seeding rate

[Additional On-Farm Network Research Reports]

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Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂǂ
150k	41.2	$64.29/ac	
180k	41.6	$77.14/ac	-$12.86/ac
210k	42.3	$90.00/ac	-$25.71/ac
P-Value	0.6809	**Economic**	150k → 180k **No**
CV	2.8%		150k → 210k **No**
Significance	**No**		180k → 210k **No**

ǂ Based on an estimated soybean seed cost of $60.00/unit (1 unit = 140,000 seeds)

ǂ ǂ Change in profit is calculated as the difference in cost between seeding rate treatments. Because yields were not significantly different, there is no increased income to offset the increase in seed cost

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