



# FUSARIUM FOCUS

## Valuable Community Discussions Were Held at the 2025 National FHB Forum

One hundred and eighty attendees traveled to the Hilton Denver City Center, located in Denver, Colorado for the annual National Fusarium Head Blight Forum on December 7-9, 2025.

Located in the lower lobbies of the Hotel, researchers, industry/organization representatives, growers, post-doctoral researchers, graduate students, and guests easily navigated between the General Session, Poster Session, and Breakout Sessions. Throughout the three-day event, attendees had the opportunity to participate in six general sessions, 16 breakout sessions, two workshops, an early career social, two poster sessions, a breakthrough breakfast, and take a tour of the Ardent Mills facility.

**Ruth Dill-Macky**, University of Minnesota plant pathologist and USWBSI researcher co-chair, welcomed attendees to this year's event. A brief overview of the Forum was given including the challenges that researchers and the USWBSI faced during 2025. However, she was glad to inform the audience that the FY25 funding had finally been distributed. In addition, the process for Requests

for Pre-Proposal (RFP) submissions for FY26 was delayed, but approval of the RFP was finally received. The FY26 RFP was published November 16 with submissions due January 7, 2026. She announced that there will be an expedited review process. New this year at the NFHB Forum, the inaugural USWBSI Excellence Awards was held during the Sunday evening dinner, a tour of Ardent Mills offered on Monday, and an Advocacy Workshop hosted by the North American Millers' Association and the American Malting Barley Association were noted as new opportunities. She also updated attendees on new processes introduced this year including adding Vice-Chairs to all Coordinated Project Category Committees and allowing the Committees themselves to handle membership appointments. New Executive and Steering Committee members have been elected and Dill-Macky announced that Andrew Friskop was elected as the new Researcher Co-Chair, starting January 1, 2026.



**Lisa Vaillancourt**, Forum Organizing Committee co-chair, introduced the 2025 Opening Session Keynote Speaker **Rich Horsley** ([Design, Analyze, and Predict: Open-Source Tools to Advance Breeding and Screening for Fusarium Head Blight Resistance](#)), followed by **Esten Mason**, FOC co-chair, introducing the plenary presentation by **Molly Miller** ([Better Together: Industry Relationships with Research are More Important Than Ever](#)). These two presentations emphasized the importance of collaboration to drive FHB research forward.

Horsley presented tools his breeding team created that might be applicable to many of the attendees. FieldHub is a free application and R package that allows the users to create field designs. The user is able to set parameters such as the percentage of plots that are check varieties. Once designed, the user can print off field books for note taking. Another tool the group worked to update was Mr. Bean, a free web application that simplifies that analysis of large-scale plant breeding experimental analysis using Linear Mixed Models. NDSU's Agricultural Data Analytics Team updated it to include a module for analyzing spatial-trials and multi-environmental traits using ASReml. Finally, the group developed PredictPro, a user-friendly software that facilitates the analysis of complex genotypic and phenotypic data. It allows users to run genomic prediction



Ruth Dill-Macky



Rich Horsley



Molly Miller

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## FUSARIUM FOCUS

Fusarium Focus is an online newsletter published periodically by the U.S. Wheat & Barley Scab Initiative (USWBSI) and distributed to the USWBSI community.

Content Creation: Amber Hoffstetter  
Design: Dawn Mathers

The USWBSI is a national multi-disciplinary and multi-institutional research consortium whose goal is to develop effective control measures that minimize the threat of Fusarium Head Blight (scab), including the production of mycotoxins, for producers, processors and consumers of wheat and barley. The USWBSI's annual budget comes from Federal funds appropriated through the USDA-ARS and is distributed to more than 120 research projects in 31 states.

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### U.S. Wheat & Barley Scab Initiative (USWBSI)

Networking & Facilitation Office (NFO)  
Michelle Bjerkness, Director of Operations  
495 Borlaug Hall / 1991 Upper Buford Circle / St. Paul, MN 55108

[nfo@scabusa.org](mailto:nfo@scabusa.org) / 517.290.5023

<https://scabusa.org>

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 **"The National FHB Forum provided a strong platform to understand the current landscape of Fusarium Head Blight research, from genetics and breeding to disease management, mycotoxin mitigation, and emerging technologies. A key takeaway was the growing emphasis on interdisciplinary approaches, particularly the integration of plant pathology, breeding, agronomy, and data-driven tools to address FHB more holistically. The discussions reinforced the importance of early detection, standardized phenotyping, and collaborative efforts across institutions to translate research outcomes into practical field-level solutions."**

—2025 NFHB FORUM ATTENDEE

models without the knowledge of coding skills. It can analyze 20 different traits simultaneously and reduces the analysis time from days to 30 minutes. Quality control parameters aid users in determining how lines are being ranked and selecting the appropriate prediction model. He shared that a good method to determine if the model is predicting correctly is to look at the check varieties and see if the predictions are near where those varieties should fall phenotypically. So, what's next? "We need to finish the documentation for PredictPro so it can be accessible to a wider audience and then complete the genomic database. Finally, we would like to develop a fully open, interoperable system with FieldHub to Mr. Bean to PredictPro," said Horsley.

Following Horsley's presentation, Miller's presentation provided insights into the processes for advocating for federal funding of science. Miller is the vice president for regulatory and technical affairs at the North American Millers' Association (NAMA). NAMA represents wheat, corn, and oat millers across the United States. Its member companies operate more than 100 locations across 33 states, Puerto Rico, and Canada. Why do millers care about the USWBSI? Because of food quality, safety, and quantity. "Industry must join researchers to speak up about the important work that underpins our safe, reliable food system," said Miller. NAMA along with the American Malting Barley Association, National Wheat Improvement Committee, and National Barley Improvement Committee were partners in getting clear messaging across to Congress about the

importance of initiatives such as the USWBSI.

