

The DPH Practitioner

“Educating Leaders for Tomorrow’s Sustainable Plant Production Systems”



The time has come for me to step aside from the DPH Program leadership and turn it over to a new leader, Dr. Jeff Bradshaw. I have great confidence in Jeff to provide the creative leadership necessary to lead the program into the future. I view the last 14 years as the most important and impactful of my career. I want to acknowledge their vision and thank Dean Tiffany Heng-Moss and all the upper IANR administration for the strong demonstration of support for the program to continue.

The success of the DPH program has hinged on the commitment from the students who undertook the program and graduates who have carried this educational background into the workforce to demonstrate its immense value. I extend my sincere thanks to all of them for trusting me in undertaking this program. They have shown a pioneering spirit, and they have demonstrated the program’s success through their hard work and dedication to the program’s interdisciplinary principles in their employment opportunities.

At a meeting in 1987, I heard Dr. Earle Raun talk about the need for an interdisciplinary professional program like the DPH Program. This presentation made an impression on me as I started my career at UNL in 1988. Through the years, I had sporadic interactions with Dr. Raun; however, I had not really given this idea much practical thought. In 2008, I was approached by IANR administrators about the possibility of this program coming to fruition at UNL and asking if I would lead the program. This would have been over 20 years since my first exposure to the concept. Through my extension experiences in western Nebraska and my interaction with numerous agri-business clientele, I have long seen and heard from them the need for more advanced training for ag professionals. Likewise, numerous studies have identified the need for more advanced education as a major impediment to IPM adoption. For these reasons I accepted the challenge to lead this program, and it has been the most difficult challenge of my career. However, because of the graduates and their commitment it has also been the most rewarding.

My comments here would be incomplete without extending a sincere thank you to each of the administrative assistant partners that I have had while in this position. Nancy Shoemaker, Linda (Hellbusch) Wienck, and Kelly White have all been highly committed to the success of the students and the goals of the DPH Program. Their support has always meant a lot to me (and to the students) and has been a significant contribution to the program’s success. I also want to recognize Dr. Anne Vidaver’s vision and commitment in working to establish the program here at UNL. Finally, I want to thank all the faculty who have provided support to the program and the DPH students through the years. These efforts were central to the students’ success.

I have always recognized the value of the systems nature of the DPH Program, but the accomplishments and impacts of our graduates has emphasized the critical need of the program to the future of agriculture. This has been an interesting and rewarding ride. I wish Jeff and all current and future students the best as the program moves forward.



DPH Faculty Steering Committee Members

Dr. Gerard Adams, Associate Professor of Practice, Plant Pathology

Dr. Chuck Francis, Professor, Agronomy/Horticulture

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

Dr. John Lindquist, Professor, Agronomy/Horticulture

Dr. Lance Meinke, Professor, Entomology

Dr. Ellen Paparozzi, Professor, Agronomy/Horticulture

Dr. Anne Vidaver, Emeritus Professor, Plant Pathology

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

Dr. Robert Wright, Professor, Entomology

Dr. Gary Yuen, Professor, Plant Pathology

Dr. Roch Gaussoin, Professor, Agronomy/Horticulture

DPH Program Staff

Dr. Gary Hein, DPH Director

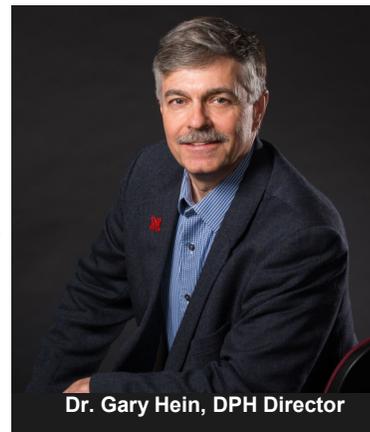
Kelly White, Administrative Associate

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 and internship experiences that prepare you to make a difference in tomorrow's agriculture.

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. Gary Hein, DPH program director, at ghein@unl.edu, or call 402-472-3365 for more information. We look forward to visiting with you.



Dr. Gary Hein, DPH Director

A retirement celebration announcement for Gary Hein. The background is black with several gold and white Christmas ornaments hanging from the top. In the center, the text "Save the Date" is written in a large, elegant, light green cursive font. Below it, in a smaller, white, all-caps sans-serif font, is "FOR THE RETIREMENT CELEBRATION OF". Underneath that, "GARY HEIN" is written in a large, bold, light green, all-caps sans-serif font. To the left of the text is a small, square, white-bordered portrait of Dr. Gary Hein, smiling. Below the portrait, the date and time "FRIDAY, FEBRUARY 17, 2023 1 - 3 pm" are written in a white, all-caps sans-serif font. At the bottom, the location "Tentative Location: Goodding Learning Center, Plant Sciences Hall, Lincoln, NE" is written in a white, italicized, all-caps sans-serif font.

