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Project Title: Uniform Evaluation of IPM Practices for FHB in Multiple Grain Classes, ND.

PROJECT 2 ABSTRACT

(1 Page Limit)

Despite some gains in control of Fusarium Head Blight (FHB) through the use of moderately resistant spring wheat cultivars or fungicide application, the control achieved still falls short of what is required by both the primary producer and the industries utilizing grain. A number of crop management strategies have been shown to have an effect in reducing FHB and it is likely that an integrated system, where a number of management strategies are employed together, has the potential to more substantially reduce FHB and DON in a number of small grain classes. What is required for adoption by farmers of an integrated system of management strategies is a series of trials which can demonstrate which of the available management strategies give the best control in any one grain class or cropping zone and more importantly, to demonstrate that applying more than one management strategy can increase the control of FHB. The objectives of this project therefore are to 1) demonstrate that integrated management is the most effective means of reducing losses caused by FHB/DON and 2) increase grower adoption of integrated strategies by demonstration of their effectiveness in a wide range of environments. This project is one of several being undertaken simultaneously across the FHB prone areas of the US. Treatments in the experiments in this North Dakota project will include combinations of 1) previous crop, either host or non-host), 2) cultivars with differing degrees of resistance to FHB ranging from susceptible to resistant, and 3) plus or minus the use of the current best fungicide. Experiments will be conducted on multiple sites and on spring wheat, winter wheat, durum wheat and barley. The outcome of this project will be a series of management recommendations for industry on the use and impact of integrated management strategies FHB and DON in spring wheat, winter wheat, durum wheat and barley.