Immediately following the Keynote and Industry Perspective Opening Session speakers, a special session "USWBSI Impacts & Insights: Strategic FHB Research Outcomes and Emerging Needs," provided a comprehensive look at the overall impacts of USWBSI-recommended research across the key USWBSI Research Categories during the past five years. This session served as a cornerstone for NFHB Forum attendees to better understand the tangible outcomes of the USWBSI's Action Plan. The session featured **Pierce Paul**, chair of the Integrated Management Coordinated Project (IM-CP), who presented on the results of the current projects which are done to provide answers to stakeholder's questions. New this year, the IM-CP protocol will include the option for risk-based fungicide application treatments. These treatments will apply fungicide based on the predictions from the FHB Risk Tool ([More Fungicides than Ever FHB/DON Management: How Good Are They?](#)); **Harold Trick**, chair of the Gene Discovery and Engineering Resistance (GDER) Research Area, provided an update which included demonstrating that *FgTRI101* detoxifies DON and successfully transforming it into cultivars ([An Overview of the GDER: Recent Accomplishments and Future Directions](#)); **Christopher Toomajian**, vice-chair of Pathogen Biology and Genetics (PBG) Research Area, informed the audience that the PBG group has developed a powerful method for species diagnosis and quantification from grain samples amongst many



L to R, Christopher Toomajian, Rick Boyles, Pierce Paul, Harold Trick, and Tom Baldwin, answer questions from the audience during the special session for USWBSI Impacts & Insights: Strategic FHB Research Outcomes and Emerging Needs.

other accomplishments ([An Update from Pathogen Biology and Genetics \(PBG\): Accomplishments and Challenges](#)); **Rick Boyles**, chair of the Variety Development and Host Resistance (VDHR) Southern Soft Winter Wheat, presented on the accomplishments of all VDHR groups which included the release of 42 cultivars since 2022 with moderate resistance to FHB ([Variety Development to Improve Wheat's Resistance to Fusarium Head Blight: Tremendous Progress with Some Unfinished Business](#)); and finally **Tom Baldwin**, filling in for Mitch Elmore chair of the Barley Coordinated Project (BAR-CP), gave an update on the CP's vast research projects which included gene editing approaches to target the barley ortholog of *Fhb1* and transferring it into barley cultivars ([Barley Coordinated Project: Advancing FHB Resistance Through Breeding, Genomics, and National Collaboration](#)). Following the

individual presentations, all speakers participated in a facilitated panel discussion moderated by the FOC Co-Chairs. The discussion offered a chance to reflect collectively on the importance of continued coordination and investment in FHB-related research, while engaging questions from the audience surfaced additional needs for consideration.

Following the Opening Session, Sunday, Monday, and Tuesday General Sessions featured [ten relevant invited presentations](#) covering topics from genomic resources, organic grain production, the evolutionary history of *Fusarium graminearum*, mycotoxins as food safety risks, novel virulence factors in *Fusarium sambucinum*, breeding hybrid wheat, as well as the effect of weather conditions on flowering and selection for QTL that contribute to durable resistance. Each General Session was moderated by FOC members from one Research Category. Live question and answer sessions followed each presentation except for the two pre-recorded presentations. A full list of

## Special Thanks to the USWBSI 2025 Forum Organizing Committee

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Mickey Drott, USDA-ARS  
Tom Baldwin, North Dakota State University

#### VARIETY DEVELOPMENT AND HOST RESISTANCE

Clay Sneller, The Ohio State University  
Mike Giroux, Montana State University

the presenters and their [presentation abstracts](#) are available online.

The 2025 NFHB Forum also featured two live poster sessions on Sunday and Monday evening. During these sessions, fifty-eight poster authors presented their research to attendees during the receptions. Posters were also available for viewing in an online format using the



Jessica Rutkoski, assistant professor, wheat breeder and a quantitative geneticist at the University of Illinois, asked a question during the Panel Q&A.



Virtual Poster Room prior and during the Forum. Monday evening following the General Sessions, Poster Competition winners were announced preceding the second Poster Session allowing attendees to visit and ask further questions of the presenters.

Sunday evening following dinner featured an awards ceremony for the new USWBSI Excellence Awards. The Awards committee reviewed applications and nine individuals were awarded in five categories (See Pg. 6 for story). Following dinner, **Dave Van Sanford**, was honored with the Lifetime Achievement Award, and provided a presentation highlighting his thoughts on the opportunities ahead for the FHB community.

Monday morning a series of Breakout Sessions were held organized by Research Category. Chairs (or designees) of the Research Categories facilitated discussions related to project updates and ideas for the upcoming Pre-Proposal submission process. The T3 Breeders Database Workshop was held as well as the Breakout Sessions with the four regional Small Grains Genotyping Labs. New this year, an Advocacy Workshop was held to educate researchers on advocacy best practices for federal funding (see Pg. 14 for article) and a tour of the Ardent Mills Denver Headquarters (see Pg. 11 for article).



Sunday Dinner

Outside of the regular opportunities to network, several attendees took the opportunity to meet with colleagues during the Breakthrough Breakfast table topics on Monday. Nine topics were selected from attendee input to aid in providing conversation and stimulate collaboration during Monday's breakfast. The Graduate Students and Post-docs in FHB hosted a game night for early career attendees to interact with one another (See GPFHB article on Pg. 10 for full story).

**Richard Magnusson**, Roseau, MN grower and USWBSI grower co-chair, gave the Closing Session remarks. Magnusson thanked all the Forum sponsors, which help make this event possible. In addition, he thanked the FOC Co-Chairs and members for their diligent efforts in organizing the event. Finally, he



Richard Magnusson

thanked the entire FHB community for their ongoing dedication in researching and identifying management strategies for FHB.

As a reminder, abstracts for all the presentations and posters will continue to be available in the online [2025 NFHB Forum Abstract Viewer](#). If you need to reference material presented during the Forum, the full [2025 NFHB Forum Proceedings](#) are also now published. An assortment of photos from the 2025 NFHB Forum were also captured, if you haven't already, make sure to check them out in our [online album](#). ●

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# Friskop Announced as New USWBSI Researcher Co-Chair



**Andrew Friskop**, associate professor and the cereal crop extension plant pathologist at North Dakota State University, is the new researcher co-chair of the U.S.

Wheat and Barley Scab Initiative. Friskop officially assumed the role of co-chair as of January 1, 2026. He succeeds University of Minnesota plant pathologist Ruth Dill-Macky who served the USWBSI as its researcher co-chair since 2018.

"Dr. Friskop's deep understanding of Fusarium Head Blight, combined with his ability to connect research with real-world application, made him an outstanding choice for this role," said **Richard Magnusson**, USWBSI Grower Co-Chair. "He brings a collaborative leadership style, strong communication skills, and a clear commitment to serving growers, researchers, and stakeholders across the wheat and barley value chain. The Executive Committee is confident he will build on our strong foundation and guide the USWBSI forward."

A native to North Dakota, Friskop learned early on that agriculture was vital to his community. He received his bachelors of science degree in 2009 from North Dakota State University in crop and weed science. He earned his doctorate degree in 2013, also from NDSU, in plant pathology and joined the faculty as an assistant professor and extension plant pathologist that same year. Through his research, Friskop manages a large network of integrated management trials, collaborating with research and extension colleagues at NDSU to establish trials at eight locations throughout the state. "My overarching professional goal is developing and communicating solutions for economically important diseases in spring wheat, spring barley, oats, winter rye, and corn," said Friskop.

