# **THE DPH PRACTITIONER**

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Volume 6, Issue 2





Salvador Ramirez II and Christopher Wynn are mechanically inoculating maize for a Maize Chlorotic Mottle Virus study for the Plant Virology course



Sarah Blecha and Lee Briese experimenting with plant viruses



Sarah Blecha crossing wheat in the greenhouse

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









### Faculty Steering Committee Members

Dr. Gerard Adams, Associate Professor of Practice, Plant Pathology Department Dr. Roger Elmore, Professor, Agronomy and Horticulture Department
Dr. Richard Ferguson, Professor, Agronomy and Horticulture Department
Dr. Chuck Francis, Professor, Agronomy and Horticulture Department
Dr. Loren Giesler, Professor, Plant Pathology Department
Dr. John Lindquist, Professor, Agronomy and Horticulture Department
Dr. Martha Mamo, Professor, Agronomy and Horticulture Department
Dr. Lance Meinke, Professor, Entomology Department
Dr. Ellen Paparozzi, Professor, Agronomy and Horticulture Department
Dr. Anne Vidaver, Emeritus Professor, Plant Pathology Department
Dr. Brian Wardlow, Associate Professor, School of Natural Resources
Dr. Robert Wright, Professor, Entomology Department
Dr. Gary Yuen, Professor, Plant Pathology Department

The DPH 'Black Bag'



DPH Program Staff

Dr. Gary L. Hein, DPH Director Linda Hellbusch, Administrative Associate

#### Volume 6, Issue 2

#### Page 3

#### 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 <u>ghein@unl.edu</u>, or call 402-472-3365 for more information. We look forward to visiting with you!



Dr. Gary Hein DPH Director

#### Faculty Highlight: Dr. Ellen T. Paparozzi



Dr. Ellen T. Paparozzi, Professor of Horticulture. Teaching and research appointment. Areas of interest: medicinal plants, plant nutrition and anatomy, controlled environment agriculture. In addition to serving on the DPH admissions committee, Dr. Paparozzi teaches the graduate resident & distance plant nutrition and nutrient management class and a graduate level class on woody plant growth and development. She also teaches 3 undergraduate level

classes on the production and physiology of floricultural and ornamental/nursery crops. Dr. Paparozzi is responsible for the horticulture graduate certificates, chairs the Plant Biology Steering committee, and co-advises Pi Alpha Xi, the Horticulture Honor Society. Her research is in whole plant physiology – particularly plant nutrition and plant anatomy under controlled environment conditions (<u>http://agronomy.unl.edu/cea</u>).

When asked about the DPH program...

Nutrient deficiencies or toxicities are one of the big 3 reasons plants die or don't thrive. I love challenging the DPH students with open-ended case studies and individual research projects related to nutrition issues. My goal is to equip our students with the toolbox they'll need to solve problems now and in the future because as the climate changes so will the issues. Our DPH students will be ready!

#### 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.

#### Inside this issue:

DPH Steering Committee Program Staff	2
Greetings & Faculty Highlight	3
2017 DPH Award Reception	4
New DPH Students & Student News	5
DPH Student News	6-7

#### Page 4

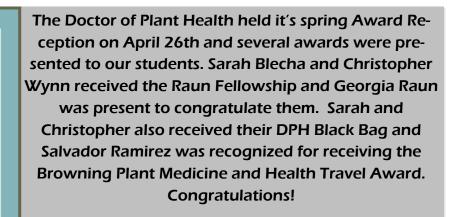
### 2017 DPH Award Reception



Аркіі 26<sup>тн</sup>, 2017 3:00РМ

PLSH 269 East Campus









Nancy & Georgia Raun



Christopher Wynn, Georgia Raun, Sarah Blecha-Raun Fellowship Recipients & Dr. Gary Hein



Sarah Blecha & Christopher Wynn received the DPH Black Bag from Dr. Gary Hein



Dr. Gary Hein & Salvador Ramirezthe Browning Plant Medicine & Health Travel Award Recipient.

### New DPH Students

Xinzheng (Chris) Chen,

of 2017.

career paths available to him such as starting his own business,

or working as a consultant either helping farmers that have pest

or disease problems, or maybe working as a consultant in a big

"I have always dreamed that one day there might be a doctoral

position for treating plants just like there are veterinarians for

animals and physicians for people. Until now, the Doctor of

taking classes such as plant physiology, plant pathology, and

entomology during my undergraduate year. I would expect

This program would allow me to focus on an area that I am

sustainable production. I believe this program will help me

ways in the future". ~Xinzheng (Chris) Chen

very interested in mastering in the future. I have a passion for

organic farming as I believe organic is the best way to achieve

build my career and contribute to my country in new exciting

that the Doctor of Plant Health program would help me to gain

knowledge and experiences to better prepare for the real world.

Plant Health allows me to become a real one. I have loved

seed company.

received his B.S. in Horticulture

from the University of Nebraska-

Lincoln in May 2017. Chris will



Amy Hauver, Received her B.S. in Plant Biology at UNL in May 2017. She gained interest in plant breeding when working in research plots at a UNL extension center during high school. Amy will start the DPH program in Fall 2017.

Amy worked with Dr. Steve Baenziger and the Small Grains Breeding Program from August 2013-August 2016, along with completing a UCARE project with him. This is when she developed a passion for genetics and plant

breeding.

Amy also taught genetics for Dr. Don Lee for 2 years. This is when she developed a passion for teaching and extension education.

