Comparative Fungicide Efficacy Testing for Mycosphaerella Blight (2022-24)

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Introduction

- Ascochyta/Mycosphaerella blight complex is among the most widespread and economically damaging foliar diseases of the pea crop (*Pisum sativum*) in Manitoba.
- Infections are caused by the fungi *Ascochyta pinodes* (leaf infection), *Ascochyta pinodella* (foot rot infection), and *Ascochyta pisi* (pod infection) on peas.
- Infection begins at the bottom third of the plant and progresses upward. Fungicides are generally applied during the early flowering stages of pea growth to protect plants against disease.
- This study presents the results of small-plot field trials conducted at Roblin, Portage la Prairie, Melita, and Arborg from 2022-24 of fungicide efficacy testing under the product evaluation and testing program.

Roblin Trial Site

M Blight Symptoms

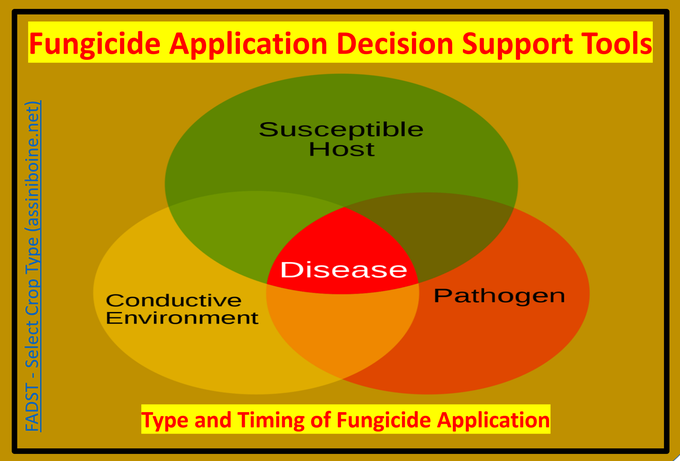
Research Objectives

- To compare the relative performance of five different registered foliar fungicide products at the testing sites in controlling *Mycosphaerella* blight in peas.
- Fungicide Treatments and Layout:
  - Untreated/ No fungicide product applied.
  - Treatment 1: Delaro 325 SC - *Bayer*
  - Treatment 2: Miravis Neo 300 SE- *Syngenta*
  - Treatment 3: Dyax – *BASF*
  - Treatment 4: RevyPro- *BASF*
  - Treatment 5: Acapela – *Corteva*

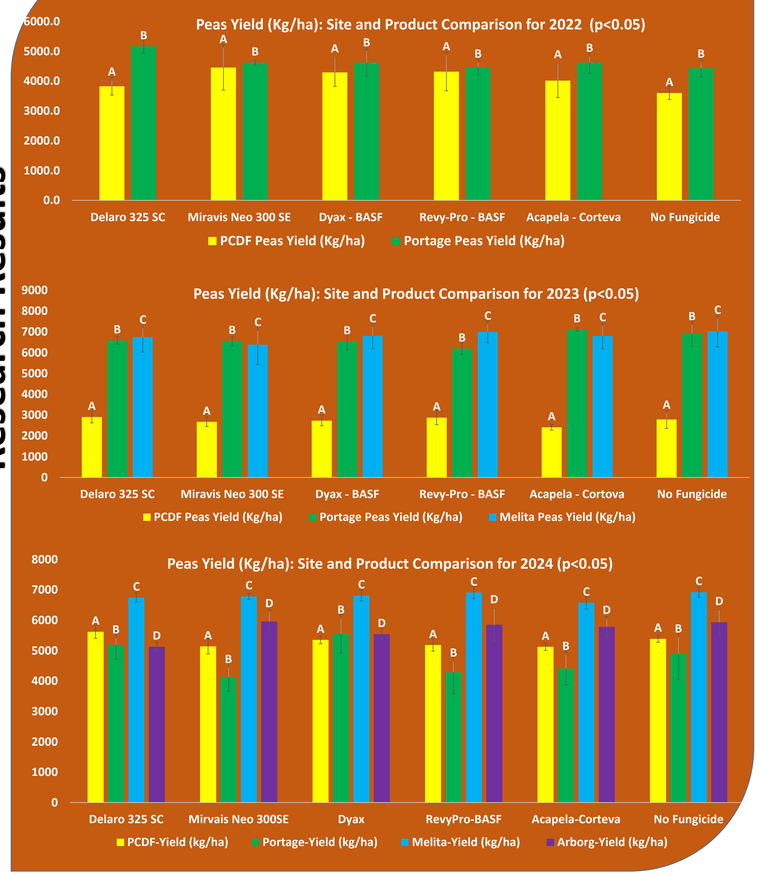
		Untreated	Miravis Neo 300SE	RevyPro-BASF	Acapela-Corteva	Dyax	Delaro 325SC	
Replication 4	Guard	401	402	403	404	405	406	Guard
		RevyPro-BASF	Acapela-Corteva	Untreated	Delaro 325SC	Dyax	Miravis Neo 300SE	
Replication 3	Guard	301	302	303	304	305	306	Guard
		Acapela-Corteva	Miravis Neo 300SE	Dyax	Untreated	Delaro 325SC	RevyPro-BASF	
Replication 2	Guard	201	202	203	204	205	206	Guard
		Delaro 325SC	Untreated	Acapela-Corteva	RevyPro-BASF	Miravis Neo 300SE	Dyax	
Replication 1	Guard	101	102	103	104	105	106	Guard

Disease Triangle

- Weather data at all sites were collected from nearby MB Agriculture weather stations from May to August for the years 2022-24. The data show average low temperatures, low relative humidity, and low precipitation at all the sites.



Research Results



Moving Forward

- The dry growing season (low precipitations), low temperatures, and low relative humidity continue suppressing plant pathogens, leading to low disease pressures.
- Unnecessary fungicide applications under low disease pressure contaminate the environment and cause investment loss.
- Frequent crop scouting, the use of fungicide application decision-support tools (FADST), and the selection of better fungicide products, along with their appropriate application rates and timing, are effective solutions for managing crop pest problems.

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