

PI: Joel Ransom

PI's E-mail: joel.ransom@ndsu.edu

Project ID: FY14-HW-004

ARS Agreement #: 59-0206-1-116

Research Category: HWW-CP

Duration of Award: 1 Year

Project Title: Verification of the Value of Genetic Resistance and Fungicides on the Control of FHB in Winter Wheat in North Dakota.

PROJECT 2 ABSTRACT

(1 Page Limit)

Controlling FHB is challenging and requires an integrated approach. Information is needed to help quantify the importance of varietal resistance, fungicides and their combination on FHB control and winter wheat productivity and profitability. The performance of new varieties with FHB resistance needs to be tested in regions of the state where FHB is problematic, with and without the use of fungicides. The integration of resistant varieties and fungicides may provide the desired level of FHB control, particularly in years of high disease pressure. Farmers need to observe and review information about new varieties in locations near their farms and with management practices that are similar to their own before they will adopt them. Experiments will be conducted at the Carrington REC near Carrington, ND under a mist systems to test the effect of high levels of FHB pressure on the effect of variety resistance and fungicides on the control of FHB and on yield. Data will be presented at regular extension meetings where FHB is discussed. The results minus the experimental lines will be posted on the web with other yield trials. These data will also be used to determine the level of resistance of varieties that are listed on ScabSmart. Information on local adaptation of new varieties and promising lines and their resistance to FHB will be developed. Additionally, information on the effectiveness of fungicides on the control of FHB and other diseases and the profitability of their use we be generated along with information on the value of an integrated approach to FHB control.