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Pea Seeding Rate Trial

Trial ID: 2023-PSR01 – R.M. of Lorne

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

Summary: Plant establishment in the trial ranged from 4.2 to 5.1 plants/ft² (53% - 57% establishment). There were no significant yield differences among seeding rates of 168,000, 192,000 and 220,000 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	168lbs vs. 192lbs vs. 220lbs/ac
Soil Texture	Loam
Previous Crop	Wheat
Tillage	Zero Till
Seeding Equipment	60 ft Air Drill
Seeding Date	May 13
Variety	AAC Chrome
Row Spacing	12"
Harvest Date	August 16

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	18.2	17.7	24	33.9	93.8
Normal	58	77.1	77	58.7	270
% Norm	31%	23%	31%	58%	35%

Plant Stand (plants/ac) †

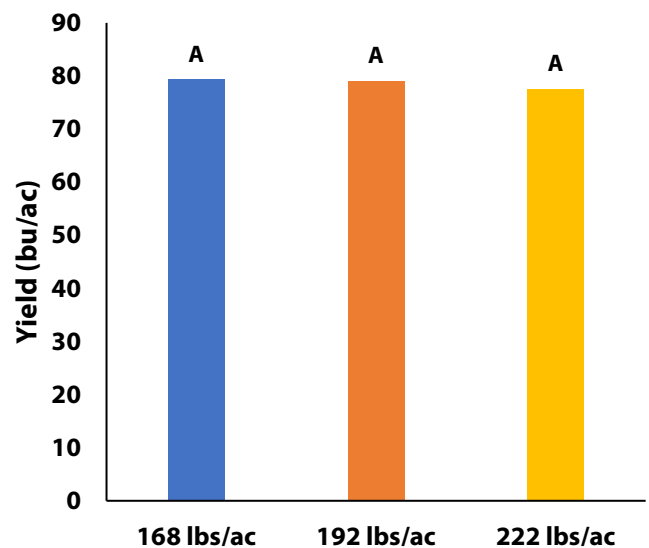
	V4	R8
168lbs/ac	182,000 A	179,000 A
192lbs/ac	214,000 A	205,000 A
222lbs/ac	221,000 A	204,000 A

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

NDVI Field Image July 14



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
168lbs/ac	79.3	\$82.12/ac	
192lbs/ac	79.1	\$93.86/ac	-\$11.73/ac
222lbs/ac	77.5	\$108.52/ac	-\$26.40/ac
P-Value	0.5496		
CV	5.2%		
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