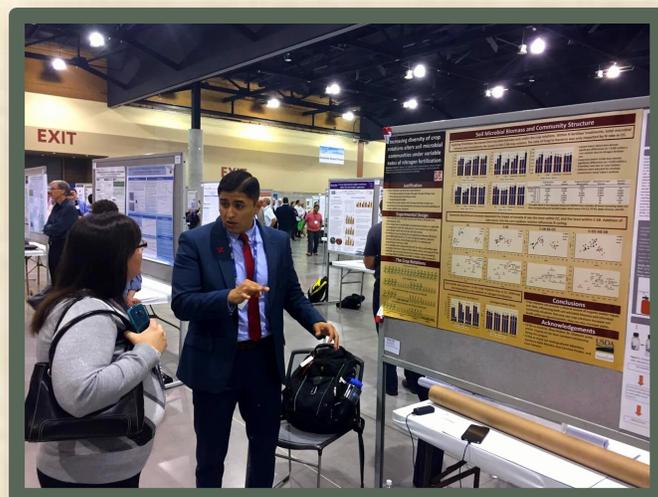
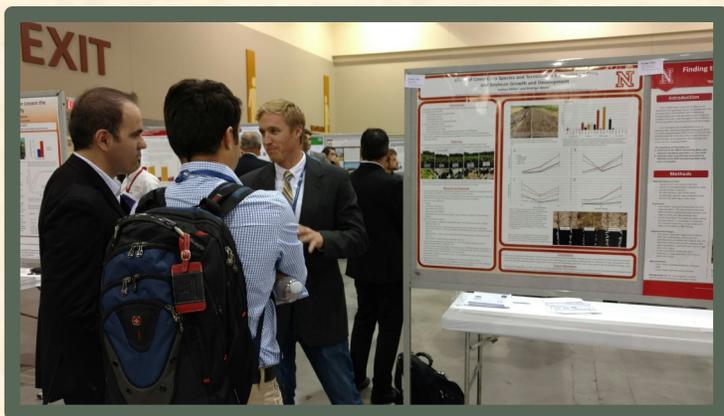
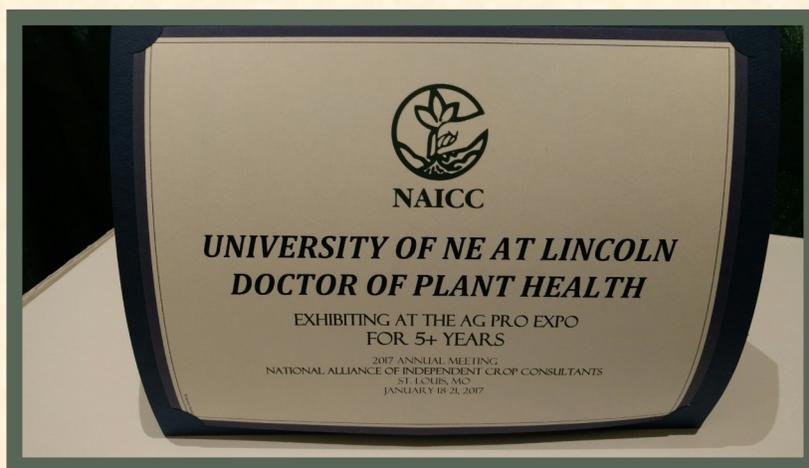


January 2017

Volume 6, Issue 1


Doctor of Plant Health

THE DPH PRACTITIONER



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



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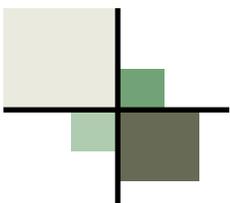


The DPH 'Black Bag'

DPH Program Staff

Dr. Gary L. Hein, DPH Director

Linda Hellbusch, 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 program similar to a medical or veterinary program, 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 will prepare you to make a difference in tomorrow’s agriculture.

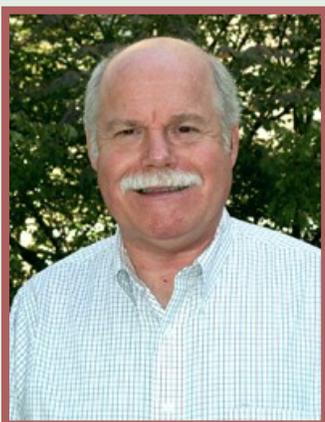
Graduates of the Doctor of Plant Health program are in demand worldwide for their comprehensive knowledge and experience, resulting in 100 percent job placement.