During his career, Friskop has delivered over 400 extension presentations with over 40% of them regarding managing FHB. He is familiar with both traditional and contemporary methods of delivering extension information and uses both of them actively in his programming. "My greatest strength as the Researcher Co-Chair is my ability to communicate and build relationships with researchers, growers, agriculturalists, industry, and stakeholders," said Friskop.

Friskop has previously served as the chair of the FHB Management Research Area, the FHB Management representative for the Forum Organizing Committee, and most recently as the chair of the Durum Coordinated Project Committee. He has also served on the USWBSI Steering Committee. "The combination of the USWBSI leadership opportunities has given me a better perspective on the immense effort that is needed in the decision making of funding research projects, and the importance of communicating FHB related topics to the growers and stakeholders," said Friskop.

As the new Researcher Co-Chair, Friskop will provide scientific and strategic guidance for advancing USWBSI's national efforts and continue to foster collaborations across Research Categories and geographic regions, while expanding the USWBSI's communication efforts. "I am excited to serve as the Researcher Co-Chair for the USWBSI. I look forward to building on the successes of the Initiative, and promoting future efforts on the management of our most important small grain disease in the U.S.," added Friskop. ●

## Celebrating Dill-Macky's Service



**Ruth Dill-Macky** received the USWBSI Distinguished Service Award in December in recognition of her eight years of service as the Researcher Co-Chair of the USWBSI. In presenting her the award **Richard Magnusson**, USWBSI Grower Co-Chair, stated "Her insight, integrity, and steady leadership have been essential in maintaining program cohesion, sustaining momentum in research, and ensuring that the USWBSI remains strong and connected. Thank you, Ruth, for your extraordinary dedication and for all you have done to strengthen the Initiative and support this community."

Since becoming Researcher Co-Chair in early 2018, Dill-Macky led the Initiative through a few significant challenges. Most recently, she and the staff of the initiative's Networking and Facilitation Office (NFO), worked with the USWBSI's advocacy partners and stakeholder groups to ensure the USWBSI remained resilient amid funding challenges. In 2021, she provided steady guidance during the leadership transition at the NFO and then a pivot to hold the 2021 Forum online, allowing for continued collaboration and community engagement, albeit socially distanced, during the COVID-19 pandemic.

Dill-Macky followed **Dave Van Sanford** (University of Kentucky) to become only the third individual to hold the USWBSI's Researcher Co-Chair position. Dill-Macky has served on the faculty of the Department of Plant Pathology at the University

of Minnesota for over 31 years. She began her faculty career facing the challenge of working on FHB, following the reemergence of FHB in the Upper Great Plains in the early 1990's. Her internationally recognized research has contributed to the efforts to develop best management practices for the control of FHB through examining the effect of host, pathogen, and environmental factors on the development of FHB and on the accumulation of Fusarium-associated mycotoxins and the role of crop residues in FHB epidemics. Dill-Macky was advocating for FHB research funding prior to the establishment of the USWBSI. She attended the first regional meeting on FHB held in Fargo in 1994 and organized the first National FHB Forum, held in St. Paul in 1997. She served on the USWBSI Steering and Executive Committees from 2002 to 2025.

As the Researcher Co-Chair, Dill-Macky indicated that she found joy in the role, helping to bring researchers together, fostering collaborations, and advocating for the work done by so many to combat FHB. She will continue to play an advisory role to **Andrew Friskop**, the USWBSI's new Researcher CO-Chair as needed for a few months. As she leaves her role, Dill-Macky indicated that she is confident the Initiative is in good hands, that the change promises fresh perspectives and renewal with balance provided by continuity of others still serving on the Executive and Steering Committees. She said she is confident that she will find other things to keep herself busy now that she has a little more spare time. ●

# Congratulations to the 2025 Inaugural USWBSI Excellence Awardees

The USWBSI Excellence Awards were established in 2025 to honor individuals and teams making outstanding contributions to reducing the impact of Fusarium Head Blight (FHB) on wheat and barley. These awards not only celebrate scientific innovation but also collaboration and advocacy that drives FHB research forward. Following the NFHB Forum dinner on Sunday, December 7, the following individuals were honored:

- **Guixia Hao**, USDA-ARS, Outstanding New Investigator Award;
- **Gina Brown-Guedira, Guihua Bai, Deven See, and Jason Fiedler**, USDA-ARS Regional Genotyping Lab Leaders, Collaborative Achievement Award;
- **Andrew Friskop**, North Dakota State University, Innovative Impact Outreach Award;
- **Dave Torgerson**, Minnesota Wheat Research and Promotion Council, and **Marv Zutz**, Minnesota Barley Growers Association, Innovative Impact in Advocacy Award;

- **Dave Van Sanford**, University of Kentucky, Lifetime Achievement Award.

Nominations for each category were reviewed by the Awards Committee comprised of **Gary Muehlbauer**, University of Minnesota, **Alyssa Collins**, Pennsylvania State University, **Briana Whitaker**, USDA-ARS, and **Eric Olson**, Michigan State University.

In addition to the Excellence Awards, **Ruth Dill-Macky** was presented with the Distinguished Service Award for her service on the Executive Committee as the Researcher Co-Chair of the USWBSI for the past eight years.

We thank all of these individuals for their outstanding efforts and contributions to FHB and the USWBSI. ●



Richard Magnusson (USWBSI Grower Co-Chair) with the 2025 USWBSI Excellence Awardees. L to R: Andrew Friskop, Guixia Hao, Jason Fiedler, Deven See, Marv Zutz, Dave Van Sanford, Ruth Dill-Macky, Dave Torgerson, and Richard Magnusson.



Dave Van Sanford gives a presentation as part of the USWBSI Excellence Awards Ceremony on Sunday, December 7, 2025 at the 2025 National Fusarium Head Blight Forum.

there are a number of folks in this room who are more deserving of this award than me," said Van Sanford

During his presentation, Van Sanford shared a series of FHB interactions with colleagues that reinforced how the complexity, nuance, and duplicity of this disease defy description, and it caused him to ask himself, "Are there things that we could be doing better to understand this disease?" He came up with three areas of inquiry that piqued his interest and he challenged the FHB community to consider.

The first suggestion was a deeper look at modeling. He noted this is a currently growing area of research that incorporates

## Dave Van Sanford Receives Lifetime Achievement Award at 2025 NFHB Forum

During the 2025 NFHB Forum Excellence Awards Ceremony, **Dave Van Sanford**, University of Kentucky small grains breeder and past USWBSI researcher co-chair, was awarded the USWBSI's Lifetime Achievement award. Along with his award, Van Sanford provided an after-dinner presentation, *"Reflecting on the USWBSI"*. Van Sanford was nominated for the award by **Jim Anderson** and **Carl Bradley**. "I am humbled and honored and really very surprised because

both genomic predictions and crop modeling predictions together. This could allow one to look at FHB and DON on many genotypes within a large number of environments. A group of U.S. researchers got together with some United Kingdom colleagues, of which Van Sanford was a part of, and proposed creating a virtual yield trial where one could test *in silico* thousands of genotypes and create environments just by adjusting the parameters that crop modelers use.

