

PLSC Productivity

NEWS FROM THE DEPARTMENT OF
PLANT & SOIL SCIENCES



UNIVERSITY OF DELAWARE
**AGRICULTURE &
NATURAL RESOURCES**

Chair's Corner

Welcome to the Department of Plant and Soil Sciences' new quarterly newsletter! Our intention is to keep alumni, students, staff, faculty, and stakeholders updated on our department's activities and achievements. I started as Chair in January 2018 and I am finally getting settled in! My first 20 years in academics were spent at the University of Missouri as the State Turfgrass Extension Specialist (1998-2000) and then as a Research-Teaching Professor at Virginia Tech (2001-2017). During my last year at Virginia Tech I served as Interim Head for the Department of Crop and Soil Environmental Sciences. I enjoyed this career path so much that I am now here in a leadership role at the University of Delaware. My specialty is turfgrass stress physiology: how to use resources efficiently to keep low cut grasses on golf courses and sports fields functional. I will be continuing some of this research, along with branching out to look at meadow ecology, co-teaching Landscape Management with Sue Barton, and accepting invitations to provide continuing education on turfgrass agronomics to the citizens of Delaware and beyond.



I joined the department because I saw quality faculty and programs across all three of our missions: research, teaching, and extension. Each quarter we will highlight one of our faculty to provide some concrete details of their student training and scholarly impacts, but here my focus will be on broad highlights. For example, among all public land-grant institutions, our department's Research Scholarly Index (RSI) ranks us at #12 nationally! The RSI is a combination of the number of peer-reviewed articles, books, citations, federal grant dollars, and honorifics received in recognition of the impact our scientists have had on feeding the world and protecting the environment. For perspective, the University of Delaware, as a whole, is the #33 ranked public research institution. PLSC at #12 is obviously doing its part to improve UD's research ranking! High quality faculty bring in high-performing graduate students. Over the last eight months, 18 students have received their M.S. or Ph.D. degrees and we have replaced them all with two new students starting last spring and 16 this summer and fall. In total, we are currently training 67 graduate students.

Our Cooperative Extension faculty ranks at the Carvel Research and Education Center in Georgetown have grown by two in the last year with Dr. Jarrod Miller joining us last fall and Dr. Alyssa Koehler this fall. Alyssa is our new field crops pathologist. Jarrod is our field crop agronomist specializing in precision agriculture and soil fertility. Jarrod teaches one class each spring: Soil Fertility and Plant Nutrition. He did so well his first time around that the students voted him the "best PLSC instructor" for spring 2018!

Another reason I took this job is to address the challenge of low PLSC undergraduate enrollment. Declining enrollment in traditional agronomy and horticulture programs continues to be a national trend, even while there are two jobs for every graduate! Over the last three years we have transitioned the Landscape Horticulture and Design major into a professional degree in Landscape Architecture. Last year, we graduated four LA students and we have an over-enrolled fall 2018 class of 18 incoming freshmen and transfer students, so this transition is working! Please see the LA program update from faculty director Dr. Jules Bruck - who also recently accepted the responsibility of CANR Honors Program director - later in the newsletter.

Last May we graduated nine Plant Science (PLS) students, with seven new this fall. While our total PLS student enrollment is hovering at about 40, this is nowhere close to satisfying job demand. Consumers and students are increasingly interested in knowing where their food comes from and that it has a sustainable footprint, but that has not translated into students finding our degree program in plant sciences. Luckily, with some internal funding from a new Center for Food Systems and Sustainability (CENFOODS), led by PLSC faculty Drs. Angelia Seyfferth and Amy Shober, we have adequate support to lead the development of a new major in this area that will cross disciplines and attract students from urban and rural backgrounds. Stay tuned for quarterly updates as we develop this new major and please contact me (ceervin@udel.edu) with any questions or suggestions for how we can improve our programs moving forward.

Honorifics

Dr. K. Eric Wommack, deputy and associate dean for research and graduate programs in the College of Agriculture and Natural Resources (CANR) and professor of environmental microbiology, has been named a Fellow of the American Academy of Microbiology, a scientific leadership group within the American Society for Microbiology. Through his lab located at the Delaware Biotechnology Institute, he has led research on the direct examination of viruses within natural environments from soils to estuaries to the deep sea.



Dr. Thomas A. (Tom) Evans has been made a Fellow of the American Phytopathological Society (APS) and a Fellow of the International Society of Plant Pathology. He was recognized at two receptions during the 50th anniversary meeting of the International Congress of Plant Pathology (ICPP2018) in Boston which was hosted by APS and for which he served as the organizing chair. For over three decades at UD he has made significant contributions in the areas of research, teaching, and professional and public service in support of plant health and food security on a local, national, and global level.

