

Project Title: Stripe Rust Evaluation of Experimental Winter Wheat Lines

Project leader: Bob Stougaard

Project personnel: Brooke Bohannon, Jim Berg, and Phil Bruckner

Objective: Evaluate experimental winter wheat lines for resistance to stripe rust.

A total of 560 experimental lines were established in order to screen germplasm for resistance to stripe rust. Entries were planted in individual hills consisting of about 15 seeds each, on September 26, 2012. The materials were evaluated for stripe rust infection on July 5 and July 15.

There was tremendous diversity in susceptibility to the disease. Ratings varied from 99 percent infection to less than 5 percent infection during both ratings dates. Disease severity increased as the season progressed. Averaged over all entries, stripe rust infections levels were 35% and 56% on July 5 and July 15, respectively. At the July 5 rating, 40 percent of the entries demonstrated 20% infection or less. In contrast, 10 percent of the entries were rates as 20% or less at the July 15 rating. Sixty three of the most promising entries were selected for further evaluation.

Summary:

Several experimental lines demonstrated excellent resistance to stripe rust.

Funding Summary: Budget information to be provided by OSP. No other grant support for this project.

MWBC FY 2014 Grant Submission Plans: Resubmittal is planned.