His next suggestion was having the USWBSI host an AI-enabled data hackathon. The researchers of the USWBSI have produced massive amounts of data over the past 28 years. Data has been produced in Uniform Nurseries and individual FHB nurseries where there are many genotypes and climatic variables at play. By having a hackathon, he noted we could tap into this data to find additional solutions for FHB.

Finally, he recommended additional genome editing exploration. Stakeholders have frequently asked Van Sanford about this form of management throughout his career and it would be worth further investigation of its usefulness to FHB resistance.

In summary, he reiterated to its credit there have been many great successes within the USWBSI, and he encouraged the conversations within the FHB community to continue to seek out ways to build on that success. ●

# USWBSI Welcomes New and Reappointed Steering Committee Members

Elections for new Executive Committee, Steering Committee, and Research Area and Coordinated Project Committees were held in the Fall of 2025. Here are the new Steering Committee members whose terms started January 1, 2026. Those now joining the Executive Committee are also noted.



**Carl Bradley**, University of Kentucky, Princeton, Kentucky. Bradley is a professor and extension plant pathologist at the University of Kentucky (UK). He is based out of the UK-Research & Extension Center in Princeton, which is located in the western part of the state. He conducts research on the management and biology of diseases that affect agronomic field crops. He was raised in southeastern Illinois, where he grew up on a grain production farm. He received his B.S. from Southern Illinois University, and M.S. and Ph.D. from the University of Illinois. He has experience working in agriculture from several different states in previous positions. He was a post-doctoral research fellow with the University of Idaho, an assistant professor at North Dakota State University, and associate professor at the University of Illinois prior to joining the faculty at UK in 2015. Bradley was re-elected as a member of the Steering Committee and the Executive Committee representing wheat pathology.



**Alexis (Lexi) Freier-Johnson**, director, R&D, Richardson International, Minneapolis, Minnesota. Frier-Johnson has over 16 years of experience in the pasta industry spanning the areas of product development, commercialization, manufacturing, and finished product quality. She is the co-chair of the National Pasta Association's Regulatory and Technical Affairs Committee and is a member of the Institute of Food Technologists and Cereals & Grains Association. She holds an M.S. degree from North Dakota State University.

Freier-Johnson was re-elected as the representative of the Pasta Industry on the Steering Committee.



**Andrew Friskop**, North Dakota State University, Fargo, North Dakota. Friskop has been a North Dakota State University cereal crop extension plant pathologist since 2013. His overarching professional goal is developing and communicating solutions for economically important diseases in spring wheat, spring barley, oats, winter rye, and corn. He is familiar with both traditional and contemporary methods of extension delivery and uses both in his programming. He recently completed a project that allows users to navigate cereal disease management information using an immersive 360 tool. He has held leadership positions in multiple groups including the National Barley Improvement Committee, U.S. Wheat and Barley Scab Initiative, Regional Committee of Management of Small Grain Diseases (NCERA-184), Corn Disease Working Group, and the Crop Protection Network. Friskop is serving on the Steering Committee and the Executive Committee as the newly elected Researcher Co-Chair of the U.S. Wheat and Barley Scab Initiative representing wheat pathology.



**Joleen Hadrich**, University of Minnesota, St. Paul, Minnesota. Hadrich is a professor in the Department of Applied Economics at the University of Minnesota. She is also the associate dean for the Minnesota Agricultural Experiment Station and CFANS Research

& Outreach Centers. Her research focuses on agricultural finance and production economics with an emphasis on farm-level profitability. Her extension program focuses on agricultural producer-level decision making as it interacts with environmental and applied economic constraints. She works closely with livestock and crop producers to study how the interaction between economic concepts and biological processes of the production system work together. Hadrich was reappointed as the agInnovation North Central agricultural experiment stations representative on the Steering Committee.



**Dustin Johnsrud**, North Dakota Wheat Commission, Epping, North Dakota. Johnsrud is a member of the North Dakota Wheat Commission, representing wheat growers in the northwest portion of the state. A fourth-generation farmer, he specializes in durum and spring wheat, along with other small grains, his no-till operation stands as a testament to modern farming practices that prioritize both efficiency and environmental stewardship. He graduated from Ray High School and attended Williston State College and obtained a crop and weed science degree (minor in Ag Econ) from North Dakota State University. He has also served on the Epping City Council and has been the NDWC Williams County representative since 2009. Johnsrud and his wife Megan produce durum, winter wheat, spring wheat and canola. Johnsrud was re-elected to serve on the Steering Committee as a durum grower representative.



**Bryan Jorgenson**, South Dakota Wheat Commission, Ideal, South Dakota. Jorgenson is a wheat producer farming nearly 12,000 acres. He is also a certified seed producer and chair of the South Dakota Wheat Commission. He has been a very effective link between

university research and commercial wheat producers. He brings with him a lot of producer experience, practical challenges, and solutions. His passions for agriculture, equipment, and crop production led him to get a B.S. in mechanized agriculture from South Dakota State University. Jorgenson was re-elected to serve on the Steering Committee as a wheat grower representative.



**Ashley McFarland,**  
American Malting Barley Association, Duluth, Minnesota. McFarland is the president and CEO of the American Malting Barley Association

(AMBA), representing maltsters, brewers, and distillers focused on barley improvement. She manages the Quality Evaluation Program bringing improved malting barley varieties into the supply chain, while also supporting communications and membership efforts. McFarland leads the National Barley Improvement Committee, a stakeholder coalition that seeks to secure sustained funding for barley research and policies that support domestic malting barley production. She coordinates advocacy efforts critical to the sustained funding of the U.S. Wheat and Barley Scab Initiative.

Before joining AMBA, McFarland held various extension and research roles at universities across four states, as well as in nonprofit executive leadership. She earned a B.A. in political science and environmental studies from Central College and an M.S. in environmental science from Iowa State University. McFarland serves on the Steering Committee as a newly elected Executive Committee Member representing the malting and brewing industry.



**Eric Olson,** Michigan State University, East Lansing, Michigan. Olson is a plant breeder and geneticist at Michigan State University (MSU), working to develop

improved varieties and increase profitability of small grains production in the Eastern U.S. Throughout his career, he has leveraged wild relatives in wheat improvement activities introducing genes for grain yield and disease resistance from *Aegilops tauschii*. The MSU wheat breeding team has developed low-cost methods to shorten the breeding cycle and quickly develop inbred lines by advancing early generation breeding populations under greenhouse conditions. The program also utilizes both genomic and phenomic selection methods to accelerate and improve selection

accuracy. Olson serves on the Steering Committee as a newly elected member of the Executive Committee representing public wheat breeders.