If you are able, please plan to join us on Friday, February 17th as we celebrate Gary's Retirement from UNL.

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.

A word from the incoming Director of the Doctor of Plant Health Program



Dr. Jeff Bradshaw

Hello and welcome to 2023! As I step into this new year, I have been granted the awesome responsibility to direct the DPH Program. The University of Nebraska, its faculty, and our passionate stakeholders (DPH faculty, staff, alumni, and external partners) have selected me to serve as the second DPH Director to continue to grow plant health practitioners. Thank you! In my experience working as an applied entomologist and Extension Specialist for the University of Nebraska since 2010, I understand the need for the kind of education, experience, and training that the DPH program offers plant health practitioners. I am so excited to be a part

of developing its future!

As I begin this new journey, I reach out to you all with an open mind. Please reach out to me with your thoughts about the future of the program or ideas that you might have. During my interview, I was asked to share my vision for this program and my response to the threats and strengths that were identified by its recent SWOT analysis. In that presentation, I discussed 5 general areas that I would like to explore starting in 2023: 1) Ensure a robust set of "core" classes, 2) Ensure student-directed learning outcomes & success, 3) Develop strategic and diverse experiential learning partners, 4) Improve access for learners through plant-health micro-credential efforts, and 5) Develop a global-engagement partnership with the Doctor of Plant Medicine Program at the University of Florida. Certainly, the DPH Program has established a cornerstone (or more) already in each of these areas, but through my discussions with stakeholders (including Dr. Hein) thus far, I see some clear pathways for growth in each of these areas. Again, if we have not had the chance to meet or discuss the future of the DPH program, I am very much looking forward to more conversations and insights that you might have! Please feel free to reach out!

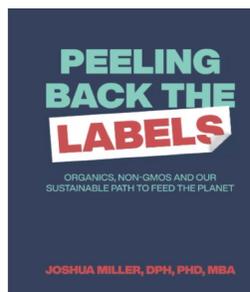
Lastly, please join me in congratulating Gary for his very hard work in building the DPH program at the University of Nebraska!

Best wishes,
Jeff Bradshaw, Director - Doctor of Plant Health Program



2016 DPH Graduate, Josh Miller,

published his first book *Peeling Back the Labels* in May 2022. Besides being an author, Josh is a Speaker/Innovation Consultant with Linx Systems/Roundtable Consulting in Sharpsburg, Maryland.



DPH External Advisory Committee Members

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

Glen Franzluebbbers - 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 - Learning Center Manager, Monsanto Company, Gothenburg, NE

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

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

New DPH Students



Kaitlin Gregory is from a small town in Arizona. She studied both molecular biology and botany as an undergraduate at Western New Mexico University, and graduated with a Bachelor of Science in 2018. As a DPH student, she is looking forward to studying a wide range of topics related to the field of plant diagnostics.



My name is **Thomas Wilbur Davis**, from River Gee, Southeastern Liberia. For many years, I worked for the Liberian Ministry of Justice, providing correctional services, and rehabilitating offenders through my initiated adult literacy and agricultural production programs that are operated at Harper Central Prison.

In 2019, I received my BSc. in General Agriculture from the William V. S. Tubman University, and completed my MSc. in Horticultural Science in 2022 from the Swedish University of Agricultural Sciences (SLU) in Alnarp.

The world's growing population increasingly depends on agriculture for nutrition and livelihood. My plan is to be an active contributor to the global effort to guarantee these by providing extension services and ensuring efficient production systems that will enhance sustainable food production by working either in the public or private sectors. However, I am deeply concerned about current and future food production considering many escalating unfavorable factors such as plant pest and disease problems, soil degradation, other challenges, and climate change factors that are affecting global food production.

With its incredible core that incorporates many specializations in agriculture, I believe that the DPH program will be a valuable tool and hope to acquire the required knowledge and experience to evaluate soils and make improvements that enable maximum plant growth, solve complex pest problems, diagnose plant diseases and face other challenges. I chose this program because I believe that a DPH degree will be a master key that will unlock many doors to achieving adequate and sustainable food production to meet the world's current and future food demand.



My name is **Garrett Kuss**, and I am from Seward, Nebraska. I completed my undergraduate in Plant Biology with Mathematics and Horticulture minors this December from The University of Nebraska-Lincoln. I am excited to stay and continue working in the ag field. My biggest interests are in Plant Breeding and Consulting.



Joshua Villazana is a research coordinator in the Department of Entomology at UNL since August 2022. He provides support to three labs with a focus on pollinator health, plant-insect interactions, and toxicology studying monarch butterflies, aphids, and mosquitos. As he joins the DPH program, he is interested in learning more about plant and soil science. His career goals include developing a more interdisciplinary integrated pest management approach for extension services in horticulture, landscape & environmental systems.

