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

## Cover Page

<table>
<thead>
<tr>
<th>Principle Investigator (PI):</th>
<th>David Van Sanford</th>
</tr>
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<tbody>
<tr>
<td>Institution:</td>
<td>University of Kentucky</td>
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<tr>
<td>E-mail:</td>
<td><a href="mailto:dvs@uky.edu">dvs@uky.edu</a></td>
</tr>
<tr>
<td>Phone:</td>
<td>859-338-2409</td>
</tr>
<tr>
<td>Fiscal Year:</td>
<td>2016</td>
</tr>
<tr>
<td>USDA-ARS Agreement ID:</td>
<td>59-0206-6-001</td>
</tr>
<tr>
<td>USDA-ARS Agreement Title:</td>
<td>U.S. Wheat and Barley Scab Initiative's Networking and Facilitation Office and Website.</td>
</tr>
<tr>
<td>FY16 USDA-ARS Award Amount:</td>
<td>$322,060</td>
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<tr>
<td>Recipient Organization:</td>
<td>University of Kentucky Research Foundation</td>
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<tr>
<td></td>
<td>University Station</td>
</tr>
<tr>
<td></td>
<td>Lexington, KY 40506-0057</td>
</tr>
<tr>
<td>DUNS Number:</td>
<td>939017877</td>
</tr>
<tr>
<td>EIN:</td>
<td>61-6033693</td>
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<tr>
<td>Recipient Identifying Number or Account Number:</td>
<td>3200000513</td>
</tr>
<tr>
<td>Project/Grant Reporting Period:</td>
<td>4/11/16 - 4/10/17</td>
</tr>
<tr>
<td>Reporting Period End Date:</td>
<td>04/10/17</td>
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</table>

### USWBSI Individual Project(s)

<table>
<thead>
<tr>
<th>USWBSI Research Category*</th>
<th>Project Title</th>
<th>ARS Award Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC-HQ</td>
<td>US Wheat &amp; Barley Scab Initiative's Networking &amp; Facilitation Office and Website.</td>
<td>$322,060</td>
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</tbody>
</table>

**FY16 Total ARS Award Amount**

$322,060

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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
    NWWR – Northern Soft Winter Wheat Region
    SWWR – Southern Soft Red Winter Wheat Region

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. The objectives are: 1) Maintain and enhance the Resource Management/Accountability Center; 2) Facilitate and enhance communication within the Initiative and with its stakeholders; 3) Administer the process of developing the Initiative’s annual recommended research plan and budget; and 4) Manage and implement all meetings and conferences.

This project is directly associated with the following two FY16 Projects:

<table>
<thead>
<tr>
<th>Project Title – Project ID</th>
<th>Principal Investigator</th>
<th>ARS ID/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Wheat &amp; Barley Scab Initiative’s Networking and Facilitation Office, and Website.-FY14-VA-004</td>
<td>Kells, James</td>
<td>59-0206-4-001/Michigan State University</td>
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</tbody>
</table>

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

1) major activities

- Hosted the 2016 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 190 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 2016 National FHB Forum. Research results and findings were presented to the forum participants in the form of invited talks (15), and poster (53) presentations 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 FY17 Research Plan and Budget, which was not approved by USDA-ARS until May, 2017: One-hundred and twenty-five (125) 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 $5,030,830 to continue the fight against FHB.

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
   Summary of Meetings, Conference Calls, Workshops/Planning Meetings, and Nominations for Committee Members facilitated or supported by the Networking & Facilitation Office (NFO) during award period.

Table 1. Summary of Meetings, Conference Calls and Workshops/Planning meetings facilitated or supported by the Networking & Facilitation Office (NFO) during FY16.