**Lisa Vaillancourt,** University of Kentucky, Lexington, Kentucky. Vaillancourt is a professor in the Department of Plant Pathology at the University of Kentucky.

She earned her doctorate degree in plant pathology from Purdue University, and followed that with a post-doctoral experience in fungal genetics at the University of Vermont. Her research area is the molecular genetics and genomics of fungal plant pathogens, particularly of *Fusarium* and *Colletotrichum* pathogens of grain crops. Her current work with *Fusarium graminearum* is focused on understanding the genetics of diversity related to aggressiveness and toxicity, and especially the role of recombination. She recently served as chair of the USWBSI Pathogen Biology and Genetics Research Area Committee and is currently co-chair of the Forum Organizing Committee. Vaillancourt was elected to serve as the new representative of the Pathogen Biology and Genetics area on the Steering Committee. ●

## The USWBSI GDER & PBG Joint Virtual Mid-Year Meeting

The Gene Discovery and Engineering Resistance (GDER) and Pathogen Biology and Genetics (PBG) Research Area committees are planning a mid-year joint virtual meeting which will take place on **Thursday, April 23, 2026**, from 12:00-5:00 PM CST. The purpose of this meeting is to facilitate increased interaction and collaboration between these two research areas. GDER focuses on understanding genes and mechanisms of host resistance and susceptibility, and implementation of novel approaches to disease management, while PBG focuses on the pathogen side of the interaction and attempts to identify pathogenicity factors that represent viable targets for disease management. The combined goals of GDER and PBG offer the best possibility of developing novel, effective *Fusarium* head blight management approaches that can be applied in the field.

If you have any questions, suggestions, or if you have ideas for potential collaborations that span the interests of the two groups, please reach out to Jyoti Shah ([Jyoti.Shah@unt.edu](mailto:Jyoti.Shah@unt.edu)) and/or Guixia Hao ([guixia.hao@usda.gov](mailto:guixia.hao@usda.gov)).

### REGISTER NOW!

Registration is required (there is no fee). Zoom details will be provided upon completion of your registration. The meeting is open to anyone interested in learning more about the GDER and PBG research projects.

### PRESENTATION INTEREST FORM

#### SUBMIT BY MARCH 19

The meeting will be comprised of a series of short (7-8 minute) research talks to develop awareness within each group of the other's research directions and progress, followed by a guided discussion session to explore potential collaborative opportunities. If you are interested in presenting, please complete the presentation interest form (link above) by March 19 for consideration. Further details will be provided after all the interested presenters have been considered. ●

# NFHB Forum Poster Competition Helps Develop Stronger Scientific Communication Skills

The 2025 National Fusarium Head Blight Poster Competition featured 26 posters across all five research categories. Twenty-five judges evaluated the posters between two rounds of judging for content and presentation skills to determine the top three graduate student and post-doctoral researcher winners.

This year in the first-round judges accessed the virtual posters to evaluate abstract clarity, poster appearance, and experimental design. In the second round of judging, the top finalists in each category competed for cash prizes during a 3-minute live presentation followed by 2-minutes of questions from the judges. Final scores were tallied and the winners were announced at the end of Monday's General Sessions. Awards were presented by **Richard Magnusson**, USWBSI grower co-chair, and **Molly Miller**, vice president of regulatory and technical affairs for North American Millers' Association (NAMA).

Cash prizes, sponsored by NAMA, were awarded to the top 3 awardees in each category: 1st Place - \$500, 2nd Place - \$300, and 3rd Place - \$200. A huge thank you to NAMA, for generously providing these cash prizes for all the awardees.

The Poster Competition provided a great opportunity for graduate students and post-docs to showcase their research.

## Congratulations to the 2025 NFHB Forum Poster Competition Winners

### GRADUATE STUDENTS AWARDEES

1st Place: **Abbeah Navasca**, North Dakota State University, Pathogen Biology and Genetics, "*Genome-Wide Perspectives on Fusarium graminearum Adaptation in Barley, Soybean, and Potato*"

2nd Place: **José Flores Guzman**, Kansas State University, FHB Management, "*The Role of Seeding Rates When Integrated with Fungicide Applications and Genetic Resistance in Fusarium Head Blight Management in Kansas*"

3rd Place: **Isha Mittal**, University of North Texas, Gene Discovery and Engineering Resistance, "*Integrated Host-Pathogen Transcriptomics Elucidates the Role of Wheat Lpx3 in Fusarium Head Blight Resistance*"

### POST-DOCTORAL RESEARCHER AWARDEES

1st Place: **Charlotte Brault**, University of Minnesota, Variety Development and Host Resistance, "*30 Years of Breeding for Fusarium Head Blight Resistance in Wheat: A Success Story*"

2nd Place: **Sunkyu Choi**, Michigan State University, FHB Management, "*Image Analysis-Based, High-Throughput Screening for Fungicide Sensitivity to Pydiflumetofen and Tebuconazole in U.S. Fusarium Head Blight Populations*"

3rd Place: **Yahya Rauf**, Texas A&M AgriLife Research, Gene Discovery and Engineering Resistance, "*Discovering Marker-Trait Associations for Fusarium Head Blight and Kernel Traits in Texas Wheat Breeding Lines*"

To learn more about this year's poster winner's check out the [January Featured Researcher posting](#). ●



Richard Magnusson (USWBSI Grower Co-Chair) and Molly Miller (North American Millers' Association, Poster Competition Sponsor) with poster competition awardees. L to R: Isha Mittal, Charlotte Brault, Sunkyu Choi, Richard Magnusson, Molly Miller, Yahya Rauf, Abbeah Navasca, and José Flores Guzman.

# Stacking the Competition at the 2025 NFHB Forum Early Career Social

Twenty-three graduate students, post-doctoral researchers, technicians, and visiting scholars, attended a social event held at the 2025 National Fusarium Head Blight Forum for early career scientists.

Those who attended had the opportunity to meet and interact with new colleagues while playing games such as stack attack, puzzles, and cards. The most fun was had during stack attack, where players raced to stack and unstack plastic cups in a pyramid shape. The fastest player to form a pyramid without knocking it over wins. **Lawrence Tidakbi**, current Graduate Students and Post-docs in FHB co-organizer, and **Simran Goyal**, incoming co-organizer, led the games and encouraged interaction. More events are in the planning stages for 2026. To receive information about upcoming offerings or to view past webinar recordings, visit the [GPFHB webpage](#) and join the [email listserv](#).

