

INSIDE AGRONOMY

ISSUE 12 - MARCH 10, 2025

PURDUE UNIVERSITY

Agronomy

Agronomy e-Learning Reaches Ten-Year Milestone

Submitted by Bruce Erickson

The Agronomy eLearning Academy began in January 2015 with 63 learners in Agronomy Essentials. Precision Agriculture was added in 2016, Nutrient Management in 2017, and Agronomy Essentials Europe in 2020.

In its ten year run the academy has engaged with 2,650 learners who have 3,398 course completions. These learners represent all 50 states plus Puerto Rico

and 48 countries worldwide. Successful completion earns an electronic certificate, and those who complete the three courses of Agronomy Essentials, Nutrient Management, and Precision Agriculture earn a framed Crop Professional Certificate.

The courses are designed for working professionals to learn the basics, in a format that allows them to dovetail learning with their work and personal obligations. The Academy's vision was crafted according to agribusiness education needs in a day-long workshop and multiple follow-ups with company representatives who made decisions about content, delivery methods, levels of difficulty, pricing, and more.

The screenshot displays the 'Crop Water Use' module. It features a video player with a presenter, Bruce Erickson, and a 'Water Balance Equation' section. The equation is $WC_t = WC_{t-1} + IRR + RAIN - AET - DP$. Below the equation, variables are defined: WC_t (Soil water content today in inches), WC_{t-1} (Soil water content yesterday in inches), IRR (Irrigation depth since yesterday in inches), $RAIN$ (Rain since yesterday in inches), AET (Actual ET in inches), and DP (Deep percolation in inches). The interface also includes a 'Table of Contents' on the left, a 'Control Panel' at the bottom, and various informational graphics and text blocks on the right.



Course content grew from collaboration with subject matter experts at Purdue and other land grant universities. Each course is offered three times yearly and features at least 100 HD videos, accompanying content to read with graphics, links to more information, glossary, and assessments. Students work on their own time but must stay current with a schedule, and cannot progress to the next module until they demonstrate their knowledge. Quizzes are populated by an item bank that presents randomly with machine scoring.

Bruce Erickson is the Director who oversees content and delivery methods, and Sue Bennett the Project Manager, handling student needs daily and staying connected to the companies that send students and individual enrollees. Joe Anderson, the department head at its founding, was instrumental in the program's conception.

The Precision Agriculture course is being rebuilt and renamed Digital Agriculture with a USDA grant. Agronomy Essentials earned the 2015 Award for Excellence in Distance Learning at Purdue (non-credit), Precision Agriculture the 2017 Award of Excellence, and the Crop Professional Certificate Program earned the 2018 Award of Excellence.

For more information: <https://ag.purdue.edu/department/agry/elearning-academy/index.html>



Anna Paltseva was invited to present "Heavy Metals and Microplastics in Urban Soils" at the Indiana Association of Soil Classifiers meeting on Feb. 24 in Danville, IN, where she discussed the growing concern of microplastic contamination in urban soils alongside heavy metals. Her presentation highlighted the sources, impacts, and research challenges surrounding these emerging pollutants, sparking insightful discussions on their implications for land management and remediation.

At the Indiana Small Farm Conference 2025, Anna Paltseva joined Gabriel Filippelli from IU and Nathan Shoaf from Purdue Extension for the session "Lead Ahead: New Insights for Safer Soil Practices," where they explored the challenges of legacy lead contamination in soils and its impact on food safety and farm sustainability. Their discussion highlighted how science-driven solutions and community engagement can help mitigate risks and promote healthier soils for small-scale and urban farmers.



AGSO Silent Auction!

Time: 3/26 1pm - 3/27 11am

Location: Lily 2-458

Who can join: Open to all department members, including faculty, staff, and students.

Purpose: All items for the auction will be donated. Please drop off the items at least two days prior to the event at 3440. All proceeds from the auction will be used to support Agronomy graduate student, postdoc, and visiting scholar activities.

