

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

Cover Page

PI:	David Van Sanford
Institution:	University of Kentucky
Address:	Department of Plant Science 327 Plant Science Bldg. Lexington, KY 40546-0312
E-mail:	dvs@uky.edu
Phone:	859-257-5020 ext. 80770
Fax:	859-257-7125
Fiscal Year:	2009
USDA-ARS Agreement ID:	59-0790-6-056
USDA-ARS Agreement Title:	U.S. Wheat and Barley Scab Initiative's Networking and Facilitation Office and Website.
FY09- USDA-ARS Award Amount:	\$ 131,300

USWBSI Individual Project(s)

USWBSI Research Category*	Project Title	ARS Adjusted Award Amount
EC-HQ	USWBSI's Networking and Facilitation Office, and Website.	\$ 131,300
	Total Award Amount	\$ 131,300



Principal Investigator

7-15-10

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?

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 across the U.S. The Networking and Facilitation Office (NFO) has been in existence since 1999. The goal of the NFO is to minimize the barriers to the success of the U.S. Wheat & Barley Scab Initiative arising from the administrative burdens and communication challenges. In FY09, there were 79 researchers working in 27 institutions (including ARS, CIMMYT and ICARDA) across 26 states, Mexico and Syria. The NFO is addressing this problem by 1) helping scientists and all interested parties, who in the past may have problems communicating with each other, to learn from each other by facilitating communications and communication system development; 2) identifying and implementing an internet-based communication and collaboration mechanisms; and 3) acting as a center of accountability and a rapid clearing house of scab-related information. The NFO provides administrative support to the various committees, as well as being responsible for the organization of the Initiative's annual scientific conference. Finally, the NFO facilitates the annual resolution of a comprehensive national research plan and budget, and represents the Initiative's only 'fixed' asset.

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>
Maintain and Improve the U.S. Wheat & Barley Scab Initiative's Website - FY09-VA-017	Anderson, Olin	NA/USDA-ARS
Hosting the Manager of the USWBSI's Networking and Facilitation Office - FY09-VA-017	Kells, James	59-0206-9-057/Michigan State University

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): One of the NFO's most important accomplishments was the successful facilitation of the development of the USWBSI's FY10 Research Plan and Budget, which was approved by USDA-ARS in February. See attached table (1) which includes meetings, conference calls, etc. facilitated by the NFO that led to the development of the FY10 Research Plan and Budget.

Impact (1): One-hundred and forty-four research projects across five research areas (FHB Management, Food Safety, Toxicology and Utilization of Mycotoxin-contaminated Grain, Gene Discovery and Engineering Resistance, and Variety Development and Host Resistance (organized around three regional FHB nurseries)), three commodity-based coordinated projects (Barley, Durum and Hard Winter Wheat), and the USWBSI Headquarters (Office

Accomplishment (2): In December of 2009, the NFO working with the Forum Organizing Committee facilitated the USWBSI's annual scientific Forum, which was held in Indianapolis, IN. Over 190 crop scientists (including research associates, research technicians and graduate students), growers, and industry representatives from across the nation and around the world, as well as area leaders of the U.S. wheat and barley industry, attended the 2009 National FHB Forum. Research results and findings were presented to the forum participants in the form of invited talks (19), and poster (100) presentations accompanied by abstracts or papers published in the Forum proceedings. One afternoon was devoted to group discussions designed around the USWBSI's five research areas and three commodity-based coordinated projects reviewing their section of the USWBSI's Action Plan.

Impact (2): The annual Forum is the primary mechanism whereby USWBSI scientists and stakeholders come together to discuss both the progress being made, as well as problems that interfere, with the successful combat against this devastating disease.

Accomplishment (3): 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 (3): 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.

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.

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>

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.

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.

All Newsletters are available in PDF format on the USWBSI's Website
(<http://www.scabusa.org/news.html#newsletters>).

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).