

Soybean Seeding Rate Trial

Trial ID: 2021-SSR14 – R.M. of Brokenhead

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

Summary: There was no significant yield difference between seeding rates of 168,000, 210,000 and 252,000 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	168k vs. 210k vs. 252k
Soil Texture	Fibric
Previous Crop	Corn
Tillage	Conventional
Seeding Equipment	48 ft Air Drill
Seeding Date	June 4
Variety	OAC Prudence
Germination	68%
Row Spacing	9"
Harvest Date	October 26

Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	51.6	25.8	27.8	87	192.2
Normal	54	89.9	73.4	72.6	289.9
% Normal	96%	29%	38%	120%	66%

Plant Stand (plants/ac)

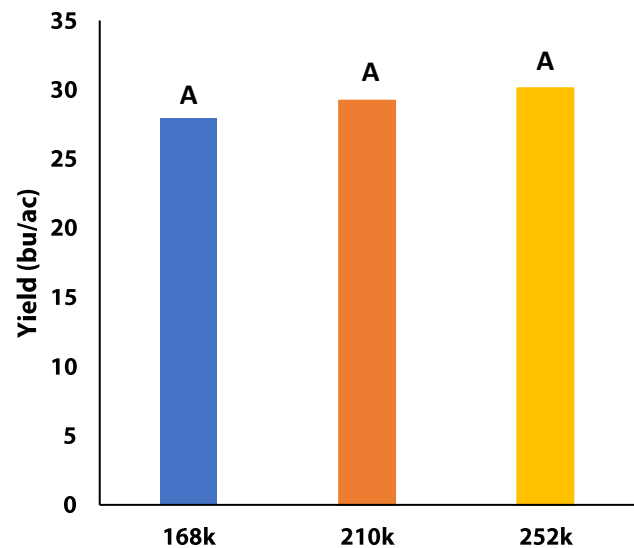
	V2	R7
168k	64,000	62,000
210k	84,000	68,000
252k	79,000	66,000

Germination was low for the seed at this trial (68%). This, plus weed pressure throughout the season, likely contributed to the low plant stands.

NDVI Field Image August 15



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
168k	27.9	\$78/ac	
210k	29.2	\$98/ac	-\$20/ac
252k	30.1	\$118/ac	-\$39/ac
P-Value	0.2892	Economic	168k → 210k No
CV	6.7%		168k → 252k No
Significance	No		210k → 252k No

† Based on MB Agriculture 2021 Cost of Production Guidelines (\$65.30/unit)

†† 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