

PLSC Productivity

NEWS FROM THE DEPARTMENT OF
PLANT & SOIL SCIENCES



UNIVERSITY OF DELAWARE
AGRICULTURE &
NATURAL RESOURCES

Chair's Corner

Welcome to spring! The daffodils and cherry blossoms are out, with much blooming still to come as temperatures continue to climb. Our department is also blooming with four new employees. Diana Mesa and Lexie Samick joined our main office team as Administrative Assistant IIs. Diana is our first point of contact for office visitors; she comes to us from a position in the Arts Studio of New Castle County, but she is originally from Colombia. Lexie is joining us from the UD Registrar's Office, but she is quite familiar with PLSC as previously she worked for our Soil Testing Program.



In the last issue of this newsletter I laid out my 2019 resolutions and I am happy to report that we are making progress. Resolution 1 was about supporting our new major in Landscape Architecture. Dr. Jules Bruck (PLSC-LA), Karen Gartley (PLSC-Hort Club), Dr. Stefanie Hansen (Theatre), Jame McCray (Earth, Ocean, & Environment), and John Kaszan (PLSC graduate student) led a team of 26 undergraduates from five majors to **three Gold Medals!** at the Philadelphia Flower Show in early March. Their exhibit, Herban Apotheka, showcased the capacity of plants to improve human health. Prior to the show the group's efforts were showcased on Channel 6 (WPVI-ABC). This is the first gold medal for the LA program; congratulations to all involved!

I am also very pleased to announce that Dr. Eric Bardenhagen will be joining our PLSC faculty team as an associate professor of landscape architecture on August 1, 2019. Dr. Bardenhagen's academic career has been at Texas A&M where he rose to be associate department head and LA program coordinator for 133 students. He also worked for seven years as a landscape architect for SmithGroup JJR. His areas of scholarship are outdoor space design for aging adults, and hazard planning and recovery methods to protect natural and cultural resources on federal lands. A big thanks for such a successful search goes out to Dr. Jules Bruck and her search committee.

Resolution 2 was about growing enrollment via our new major in sustainable food systems (SFS). In March, Paula Annesi joined us in a new student recruiting and support position. Paula served for many years as an assistant director of admissions at a small college in upstate New York, so she has hit the ground running this spring! First enrollment for the SFS major can occur this fall, so we're hoping Paula can yield some new students, plus help maintain our LA and plant science enrollments.

That's all for now. Enjoy planting your garden, smelling the spring flowers, and putting that first cut on your lawn!

WELCOME!

New to the PLSC main office as of March 2019 are (left to right) Lexie Samick, Diana Mesa, and Paula Annesi.



The award-winning 2019 Philadelphia Flower Show team! (back to front)

Three in back row: Bianca Mers, Tom Pennachio, Erick Jones

Six in next row: Ilana Shmukler, Emily Birardi, Dr. Jules Bruck, Dr. Stefanie Hansen, Karen Gartley, Olivia Boon

Three in next row: Maija Griffioen, Jessica Toy, Alex Hubler

Five in front row: Chris Bonura, Abby Quin, Erin Fogarty, Caroline May, Eduardo Limon

Not pictured: Nick Bruce, Hannah Bruck, Melody Cerro, Claire Ciccarone, Austin Dill, Shirley Duffy, Josh Gainey, Conner Graybeal, John Kaszan, Savanah Love, Jaime Manlove, Jame McCray, Anthony Raimondo, Bruce Turner



Honorifics

Tom Evans honored as fellow of the International Society for Plant Pathology (ISPP)

During the International Congress of Plant Pathology 2018, celebrating the 75th anniversary of the International Society for Plant Pathology in July in Boston, Dr. Thomas A. (Tom) Evans was elected fellow of ISPP. Dr. Evans has been a member of ISPP since 1998 when he attended his first International Congress of Plant Pathology in Edinburgh, Scotland. He was made a fellow of ISPP for his international research and service in the area of plant health and food security and for his service to the society. Dr. Evans was treasurer of ISPP, serving from 2008 to 2013, incorporating ISPP as a non-profit in the U.S. and moving banking operations permanently to the U.S. Subsequently, he was elected vice-president of ISPP, serving from 2013 until 2018, and concurrently serving as the organizing chair for ICPP2018. Dr. Evans is one of only three U.S. plant pathologists to be honored both as a fellow of ISPP and the American Society of Phytopathology. The other two double fellows are Charlie Delp and Jim Cook. *Pictured from left: Evans, Delp, Cook, Mrs. Cook, Lodovica Guilino, and Mike Wingfield at the ISPP President's reception for honorees at ICPP2018 in Boston.*