## Meet the 2026 Co-Organizers



**Lawrence Tidakbi** is a Ph.D. candidate in the Applied Wheat Pathology and Genotyping laboratories at Kansas State University, where he works under the supervision of **Jessica Rupp Noller** and **Katherine Jordan**. He holds a BSc. Agric. (Crop Science Major) from the University of Ghana and a master's degree in Horticulture from Leibniz University

Hannover, Germany. His current Ph.D. research work focuses on predicting and identifying novel sources of wheat resistance to the fungal disease Fusarium head blight using a diverse panel of wheat lines from U.S public breeding programs, integrating plant pathology, genomics, and quantitative genetics to support durable disease resistance breeding.



**Simran Goyal** is a Ph.D. student in Plant Sciences (Plant Pathology and Genetics) at the University of Maryland, working under the supervision of **Nidhi Rawat**. She holds a B.Sc. (Hons.) in Agriculture from Punjab Agricultural University, India, and a Master's degree in Plant Pathology from the University of Kentucky, where she worked with **Lisa Vaillancourt**. Her Ph.D. research focuses on understanding genetic and molecular mechanisms underlying Fusarium head blight (FHB) susceptibility and resistance in wheat and gene discovery, integrating plant pathology, genetics, genomics, and quantitative analyses. Her work emphasizes the functional characterization of susceptibility factors and host-pathogen interactions to support the development of durable FHB resistance in wheat breeding programs. ●



Graduate students, post-doctoral researchers, technicians, and visiting scholars play stacks during the GPFHB social held at the 2025 NFHB Forum.



GPFHB is a USWBSI network of graduate students and post-docs whose goal is to provide educational, career, and social opportunities for those in FHB research and beyond. The focus of GPFHB is to bring together the current generation of graduate students and post-docs with other members of this community to provide information on relative topics.

# Wheat Resistance to FHB: Progress and Perspective

Twenty people tuned into the [Graduate Students and Post-Docs in FHB fall webinar](#) on October 24, 2025 with **Guihua Bai** to learn more about his career working on wheat resistance to FHB with the USDA-ARS. **Lawrence Tidakbi**, co-organizer of GPFHB, introduced the evenings speaker. Bai received his Ph.D. in plant pathology from Purdue University. He has been a research plant molecular geneticist

and director of the USDA-ARS Central Small grains Genotyping Lab in Manhattan, Kansas for more than twenty years. During his research career, he made groundbreaking contributions to wheat Fusarium head blight research including: developing an FHB severity protocol for the greenhouse, identifying deoxynivalenol (DON) as a virulence factor, and cloning *Fhb1*, *Fhb7*, and *Fhb9*. He also worked to transfer these genes into elite hard winter wheat cultivars.

Bai started working on FHB in 1989. During this time, he proposed that FHB resistance was controlled by only a few major genes and conducted a genetic study using the percentage of scabby spikelets as the phenotype. Later that year, he moved to the U.S. and was invited to be the featured article in *Mycopathologia* for his work on establishing a greenhouse inoculation method. In 1999, Bai mapped the first major QTL for FHB resistance and these results were published in *Phytopathology*. Two years later, Bai published another paper in *Mycopathologia* that established DON as a virulence factor. In 2006, Bai proposed the concept on FHB susceptibility factors. In 2018, his research established diagnostic markers for *Fhb1* and his lab worked to introgress it into hard winter wheat backgrounds. *Fhb1* is still a major locus people use to select for in resistance breeding. In 2019, *Fhb1* was cloned as a loss of function of the susceptibility gene *TaHRC*. In 2022, he identified diagnostic markers for *Fhb7* and in 2024, *Fhb9* was identified and markers were located. Currently, there is ongoing work to pyramid *Fhb1*, *Fhb7*, and *Fhb9* into 15 hard winter wheat genotypes.

In the future, Bai believes that the three major genes need to be combined into genetic backgrounds with good agronomic traits to provide improved varieties to farmers. Moderately susceptible varieties can be made into moderately resistance varieties through the transfer of *Fhb1* or *Fhb7*. In addition, the FHB community needs to continue to discover and clone more major resistance genes and develop diagnostic markers; as well as to develop effective tools for quickly discovering susceptibility genes and a gene-editing pipeline for breeding applications. Finally, once new genes are identified, understanding the resistance mechanism behind them in order to be able to manipulate them for improving FHB resistance will be critical.

Attendees had the opportunity to ask questions of Dr. Bai and many great responses were received.

The webinar [recording](#) can be assessed from the GPFHB webpage and through the USWBSI Youtube channel.

Students and post-docs interested in receiving more information about upcoming GPFHB events are encouraged to join the [email listserv](#). ●



## Ardent Mills Provided Behind the Scenes Tour for NFHB Forum Attendees

Nearly 30 individuals toured the Ardent® Mills Denver Headquarters on Monday, December 8, 2025, an optional opportunity offered as one of the breakouts during the 2025 National Fusarium Head Blight Forum. The facility, which was within walking distance of the NFHB Forum hotel, houses a laboratory where the company can mill wheat and other samples while also testing them for baking quality.

Attendees had the opportunity to tour a small bake lab that mimics the process of baking sandwich bread in a factory on a smaller scale. Employees take the flour from the different mills and subject it to different quality tests and bake a loaf with it. Information for protein content, falling number, and baking score are provided back to mills to allow proper blending to reach quality standards on Ardent Mills flour products. Ardent Mills also has worked to develop replacement products for ingredients that are harder to find such as Egg Replace, a smart egg replacer that can replace up to 100% of eggs, and Cocoa Replace, a wheat-based product that can replace up to 25% of cocoa powder in standard formulations. In addition to bread wheat, the company also tests soft wheat for cookie baking quality and durum for pizza making. Those who attended the tour were able to ask valuable questions and learn more about milling and its connection to fusarium head blight and DON.

Special thanks to **Ernie Chilcott**, Ardent Mills crop innovation program manager, for coordinating all the arrangements for the NFHB Forum attendee tour and to **Amanda Smith**, bake lab manager and Ardent Mills Innovation Center ambassador for hosting the group onsite. Check out this link to learn more about [Ardent Mills](#). ●

### Wheat Resistance to FHB: Progress and Perspective

Guihua Bai



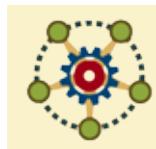
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GPFHB (Graduate Students and Post-Docs in FHB) is a USWBSI network of graduate students and post-docs whose goal is to provide educational, career, and social opportunities for those in FHB research and beyond.

# USWBSI Featured Researchers 2025 Highlights

Special thanks to the following individuals who were highlighted this past year for their contributions to the FHB community. If you haven't had a chance to visit yet, links to all the past featured researchers are available on the [USWBSI Featured Researcher archives page](#). Have an idea for a featured researcher? Send your suggestions to [amber.hoffstetter@scabusa.org](mailto:amber.hoffstetter@scabusa.org).

