

Pea Fungicide Trial

Trial ID: 2020-PF08 – R.M. of Swan Valley West

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

Summary: Foliar ascochyta, stem ascochyta and white mould were present throughout the trial. There was also higher than normal rainfall in July, contributing to disease development. There was a significant yield increase of 4.5 bu/ac for peas with a double fungicide application compared to peas with no fungicide applied, however, this increase was not enough to offset the cost of the double application.

Trial Information

| | |
|---------------------------|-----------------------|
| Treatment | Cotegra / Delaro |
| Application Timing | Early Flower |
| Application Date | July 7 / July 14 |
| Application Rate | 280 ml/ac / 365 ml/ac |
| Application Method | Broadcast |
| Soil Texture | Very Fine Sandy Loam |
| Previous Crop | Canola |
| Tillage | Conventional |
| Seeding Date | May 14 |
| Variety | Abarth |
| Seeding Rate | 240 lbs/ac |
| Row Spacing | 10" |
| Plant Stand @ R3 | 267 000 plants/ac |
| Harvest Date | August 19 |

Precipitation (mm)

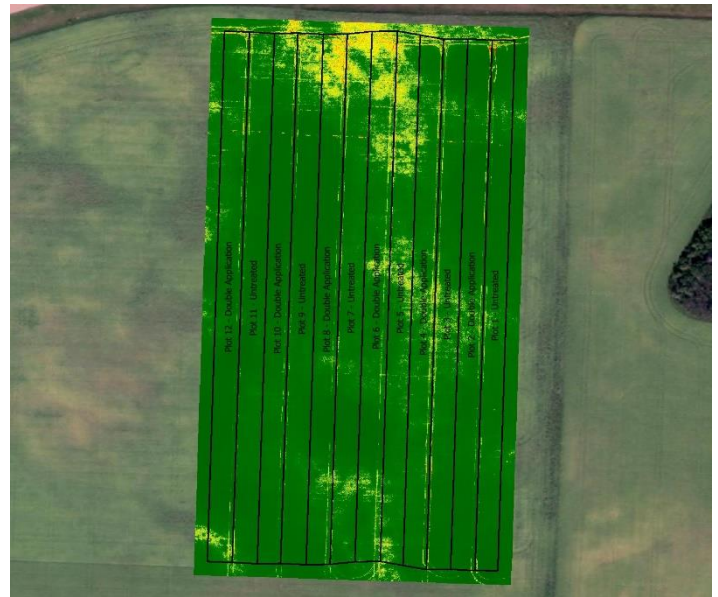
| | May | June | July | August |
|-----------------|------|------|-------|--------|
| Normal | 45.4 | 84.2 | 85.6 | 68.3 |
| Rainfall | 11 | 86.6 | 143.7 | 66.9 |

Summary of Disease Rating (R3) †

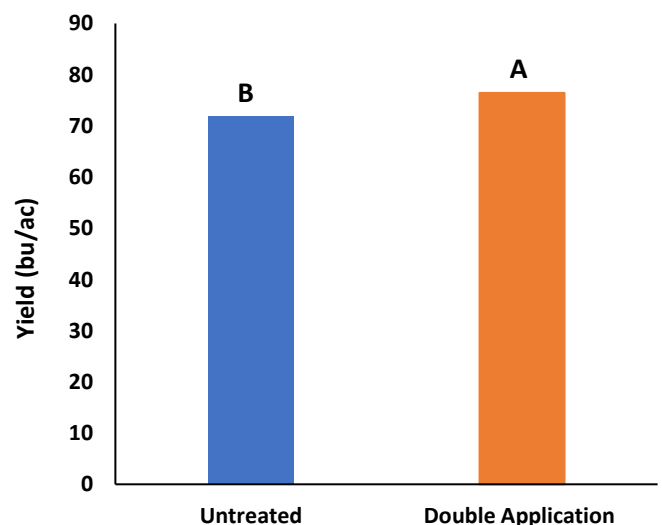
| | Foliar Ascochyta | | Stem Ascochyta | | White Mould | |
|------------------|------------------|-----|----------------|-----|-------------|-----|
| | UN | DBL | UN | DBL | UN | DBL |
| Incidence | 60% | 60% | 38% | 17% | 78% | 75% |
| Severity | 1.5 | 1.8 | 1.2 | 1.4 | 0.8 | 0.8 |

† DBL=Double application; Foliar ascochyta 1 – 7 rating scale, stem ascochyta 1 – 7 rating scale, white mould 0 – 5 rating scale

NDVI Field Image July 29



Yield by Treatment





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Overall Yield & Economics

| | Mean (bu/ac) | Cost † | Change in Profit/ac (@ pea price of \$6 - \$8/bu) ^{††} |
|---------------------------|--------------|-----------------|---|
| Double Application | 76.4 | \$40/ac | -\$13 to -\$4/ac |
| Untreated | 71.9 | | |
| Yield Difference | 4.5 | | |
| P-Value | 0.0015 | | |
| CV | 6.7% | | |
| Significance | Yes | Economic | No |

† Based on MB Agriculture 2020 Cost of Production Guidelines (\$20/ac for single application); product cost only, does not include application cost

†† Change in profit is calculated as the difference between the change in income from the significant difference in yield and the cost of the product/ac