

PLSC Productivity

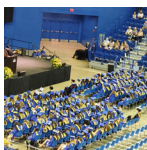
NEWS FROM THE DEPARTMENT OF
PLANT & SOIL SCIENCES



UNIVERSITY OF DELAWARE
**AGRICULTURE &
NATURAL RESOURCES**

Chair's Corner

Recent heat waves allow me to say, "Welcome to Summer!" On May 28, we had a "normal" University commencement in Delaware Stadium with President Joseph R. Biden, Jr., delivering a rousing and inspiring commencement address! He is the first sitting president to deliver the keynote in UD's history. Following commencement, we had CANR's convocation in the Bob Carpenter Center. We conferred 26 B.S. degrees to students in our three majors.



Our number of graduates keeps rising each year in large part due to our very successful Bachelor of Landscape Architecture program. Unfortunately, its founding director, Dr. Jules Bruck, is moving up into academic leadership at the University of Florida this summer. She will be sorely missed and her impact will not be easily replicated. We wish her all the best; see her article on pages 3-4. (There will soon be another person departing from PLSC. See the last article in this issue to find out who it is...)



Rest assured, the groundwork which Dr. Bruck laid will continue to grow. Dr. Eric Bardenhagen, associate professor of landscape architecture, will now direct the landscape architecture program and Zach Hammaker, instructor of landscape architecture, will lead the Coastal Resilience Design Studio (CRDS).

We have 30 freshmen planning to join us this fall; this is our biggest freshmen class in years! We had five Ph.D. and four M.S. students graduate this year with an incoming class of 15 or more this summer and fall. Almost all of our graduate students are funded by research grants so big kudos to our faculty who hit home runs in terms of grant-funded research proposals over the last year.



In other celebratory news, Dr. Harsh Bais, associate professor of plant biology, has been promoted to professor, and Valann Budischak has been promoted to Acting Director of the UD Botanic Gardens. Dr. Bais teaches Botany I and Plant Physiology and has an internationally impactful research program, discovering plant growth-promoting rhizobacteria and uncovering the mechanisms of how they function to improve crop productivity. Valann has been instrumental in shepherding UDBG through the pandemic and coordinating record-setting plant sale campaigns. I was pleased to see our recent crop of UDBG donor-supported undergraduate summer interns working in the gardens already during the first week of June.



CANR Interim Dean Calvin Keeler celebrates with Valann and me.

I close with very sad news. Sophomore landscape architecture student and Newark native, Luigi "Louie" Oronzio was involved in a tragic auto/train accident on April 23 and passed on April 27. Louie was injured as he was helping another passenger get to safety as the train passed. Anna Wik, associate professor of landscape architecture, said she "was so impressed with his kind nature and investment in learning the craft of landscape architecture and honing his skills." She added, "I was truly looking forward to working with Louie during his career at UD and to see this kind man with raw talent grow into a skilled landscape architect and am deeply saddened by his passing." Louie's obituary is found here:



<https://www.dohertyfh.com/obituary/Luigi-Oronzio>

Honorifics



Our annual CANR "Celebrating Excellence" ceremony was back in-person! Held on April 4 in the Audion on the STAR campus, Dr. Pam Green, Unidel Crawford H. Greenwalt Chair and professor of plant molecular biology, was honored with the CANR Excellence in Research Award. She is pictured here (*center*) with UD Provost Robin Morgan (*to her right*; former CANR Dean Morgan retired from UD on June 1) and her team (*from left*) Vinay Nagarajan, Monica Accerbi, and Susan Winkelmayer.

CRDS students DJ Bromley, Christopher Fettke von Koeckritz, Kevin Ganjon, Ryan McCune, Leigh Muldrow, and Delaney Pilotte accepted the Honor Award at the April 8 event of the DE/PA Chapter of the American Society of Landscape Architects for the collaborative work entitled "**Organically Modeled Biomimicry - 3-D Printed Oyster Reef Breakwater.**"

The 2022 National Collegiate Soils Contest was hosted, in-person, by the Ohio State University from April 19-23. Graduating senior team member Morgan "Duke" Williams summarized the team's performance: "Led by Phil King and Jenwei Tsai (*both pictured far right*), UD finished 5th overall (out of 21) in the country. We were the smallest team by a landslide, with just three students. It really put our university on the map, especially with this being our third-ever competition, and first-ever national competition." Williams (*pictured center*) finished 11th in the country individually, just one point shy of the top 10! Zoe Bara (*far left*) and Katie Mina (*second from left*) finished 16th and 19th, respectively, out of 84 competitors!