Prior to joining UNL, Joshua earned a bachelor's degree in biology from the University of Texas at Brownsville, studied principles of insect pest management at Texas A&M University, and earned an MS in entomology from the University of Maine, where he researched black soldier fly larvae as value-added feed for aquaculture. More recently, he successfully became a board-certified entomologist with a specialty in Urban

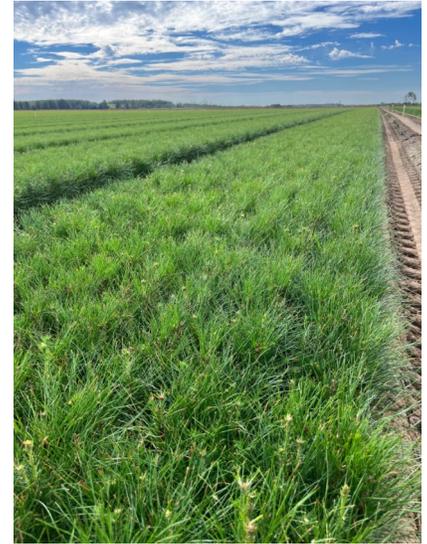
Summer 2022 Internships



Ali Loker

"Last summer I worked with the Arbor Day Foundation as a Carbon Science Intern. Though I was based out of the office in Lincoln, I had the opportunity to contribute to several projects in the United States and internationally. I conducted research to help our team better understand aspects of forest carbon project development from a technical perspective. I also contributed to several guiding documents for the Arbor Day Foundation's work in forest carbon and interacted with several external project partners. In July, I traveled to Jekyll Island, Georgia for the Georgia Forestry Association's annual conference. The conference was an excellent chance to meet forest landowners, researchers, and private companies involved in the timber industry. I really enjoyed

being able to apply the knowledge and skills I've gained through the DPH program to a new-to-me system (forests) and working with such an engaged and passionate team. I'm also fortunate to continue working at the Foundation as I complete my final year of the DPH!"



Millions of pine seedlings at a Georgia nursery.



Carbon team murder mystery holiday party



Xinzheng (Chris) Chen

In summer 2022, I worked at Research Designed for Agriculture (RD4AG), a commercial Ag research company in Yuma, Arizona. As a research biologist, my job duties included managing and conducting different field trials in product performance (efficacy), crop safety, and ecotoxicology. I was in charge of setting up field trials, applying treatments, collecting data, and summarizing reports for clients. For each research project, I collaborated with clients and the team to ensure performance excellence, reviewing data regularly, and providing regular updates.

From this internship, I learned the importance of data collection and issues related to collecting data by humans. At RD4AG, image analysis is widely used to aid this process to ensure objectivity. This inspired me to learn more and complete my doctoral document in this area. The company culture speaks for itself, as a team, we take care of and support each other. As someone far away from home, I was invited to a few of my friend's houses to meet their family, dance together, and enjoy some delicious homemade Mexican food. Also, Steve West (RD4AG COO, Research Director) took me to the Grand Canyon to enjoy the magnificent nature Arizona has to offer. Those are precious memories I will forever treasure.



Congratulations to Our Recent Graduates



Dr. Nathan Fortner
August 2022

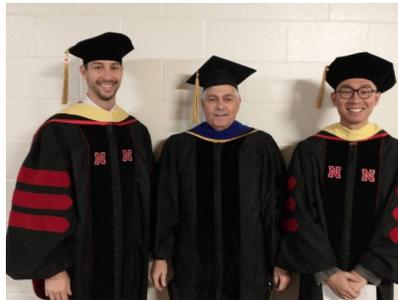


Dr. Xinzheng "Chris" Chen
December 2022



Dr. Aaron Sedivy
December 2022

DPH Graduates Throughout the Years



Anne Vidaver Plant Health Student Excellence Award



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.

Conferences



Tri-Societies Meeting in Baltimore, MD. Dr. Hein pictured with Lisa Hilfiker, UNL's Agro/Hort Graduate Program Coordinator.

ESA Meeting—Vancouver, November 11-16, 2022



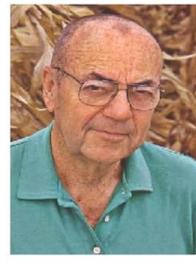
Be sure to subscribe to our new DPH YouTube channel:
<https://www.youtube.com/channel/UcKtHPIaMMJLpTmVPoX34Xw>

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Help us grow the Earle Raun Plant Health Fund



Dr. Earle S. Raun

The Earle S. Raun Doctor of Plant Health Fellowship 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, Nebraska Independent Crop Consultant Association. Contributions to this fund will enable UNL to offer fellowships for Doctor of Plant Health students. To give, go to nufoundation.org and enter Earle S. Raun in the search window.

For more information, contact Josh Egley at 402-458-1202 or Dr. Gary Hein at 402-472-3345.



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