

Soybean Seeding Rate Trial

Trial ID: 2024-SSR01 - R.M. of Emerson-Franklin

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

Summary: There were no significant yield differences among seeding rates of 113,000, 143,000 and 173,000 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	113k vs 143k vs 173k
Soil Texture	Clay
Previous Crop	Wheat
Tillage	Conventional Till
Seeding Equipment	88ft Planter
Seeding Date	May 8
Variety	S007-A2Xs
Germination	83%
Row Spacing	22"
Harvest Date	October 1

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	97.6	89.8	53.9	61.5	302.8
Normal	57.8	89.5	80.6	71.8	299.7
% Norm	169%	100%	67%	86%	101%

Plant Stand (plants/ac) +

	V2	R5
113k	89,000 C	89,000 B
143k	111,000 B	110,000 BA
173k	135,000 A	124,000 A

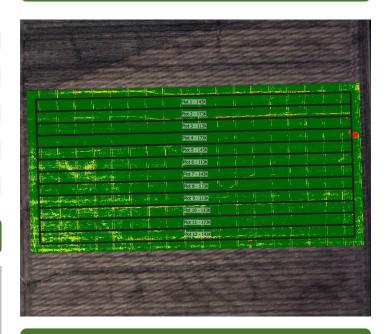
 $[\]dagger$ Averages followed by different letters in the column are significantly different at p=0.05.

Plant Establishment and Survivability +

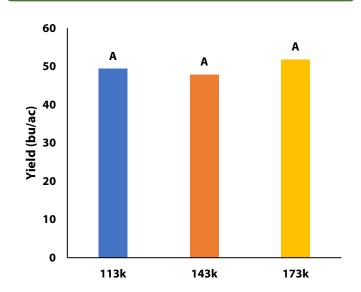
	Establishment at V2	Survivability to R5	Change V2 to R5
113k	79%	79%	0%
143k	78%	77%	-1%
173k	78%	71%	-6%

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

NDVI Field Image August 10



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost ⁺	Change in Profit ††
113k	49.4	\$51/ac	
143k	47.9	\$64/ac	-\$13/ac
173k	51.8	\$78/ac	-\$27/ac

P-Value	0.177	Economic	113k → 143k No
CV	5.1%		113k → 173k No
Significance	No		143k → 173k No

[†] Based on a \$62.94/unit soybean seed costs (Source: Manitoba Agriculture 2024 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