Bidding Process:

- All bids have to be written on the designated bid sheets.
- Each bid must be higher than the previous bid by at least the stated minimum increment.
- Bidders have to clearly write their name, contact information, and bid amount.
- The auction will close at **3/27 11am**.
- The highest valid bid at closing time wins the item.

Payment and Item Pickup:

- Winners must pay in full before claiming their items. Accepted payment methods: **Cash only**
- Items must be collected by **3/28, office 3440**, unclaimed items may be offered to the next highest bidder.

Additional Rules:

- All sales are final; no refunds or exchanges.
- Items are sold as-is; no guarantees or warranties apply.
- The auction organizers reserve the right to resolve any disputes

SILENT AUCTION

OPEN: 1 PM MARCH 26
CLOSE: 11 AM MARCH 27
LILY 2-458

HELP US RAISE FUNDS FOR THE AGRY-GSO!

Student Spotlight



Congratulations Ana Morales Ona!

We are thrilled to announce that Ana Gabriela Morales Ona has been honored with the 2025 CoA Graduate Student Mentoring Award for her outstanding dedication to mentoring!

Congratulations, Ana ! Your contributions are truly invaluable, and we are so proud of you!



Congratulations to Malley Elliott on successfully passing her Master Thesis Defense!

You can view the recording of [Malley Elliott Master Thesis Defense](#) here.



Congratulations to Annie Benson!

We are thrilled to announce that Annie Benson, a graduate student in Dr. Yichao Rui's Agroecology Lab, has been awarded the prestigious M.O. Pence Scholarship!

This scholarship honors the legacy of M.O. Pence, who dedicated his career to agronomic extension and education in Indiana. Annie's dedication to applied agronomic research, her leadership potential, and her strong academic performance exemplify the qualities this award seeks to recognize.

Please join us in celebrating Annie's achievement!

Congratulations to Maddie Brink!

We are thrilled to announce that Maddie Brink, an undergraduate student in Agronomy, has been awarded the prestigious M.O. Pence Scholarship!

This scholarship honors the legacy of M.O. Pence, who dedicated his career to agronomic extension and education in Indiana.

Please join us in celebrating Maddie's achievement!



Severe Weather Preparedness Week is March 9-15, 2025

By: Austin Pearson, Melissa Widhalm

Hello, meteorological spring! Early spring flowers are starting to show signs of growth, and temperatures are expected to reach around 70°F this week. These changes mean severe weather season is just around the corner. In response, March 9-15, 2025, is Indiana's Severe Weather Preparedness Week. A statewide test of emergency communication systems will take place on Tuesday, March 11, at 10:15 AM.

The [National Weather Service](#) (NWS), a critical part of [the National Oceanic and Atmospheric Administration](#) (NOAA), uses Severe Weather Preparedness Week to educate the public about the dangers of severe thunderstorms and tornadoes. The goal is to help everyone be better prepared when severe weather strikes. The Indianapolis NWS office will focus on a different topic each day through their social media accounts ([Facebook](#) and [X](#)).

Sunday: Weather Ready Nation

Monday: Severe Weather Outlooks and Watches

Tuesday: Severe Weather Warnings and Tornadoes

Wednesday: Other Types of Severe Weather Hazards

Thursday: Flooding

Friday: Response and Recovery

Saturday: Recap of Severe Weather Preparedness Week

Have you considered what you would do if a tornado warning were to be issued while you were outside? For example, if you were conducting research in the field at ACRE, it is crucial to stay aware of the weather conditions beforehand. Check the [Storm Prediction Center Outlook](#), look for weather [watches or warnings](#), and have a plan ready BEFORE a warning is issued. Let's take a moment to clarify the difference between a watch and a warning (featured right).

Outlooks, Watches and Warnings
All Need to Know When to Be Ready and When to take Action

- **Watch** - Covers large areas and usually issued **"hours"** ahead of severe weather
- **Warning** - Covers small areas and usually issued **"minutes"** ahead of severe weather

TACO WATCH
WE HAVE THE INGREDIENTS, BUT HAVE NOT YET ASSEMBLED PROPERLY.

