Volume 12, Issue 2 Summer 2023

The DPH Practitioner

"Educating Leaders for Tomorrow's Sustainable Plant Production Systems"

A Note from the Director, Dr. Jeff Bradshaw

It has been a busy few months as I have settled into my new roles as director, researcher, and instructor! Through all of these roles, I am working to ensure that the Doctor of Plant Health remains a vibrant and growing program here at UNL! As I have settled into the directorship, I have engaged faculty, private company representatives, and public agency employees with conversations about the DPH program, its purpose, and its direction. Importantly, our DPH alumni have been a critical part of these conversations as well! In fact, we hosted three "DPH faculty luncheons" in which DPH alumni shared their experiences with UNL faculty about the DPH program and what it has meant for their careers. Faculty really appreciated the insight provided by our alumni and it has certainly enhanced faculty interest in engaging in the DPH program! Additionally, during the past few weeks, I have visited with several department heads and various center directors throughout IANR about the DPH program and I am feeling very enthusiastic about future opportunities for our DPH students – from teaching assistantships to experiential learning activities.

Research and teaching roles have been informative to my DPH directorship as well. I have been working to develop our DPH Colloquium class (DPLH 691) for this fall. This class has and will continue to function as an opportunity for our students to refine their leadership, team-building, and communications skills. However, it will also serve an important function in helping our students network with professionals who work in various plant-health related industries and agencies. These networking opportunities will be important for our students in identifying experiential learning partners that will help guide them through their residency period – the last two years of their curriculum. Yes, I will be reaching out to some of our alumni who have indicated interest in being a part of colloquium as well! Additionally, I have been working on planning the Pest Management Systems class (ENTO 817) which is one of our DPH core courses into which some of our DPH students will be registering for this fall. This will be another new class for me to instruct as I take over its instruction following Dr. Lance Meinke's retirement. Notably, Dr. Meinke has been a strong supporter of the DPH program for many years and I appreciate his many contributions!



A significant portion of my time this summer has also been given to my research program, which has also presented some opportunities to connect the DPH program to communities around Nebraska and in some of our surrounding states. I attended several of the Nebraska State Variety Testing program's Wheat Variety Tours in June. There I discussed some of my cooperative work to find solutions in wheat for the wheat stem sawfly. However, there were several opportunities to promote the opportunities for advanced education through the DPH program to agricultural stakeholders and industry representatives. Additionally, as I have traveled around a 5-state area to conduct wheat grower focus groups, there have been many opportunities to discuss aspects of the DPH program with interested stakeholders. It seems that with the level of stakeholder engagement that I continue to have in my research program, opportunities to promote the value of the DPH program throughout certain corners of the agricultural industry will be there. As always, if you (or anyone you know) has interest or inquiries to make about the Doctor of Plant Health program, please reach out! I'm always open to discuss the program and to hear new ideas about how we might continue to grow the good idea that is the Doctor of Plant Health program at UNL.













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DPH Faculty Steering Committee Members

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Dr. Chuck Francis, Emeritus Professor, Agronomy/ Horticulture

Dr. Loren Giesler, Professor and Head, Department Plant Pathology

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Dr. Lance Meinke, Professor, Entomology

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Dr. Brian Wardlow, Associate Professor, School of Natural Resources

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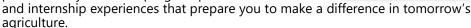
DPH Program Staff

Dr. Jeff Bradshaw, DPH Director

Kelly White, Administrative Associate

Welcome to the Doctor of Plant Health newsletter

The Doctor of Plant Health program at the University of Nebraska–Lincoln is an innovative model for educating plant health practitioners. DPH is a professional degree parallel to a medical or veterinary degree, but instead, graduates are prepared to understand and diagnose plant health issues and manage the entire plant production system. Our program provides coursework



Graduates of the Doctor of Plant Health program are in demand worldwide for their comprehensive knowledge and experience, resulting in 100 percent job placement.

Interested in us? We're interested in you! Contact Dr. Jeff Bradshaw, DPH program director, at jbradshaw2@unl.edu, or call 402-472-3365 for more information. We look forward to visiting with you.

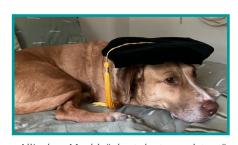
May 2023 Graduation

Congratulations to our Newest Doctor of Plant Health Graduate,

Dr. Ali Loker







Ali's dog, Mochi, "plant doctor assistant"

Dr. Loker is currently employed as a Carbon Science Analyst with Arbor Day Carbon, a subsidiary of the Arbor Day Foundation in Lincoln, NE.