<table>
<thead>
<tr>
<th>Committee/Group</th>
<th># of Meetings/Conference Call (CC)/Nominations</th>
<th>Description/Purpose of Meeting</th>
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<tbody>
<tr>
<td>Steering Committee (SC)</td>
<td>2 Meetings</td>
<td>12-06-16: Semi-Annual Meeting – Review FY17 Research Plan and Budget</td>
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<td>04-20-17: Semi-Annual Meeting</td>
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<tr>
<td>Executive Committee (EC)</td>
<td>5 Meetings</td>
<td>05-12-16: EC met in Minneapolis since this was the off year when the SC did not hold its spring meeting.</td>
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<td>12-03-16: EC met with review panels to discuss their recommendations;</td>
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<td>12-04-16: EC discusses recommendations from review panels, etc. for FY14 Research Plan and Budget.</td>
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<td></td>
<td>12-06-16: Follow-up of Annual Forum and USWBSI’s recommendation for FY15 Research Plan and Budget.</td>
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<td></td>
<td>04-19-17: Prep-meeting prior to the SC’s meeting on 4-20-17</td>
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<tr>
<td>EC cont.</td>
<td>1 CC</td>
<td>10-4-16: EC discusses nominee for Dave Van Sanford’s replacement as Researcher Co-Chair and Director of the Networking &amp; Facilitation Office.</td>
</tr>
<tr>
<td>EC Reps and Econ. Study PIs</td>
<td>4 CC</td>
<td>Quarterly updates on the USWBSI commissioned Economic Study.</td>
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</tbody>
</table>
Committee/Group | # of Meetings/Conference Call (CC)/Nominations | Description/Purpose of Meeting
---|---|---
Review Panels (RP) for Year 2 Funding Requests | 1 CC | Review Panels (10 total) – Discuss/finalize their FY17 Year 2 Funding Requests/Recommendations:
11-10-16: Hard Winter Wheat Coordinated Project

USWBSI and ARS | 2 CC | 06-02-16: Interview with candidate/nominee to replace Art Brandli as the Grower Co-Chair, term to begin 1/1/17.
09-26-16: Co-chairs discuss nominee to replace Dave Van Sanford as the Researcher Co-Chair and Director of the Networking & Facilitation Office, term to begin 1/1/18.

Research-based Planning Meetings | 1 CC | 08-03-16: Conference call to discuss planning/logistics of the Eastern Wheat Genomic Selection Workshop (Sept. 6-9, 2016).
08-01-16: Follow-up on NASS Grower Survey results with Pathologists (held in conjunction with APS), Tampa, FL.
Sept. 06-09, 2016: Eastern Wheat Genomic Selection Workshop, Raleigh, NC.
11-04-16: Follow-up with Breeders, Pathologists, Millers and Maltsters on best management practices, Detroit, MI.
04-04-17: Durum Coordinated Project (DUR_CP Planning Meeting, Fargo, ND

Nomination for Committee Member Elections/Appointments | 1 | Steering Committee: Southern Association of Experiment Station Directors – Rep.
1 | Executive Committee – Spring Wheat Rep
6 RC Committees with a total of 8 vacancies | Research Committees (RC):
Durum CP – 2 members and Chair
Hard Winter Wheat CP – 1 member and Chair
VDHR-Northern Soft Winter Wheat CP - 1 member and Chair
VDHR-Southern Soft Winter Wheat CP – 2 members and Chair
Gene Discovery & Engineering Resistance - 1 member and Chair
Pathogen Biology and Genetics - 1 member and Chair

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.

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.
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 full or partial support through the USWBSI during the FY16 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.

<table>
<thead>
<tr>
<th>Name of Germplasm/Cultivar</th>
<th>Grain Class</th>
<th>FHB Resistance (S, MS, MR, R, where R represents your most resistant check)</th>
<th>FHB Rating (0-9)</th>
<th>Year Released</th>
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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 (4/11/16 - 4/10/17). If you did not have any publications or presentations, state ‘Nothing to Report’ directly above the Journal publications section.


Books or other non-periodical, one-time publications. Nothing to Report.

Other publications, conference papers and presentations.

Forum Proceedings:
Canty, S., K. Wolfe and D. Van Sanford (Eds.). 2016. Proceedings from the 2016 National Fusarium Head Blight Forum, St. Louis, MO; December 4-6. University of Kentucky, Lexington, KY.

Newsletters:


On-line Articles

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

(Form – FPR16)