Project Abstract

Project Title:	Evaluating fungicides for managing Fusarium head blight in Louisiana	
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Fusarium head blight (FHB) continues to be a major disease impacting wheat produced in Louisiana and is one reason Louisiana wheat acreage has declined. Effectively managing FHB is difficult because there is no highly effective single management practice (varieties or fungicides); therefore, an integrated approach is required. The goals of this project are: 1) develop effective integrated management strategies to limit FHB epidemics and reduce DON using genetic resistance and fungicides and 2) encourage stakeholders to incorporate these strategies into their production systems.

The objectives of this project are:

3) 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® and Sphaerex®.
4) Compare the efficacy of Prosaro Pro and Sphaerex® to that of Prosaro®, Caramba®, and Miravis Ace®.

Several expected outcomes generated from this project include: 1) identifying effective FHB management strategies incorporating soft red winter varieties with varying genetic resistance to FHB in combination with Prosaro Pro and Sphaerex to that of Prosaro, Caramba, and Miravis Ace and possible other effective fungicides and 2) determining the effectiveness of these fungicides in the absence of genetic resistance.

The objectives will be addressed in small plot trials planted to soft red winter wheat varieties (3) varying in resistance (susceptible, moderately susceptible/resistant, and resistant) to scab on two LSU AgCenter experiment stations (Macon Ridge and Dean Lee). Trials addressing objective two will be planted on three experiment stations (Ben Hur, Macon Ridge, and Dean Lee). The fungicide treatments, design, data collection, and analysis will be consistent with the recommendations outlined in the protocol for the Integrated management and Uniform fungicide trials outlined in the Coordinated Project. Misting systems will be used where feasible. On-farm demonstrations will also be conducted to provide stakeholders opportunities to evaluate new chemistries. Treatments will include Miravis Ace, Sphaerex, and Prosaro Pro applied at Feekes 10.5.2.

Information generated from these trials will add to the existing database of the USWBSI FHB Management project. This information will be especially important for Louisiana wheat producers since scab is a threat in the state.