Pea Seeding Rate Trial

Trial ID: 2022-PSR03 – R.M. of Lorne

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

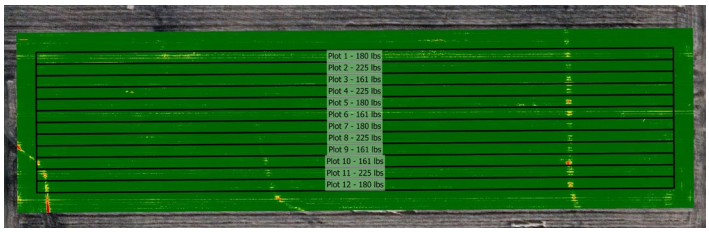
Summary: There was no significant yield difference between seeding rates of 75, 84 and 105 seeds/m^2. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

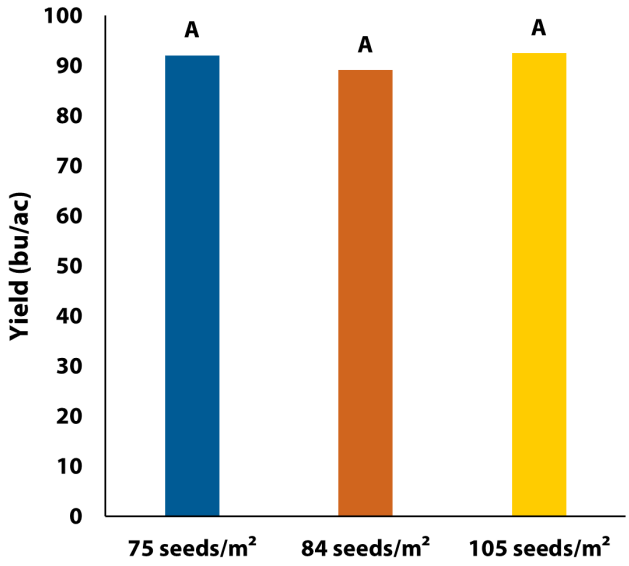
Treatment ǂ	75 vs 84 vs 105 seeds/m^2
Soil Texture	Clay Loam
Previous Crop	Oats
Tillage	Zero Till
Seeding Equipment	50 ft Disc Drill
Seeding Date	May 27
Variety	AAC Chrome
Germination	82%
Row Spacing	10″
Harvest Date	September 11

ǂ Equivalent to 2.7 vs 3 vs 3.8 bu/ac seeding rates

NDVI Field Image July 25



Yield by Treatment



Precipitation (mm)

	May	Jun	Jul	Aug	Total
Rainfall	93.1	33.2	111.2	54.4	291.9
Normal	54.7	83.2	78.6	65.1	281.6
% Normal	170%	40%	141%	84%	104%

Plant Stand (plants/ac)

Seed/m^2	V2
75	199,000
84	206,000
105	269,000

Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit/ac ǂǂ
75 seeds/m^2	92.1	$78/ac	
84 seeds/m^2	89.1	$87/ac	-$9/ac
105 seeds/m^2	92.5	$110/ac	-$32/ac
P-Value	0.4444	**Economic**	75 seeds/m^2 to 84 seeds/m^2 → **No**
CV	4.2%		75 seeds/m^2 to 105 seeds/m^2 → **No**
Significance	**No**		84 seeds/m^2 to 105 seeds/m^2 → **No**

ǂ Based on Manitoba Agriculture's 2022 *Cost of Production Guidelines* ($29/bu); does not include application cost.

ǂǂ Yields were not significantly different, therefore profit/ac decreased by the cost/ac of increasing seeding rate.

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