

Soybean Seeding Rate Trial

Trial ID: 2021-SSR06 – R.M. of Richot

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

Summary: There was no significant yield difference between seeding rates of 108,000, 138,000 and 168,000 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	108k vs. 138k vs. 168k
Soil Texture	Clay
Previous Crop	Canola
Tillage	Conventional
Seeding Equipment	44 ft Planter
Seeding Date	May 12
Variety	S0009-M2
Germination	93%
Row Spacing	22"
Harvest Date	September 14

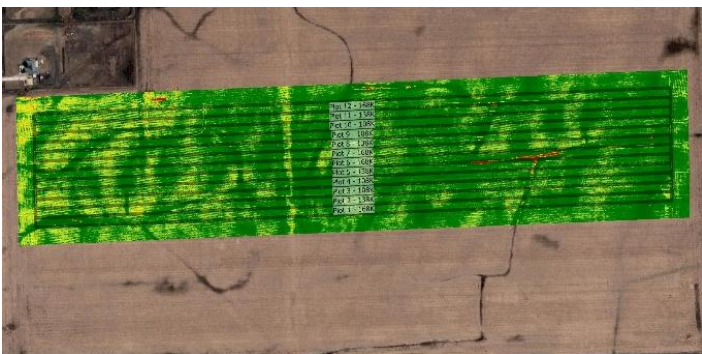
Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	17.8	60.2	9.2	94.8	182
Normal	57.5	88	69.5	75.8	290.8
% Normal	31%	68%	13%	125%	63%

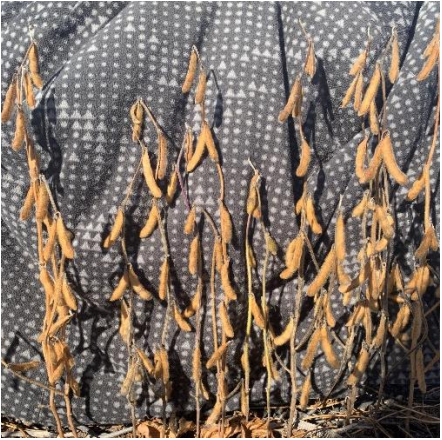
Plant Stand (plants/ac)

	V1	R7
108k	95,000	86,000
138k	124,000	91,000
168k	155,000	112,000

NDVI Field Image August 14



Late Season Observations September 8



168k seeds/ac, smaller stems, less branching



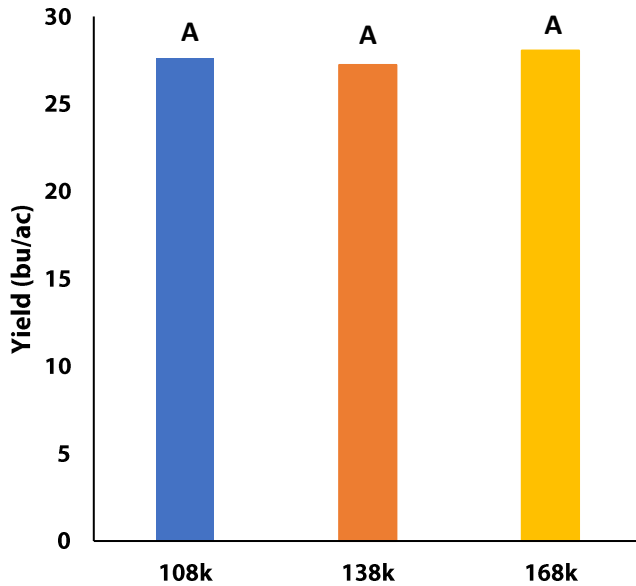
138k seeds/ac, moderate stems, some branching



108k seeds/ac, thicker stems, more branching



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
108k	27.6	\$50/ac	
138k	27.2	\$64/ac	-\$14/ac
168k	28.1	\$78/ac	-\$28/ac
P-Value	0.465	Economic	108k → 138k No
CV	3.2%		108k → 168k No
Significance	No		138k → 168k 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