

FY21 Performance Progress Report

Due date: July 26, 2022

Cover Page

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Fiscal Year:	2021
USDA-ARS Agreement ID:	58-0206-9-178
USDA-ARS Agreement Title:	U.S. Wheat & Barley Scab Initiative's Networking & Facilitation Office and Website
FY20 USDA-ARS Award Amount:	\$439,091
Recipient Organization:	University of Minnesota Department of Plant Pathology 495 Borlaug Hall, 1991 Upper Buford Circle St. Paul, MN 55108
DUNS Number:	555917996
EIN:	41-6007513
Recipient Identifying Number or Account Number, if any:	CON000000080383
Project/Grant Period:	5/1/21 - 7/31/23
Reporting Period End Date:	7/31/2022

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	\$439,091
FY21 Total ARS Award Amount		\$439,091

I am submitting this report as an: Annual Report Final Report

I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.



Principal Investigator Signature

8/25/22 _____

Date Report Submitted

† BAR-CP – Barley Coordinated Project
 DUR-CP – Durum Coordinated Project
 EC-HQ – Executive Committee-Headquarters
 FST-R – Food Safety & Toxicology (Research)
 FST-S – Food Safety & Toxicology (Service)
 GDER – Gene Discovery & Engineering Resistance
 HWW-CP – Hard Winter Wheat Coordinated Project

MGMT – FHB Management
 MGMT-IM – FHB Management – Integrated Management Coordinated Project
 PBG – Pathogen Biology & Genetics
 TSCI – Transformational Science
 VDHR – Variety Development & Uniform Nurseries
 NWW – Northern Soft Winter Wheat Region
 SPR – Spring 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 research project?

The objectives of the Networking and Facilitation Office (NFO) are to:

- 1) Maintain and enhance the management and accountability of USWBSI's resources
- 2) Facilitate and enhance communication within the Initiative and with its stakeholders
- 3) Administer the process of developing the Initiative's annual research plan and budget
- 4) Manage and implement all meetings and conferences

2. What was accomplished under these goals or objectives? (For each major goal/objective, address these three items below.)

a) What were the major activities?

Objective 1

- Developed processes and key documentation for NFO/Director of Operations (DOO) responsibilities during transition; established physical office space within the Department of Plant Pathology at the University of Minnesota (UMN).
- Built out financial tracking for a 4-Year NFO budget, with analysis and plan for implementation.
- Reviewed the USWBSI Policies & Procedures document for needed updates and operational recommendations for consideration by Executive Committee/Steering Committee.
- Developed login enabled online sites for Executive Committee and Steering Committee operations/tracking.
- Organized and transferred operational digital files into UMN shared drive system given new NFO location.
- Hired new Administrative & Grant Support Coordinator position to facilitate grant and database management processes.
- Partnered with the Department of Plant Pathology to share a new Communications Coordinator, allowing the USWBSI to build communications expertise.
- USWBSI's web services cloud hosting service, InMotion, made changes to their system that prevented emails like password resets and submission confirmations to be received. The backup/mail server hosted at Cornell University was reconfigured to forward these emails. In the process on reconfiguring several new procedures were added to the system to improve SPAM scores. The current score produced by scabusa.org emails is a perfect 10/10.
- A project to merge the Initiative's Public Contacts Database and its internal private login system was completed and is now heavily used to track and secure user submissions and data access.
- Established an election ballot process via Qualtrics online tool for USWBSI leadership positions.

Objective 2

- Redesigned and published *FHB Disease Impact Update* in November 2021.
- Redesigned and published *Fusarium Focus* Newsletter distributed three times/year.

- Redesigned and published USWBSI Impacts one-pager for key stakeholders.
- Created USWBSI infographics on critical data points for stakeholders.
- Developed monthly feature articles on researchers and advocates highlighting contributions and promoting efforts.
- Facilitated initial planning and in progress of the development of an overall communications plan.
- Organized first [Scabinar](#) (webinar) for growers, crop consultants and extension personnel on current FHB management techniques.
- Offered new Early Career webinar, connecting students/post-docs with industry professionals for insights on attaining research positions/networking.
- Created new [ScabSource](#) publications database for tracking of relevant FHB research; registered users may submit relevant publications to the system. All approved submissions can be accessed through a search feature with results linking directly to the source publication.
- FHB Risk Tool opened for the 2022 season, incorporating enhancements following recommendations from 2021.
- A new [USWBSI YouTube channel](#) was created, the channel currently hosts publicly viewable videos of the Scabinar seminar and some instructional videos with additional content planned. YouTube hosting offers several improvements including better traffic tracking, faster and more reliable access, better quality, and dynamic video adjustments.
- The [scabusa.org](#) website was reorganized to better present and store webpages that host key communications/publications.
- A new [ScabNet \(Slack\) workspace](#) was established and a [community listserv mailing list](#) was created to allow graduate students and post-docs to network throughout the year and provide educational, career, and social opportunities.