TACO WARNING
WE WILL SOON BE EATING TACOS OR ARE CURRENTLY EATING TACOS.

PREPARATION **ACTION**

NATIONAL WEATHER SERVICE
OCEANIC AND ATMOSPHERIC ADMINISTRATION
Indianapolis, Indiana

A "watch" indicates that the conditions are favorable (have the ingredients) for severe weather to develop, while a "warning" means that severe weather is currently occurring (ingredients have been assembled) and you should seek shelter.

Severe Thunderstorm Warnings are issued for thunderstorm wind gusts ≥ 58 mph and/or hail ≥ 1 inch in diameter. Tornado warnings are issued for Doppler Radar-indicated strong rotation, confirmed reports of a tornado, or confirmed reports of a funnel cloud in a favorable environment for tornadoes. Flash Flood Warnings are issued when there are 6 inches or more of flowing water over roadways or a rapid rise in water that threatens life and property.

Interested in learning more about severe weather? The MRCC offers an Educational Resource called [Living with Weather](#) that explores various types of severe weather in the Midwest. For questions please email mrcc@purdue.edu.

WPS TRAINING

The USEPA mandates pesticide safety training for employees who encounter agricultural use pesticides while working at a farm, greenhouse, nursery, or forest and do not possess a Certified Pesticide Applicators license. To ensure compliance, EHS is offering Worker Protection Standard (WPS) training at the times and location listed below. Annual training is required.

March 12, 1pm - 2pm LILY 2425

March 25, 11am - 12pm LILY 2425

April 14, 10am - 11am LILY 2425

April 15, 11am - 12pm LILY 2458

April 23, 1pm - 2pm LILY 2425

Contact Jennifer Kraus, jakraus@purdue.edu with any questions or concerns.



Hemp Seminar
-From Field to Function

26 MARCH 2025

FREE EDUCATIONAL EVENT

The Hemp Seminar-From Field to Function is a half day seminar focused on hemp production, some of the many different applications of the plant, and research on health and environmental contamination of hemp. Speakers will present on current research and the opportunities that exist in the hemp industry.

EVENT INFO + REGISTRATION | March 26, 2025 | 9:00 AM-12:30 PM EST
Pfendler Hall-Dean's Auditorium 241
purdue.ag/hemp-seminar



P PURDUE UNIVERSITY Agronomy | **P PURDUE UNIVERSITY** Food Science

PRODUCTION | **FOOD & FIBER** | **FUTURE USES**

EA / EOU

Get ahead this summer. Register Now!

100% online & asynchronous, designed to fit flexibly in your schedule

AGRY 320: GENETICS

Overview

Introductory genetics course designed to teach fundamental principles to students with a broad range of interests. This well-organized course has been taught several times.

Pre-reqs

BIOL 110/11, BIOL 110 or 111 + BTNY 110, BIOL 121/131, or BTNY 110 + HORT 301

Dates

Course opens June 1 and begins June 13. Final exam is August 6

P PURDUE UNIVERSITY College of Agriculture

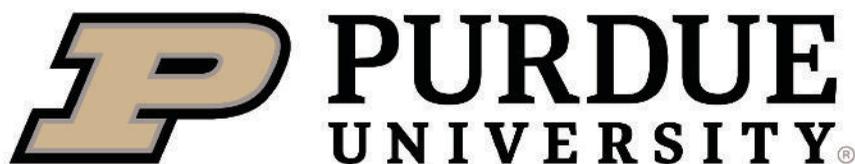


THINK SUMMER



Learn more at
<https://bit.ly/3Yz5X8P>

AGRONOMY SPRING 2025 SEMINAR SERIES



Agronomy

**Mondays at 2:30
p.m.
LILY 2-425**
(unless otherwise noted)

Join friends and colleagues as they discuss the latest in Agronomy and other related topics.

Zoom links for virtual attendance and online-only seminars will be shared closer to their scheduled date.

