

Pea Seed Treatment Trial

Trial ID: 2024-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 20% decrease in root rot rating incidence for untreated seed, the root rot severity remained low (<1 on a 0-9 scale). The Rancona Trio strips resulted in a significantly higher plant count than the untreated strips. 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. An Aphanomyces soil test was positive in high-risk areas of field.

Trial Information

Treatments	Rancona Trio vs Untreated
Soil Texture	Loam
Previous Crop	Triticale
Tillage	Zero Till
Seeding Equipment	42ft Disc Drill
Seeding Date	May 13
Variety	CDC Hickie
Row Spacing	10"
Harvest Date	August 24

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	121.2	94.2	54.8	68.2	338.4
Normal	61.1	89.8	68.3	72.3	291.5
% Norm	198%	105%	80%	94%	116%

Germination † and Plant Population

	Germination	Population (plants/ac)
Rancona Trio	90%	277,000 A
Untreated	N/A	201,000 B

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

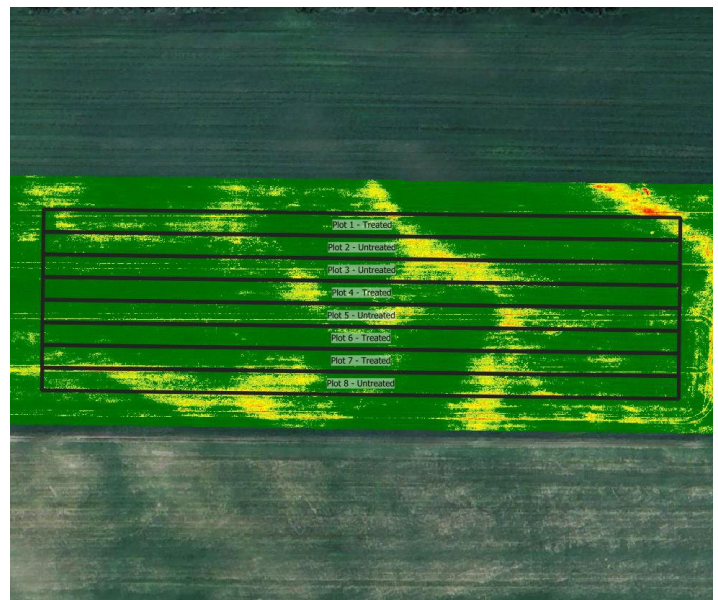
Summary of Root Rot Rating at V6 †

	Incidence	Severity
Rancona Trio	30%	0.3
Untreated	10%	0.1

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

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

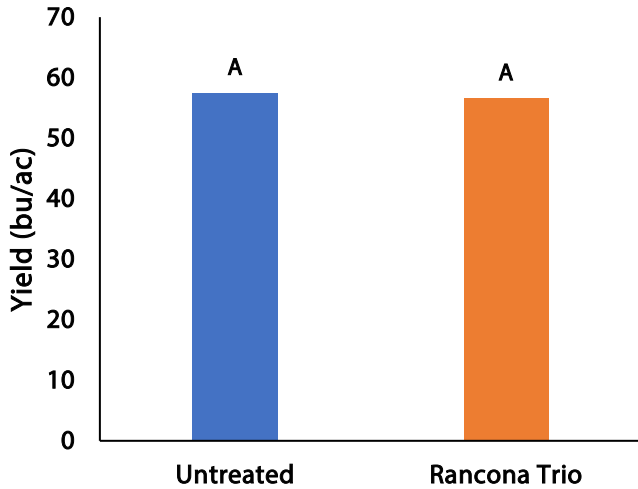
NDVI Field Image July 15



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



Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
Rancona Trio	56.6	\$17/ac	-\$17/ac
Untreated	57.5		
Difference	-0.9		
P-Value	0.709		
CV	5.6%		
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