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

Cover Page

PI:	**Paul Schwarz**
Institution:	**North Dakota State University**
Address:	**Department of Cereal Science** **Fargo, ND 58104**
Email:	**Paul_Schwarz@ndsu.nodak.edu**
Phone:	**701-231-7732**
Fax:	**701-231-7723**
Year:	**FY1999**
Grant Number:	**59-0790-9-063**
Grant Title:	**Fusarium Head Blight Research**
Amount Granted:	**$136,585.00**

Project

Program Area	Objective	Requested Amount
Food Safety, Toxicology, Utilization	Diagnostic services for DON.	$50,000
Food Safety, Toxicology, Utilization	Investigate utilization of contaminated grain.	$90,000
	Requested Total	$140,000[1]

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Principle Investigator Date

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

Project 1: Diagnostic services for DON.

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

   DON analytical services are provided to seven collaborating researchers at three barley varietal development programs. Approximately 4,500-8,000 samples are received and analyzed each year. The major issue is to provide the DON analytical services in a cost effective, timely and accurate manner. Funds provided by the US Wheat and Barley Scab Initiative have allowed us to hire additional personnel, and to subsidize the cost of analysis.

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

   The major objective of this project was to provide DON analytical services at minimal cost. This objective has been accomplished in that each collaborator has (will) received 380 samples analyses at no cost. The price for each additional sample has been reduced $1.00/sample from 1998. Additional personnel will help to speed sample preparation and analysis.

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

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

   The most significant accomplishment was the reduction in the cost of DON analysis. These savings have been directly passed on to the seven collaborating scientists. In addition, new quality control and reporting measures have been adopted, which should help to increase confidence in sample analysis.

Project 2: Investigate utilization of contaminated grain.

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

   The major issue is to investigate physical, biological and chemical control strategies that would permit the malting of some *Fusarium* infected barley. The growth of *Fusarium* and production of fungal metabolites during the malting process are to be first established. The effect of alterations in process (malting) parameters and various chemical and biological agents on *Fusarium* growth are to be evaluated next. This project requires pilot malting equipment.

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

   Actual accomplishments are six months behind those stated in the objectives.

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

   Funds for the purchase of the pilot malting equipment were not available until May 1999. The unit was ordered in June 1999, but will not be received until October 1999.

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

   No accomplishments to report during this period.

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.

None.