

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

Cover Page

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Year:	FY2000
Grant Number:	59-0790-9-069
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$5,000.00

Project

Program Area	Objective	Requested Amount
Chemical & Biological Control	Identify safe, effective fungicides for FHB through evaluation across of wheat and/or barley varieties grown in relevant environments.	\$5,000.00
	Requested Total	\$5,000.00

Principal Investigator

Date

Project 1: Identify safe, effective fungicides for FHB through evaluation across of wheat and/or barley varieties grown in relevant environments.

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

The Uniform Scab Fungicide Trial was set up to identify safe fungicides that are most effective against FHB. A given set of fungicides is being evaluated for consistency in performance across a number of wheat classes and varieties, barley varieties and environments. Missouri is participating in this uniform scab fungicide trial. The set of fungicides was applied to two soft red winter wheat varieties and data was collected on FHB incidence, head severity, foliage disease severity, yield and test weight. The trial has been completed, data analyzed and final reports are being submitted.

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

The objectives of this project have been accomplished. The 2000 season was not particularly conducive for the development of FHB at the site of this trial in central Missouri. Neither of the two soft red wheat varieties developed significant levels of FHB. Data was collected on foliage disease severity, yield and test weight. FHB incidence and head severity were less than 1% in all plots. Because of the low level of FHB, analysis for ppm DON was not warranted.

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

The Uniform Scab Fungicide Trial was conducted in Missouri during the 1999-2000 season; but severe drought conditions as the wheat was flowering limited the incidence and severity of Fusarium head blight in the Missouri field trial. The value of conducting the Uniform Scab Fungicide Trial across a number of locations in a number of states is that although data may not be available from every state every year because of unfavorable conditions for FHB development, the multiple site approach increases the chances of data from some sites each year. Thus, meaningful results for the United States can be obtained even though not all sites had FHB outbreaks.

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

The Uniform Scab Fungicide Trial was conducted in Missouri. No difficulties were encountered in planting, maintaining or harvesting the trial. Dry weather as the crop was flowering limited development of FHB in the trial.

Year: 2000
PI: Laura Sweets
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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.

Presentations:

Update on Field Crop Diseases at Ag Crop Management Conference, November 1999
Columbia, MO

Discussion on Field Crop Diseases during Grain Crop Producers Meeting, January 2000
Carrollton, MO

Update on Field Crop Diseases during Commercial Pesticide Applicators Recertification Program, January 2000
Columbia, MO

Wheat Variety Tour, May 2000
Lamar, MO

Wheat Troubleshooting Sessions, June 2000
Sedalia and Ionia, MO

Hail School, June 2000
Columbia, MO

Field Tour for Missouri Regional Extension Staff, June 2000
Columbia, MO

Field Crop Disease Sessions during Crop Injury Diagnostic Clinic, August 2000
6 sessions
Columbia, MO

Wheat Disease Update at Illinois Wheat Producers Meeting, August 2000
Highland, IL

Publications:

Sweets, L.E. 2000. Evaluation of fungicides for control of Fusarium head blight and leaf diseases on winter wheat. 1999. Fungicide and Nematicide Tests 55: in press.

Sweets, L.E. 2001. Evaluation of fungicides for control of Fusarium head blight and leaf diseases on winter wheat. 2000. Fungicide and Nematicide Tests 56: submitted.

Sweets, Laura E. 2000. Wheat Diseases. University of Missouri Integrated Pest Management Series. In press.