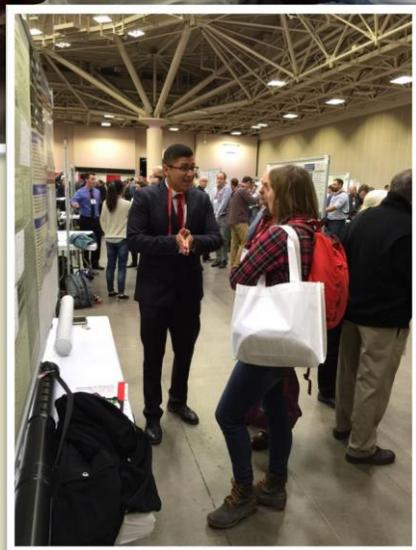


Volume 5, Issue 2

Doctor of Plant Health

The DPH Practitioner



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



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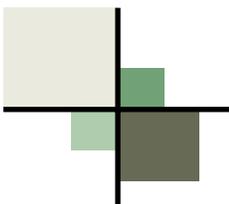
Dr. Gary Yuen, Professor, Plant Pathology Department



DPH Program Staff

Dr. Gary L. Hein, DPH Director

Nancy Shoemaker, 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.

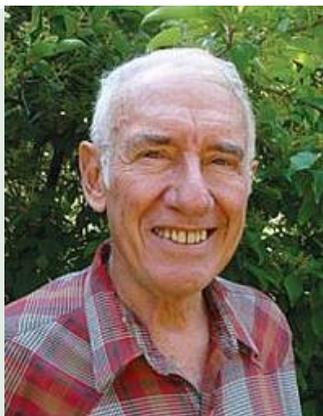
Graduates of the Doctor of Plant Health program are in demand worldwide for their comprehensive knowledge and experience, resulting in 100 percent job placement.

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. Charles Francis



Dr. Charles Francis, Professor of Agronomy.
Area of Focus: Agronomy, Crop Rotations, and Farming Systems.

Dr. Francis has research and extension interests as well as participates in major project activities. These include resource efficient cropping systems, long-term rotations and cover crops, spatially diverse field designs, integrated crop/animal systems, whole farm planning and watershed design for environmentally sound production systems; on-farm and participatory research and educational activities, collaborative research design; future farming systems, role of diversity and

integrated resource management, value added enterprises and products, and relationships of small and moderate-scale family farms to viable rural communities.

Dr. Francis also teaches Agroecology, Agroecosystem Analysis, Urbanization of Rural Landscapes and Science-Based Organic Farming and Gardening.

When asked about the Doctor of Plant Health program, Dr. Francis said... *“It is both challenging and rewarding to work with the DPH students because of their obvious talent, broad perspective on agricultural systems, and motivation to make practical contributions to future food supply. They have been active participants in the agroecology class, bringing in a wide appreciation of how to identify and solve pest and nutrient problems in crops, and a willingness to share their expertise with others. This is a landmark program that is preparing graduates very well to face a complex and uncertain future in agriculture, especially in seeking out the most environmentally safe solutions to pests and soil nutrition challenges.”*

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 May Graduates



left to right: Drs. Gary Hein (Director), Justin McMechan, Kevin Korus, Greg Brittain, and Derek Pruitt

Congratulations to four new Doctor of Plant Health recipients on May 6, 2016. Drs. Gregory Brittain, Jr., Kevin Korus, Anthony Justin McMechan and Jon Derek Pruitt received their DPH degrees on Friday, May 6th at the Pinnacle Bank Arena.

Gregory "Greg" Brittain, Jr. presented his Doctoral Seminar, "Managing Drought Stress in California Agricultural Systems" on Tuesday, April 19, 2016.

Greg is employed with Pacific Ag Research in San Louis Obispo, California working as a

field and lab technician. Greg assisted with set up of the plant pathology lab, including developing protocols for making inoculum as well as detecting and quantifying pathogens in trial plots to confirm infection. Greg also aids in insecticide and fertilizer trials when needed.

Kevin Korus presented his DPH Doctoral Seminar, "Molecular Tools for Diagnosing Plant Health Issues" on Tuesday, April 7, 2016.

