

**USDA-ARS/  
U.S. Wheat and Barley Scab Initiative  
FY18 Performance Report  
Due date: July 12, 2019**

**Cover Page**

<b>Principle Investigator (PI):</b>	David Garvin
<b>Institution:</b>	USDA-ARS
<b>E-mail:</b>	David.Garvin@ARS.USDA.GOV
<b>Phone:</b>	612-625-1975
<b>Fiscal Year:</b>	2018
<b>USDA-ARS Agreement ID:</b>	N/A
<b>USDA-ARS Agreement Title:</b>	Coordination of the Uniform Regional Scab Nursery for Spring Wheat Parents.
<b>FY18 USDA-ARS Award Amount:</b>	\$ 2,682

**USWBSI Individual Project(s)**

<b>USWBSI Research Category*</b>	<b>Project Title</b>	<b>ARS Award Amount</b>
VDHR-SPR	Coordination of the Uniform Regional Scab Nursery for Spring Wheat Parents.	\$ 2,682
	<b>FY18 Total ARS Award Amount</b>	<b>\$ 2,682</b>



7-8-19

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:** *Coordination of the Uniform Regional Scab Nursery for Spring Wheat Parents.*

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

The major objective of this project is to oversee multisite FHB evaluations of spring wheat germplasm from academic, industry, and government breeding programs. The major goal is to develop and release a research report summarizing the year's results. An additional goal is to use this project as a means of facilitating germplasm exchange among breeding programs to accelerate develop scab resistant varieties.

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

- 1) major activities: The URSN was grown for the 24th year in 2018. Entries were contributed by U.S. university wheat breeding programs.
- 2) specific objectives: Germplasm was contributed by four university breeding programs. This material was evaluated for FHB resistance at four different locations in the U.S. and Canada.
- 3) significant results: FHB resistance data from all six locations was successfully obtained and subsequently provided for use in developing the annual report.
- 4) key outcomes or other achievements: The Report of the 2018 Uniform Regional Scab Nursery for Spring Wheat Parents, which summarizes findings of the individual locations was developed and disseminated to nursery participants in the spring of 2019.

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

Nothing to Report

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

The annual report was provided to the USWBSI for posting on their website, and also provided to the USDA-ARS-curated Graingenes website as an additional publicly accessible website. It is available at these sites (<http://www.scabusa.org/>) and (<http://wheat.pw.usda.gov>).

### **Training of Next Generation Scientists**

**Instructions:** Please answer the following questions as it pertains to the FY18 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 FY18 award period?**

No

**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 FY18 award period?**

No

**If yes, how many?**

- 3. Have any post docs who worked for you during the FY18 award period and were supported by funding from your USWBSI grant taken faculty positions with universities?**

No

**If yes, how many?**

- 4. Have any post docs who worked for you during the FY18 award period and were supported by funding from your USWBSI grant gone on to take positions with private ag-related companies or federal agencies?**

No

**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 FY18 award period. All columns must be completed for each listed germplasm/cultivar. Use the key below the table for Grain Class abbreviations.

*NOTE: 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 FY18-FPR\_Instructions for detailed instructions for listing publications/presentations about your work that resulted from all of the projects included in the FY18 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.

**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. See example below for a poster presented at the FHB Forum:

Conley, E.J., and J.A. Anderson. 2018. Accuracy of Genome-Wide Prediction for Fusarium Head Blight Associated Traits in a Spring Wheat Breeding Program. In: Proceedings of the XXIV International Plant & Animal Genome Conference, San Diego, CA.

Status: Abstract Published and Poster Presented

Acknowledgement of Federal Support: YES (poster), NO (abstract)

#### **Journal publications.**

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

#### **Other publications, conference papers and presentations.**

Garvin, D.F. 2019. Report of the 2018 Uniform Regional Scab Nursery for Spring Wheat Parents.

Status: Report Released

Acknowledgement of Federal Support: YES