PI: McMullen, MarciaPI's E-mail: mmcmulle@ndsuext.nodak.eduProject ID: FY06-MC-055FY05 ARS Agreement #: 59-0790-4-114Research Area: CBCCDuration of Award: 1 YearProject Title: ND Uniform Fungicide Trials Across Multiple Sites and Grain Classes.

PROJECT 2 ABSTRACT

(1 Page Limit)

This project will continue the collaborative effort among four research/extension centers in North Dakota to evaluate experimental fungicides for effectiveness and consistency in performance against FHB across multiple environments and grain classes. Test grain classes will include hard red spring wheat, durum wheat and spring barley. Hard red winter wheat also may be included at one site. 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. Testing in North Dakota also provides opportunity to test across a range of environments where these grains are grown, environments that may or may not be suitable for FHB infection in a given year. 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, in Minot in the north central region - on hard red spring wheat and durum, and at Langdon in the northeast - on spring wheat, durum, and barley. In 2005, disease levels were high at most locations and good evaluation of fungicide differences was possible.

At the time of preparing the pre-proposal, fungicide treatments for 2006 had not yet been finalized. Final treatments will be decided during the month of March. These treatments will be dependent, in part, on 2005 results, and on availability of any new chemistries. Information from these trials has been extremely valuable in providing data to EPA for special registrations of fungicide and also will be critical for registration requests for newer chemistries that show promise for better disease control than fungicides currently available.