This project will address the following goals in the USWBSI Action Plan: Goal 1) Develop integrated management strategies for FHB and mycotoxins that are robust to conditions experienced in production fields and Goal 2) Help develop and validate the next generation of management tools for FHB/DON control”. The research needs in the USWBSI Action plan addressed by the proposed research are: 1) Validate integrated strategies with the next generation of wheat varieties; 2) Evaluate the flexibility of fungicide application timing within the context of integrated management strategies; and 3) Enhance forecasting capabilities for FHB and continued development of FHB and DON models for wheat. In the Fall of 2015, trials will be established in E. Lansing, MI and in commercial wheat setting in the MI Thumb region. The sites will use a susceptible or moderately susceptible variety to compare to a moderately resistant variety of both SWWW and SRWW classes. In addition, this effort will support a subproject titled “Risk-based Fungicide Decision-making for FHB and DON Management in Wheat” requested by Pierce Paul. These trials will be harvested in July, 2016 and the results tabulated and analyzed by November 1, 2016. Once the results from MI are summarized and melded with the results from other participating investigators, they will be shared with MI growers and industry representatives through the use of public meetings, research reports and news articles.