

USDA-ARS
U.S. Wheat and Barley Scab Initiative
FY17 Final Performance Report
Due date: July 31, 2018

Cover Page

Principle Investigator (PI):	David Van Sanford
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Fiscal Year:	2017
USDA-ARS Agreement ID:	59-0206-6-001
USDA-ARS Agreement Title:	U.S. Wheat and Barley Scab Initiative's Networking and Facilitation Office and Website.
FY17 USDA-ARS Award Amount:	\$ 263,758
Recipient Organization:	University of Kentucky Research Foundation University Station Lexington, KY 40506-0057
DUNS Number:	939017877
EIN:	61-6033693
Recipient Identifying Number or Account Number:	3200000513
Project/Grant Reporting Period:	4/11/17 - 4/10/18
Reporting Period End Date:	4/10/18

USWBSI Individual Project(s)

USWBSI Research Category*	Project Title	ARS Award Amount
EC-HQ	US Wheat & Barley Scab Initiative's Networking & Facilitation Office and Website.	\$ 227,233
	FY17 Total ARS Award Amount	\$ 263,758



Principal Investigator

7/31/18
Date

* MGMT – FHB Management
FST – Food Safety & Toxicology
GDER – Gene Discovery & Engineering Resistance
PBG – Pathogen Biology & Genetics
EC-HQ – Executive Committee-Headquarters
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 Soft Winter Wheat Region
SWW – Southern Soft Red Winter Wheat Region

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Project 1: *US Wheat & Barley Scab Initiative's Networking & Facilitation Office and Website.*

1. What are the major goals and objectives of the project?

The main goal of this project is the operation of the headquarters (Networking & Facilitation Office (NFO)) for the U.S. Wheat & Barley Scab Initiative.

This project is directly associated with the following FY17 Project:

Project Title – Project ID	Principal Investigator	ARS ID/Institution
U.S. Wheat & Barley Scab Initiative's Networking and Facilitation Office, and Website.- FY16-VA-001	Kells, James	59-0206-4-001/Michigan State University

2. What was accomplished under these goals? *Address items 1-4) below for each goal or objective.*

1) major activities

- Hosted the 2017 National Fusarium Head Blight Forum: the NFO working with the Forum Organizing Committee facilitated the USWBSI's annual scientific Forum, which was held in St. Louis, Missouri. Around 195 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 2017 National FHB Forum. Research results and findings were presented to the forum participants in the form of invited talks (15), Flash & Dash presentations (10) and poster presentations (56) accompanied by abstracts or papers published in the Forum proceedings. One morning was devoted to group discussions designed around the USWBSI's five research areas and three commodity-based coordinated projects. 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.
- Development of the USWBSI's FY18 Research Plan and Budget, which was not approved by USDA-ARS until June, 2018: One-hundred and thirty-nine (139) research projects across five (5) research areas (FHB Management, Food Safety & Toxicology, Gene Discovery and Engineering Resistance, and Variety Development and Host Resistance (primarily organized around three regional FHB nurseries)), three commodity-based coordinated projects (Barley, Durum, and Hard Winter Wheat), and the USWBSI Headquarters (Office and Website), were recommended for funding in the amount of \$6,233,330 to continue the fight against FHB.

- Resource Management/Accountability Center:
 - a. Scripts with database functions were rewritten to make them compliant with current security standards.
 - b. Scripts and forms used by the community were updated to show consistent site header and footers. They were also edited to incorporate a new styling technique that is more compatible with the Drupal content management system.
 - c. A new database was created to hold system variables used by various scripts, app, and forms.

2) specific objectives

- i. Maintain and enhance the Resource Management/Accountability Center;
- ii. Facilitate and enhance communication within the Initiative and with its stakeholders;
- iii. Administer the process of developing the Initiative's annual recommended research plan and budget; and
- iv. Manage and implement all meetings and conferences.

3) significant results

Not applicable to this project.

