

# Department of Horticulture & Landscape Architecture

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In This Issue

- Indiana Green Expo a Success Again in 2024!
- Purdue Student Farm Featured in Purdue Ag Photo Story on Boilermaker Hot Sauces

Habbening

- Dr. Moriah Bilenky Received SARE Partnership Grant
- Dr. Ariana Torres Held Small Business Training in Peru
- New Publication from Liz Maynard, Wenjin Guan, Petrus Langenhoven and Lori Hoagland
- Mitchell Lab Published Two Open-Access Articles
- Dr. Stephen Meyers Presented at Indiana Hort Conference
- Liz Maynard Presented at Indiana Hort Conference
- Meyer's Weed Science Lab Attended WSSA/SWSS Joint Meeting
- Midwest Mint Growers Conference
- Purdue Student Farm Featured in Purdue Agriculture Web Article on Entomology Research
- Congratulations to Miranda Purcell!
- 2024 HLA Spring Seminar Series: Dr. Craig Schenck
- HLA Bowling Team
- Purdue Small Farm Education Field Day

# Indiana Green Expo a Success Again in 2024!



The Indiana Green Expo (IGE) is an annual three-day conference for professional turfgrass, landscape, and nursery managers. **Aaron Patton**, **Kyle Daniel**, and **Ashley Breed** lead and coordinate the educational programs that are central to the success of the Expo with help from several other specialists, staff,

and students. Annually this event influences the educational resources used by some 1,500 green industry professionals.

For those of you who had the opportunity January 17-19 to attend the Indiana Green Expo, we are sure that you noticed the nine educational tracks, seven workshops, and a trade show that were offered daily. The event is diverse with training for golf courses, lawn care companies, sports field managers, nurseries, landscape professionals, business owners, vegetation management professionals, arborists, and more. The event also includes a Spanish-speaking track, a Women of the Green Industry session, and professional development training. Over 1,380 people attended the expo this year and we heard many good comments about the education program and the 120 exhibitors at the tradeshow. On behalf of the Midwest Regional Turf Foundation and the Indiana Nursery and Landscape Association, thank you to all of those who attended.

If you didn't get a chance to attend this year, we encourage you to pencil in February 10-12, 2025 on your calendar. Numerous workshops, education sessions, and an outstanding trade show will be available again next year

If you have any questions, comments, or suggestions for 2025 let us know: ashbreed@purdue.edu, daniel38@purdue.edu or ajpatton@purdue.edu.

Purdue Student Farm Featured in Purdue Ag Photo Story on Boilermaker Hot Sauces



Purdue Agriculture published a story on the unique collaboration

between the **Purdue Student Farm** and the Department of Food Science that led to the first student-created, Purdue-branded hot sauce line: The Making of Boilermaker Hot Sauces

# Dr. Moriah Bilenky Received SARE Partnership Grant



**Moriah Bilenky** was awarded a SARE Partnership Grant for the project "Addressing knowledge gaps in animal traction for vegetable production and forest management on Midwest farms."

### Dr. Ariana Torres Held Small Business Training in Peru



**Ariana Torres** trained small business owners in Peru as part of her USAID-funded project Peru-HUB. The training consisted of digital marketing modules part of her Entrepreneurship Readiness curricula.

## New Publication from Liz Maynard, Wenjin Guan, Petrus Langenhoven and Lori Hoagland



Photo credit: P. Langenhoven

Liz Maynard, Wenjing Guan, Petrus Langenhoven and Lori Hoagland published "Tomato Seedling Performance in Commercial Organic Growing Media" in HortTechnology.

# Mitchell Lab Published Two Open-Access Articles

Two open-access articles involving **Mitchell lab** participation in the NASA-sponsored ILSRA project directed by former Purdue HLA post doc **Gioia Massa**, PI, have just become available online:

An article entitled "Pick-and-eat space crop production flight testing on the International Space Station" appears in the *Journal of Plant interactions*, and can be linked to via https://doi.org/10.1080/17429145.2023.2292220

The other article entitled "Leaf yield and mineral content of mizuna in response to cut-and-come-again harvest, substrate particle size, and fertilizer formulation in a simulated spaceflight environment", senior authored by **Asmaa Morsi**, former HLA graduate student, also is fully citable in the journal *Life Support and Space research*, and can be linked to via https://doi.org/10.1016/j.lssr.2023.09.005

## Dr. Stephen Meyers Presented at Indiana Hort Conference



Dr. **Stephen Meyers** presented at the Indiana Horticultural Conference & Expo on the management of weeds in sweet potato and strawberries.

## Liz Maynard Presented at Indiana Hort Conference

At the Indiana Hort Conference in Danville on Jan. 22 Liz Maynard presented about no-till sweet corn and joined **Stephen** Meyers, Dan Egel, Laura Ingwell to present Integrated Pest Management in Pumpkins.

#### Meyer's Weed Science Lab Attended WSSA/SWSS Joint Meeting

Recently, representatives from the **Meyers' Weed Science Lab**, **Jeanine Arana**, **Emmanuel Cooper**, and **Josue Cerritos**, showcased their work at the 64th Weed Science Society of America (WSSA) and Southern Weed Science Society (SWSS) Joint meeting in San Antonio, TX.

