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Soybean Seeding Rate Trial

Trial ID: 2023-SSR09 – R.M. of Louise

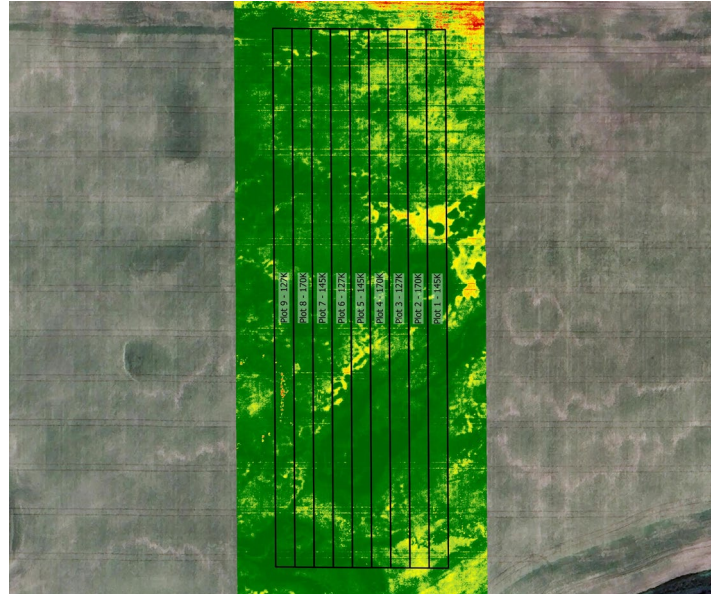
Objective: Quantify the agronomic and economic impacts of different soybean seeding rates

Summary: There were no significant yield differences between seeding rates of 127,000, 145,000 and 170,000 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	127k vs. 145k vs. 170k
Soil Texture	Clay
Previous Crop	Canola
Tillage	Zero Till
Seeding Equipment	40 ft Planter
Seeding Date	May 21
Variety	P001A48X
Germination	89%
Row Spacing	20"
Harvest Date	September 15

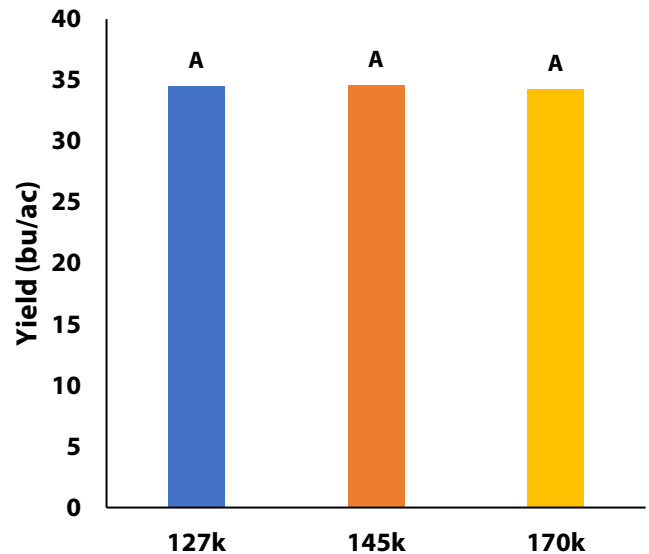
NDVI Field Image August 8



Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	29.3	53.4	2.9	44.2	130
Normal	61.1	89.8	68	72.3	292
% Norm	48%	59%	4%	61%	45%

Yield by Treatment



Plant Stand (plants/ac)

	V1	R6
127k	95,000 B	93,000
145k	114,000 AB	114,000
170k	147,000 A	145,000

Plant Establishment and Survivability †

	Establishment at V1	Survivability to R6	Change V1 to R6
127k	75%	73%	-2%
145k	79%	78%	-1%
170k	86%	85%	-1%

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

Germination at this trial was 89%.



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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
127k	34.5	\$62/ac	
145k	34.6	\$70/ac	-\$8.73/ac
170k	34.3	\$83/ac	-\$20.86/ac
P-Value	0.8150	Economic	127k → 145k No
CV	2.7%		127k → 170k No
Significance	No		145k → 170k No

† Based on a \$67.90/unit soybean seed costs (Source: Manitoba Agriculture 2023 Cost of Production Guidelines)

†† 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