Dr. Yan Jin, professor of soil physics and environmental toxicology, has been named the Edward and Elizabeth Rosenberg Endowed Professor of Soil Science. Joining UD and PLSC in 1995, she has published over 100 scholarly articles, given 175 presentations, and secured millions of dollars in competitive funding. She has received numerous awards including being named Fellow of the Soil Science Society of America and winning the CANR Excellence in Research Award. Dr. Jin was the first female to receive the prestigious Don and Betty Kirkham Soil Physics Award, which is an international award recognizing excellence in soil physics research. She teaches advanced courses in soil physics and has mentored 30 postdocs and graduate students to date.

Dr. Rodrigo Vargas, associate professor of ecosystem ecology and environmental change, was recognized for his international work and for supporting minority students. First, he received the 2018 national award by the Mexican Carbon Program; he shared this honor with Dr. Nancy Cavallaro from USDA. This award recognizes “scientific achievements and invaluable collaboration between Mexico and the United States related to the knowledge of the state of the carbon cycle.” Second, the National Science and Technology Council (Consejo Nacional de Ciencia y Tecnología, CONACYT), which is the Mexican equivalent to the U.S. National Science Foundation, recognized Dr. Vargas as a Tier 3 National Researcher (the highest level possible for scientific productivity). Finally, he received the 2018 Mentorship/Advancement award of the Hispanic/Latino Graduate Student Association (HLGSA) at the University of Delaware for his support to minority students.



Three PLSC graduate students have recently received prestigious UD-based awards:

Ms. Ruifang Hu, Ph.D. student of Dr. Angelia Seyfferth, is the recipient of the 2018 Donald L. and Joy G. Sparks Graduate Fellowship in Soil Science.

Mr. Mohammad Afsar, Ph.D. student of Dr. Yan Jin, is the recipient of a UD Dissertation Fellowship award.

Ms. Elizabeth Smith, M.S. student of Dr. Rodrigo Vargas, is the recipient of a UD 2nd Year Graduate Scholar award.

Congratulations to the students and their advisors as they continue to grow our sciences!

Faculty Highlights

One of our faculty has recently received funding from the USDA National Institute of Food and Agriculture:

Dr. Randy Wisser, associate professor of plant genetics, is a co-PI with Dr. James Holland of the USDA's Agricultural Research Service at North Carolina State University on the project, “Diversification of cropping systems: Adaptational genomic selection in maize.”

Given the pivotal role of plant breeders in wielding genetic diversity for crop improvement, plant breeding research is crucial to the development of strategies that enable effective use of a broader array of germplasm for next-generation cultivars. Building off of research into the genetic basis of environmental adaptation in maize, Wisser and Holland have been funded to investigate the genomic basis of short-term phenotypic evolution and test a predictive breeding approach for rapidly adapting populations of maize to novel environments. This translational research project will contribute to innovations in genomic-assisted plant breeding and demonstrate a new pathway for capitalizing on diverse germplasm collections.

Program Highlights

UD Botanic Gardens



With roots tracing back to the late 1950's, the UD Botanic Gardens (UDBG) on the Newark campus is now a series of 12 gardens and plantings on 15 acres that surround Townsend and WorriLOW Halls, Fischer Greenhouse Laboratory, and the general greenhouse complex. It is used by faculty, students, green industry professionals, and the public, and serves a primary role in supporting academic programs in plant science, insect ecology and conservation, and landscape design.

