Doctor of Plant Health

Volume 10, Issue 2 Fall 2021

The DPH Practitioner

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

Congratulations to our Recent DPH Graduates!



Dr. Emily Stine May 2021

IPM Communication Specialist at the Panhandle Research Extension & Education Center in Scottsbluff, NE



Dr. Jacob Nikodym May 2021

Research Technician with Real Farm Research in Aurora, NE



Dr. Lindsay Overmyer August 2021

Agriculture and Natural Resources Agent of Ramsey County in Devils Lake, ND

Doctor of Plant Health University of Nebraska-Lincoln 279E Plant Sciences Hall P.O. Box 830933 Lincoln, NE 68583-0933 Phone: (402) 472-3365 Email: dph@unl.edu www.dph.unl.edu





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OCTOR OF PLANT HEALTH

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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 Ass<u>ociate</u>

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.

Come visit with us at these Upcoming Events!

Oct. 31 -Nov. 3





Nov. 7-10



Nov. 12



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.

Alumni Spotlight Dr. Dori Harris



Manager is exciting and perfect for me. It utilizes my strengths of organization and communication with my love for science and education. Prior to starting this role in 2018, I was a Seeds Production Research Scientist, which I also enjoyed. It was interesting to do research trials on inbred corn to characterize them for production.

Dr. Harris, 2013 DPH Graduate

In my current role, I work with the Seeds Agronomy team and sit on the Technical Agronomy team, supporting the Golden Harvest and NK Seeds brands. My role requires me to work across teams and be able to communicate with both agronomists and marketing/communications. My responsibilities are diverse – managing projects, supporting our Agronomic Research team, summarizing agronomy research, managing newsletters, maintaining content libraries, writing technical agronomy content for diverse audiences, editing content for email, print, and web, along with pulling content together for print publications such as our Golden Harvest Agronomy in Action Research Review and NK Seeds Solutions Guide. Every week brings new challenges to solve and research in order to bring a high level of agronomic content support to our field staff.

Throughout my career, I've been able to apply agronomic knowledge and leadership skills gained from going through the DPH program. The DPH program helped me gain knowledge in diverse areas of agriculture that I use every day, such as entomology, plant pathology, and plant physiology, etc. It also helped me improve my content research and writing abilities which helps me to be successful in my role. The leadership opportunities that the DPH program provided help me manage projects and present content with confidence. Also, working with other students and faculty helped me appreciate different adult education principles which helps me support our agronomy teams.

I truly enjoy my job in agricultural industry and feel like this job is a great fit for me. I give credit to the DPH program for preparing me for a career where diverse knowledge and practical experience are critical.



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 - 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



Callie Braley: My internship this summer was once again with Crop Quest. Crop Quest is an employee-owned company based out of Dodge City, Kansas and provides many agricultural services, such as crop scouting, irrigation scheduling, soil sampling, and precision services like variable rate recommendations. I decided to work with them again for several reasons, including my great experience last summer, the wonderful people I worked with, and the opportunity to really build on what I learned last year. Last summer, I worked with two agronomists and spent 80% of my time in northeastern Colorado and 20% in the Nebraska Panhandle. This summer, I solely worked with one agronomist (one of the guys I worked with

last year), which really helped me to develop a great professional relationship with him. I still worked in both northeastern Colorado and the Nebraska Panhandle, but my time was more evenly split compared to last summer: 60% in Colorado and 40% in Nebraska. We covered an area from about Fort Morgan, CO to Oshkosh, NE and from Otis, CO to Bayard, NE.

My main responsibilities were to check fields of various crops (for growth stage, moisture status, pest problems, etc.), write up reports for fields, and discuss what I saw with the agronomist I worked with. If need be, we would discuss potential solutions to issues that were found. I mostly looked at corn, but I also had the opportunity to check alfalfa, dry beans, sugarbeets, winter wheat, field peas, triticale, soybeans, and sorghum-sudangrass. I particularly enjoyed learning about alfalfa! I also took a couple of soil and hay samples, which I had never done before. Finally, I was able to meet and chat with many farmers

throughout the summer.



Apart from enjoying the work itself, I loved taking in the beauty of the area I worked in - especially the Nebraska Panhandle. Seeing the many bluffs and landmarks (such as Chimney Rock and Courthouse and Jail Rocks) reminded me of how beautiful our state is! I appreciated the lack of humidity out there, as well! I also took many walks around Sterling, Colorado, which is where I stayed for the summer. I mostly walked around my neighborhood, but I also visited a couple of parks. It was nice to once again experience that

smaller-town feel and interact with friendly people.