Dr. Robert (Bob) Lyons, professor emeritus and former Director of the Longwood Graduate Program in Public Horticulture, has received the 2018 Hamilton Award. This national award acknowledges those who share a passion for and knowledge of plants - and the essence of selflessness by helping others to advance in the field - like Dr. Bruce Hamilton, who taught plant materials at Rutgers University and served as the first director of Rutgers Gardens.



Faculty Highlights

CANR dean and professor of horticulture Dr. Mark Rieger could not have stated recent news about his fellow PLSC department members any better: "PLSC faculty hit a trifecta with the National Science Foundation: Drs. Pam Green, Jung-Youn Lee, and Erin Sparks each received highly competitive NSF grants in the most recent round of evaluation. Collectively, \$2.4 million was awarded across three grants focused on plant molecular biology. Granting agencies like NSF typically can fund only 10 to 20 percent of the proposals that they receive, so this is truly outstanding that three faculty members - in the same department and all housed at the Delaware Biotechnology Institute - received such prestigious awards in the same year. Congratulations!"

Congratulations are also in order for recent faculty promotions: Dr. Jules Bruck to Professor and Dr. Angelia Seyfferth to Associate Professor.

Program Highlights

PLSC's newest major, the Bachelor of Science in Landscape Architecture (BSLA), besides experiencing burgeoning enrollment, has been undergoing scrutiny to obtain accreditation by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects. Dr. Jules Bruck shares the following: Website updates and further furnishing upgrades in studio spaces (like those in 125 Townsend Hall) are planned. Current faculty are mapping curriculum and developing assessment tools. Five professional adjunct faculty have been hired to teach or co-teach a variety of courses including studios and professional practice. The search for a new faculty hire is being initiated this month. Allied programming with the University of Pennsylvania has been established, including the PennDelaware Fellowship. A Professional Advisory Council has been formed, comprised of 16 members who will meet twice a year. The PAC will facilitate many opportunities for engagement, including critiquing studios, reviewing portfolios, presenting seminars, hiring for internships, and sponsoring activities, such as continuing the tradition of creating award-winning displays for the annual Philadelphia Flower Show.





Dr. Angelia Seyfferth, director of one of UD’s newest centers - Center for Food Systems and Sustainability (CENFOODS) – describes its mission: “Our overarching aim is to position UD as an emergent leader in sustainable food production. The goals of CENFOODS are to coordinate, integrate, and enhance UD’s research, teaching, and outreach efforts on the sustainability of food production and surrounding ecosystems. The ability to sustainably produce healthy and safe food for a growing population is one of the most urgent issues facing the world today. Moreover, as the population increases, there will be more strain on the built environment and without careful planning will result in increased pollution of critical resources including soil, water, and food. The development of solutions to this complex issue requires an approach that transcends traditional disciplines. CENFOODS serves as the nexus for an integrated and coordinated research, education, and extension program.” A June workshop was held to identify collaborations, two undergraduate summer internships were recently completed, and funding for six seed grants to affiliated faculty and professionals was just awarded.

result in increased pollution of critical resources including soil, water, and food. The development of solutions to this complex issue requires an approach that transcends traditional disciplines. CENFOODS serves as the nexus for an integrated and coordinated research, education, and extension program.” A June workshop was held to identify collaborations, two undergraduate summer internships were recently completed, and funding for six seed grants to affiliated faculty and professionals was just awarded.

PLSC Seminars - Fall 2018

12:20 – 1:15 PM in 132 Townsend Hall – ALL ARE WELCOME
 Check <https://canr.udel.edu/plsc/plsc-seminar-calendar/> for the up-to-date listing of seminar titles.

DATE/HOST(S)	SPEAKER(S)	DATE/HOST(S)	SPEAKER(S)
09/07/2018 Eric Wommack	Harold Drake University of Bayreuth Darwin’s Invertebrates: A Transient Anoxic Microbial Oasis	09/14/2018 Jung-Youn Lee	Margaret Frank Cornell University Grafting Induced Vigor: New Approaches to Understanding an Ancient Practice
09/21/2018 Jules Bruck	Andrew Hayes ForeSite Associates The Pilot School: 50 Acres of Learning Transformation	09/28/2018 Erin Sparks	Justin Walley Iowa State University Unraveling Developmental and Immune Networks Using Integrated Omic Profiling
10/5/2018 Jarrod Miller	Kate Tully University of Maryland	10/12/2018 Shree Inamdar	Marc Peipoch Stroud Water Center
10/19/2018 Rodrigo Vargas	Benjamin Bond-Lamberty Pacific Northwest National Laboratory	10/26/2018 Jeff Caplan	Iaideep Mathur University of Guelph
11/02/2018 Erik Ervin	Hajime Sakai Napigen, Inc.	11/09/2018	BSLA Students
11/16/2018	No Seminar – Thanksgiving Break	11/23/2018	No Seminar – Thanksgiving Break
11/30/2018 Deb Jaisi	Mingjing Sun Jaisi Lab	12/07/2018 Erin Sparks	Geoff Bil University of British Columbia & New York Botanical Gardens

