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**Research Area: CBCC**

**Duration of Award: 1 Year**

**Project Title: Fungicide Efficacy Evaluations for Managing Scab in Louisiana Wheat.**

**PROJECT 1 ABSTRACT**

(1 Page Limit)

Louisiana has been a participating state in the USWBSI Uniform Fungicide Tests since 2004. The objective of this project is to evaluate fungicides for the management of FHB in Louisiana. Fungicides were evaluated in LSU AgCenter small field plot tests located at the Macon Ridge Research Station (northeast), Ben Hur Research Station (south central), and the Rice Research Station (southwest). Each location represents a unique environment (e.g. weather, soil type). Disease pressure was enhanced by distributing *F. graminearum* colonized corn (0.5 gm/0.09 m<sup>2</sup>) into plots several weeks prior to flowering and continued for several weeks thereafter. A misting system was utilized at the Macon Ridge Research Stations to provide conditions favorable for disease development. The system was activated several hours during the night and early morning. Select fungicides were evaluated each year, but treatments varied from year to year. Most fungicide treatments were applied at flowering using a handheld CO<sub>2</sub> charged spray boom, except Tilt which was applied at 50% heading. Disease incidence and severity was assessed in accordance to the USWBSI Uniform Fungicide Test materials and methods. Disease assessment data and grain quality measurements were compared using appropriate statistical procedures.

During 2003-04 scab severity was low at the Macon Ridge and Ben Hur locations. Severity was 0.72% or less at the Macon Ridge location and ranged from 0 (JAU6476 480SC 5.0 fl oz + 0.125% induce) to 13.8% (non-treated) at Ben Hur. Rainfall during harvest prevented harvest and seed collections for DON analysis. While Folicur did not significantly reduce scab severity relative to the non-treated, the experimental compound looked promising.

In 2004-05, scab pressure was low at all locations. Droughty conditions adversely impacted scab epidemics at all locations. Epidemics did not develop at the Ben Hur (Baton Rouge) or Rice Research Stations (Crowley). Low levels of scab were recorded at the Macon Ridge location. Incidence ranged from 1.67 to 9.17% and severity from 13.7 to 35.2%. No differences were observed for any parameters measured, but trends toward less scab were observed with the newer chemistries. This is consistent with results from last year.

During 2005-06, scab epidemics didn't develop at the Ben Hur and Rice Research Stations due to dry weather; however, incidence was low at the Macon Ridge Research Station. Scab incidence ranged from 2% (Prosaro) to 5% (Non-sprayed and Topgard). Scab index ratings were highest in the Non-sprayed (0.46) and lowest (0.21) in wheat treated with Folicur 3.6F @ 4.0 fl oz/A and Prosaro 6.5 fl oz/A. Yields did not differ among treatments.