

**USDA-ARS/
U.S. Wheat and Barley Scab Initiative
FY09 Final Performance Report
July 15, 2010**

Cover Page

PI:	Olin Anderson
Institution:	USDA-ARS
Address:	Genomics and Gene Discovery (GGD) 800 Buchanan St. Albany, CA 94710
E-mail:	olin.anderson@ars.usda.gov
Phone:	510-559-5773
Fax:	510-559-5777
Fiscal Year:	2009
USDA-ARS Agreement ID:	NA
USDA-ARS Agreement Title:	Maintain and Improve the U.S. Wheat & Barley Scab Initiative's Website.
FY09- USDA-ARS Award Amount:	\$ 38,500

USWBSI Individual Project(s)

USWBSI Research Category*	Project Title	ARS Adjusted Award Amount
EC-HQ	USWBSI's Networking and Facilitation Office, and Website.	\$ 38,500
	Total Award Amount	\$ 38,500

Principal Investigator

Date

*

MGMT – FHB Management
 FSTU – Food Safety, Toxicology, & Utilization of Mycotoxin-contaminated Grain
 GDER – Gene Discovery & Engineering Resistance
 PBG – Pathogen Biology & Genetics
 BAR-CP – Barley Coordinated Project
 DUR-CP – Durum Coordinated Project
 HWW-CP – Hard Winter Wheat Coordinated Project
 VDHR – Variety Development & Uniform Nurseries – Sub categories are below:
 SPR – Spring Wheat Region
 NWW – Northern Winter Wheat Region
 SWW – Southern Sinter Wheat Region

Project 1: *USWBSI's Networking and Facilitation Office, and Website.*

1. What major problem or issue is being resolved relevant to Fusarium head blight (scab) and how are you resolving it?

Information sharing and access are key to the success of the Scab community. The U.S. Wheat & Barley Scab Initiative provides a publicly accessible server that hosts a comprehensive suite of services and applications to facilitate data access and dissemination. These applications and services are provided by server programs that are created by the project's webmaster and programmer. Several open source and commercial applications are also used and heavily customized to meet the goals of the U.S. Wheat & Barley Scab Initiative.

The driving factors during the development of applications and services is ease of use for all users, increasing data access, and providing faster distribution of the latest scab related information. Services available to the public that allow for this include features such as mass mailing lists, image libraries, discussion boards, blogs, and access to the USWBSI database, just to name a few. The centralized nature of these services also provides for easier public access and rapid feature development.

This project is directly associated with the following two FY09 Projects:

<u>Project Title – Project ID</u>	<u>Principal Investigator</u>	<u>ARS ID/Institution</u>
Hosting the Manager of the USWBSI's Networking and Facilitation Office - FY09-VA-017	Kells, James	59-0206-9-057/Michigan State University
U.S. Wheat & Barley Scab Initiative's Networking and Facilitation Office, and Website.- FY09-VA-017	Van Sanford, David	59-0790-6-056/University of Kentucky

2. List the most important accomplishment and its impact (i.e. how is it being used) to minimize the threat of Fusarium head blight or to reduce mycotoxins. Complete both sections (repeat sections for each major accomplishment):

Accomplishment (1): Developed an FHB Alert system that is link to the FHB Forecasting Tool (http://www.wheatcab.psu.edu/riskTool_2010.html). Commentary posted to the forecasting tool by state specialist is sent out to regional/national based list serves, posted on the USWBSI's blog site (<http://scabusa.org/modules/wordpress/>), and sent as text messages (SMS) to cell phones. Producers, crop consultants, grain processors and others can sign up for the alerts by going to the following web site address: http://scabusa.org/fhb_alert.php.

Impact (1): The purpose of the alert system is to give growers and affiliated industry personnel better advanced notice of potential outbreaks and the risk of scab in their area, thus allowing for timely treatment of fields with fungicides.

Accomplishment (2): Upgraded the Xoops content management software that controls all features of the USWBSI web site. The base software was installed from the latest release onto a development system to minimize downtime on the live server. Newer versions of the various modules that are used to provide services and features were installed for compatibility along with new modules for better system security and anti-spam protection. Backups of the old data were then reincorporated into the new setup. Once the system was successfully tested on the development system the whole package was moved to the production server for live use.

Impact (2): The new software version provides better security for the server computer as well as the information that it contains. There is also a new feature that prevents forms but being abused by malicious attackers. Additionally the new software is more stable and has fewer bugs. It is also compatible with more modules that may be incorporated in the future.

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.

Non-Peer Reviewed:

Van Sanford. 2009. *The 2009 Southern SWW Scab Epidemic: Has the USWBSI Made a Difference?* Posted June 15, 2009 on U.S. Wheat & Barley Scab Initiative's Website: http://scabusa.org/pdfs/s-sww09_epidemic_uswbsi-impact.pdf.

David Hane, Susan Canty, David Matthews, Gerard Lazo, Olin Anderson and David Van Sanford. 2009. "The Redesigned US Wheat and Barley Scab Initiative Web Site." In: Canty, S., A. Clark, J. Mundell, E. Walton, D. Ellis and D. Van Sanford (Eds.). *Proceedings from the National Fusarium Head Blight Forum*, Orlando, FL; 2009 December 7-9. Lexington, KY: University of Kentucky. p. 115.

Forum Proceedings:

Canty, S., A. Clark, J. Mundell, E. Walton and D. Van Sanford (Eds.). 2009. Proceedings from the 2009 National Fusarium Head Blight Forum, Orlando, FL; December 7-9. University of Kentucky, Lexington, KY.

Proceedings are available in PDF format on the USWBSI's Website at:

<http://www.scabusa.org/forum.html#forum09>

USWBSI Newsletters:

Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Fall 2009. *Fusarium Focus*. U.S. Wheat & Barley Scab Initiative. Volume 9, Issue 2.

Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Winter 2010. *Fusarium Focus*. U.S. Wheat & Barley Scab Initiative. Volume 10, Issue 1.

FY09 (approx. May 09 – May 10)

FY09 Final Performance Report

PI: Anderson, Olin

USDA-ARS Agreement #: NA

Press Releases:

[9-24-09 News Release](#): One-Stop Scab Management Website Now Operational

[08-19-09 News Release](#): Upper Midwest Largely Dodges Scab in '09.

[06-12-09 News Release](#): Midwest Scab a 'Good News, Bad News' Scenario.

[06-04-09 News Release](#): Serious Scab Problems in Southern Wheat States.

All Press Releases are available in PDF format on the USWBSI's Website

(http://scabusa.org/news.html#press_rel).

All Newsletters are available in PDF format on the USWBSI's Website

(<http://www.scabusa.org/news.html#newsletters>).