

## **Pea Fungicide Trial**

Trial ID: 2021-PF04 - 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 (V12) did not indicate an application of fungicide was necessary. At R3, our post-fungicide application disease rating indicated that foliar and stem ascochyta were present at very low levels. 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.

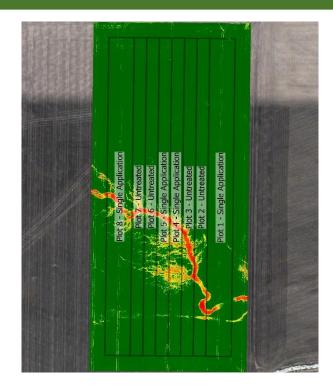
#### **Trial Information**

| Treatment                 | Cotegra           |
|---------------------------|-------------------|
| Application Timing        | Early Flower      |
| <b>Application Date</b>   | June 30           |
| Application Rate          | 280 ml/ac         |
| <b>Application Method</b> | Broadcast         |
| Soil Texture              | Clay to Clay Loam |
| Previous Crop             | Wheat             |
| Tillage                   | Conventional      |
| Seeding Date              | May 5             |
| Variety                   | AAC Carver        |
| Seeding Rate              | 198 lbs/ac        |
| Row Spacing               | 10"               |
| Plant Stand @ R4          | 289 000 plants/ac |
| Harvest Date              | August 6          |

#### **Precipitation (mm)**

|          | May  | Jun  | Jul  | Aug  | Total |
|----------|------|------|------|------|-------|
| Rainfall | 23.9 | 70.9 | 30.3 | 89.5 | 214.6 |
| Normal   | 54.3 | 86.7 | 73.2 | 63.3 | 277.5 |
| % Normal | 44%  | 82%  | 41%  | 141% | 77%   |

### **NDVI Field Image July 9**



#### Results from the Pre-Spray Check (V12)

| Category                      | Average Rating <sup>†</sup> | Explanation                              |
|-------------------------------|-----------------------------|--|
| Crop Canopy                   | 20                          | Normal (~8 plants/ft²) to dense          |
| Leaf Wetness/Humidity @ 12 pm | 0                           | No leaf wetness                          |
| 5-Day Weather Forecast        | 10                          | Unpredictable                            |
| Ascochyta Symptoms on Peas    | 3.3                         | Less than 20% of plants showing symptoms |
| Total Score                   | 33.3                        | No application recommended               |

+ Ratings taken at six locations in the field and average together to assess overall field risk





# **Pea Fungicide Trial**

### Summary of Disease Rating (R3)+

|           | Foliar Ascochtya |     | Stem Ascochyta |     |
|-----------|------------------|-----|----------------|-----|
|           | UN               | SGL | UN             | SGL |
| Incidence | 3%               | 0%  | 3%             | 0%  |
| Severity  | 1.0              | 1.0 | 1.0            | 1.0 |

+ SGL=Single application; Foliar ascochyta 1 − 7 rating scale, stem ascochyta 1-7 rating scale

## 

**Single Application** 

**Yield by Treatment** 

#### **Overall Yield & Economics**

10

0

Untreated

|                         | Mean (bu/ac) | Cost <sup>+</sup> | Change in Profit/ac++ |
|-------------------------|--------------|-------------------|-----------------------|
| Single Application      | 59.4         | \$17/ac           | -\$17/ac              |
| Untreated               | 60.7         |                   |                       |
| <b>Yield Difference</b> | -1.3         |                   |                       |
| P-Value                 | 0.3706       |                   |                       |
| CV                      | 5.7%         |                   |                       |
| Significance            | 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.