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Project Title: Collaboration on Uniform Fungicide Trials in South Dakota.

PROJECT 1 ABSTRACT

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Fungicide trials will be established on hard red spring wheat and hard red winter wheat at multiple sites in South Dakota. Trials will also be conducted on barley at one location. Treatments will reflect uniform fungicide treatments for Fusarium head blight (FHB) control that will be established for the FHB Management research area and to be studied in multiple states where spring wheat/barley and winter wheat are grown in the United States. This core set of treatments across a number of states allows evaluation of products and methods for consistency in 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, regardless of attempts to ensure infection through added inoculum or misting systems, having the trials across environments increases the chance of favorable disease levels for evaluation across multiple sites. Tentatively the core treatments will mirror 2007 treatments.

The triazole fungicide Folicur (tebuconazole) has been granted special exemptions for use in recent years. The most efficacious fungicides identified are in the triazole group, yet EPA has not completed a final review of this chemistry. Earlier this year, Proline (prothioconazole) was granted a full Federal Section 3 label and adds to the product spectrum available. However, providing data for special labels (until tebuconazole attains Section 3 labeling) and upcoming products is a very important function of this research area. Greater study is needed to assure producers of the efficacy of these new fungicide treatments against multiple diseases and against all the risks of scab, not limited to the disease or yield losses, but also including the mycotoxin hazard.

The proposed studies will be accomplished in coordination with several other projects at South Dakota State University. Planting and harvest for some plots at some remote locations will be conducted by the breeding projects. The screening of chemical treatments offers the best hope of immediate management tools for producers.