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Pea Seeding Rate Trial

Trial ID: 2023-PSR02 – R.M. of Dauphin

Objective: Quantify the agronomic and economic impacts of different field pea seeding rates.

Summary: Plant establishment in the trial ranged from 5.4 to 7.1 plants/ft² (66% - 74% establishment). There were no significant yield differences among seeding rates of 160,000, 200,000 and 240,000 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	160 vs. 200 vs. 240 lbs/ac
Soil Texture	Loam
Previous Crop	Canola
Tillage	Conventional
Seeding Equipment	70 ft Air Drill
Seeding Date	May 16
Variety	CDC Lewochko
Row Spacing	10"
Harvest Date	August 29

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	88.2	24.5	13	63.7	190
Normal	54.3	86.7	73.0	63.3	278
% Norm	162%	28%	18%	101%	68%

Plant Stand (plants/ac) †

	V8	R8
160lbs/ac	234,000 A	210,000 A
200lbs/ac	266,000 A	240,000 A
240lbs/ac	311,000 B	281,000 B

† Averages followed by different letters are significantly different at $p = 0.05$.

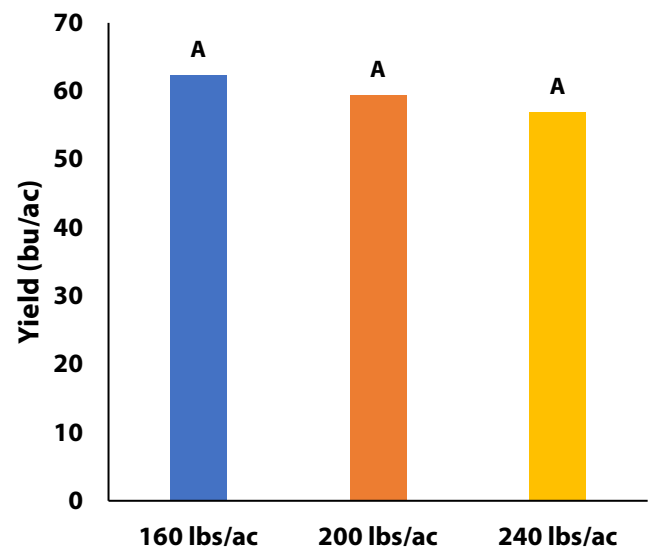


Seeding the trial on May 16th.

NField Image July 25



Yield by Treatment





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Overall Yield & Economics †

	Mean (bu/ac)	Cost †	Change in Profit ††
160lbs/ac	62.3	\$78.21/ac	
200lbs/ac	59.4	\$97.77/ac	-\$19.55/ac
240lbs/ac	56.9	\$117.32/ac	-\$39.11/ac
P-Value	0.1739		
CV	7.1%		
Significance	No	Economic	No

† Assuming a seed cost of \$29.33/bu (Source: Manitoba Agriculture 2023 Cost of Production Guidelines)

†† 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