Kevin is employed with the UNL Extension Plant Pathology department (2012) as the coordinator of the Plant and Pest Diagnostic Clinic. A native of Nebraska, Kevin received his B.S. in Horticulture and M.S. in Agronomy (Plant Pathology) from the University of Nebraska-Lincoln.

Jon Derek Pruitt presented his Doctoral Seminar, "A Brief History of Corn: Looking Back to Move Forward" on Thursday, March 17, 2016.

Derek is employed by Monsanto in Gothenburg, NE as a Technology Development Research Associate. His primary responsibilities are helping with research trials. He also provide tours and training workshops for producers and the public in general. Information gathered will help decide which trials will be the most valuable in the future.

Anthony Justin McMechan presented his Doctoral Seminar, "A Vision for Extension: Case Studies on Managing Extreme Weather Challenges in Corn" on Tuesday, April 12, 2016. Justin will also receive his Ph.D. in Entomology in August 2016.

Justin received his B.S. in Agronomy (2009) from the University of Minnesota-Crookston and his M.S. in Entomology (2012) from the University of Nebraska-Lincoln. In August, Dr. McMechan will begin employment with the University of Nebraska-Lincoln as an Assistant Extension Professor. His responsibilities will be to develop a national caliber Extension and Research Crop Protection program developing best practices with designed integration of crop protection and cropping system practices in eastern Nebraska rainfed and irrigated production systems.

2016 May Graduate Reception

Faculty and DPH students celebrated the graduation of four more DPH graduates at a reception held on Thursday, April 28th.



2016 Summer Student Internships



Emily Stine is working at Kimmel Orchard, in Nebraska City as an Orchard Intern. She is primarily managing approximately an acre of newly planted strawberries, but also assisting in numerous other tasks including managing tall spindle apple trees, harvesting fruits, and tying grapes.

Emily is also involved with assisting customers during festivals at the U-Pick barn. Emily said *“Even though I’ve only been working for a month, I have learned a great deal, and look forward to the next couple of months here”*.



Chris Wynn is working with Dr. Gary Hein on developing a hail risk map and also looking at differences in reflectance for various wheat varieties using the Ocean Optics 2000.

Chris is also assisting Dr. Richard Ferguson by flying UAVs equipped with spectral sensors for site-specific fertility management projects.

New DPH Students Starting this Fall...



Adam Striegel, received his B.S. in Agronomy (2016) from Iowa State University.

Adam's experiences in agronomy courses and competing on the inter-collegiate crops judging team helped him realize a true passion for understanding the complex agronomic world he grew up surrounded by and conveying that understanding to others.

Adams said... *"I am interested in the Doctor of Plant Health program due to the breadth and depth of the educational and professional experience it provides its students. After reviewing the curriculum and discussing the program with Dr. Hein and students in the program, I believe the Doctor of Plant Health is the right choice for me due to its uniqueness. I have considered various graduate school programs at other universities, but I have always found the programs offered to be lacking in scope. I am very interested in Weed Science, Plant Pathology, Soil Science and Entomology, but I know I wouldn't want to ONLY studying one very specific and lasered-in aspect of one of those disciplines, when I have interest in all of them. The DPH program will provide me an opportunity to study all the facets of plant health."*



Kaylee Cowan, received her B.S. in Agricultural Communications (2016) from Oklahoma State University.

From early on, Kaylee wanted to explore everything around her. Her background in 4-H and the degree in agricultural communications, she decided to pursue the industry of agriculture and share its

importance with others. Learning about land, soil and water interactions during drought periods, the more she wanted to investigate and explore this topic.

Kaylee said... *"one of the areas of the Doctor of Plant Health program that holds a particular draw is the diversity of focus area available."*

... *"understanding the dynamics of agronomy on a more holistic scale will allow for collaboration necessary to conserve water and continue production to feed a hungry world. The ability to gain applicable knowledge in pathology, entomology, and other related disciplines is what sets this program apart for me. The hands on aspect of this program would allow for practical experience and in field training in multiple disciplines. Because of my own hands on approach to learning I find this program both appealing and a challenge as my next step professionally."*



Lee Briese, received his B.S. in Crop and Weed Science (1994) from Dickinson State University and his M.S. in Soil Science (2010) from North Dakota State.

