

## Project Abstract

<b>Project Title:</b>	<b>Evaluation of FHB Management Strategies in DE following the MGMT Protocol</b>	
<b>Principal Investigator:</b>	<b>Alyssa Koehler</b>	<b>University of Delaware</b>

Winter wheat and malting barley are important crops to Delaware and Fusarium Head Blight is the major small grain disease concern within the region. Many growers utilize risk model forecasting and rely on the application of fungicides when environmental conditions set up a high risk for FHB. The release of new fungicides has drawn attention from growers and there is need for local data on product performance. This project seeks to follow the FHB Management Coordinated Project (MGMT\_CP) to address the following objectives:

- 1) Evaluate the integrated effects of fungicide treatment and genetic resistance on FHB and DON in all major grain classes, with emphasis on new combination fungicides, Prosaro Pro<sup>®</sup> and Sphaerex<sup>®</sup>.  
 Expected Outcome: Regional product performance data for comparison of control provided by host resistance, fungicides, or both.
- 2) Compare the efficacy of Prosaro Pro and Sphaerex to that of Prosaro<sup>®</sup>, Caramba<sup>®</sup>, and Miravis Ace<sup>®</sup>.  
 Expected Outcome: Improved recommendations and efficacy data on the new products, Prosaro Pro and Sphaerex.
- 3) Generate data to further quantify the economic benefit of FHB/DON management strategies.  
 Expected Outcome: Increased data to support management decisions made by stakeholders.
- 4) Disseminate data to producers and stakeholders through extension outreach programming.  
 Expected Outcome: Increase dispersion and utilization of new data through in person and digital communication platforms

Following the MGMT\_CP, two winter wheat cultivars will be evaluated in an inoculated, non-irrigated plot to assess fungicide performance on susceptible and moderately resistant varieties. Using a susceptible variety, a second inoculated wheat field will be established to analyze efficacy of new fungicides and compare performance to previous fungicide standards. A uniform fungicide trial and two variety/fungicide trial will be conducted in malting barley to analyze fungicide efficacy. Data will include FHB incidence and severity, flag leaf disease severity, yield, test weight, kernels damaged by FHB, and DON level. Results will be presented at regional small grains meetings and grower training events. Updates on disease risk, product efficacy, and optimal application periods will be shared through the University of Delaware’s Weekly Crop Update, social media platforms, and publications like Plant Disease Management Reports. Data generated from this project will inform FHB management strategies and provide growers with valuable information to manage a perennial threat to winter wheat and malting barley production in the Mid-Atlantic.