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

Faculty Highlight: Dr. Robert Wright



Dr. Robert Wright, Research & Extension Entomologist. Area of Interest: Field Crops IPM, biological control, sustainable agriculture, extension.

Dr. Wright conducts a research and extension program on insect management on corn, soybean and other agronomic crops in eastern Nebraska. Much of his research is conducted at UNL’s South Central Ag Lab near Clay Center. He contributes to UNL’s Crop Watch

newsletter (<http://cropwatch.unl.edu>), and ongoing extension programs such as Crop Production Clinics and Crop Management & Diagnostic Clinics. He teaches a graduate course online, Management of Agronomic Insects, as part of the UNL Entomology Distance M.S. program.

When asked about the Doctor of Plant Health program, Dr. Wright said... *“I enjoy working with DPH students through serving on the DPH Supervisory committee. Our students are broadly trained across multiple disciplines, and have a variety of career goals. The DPH program has a great track record of our graduates finding good jobs in areas related to their training and interest. It is very rewarding to contribute to their success.”*

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.

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2016 December Graduates



left to right: Dr. Gary Hein (Director) & Dr. Joshua Miller

Congratulations to our new Doctor of Plant Health graduate, Dr. Joshua Miller, who received his DPH degree on Friday, December 16th at the Pinnacle Bank Arena.

Joshua Jay Miller presented his Doctoral Seminar, “The Role of Interdisciplinary Scholarship and Research To Meet the Challenges Facing Agriculture in the 21st Century” on Tuesday, November 29, 2016. He will be completing his PhD in Plant Pathology with the intention to graduate in May of 2017.

Some highlights from Joshua’s year include: Presenting a poster at the ASA on an independent project evaluating the influence of cover crop species and termination strategies on subsequent corn and soybean growth and development. He also gave an oral presentation on results from his work using crop canopy sensors to characterize the productivity of soybean fields prior to harvest. At the North Central Weed Science Society Annual Meeting, Joshua presented results from the independent study on cover crops, but focused on the influence of the cover crop species and termination strategies to suppress weeds and their impact on corn and soybean yield. In addition, Joshua was a contributing author to the Nebraska Soybean and Corn Pocket Field Guide 2017 Edition (in print), a contributing author to the Disease Management section of the 2017 Guide for Weed, Disease, and Insect Management in Nebraska, and a co-author (along with current DPH student, Salvador Ramirez) of the paper “Light Quality Effect on Corn Growth as Influenced by Weed Species and Nitrogen Rate” published in the Journal of Agricultural Science in 2017.

Sarah Marie Blecha received her MS in Agronomy on December 16th; Sarah is a current DPH student.
Congratulations Sarah!



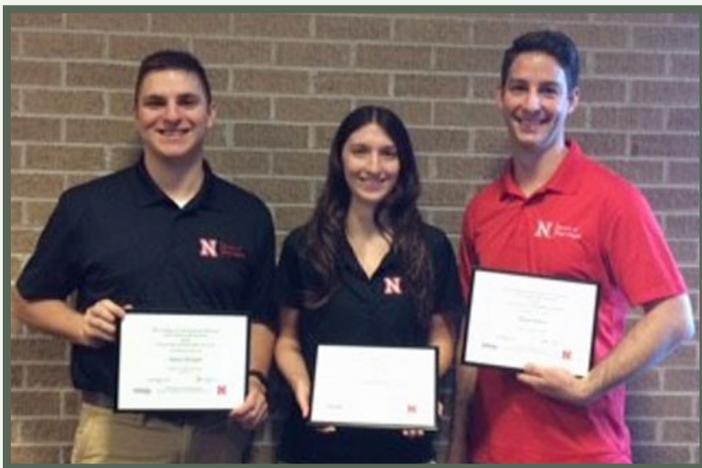
left to right: Sarah Blecha & Dr. Joshua Miller



left to right: Sarah Blecha, Dr. Gary Hein (Director) & Dr. Joshua Miller

Distinguished Fellowship Award Luncheon

Congratulations to Adam Striegel, Sarah Blecha, Aaron Sedivy and Emily Stine, all current DPH students, on receiving The William J. Curtis Fellowship Award. They were recognized at the Distinguished Fellowship Award Luncheon on November 8, 2016.



