

**U.S. Wheat and Barley Scab Initiative
 FY00 Final Performance Report (approx. May 00 – April 01)
 July 30, 2001**

Cover Page

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Year:	FY2000 (approx. May 00 – April 01)
Grant Number:	59-0790-9-069
Grant Title:	Fusarium Head Blight Research
2000 ARS Award Amount:	\$4,878

Project

Program Area	Project Title	Requested Amount
Chemical & Biological Control	Uniform fungicide trials to identify safe products that are effective against FHB.	\$5,000.00
	Requested Total	\$5,000.00¹

Principal Investigator

Date

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

Project 1: Uniform fungicide trials to identify safe products that are effective against FHB.

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. This year the trial was expanded to include two biological materials as well as chemical fungicides. Missouri is participating in this uniform scab fungicide trial. The set of fungicides and biologicals 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 and data is being analyzed prior to completion of current year's report.

2. What were the most significant accomplishments?

The Uniform Scab Fungicide Trial was conducted in Missouri this season. No difficulties were encountered in planting, maintaining or harvesting the trial. Timely rains as the wheat was flowering led to the development of FHB in both soft red wheat varieties. Field ratings indicated a difference in scab levels among the various fungicide and biological treatments. However, yield data did not show a statistically significant difference in yield between the untreated check and any of the treatments. Likewise, the mycotoxin DON was detected in samples in all replications for all treatments.

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 2000, Columbia, MO

Update on Field Crop Diseases during Commercial Pesticide Applicators Recertification Program, January 2001, Springfield, Kansas City and Columbia, MO

Crop Scouting School, March 2001, Lamar, MO

Wheat Variety Tour, June 2001, Lamar, MO

Hail School, June 2001, Columbia, MO

Field Crop Disease Sessions (six sessions) during Crop Injury Diagnostic Clinic, July 2001, Columbia, MO

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 55:357.

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. Online publication.