Ali's Doctoral Document: <u>Assessing Functional Biodiversity for the Future of Plants, Planet, and People.</u>

THE MISSION OF THE DOCTOR OF PLANT HEALTH PROGRAM AT THE UNIVERSITY OF NEBRASKA-LINCOLN

is to produce plant practitioners with broad expertise and experience across the various disciplines that impact plant health and plant management. These plant practitioners (plant doctors) will integrate from across this expertise to diagnose and solve plant health problems and to develop integrated plant and pest management systems that maximize the system's economic, environmental, and social sustainability.

Welcome to the DPH Family, Tyler Prow!



My name is Tyler Prow, and I'm a 6th -generation Nebraskan from Omaha. I graduated from UNL in May of '22 with a B.S. in Regional & Community Forestry and minor in Fisheries & Wildlife. After graduation, my fiancée and I moved to Honolulu, Hawai'i for her job. There, I worked as a field technician for the Coconut Rhinoceros Beetle Response program within the University of Hawai'i. I am passionate about food, ecology, and sustainable agriculture, so the DPH program and its holistic nature was a natural fit for me. My goal is to serve as a knowledge resource no matter what I do, but my dream job would combine woody plants, fermentation, and agricultural entrepreneurship. I'm excited to be back on East Campus, and GBR!

DPH Student, Garrett Kuss

This summer, I have been working for Midwestern BioAg as a research agronomist intern running case studies in fields for their new water storage enhancer product. The product is new to the market this year, so it has been very exciting to be a part of the research for a

new product and to see how it acts in a lab and controlled field environments compared to highly variable cases throughout the Midwest.

On top of my work on their new product, I am also running tests on some of MBA's main line fertilizer products to chart effectiveness in different soil types and conditions. Through this I have been able to meet with producers across the Midwest in states like Wisconsin, Minnesota, Michigan, and North Dakota.

In my free time, I have been having a blast attending weddings of close

friends and kayaking the rivers of Nebraska. I am excited to start my second semester in the program this coming August as I dive deeper into my studies.





DPH External Advisory Committee Members

Paul Carter - Sr. Agronomy Sciences Manager, DuPont Pioneer, Johnston, IA, retired

Glen Franzluebbers -Director, Professional Ag Services, Central Valley Ag Cooperative, Oakland, NE

Thomas Hoegemeyer - Corn Breeder/Crop Professional Extraordinaire, retired

Billy McLawhorn -McLawhorn Crop Services, Inc., Cove City, NC

Bruce Monke - retired (formerly with Bayer), Kansas City, KS

Brian Olson - Department Head, Western Kansas Research-Extension Centers, Hays, KS

Abby Stilwell - Supervisory Plant Protection and Quarantine Officer, USDA-APHIS-PPQ, Raleigh, NC

Tom Taylor - Twin Rivers Agronomics, Inc., Minden,

Summer Fun with DPH Student & Entomology Research Technician Josh Villazana

Last week of May, Josh assisted Joe Louis' lab with a Plant-Insect Interactions workshop for middle school and high school teachers.



REEU students arrived June 2. With Ana Velez as the P.I., Josh is mentoring Mason Chandler (middle) from Kentucky who studies Biology at Berea College. He is studying the

development of monarch butterfly larvae with two different types of lepidoptera diets and concentrations of milkweed powder. In the image, we are at an insect light trap at Waubonsie State Park with Earl Agpawa (bottom



right) and Steve Spomer (not pictured).

June 10 was the Lincoln Pride parade. Josh volunteered to help decorate the truck and walk in the parade while

handing out pride flags. Lincoln Mayor, Leirion Gaylor Baird (pictured below in white), was also in attendance and was seen thanking everyone that showed up. Josh is hoping to be more involved with the UNL LGBTQA+ Center.





June 12, Josh attended his biweekly meeting with a grand

challenges group led by Dr. Ana Maria Vélez Arango.

Learn more about it here.



Additional summer plans include:

- * Recording a lecture for the online master's course on entomology.
- * Completing and analyzing an EPG with greenbugs aphids and sorghum.
- * Spectating the forensic science home for the pig cadaver decomposition progression.
- * Josh closed on a home in Lincoln on June 20th!

Congratulations on your new home!!

