USDA-ARS/
U.S. Wheat and Barley Scab Initiative
FY16 Final Performance Report
Due date: July 28, 2017

Cover Page

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Phone:	510-559-5716
Fiscal Year:	2016
USDA-ARS Agreement ID:	N/A
USDA-ARS Agreement Title:	Maintain and Improve the U.S. Wheat & Barley Scab Initiative's Website.
FY16 USDA-ARS Award Amount:	$ 45,000

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.	$ 45,000
	FY16 Total ARS Award Amount	**$ 45,000**

Acting RL   7/24/2017

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Principal Investigator   Date

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[*] 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

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 goal of this project is to manage the U.S. Wheat and Barley Scab Initiative's (USWBSI) website and internet services. These services include, but are not limited to, email services for the USWBSI project and mailing lists for the community, SMS text alert associated with the FHB Alert System, image gallery services, and a content-rich web presence. The funds received for this project support 75% of a full-time position (i.e. systems administrator/programmer).

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

1) major activities
   - The image gallery formerly associated with the USWBSI website was replaced with the third party Flickr website.
   - All web services associated with the initiative have been converted to secure encrypted SSL (https).
   - The initiative's twitter feed is now being auto published to the website and is being updated more frequently.
   - A new spam and email abuse prevention system was put in place on the initiative's email server.

2) specific objectives

Flickr is a free service for image hosting and manipulation that offers several benefits over the old system. We switched to Flickr to take advantage of their user interface which allows for easier administration of bulk image upload, storage, and sharing.

Security is a major concern with all internet connected computers. We switched the servers over to a 100% encrypted interface.

We wanted to make better use of the official USWBSI twitter account.

Spam and abuse of the initiatives email server and listservs is an ongoing problem. We needed to implement new procedures to reduce the amount of spam successfully sent to the various email addresses associated with the Initiative. We also need to limit the amount of abusive connections that were attempting to use the Initiative's email server as a spam bot.

3) significant results

The use of Flickr allowed us to move existing images to their servers, set up various photo albums, and used their free slideshow software to embed galleries on the USWBSI website. This significantly decreased the time required to perform these tasks.

Website encryption prevents usernames and passwords from being sent unencrypted through a user's web browser when logging in. This will reduce the chance a user account may be compromised which could also lead to data destruction and tampering.

We have started posting more public information to twitter. The official Initiative twitter feed is now posted live to the USWBSI website's homepage. This allows users to see tweets without the need for a twitter account or software.

Spam abuse and malicious connection have been greatly reduced since new blacklists and validity checks were applied to all incoming email and connections.

4) key outcomes or other achievements

These activities have eased administrative requirements of the systems administrator. This has allowed for more time for content creation and site improvements related to user interfaces and usability. Increasing the security of the system has reduced the risk of downtime associated with a compromised server.

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

Not applicable to this project.

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

These results are mostly concerned with administrative activities and do not require dissemination. The Flickr slideshows, twitter feed, and secure web site are all available on the initiative's homepage.

Training of Next Generation Scientists

Instructions: Please answer the following questions as it pertains to the FY16 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 FY16 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 FY16 award period?** N/A

   If yes, how many?

3. **Have any post docs who worked for you during the FY16 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 FY16 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?

Release of Germplasm/Cultivars

Instructions: In the table below, list all germplasm and/or cultivars released with <u>full or partial</u> support through the USWBSI during the <u>FY16 award period</u>. 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.*

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

Publications, Conference Papers, and Presentations

Instructions: Refer to the FY16-FPR_Instructions for detailed instructions for listing publications/presentations about your work that resulted from all of the projects included in the FY16 grant. Only include citations for publications submitted or presentations given during your award period. If you did not have any publications or presentations, state 'Nothing to Report' directly above the Journal publications section.

Journal publications.

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

Other publications, conference papers and presentations.

Taner Z. Sen, Gerard R. Lazo, Yong Q. Gu, David L. Hane and Sarah G. Odell. 2016.
"Graingenes: Supporting the Small Grains Community." In: S. Canty, A. Clark, K. Wolfe and D. Van Sanford (Eds.), Proceedings of the 2016 National Fusarium Head Blight Forum (p. 109). East Lansing, MI/Lexington, KY: U.S. Wheat & Barley Scab Initiative. Poster 25.
Status: Abstract Published and Poster Presented
Acknowledgement of Federal Support: Not applicable for this award.