

**USDA-ARS/
U.S. Wheat and Barley Scab Initiative
FY14 Final Performance Report
July 15, 2015**

Cover Page

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Fiscal Year:	FY14
USDA-ARS Agreement ID:	59-0206-4-037
USDA-ARS Agreement Title:	Integrated Management of FHB and DON of Soft Winter Wheat in Michigan.
FY14 USDA-ARS Award Amount:	\$ 7,970

USWBSI Individual Project(s)

USWBSI Research Category*	Project Title	ARS Award Amount
MGMT	Integrated Management of FHB and DON of Soft Winter Wheat in Michigan.	\$ 7,970
	FY14 Total ARS Award Amount	\$ 7,970

Martin Nagelkirk
Martin Chilvers



July 13, 2015

Principal Investigator

Date

*** MGMT – FHB Management**

FSTU – Food Safety, Toxicology, & Utilization of Mycotoxin-contaminated Grain
 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
 WES-CP – Western 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: *Integrated Management of FHB and DON of Soft Winter Wheat in Michigan.*

1. What major problem or issue is being resolved relevant to Fusarium head blight (scab) and how are you resolving it?

To improve the efficacy of recommended fungicides on Fusarium, the project looked at the effect of various application timings on the level of FHB symptoms and DON levels. Particularly after a second year of data, the results will be shared widely with agribusiness, professional applicators and growers

2. List the most important accomplishments and their impact (i.e. how are they being used) to minimize the threat of Fusarium Head Blight or to reduce mycotoxins. Complete both sections; repeat sections for each major accomplishment:

Accomplishment:

Successfully applied fungicide at selected post-flowering intervals, and collected Fusarium and DON data, and shared with multi-state team for analysis.

Impact:

The initial results of this two-year study were shared with approximately 440 growers and industry representatives during eight grower events between Dec, 2014 and March, 2015. Our purpose is to inform them of our progress and to share initial results. Following the second year of the study and multi-state analysis, current recommendations will be adjusted and a more direct impact will be anticipated.

Training of Next Generation Scientists

Instructions: Please answer the following questions as it pertains to the FY14 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 FY14 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 FY14 award period?**

No

If yes, how many?

- 3. Have any post docs who worked for you during the FY14 award period and were supported by funding from your USWBSI grant taken faculty positions with universities?**

None

If yes, how many?

- 4. Have any post docs who worked for you during the FY14 award period and were supported by funding from your USWBSI grant gone on to take positions with private ag-related companies or federal agencies?**

None

If yes, how many?

Include below a list of all germplasm or cultivars released with full or partial support of the USWBSI during the FY14 award period. List the release notice or publication. Briefly describe the level of FHB resistance. *If not applicable because your grant did NOT include any VDHR-related projects, enter N/A below.*

Not applicable

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 FY14 grant. Please reference each item using an accepted journal format. If you need more space, continue the list on the next page.

Presentations:

- Agricultural Research Review Sessions, Dec 10 through 17, 2014, Bad Axe, Sandusky, Birch Run MI;
- Agribusiness Crop and Pest Management seminar, Dec 16, 2014, East Lansing, MI
- Michigan State University Crop & Pest Management series, Alma (Jan 20), Mason (Feb 10), Peck (Feb 11, 2015), Frankenmuth (Feb 16), and Dundee,(Feb 17) .

Fact Sheet

- Managing Fusarium head blight, M. Nagelkirk and M Chilvers, January, 2015
<http://www.miwheat.org/education/production-articles/>