Soybean Seeding Rate Trial

Trial ID: 2023-SSR02 – R.M. of Emerson-Franklin

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

Summary: There were no significant yield differences among seeding rates of 124,000, 156,000 and 184,000 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	124k vs. 156k vs. 184k
Soil Texture	Clay
Previous Crop	Wheat
Tillage	Conventional
Seeding Equipment	40 ft Planter
Seeding Date	May 16
Variety	DKB008-48
Germination	98%
Row Spacing	20"
Harvest Date	September 19

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	15.1	58.4	49	25.8	148
Normal	57.8	89.5	81	71.8	300
% Norm	26%	65%	60%	36%	49%

Plant Stand (plants/ac)

	V3	R7
124k	123,000	121,000
156k	151,000	148,000
184k	178,000	175,000

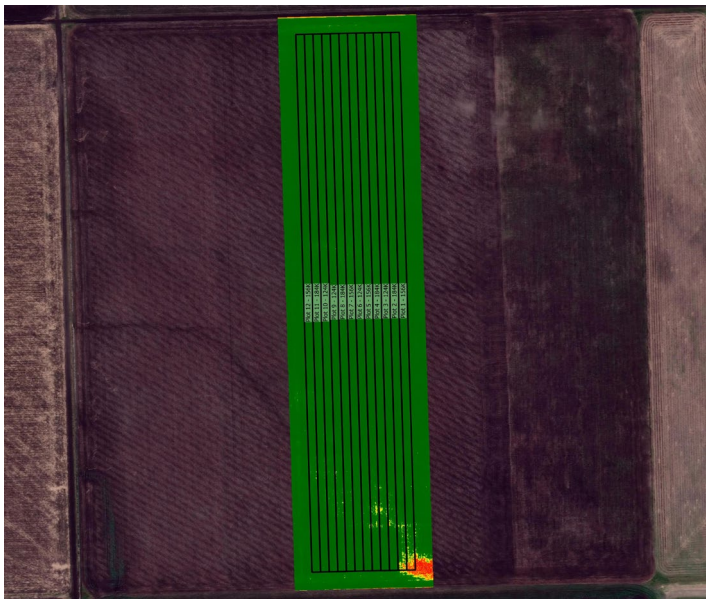
Plant Establishment and Survivability ǂ

	Establishment at V3	Survivability to R7	Change V3 to R7
124k	99%	98%	-2%
156k	97%	95%	-2%
184k	97%	95%	-1%

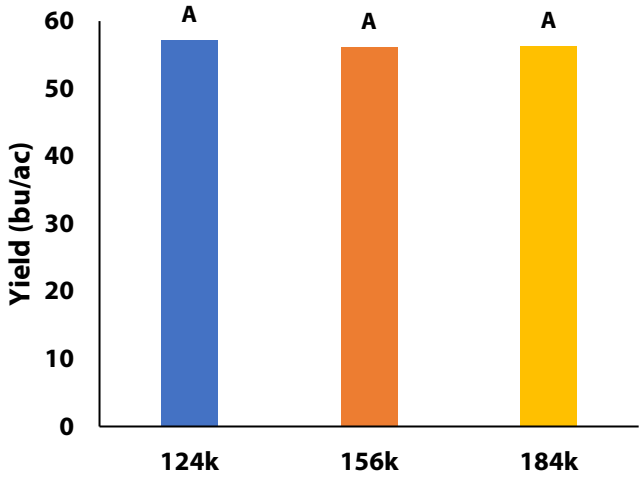
ǂ % establishment = plant count at V stages/seeding rate; % survivability = plant count at R stages/seeding rate.

Germination at this trial was 98%.

NDVI Field Image August 11



Yield by Treatment



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Soybean Seeding Rate Trial

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Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂǂ
124k	57.2	$60/ac	
156k	56.1	$76/ac	-$15.52/ac
184k	56.4	$89/ac	-$29.10/ac
P-Value	0.4	**Economic**	124k → 156k **No**
CV	1.91		124k → 184k **No**
Significance	**No**		156k → 184k **No**

ǂ Based on a $67.90/unit soybean seed costs (Source: Manitoba Agriculture 2023 Cost of Production Guidelines)

ǂ ǂ 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

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