PRESENTING THE 2022 STUDENT END-OF-THE-ACADEMIC YEAR AWARDS!!

PLSC Faculty Awards: LARC: Donald (DJ) Bromley PLSC: Timothy Mulderrig SFDS: Zoe Bara	Dean's Award for Excellence: Allison Autry Autry also won, at the CANR level, the Undergraduate Senior Scholar in Agriculture and Natural Resources Award	Penn/Delaware Graduate Fellowship: Donald (DJ) Bromley
Landscape Architecture Outstanding Teaching Assistant Award: Candice Huntley, Delaney Pilotte	Landscape Architecture Engaged Excellence Award: Conner Graybeal, Nick Bruce	Outstanding Representative of the BLA Award: Christopher Fettke von Koeckritz
Bruck Prize - Outstanding Student Award: Lexi Dart	Outstanding Leadership in the Philadelphia Flower Show: Eduardo Limon-Cortez, Elisabeth Davis	Landscape Architecture Foundation (LAF) Olmsted Scholar: Leigh Muldrow
DE/PA Chapter of the American Society of Landscape Architects Awards (read across):	Lexi Dart - Merit Christopher Fettke von Koeckritz - Merit	Candice Huntley - Honor Delaney Pilotte - Honor

Faculty Highlights

Editors' note: So much good news about our faculty and their groups has come out in our UD press, space does not allow for a lengthy description. If you are interested to read more about these headlines, please search www.udel.edu/udaily or email mpautler@udel.edu for the UDaily links.

April 2022:

Dr. E. Sparks' Lab: Bracing Our Crops: Researcher Ashley Hostetler identifies traits that help crops survive in harsh environments

May 2022:

Dr. Susan Barton's many roles: Horticulture Champion: Sue Barton personifies UD's land-grant mission of research, teaching and extension outreach

Dr. Jules Bruck, M.S. graduate student Emma Ruggiero, and Ms. Anna Wik are co-authors on a chapter on Wilmington, Delaware in a new book entitled *Landscape Architecture for Sea Level Rise: Global Innovative Solutions*.

The following grants were awarded this spring to our talented PLSC faculty and their UD colleagues.

<u>Principal Investigator(s)</u>	<u>Title/Topic</u>	<u>Sponsor</u>
Dr. Eric Bardenhagen Dr. Jules Bruck	Delaware Sea Grant 2022-2024 Omnibus	National Oceanic and Atmospheric Administration
Dr. Mark VanGessel	Keeping Herbicides On-Target in High-Residue Cover Cropping Systems	USDA
Dr. Pinki Mondal Dr. Jarrod Miller	Adapting to Increasingly Saline Soil in Coastal Maryland	University of Maryland
Dr. Jules Bruck Dr. Nina David	Living Laboratory Research Group: On-Call Support for Community Outreach and Development of Pop-Up Projects	Delaware Department of Transportation
Ms. Emmalea Ernest Dr. Thomas Evans	Identifying White Mold Resistant Lima Bean Germplasm and Continued Lima Bean Variety Improvement	USDA
Dr. Alyssa Koehler	Field Trials and Continued Surveys to Improve Management of Nematodes across Delmarva	Atlantic Soybean Council
Dr. Susan Barton	"Delaware Naturally" Promotional Materials and Website	Delaware DNREC
Dr. Alyssa Koehler	Survey of Plant Parasitic Nematodes in Mid-Atlantic Cornfields and Evaluation of Nematicide Control Methods	Maryland Grain Producers Utilization Board
Dr. Jarrod Miller	Grid Sampling Soils to Improve Understanding of Soil Variability and Corn Yields	Maryland Grain Producers Utilization Board