Overall, it was a great experience! Although I learned quite a bit about many things, I'd say I mostly broadened my knowledge regarding recommendations to pest problems, as I was more involved in the recommendations process than last year. I also really enjoyed the many conversations I had with the agronomist I worked with - and the other intern working in the same area! Really, everyone I worked with this summer was awesome, which made the whole experience that much better.

If your company or organization would be interested in creating an internship opportunity for our students, please contact DPH Director,

Dr. Gary Hein at ghein1@unl.edu

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Brett Lynn: From Michigan to Nebraska, potatoes have kept me on my toes during 2020 and 2021, respectively. This year's adventure took me to the Texas Panhandle, where I was privileged to learn from the agronomy team at CSS Farm's Dalhart location. Approximately 4,000 acres of chipper potatoes are grown at this location for fresh and storage purposes. I was informed the growing season was unseasonably cool and wet; however, it seemed like a hot and dry reprieve from the weather I experienced in

Michigan the previous summer. The weather was favorable for botrytis and early blight, which proved

challenging to manage. Moreover, potato psyllids, which vector the bacterium that causes zebra chip, were relentlessly bombarding fields. The learning curve in managing these pests was steep, although I walked away with a newfound confidence in being able to address whatever problem Mother Nature throws my way.



Ali Loker: I spent the summer in beautiful western Michigan interning with Gerber/ Nestle's Sustainable Agriculture Development team. My role varied quite a bit over the summer, from monitoring beneficial insects in orchards and vegetable fields to participating in global conference calls about regenerative agriculture. Everything was fun in its own way! I logged just over 2,000 miles visiting eight farms collecting soil samples and monitoring beneficial insect populations to assess the impacts of agricultural production on above- and below-ground biodiversity. I had a blast getting to know the farmers and the areas surrounding the farms. I also conducted two soil health-related

literature reviews and presented the results to Gerber leadership. One of the most unique things I was able to do was drive a 60,000 lb. pea harvester (see pic below)--a quintessential Gerber experience! It was really rewarding to apply and extend what I've learned in the DPH program through this internship.







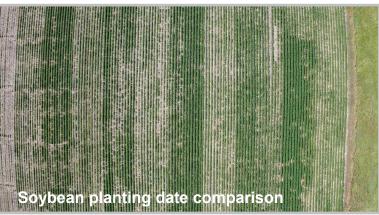
An apple grower showing Ali how they reuse apple pomace (a by-product of apple pressing) to mulch new apple trees

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Zach Rystrom interned with the Nebraska Extension On-Farm Research Network and gained experience conducting on farm studies using percision ag technology. The experience further enhanced the skills and knowledge gained through the DPH program by providing an opportunity to work on a wide range of on-farm projects that focused on corn nitrogen management, wheat nitrogen management, soybean planting date, dry bean varieties, and more. Zach supported extension outreach by talking about the onfarm research network at Nebraska Extension field days and co-hosting episodes of Farmbits, a Nebraska Extension podcast focusing on technology in agriculture. A high-

light of the internship was a trip to TechHubLive conference in Des Moines, IA where new technologies for ag were featured including drones, sensors, mobile applications, and application technology.











Nathan Fortner's internships in 2020 and 2021 centered on major components and strategies of agricultural development in developing countries. In 2020 Nathan interned remotely with the Africa RISING project funded by USAID's Feed the Future program and managed by the International Institute of Tropical Agriculture. The internship consisted of weekly discussion groups in which Nathan prepared a series of questions for project staff around project components. These included topics such as baseline assessments of smallholder farmer production systems, technology evaluation and integration into those production systems, strategies for engaging

smallholder communities and creating partnerships with other development actors for transferring technologies to smallholders, and evaluating quantitative and qualitative measures of impact.

In summer of 2021 Nathan interned with USAID's Feed the Future Sustainable Intensification Innovation Lab (SIIL) housed at Kansas State University. SIIL and Africa RISING are focused on the same goals and strategies for improving livelihoods of smallholder farmers, but the internship with SIIL focused on setting research objectives toward technologies with potential for sustainable intensification, commonly defined as technologies with potential to be scaled to at least 10,000 hectares or 10,000 farmers. The internship experience gave insight into research implemented through a process of co-creation in which researchers and farmers work together to identify and define production constraints, then develop research objectives to discover and test solutions.



Be sure to subscribe to our new DPH YouTube channel:

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

More videos to be added soon!

DPH Conversations with Dr. Anne Vidaver, Dr. Roger Elmore, Dr. Tiffany Heng-Moss, and Dr. Lee Briese are available to watch on our YouTube Channel.











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.





University of Nebraska–Lincoln 279E Plant Sciences Hall

PO Box 830933 Lincoln, NE 68583-0933

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