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Research Area: CBCC

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Project Title: Uniform Trial to Evaluate Efficacy of Fungicides and Biologicals against Scab.

PROJECT 2 ABSTRACT

(1 Page Limit)

In order to identify fungicides and biological products that are effective in minimizing damage from Fusarium head blight (FHB), uniform trials for FHB control have been established in spring wheat/barley regions and in winter wheat regions of the United States. The establishment of a uniform trial using a core set of treatments across a number of states allows evaluation of products and application methods for consistency of performance over a wide number of environments and across grain types affected by FHB. Also, because FHB does not occur every year in every location, having multiple sites for the uniform trial increases the chance of favorable results at some location each year.

The first years of the Uniform Fungicide Trial resulted in changes in product labels for use for the management of FHB by producers. The strobilurin fungicide Quadris received federal registration during the summer of 1999, the triazole fungicide Folicur was granted special exemption registrations for use in some states and the triazole fungicide Tilt was granted state labels for use against FHB. Valuable efficacy data on experimental or new fungicides have been obtained. Over the years of the Uniform Fungicide and Biologicals Trials, results in locations with FHB indicated favorable control with many of the tested products. Changes in application technology, which have improved efficacy, have also been incorporated into the Uniform Trials.

The University of Missouri has cooperated in the Uniform Fungicide and Biological Trials for a number of years. The 2006 uniform evaluation of fungicides and biologicals was conducted at the Bradford Research Center east of Columbia, MO. Although favorable environmental conditions for FHB infection occurred as the 2006 crop was flowering, conditions after flowering were not conducive for disease development. Both incidence and severity of FHB were quite low and DON levels in all treatments were below detectable levels.

The proposal for the 2006-2007 season is to continue participation in the Uniform Fungicide and Biologicals Trials. Winter wheat planted during the fall of 2006 is available for applications of fungicides and biologicals during the 2007 season.

This proposal is directly in line with the first priority of the Chemical, Biological and Cultural Control Research Area:

Uniform Tests:

Collaborative efforts to evaluate advanced fungicide treatments for effective and consistent performance against FHB of wheat (all classes) and barley across multiple environments.

Collaborative efforts to evaluate advanced biological control agents for effective and consistent performance against FHB of wheat (all classes) and barley across multiple environments.