

Comparative Fungicide Efficacy Testing for Mycosphaerella Blight (2022-23)

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Introduction

- Ascochyta/Mycosphaerella blight complex is among the most widespread and economically damaging foliar diseases of 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.
- Fungicides are generally applied during the early flowering stages of pea growth to protect plants against disease, as the infection begins at the bottom third of the plant and progresses upward.
- Under the product evaluation and testing program at ACC/MPSG, small plot field trials were conducted in 2022 at Roblin, MB, and Portage La Prairie, MB, and in 2023 at Roblin, MB, Melita, MB, and Portage La Prairie, MB.

Roblin Trial Site



M Blight Symptoms

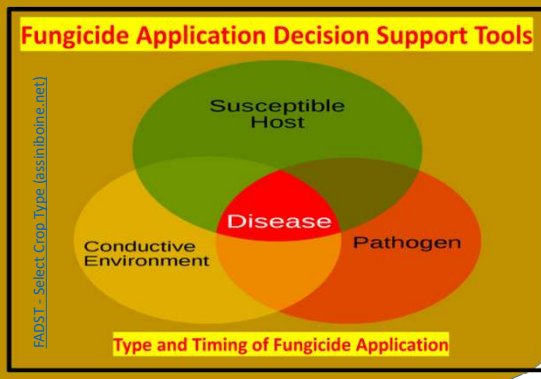
Research Objectives

- To compare the relative performance of five different registered foliar fungicide products at three 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

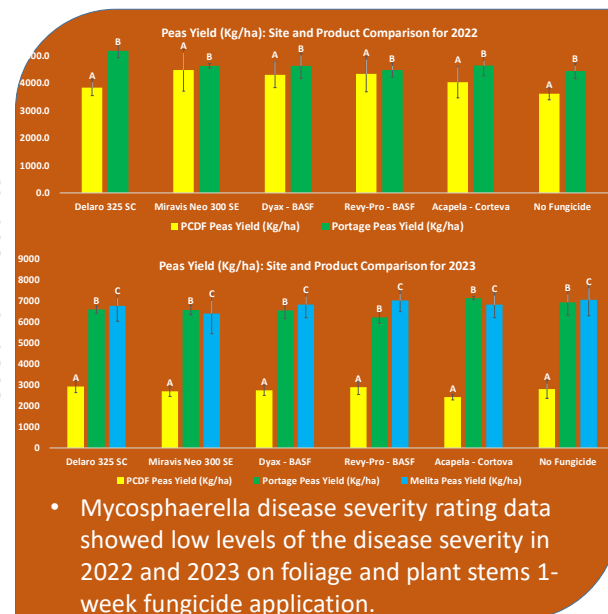
		Untreated	Miravis Neo 300SE	RevyPro-BASF	Acapela-Corteva	Dyax	Delaro 325SC	
Replication 4	Guard	401	402	403	404	405	406	Guard
		RevyPro-BASF	Acapela-Corteva	Untreated	Delaro 325SC	Dyax	Miravis Neo 300SE	
Replication 3	Guard	301	302	303	304	305	306	Guard
		Acapela-Corteva	Miravis Neo 300SE	Dyax	Untreated	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 starting May to August for the years 2022 and 2023 showing on average low temperature, and low relative humidity, low precipitation at all the sites.



Research Results



Moving Forward

- Farmers in MB need product comparison data in pursuit of maximum protection against pest pressure and the best return on investment.
- Dry growing season (low precipitations) along with low temperatures and low relative humidity continues to suppress the plant pathogens leading to low disease pressures.
- Unnecessary fungicide applications under low disease pressure not only contaminate the environment but also cause loss on investment.
- Frequent crop scouting, use of fungicide application decision support tools (FADST), along with a selection of better fungicide products and their application rate and timing are the effective solutions for managing crop pest problems.