Doctor of Plant Health

Volume 8, Issue 2 **July 2019**

The DPH Practitioner

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

Sarah & Lee Visit Washington, D.C.

Sarah Blecha received the Future Leaders in Science Award from ASA/CSSA/SSSA to participate in Congressional Visits Day – A two day event in Washington, D.C. Day one consisted of a training session to prepare them for the next day office visits. Day two was spent advocating on behalf of the Tri-Societies for agriculture research funding. Sarah spoke with Senator Ben Sasse, Senator Deb Fischer, and Representative Jeff Fortenberry about increasing funding for AFRI. AFRI funds many of the graduate research projects across the nation, especially at UNL. "It's important for our state representatives to know the impact graduate students have on the state's agriculture research and this impact is directly due to the support of AFRI funding."

Lee Briese was in D.C. as a Certified Crop Adviser representing North Dakota and interacted with North Dakota's congressional representatives about the importance of agricultural research and education.



Sarah with Congressman Jeff Fortenberry



Sarah with Nebraska's United States Senator Deb Fischer



Sarah & Lee

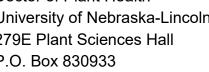


North Dakota state Senator John Hoeven (pictured in the center)

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DPH Faculty Steering Committee Members

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

Dr. Roger Elmore, Professor, Agronomy/Horticulture

Dr. Richard Ferguson, Professor, Agronomy/ Horticulture

Dr. Chuck Francis, Professor, Agronomy/Horticulture

Dr. Loren Giesler, Professor, 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

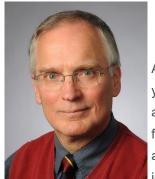
The Doctor of Plant Health program at the University of Nebraska–Lincoln is an innovative model for educating plant health practitioners. DPH is a professional degree parallel to a medical or veterinary degree, but instead, graduates are prepared to understand and diagnose plant health issues and manage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



Congratulations to Dr. Roger Elmore on his retirement from UNL.

At the end of June, Dr. Roger Elmore retired after nearly 40 years of providing agronomic expertise through his Extension and research activities at two universities. He worked for UNL for 24 years while stationed at the South-Central Research and Extension Center. After that Center was restructured, he joined Iowa State University and spent nearly a decade there

as Extension corn agronomist. In 2014 he returned to UNL and continued to provide his Extension and research expertise as the Extension Cropping Systems Specialist. During this recent period with UNL, he also made a significant contribution to the Doctor of Plat Health Program as he served on the DPH supervisory committee and interacted with several of our students. We want to thank Dr. Elmore for his commitment to the DPH program, and wish him the best in his retirement. Thank you Roger!

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.

Science As Art

Online course helps Huskers hone scientific observation, drawing skills

Written and published by University Communication on June 11, 2019

https://unlincoln.exposure.co/science-as-art

The main focus of the course is to teach students how to properly observe a specimen and communicate it precisely per standard scientific illustration rules. Students observe a single specimen throughout the semester, drawing it in a variety of ways, using classical techniques and building toward digital technologies and media.

"Most of the students are studying scientific fields and not necessarily artists. This course stretches their skills, but it's not about drawing something that is nice and aesthetically pleasing. It's about observation and creating the most-accurate image possible."

Lana Johnson, project manager, Agronomy and Horticulture

Johnson has taught the three-credit scientific illustration course at Nebraska since 1996. Most recently it has been offered during the spring semester.

DPH Students Aaron Sedivy and Amy Hauver were recently a part of Lana's Scientific Drawing course.

Aaron Sedivy



Colored pencil - Erythemis simplicicollis

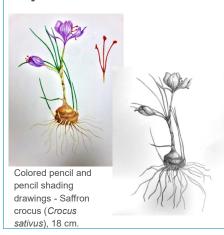


Pen & Ink - Hibiscus syriacus



Pen & Ink - Danaus plexippus (Asclepias curassavica)

Amy Hauver





Carbon dust illustration - White heelsplitter (*Lasmigona complanate*), 16 cm.



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

DPH 10th Anniversary Luncheon

2019 marks the 10th year of the Doctor of Plant Health program at UNL. We celebrated this milestone with a luncheon to recognize all the individuals that contribute to helping make this program successful.



Seven students received their Black Bag, which marks the half-way mark of their DPH program

Black Bag Recipients (from left to right): Lindsay Overmyer, Chris Chen, Jacob Nikodym, Nathan Fortner, Adam Striegel, Amy Hauver, and Zach Rystrom

2019 Earle Raun Fellowship Recipients

From left to right, pictured with Georgia Raun is: Lindsay Overmyer, Adam Striegel, and Emily Stine.











Anne Vidaver, Georgia Raun, & Nancy Raun

Dr. Gary Hein & CASNR Dean, Tiffany Heng-Moss

May 2019 Graduation

Congratulations to our newest Doctor of Plant Health graduates

Dr. Sarah Blecha Dr. Salvador Ramirez II Dr. Lee Briese

Dr. Christopher Wynn







Photo by Craig Chandler, Office of University Communication



Sarah Blecha has accepted a position as a Laboratory Technician for the USDA in St. Paul, Minnesota. Sarah will be doing transgenics in brachypodium, spring wheat, and oats. The lab group focuses on recessive disease resistance and gene mechanisms for durable resistance. When a gene is found, they work with breeders to incorporate the gene into breeding lines.



