

**U.S. Wheat and Barley Scab Initiative
Annual Progress Report
September 15, 1999**

Cover Page

PI:	Mark Sorrells
Institution:	Cornell University
Address:	Department of Plant Breeding 252 Emerson Hall Ithaca, NY 14853
Email:	mes12@cornell.edu
Phone:	607-255-8092
Fax:	607-255-6683
Year:	FY1999
Grant Number:	59-0790-9-066
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$14,634.00

Project

Program Area	Objective	Requested Amount
Variety Development	Accelerate development of resistant varieties.	\$15,000
	Requested Total	\$15,000¹

Principle Investigator

Date

¹ Note: The Requested Total and the Amount Granted are not equal.

Project 1: Accelerate development of resistant varieties.

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

In our 1999 FHB nursery the infection rate was too low to distinguish differences between resistant and susceptible genotypes this year. It was probably caused by the extremely dry weather because our system has worked well in past years. We hope to solve this problem by increasing the number of mist nozzles next year.

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

Two new sources of FHB resistance were selected from the Cooperative FHB nursery (P89118RC1-X-9-3-3-3 and NY87048W-7387) and used in our crossing block. Thirty new hybrids were produced that are currently being advanced in the greenhouse. Those hybrids included crosses with current cultivars and breeding lines. We were unable to evaluate our new lines this year due to the extremely dry weather and consequently low infection rate and severity. Therefore, we are on schedule with our breeding objectives but evaluation objectives were not accomplished.

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

The primary reason for the poor evaluation results this year was the dry weather. The amount of misting on the plots has to be sufficient to allow infection but too much water can cause other problems such as lodging, disease, anerobic soil conditions. In past years, we had excellent infection rates. We will evaluate the amount of misting applied to the plots again in 2000.

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

The new hybrids with improved sources of resistance likely to be much more useful in our breeding program than the original materials from China as they are better adapted.

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Progress Report

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.

None.