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Project ID: 0506-HO-022

FY04 ARS Agreement #: 59-0790-3-080

Research Area: CBC

Duration of Award: 1 Year

Project Title: 2005 FHB Uniform Fungicide Trials on Winter Wheat, Spring Wheat and Barley.

PROJECT 1 ABSTRACT

(1 Page Limit)

Fungicide trials will be conducted at the Northwest Research and Outreach Center in Crookston, Minnesota on hard red winter wheat, spring barley, and hard red spring wheat cultivars. This research is part of an organized, multi-state cooperative effort to determine Fusarium head blight (FHB) control efficacy for select products during exposure to field conditions. Each trial location across the U.S. represents a unique environment, thereby exposing fungicides to a variety of disease control challenges. Performance parameters of fungicidal products must be well documented prior to public release. These trials provide timely, non-biased evaluations of products. Effective FHB control strategies minimize disease-related losses for growers, bolster economies of agriculturally-dependent communities, and provide a dependable source of small grains for consumers in the State of Minnesota, the United States and beyond.

The Minnesota experiments will include FHB susceptible winter wheat and barley cultivars, and a moderately susceptible spring wheat cultivar. Trials will be artificially inoculated with corn grain colonized by *F. graminearum* species and will be mist-irrigated at night to promote plant infection and FHB disease development. Each trial will consist of a nontreated control and six fungicide treatments. Crop disease responses to FHB, as well as yield and quality parameter data, will be recorded at appropriate plant growth stages.