Adam Striegel, Sarah Blecha and Aaron Sedivy



Emily Stine

Drs. Hein & McMechan Attend ICE



Dr. Hein and Sage Thompson, from the University of Florida Doctor of Plant Medicine Program, co-hosted an information booth about both programs while in Orlando.

Dr. Justin McMechan, a recent DPH graduate, received the John Henry Comstock Award at the XXV International Congress of Entomology Conference in Orlando, FL. The John Henry Comstock Award goes to one student each year in each regional Branch of the Entomological Society of America (North Central Branch in this case) who has performed through their graduate career at an exemplary level. In addition, Justin presented an invited talk entitled, 'Video Evaluation, Time-Lapse, and Photo Geolocation: Tools for Integrating Research and Extension.'

Drs. Gary Hein, Director of Doctor of Plant Health Program, and Justin McMechan attended ICE 2016, the XXV International Congress of Entomology, under the theme Entomology without Borders, September 25th-September 30th, 2016 in Orlando, FL. The event brought together the largest delegation of scientists and experts in the history of the discipline. It was an opportunity to make important connections with entomologists and scientists from around the world and showcase our program to an important global audience.



New DPH Students



Sarah Blecha, received her B.S. in Horticulture (2014) from the University of Nebraska-Lincoln and received her M.S. in Agronomy in December 2016 from UNL. Sarah started the DPH program in the fall of 2016.

Sarah wants to combine her molecular biology experience with the coursework knowledge gained from the DPH to apply to the field.

Her goal is to view plants at both the molecular scale and whole field level.

Sarah said... *"During my Master's program I realized a professional degree instead of a PhD was the route I wanted to take. The Doctor of Plant Health Program will help me reach my career goals to continue crop research. We will always have a need for scientists that have a special focus. We also need scientists that can look at a field not only at the whole picture, but also at the molecular scale. I know that a broad scope of knowledge will be needed for me to help farmers in the field. By having the lab background from my Master's program, I can combine more of the classroom knowledge to my career. I can go to a farmer's field and know what is going on both at the plant physiology level, along with changing field conditions, such as the soil, pests or diseases."*



Nathan Fortner, despite having not been raised in agriculture, he developed an early interest in biological systems, eventually developing a specific interest in agricultural systems. Nathan received his BS in Agronomy from Missouri State University (2002), and did post-graduate study at the University of Arkansas. Nathan

began the DPH program in January 2017 by taking distance classes that will count toward the program.

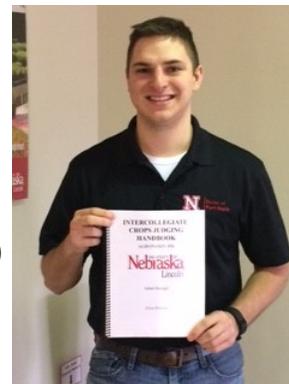
Nathan works for a start-up biotech company as a rice agronomist, leading rice production first in North Carolina, then in Kansas; as well as counter-season seed production in the US Virgin Islands, and two seasons in Chile.

Over the last few years, through chance conversations with individuals working in faith-based organizations abroad, he began to hear many instances in which these individuals see the need for improvements in agriculture within the communities they serve in the developing world. They have a desire to get involved, but often do not know where to begin, or where to find appropriate expertise (e.g. CGIAR centers). In 2016 he conducted a survey of three faith-based mission organizations to help determine the prevalence of these scenarios. He's now navigating a career transition in which he hopes to work with faith-based workers and their communities in the developing world to assess constraints to current agricultural systems. He would then assist them to facilitate technology transfer between the communities they serve and scientists and research centers who are developing current advancements in sustainable agricultural science, to bring the most appropriate solutions to the community and agricultural system.