Principal Investigator(s)	Title/Topic	Sponsor
Dr. Jarrod Miller Dr. Amy Shober	Effects of Increasing Corn Tissue Boron and Sulfur Concentrations on Nitrogen and Yield	Maryland Grain Producers Utilization Board
Dr. Susan Barton	Enhancing Marketplace Acceptance of Native Plants	University of Tennessee
Dr. Alyssa Koehler	Visualization of Economic Damage Thresholds and Interaction of Nematode Populations following Use of Winter Cover Crops	Delaware Soybean Board
Dr. Jarrod Miller	Evaluating Earlier Planting Dates for Increased Soybean Yields	Delaware Soybean Board
Dr. Jarrod Miller	Soybean Row Spacing and Planting Rate Effects on Litter Decomposition	Delaware Soybean Board

Faculty Spotlight

Let's hear from one faculty who has been here for over 35 years and one who has moved on to her next adventure.

Dr. Mark Isaacs, Associate Professor and Director of the Carvel Research and Education Center in Georgetown, DE

When did you first come to UD and why?

I first came to UD in July 1986 following graduation from Clemson University with my MS degree in weed science/agronomy. The then-called “UD Research and Education Center” in Georgetown employed me in a grant-funded position as an Extension Assistant in Environmental Quality where I worked with farmers on fine-tuning their fertility programs using poultry manure and commercial fertilizers along with calibrating their application equipment.

I was born and raised four miles from this research center on a 3rd-generation family grain, poultry, swine, and equine farm. I was always impressed with the information and support that came out from this center and the staff located there. Honestly, I could have never asked for a more “perfect” place to work and it allowed me to be a part of my hometown and community while pursuing a professional career supporting agriculture.



How did you progress in your work over all of these years?

Following my position as an Extension Assistant in Environmental Quality, in 1987 I took over the position for the research center’s Field Crop Research Coordinator, where I worked with center-located Extension Specialists, faculty from main campus, and staff on coordinating all aspects associated with their field research projects. I served in that capacity until becoming the center Director in 1991 and have served in that capacity since. My professional career has been very rewarding, working with many of our faculty and staff on supporting research that directly benefits our state, region, and nation when it comes to agronomic and vegetable/fruit production, ornamental horticulture, poultry production and disease management, youth development and leadership, and family and consumer sciences. We have an amazing team here in Georgetown and it has, and continues to be, an honor to work with such a group!

I have also had the privilege of teaching CANR students and mentoring undergraduates on worked-based learning opportunities. It has been exciting to watch these young minds pursue graduate and vet school as well as critical professional careers to support agriculture, all with the ultimate goal of providing solutions for feeding a growing population while protecting natural resources and the environment.

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***Dr. Jules Bruck, Professor and founding Director of PLSC’s Landscape Architecture program***

I was hired as an assistant professor of landscape horticulture in 2006 and enjoyed working with my new colleagues to revamp the curriculum and add a design concentration, making the major “landscape horticulture and design” (LHD). I started offering study abroad programs immediately and over time took seven month-long trips with students during my career including traveling to Brazil, Sweden, France, and Spain. Over the years, design became the primary focus for our LHD students, so in 2014, we began planning a new bachelor’s degree in landscape architecture. I steered the effort to develop the degree program and took the landscape architecture licensure exams to ensure we had enough registered faculty to get through accreditation. Finally, in 2016 we began offering the degree, and we received our accreditation in 2020.



I have always been interested in teaching and researching sustainable landscape design, and each year I led the University of Delaware's efforts to design and build a major educational exhibit at the Philadelphia Flower Show. Our educational message always focused on sustainability concepts. We won many awards over the years, including one gold medal! But, the point of working on the year-round project was to engage students in complex problem-solving and help them learn new skills and build their professional networks. To this day, former students from many different majors across campus share how much the Flower Show experience meant to them professionally and personally.