Here is a listing of all the individuals that were featured in 2025:

**2024 NFHB Forum Poster Competition Winners; Rong Di, Rutgers, The State University of New Jersey, New Brunswick, NJ; Doug Higgins, Virginia Tech, Painter, VA**



**Juliet Marshall, University of Idaho, Idaho Falls, ID; Ehsan Shakiba, University of Arkansas, Stuttgart, AR; Briana Whitaker, USDA-ARS, Peoria, IL; Mitch Elmore, USDA-ARS, St. Paul, MN**

**Jessica Rutkoski, University of Illinois Urbana-Champaign, Urbana, IL; Alyssa Betts, University of Delaware, Georgetown, DE; Guihua Bai, USDA-ARS (retired), Manhattan, KS; Molly Miller, North American Millers's Association, Arlington, VA; Vijay Tiwari, University of Maryland, College Park, MD** ●

## 2025 FHB DISEASE IMPACT UPDATE

# Where Conditions Were Favorable for FHB Development, the FHB Risk Tool Predictions Mitigated Losses

The U.S. Wheat and Barley Scab Initiative's (USWBSI) [2025 Fusarium Head Blight Disease Impact Update](#) was released on November 4, 2025. **Amber Hoffstetter**, PhD, USWBSI research technical specialist, once again authored this year's article. Commentary from experts in 30 states indicated where conditions were favorable for Fusarium head blight development, the FHB Risk Tool provided accurate predictions and enabled those utilizing the tool to make appropriate management decisions. FHB was the most problematic for organically grown grains, susceptible varieties, and in the Mid-Atlantic states which



received rainfall during anthesis. Reports were received from Pennsylvania and Virginia of levels of the *Fusarium*-associated mycotoxin deoxynivalenol (DON) exceeding 10 ppm and as high as 18 ppm in some cases. The remainder of the U.S growing small grains mostly reported few to no issues with FHB either due to environmental conditions being dry and/or unfavorable for the fungus or where the use of integrated management strategies controlled FHB effectively.

"It is good to see that farmers are benefiting from varieties with improved resistance in all grain classes and utilizing the tools developed by the USWBSI to help mitigate the economic

impact of this disease," noted **Ruth Dill-Macky**, outgoing USWBSI researcher co-chair and University of Minnesota professor and small grains plant pathologist. Farmers and extension specialists are utilizing the information provided by the USWBSI in making production decisions and educating on effective management strategies including the FHB Risk Tool, fungicides, and crop varieties in making production decisions on effective management strategies.

For the most up-to-date information on issues regarding FHB by state experts, subscribe to the [FHB Alerts](#). ●

## 2025 USWBSI Publications

Sixteen publications associated with USWBSI funding were published this past year. Take some time to read some of these impressive articles.

- Brault, C., Conley, E. J., Green, A. J., Glover, K. D., Cook, J. P., Gill, H. S., Read, A. C., Fiedler, J. D., & Anderson, J. A. (2025). Leveraging historical trials to predict *Fusarium* head blight resistance in spring wheat breeding programs. *The Plant Genome*, 18, e20559. <https://doi.org/10.1002/tog.2.20559>
- Breunig, M., Byrne, A. M., Jacobs, J. L., Ward, T. J., McCoy, A. G., Chilvers, M. I. (2025). Characterization of *Fusarium* Species Composition, Trichothecene Genotype, and In Planta and In Vitro Fungicide Sensitivity of Isolates from Wheat and Corn in Michigan, USA. *Phytopathology*. <https://doi.org/10.1094/PHYTO-06-25-0214-R>
- Darino, M., Jaiswal, N., Darma, R., Kroll, E., Urban, M., Xiang, Y., Srivastava, M., Kim, H., Scofield, S. R., Innes, R. W., Hammond-Kosack, K. E., and Helm, M. (2025). The *Fusarium graminearum* Effector Protease FgTPP1 Suppresses Immune Responses and Facilitates *Fusarium* Head Blight Disease. *Molecular Plant-Microbe Interactions*, 38:2, 297-314. <https://doi.org/10.1094/MPMI-08-24-0103-FI>
- Hao, G., Edwards, J., Rhoades, N., McCormick, S. (2025). *Arabidopsis thaliana* detoxification gene AtDTX1 is involved in trichothecene 3-acetyl-deoxynivalenol efflux. *Frontiers in Plant Science*, 16. <https://doi.org/10.3389/fpls.2025.1574367>
- Hogg, A. C., Hale, C. O., Tillett, B. J., Huang, L., Carr, P. M., Eberly, J., Chen, C., Kowatch-Carlson, C., Crutcher, F., Lamb, P., Haney, E., Smith, V., Dykes, L., Chen, X., Islam, M. M., Liu, Z., & Giroux, M. J. (2025). Registration of 'MT Blackbeard' and 'MT Raska' durum wheat. *Journal of Plant Registrations*, 19, e20425. <https://doi.org/10.1002/plr2.20425>
- Laraba, I., Vaughan, M. M., McCormick, S., Busman, M., Cowger, C., Oppenheimer, P. J., Opoku, J., and Whitaker, B. K. (2025). Etiological Agents of *Fusarium* Crown Rot in Illinois Wheat. *Plant Disease*, 109:11, 2321-2330. <https://doi.org/10.1094/PDIS-09-24-2034-RE>
- McLaughlin, J. E., Tumer, N. E. (2025). Roles of non-specific lipid transfer proteins in plant defense: structural and function perspectives. *Frontiers in Fungal Biology*, 6. <https://doi.org/10.3389/ffunb.2025.1640465>
- Melson, E. E., Sutton, R., Ibrahim, A. M. H., Harrison, S. A., DeWitt, N., Simoneaux, B., Lyerly, J., Opena, G., Johnson, J. W., Mergoum, M., Babar, M. A., Murphy, J. P., Boyles, R. E., Brown-Guedira, G. L., Shakiba, E., Mason, R. E., Jin, Y., Cambron, S. E., and Baik, B.-K. (2025). Registration of 'TX17D2337' soft red winter wheat. *Journal of Plant Registrations*, 19, e70021. <https://doi.org/10.1002/plr2.70021>
- Mores, S. R. G., Mores, W. B., DeWolf, E., Lollato, R., Onofre, R. B., Paul, P., Andersen Onofre, K., F. (2025). Efficacy of integrated management strategies for *Fusarium* head blight control in hard red winter wheat. *Plant Disease*. <https://doi.org/10.1094/PDIS-11-24-2350-RE>
- Munaro, L. B., Kolb, F. L., & Rutkoski, J. E. (2025). Genetic gain due to 21 years of winter wheat breeding at the University of Illinois. *Crop Science*, 65, e70111. <https://doi.org/10.1002/csc2.70111>
- Myers, E. R., Shim, S., Telenko, D. E. P. (2025). Evaluation of Fungicides and Cultivars for *Fusarium* Head Blight of Wheat in West Lafayette, IN, 2024. *Plant Health Progress*, 26:3, 425. <https://doi.org/10.1094/PHP-02-25-0049-PDMR>
- Navasca, A., Castleberry, C., Benz, B., and Baldwin, T. (2025). Quantitative Assessment of *Fusarium graminearum* Infection in Resistance and Susceptible Barley Genotypes Beyond Visual Symptoms. *Phytopathology*. <https://doi.org/10.1094/PHYTO-07-25-0254-R>
- Oppenheimer, P., Tini, F., Whetten, R., Laraba, I., Read, Q., Whitaker, B., Vaughan, M., Beccari, G., Covarelli, L., Cowger, C. (2025). Synthetic spike-in metabarcoding for plant pathogen diagnostics results in precise quantification of copy number within the genus *Fusarium*. *ISME Communications*, 5:1. <https://doi.org/10.1093/ismeco/ycf124>
- Shim, S., Telenko, D. E. P. (2025). Evaluation of Cultivars and Foliar Fungicide for *Fusarium* Head Blight Management of Wheat in Vincennes, IN, 2024. *Plant Health Progress*, 26:3, 426. <https://doi.org/10.1094/PHP-02-25-0062-PDMR>
- Szabo-Hever, A., Sharma, J. S., Faris, J. D., Zhong, S., Friesen, T. L., Fiedler, J. D., Green, A. J., Bai, G., Elias, E. M., & Xu, S. S. (2025). Identification and mapping of quantitative trait loci for *Fusarium* head blight resistance in a synthetic hexaploid × hard red spring wheat population. *The Plant Genome*, 18, e70073. <https://doi.org/10.1002/plg2.70073>
- Winn, Z. J., Acharya, R., Ward, B., Lyerly, J., Griffey, C., Fitzgerald, J., Dong, Y., Cowger, C., Murphy, J. P., and Brown-Guedira, G. (2025). Genetic mapping of resistance to *Fusarium* head blight in soft red winter wheat line NC13-20076. *Crop Science*, 65, e7002. <https://doi.org/10.1002/csc2.70022>



