

**U.S. Wheat and Barley Scab Initiative
 FY02 Final Performance Report (approx. May 02 – April 03)
 July 15, 2003**

Cover Page

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| Year: | FY2002 (approx. May 02 – April 03) |
| Grant Number: | 59-0790-9-069 |
| Grant Title: | Fusarium Head Blight Research |
| FY02 ARS Award Amount: | \$ 5,854 |

Project

| Program Area | Project Title | USWBSI Recommended Amount |
|---------------------|--|----------------------------------|
| CBC | Uniform Fungicide Trial to Identify Fusarium Head Blight Effective Products. | \$6,000 |
| | Total Amount Recommended | \$6,000 |

Principal Investigator

Date

Project 1: Uniform Fungicide Trial to Identify Fusarium Head Blight Effective Products.

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 effective against FHB. A given set of fungicides is being evaluated for consistency of performance across a number of wheat classes and varieties, barley classes and environments. For the past several years the trial has been expanded to include biological materials as well as chemical fungicides. 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 field work for this trial has just been completed. Data is being analyzed for the annual 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. Although timely rains did occur as the wheat was flowering, the rains were accompanied by cooler than normal temperatures. Development of FHB was slow but when head ratings were taken FHB was widespread through the plot area. Furthermore, the cool, wet conditions favored the development of stripe rust throughout the trial as well. Field ratings for stripe rust varied greatly among the treatments, while the fungicide and biological treatments did not seem to have any affect on the incidence or severity of FHB. Counts on scabby kernels per plot and results from DON analysis are not yet available.

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:

Crop Injury Diagnostic Clinic, Field Crop Disease Session, July 2002, Columbia, MO

Update on Field Crop Diseases at Crop Management Conference, December 2002, Columbia, MO

Update on Field Crop Diseases during Commercial Pesticide Applicator Recertification, January 2002, Kansas City and Columbia, MO

Wheat Diseases, MFA Training, February 2002, Columbia, MO

Crop Scouting Schools, ten locations through state, Columbia, MO

Hail School, June 2002, Columbia, MO

Publications:

Sweets, L. E. 2002 Evaluation of fungicides for the control of Fusarium head blight and leaf diseases on 'Elkhart' and 'Pioneer variety 2540' winter wheat in Missouri. 2002 National Fusarium Head Blight Forum Proceedings. pp. 123-126.

Missouri data included in:

Hershman, D. E. and E. A. Milus. 2002. Analysis of the 2002 uniform wheat fungicide and biological trials across locations. 2002 National Fusarium Head Blight Forum Proceedings. pp. 82-87.