

Pea Seeding Rate Trial

Trial ID: 2024-PSR06 – R.M. of Rockwood

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

Summary: The percent of seeding rate established for the low, normal and high rates was 76%, 68% and 70% respectively. There were no significant yield differences among seeding rates of 144, 180 and 216 lbs/ac. As a result, there was a decrease in profit/ac equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

Treatment (lbs/ac)	144 vs 180 vs 216
Soil Texture	Clay
Previous Crop	Winter Wheat
Tillage	Zero Till
Seeding Equipment	40ft disc Drill
Seeding Date	May 11
Variety	CDC Hickie
Germination	91%
Row Spacing	10"
Harvest Date	August 28

Precipitation (mm)

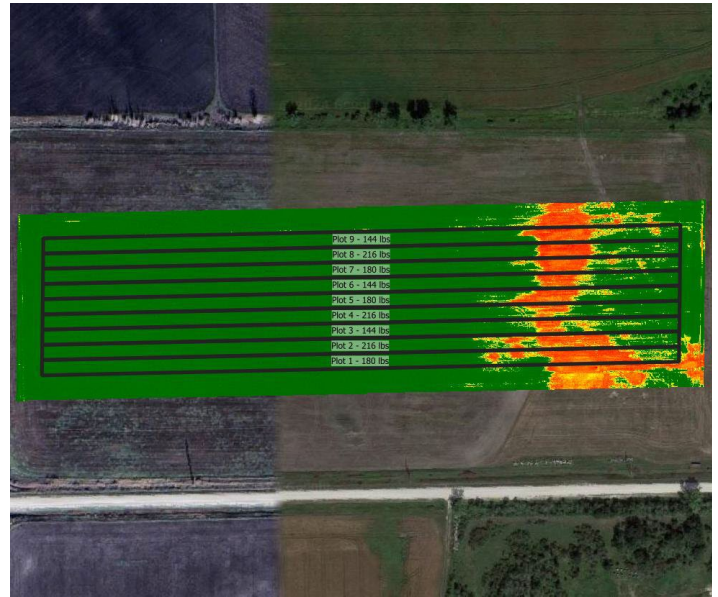
	May	June	July	Aug	Total
Rainfall	99	109.7	71.9	44.3	324.9
Normal	53.8	92	66.4	63.3	275.5
% Norm	184%	119%	108%	70%	118%

Plant Stand (plants/ac) †

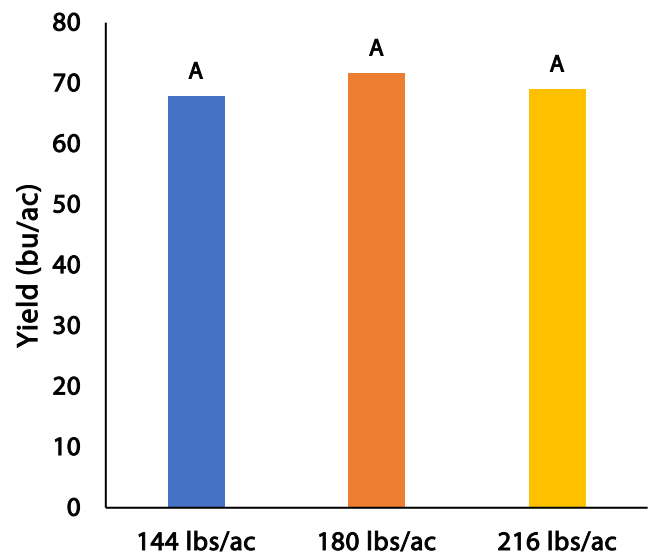
	V6	R7
144lbs/ac	207,000 A	185,000 A
180lbs/ac	231,000 A	197,000 A
216lbs/ac	286,000 A	223,000 A

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

NDVI Field Image July 17



Yield by Treatment





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Pea Seeding Rate Trial

Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
144lbs/ac	67.8	\$70.39/ac	
180lbs/ac	71.6	\$87.99/ac	-\$17.60/ac
216lbs/ac	69.0	\$105.59/ac	-\$35.20/ac
P-Value	0.071		
CV	0.8%		
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