Ashley McFarland and Molly Miller present to researchers and stakeholders at the Advocacy Workshop provided during the Breakout Sessions of the 2025 NFHB Forum.

# Collaborative Advocacy in Action: A Hands-On Workshop at the National FHB Forum

**Molly Miller**, North American Millers' Association, and **Ashley McFarland**, American Malting Barley Association, facilitated an Advocacy Workshop at the 2025 National FHB Forum in Denver, Colorado. Miller and McFarland are both industry advocacy professionals who advocate for continued federal funding such as the U.S. Wheat and Barley Scab Initiative. During the workshop, attendees were reminded of the elements of the federal government, such as how bills become laws and the difference between appropriations and authorization. The duo also reviewed how elements of the governmental process can impact federal funding and the difference between lobbying and advocacy. While "fly ins" or "Hill climbs" are the most commonly used methods, there are multiple ways to advocate including, social media, field days, media inquiries, etc. Once you get a meeting or opportunity to interact with a Congressional leader, it's important to tell your story. Be quick with the facts and prepare your hot takes. Make sure your take home message is clear and establish why it matters.

At the end of the workshop, Miller and McFarland provided each attendee with a worksheet to help them identify their Congressional leaders and be prepared to tell their story. You never know when an opportunity might arise. Make sure to check out the Advocacy Workshop PowerPoint slides, resources, and worksheet provided during the workshop, now available on [AMBA's website](#).

For more information on FHB and the impact of the USWBSI, view the [USWBSI Impact Infographics](#). 





## COMMUNITY UPDATES

### Kudos On Your New Degrees



**Jonathan Concepcion** graduated from Michigan State University with his doctorate degree in plant breeding and genetics in May 2025. His project with **Eric Olson** focused on integrating phenomics and genomics towards accelerating genetic gain in soft winter wheat.



**Simran Goyal** graduated with her M.S. degree from the University of Kentucky in August 2025. Her project with **Lisa Vaillancourt** evaluated the role of chemotype on *Fusarium graminearum* aggressiveness, toxicity, and competitiveness in wheat. Goyal is now a Ph.D. student working with **Nidhi Rawat** in the Department of Plant Science and Landscape Architecture at the University of Maryland. She started in August 2025 working on the fine mapping of the conserved FHB susceptibility factor Sf-Fhb-7AS in wheat.



**Lola McMullan** received her M.S. degree from Virginia Tech in May 2025. Her project with **David Schmale** and **Bastiaan Bargmann** used callus culture as a prospective biosensor for examining *Fusarium graminearum* infection and exploring the use of RUBY as a pathogen-inducible reporter. ●

### Kudos to Those Starting New Positions



**Ashley McFarland**, is the new president and CEO of the American Malting Barley Association. McFarland has been with AMBA since 2021, serving as the vice-president and technical director. Her new position commenced in January 2026.



**Yayha Rauf**, Ph.D., is a post-doctoral researcher in the small grains genetics group at Texas A&M AgriLife. He joined the group in May 2025. His project focuses on breeding FHB resistant cultivars via doubled haploids and exploring new resistance sources using genome-wide association studies.



**Junli Zhang**, Ph.D., is an assistant professor of small grains genetics, at Texas A&M AgriLife Research in Amarillo, Texas. His new position commenced on September 1, 2025. ●

## 2025 Scab Nursery Reports Coming In, Check Them Out!

The USWBSI supports fusarium head blight nurseries across the U.S. for spring and winter barley, spring wheat, hard winter wheat, and soft winter wheat. Every year the Coordinated Project's submit a combined report for each grain class. Reports for 2025 have been submitted for the following:

- 2024-2025 Northern Uniform Winter Wheat Scab Nurseries
- Uniform Southern Soft Winter Wheat Scab Nursery – 2025 Report
- 2025 Uniform Regional Scab Nursery for Spring Wheat Parents

[View current reports](#) and watch for additional ones to be posted in the coming months. ●



## CALENDAR

### USWBSI EVENTS

#### APRIL

- 23 [GDER & PBG Joint Mid-Year Meeting](#) (see details on pg. 8)

### OTHER EVENTS

#### FEBRUARY

- 24-28 [National Association of Wheat Growers Commodity Classic](#), San Antonio, TX

#### APRIL

- 20-22 Eastern Wheat Workers and Southern Grain Workers Conference, Florence, SC  
22 LSU AgCenter Wheat and Oats Field Day, Winnsboro, LA

#### AUGUST

- 1-4 [Plant Health 2026](#), Providence, RI

