

# Pea Fungicide Trial

**Trial ID: 2023-PF03 – R.M. of Morris**

**Objective:** Quantify the agronomic and economic impacts of fungicide applications in field peas.

**Summary:** Ascochyta/Mycosphaerella blight was prevalent throughout the trial. Untreated peas had more severe foliar infections than peas with a fungicide application. There were no significant yield differences between peas with and without a single application of Dyax or RevyPro. As a result, profit/ac in the treated area of the trial decreased by the cost/ac of fungicide application.

## Trial Information

|                           |  |
|---------------------------|--|
| <b>Treatment</b>          | Dyax vs. Revy Pro                      |
| <b>Application Timing</b> | R2                                     |
| <b>Application Date</b>   | June 28                                |
| <b>Application Rate</b>   | 160mL/ac (Dyax)<br>405 mL/ac (RevyPro) |
| <b>Application Method</b> | Broadcast                              |
| <b>Soil Texture</b>       | Clay                                   |
| <b>Previous Crop</b>      | Wheat                                  |
| <b>Tillage</b>            | Conventional                           |
| <b>Seeding Date</b>       | 60 ft Disc Drill                       |
| <b>Variety</b>            | CDC Lewochko                           |
| <b>Seeding Rate</b>       | 213 lbs/ac                             |
| <b>Row Spacing</b>        | 10"                                    |
| <b>Plant Stand @ R4</b>   | 283 000 plants/ac                      |
| <b>Harvest Date</b>       | August 9                               |

## Precipitation (mm)

|                 | May  | June | July | Aug  | Total |
|-----------------|------|------|------|------|-------|
| <b>Rainfall</b> | 11.7 | 20.4 | 26   | 39.5 | 97.3  |
| <b>Normal</b>   | 53.6 | 86.4 | 72   | 65.4 | 277   |
| <b>% Norm</b>   | 22%  | 24%  | 36%  | 60%  | 35%   |

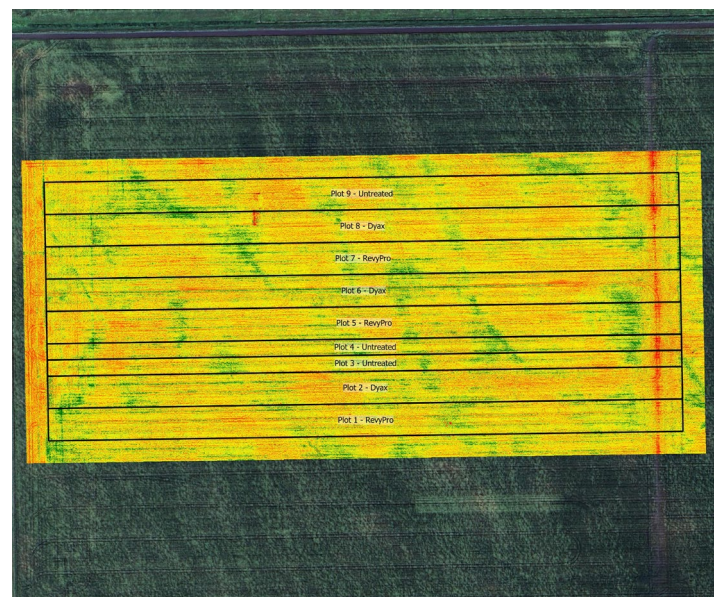
## Summary of Disease Rating (R3)<sup>†</sup>

Ten symptomatic plants were randomly selected for resistance testing from untreated areas of the field. 4.5% of the Ascochyta/Mycosphaerella blight population at this trial was resistant to group 11 fungicides.

|                  | Foliar Ascochyta/Mycosphaerella |      |         |
|------------------|---------------------------------|------|---------|
|                  | UNTRT                           | Dyax | RevyPro |
| <b>Incidence</b> | 100%                            | 100% | 100%    |
| <b>Severity</b>  | 5.0                             | 4.0  | 4.1     |
|                  | Stem Ascochyta/Mycosphaerella   |      |         |
|                  | UNTRT                           | Dyax | RevyPro |
| <b>Incidence</b> | 37%                             | 27%  | 57%     |
| <b>Severity</b>  | 1.4                             | 1.3  | 1.6     |

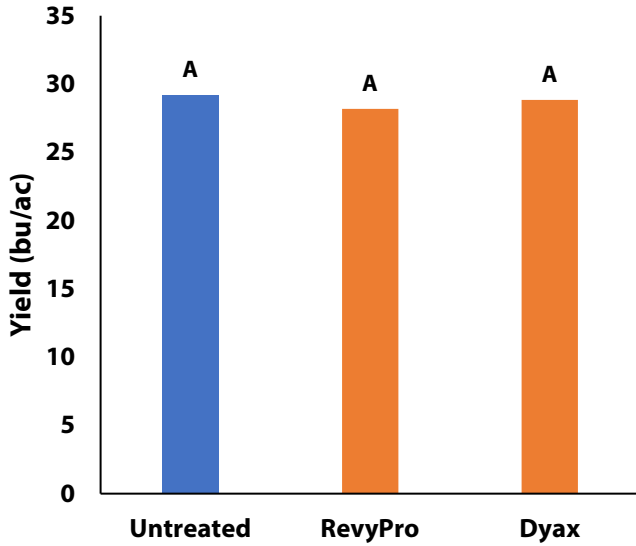
<sup>†</sup> Foliar and stem ascochyta 1-7 rating scale; Incidence= Percent of plants infected.

## NDVI Field Image July 17





## Yield by Treatment



## Overall Yield & Economics

|                     | Mean (bu/ac) | Cost †          | Change in Profit †† |
|---------------------|--------------|-----------------|---------------------|
| Dyax                | 28.8         | \$10-\$23/ac    | -\$10-\$23/ac       |
| RevyPro             | 28.2         | \$10-\$23/ac    | -\$10-\$23/ac       |
| Untreated           | 29.2         |                 |                     |
| P-Value             | 0.775        |                 |                     |
| CV                  | 6.1%         |                 |                     |
| <b>Significance</b> | <b>No</b>    | <b>Economic</b> | <b>No</b>           |

† Based on an estimated fungicide product cost of \$10-\$23/ac, product cost only, does not include application cost.

†† Because yields were not significantly different, there is no increased income to offset the cost of the fungicide. Profit/ac declined by the cost of the fungicide application.