Objective 3

- Developed the USWBSI's FY22 Research Plan & Budget that was approved by USDA-ARS in May 2022: The plan included 138 research projects across six (6) research areas (FHB Management; Food Safety & Toxicology, Gene Discovery & Engineering Resistance; Pathogen, Biology & Genetics; Transformational Science; Variety Development & Host Resistance (includes Spring Wheat, Northern and Southern Winter Wheat Coordinated Projects)), three commodity-based coordinated projects (Barley, Durum, and Hard Winter Wheat), and the USWBSI Headquarters (NFO/Website). The recommended funding amount totaled \$8,655,897.
- The Pre-Proposal review process was evaluated and the coordinated review process revised to provide a new online interface for reviewers, individual review forms were also consolidated into one form for all categories, and the instructions were similarly consolidated into one document.
- Developed the FY22 USDA-ARS application submission process utilizing the Qualtrics system for form/uploads (auto-reminders). All data is now maintained in one location.
- Reworked FY22 budget template form with built-in formulas to streamline the application process.

- Redesigned the PI Budget Reallocation request form in alignment with ARS specifications.
- A new system was created to facilitate continuation funding requests for each project's Primary Investigator in YR 2/3/4, providing a single user interface to submit requests. The system was designed to streamline the process and automate much of the administrative work required to assemble the required materials for review.

Objective 4

- Facilitated 2021 National Fusarium Head Blight (NFHB) Forum (virtual) planning and logistics, with nearly 270 attendees from seven countries participating, a keynote presentation and 12 invited presentations provided valuable updates. In addition, five Poster Sessions were held using self-selected virtual breakout rooms to allow poster authors and attendees to interact. Other key elements included:
 - Worked with the Forum Organizing Committee on new virtual program model
 - Established and utilized new registration payment system via UMN tool
 - Redesigned abstract submission process allowing for faster online abstract searching/viewing by attendees prior to event via new [Abstract Viewing tool](#)
 - Recommended and successfully implemented a virtual Poster Session utilizing a new feature in Zoom
 - Held an Early Career Meetup session allowing Graduate Students and Post-docs to interact and learn from experts in the field
 - Implemented FHB Trivia networking event
- Investigated and negotiated site selection for 2022 NFHB Forum, initial program planning and logistical arrangements were initiated.
- Supported an onsite workshop, "Implementing Genomic Selection within the NWW Coordinated Project," in December 2021.
- Coordinated an onsite Executive Committee agenda/meeting logistics in April 2022.

b) What were the significant results?

- Web services were improved to be more reliable, secure, and easy to use.
- A focus on providing more automation of data handling and submission was prioritized for a variety of web-based form submission improvements.
- Users now have better access to information and resources related to the goals of the USWBSI.
- The FY22 Research Plan & Budget was finalized and the awards distributed.
- Effective community interactions were implemented enhancing overall efforts.

c) List key outcomes or other achievements.

A summary of committee meetings, conference calls, research-based workshops and committee nominations, appointments and elections that were organized, facilitated and/or supported by the NFO are provided in Tables 1 and 2.

Table 1. Summary of Administrative Meetings and Research-based Workshops/Planning meetings facilitated or supported by the Networking & Facilitation Office (NFO) during FY21 award period.

Committee/Group	Number of Meetings/ Nominations	Description/Purpose of Meeting/Nominations (Elections-Appointments)
Steering Committee (SC)	1 Meetings	12-10-21: Annual Meeting – Review and approval of EC’s recommended FY22 Research Plan and Budget.
Executive Committee (EC)	17+ Meetings	12-01-21: EC Meeting with MGMT Committee Chairs EC Meeting with PBG Committee Chairs EC Meeting with FST Committee Chairs EC Meeting with GDER Committee Chairs 12-02-21: EC Meeting with BAR-CP Committee Chair EC Meeting with DUR-CP Committee Chair EC Meeting with HWW-CP Committee Chair EC Meeting with VDHR-SPR Committee Chair EC Meeting with VDHR-NWW Committee Chair EC Meeting with VDHR-SWW Committee Chair 12-03-21: EC Meeting – Discussion on FY22 Pre-Proposals 12-09-21: EC Meeting – Discussion on FY22 Recommendations 12-10-21: EC Meeting – Final development of FY22 Research Plan and Budget 02-04-22: EC Meeting – Special Meeting to determine funding decision for unallocated funds due to proposal withdrawals 04-21-22: EC Strategy Meeting (@ UMN) 04-22-22: EC Strategy Meeting (@UMN) Monthly: USWBSI Co-Chair Meetings – Priorities
FY22 Review Panels (RP)	11	11-21: All review panels scheduled their own meetings this past year.
Research-based Planning Meetings	1	12-09-21: Planning Meeting for Project FY20-NW-009: Implementing Genomic Selection within the NWW Coordinated Project
Forum Organizing Committee (FOC) Planning Meetings	9	07-14-21: FOC Co-Chair 2021 Draft Program Review 09-16-21: FOC Final Program Review/Poster Submission 11-12-22: FOC Prep for Virtual Event 11-19-22: FOC Co-Chair Practice Session 03-18-22: FOC Co-Chair 2022 Planning Meeting 03-24-22: FOC 2022 Kick-off Meeting 06-10-22: FOC Co-Chair Program Review 06-24-22: FOC Co-Chair Plenary Speaker Brainstorm 07-08-22: FOC Co-Chair Program Final Plan

