



Pea Seed Treatment Trial

Trial ID: 2023-PST01 – R.M. of Hillsburg-Roblin-ShellRiver

Objective: Quantify the agronomic and economic impacts of fungicide and insecticide seed treatments in field peas.

Summary: Root rot severity was low in this field, but untreated peas had 10-20% more plants showing symptoms of infection than treated. Untreated peas had the greatest amount of pea leaf weevil predation, but it was not significantly different from peas treated with insecticide. There were no yield differences among treatments, resulting in a decrease in profit/ac in the treated area of the trial, equivalent to the cost of product.

Trial Information

Treatments	Rancona Trio, Rancona Trio + imidacloprid insecticide, Trilex Evergol
Soil Texture	Loam
Previous Crop	Canola
Tillage	Zero Till
Seeding Equipment	60 ft Disc Drill
Seeding Date	May 4
Variety	AAC Carver
Row Spacing	10"
Harvest Date	August 17

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	8.1	62.7	26	58.8	155
Normal	51.8	81.9	77.0	71.6	282
% Norm	16%	77%	34%	82%	55%

Germination[†] and Plant Population

	Germination	Population (plants/ac)
Rancona Trio	92%	196,000
Rancona Trio + insecticide	90%	199,000
Trilex Evergol	94%	165,000
Untreated	95%	177,000

[†] Germination testing was conducted on seed sampled after treatments were applied, but before moving through seeding equipment.

Summary of Root Rot Rating at V6[†]

	Incidence	Severity
Rancona Trio	58%	0.6
Rancona Trio + insecticide	48%	0.5
Trilex Evergol	58%	0.6
Untreated	68%	0.8

[†] Severity 0-9 rating scale; Incidence= Percent of plants infected.

Spring Aphanomyces soil test negative: no oospores found in high-risk areas of the field.

Pea Leaf Weevil Predation[†]

	Total notches per plant	Total number of healthy nodules
Rancona Trio	47	3.6
Rancona Trio + insecticide	52	6
Trilex Evergol	58	4.2
Untreated	61	4.3

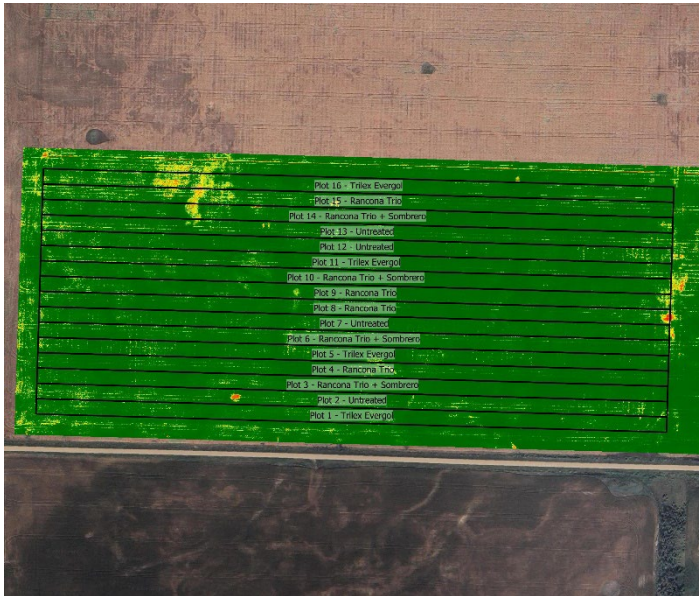
[†] Total notches per plant recorded at V6; Total number of nodules per plant recorded at R3.



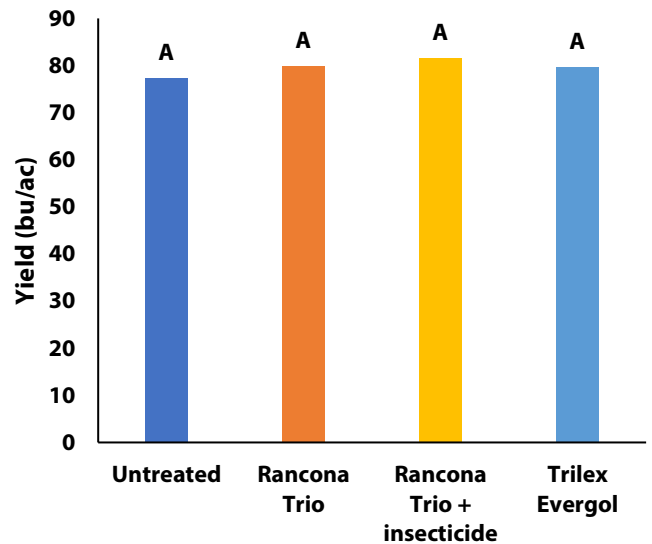
Root rot ratings (L to R): 0= healthy plant, 1= infection at t of seed attachment, 2=5-10% infection

Pea Seed Treatment Trial

NDVI Field Image July 11



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit ^{††}
Rancona Trio	79.9	\$14 - \$17/ac	-\$14 - \$17/ac
Rancona Trio + imidacloprid insecticide	81.6	\$27/ac	-\$27/ac
Trilex Evergol	79.7	\$4 - \$5/ac	-\$4 - \$5/ac
Untreated	77.3		
P-Value	0.464		
CV	4.5%		
Significance	No	Economic	No

[†] Based on the estimated cost of pea seed fungicide and insecticide treatments; product only, does not include cost of application

^{††} Change in profit is calculated as the difference in cost between seed treatments. Because yields were not significantly different, there is no increased income to offset the increase in seed cost