

**U.S. Wheat and Barley Scab Initiative
Annual Progress Report
September 18, 2000**

Cover Page

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Year:	FY2000
Grant Number:	59-0790-9-066
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$15,000.00

Project

Program Area	Objective	Requested Amount
Variety Development & Uniform Nurseries	Accelerate development of resistant varieties.	\$15,000.00
	Requested Total	\$15,000.00

Principal Investigator

Date

Project 1: Accelerate development of resistant varieties.

1. What major problem or issue is being resolved and how are you resolving it?

We had an excellent FHB evaluation nursery this year. Last year, in our 1999 FHB nursery the infection rate was too low to distinguish differences between resistant and susceptible genotypes because of the extremely dry weather. Consistency of the evaluation in different environments is clearly a problem that needs work. It seems that the amount of water that is applied needs to be adjusted on a daily basis so that it is not too wet or too dry. This coming year we will make some adjustments to the timing and rate of misting. Lodging was a problem this year because of eyespot. We are looking at control measures for this disease. More rapid screening and evaluation methods are greatly needed.

2. Please provide a comparison of the actual accomplishments with the objectives established.

All early generation bulks from the first year of crossing resistant lines and current cultivars were advanced in the greenhouse. Two new sources of FHB resistance were selected from the Cornell FHB nursery (TW96273 and NY87048W-7388) to be used in our crossing block. We had an excellent season for FHB evaluation that helped us identify several new candidates for the cooperative FHB nursery. Therefore, we are on schedule with both our breeding and evaluation objectives.

3. What were the reasons established objectives were not met? If applicable.

We are on schedule to meet objectives. Selections from our resistant by susceptible bulks will be made this coming season.

4. What were the most significant accomplishments this past year?

Our field evaluations worked very well this year and show good agreement with results from other states giving us confidence in the results. Clearly there are a number of lines that are showing reasonably good resistance now that can be released or used in crossing to pyramid resistance genes.

Include below a list of the publications, presentations, peer-reviewed articles, and non-peer reviewed articles written about your work that resulted from all of the projects included in the grant. Please reference each item using an accepted journal format. If you need more space, continue the list on the next page.