

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

Cover Page

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Year:	FY1999
Grant Number:	59-0790-9-074
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$179,512.00

Project

Program Area	Objective	Requested Amount
Information Technology	To provide facilitation and network information to all scab research projects and make information available to public.	\$114,000
Variety Development	To enhance variety development of scab resistant varieties.	\$70,000
	Requested Total	\$184,000¹

Principle Investigator

Date

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

Project 1: To provide facilitation and network information to all scab research projects and make information available to public.

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

Scab affects the industries and people involved in virtually every stage of the production, processing, and distribution systems of five market classes of wheat and barley in over twenty states within the United States. The people and activities of the U.S. Wheat and Barley Scab Initiative correspondingly interact with a very large and complex array of institutions, industry sectors, geographic regions, and research disciplines. **The problem addressed with this project is the reduced rate of solution discovery induced by the gap between what is possible and what is real in the realm of communication systems within and among the groups engaged in and supporting scab research.** We are addressing this problem by 1) establishing a dedicated Networking and Facilitation Office (NF&O) staffed with one full-time position dedicated solely to facilitating communications and communication system development; and 2) identification and implementation of internet-based communication and collaboration mechanisms. The NF&O also provides administrative support to the various committees and associated conferences associated with the Initiative, including annual resolution of a comprehensive national research plan and budget.

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

The NF&O is established and staffed. A second issue of the "Scab Newsletter" has been published, and a third is in production. The call for proposals for the FY2000 research plan was developed, and annual progress reports for the FY1999 projects have been collected and forwarded to the USDA-ARS. Planning for the 1999 National Scab Forum is well underway. A research symposium has been organized at the American Society of Agronomy meetings in November of 1999. The Initiative web-site has not as of yet been expanded and updated as planned.

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

This project's funds were not available until May of 1999.

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

Establishment and staffing of the NF&O, resolution of the reporting and grant review process.

Project 2: To enhance variety development of scab resistant varieties.

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

This project targets development of scab-resistant soft white winter wheat adapted to Michigan and surrounding areas. No such varieties now exist. Funds from this project are used to expand and amplify the soft white winter wheat scab-resistance breeding program at Michigan State University. This involves both greenhouse and field scab reaction screening systems, increased investments in creating, advancing, and evaluating breeding populations and lines with both scab resistant and Michigan-adapted parentage. We put particular emphasis on greenhouse evaluation and rapid-generation advancement systems.

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

Scab resistant parents were used in several hundred crosses completed during the first months of this project. Field screening of advanced lines was conducted. A full-time associate scab breeding position (in addition to the primary plant breeder) was established and staffed three months after the onset of the grant.

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

The majority of the targeted work is only just beginning due to both the timing of fund deployment and to the natural cycle of the wheat plant.

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

Hiring of the associate scab breeder, field screening of advanced lines, generation of several hundred breeding populations with both adapted and scab-resistant parents.

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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.

Information Network:

- The second issue of the Scab Newsletter.

Breeding of scab resistant varieties:

- None to date.