

Soybean Seeding Rate Trial

Trial ID: 2021-SSR13 – R.M. of Grassland

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

Summary: There was no significant yield difference between seeding rates of 130,000, 160,000 and 190,000 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	130k vs. 160k vs. 190k
Soil Texture	Loam
Previous Crop	Peas
Tillage	Zero Till
Seeding Equipment	50 ft Air Drill
Seeding Date	May 19
Variety	Merritt R2X
Germination	84%
Row Spacing	12"
Harvest Date	September 25

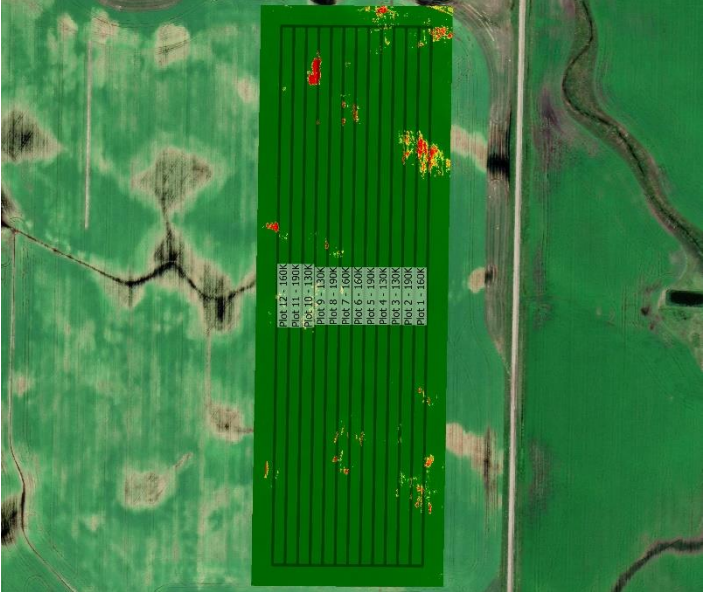
Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	31.6	91.4	31.7	133	287.9
Normal	46.9	83.7	65.2	57.6	253.4
% Normal	67%	109%	49%	231%	114%

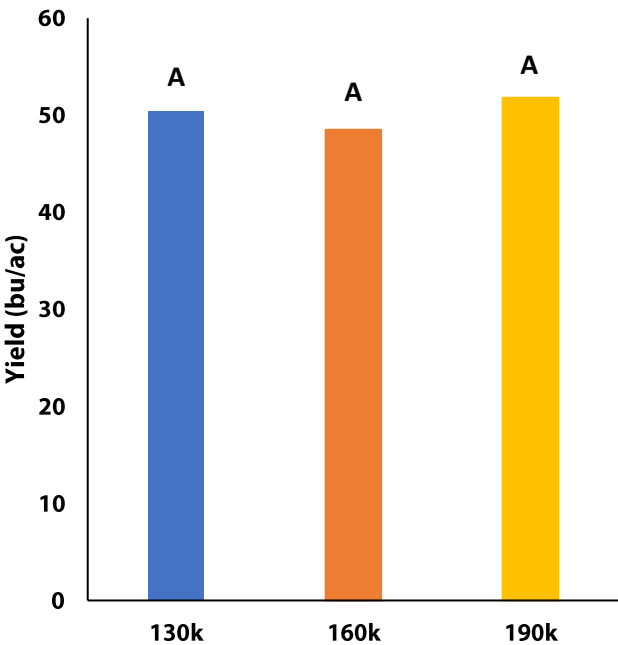
Plant Stand (plants/ac)

	V2	R6
130k	112,000	109,000
160k	132,000	126,000
190k	154,000	145,000

NDVI Field Image August 13



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
130k	50.5	\$61/ac	
160k	48.5	\$75/ac	-\$14/ac
190k	51.8	\$89/ac	-\$28/ac
P-Value	0.5249	Economic	130k → 160k No
CV	8.5%		130k → 190k No
Significance	No		160k → 190k 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