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FY10 ARS Agreement #: 59-0206-9-050

Research Category: MGMT

Duration of Award: 1 Year

Project Title: Uniform Fungicide Trials for Control of FHB and DON on wheat in South Dakota.

PROJECT 2 ABSTRACT

(1 Page Limit)

The effect of fungicides and biocontrol agents on Fusarium head blight (FHB) and deoxynivalenol (DON) levels will be evaluated on hard red winter wheat and hard red spring wheat at two locations in Eastern South Dakota. Regionally adapted, FHB susceptible cultivars will serve as the host crops. To help ensure development of FHB, plots will be planted into fields that were previously cropped to corn or wheat, and *Fusarium graminearum* spawn (*F. graminearum* growing on a substrate; i.e. sterile corn kernels) will be spread throughout the plots as inoculum. At the Brookings, SD location, irrigation during head development through soft dough (Feekes 11.2) will be used to supplement natural rainfall to ensure a favorable environment for *F. graminearum* infection and disease development. Data from South Dakota trial locations will be combined with others participating in the Uniform Fungicide and Biocontrol Trials to be analyzed. Reports generated will aid in developing and disseminating management plans for wheat and barley crop managers.