4) key outcomes or other achievements

Objective i.

- The site branding changes create a stronger sense of community and reinforce the USWBSI brand.
- Changes to the scripts and the new database all increase the site's security, ease administration and maintenance, and future-proof the code for upcoming programming language updates.

Objectives ii-iv. In addition to hosting the 2017 National Fusarium Head Blight Forum, see Table 1 for a summary of committee meetings, conference calls, research-based workshops and committee nominations.

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Table 1. Summary of Meetings, Conference Calls and Workshops/Planning meetings facilitated or supported by the Networking & Facilitation Office (NFO) during FY17.

Committee/Group	# of Meetings/ Conference Calls (CC)/ Nominations	Description/Purpose of Meeting/Nominations
Steering Committee (SC)	2 Meeting	04-20-17: Semi-Annual meeting 12-05-17: Semi-Annual Meeting – Review and approval of EC’s recommended FY18 Research Plan and Budget
Executive Committee (EC)	6 Meetings	12-01-17: EC Executive Session 12-02-17: EC met with review panels to discuss their recommendations; 12-03-17: EC discusses recommendations from review panels, etc. for FY18 Research Plan and Budget (RP&B). 12-04-17: EC finalizes recommendation for FY18 RP&B. 12-05-17: Follow-up of Annual Forum and USWBSI’s FY18 Research Plan and Budget. 04-24-18: EC met in Minneapolis since this was the off year when the SC did not hold its spring meeting. <i>(This meeting took place during award period of sister agreement 59-0206-4-001)</i>
	3 CC	07-02-17: EC finalizes their recommendation on the FY18-19 Research Category Working Caps 02-21-18: Discuss recommended candidate for Research Technical Specialist 03-28-18: EC interview of candidate (Amber Hoffstetter) for Research Technical Specialists
Review Panels (RP) for FY18-19 Funding Requests	3 CC	Review Panels (10 in total) – Discuss/finalize their FY18-19 Funding Requests/Recommendations: 11-08-17: FHB Management 11-16-17: Food Safety & Toxicology 11-17-17: Gene Discovery & Engineering Resistance
Research-based Planning Meetings	2 Planning Meetings	05-08-17: Hard Winter Wheat Coordinated Project Planning Meeting, Manhattan, KS 03-14-18: Workshop for the Western States, Bozeman, MT
Nomination for Committee Member Elections/ Appointments	4 areas	Steering Committee: Wheat Grower, Durum Grower, Crop Protection, and Pasta Industry
	2	Executive Committee – Malting Industry and Winter Wheat Reps
	3 RC Committees with a total of 3 vacancies	Research Committees (RC): VDHR Spring Wheat CP – 1 member and Chair FHB Management - 1 member and Chair Food Safety & Toxicology- 1 member and Chair

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3. What opportunities for training and professional development has the project provided?

Undergraduate students are hired to work in the Headquarters branch office at Michigan State University assisting with processing of submitting proposals, organization of the annual forum, and maintain the projects/grants web-based database.

Flash & Dash Presentations/Poster Sessions, 2017 National FHB Forum - Flash & Dash (F&D) Presentations are for graduate students, post-docs and early career professionals. Presenters give a short (5 minute) 'flash and dash' presentation of the work highlighted in their poster prior to their designated poster sessions. This exercise is expected to increase the visibility of their research, and attract interest to their poster during the poster session.

4. How have the results been disseminated to communities of interest?

Information is disseminated through the USWBSI's listservs, website, emails, blogs, press releases and newsletters.

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Training of Next Generation Scientists

Instructions: Please answer the following questions as it pertains to the FY17 award period. The term “support” below includes any level of benefit to the student, ranging from full stipend plus tuition to the situation where the student’s stipend was paid from other funds, but who learned how to rate scab in a misted nursery paid for by the USWBSI, and anything in between.

