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

Cover Page

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Year:	FY1999
Grant Number:	59-0790-9-032
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$4,878.00

Project

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

Principle Investigator	Date

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

Year: 1999 Progress Report

PI: Martin A. Draper Grant: 59-0790-9-032

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 problem is being addressed through examining new methods of managing Fusarium head blight through fungicide use. Twenty treatment combinations were compared on two hard red spring wheat cultivars in two locations. Fourteen treatment combinations were applied to two hard red winter wheat cultivars. Additionally a biological control agent was tested at one location on one hard red spring wheat cultivar.

Grower scale trials with Folicur were applied to three commercial fields with comparisons of combinations of nozzle types, gallonage applied, and ground vs. aerial application equipment.

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

Results are incomplete. Indications are that there may be differences among the fungicide products tested. Of the two South Dakota environments in the test, Groton had much less Fusarium head blight develop than South Shore. Both spring wheat and winter wheat at South Shore developed Fusarium head blight.

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

Data analysis is not yet complete. Data collection is still underway for vomitoxin (DON) levels and Fusarium damaged kernels (FDK).

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

Demonstrations of the effectiveness of fungicide treatments in suppressing scab and providing a side benefit of suppressing leaf disease was very successful for growers that toured the plots.

Year: 1999 Progress Report

PI: Martin A. Draper Grant: 59-0790-9-032

Project 2: Develop and implement systems for disseminating research information in a timely fashion to producers.

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

Grower education is a major concern that is being addressed. Growers are being educated on the importance of Fusarium head blight and the effectiveness of available chemical treatments.

Fusarium head blight was addressed at three grower field days. Press releases have been distributed four times during the summer to alert growers to the availability of a chemical treatment. The press releases were "Section 18 clearance for Folicur," "Time to treat winter wheat for Fusarium head blight suppression," "Time to treat spring wheat for Fusarium head blight suppression," and "Scab severity on winter and spring wheat was high in 1999".

Postings have also been made to the Internet with current status of the disease and availability of fungicide treatment products.

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

There remains a window for timely communication of the information to growers. Data collection and analysis are not yet completed.

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

Data collection and analysis are not yet completed.

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

Though traditional delivery means, growers were favorably impressed with the performance of the Section 18 product Folicur, both in experimental plot trials and in commercial fields.

Year: 1999 Progress Report

PI: Martin A. Draper Grant: 59-0790-9-032

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.

No publications resulting from this grant have been prepared at this time. As data collection and analysis is completed, reports will be forthcoming.

Upon completion of the project, an update of the project will produced in paper format and for publication on the Internet.