Events and Outreach



Dr. John Frett, professor of horticulture and director of the University of Delaware Botanic Gardens (UDBG), is hosting the International Plant Propagators’ Society Eastern Region Annual Conference when it comes to Newark from September 23-26. A tour of UDBG followed by a reception in the garden will be a highlight.

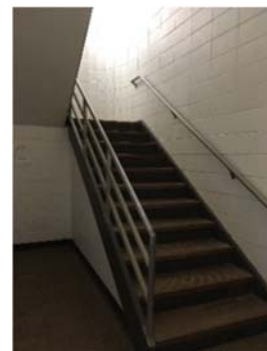


At the Newark campus' Clayton Hall, between October 1-3, Dr. Deb Jaisi and PLSC are coordinating the USDA National Institute of Food and Agriculture (NIFA) FY 2018 Project Director's Meeting for the Agriculture and Food Research Initiative's (AFRI) **Water for Agriculture and Foundational Soil and Water** programs. AFRI is the nation's leading competitive grants program for agricultural sciences. The objectives of the meeting are to provide a forum for project directors to share results, success stories, and future plans from their projects; and to strengthen the projects currently funded by allowing project directors to network with other researchers.

Ready – Set – Grow!



Anyone who has come to UD's south campus since 1980 probably has noticed the "skinny" building to the north of Townsend Hall. If you have spent any time within that building – Worrilow Hall – you most likely noticed its unique silo-shaped stairwells. Well, the time has come to renovate, complete with a move into "swing space," for all occupants in January 2019! The Dean provides an update: "Facility plans are 99 percent complete after a long series of meetings between folks in the building and the architects and engineers doing the work. Everyone had a chance to provide input on the open, shared use lab concept - the key feature of the Worrilow upgrade... I am so pleased that our process provided a starting point for other projects



on campus; kudos to SmithGroup (the architect), folks in Project Planning and Design, Jenny McDermott (CANR Facilities Manager), and all of the faculty and staff that collaborated on this landmark project." Check the next newsletter for a progress report!



Four (4) PLSC alumni are mentioned in this newsletter. For fun, email mpautler@udel.edu if you can name them.

We encourage alumni to send us news to keep us informed! A new job, a promotion, a personal or professional award... they're all accomplishments we want to know! Email a note or a press release, including your graduation year, to mpautler@udel.edu

We are seeking to showcase alumni stories on a bulletin board in the PLSC corridor of Townsend Hall. We would like to highlight the career paths of our former students to current and prospective students and their families. If you are interested in providing a 250-words or less description of your career path from your PLSC education to your current job, along with a photo showing you at said job, please email mpautler@udel.edu for more details.

Back Porch Business

Please consider making a DONATION to the PLSC department to support, for example: student travel to research meetings and professional development events or to fund stipends for undergraduate summer research and/or Extension scholars. One hundred percent of your gifts will impact the program you wish to support. You may make your gift to the University, the College of Agriculture and Natural Resources or another program by visiting www.udel.edu/development/makeagift.htm **However, designating the gift specifically to our department (PLSC) ensures that it will be used in direct support of PLSC students and faculty. Be sure to complete the "Other designation – indicate a specific purpose below" section and input "Dept. of Plant and Soil Sciences".** If you have any questions or require assistance to complete any of these forms, please contact Daniel Sarkissian, Director of Development, College of Agriculture and Natural Resources at 302-831-4595 or djs@udel.edu

Edited by Maria Pautler, Research Associate and Erik Ervin, Chair
Department of Plant & Soil Sciences

531 S. College Avenue | Newark, DE 19716
Phone: 302-831-2531
<http://canr.udel.edu/plsc/>

Notice of Non-discrimination, Equal Opportunity and Affirmative Action: The University of Delaware in an equal opportunity / affirmative action employer. For the University's complete non-discrimination statement, visit the UD Legal Notices web page at <https://www.udel.edu/home/legal-notices/>