- 1. Did any graduate students in your research program supported by funding from your USWBSI grant earn their MS degree during the FY17 award period? N/A**

If yes, how many?

- 2. Did any graduate students in your research program supported by funding from your USWBSI grant earn their Ph.D. degree during the FY17 award period? N/A**

If yes, how many?

- 3. Have any post docs who worked for you during the FY17 award period and were supported by funding from your USWBSI grant taken faculty positions with universities? N/A**

If yes, how many?

- 4. Have any post docs who worked for you during the FY17 award period and were supported by funding from your USWBSI grant gone on to take positions with private ag-related companies or federal agencies? N/A**

If yes, how many?

N/A – Not Applicable to this project

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Release of Germplasm/Cultivars

Instructions: In the table below, list all germplasm and/or cultivars released with full or partial support through the USWBSI during the FY17 award period. All columns must be completed for each listed germplasm/cultivar. Use the key below the table for Grain Class abbreviations. *Leave blank if you have nothing to report or if your grant did NOT include any VDHR-related projects.*

N/A – Not Applicable to this project

Name of Germplasm/Cultivar	Grain Class	FHB Resistance (S, MS, MR, R, where R represents your most resistant check)	FHB Rating (0-9)	Year Released

Add rows if needed.

NOTE: List the associated release notice or publication under the appropriate sub-section in the ‘Publications’ section of the FPR.

Abbreviations for Grain Classes

- Barley - BAR
- Durum - DUR
- Hard Red Winter - HRW
- Hard White Winter - HWW
- Hard Red Spring - HRS
- Soft Red Winter - SRW
- Soft White Winter - SWW

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Publications, Conference Papers, and Presentations

Instructions: Refer to the FY17-FPR_Instructions for detailed instructions for listing publications/presentations about your work that resulted from all of the projects included in the FY17 grant. Only include citations for publications submitted or presentations given during your award period (4/11/17 - 4/10/18). If you did not have any publications or presentations, state 'Nothing to Report' directly above the Journal publications section.

NOTE: Directly below each reference/citation, you must indicate the Status (i.e. published, submitted, etc.) and whether acknowledgement of Federal support was indicated in publication/presentation.

Journal publications.

Books or other non-periodical, one-time publications.

Other publications, conference papers and presentations.

Presentations:

Dill-Macky, R. (2018). *The US Wheat and Barley Scab Initiative: Overview and Progress*. PowerPoint Presentation to the North American Millers' Association's Technical Committee, March 24, 2018; Naples, Florida

Status: Oral Presentation Given

Acknowledgement of Federal Support: No

Forum Proceedings:

Canty, S., B. Wiermer and D. Van Sanford (Eds.). 2017. Proceedings from the 2017 National Fusarium Head Blight Forum, Milwaukee, WI; December 3-5. University of Kentucky, Lexington, KY.

Status: Published

Acknowledgement of Federal Support: Not applicable for this publication

Newsletters:

Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Winter 2018. Fusarium Focus. U.S. Wheat & Barley Scab Initiative. Volume 18, Issue 1.

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Lilleboe, D., S. Canty, and D. Van Sanford (Eds.). Fall 2017. *Fusarium Focus*. U.S. Wheat & Barley Scab Initiative. Volume 17, Issue 2.

Status: Published

Acknowledgement of Federal Support: Not applicable for this publications

On-line Articles

Lilleboe, D. 2017, October. *Fusarium Head Blight in 2017: Generally Not a Significant Impact USWBSI Survey of Small Grains Specialists Again Indicates Weather Plays Key Role in Presence or Absence of This Disease*, U.S. Wheat & Barley Scab Initiative. Website: https://scabusa.org/pdfs/USWBSI-Article_2017_FHB-Summary_10-18-17.pdf.

Status: Published

Acknowledgement of Federal Support: Not applicable for this publication

NOTE: All Newsletters, On-Line Articles and Press Releases are available in PDF format on the USWBSI's Website: <https://scabusa.org>.