

PI: Damon Smith

PI's E-mail: damon.smith@wisc.edu

Project ID: FY20-IM-023

ARS Agreement #: 59-0206-0-189

Research Category: MGMT

Duration of Award: 1 Year

Project Title: Refining IPM for FHB and DON in SRWW in Wisconsin

PROJECT 1 ABSTRACT

(1 Page Limit)

Soft red winter wheat (SRWW) production continues to be an important aspect of integrated agricultural systems in Wisconsin. Winter wheat fits well with rotations of corn and soybean, which are the major field crops in the state. Fusarium head blight (FHB) and deoxynivalenol (DON) accumulation in harvested grain continues to be a perennial problem in Wisconsin, resulting in significant damage, yield reduction, and elevator dockage in most years. A single fungicide application alone has reduced some of the damage caused by FHB on SRWW in Wisconsin; however, the newer chemistry, Miravis[®] Ace, seems to provide some flexibility in spraying for farmers. Most Wisconsin farmers have also complained that the FHB Prediction Center models are not accurate in many locations of Wisconsin, due to our unique climate near the Great Lakes. Further, testing action thresholds for our climate is needed in order to provide informed fungicide spraying decisions. The proposed research would facilitate adoption of integrated FHB management to reduce losses from FHB in Wisconsin. It would also provide locally derived fungicide efficacy data for Wisconsin growers to make sound fungicide application decisions. To address these issues in Wisconsin, I plan to conduct the following research projects: 1) Conduct the standard multi-state MGMT-CP Integrated management protocol involving new chemistries applied to various varieties; 2) Conduct a uniform fungicide trial in Wisconsin with a focus on Miravis Ace; 3) Validate action thresholds for spraying fungicide based on the FHB Prediction center, for Wisconsin's unique climate.