

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

Cover Page

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Year:	FY2000
Grant Number:	59-0790-9-075
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$40,000.00

Project

Program Area	Objective	Requested Amount
Food Safety, Toxicology, Utilization	Diagnostic services for DON.	\$30,000.00
	Requested Total	\$30,000.00 ¹

Principal 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?

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

The objective of this project is to provide mycotoxin analyses, especially for deoxynivalenol (DON), for *Fusarium* Head Blight (scab) research projects conducted in Minnesota, including several departments and experiment stations of the University of Minnesota and the USDA Cereal Disease Laboratory.

In the 1999/2000 crop year (from July 1, 1999 to June 30, 2000), a total of 5,518 samples were analyzed for DON and related mycotoxins by the project. Among them, 973 samples were from scab project outside of Minnesota. The sample types included bulk samples (mature kernels) as well as single kernels, single spikelets and single heads at different disease stages.

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

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

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Progress Report

The project provided quick and accurate mycotoxin analyses for increasing number of scab research projects. A large number of samples were analyzed. The single kernel and single spikelet analyses provided unique support for some scab research projects.

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.

Evans, C. K; Xie, W; Dill-Macky, R; Mirocha, C. J. Biosynthesis of Deoxynivalenol in Spikelets of Barley Inoculated with Macroconidia of *Fusarium graminearum*. *Plant Diseases*. 2000, 84(6), 654-660.