If you'd like to connect with <u>Josh</u>, please feel free to follow him on Twitter <u>@JoshuaVillazana</u>

Bayer Crop Sciences University Mentoring Program

Mentor: DPH Alumnus, Dr. Brett Lynn Mentee: DPH Student, Thomas Wilbur Davis

The Bayer Crop Sciences University Mentoring Program (B4U) is a year long mentoring program for curious scientists in their early career stages, particularly in fields related to the plant sciences and other STEM majors. This program allows mentees to build relationships, network, and gain experience in the industry with the aid of an experienced Bayer Crop Sciences Scientist, like Dr. Brett Lynn, who provide one-on-one mentorship.





How and when did it begin?

Thomas: The program kicked-off in March of this year after a very competitive

recruitment process that featured graduate and post-doctoral students from 22 universities across the United States.

Brett: Bayer University Mentoring Program has been underway across several U.S. campuses for multiple years. However, this is the inaugural year for Bayer's Market Development group to be involved at the University of Nebraska-Lincoln.

Brett, what made you decide to become a mentor? To seize the opportunity of paying it forward. Ultimately, I am the product of many great mentors throughout my academic and professional careers. It is very fulfilling to give back to an institution and program that I am very passionate about.

Thomas, how did you learn about the program and what made you decide to become a mentee? I learned about this program through a call for application from the Bayer Crop Sciences that was shared with us (students) via email by the former DPH Program Director. This program was new to me. But after viewing what it offers through the call for application, I realized that becoming a mentee would have had a far-reaching impact on my professional development, career advancement, and on achieving my career goals.

How often do you meet and what types of things do you do when you meet?

Thomas: One thing that I really appreciate is Brett's availability. He's always available to help with many things in many ways. This means that I have access to him and his valuable services. However, in addition to this, we planned to meet at least once a month. **Brett:** Monthly. Some meetings entail a discussion on academic and professional aspirations, whereas others take place in the field where I have the opportunity to share the exciting work occurring at Bayer with Thomas. In June, Thomas travelled to my research site near Columbus, NE for a plot tour with local crop consultants to preview experimental crop protection products.

What have you learned so far about being a mentor/mentee?

Thomas: This program has expanded my knowledge and skills. I have gained valuable career advice, guidance, and exposure to many new things in the industry from our interactions.

Brett: Thomas has reminded me the importance of asking 'why'. It is easy to slide into a into a routine; however, asking why and challenging the status quo is crucial for continuous development.

What are your goals for this experience?

Thomas: My goals are to have deep insight and understanding of an industry working environment, build relationships, expand my network, learn new perspectives, and get professional advice that will be translated into meaningful contributions in the industry. **Brett:** To serve as a sounding board for Thomas as he charts his academic and professional journey. Additionally, I strive to facilitate new experiences and connections that provide insight into post-graduation opportunities with Bayer and the industry as a whole.

Why should other people make the choice to be a mentor/mentee?

Thomas: In addition to the Bayer-hosted development sessions and the platform to network within Bayer and across more than 20 North American Universities, the program provides an opportunity for one-on-one mentoring based on an individual mentee's technical fit and career development needs. This is very important! I would encourage anyone to be a mentee because this is very helpful for me, and I think it will be very helpful also to driving more people, particularly those in their early career stages like me towards achieving their career goals.

Brett: At the end of the day, the success of our industry hinges on those entering the profession. Mentoring is an opportunity to help soon-to-be colleagues kick start their careers.



Congratulations to Ali Loker

On Thursday, May 11, 2023, DPH student, Ali Loker, was the inaugural recipient of the **Anne Vidaver Plant Health Student Excellence Award**. Ali was nominated by Dr. Chuck Francis for going above and beyond the required DPH curriculum.

"I have known Ms. Loker since she first arrived on campus to begin the DPH curriculum, and she was a teaching assistant in my class in Agroecology and Sustainable Food Systems while also taking the class for credit. As in all her classes, Ali excelled in this one and was especially helpful to the many undergraduate students from Rwanda who were enrolled. She demonstrated strong empathy for these visiting scholars as well as other students in the class and contributed to their learning environment. Ali helped with grading many written exercises and was positive in comments, as well as supportive for all students in the class during round-table discussions. She was intent on urging shy students to speak up in class when they were hesitant due to studying in a language not comfortable to them, and in a participatory learning environment which was new to many.





