

Soybean Seeding Rate Trial

Trial ID: 2021-SSR09 – R.M. of Grey

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

Summary: There was no significant yield difference between seeding rates of 122,000, 146,000 and 180,000 seeds/ac. However, there was high weed pressure at this site which contributed to higher than normal variability in yield data. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

Treatment	122k vs. 146k vs. 180k
Soil Texture	Loamy Very Fine Sand
Previous Crop	Corn
Tillage	Conventional
Seeding Equipment	43 ft Air Drill
Seeding Date	May 15
Variety	S007-A2XS
Germination	84%
Row Spacing	10″
Harvest Date	October 7

Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	49.5	70.7	25.3	64.3	209.8
Normal	53.8	80.6	65.7	71	271.1
% Normal	92%	88%	39%	91%	77%

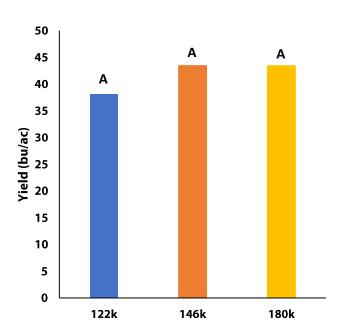
Plant Stand (plants/ac)

	V2	R8
122k	106,000	107,000
146k	118,000	119,000
180k	172,000	167,000

NDVI Field Image August 16



Yield by Treatment







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Overall Yield & Economics

	Mean (bu/ac)	Cost ⁺	Change in Profit/ac ⁺⁺
122k	38.1	\$57/ac	
146k	43.5	\$68/ac	-\$11/ac
180k	43.4	\$84/ac	-\$27/ac
P-Value	0.0563	Economic	122k → 146k No
CV	12%		122k → 180k No
Significance	Νο		146k → 180k No

+ Based on MB Agriculture 2020 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

