

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

Cover Page

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Year:	FY2000
Grant Number:	59-0790-9-042
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$4,878.00

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.	\$4,000
Chemical & Biological Control	Develop and implement systems for disseminating research information in a timely fashion to producers.	\$1,000
	Requested Total	\$5,000¹

Principal Investigator

Date

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

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?

We tested the efficacy of various foliar fungicidal treatments for possible use by wheat farmers for managing Fusarium Head Blight (FHB). Fungicidal treatments were evaluated in field plots, under natural conditions for infection, at two locations in Kentucky. Data were collected for FHB incidence and severity, other foliar/head diseases, crop yield and test weight, and vomitoxin levels for each treatment. Results were analyzed statistically to determine any significant differences among treatments.

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

Disease levels were insufficient at either test location to effectively evaluate fungicide efficacy. However, the lack of response and low disease levels indicate that routine, scheduled use of fungicides for managing FHB may not be economical. Thus, even where efficacy is found to be adequate for a particular treatment, efforts need to be made for developing a fungicide need forecasting system. Test plots were featured at two field days. Farmers were informed as to: 1) the source of funds for the project, 2) the rationale for the studies and the procedures used, and 3) the reality regarding the volatile, but random, occurrence of FHB in Kentucky and possible problems when deciding if and when a fungicide might be used for managing FHB

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

Tests relied on natural infection by the fungi that cause FHB. This is the most desirable means to test fungicide efficacy, but there is a risk that disease conditions may not be adequate to differentiate treatments. Unfortunately, natural disease conditions were extremely low during 2000 in both test locations.

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

Our awareness and education of farmers that foliar fungicides cannot be applied on a scheduled basis because of the lack of FHB pressure in many years. Thus, in many years, even highly effective products (should they be found) would not result in a favorable economic return because of insufficient disease pressure to justify a fungicide treatment. Disease forecasting systems need to be developed.

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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.

Hershman, D.E., Jones, S., and VanSickle, S. 2000. 1998-99 National Fusarium Head Blight Uniform Fungicide Test. pp. 42-43, IN University of Kentucky Wheat Science Research Report, 1998-99. Published by the University of Kentucky Wheat Science Group.