

**USDA-ARS/
U.S. Wheat and Barley Scab Initiative
FY08 Final Performance Report (approx. May 08 – April 09)
July 15, 2009**

Cover Page

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Fiscal Year:	2008
USDA-ARS Agreement ID:	59-0790-4-128
USDA-ARS Agreement Title:	Conventional Breeding Information Technologies to Control FHB in Wheat and Barley.
FY08 USDA-ARS Award Amount:	\$ 106,048

USWBSI Individual Project(s)

USWBSI Research Category*	Project Title	ARS Adjusted Award Amount
EC-HQ	Hosting the Manager of the USWBSI's Networking and Facilitation Office.	\$106,048
	Total Award Amount	\$ 106,048

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
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

(Form FPR08)

Project 1: *Hosting the Manager of the USWBSI's Networking and Facilitation Office.*

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 FY08, there were 84 researchers working in 28 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.

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 all three 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 FY09 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 lead to the FY09 Research Plan and Budget.

Impact: One-hundred and thirty-eight 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)), two commodity-based coordinated projects (Barley and Hard Winter Wheat), and the USWBSI Headquarters (Office and Website), received funding in the amount of \$4,956,802 to continue the fight against FHB.

- FHB Disease Forecasting Models; and
- Technicians and Graduate Students

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.

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.). 2008. Proceedings from the 2008 National Fusarium Head Blight Forum, Indianapolis, IN; December 2-4. University of Kentucky, Lexington, KY.

Proceedings are available in PDF format on the USWBSI's Website
(<http://www.scabusa.org/forum.html#forum08>)

Invited Talks:

Van Sanford, David. 2008. Breeding FHB-Resistant Soft Winter Wheat: Progress and Prospects. 3rd International Symposium on Fusarium Head Blight and 10th European Fusarium Seminar. Szeged, Hungary. September 1-5, 2008.

Peer Reviewed:

Brown-Guedira, Gina, Carl Griffey, Fred Kolb, Anne McKendry, J. Paul Murphy and David Van Sanford. 2008. Breeding FHB-Soft Winter Wheat: Progress and Prospects. In Zoltan Dertesz (Eds), Cereal Research Communications, 36.B. P. 31-35. Budapest, Hungary: Akademiai Kiado

Non-Peer Reviewed:

Van Sanford. 2009. *The 2009 Southern SSW 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.

Newsletters:

Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Spring 2009. *Fusarium Focus*. U.S. Wheat & Barley Scab Initiative. Volume 9, Issue 1.

Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Fall 2008. *Fusarium Focus*. U.S. Wheat & Barley Scab Initiative. Volume 8, Issue 2.

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

Press Releases:

[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).

If your FY08 USDA-ARS Grant contained a VDHR-related project, include below a list all germplasm or cultivars released with full or partial support of the USWBSI. List the release notice or publication. Briefly describe the level of FHB resistance. If this is not applicable (i.e. no VDHR-related project) to your FY08 grant, please insert 'Not Applicable' below.

Not applicable.

This project is directly associated with the following two FY08 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 - FY08-VA-008	Anderson, Olin	NA/USDA-ARS
U.S. Wheat & Barley Scab Initiative's Networking and Facilitation Office, and Website.- FY08-VA-008	Van Sanford, David	59-0790-6-056/University of Kentucky