Improving Wheat Disease Management

*Research by Dr. Martin Chilvers*

2023 Report: Improving Wheat Disease Management through Seed Treatment, Head Scab and Foliar Fungicide Evaluation

In year two of this project, Chilvers repeated the research variables from 2022 to validate or moderate their findings about the impact on winter wheat disease management.

At the conclusion of the project, Chilvers noted that the activities over the years identified Michigan wheat pathogens and successfully assessed them for fungicide sensitivity. The team also conducted fungicide efficacy trials, and economic analysis of fungicide application timing.

Chilvers commented that IPM principles are critical to managing diseases and maintaining efficacy of disease management tools such as foliar fungicides. Foliar fungicide did increase yields to some extent, but the magnitude of increase is not supported by Ontario wheat research.

Click below to review the 2023 final report, including multiple data charts.

* Improving wheat disease management through seed treatment, head scab and foliar fungicide evaluation – 2023.

In collaboration with the University of Wisconsin-Madison, he continued a two-year wheat seed treatment trial at four Michigan Farm locations: Huron, Mason, Montcalm and the MSU Saginaw Valley Research & Extension Center in Frankenmuth. In it, two wheat varieties received four different treatments to determine if root rot organisms were prevented. This will be relevant to Michigan’s smut/bunt emergence.

Second, Chilvers looked at foliar and head scab fungicide efficacy of nine fungicide treatments and two soon-to-be-released products.

Third, Chilvers and Dr. Kurt Steinke revisited the fungicide treatments recommended with the high-management approach to wheat cultivation. Also covered by this project was Mikaela Breunig assessment of *Fusarium* species responsible for head scab of wheat, comparing effectiveness of DMI fungicides vs. the SDHI class.

Click below to review the 2022 final report, including multiple data charts.

* [Improving wheat disease management through seed treatment, head scab and foliar fungicide evaluation – 2022](https://miwheat.org/wp-content/uploads/disease-management-Final-Report-Chilvers.docx)