

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

Cover Page

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Year:	FY1999
Grant Number:	59-0790-9-069
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$4,878.00

Project

Program Area	Objective	Requested Amount
Chemical & Biological Control	Develop and implement systems for disseminating chemical and biological control research information in a timely fashion to producers.	\$1,000
Chemical & Biological Control	Identify safe, effective fungicides for FHB through evaluation across of wheat and/or barley varieties grown in relevant environments.	\$4,000
	Requested Total	\$5,000¹

Principle Investigator

Date

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

Project 1: Develop and implement systems for disseminating chemical and biological control research information in a timely fashion to producers.

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

The objective of this project is to disseminate results of the 1999 fungicide trials and other information on FHB and its management to producers and agribusiness personnel in a timely fashion. Means of information dissemination include preparation of research reports and extension bulletins, placement of information in appropriate sites on the world wide web and presentation of results and information at meetings, field days and other educational programs.

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

Work on this objective is still very much in progress, so the objective has not yet been accomplished. I have discussed the Uniform Scab Fungicide Trial, the overall U.S. Wheat and Barley Scab Initiative and general information on FHB at a number of field days and educational meetings over the last four months. There has been strong interest and support for the Initiative and for the local efforts. I am in the process of preparing the final report on the Uniform Scab Fungicide Trial for Missouri and will submit this for publication in Fungicide and Nematicide Trials as well as to Dr. Marcia McMullen, project coordinator, for compilation with reports from other cooperating states. We are in the process of preparing an extension bulletin or MU Guide on Fusarium Head Blight of Wheat. Hopefully, this will be completed in time for use in the 1999-2000 winter meeting season. I am also in the process of developing a web site and should have the trial results and other information of FHB posted on this web site within a month or so.

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

Objectives are being met. Funding was not obtained until late this spring and trial was only recently completed. We are working diligently on various means of disseminating this information.

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

Final report on the Uniform Scab Fungicide Trial for Missouri is almost ready for submission to project coordinator and to Fungicide and Nematicide Trials. Information should be available on web site in near future.

Project 2: 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, ppm DON, yield and test weight. The trial has been completed, data is being analyzed and final reports are being prepared.

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

The objectives of this project have been accomplished. The 1999 season was not particularly conducive for the development of Fusarium head blight at the site of this trial in Missouri. One of the soft red winter wheat varieties used in the trial did develop low levels of scab. It was possible to collect all pertinent data for this variety. The other variety had little to no scab. Data was collected on foliage disease severity, yield and test weight for this variety but data on FHB incidence and head severity was so low that analysis for ppm DON was not warranted.

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

The trial was conducted during the 1998-99 season; but unfavorable environmental conditions for the development of Fusarium head blight limited the incidence and severity of the disease in this field trial. The trial was conducted. Results were obtained for one soft red winter wheat variety and partial results were obtained for the other soft red winter wheat variety.

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. However, useful information on the efficacy of the test fungicides on foliage disease severity and FHB was still obtained.

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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:

Southeast Missouri Wheat Tours, May 1999

Portageville, MO
Dexter, MO
New Madrid, MO

Wheat Variety Tour, June 1999

Lamar, MO

Field Crop Disease Presentation for Agrijusters Training School, July 1999

Field Crop Disease Sessions during Crop Injury Diagnostic Clinic, August 1999

6 sessions

Field Crop Disease Presentation at Missouri Seed Producers Field Day, August 1999