Year in Review: August 2019 – April 2020

CPSC in the News

August:
University of Illinois project offers free soil lead testing in Chicago – Andrew Margenot (8/6)

September:
Fifteen new faculty members join ACES - Juan Arbelaez-Velez and Jessica Rutkoski, Chris Harbourt, and Julie Zilles (9/6)

Corn one step closer to bacterial leaf streak resistance – Tiffany Jamann (9/11)
Palmer amaranth’s molecular secrets reveal troubling potential – Patrick Tranel (9/16)
October:
Sweet corn growers, processors could dramatically increase yield, profit – Martin Williams (10/8)
Illinois plant pathologist reports good news for pumpkins, apples – Mohammad Babadoost (10/10)
University of Illinois requests data from farmers to better understand unique growing year - Emerson Nafziger (10/18)
Study tracks evolutionary history of metabolic networks – Gustavo Caetano-Anollés (10/28)

November:
ACES researchers among 2019’s most influential scientists - Lisa Ainsworth, Stephen P. Long, Don Ort (11/25)

December:
Discovery of new protein in tomato explains long-standing plant immunity mystery – Sarah Hind (12/10)
Illinois study proposes circular phosphorus economy for Midwest – Andrew Margenot (12/12)

January:
Genes controlling mycorrhizal colonization discovered in soybean - Michelle Pawlowski (1/6)
Illinois crop pathologists and entomologists publish 2019 field research results - Nathan Kleczewski, Nick Seiter (1/22)
Harrington Seed Destructor kills nearly 100% of U.S. agronomic weed seeds in lab study – Adam Davis (1/28)
Stephen Long invested as the Stanley O. Ikenberry Chair Professor of Plant Biology and Crop Sciences – Steve Long (1/31)

February:
New artificial intelligence algorithm better predicts corn yield – Nicolas Martin (2/20)
Boost soybean yields by adapting photosynthesis to fleeting shadows, according to model – Steve Long (2/24)
Illinois study shows universally positive effect of cover crops on soil microbiome - Nakian Kim, Maria Villamil (2/27)

March:
Aerial insect trap network describes life in the skies - Glen Hartman, Doris Lagos-Kutz (3/12)
New planting guidelines could boost edamame profits – Martin Williams (3/13)
Technology to screen for higher-yielding crop traits now more accessible to scientists – Carl Bernacchi (3/16)
April:
Fungus application thwarts major soybean pest, study finds – Glen Hartman (4/9)
Crop Sciences research poised perfectly for these times – Allen Parrish (4/24)
Lisa Ainsworth elected to the National Academy of Sciences – Lisa Ainsworth (4/29)

Social Activities
Fall Festival - November 1 – Dancing to live music with the Young & the Fretless band, apple cider and donuts.

Chili Cookoff – February 25 - 12 chilis, 4 styles, 1 great time!

Coffee Hour - Every Friday at 10 AM in the Turner Hall Atrium.
**Student & Alumni Blogs**

- Apply a solid crop sciences background to become a data scientist, by Jarai Carter
- Make a difference with a career in research, by Ashley Isaacson
- Participating in research to find your true calling, by Karla Vittore
- My undergraduate experience in a research lab, by Andrew Malcomson
- Teaching integrated pest management and pesticide safety in Mozambique, by Nicole Lee

**Extension & Outreach**

- **The Bulletin**
- 56th Illinois Corn Breeders [School](#), 3/3/2020
- Integrated pest management
  - Illinois crop pathologists and entomologists publish 2019 field research [results](#)
  - IL Field Crops Disease [hub](#)
  - Crop Protection [Network](#)
  - Crop Science Extension specialists [contribute](#) to Crop Docs during shelter-in-place
- **IDEA Farm Network**: A learning community for anyone interested in regenerative agriculture. Activities of the group include an online discussion group, presentations and on-farm meet-ups and demos.
Awards

