

Comparative Fungicide Efficacy Testing for Managing *Mycosphaerella* Blight and White Mould in Peas in Manitoba (2022-24)

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Ascochyta/*Mycosphaerella* blight complex is among the most widespread and economically damaging foliar diseases of pea crop (*Pisum sativum*) in Manitoba. *Ascochyta* infections are caused by the fungi *Ascochyta pinodes* (leaf infection), *Ascochyta pinodella* (foot rot infection), and *Ascochyta pisi* (pod infection) on peas. *Mycosphaerella* blight was consistently the most common foliar disease for peas in 100% of fields in 2022, 2023, and 2024. However, low levels of disease were detected in all tested fields, i.e., disease severity remained below 4.0 on a scale of 1-7 (1= no disease, and 9= dead plant). Low disease translated into higher yields of peas during these years (for example, 6996 kg/ha at the Melita site for 2023). All tested sites found bacterial blight and white mould at trace levels. Group 11 resistance is on the rise, with 20% of samples detected positive in PCDF in 2022. In 2023 and 2024, 24.8% and 48.3% of samples were detected positive in Portage. No statistically significant difference was found in yield with all the fungicides tested for three years. Researchers recommend using decision support tools and weather watches for application fungicides as the best integrated pest management strategies to save money on the farm.