Table 2. Summary of USWBSI Nominations and Elections during award period.

Steering Committee	5 Elected	Steering Committee Election of new members for the following constituent areas: Crop Protection Industry, Pasta Industry, Durum Growers, Pathology (Wheat), and Spring Wheat Growers. Five individuals were elected.
Executive Committee	3 Appointments	Executive Committee Appointments: Winter Wheat, Spring Wheat and Malting Industry.
Research Committees	9 Appointments	Research Committees appointments/re-appointments: DUR-CP: 1 member and chair HWW-CP: 1 member and chair VDHR-SPR: 1 member and chair (reappointment) MGMT: chair and vice-chair FST: chair (reappointment)

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

Offered new opportunities for students/post-docs to interact during the 2021 National FHB Forum as well as year-round. Forum activities included virtual poster sessions for interaction between authors and attendees, all poster authors provided a preview video for the Virtual Poster Room, offering additional visibility of their work and serving as a preparatory tool for their virtual interactions. A special Early Career Meetup session was also held allowing students/post-docs to interact with their peers as well as key experts in an informal setting. The success of the meetup event sparked interest in year-round opportunities. Two students volunteered to organize efforts, a new ScabNet (Slack) workspace was set up for ongoing interactions, a targeted listserv was initiated, and an Early Career webinar was established in March 2022 connecting graduate students and post-docs with industry professionals for insights into research opportunities and supporting professional networking.

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

Information is disseminated through the USWBSI’s listservs, website, emails, blogs, FHB-alerts, online articles, Forum proceedings, extension-based materials, press releases and newsletters.

Publications, Conference Papers, and Presentations

Please include a listing of all your publications/presentations about your FHB work that were a result of funding from your FY21 grant award. Only citations for publications published (submitted or accepted) or presentations presented during the **award period** should be included.

Did you publish/submit or present anything during this award period?

- Yes, I've included the citation reference in listing(s) below.
 No, I have nothing to report.

Journal publications as a result of FY21 grant award

List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Include any peer-reviewed publication in the periodically published proceedings of a scientific society, a conference, or the like.

Identify for each publication: Author(s); title; journal; volume; year; page numbers; status of publication (published [include DOI#]; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).

Books or other non-periodical, one-time publications as a result of FY21 grant award

Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like.

Identify for each one-time publication: Author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (book, thesis or dissertation, other); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).

Other publications, conference papers and presentations as a result of FY21 grant award

Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication.

NFHB Forum Proceedings

Bjerkness, M. (Ed). (2021). *Proceedings of the 2021 National Fusarium Head Blight Forum*; Virtual. December 6-7, 2021. Retrieved from: <https://scabusa.org/forum/2021/2021NFHBForumProceedings.pdf>

USWBSI Newsletters

Hoffstetter, A., and Bjerkness, M. (Eds.). 2022. *Fusarium Focus. U.S. Wheat & Barley Scab Initiative*. Volume 22, Issue 1. Retrieved from: https://scabusa.org/pdfs/fus-focus_newsletter_V22-I1_2-2022.pdf

Hoffstetter, A., and Bjerkness, M. (Eds.). 2022. *Fusarium Focus. U.S. Wheat & Barley Scab Initiative*. Volume 22, Issue 2. Retrieved from: https://scabusa.org/pdfs/fus-focus_newsletter_V22-I2_5-2022.pdf

Hoffstetter, A., and Bjerkness, M. (Eds.). 2022. *Fusarium Focus. U.S. Wheat & Barley Scab Initiative*. Volume 22, Issue 3. Retrieved from: https://scabusa.org/pdfs/fus-focus_newsletter_V22-I3_8-2022.pdf

Other Publications

Hoffstetter, A. 2021, November. *FHB Disease Impact Update: 2021 Drought Conditions Minimize Fusarium Head Blight Impact Across U.S.* U.S. Wheat & Barley Scab Initiative. https://scabusa.org/pdfs/2021_FHB_DiseaseImpactUpdate.pdf

Hoffstetter, A., and Bjerkness, M. (Eds.). 2022. *USWBSI Impacts*. Retrieved from: <https://scabusa.org/uswbsi-impacts>