A detailed flyer will be shared prior to each seminar. Please refer to the specific event flyer for any changes.

Visit the Agronomy Seminar Series Website at: purdue.ag/agryseminars or by scanning the QR code below.



Date	Speaker
January 27th	Dr. Bruno Basso - Michigan State University - On-line only Topic: Understanding Drivers of Spatial and Temporal Variability of the Soil-Plant-Atmosphere System Host: Dr. Bruce Erickson
February 3rd	Dr. Darrell Schulze - Purdue University - Agronomy Topic: Soil Explorer - Visualizing and Understanding Soil Landscapes Host: Dr. Cindy Nakatsu
February 10th	Dr. Gary Steinhardt - Purdue University - Agronomy Topic: A 48-Year Soils Journey in a Land-Grant University Host: Dr. Eileen Kladvivko
February 17th	Dr. Chad Penn - USDA ARS National Soil Erosion Research Lab Topic: Phosphorus Management: Feast and Famine Host: Dr. Yichao Rui
February 24th	Dr. Elizabeth Rieke - Soil Health Institute Topic: TBD Host: Dr. Roland Wilhelm
March 3rd	Dr. Mitch Tuinstra - Purdue Agronomy - Dean's Auditorium Seminar Topic: Named Professor Review Host: Dean Engel
March 10th	Dr. Ling Li - Mississippi State University Topic: From Arabidopsis to Crops: A Molecular Tool to Increase Protein Content and Disease Resistance Host: Dr. Cankui Zhang
March 24th	Dr. Joyce Van Eck - Boyce Thompson Institute - Cornell Topic: Leveraging Genome Editing for Pre-Breeding of Physalis Species Seminar co-sponsored by Agronomy & Center for Plant Biology Host: Dr. Cankui Zhang
Cancelled March 31st	Dr. Eliana Monteverde - University of Illinois Urbana-Champaign Topic: TBD Host: Dr. Karen Hudson
April 7th	Dr. Keith Johnson - Purdue University - Agronomy Topic: Story Telling Has Value at Educational Events Host: Dr. Eileen Kladvivko
April 14th	Dr. Pragati Pramanik - Indian Agriculture Research Institute - Delhi Topic: Application of Machine Learning Approaches in Soil Health Assessment Host: Dr. Sidd Paul
April 21st	Dr. Kateryna Zhalnina - Lawrence Berkeley National Lab Topic: Metabolomics/Cover Crops Host: Dr. Roland Wilhelm
April 28th	Dr. Jean-Michel Ane - University of Wisconsin - Madison Topic: Biological Nitrogen Fixation on the Aerial Roots of Maize and Sorghum for Sustainable Agriculture Host: Dr. Jianxin Ma

In case you missed it...

All issues of Inside Agronomy are available on the Agronomy website. Click below to view past issues.

[Inside Agronomy](#)



Share news, articles, and publications in Inside Agronomy by emailing the information to Stephanie Orem sorem@purdue.edu

SAVE THE DATES

COLLEGE OF AGRICULTURE NETWORKING GATHERINGS

LEARN MORE AT: purdue.ag/coag-networking



MARCH 7, 2025
3:00-6:30pm

Joint Poster Networking Gathering
Colleges of Agriculture & Engineering
▶ *Marriott Hall*



JULY 10, 2025
3:00-6:30pm

**Mandela Washington Entrepreneurial
Fellows Poster Networking Gathering**
▶ *Lafayette Brewing Company (Upstairs)*



SEPTEMBER 5, 2025
3:00-6:30pm

**CoAg Graduate Student Welcoming
Poster Networking Gathering**
▶ *Marriott Hall*



AUGUST, 2025
DATE & TIME TBD

Experience ACRE
Celebrating agricultural field research
▶ *Agronomy Center for Research & Education*



OCTOBER 3, 2025
3:00-6:30pm

Global One Health
▶ *Marriott Hall*



January 30, 2026
3:30-6:30pm

Fermentation Frenzy
▶ *Marriott Hall*

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