

FY16 USWBSI PROJECT ABSTRACT

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Project ID: FY16-IM-009

ARS Agreement #: New

Research Category: MGMT IM-CP

Duration of Award: 1 Year

Project Title: Integrated Management of FHB and DON in Soft Red Winter Wheat in Tennessee.

PROJECT 1 ABSTRACT

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The overall project goal of the proposed MGMT_CP project is to improve management of FHB and DON by evaluating integrated management strategies. Specific project objectives and expected outcomes include:

- 1) Evaluate the integrated effects of fungicide and genetic resistance on FHB and DON in soft red winter wheat with emphasis on double applications and new genotypes;
- 2) Generate data to conduct an economic analysis of the integrated effects of fungicide and resistance on FHB/DON;
- 3) Develop more robust “best-management practices” for FHB and DON; and
- 4) Generate data to advance the FHB and DON risk prediction effort.

To accomplish project objectives field trials will be conducted at multiple locations in Tennessee with two cultivars (moderately resistant and susceptible) and five fungicide treatments. Data from these trials and others in the MGMT_CP will be compiled and a technique called meta-analysis will be used to conduct a quantitative synthesis of the results. Based on findings from these studies, we will be able to identify management combinations that are effective, yet robust enough to allow growers more flexibility when managing FHB and DON.