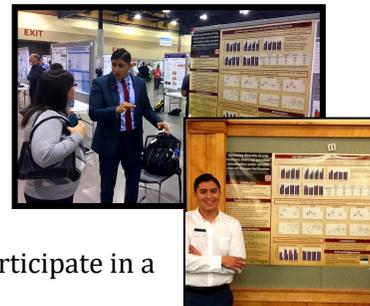
Nathan said... *"I began to realize the DPH program would provide the kind of depth and breadth in plant science and agronomy which would better equip me to make accurate assessments of constraints to agricultural systems in any environment. I don't plan on solving these problems myself, rather understanding the science that can solve them, and being very effective at finding and collaborating with the scientists who are solving specific problems; functioning as, and enabling extension services, which are often lacking in the developing world. I'm excited about the versatility the DPH program entails, and how it will build versatility in me which I can bring to the diverse environments of global agriculture"*

DPH Student News

Second semester DPH student Adam Striegel is coaching and teaching the UNL Crops Judging team. Building his course from the ground up, Adam created a 200 page handbook for the identification of 80 crops, 60 weeds, 40 insects and 30 diseases.



Salvador Ramirez, DPH and M.S. Agronomy student, presented a poster at the 2016 Plant Science Retreat that was held on October 14th, 2016 at the Lied Lodge and Conference Center in Nebraska City. The title of his poster is: "Increasing Diversity of Crop Rotations Alters Soil Microbial Communities Under Variable Rates of Nitrogen Fertilization".



Sal attended the ASA-CSSA-SSSA meetings in Phoenix, AZ and presented two talks and two posters addressing the effects of corn stover and crop rotation diversity on soil microbe communities and soil quality. At this meeting he also was invited to participate in a panel discussion on science policy at the Graduate Student Luncheon.



Congratulations to Lee Briese! Lee received the 2016 Consultant of the Year award from the National Alliance of Independent Crop Consultants (NAICC) at their annual meeting in St. Louis, Jan. 18-21, 2017. There were two winners this year, Griffin Vlestra and Lee. Lee was nominated for the work he does with his farmer customers, for his continued pursuit of education, his involvement as chairman of the North Dakota board for the Certified Crop Adviser (CCA) program and his advocacy for conservation and integrated management.

Lee has given presentations to farmers, bankers and the general public in 3 states on soil conservation, herbicide resistant weed management and cover crops. He tries to encourage farmers, consultants and scientists to proactively manage farms and challenges such as weeds, insects and disease as complete ecosystems rather than as independent problems.

Lee and Dr. Hein also presented updates on the DPH program at the NAICC business meeting.

Lee, who is a crop consultant with Centrol Inc. of Twin Valley, ND, spoke in Fargo, ND on December 13th, 2016 at the annual Conservation Tillage Conference hosted by North Dakota State University and the University of Minnesota. Lee works with 39 clients in six counties as a consultant. To read more about Lee's presentation at the Conservation Tillage Conference, please visit: <http://www.agweek.com/crops/4182839-consultant-adopt-new-sustainable-practices>

Program News & Development

You can find additional details on stories and stay informed of the most recent events and important announcements regarding the DPH program by checking out our Facebook page at: <https://www.facebook.com/planthealthdoctor>

If you are interested in previous issues of the Plant Practitioner, you can read them online at <https://dph.unl.edu/doctor-plant-health-newsletter>



The website <https://dph.unl.edu> provides information about the history of the program, its mission, curriculum, as well as current students and involved faculty. Our website also highlights other opportunities to learn more about how to apply for enrollment, contact us for questions or to support the DPH program.

Student Profile

Why did I choose the DPH Program?

"I came into the Doctor of Plant Health with the desire to better understand the above and belowground complexities of plant communities in agricultural and horticultural settings. My interest in agriculture started in high school FFA, where I was active in horticultural opportunities. From there, I received my bachelor's degree from UNL in Turfgrass and Landscape Management before deciding to further my education and understanding through the Doctor of Plant Health Program. I aspire to be a liaison between the science community and the public, enabling conversations and questions to be examined and explored on both sides of the table."**Emily Stine - DPH student**



Doctor of Plant Health

University of Nebraska-Lincoln

279E Plant Sciences Hall
PO Box 830933
Lincoln, NE 68583-0933

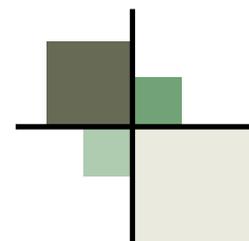
Phone: 402-472-3365
Fax: 402-472-7904
E-mail: dph@unl.edu

For additional information visit our website at:

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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 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 402-458-1176 or Gary Hein at 402-472-3345.

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