- Colleen Zumpf Ph.D. student in D.K. Lee’s lab group received: Burlison Award IL Crop Improvement Association, 6/13/2019
- Wyffels award for Faculty Excellence
  - 2018: Dr. Frank Zhao - For excellence in plant pathology research and teaching.
  - 2019: Dr. Laura Christianson - For excellence in water quality management research and extension.
- 2019 (and 2018) Clarivate Most Highly Cited
  - Dr. Lisa Ainsworth
  - Dr. Steve Long
  - Dr. Don Ort
- Runge Distinguished Faculty Achievement Award
  - Dr. Matt Hudson
- Excellence in Extension
  - Dr. Laura Christianson
- Outstanding Graduate Student Research
  - Ph.D.: Laura Chatham
  - M.S.: Olivia Obenland
- Dr. Laura Christianson - American Society of Agricultural and Biological Engineers 2020 Larry W. Turner Young Extension Professional Award
- Dr. Pat Tranel - 2020 Outstanding Research Award

Personnel Updates

New faculty in AY-2019-2020: Dr. Jessica Rutkoski (Asst. Prof. of Small Grains Breeding), Dr. Juan Arbelaez (Asst. Prof. of International Plant Breeding), Dr. Chris Harbourt (Res. Asst. Prof. of Digital Agriculture), Dr. Julie Zilles (Res. Asst. Prof. of Agricultural Microbiology and Scientific Writing).
Retirements: Dr. Gary Kling (2019), Dr. Fred Kolb (2019), Dr. Mosbah Kushad (2019), Dr. Emerson Nafziger (2018), Dr. Tom Voigt (2019)

Left for other institutions: Dr. Cameron Pittelkow, Dr. Sarah Lovell Taylor, Dr. Carrie Butts-Wilmsmeyer

Searches:
- Asst. Prof. of Digital Agriculture: Search complete, Dr. Hamze Dokoohaki hired
- Asst. Prof. of Specialty Crops Entomology: Search complete, Dr. Kacie Athey hired
- Asst. Prof. of Horticultural Food Production Systems: Search in progress

**Gifts and Funding Priorities**

Recruitment Scholarships: Recruiting the best and brightest students to Crop Sciences at Illinois is top priority and doing so requires both active recruiting and the ability to offer scholarships. This fund aims to equip the department with that ability to make competitive offers to top high school students and junior college transfers. It is our goal to be able to offer scholarships to every admitted student to Crop Sciences.

Experiential Learning Fund & Travel Scholarships: Hands on learning, active networking and solving the toughest problems in agriculture contribute to a well-rounded student. Those opportunities often come at a cost and this fund enables department leadership to offset those costs associated with internships, study abroad, professional conferences. When students want to spread the knowledge
gained at Illinois to the far corners of the globe, we aim to remove any financial barriers in doing so.

**Crop Sciences Student Experiences:** Field and Furrow, Sustainable Student Farm, Graduate Student Association support includes funding for field trips, activities, needs on the Sustainable Student Farm as well as funding for industry networking events and symposia.

To become a donor, to get more information or to get more involved, please contact Patrick Gavin (pjgavin@illinois.edu)

**Initiatives**

**Curriculum revision:** We are more than half-way through a curriculum update designed to better prepare our students for addressing the grand challenges of agriculture in 21st century careers and work environments. Key features of the update include: 1) transitioning from one major with 7 concentrations to five majors (Agronomy, Computer Science + Crop Sciences, Crops Agribusiness, Horticultural Food Systems, and Plant Biotechnology); 2) patterning the curriculum on a tree model, with a core curriculum at the base, and elective courses branching off from the trunk into the five majors; 3) emphasizing the importance of student learning outcomes in driving what we teach and how we teaching; 4) increasing opportunities for experiential learning (e.g. research lab rotations, internships, outreach, community engagement) throughout the curriculum.
Center for Digital Agriculture: This is a campus-level initiative that brings together the College of ACES and Grainger College of Engineering to promote collaborations to support the development of digital agriculture. The Crop Sciences Department is participating in the CDA through its Computer Science + Crop Sciences major, as well as through several faculty participating in the Seed Grants program.

Additional Events

ESAC Meeting – The External Stakeholders Advisory Committee met with the Admin team on campus on March 10th.

Farming in the Windy City - From rooftops to abandoned lots, urban gardening in Chicago is thriving.