

## Pea Fungicide Trial

**Trial ID:** 2021-PF03 – R.M. of Dauphin

**Objective:** Quantify the agronomic and economic impacts of a single foliar fungicide application in field peas

**Summary:** The pre-spray check (R1) did not indicate an application of fungicide was necessary. Foliar ascochyta was prevalent throughout the trial, at relatively low severity, post-fungicide application, at R3. There was no significant yield difference between peas with and without a single application of Cotegra. As a result, profit/ac in the treated area of the trial decreased by the cost of the fungicide application.

### Trial Information

|                           |                   |
|---------------------------|-------------------|
| <b>Treatment</b>          | Cotegra           |
| <b>Application Timing</b> | Early Flower      |
| <b>Application Date</b>   | June 30           |
| <b>Application Rate</b>   | 280 ml/ac         |
| <b>Application Method</b> | Broadcast         |
| <b>Soil Texture</b>       | Loamy Fine Sand   |
| <b>Previous Crop</b>      | Wheat             |
| <b>Tillage</b>            | Conventional      |
| <b>Seeding Date</b>       | May 1             |
| <b>Variety</b>            | CDC Inca          |
| <b>Seeding Rate</b>       | 168 lbs/ac        |
| <b>Row Spacing</b>        | 10"               |
| <b>Plant Stand @ R4</b>   | 204 000 plants/ac |
| <b>Harvest Date</b>       | August 8          |

### NDVI Field Image July 9



### Precipitation (mm)

|                 | May  | Jun  | Jul  | Aug  | Total |
|-----------------|------|------|------|------|-------|
| <b>Rainfall</b> | 34.6 | 74.1 | 74.1 | 128  | 310.6 |
| <b>Normal</b>   | 51.8 | 81.9 | 76.7 | 71.6 | 282   |
| <b>% Normal</b> | 67%  | 90%  | 97%  | 178% | 110%  |

### Results from the Pre-Spray Check (R1)

| Category                             | Average Rating <sup>†</sup> | Explanation                              |
|--------------------------------------|-----------------------------|--|
| <b>Crop Canopy</b>                   | 15                          | Normal (~8 plants/ft <sup>2</sup> )      |
| <b>Leaf Wetness/Humidity @ 12 pm</b> | 0                           | No leaf wetness                          |
| <b>5-Day Weather Forecast</b>        | 10                          | Unpredictable                            |
| <b>Ascochyta Symptoms on Peas</b>    | 3.3                         | Less than 20% of plants showing symptoms |
| <b>Total Score</b>                   | <b>28.3</b>                 | <b>No application recommended</b>        |

<sup>†</sup> Ratings taken at six locations in the field and average together to assess overall field risk



## Pea Fungicide Trial

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

|                  | Foliar Ascochyta |     | White Mould |     |
|------------------|------------------|-----|-------------|-----|
|                  | UN               | SGL | UN          | SGL |
| <b>Incidence</b> | 90%              | 95% | 0%          | 3%  |
| <b>Severity</b>  | 2.0              | 1.8 | 0.0         | 0.0 |

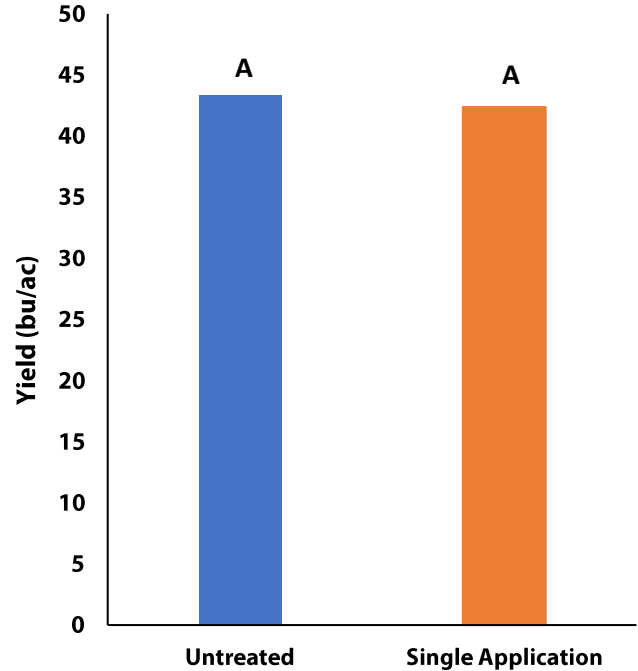
<sup>†</sup> SGL=Single application; Foliar ascochyta 1 – 7 rating scale, white mould 0-5 rating scale

### Observations (R3)



Foliar ascochyta was present throughout the trial at relatively low severity.

### Yield by Treatment



### Overall Yield & Economics

|                           | Mean (bu/ac) | Cost <sup>†</sup> | Change in Profit/ac <sup>††</sup> |
|---------------------------|--------------|-------------------|-----------------------------------|
| <b>Single Application</b> | 42.4         | \$17/ac           | -\$17/ac                          |
| <b>Untreated</b>          | 43.4         |                   |                                   |
| <b>Yield Difference</b>   | -1.0         |                   |                                   |
| <b>P-Value</b>            | 0.7571       |                   |                                   |
| <b>CV</b>                 | 26%          |                   |                                   |
| <b>Significance</b>       | No           | Economic          | No                                |

<sup>†</sup> Estimated cost; represents product only, does not include application cost

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