Ali prepared and presented a lecture on the value of considering One Health as an important perspective in dealing with farming systems and built on her previous study in sociology by taking a different view of farming as a 'human activity system'. One of her written exercises for the class was later submitted and published in an Agroecology journal. This was one of three papers she has published while a doctoral student (that I am aware of), two of which focused on creative learning methods during the COVID-19 epidemic and challenges of keeping students engaged during this time.

In addition to these teaching and research activities, Ali had the opportunity during two intern experiences with Gerber and with Arbor Day Foundation to apply the principles of One Health in the field through interactions with farmers engaged in vegetable production

and in assessing soil health in forestry plantings. One of these experiences led to a job offer which she recently accepted to work with landowners pursuing improved soil health through their management practices with support from the foundation.



Thus, Ali has expanded her competence in teaching, research, and outreach which will make her a valuable employee with multiple skills who can contribute to strong research-based recommendations. Of all the students I have worked with in the DPH program, she is among the most competent and ambitious, with a strong desire to help farmers and others achieve their production goals while keeping in mind the environment and building soil health of

duction goals while keeping in mind the environment and building soil health as a foundation for long-term productivity and conservation of soils.

Ms. Loker has been an outstanding student in the classroom and in the field, and in addition has volunteered with other groups in the community while pursuing her degree as a full-time student. She would be an excellent choice for the inaugural Vidaver Award and has set the bar high for other students in this important professional program." - **Dr. Chuck Francis**

Congratulations, Dr. Hein

In late January, at the NAICC meeting in Nashville, TN, Dr. Gary Hein received the Service to Agriculture Award from the National Alliance of Independent Crop Consultants for his contributions to establishing and directing the Doctor of Plant Health Program at UNL. The NAICC has been a strong supporter of the DPH program since before its inception, and its members look to the program to partner with them in building the future capacity of their professional workforce. NAICC member companies have also provided numerous experiential learning opportunities for DPH students through the years.



Dr. Gary Hein with Clark Poppert (consultant with ServiTech Inc., Geneva, NE), & NAICC 2023 President.

Anne Vidaver Plant Health Student Excellence Award

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The Anne Vidaver Plant Health Student Excellence Award was established to recognize the contributions from Dr. Vidaver in developing and establishing the Doctor of Plant Health (DPH) Program at the University of Nebraska. Her commitment to its central principles that encompass the education of high-level professional practitioners has been paramount to the establishment and success of the program.

The Anne Vidaver Plant Health Student Excellence Award recognizes a Doctor of Plant Health student who demonstrates excellence above and beyond that demanded through the required curriculum of the DPH Program. Demonstrated activities for consideration include teaching, extension, research, leadership, and other outreach and professional development activities. The evaluation process for this award will be carried out by an awards committee at the direction of the DPH Director.

This award will be awarded on an irregular basis, but no more than annually, to students showing exceptional accomplishments that are demonstrated above and beyond the regular requirements of the program curriculum. The monetary value of this award may vary due to the availability of funds. The level of funding will be determined by the DPH Director for each award cycle.

The application process will be laid out by the DPH Director when the call for nominations is circulated.



The Earle S. Raun Doctor of Plant Health Graduate Student Support Fund was created to honor Earle Raun's efforts in establishing the University of Nebraska–Lincoln's plant health program and his professional contributions to crop consulting and agricultural education.

In addition to his work at UNL, Dr. Raun created Pest Management Company — the first independent crop consulting firm in the Midwest specializing in research and advice on pest management and crop production — and was instrumental in founding the National Alliance of Independent Crop Consultants and its Nebraska affiliate, the Nebraska Independent Crop Consultant Association. Contributions to this fund will enable UNL to offer fellowships for Doctor of Plant Health students.

For more information, contact Doug Carr at doug.carr@nufoundation.org or Jeff Bradshaw, Ph.D., at jbradshaw2@unl.edu.



Upcoming Events

August 2nd - State Crop Scouting Competition **August 12th**: East Campus Discovery Days from 10-2 **September 18th** - Regional Crop Scouting Competition

October 29th - November 1st - Tri-Societies Meeting in St. Louis, MO

November 4th - 8th: ESA Meeting in National Harbor, MD

November 10th: AFA Meeting in Kansas City, MO



Be sure to subscribe to our new DPH YouTube channel:

https://www.youtube.com/ channel/ UCKtHPliaMMJLpTmVPoX34Xw





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