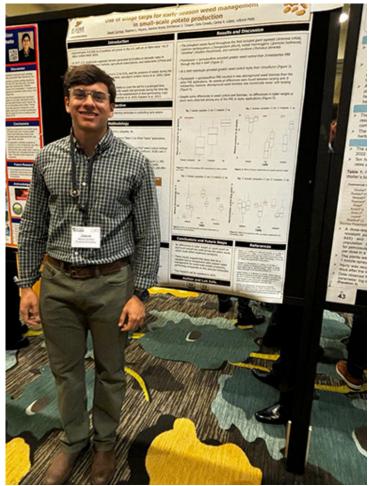




During the event, Jeanine presented a 3-minutes single slide talk titled "Cover crops: a weed management option in plasticulture strawberry row-middles" and a 15-minute talk titled "My travel enrichment experience with Blue River Technology."



Emmanuel presented a 3-minutes single slide talk titled "Evaluation of critical weed-free period for three sweetpotato cultivars."



Josue presented the poster titled "Use of silage tarps for earlyseason weed management in small-scale potato production."



Emmanuel won 3rd place for his single slide talk in the master students' category. Congrats!



# Midwest Mint Growers Conference



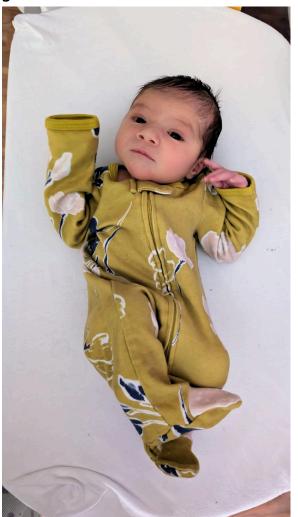
**Petrus Langenhoven** and Meredith Cobb are working with the Indiana Mint Market Development and Research Council (IMMDC) to plan the 2024 Midwest Mint Growers Conference. This year, the conference will be held in South Bend, IN, and we expect to see growers from Indiana, Michigan, and Wisconsin attend the conference. For more information, visit

https://ag.purdue.edu/department/hla/extension/mint.html. Look under EVENTS for program and registration details.

#### Purdue Student Farm Featured in Purdue Agriculture Web Article on Entomology Research

The **Purdue Student Farm** was featured in a Purdue Agriculture web article highlighting entomological research: Purdue Student Farm serves as 1 of nearly 40 entomology research sites across the United States.

# Congratulations to Miranda Purcell!



Welcome June Rose Purcell born January 22, 6 lbs 11 oz and 21 inches long! Congratulations to proud parents Miranda and Oliver!

### 2024 HLA Spring Seminar Series: Dr. Craig Schenck

### PURDUE NIVERSITY. College of Agriculture

Department of Horticulture & Landscape Architecture

# 2024 HLA Spring Seminar

Dr. Craig Schenck, Ph.D. Assistant Professor Biochemistry, University of Missouri Thursday February 1st, at 3:30pm, HORT 117 or Via Zoom.





"Evolution of plant chemical diversity: gene co-option, enzyme promiscuity, and pathway sequestration"

#### Abstract:

To cope with environmental pressures, plants produce an arsenal of structurally diverse chemicals, often called specialized metabolites, which have various industrial and medicinal properties. The expansion and alteration of core metabolism has given rise to the evolution of structurally diverse plant specialized metabolites. However, the underlying biochemical mechanisms potentiating chemical diversity are poorly understood. Gene duplication provides raw material for the emergence of novel traits, but evolutionary outcome depends on which genes are retained and how they become neofunctionalized. Here, we use plant specialized metabolic pathways to understand how novelty emerges and how plant metabolics contribute to biotic and abiotic stress tolerance. We find that various mechanisms contribute to evolution of lineage-specific metabolic pathways in plants including gene cooption events and modification of enzyme activity, maintenance of enzyme promiscuity, and changes in cellular localization.

#### Dr. Craig Schenck, Ph.D.

Assistant Professor Biochemistry, University of Missouri Thursday February 1st, at 3:30pm, HORT 117 or Via Zoom.

"Evolution of plant chemical diversity: gene co-option, enzyme promiscuity, and pathway sequestration"

Abstract: To cope with environmental pressures, plants produce an arsenal of structurally diverse chemicals, often called specialized metabolites, which have various industrial and medicinal properties. The expansion and alteration of core metabolism has given rise to the evolution of structurally diverse plant specialized metabolites. However, the underlying biochemical mechanisms potentiating chemical diversity are poorly understood. Gene duplication provides raw material for the emergence of novel traits, but evolutionary outcome depends on which genes are retained and how they become neofunctionalized. Here, we use plant specialized metabolic pathways to understand how novelty emerges and how plant metabolites contribute to biotic and abiotic stress tolerance. We find that various mechanisms contribute to evolution of lineagespecific metabolic pathways in plants including gene co-option events and modification of enzyme activity, maintenance of enzyme promiscuity, and changes in cellular localization.

# **HLA Bowling Team**

Our team Good Thyme Gang played against English-OWL

Monday afternoon at Mike Aulby's Arrowhead Bowl for Week 19 of the Purdue Staff and Students league. We lost all points, bringing the team down to 5th place.

No placements this week.

#### Come out and bowl with us!

We bowl 3 games on Monday nights starting at 6:30pm. All Purdue faculty, staff, students, and retirees are welcome. If you would like to bowl with us for a session during the season, please email **Alexandra Jewell at jewell4@purdue.edu**.

# Purdue Small Farm Education Field Day



#### Newsletters:

Facts for Fancy Fruits: https://fff.hort.purdue.edu Vegetable Crops Hotline: https://vegcropshotline.org/ Purdue Landscape Report: https://www.purduelandscapereport.org

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