Lee Briese will continue his work as a crop consultant in Jamestown, ND. He hopes to provide a higher level of service and diagnostics to his growers. He will also be helping to provide continuing education training for his coworkers at Centrol Crop Consulting. Lee will continue to give presentations encouraging growers to improve how they manage their soils and utilize Integrated Pest Management and diversity in their cropping systems.



Salvador Ramirez II will continue his doctoral studies at UNL under the mentorship of Dr. Rhae Drijber and Dr. Virginia Jin. He plans to defend a PhD in agronomy in December of 2019. For his PhD, Sal has characterized soil microbial communities under 3 different agroecosystems. The first system is a USDA site in which corn stover is removed at three levels under no-till or disked tillage. The second site is also a USDA site in which nitrogen fertilizer is applied at three different levels under four crop rotations. That last site is a CERES trust funded organic site in which cover crops were used to suppress weed species. By extracting fatty acid methyl esters in addition to soil enzymes, Sal compares how those treatments influence soil microbial biomass and soil microbial activity.



Chris Wynn has begun an agronomist position with Verdesian Life Sciences. Verdesian Life Sciences specializes in Nutrient Use Efficiency. It offers farmers and growers the biological, nutritional, seed treatment and inoculant technologies that maximize performance on high-value row crops and specialty crops, as well as turf and ornamental plants. "The position I accepted will be a territory sales representative and agronomist. My territory will cover Oregon and parts of Washington state. I'm extremely thrilled about this opportunity and location. I will be heading back to the Pacific Northwest and working in the state I grew up in. I'll be working alongside many growers to improve their Nutrient Use Efficiency as well as helping build a sustainable future."

Summer Internships 2019



Amy Hauver

Amy is working with DPH alumnus, Justin McMechan, with his UNL extension and research work with the soybean gall midge. Amy helps to create extension publications, videos, and articles. She is learning to develop agronomic solutions and deliver those solutions and management strategies

to growers and record weed species that are present at soybean gall midge field locations.

Amy is also experiencing different techniques and strategies involved in designing and implementing entomological research, assist other graduate students with their data collection and field work, and investigate the relationships between soybean gall midge, plants, and abiotic factors.





Jacob Nikodym

Jacob is working at Midwest Research, Inc. in York, Nebraska. He is gaining experience in all technical aspects of conducting applied research, the application of ARM for data collection and

analysis, and the practices and complications associated with research requiring the use of GLP. He is assisting with establishing and maintaining trial areas, collecting trial data and samples, and monitoring trials for changes.



Lindsay Overmyer

Lindsay is working in North Dakota with DPH alumnus, Lee Briese. She is doing field assessment and construction of management recommendations, diagnosis of biotic and biotic problems in the field, expanding her knowledge

of pesticide use and application and developing science-based educational videos for farmers. She will also be collecting field observations, quantifying and assessing crop health, and learning route planning and time management.



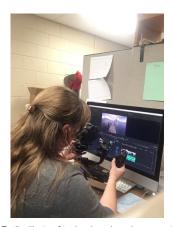
Emily Stine

Emily is working at UNL's Panhandle Research and Extension Center in Scottsbluff. Her focus this summer is on developing a science communication media campaign. The campaign hopes to take scientific and

technical information and translate it into actionable and comprehensive statements for the public. She will work with current production techniques to produce videos and podcasts for UNL Extension.



Emily: "Backdrop schematic drawing day. Getting closer to production."



Emily: "Lots of technology learning - practicing working the gimbal for field filming and learning how to use Premiere for video editing."



Lindsay at work in the fields



What the DPH Staff & Students Have Been Up To



Congratulations to **Adam Striegel** on receiving The Holling Family Award for Teaching Excellence.



the 2019 North American
Colleges and Teachers of
Agriculture (NACTA) award
for Graduate Teaching.



Several DPH students out celebrating Lee's birthday!

Congratulations to **Lindsay Overmyer** for placing 3rd in the 10 minute paper student competition MS P-IE Session 2 at the ESA - NCB.



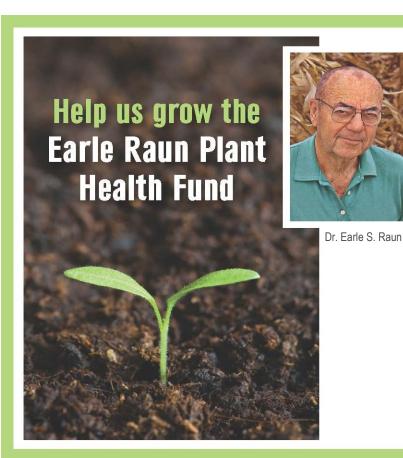


Chris Chen is currently doing research on 2, 4-D and Dicamba Drift on lettuce and pumpkins. They have sprayed different rates of herbicide recently and are waiting on symptoms to develop.









The Earle S. Raun Doctor of Plant Health Fellowship Fund was created to honor Earle Raun's efforts in establishing UNL'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 (NAICC) and its Nebraska affiliate, Nebraska
Independent Crop Consultant Association (NICCA).

Contributions to this fund will enable UNL to offer fellowships for Doctor of Plant Health students. To give, go to nufoundation.org/fundsearch and enter Earle S. Raun into 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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