

Pea Seeding Rate Trial

Trial ID: 2021-PSR07 – R.M. of Dauphin

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	Clay / Loam
Previous Crop	Wheat
Tillage	Zero Till
Seeding Equipment	74 ft Disc Drill
Seeding Date	May 11
Variety	Abarth
Germination	70%
Row Spacing	10"
Harvest Date	August 31

† Equivalent to 2.9 vs. 3.7 vs. 4.6 bu/ac seeding rates

Precipitation (mm)

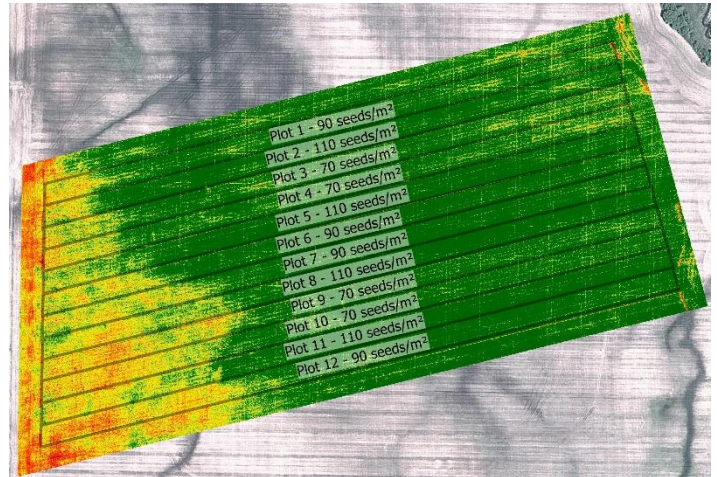
	May	Jun	Jul	Aug	Total
Rainfall	28.4	90.7	32.4	102	253.7
Normal	54.3	86.7	73.2	63.3	277.5
% Normal	52%	105%	44%	161%	91%

Plant Stand (plants/ac) †

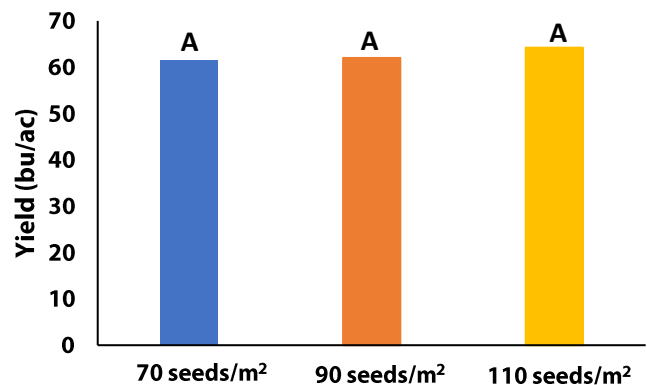
Rate	V7		R7	
	plants/ac	plants/m ²	plants/ac	plants/m ²
70	148,000	37	149,000	37
90	168,000	42	187,000	46
110	227,000	56	212,000	52

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

NDVI Field Image July 9



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit/ac ††
70 seeds/m ²	61.5	\$49/ac	
90 seeds/m ²	62.0	\$63/ac	-\$14/ac
110 seeds/m ²	64.2	\$77/ac	-\$28/ac
P-Value	0.3763	Economic	70 seeds/m ² → 90 seeds/m ² No
CV	7.2%		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