

Soybean Seeding Rate Trial

Trial ID: 2021-SSR01 – R.M. of De Salaberry

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	Clay
Previous Crop	Wheat
Tillage	Conventional
Seeding Equipment	52 ft Air Drill
Seeding Date	May 5
Variety	DKB005-52
Germination	89%
Row Spacing	10"
Harvest Date	October 5

Plant Stand (plants/ac)

	V2	R8
130k	89,000	85,000
160k	104,000	99,000
190k	105,000	97,000

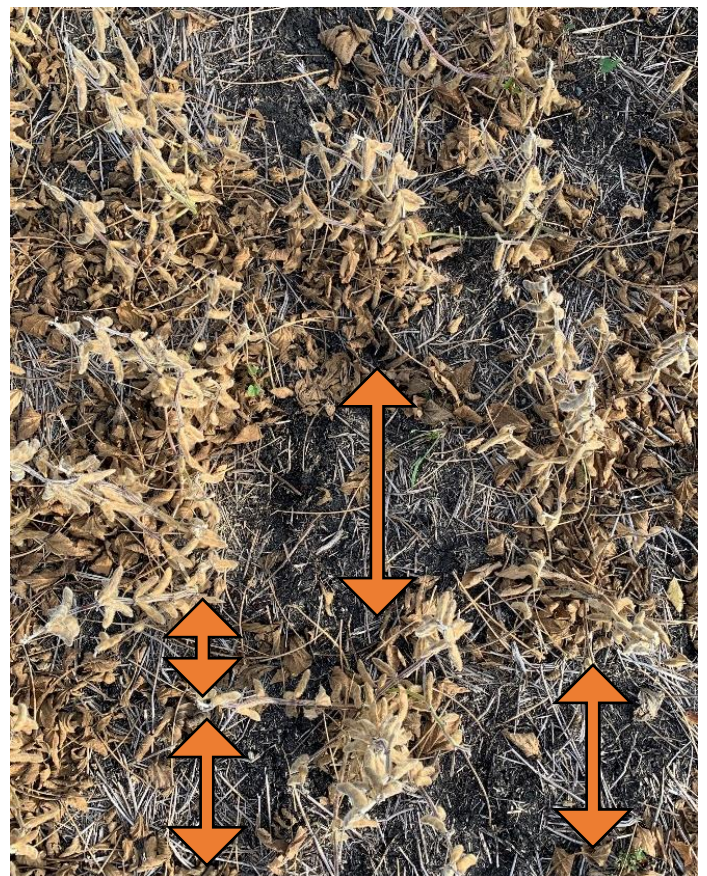
Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	35.2	61.3	14.2	105	216.1
Normal	52.6	94.7	69.5	51.7	268.5
% Normal	67%	65%	20%	204%	80%

NDVI Field Image August 14



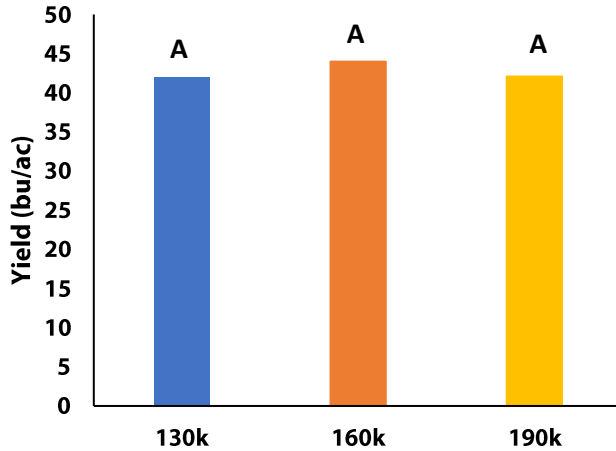
Field Observations



Observed lots of skips in the rows (orange arrows), across all seeding rate treatments. This could have contributed to low plant stands compared to target seeding rates.



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
130k	42.0	\$61/ac	
160k	44.0	\$75/ac	-\$14/ac
190k	42.1	\$89/ac	-\$28/ac
P-Value	0.2878	Economic	130k → 160k No
CV	5.3%		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