

Pea Seed Treatment Trial

Trial ID: 2023-PST02 – R.M. of Louise

Objective: Quantify the agronomic and economic impacts of seed treatments in field peas compared to bare seed.

Summary: There was no significant yield difference between seed treated with Rancona Trio and untreated seed. While there was a 13% decrease in root rot rating incidence for treated seed, the root rot severity remained low (<1 on a 0-9 scale) due to dry spring conditions. Due to the lack of yield response with the seed treatment compared to untreated, there was a decrease in profit equivalent to the increase in seed treatment application cost.

Trial Information

Treatment	Rancona Trio
Soil Texture	Clay Loam
Previous Crop	Oats
Tillage	Zero Till
Seeding Equipment	30 ft Disc Drill
Seeding Date	May 13
Variety	CDC Lewochko
Row Spacing	7.5"
Harvest Date	August 27

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	29.3	53.4	2.9	44.2	130
Normal	61.1	89.8	68	72.3	292
% Norm	48%	59%	4%	61%	45%

Germination[†] and Plant Population

	Germination	Population (plants/ac)
Rancona Trio	82%	236,000
Untreated	83%	216,000

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

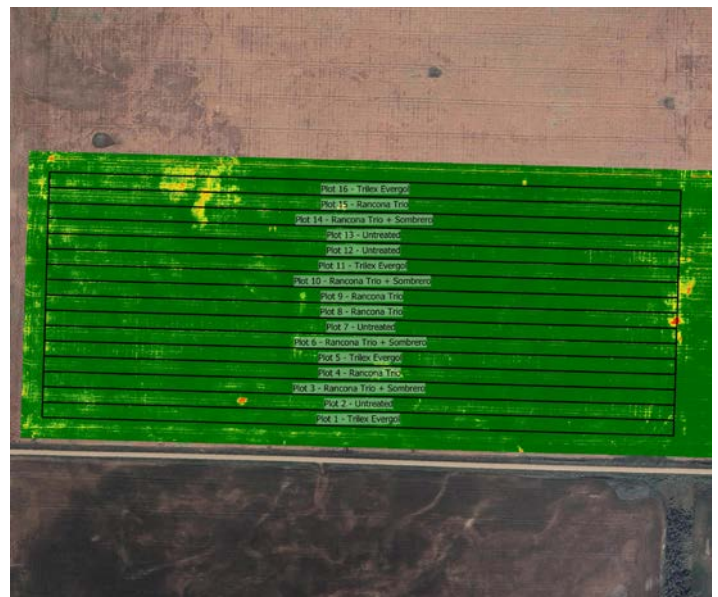
Summary of Root Rot Rating at V6[†]

	Incidence	Severity
Rancona Trio	10%	0.1
Untreated	23%	0.3

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

Spring Aphanomyces soil test positive: high oospore levels found in high-risk areas of the field.

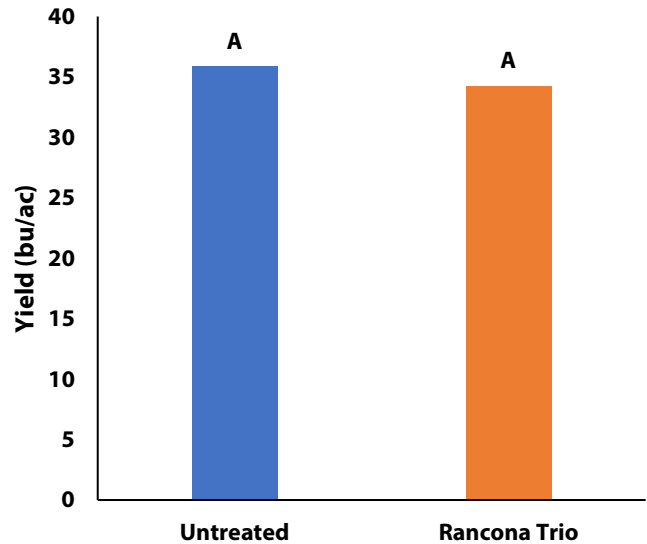
NDVI Field Image July 13





Root rot severity rating 1 = small lesion at point of seed attachment.

Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit ^{††}
Rancona Trio	35.9	\$17/ac	-\$17/ac
Untreated	34.3		
P-Value	0.266		
CV	4.7%		
Significance	No	Economic	No

[†] Based on the estimated cost of pea seed fungicide treatment; 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