**Dr. Jules Bruck, Professor and founding director of PLSC's Landscape Architecture program** (article from pg. 3 continued)

Eventually, I moved into designing green infrastructure design and began to take on more coastal resilience projects. I am very proud of my work creating and directing the landscape architecture major, which is enrolling and graduating more students each year. However, I am also proud of the Coastal Resilience Design Studio (CRDS), which I launched with Ed Lewandowski in 2018. The CRDS provides interdisciplinary undergraduate and graduate students from academic institutions across Delaware with a hands-on, community-engaged learning experience that offers real-world solutions to many of the pressing challenges facing Delaware's coastal communities. The PLSC BLA program and CRDS have developed reputations for graduating high-quality, award-winning students, and both are gaining national prominence.

I have been fortunate to collaborate with many outstanding faculty, staff, and students from PLSC and throughout the University. I'm proud to be a DENIN Faculty Fellow and affiliated with the Biden School's Center for Historic Architecture and Design and the Island Policy Lab. I have also enjoyed teaching classes as an adjunct for Horn Entrepreneurship. This past year I was selected to co-direct the Gerard J. Mangone Climate Change Science and Policy Hub, and we had a successful year launching that timely initiative.

My new role at the University of Florida is Director of the School of Landscape Architecture and Planning and Chair of Landscape Architecture. I am looking forward to embracing many new projects and will continue to work on several currently-funded projects through DENIN and CRDS while mentoring my Ph.D. students to degree completion as a UD-affiliated faculty member.

## Events and Outreach

**UDBG News:** The UDBG has five interns this summer. Four are from UD (three are from CANR) and the fifth just finished her freshman year at UMass, Amherst. If you see them in the garden, be sure to say hello. / Want to know what's blooming? Check out UDBG's new sidewalk board stationed outside of the UDairy Creamery. Each week the interns will update it, providing a list of plants not to be missed! / UDBG just received a USDA Specialty Crops Block Grant, "Identifying and Evaluating the Performance of Suitable Replacements to Invasive Groundcovers Subject to Delaware Ban." The trials will be located on the front lawn of Fischer Greenhouse.



**PLSC JEDI News:** Thanks to all who participated in the spring bingo-styled challenge. To follow PLSC JEDI on social media search for: [plscjedi@ud](mailto:plscjedi@ud)

## Ready – Set – Grow!

The editors wanted to acknowledge the "growth" of one of our PLSC office administrative assistants. Congratulations go to Diana Mesa for recently earning her M.A. in strategic communication. She is shown here with her husband, Carlos Mendoza Cardenas, who earned his Ph.D. in electrical and computer engineering.



The 2022 Philadelphia Flower Show is being held outdoors at FDR Park from June 11-19. PLSC alumna and UD Soil Testing Director Karen Gartley (who is celebrating 30 years of working at UD!) captained the UD team. Their exhibit named "Bath Path" (forest bathing), in keeping with the show theme of "In Full Bloom," was awarded a bronze medal!



You may have heard the saying, "By hook or by crook, I'll be the last one in this book." Well, this is my last piece in my last PLSC newsletter, as I am retiring on July 1, after 26 years of working as a Research Associate II (pictured=fresh face!) then RAIII. My mother and I toured the one-year-old Worrlow Hall in 1981 and she convinced me that UD had a good "plant department." Thanks to mentorship from Leo Cotnoir, Don Sparks, and Jerry Hendricks et al., I completed my B.S. in Plant Science, and M.S. in Soil Chemistry, and then since 1996 have worked with Tom Sims, Karen Gartley, Amy Shoher, Angelia Seyfferth, Erik Ervin and many students on environmental soil research management. I have assisted with program coordination for and teaching/mentoring of future natural world problem-solvers. I also enjoyed serving on the board of the Ag Alumni Association. Whether or not I know you personally, I thank you for the camaraderie that I always felt in PLSC specifically and CANR in general. \*SOILY out!!



## Back Porch Business

**[Make a gift to the Plant & Soil Sciences Department](#)** to support student success. Gifts to the department provide funding for student travel to research and professional development events as well as stipends for undergraduate summer research and Extension Scholars. You may also give to the College of Agriculture and Natural Resources or another PLSC program by selecting "Other" and searching for the fund you wish to support. Contact Dan Sarkissian, Assistant Vice President of Development & Principal Gifts, at 302-831-4595 or [djs@udel.edu](mailto:djs@udel.edu) with any questions/concerns.

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