In 2006 Dr. John Frett was appointed the first director of the UDBG by then-CANR Dean Robin Morgan. Dr. Frett will retire from the PLSC faculty on June 30, 2019 and at the same time relinquish his director's hat. Beginning July 1, Valann Budischak will serve as interim director until the new director is hired. She has been part of the UDBG for thirteen years in a part-time capacity as the education and volunteer coordinator. To handle the additional responsibilities, Valann will become full-time with the UDBG while still retaining her Delaware Nursery & Landscape Association executive director hat.

Valann shares: "The UDBG staff is busily preparing for the upcoming plant sale and the events leading up to it. Once the gates open, many PLSC faculty and staff will graciously join in to lend a hand, too. This year we will again be open a second week following Ag Day (which is Saturday, April 27) - on Thursday, May 2 and Saturday, May 4 - to provide additional flexibility for our customers to attend... Sale revenue is the major source of funding for garden maintenance.

The UDBG will welcome the 2019 group of interns in early June. We are thrilled with the support of our internship program and particularly with two endowed summer internships. One of their summer projects will be the replacement of the wooden deck in the *Lepidoptera* trail with a stone patio and benches. The deck was a favorite of both visitors and faculty and staff but had to be removed due to structural damage.

Lastly, be sure to take note of spring unfolding in the garden. This fall the UDBG staff and volunteers renovated the beds along South College Avenue. Close to 9,000 bulbs, in addition to many perennials and shrubs, were planted. Keep your eyes peeled!"

The UDBG is open every day from sunrise till sunset and there is no admission charge. Plan your spring stroll soon!



PLSC Seminars - Spring 2019

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)
04/12/2019 Erin Sparks	Madelaine Bartlett University of Massachusetts, Amherst Complex families, complex histories: developmental genetics and the evolution of developmental genes in the grasses	05/03/2019 Amy Shoher	David McNear University of Kentucky
04/19/2019 Harsh Bais	Jinyoung Barnaby USDA, Beltsville Using high-throughput genotyping and phenotyping to dissect rice-soil microbiome interactions affecting GHG emissions and identify candidate genes affecting rice grain quality	05/10/2019 Shree Inamdar	Holly Barnard University of Colorado Carbon-water interactions across the critical zone: Understanding ecohydrologic variability in complex terrain
04/26/2019 Nicole Donofrio	James Sweigard FMC Biosciences From start to start—the discovery and commercialization of Zorvec, a novel oomycete “fungicide”	05/17/2019 Erin Sparks	Matt Taylor Longwood Gardens Horticultural and ecological research programs at Longwood Gardens

Events and Outreach

CANR Dean and PLSC faculty Dr. Mark Rieger shares a bit of history that has shaped CANR's 150 years: "The Morrill Act created some of the largest, most comprehensive and well-known universities in the country... The Land-Grant mandate was simple and precisely what we needed at the time: *feed the nation* through agricultural sciences, *build the nation* through engineering, *protect the nation* through military science, and *provide for an educated citizenry* through arts and sciences. Today, Land-Grant Universities have broadened in scope... but the commitment of access to an affordable education in areas relevant to societal needs remains strong. Subsequent legislation affected the agricultural and natural resources aspects of a Land-Grant, namely the Hatch Act in 1887, which created a nationwide network of experiment stations and research capacity, and the Smith-Lever Act of 1914 that created Cooperative Extension. The McIntire-Stennis Act of 1962 was added on the 100th anniversary of the Morrill Act passage, which provided funding for research in forestry and natural resources."



On April 15, distinguished CANR alumni and the 50th winner of the Agricultural Alumni Association's George M. WorriLOW Award will be honored when they visit campus. (*Story will be in the next newsletter.*)

On April 27, all are invited to visit the CANR campus for **Ag Day 2019—Cultivating Our Legacy!** No admission fee /rain-or-shine /10 AM-4 PM / grounds surrounding Townsend Hall

Ready – Set – Grow!

Frequent meetings are occurring with move coordinators as WorriLOW Hall continues to "get emptied out" in anticipation of the move into temporary spaces so that the renovations can begin. If you know who and/or in what room (and the percentage of items pictured that are still in that room!) appear in this "vintage" photo, email mpautler@udel.edu to see if you are correct!



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 Dan Sarkissian, Director of Development, College of Agriculture and Natural Resources at 302-831-4595 or djs@udel.edu

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