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Project ID: FY18-IM-016

ARS Agreement #: *New (59-0206-5-005 is in 4th year)*

Research Category: MGMT

Duration of Award: 1 Year

Project Title: Reducing Scab and Vomitoxin in Malting Barley in the Mid-Atlantic

PROJECT 1 ABSTRACT

(1 Page Limit)

The goal of this research is to improve grain quality and profitability for malting barley growers and processors by reducing disease, toxin content, and crop production cost.

Project Objectives (list in numbered format) and Expected Outcomes

1. Determine the efficacy of a new fungicide for malting barley disease management
2. Understand optimal fungicide application timing for barley disease management
3. Evaluate the interaction of available chemistries, application timings, and genetic resistance
4. Educate growers and processors on best management practices for production of high quality malting barley

We expect to be able to update current mid-Atlantic malting barley disease management recommendations to include a new fungicide tool, more refined application timings, and a better understanding of how to best utilize these together with other management decisions.

Plans to accomplish project goal(s) within period of proposed work

In this project, we intend to conduct malting barley fungicide trials utilizing new and established chemistries at two application timings at two Pennsylvania locations. We will incorporate a known FHB susceptible and a known moderately resistant variety of malting barley as well as other high-performing varieties. Following analysis of agronomic qualities and toxin content, this information will be shared with the greater Coordinated Project in order to build a robust data set for statistical analysis and subsequent development of management recommendations.

Statement of Mutual Interest (i.e. how will stakeholders/end-users benefit from this research)

The information gained through this project will be used to inform management decisions for farmers, as well as maltsters and all those who play supporting roles in the production of this crop. Specifically, recommendations for barley producers regarding fungicide use, timing, products, and the interplay of these with other production factors will be modified, updated, and improved for those in the mid-Atlantic. The results of this work will be shared with growers, industry professionals (crop advisors, seed dealers, custom applicators, industry press, etc.), maltsters, and brewers through field days, workshops, winter meetings, newsletters, and digital media.