

Pea Seeding Rate Trial

Trial ID: 2021-PSR04 – R.M. of Roland

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

Summary: There was no significant yield difference between seeding rates of 70, 90 and 110 seeds/m². 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 †	70 vs. 90 vs. 110 seeds/m ²
Soil Texture	Loamy Very Fine Sand / Clay
Previous Crop	Dry Beans
Tillage	Conventional
Seeding Equipment	40 ft Air Drill
Seeding Date	April 27
Variety	CDC Lewochko
Germination	89%
Row Spacing	10"
Harvest Date	August 2

† Equivalent to 2.4 vs. 3.1 vs. 3.8 bu/ac seeding rates

Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	29	104	17.9	77.7	228.8
Normal	53.8	80.6	65.7	71	271.1
% Normal	54%	129%	27%	109%	84%

Plant Stand (plants/ac) †

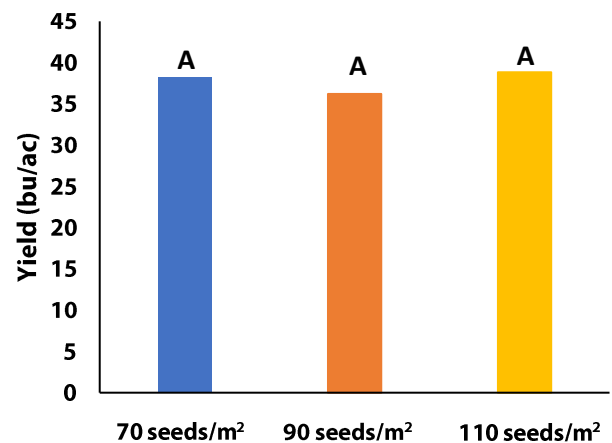
Rate	V4		R7	
	plants/ac	plants/m ²	plants/ac	plants/m ²
70	207,000	51	172,000	43
90	240,000	59	238,000	59
110	302,000	75	306,000	76

† 80-90 plants/m² is the current stand recommendation for peas in MB

NDVI Field Image July 13



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit/ac ††
70 seeds/m²	38.3	\$40/ac	
90 seeds/m²	36.2	\$52/ac	-\$12/ac
110 seeds/m²	38.8	\$63/ac	-\$23
P-Value	0.0703	Economic	70 seeds/m ² → 90 seeds/m ² No
CV	4.5%		70 seeds/m ² → 110 seeds/m ² No
Significance	No		90 seeds/m ² → 110 seeds/m ² No

† Based on MB Agriculture 2021 Cost of Production Guidelines (\$16.83/bu)

†† 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