"After developing an interest in plant biology, genetics, and education, I decided that the DPH program and a professional degree was the best fit for my career goals. Through the DPH program, I will be able to expand my knowledge beyond my plant biology background. I have gained a specific interest in pest management technologies and pesticide resistance. Through a National Needs Fellowship, I will be able to learn more about weed science, plant pathology, and entomology and use these to develop an online resistance management resource, combining my interest in DPH and in extension education". ~Amy Hauver

### **DPH Student News**



Recent DPH graduate Joshua Miller participated in the ASA, CSSA, SSSA **Congressional Visits** Day in Washington, DC. in March. It was a chance to meet with members of Congress and advo-

cate for federal food, agriculture, and natural resources research. Congressional Visits Day focuses on the need for increased funding for USDA research programs. Joshua participated in this activity as part of being named as one of the Tri-Societies Future Leaders in Science.

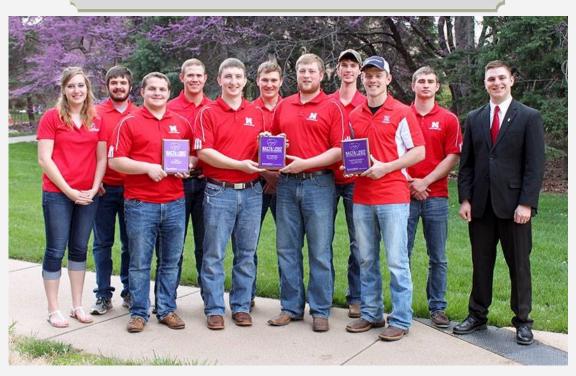
#### Student Internships this Summer...

Christopher Wynn is interning at Monsanto's Water Utilization Center in Gothenburg, NE. Because of his machinery background, he was recruited to help plant corn and soybeans, and he is also working with wheat trials at the Learning Center that deal with fungicide applications and seeding rates. Recently he gave a presentation and flight demonstration about using UAV's/drone's in agriculture to a group of 100 FFA members. He also began working with a new drone equipped with different remote sensing cameras. With Chris's help, this tool will enable Monsanto to better observe their current studies at the Learning Center.

Salvador Ramirez II will serve as the graduate student coordinator for the USDA-NIFA Applied Plant Systems Experiential Learning Program this summer for his internship. The Applied Plant Systems Experiential Learning Program at UNL is a summer research program that aims to train young leaders in agriculture.

#### Page 6

### DPH Student News



Congratulations to the UNL Crops Judging Team on their recent success at competition! The team is coached by our current DPH student, Adam Striegel.

On April 6th, The UNL Crops Judging Team traveled to the "Little Apple"- Manhattan, KS to compete at the North American Colleges and Teachers of Agriculture (NACTA) conference. Hosted by Kansas State University, the team competed in three of the thirteen contests: Crops Judging, Precision Agriculture and the Knowledge Bowl in the fouryear university division.

"Overall, I don't think I could have asked for a better NACTA" Coach Striegel stated, "This was our freshman appearance as an organized crops team. To immediately compete with other programs which have been established for many years is remarkable, and I for one am extremely excited to see how we compete next year".



Congratulations to **Joshua Miller** who earned his PhD in plant pathology on May 5th, 2017; Joshua received his DPH degree in December of 2016. Joshua recently accepted a position with BASF for the role of Plant Health Technical Market Manager – Crop Protection/ Fungicides. The position is based out of Research Triangle Park, NC. Joshua will be working at the intersection of biology, marketing, sales, and regulatory to develop recommendations for product positioning and communicate technical information internally and externally. He will also support Technical Service Representatives across the country. Joshua, along with his wife Lindsay and three children, Ruby Lyn, Jude, and Jo Rae, are excited for the next chapter in their lives, but will miss the "Nebraska family" they are leaving behind. Go Big Red!



### DPH Student News



The International Certified Crop Adviser (ICCA) Program and American Society of Agronomy have named **Lee Briese**, of North Dakota, the 2017 ICCA of the Year. The International Certified Crop Adviser (ICCA) of the Year Award, awarded in March 2017, recognizes a certified crop adviser who delivers exceptional customer service, is highly innovative, has shown that they are a leader in their field, and has contributed substantially to the exchange of ideas and the transfer of agronomic knowledge within the agricultural industry. The ICCA of the Year Award celebrates a level of proficiency that belongs to an individual and not a company. Lee was selected for his dedication to his profession and his

commitment to educating those around him. He provides consulting services on 16 different crops on over 80,000 acres, but still manages to find time to voluntarily partner with North Dakota State University (NDSU) to staff field days and winter meetings, along with providing 10 university students with internships since 2001. To read more: <u>http://www.farmandranchguide.com/news/regional/icca-of-the-year-announced-at-commodity-classic/article\_effeb2d0-06a8-11e7-aaa9-8f43b5dcfb43.html</u>







**Salvador Ramirez II**, a current DPH student, was invited to speak at the Production Agriculture Symposium February 22nd, 2017 at the University of Minnesota. Salvador's presentation, "Biofuels or Biology, Can We Have Both?" was one of the breakout sessions offered. Additionally he presented a poster titled "Increasing Diversity of Crop Rotations Alters Soil Microbial Communities under Variable Rates of Nitrogen Fertilization", placing 1st in the competition and receiving a cash prize. The featured topic at the symposium was "Increasing Cropping System Diversity While Maintaining Yield & Profit".



#### Why did I choose the DPH Program?

I chose the DPH program because I felt every graduate program I looked into was too limited in scope for my career goals and my personal liking. To be a good agronomist, it takes knowledge of plant pathology, weed science, entomology, soil and plant sciences as well as genetics. While my passion is in weed science, I recognize and relish the understanding of how all these individual disciplines can be integrated together. The DPH's flexibility allows me the time to teach undergraduate students and coach the crops judging team. It's a graduate program unlike most! Adam Striegel - DPH student



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: <u>https://www.facebook.com/planthealthdoctor</u>

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



The website <u>https://dph.unl.edu</u> 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.



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www.facebook.com/planthealthdoctor

## 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.



