

**PI: McMullen, Marcia**

**PI's E-mail: [mmcmulle@ndsuxext.nodak.edu](mailto:mmcmulle@ndsuxext.nodak.edu)**

**Project ID: FY07-MC-012**

**FY06 ARS Agreement #: 59-0790-4-114**

**Research Area: CBCC**

**Duration of Award: 1 Year**

**Project Title: Uniform Evaluation of Fungicides for Control of FHB in Multiple ND Grain Classes.**

### **PROJECT 1 ABSTRACT**

(1 Page Limit)

The 2006 growing season was marked by extreme drought and high temperatures in most of the Plains states, including the spring grain region of ND. Because of this, FHB disease levels were abnormally low, even in misted and inoculated plots, primarily because high temperatures inhibited *Fusarium graminearum* development. The 2006 uniform fungicide protocol included testing of a product not tested before in these uniform trials (thiophanate-methyl), and also was intended to gather more information about efficacy of some non-registered products. Because data was very limiting from the 2006 trials, this project will re-examine these treatments, and continue the collaborative effort among research/extension centers in North Dakota testing fungicides across multiple environments and grain classes. Test grain classes will include hard red spring wheat, durum wheat and spring barley. These uniform trials are part of a cooperative effort to test fungicide treatments across multiple states that have experienced FHB. The establishment of a core set of uniform treatments across a number of states allows evaluation of products or product combinations for consistency in performance over a wide number of environments and different degrees of severity of FHB. North Dakota test locations provide an opportunity to evaluate the set of fungicide treatments across three grain classes. North Dakota has large acreages of small grain across the state, and many regions of the state have suffered from severe FHB infections in the past, and most recently in 2005. The uniform fungicide treatments will be established at Fargo in the southeast - on barley and hard red spring wheat, in Carrington in the central region - on hard red spring wheat and durum, and at Langdon in the northeast - on spring wheat, durum, and barley.

This project addresses the following FY07 Research Priority of the Chemical, Biological, and Cultural Control research area of the U.S. Wheat and Barley Scab Initiative:

**\*Uniform Tests:**

° Collaborative efforts to evaluate advanced fungicide treatments in solo and as tank mixes of efficacious active ingredients for effective and consistent performance against FHB of wheat (all classes) and barley across multiple environments.