Lee brings experience with several years as a crop consultant with Centrol, Inc., serving 46 growers with over 85,000 acres. His desire to continue to improve his value to

clients, community and agriculture have led him to the Doctor of Plant Health program.

Lee said, *"The Doctor of Plant Health seems perfectly tailored to my career as an independent crop consultant. The core duties of my job are to scout crop production fields on a weekly basis, make observations about appearance of the crop and pests, as well as take specific measurements of the stand, fertility, pests, weather or any other problems and to suggest treatments or management strategies to minimize these problems and maximize the health of the system as a whole. I expect the Doctor of Plant Health to increase my ability to quickly and accurately diagnose problems and to expand my knowledge and critical thinking skills allowing me to devise better solutions to production problems."*

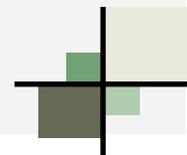


Noel MacNeil, received her B.S. in Park and Recreation (2007) from Northern Arizona University and a M.S. in Entomology (2013) from the University of Nebraska-Lincoln.

Noel's degree in Entomology and previous employment with the National Park Service have

demonstrated that working in Integrated Pest Management requires a well-rounded understanding of a wide variety of topics that affect forestry and agriculture.

Noel said... *"...my background may be in forestry but my training as an entomologist is with crops. Agriculture is still an interest of mine and I welcome the opportunity to use the knowledge gained through the DPH program to work in other countries."*



National Meetings

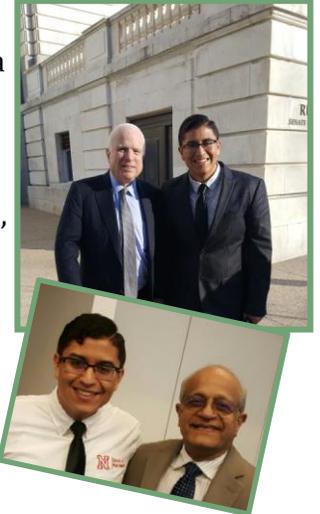
Salvador Ramirez, DPH and M.S. Agronomy student, was selected to receive the 2016 American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Future Leaders in Science Award. Sal was chosen from a



pool of almost 60 exceptional graduate students because his application expressed an impressive enthusiasm for both research and advocacy.

Sal received an all-expenses paid trip to Washington, DC to participate in the 2016 Congressional Visits Day (CVD) on March 14-15. There he received advocacy training, teamed up with society

leadership and met with Nebraska's Congressional delegation, Senators Ben Sasse and Deb Fischer. Sal also had the opportunity to meet and talk with Dr. Sonny Ramaswamy, the director of USDA's National Institute of Food and Agriculture (NIFA) and also meet Senator John McCain.



Joshua Miller, DPH and Ph.D. Plant Pathology student, presented a poster, "The pre-emergence mode of action experience" at the North Central Weed Science Society Meeting at an extension event looking at the importance of preemergence herbicides; and published two extension articles as part of Soybean Management Field Days, "Integrated evaluation of common inputs to increase soybean yield in Nebraska" and "The pre-emergence mode of action experience".



Josh also published a book review with Dr. Charles Francis in Agronomy Journal, "The myths of safe pesticides (book review)", Link: <https://dl.sciencesocieties.org/publications/book-reviews/view/75>.

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?

"For most of my life, medicine has fascinated me. I first imagined myself to be a physician; however, after volunteering in a hospital for several years, I realized that was not the path for me. I next tried Pre-Veterinary medicine. After a few internships and a semester of college, my true passion for horticulture was made clear. I decided on Plant Science because it was the most comprehensive of the Horticulture Options. While still an Undergrad, the Doctor of Plant Health degree at UNL was developed. When I first heard about this program, I knew it was the degree I had been yearning for. Tree health and tropical fruit production are my leading interests."Aaron Sedivy—DPH student



Doctor of Plant Health

University of Nebraska-Lincoln

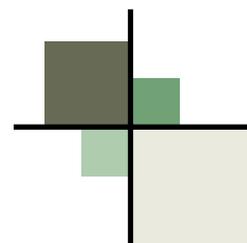
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www.dph.unl.edu



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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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