FY05 USWBSI Project Abstract

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Project ID: 0506-SH-064 **FY04 ARS Agreement #:** 59-0790-4-123

Research Area: CBC **Duration of Award:** 1 Year

Project Title: Uniform Fungicide Trials for Control of Fusarium Head Blight.

PROJECT 1 ABSTRACT (1 Page Limit)

Fusarium head blight continues to be a devastating disease in many wheat-producing regions of North America. Damaging epidemics occurred in Indiana and other soft wheat states in 2003 and 2004. Successful management will require a combination of several management practices: crop rotation, host resistance, and chemical or biological control. To generate a large body of data on fungicide performance against FHB, a uniform trial was organized. Workers in several states in the Corn Belt and upper Midwest apply the same set of treatments to locally adapted cultivars of wheat or barley. This project is part of that cooperative effort. We will conduct one trial in west-central Indiana, under mist irrigation, and another trial in southeast Indiana where weather is often naturally favorable for head blight. In addition to the core set of treatments, agreed to by participants during the annual Scab Forum, additional treatments will be applied at other growth stages, to evaluate the effect of minor differences in fungicide application timing on efficacy. Efficacy of all treatments will be judged by intensity of symptoms in the field (incidence and severity), grain yield, test weight, kernel weight, incidence of scabby kernels, incidence of asymptomatic infection, and DON concentration in grain.

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This work is intended to identify fungicides that will provide an effective and economical disease management option for farmers. It will also provide data in support of federal registration of effective fungicides.