

INSIDE AGRONOMY

ISSUE 13 - MARCH 24, 2025

PURDUE
UNIVERSITY

Agronomy

Bridging Research & Reality: Advancing Nutrient Management Through Adaptive Science

Please save the date for the upcoming visit of a faculty candidate for the position of **Clinical Assistant Professor of Agronomy in Soil Fertility and Plant Nutrient Management**.

Candidate: Dr. Megan Bourns, University of Arkansas

Date: Monday, March 31st

Location: LILY 2-425 (or) Zoom *same link for all sessions*: <https://purdue-edu.zoom.us/j/96763398507>

Schedule of Events:

- **Seminar** | 10:00 – 11:00 a.m.
- **Dialogue with Extension Faculty, Staff, and Stakeholders** | 1:15 – 2:15 p.m.
- **Dialogue with Research Faculty and Staff** | 3:15-4:15 p.m.

Please attend the session(s) most relevant to you. Additional information about the candidate is live on our [Position Search Webpage](#)

For those unable to attend on-site, the seminar will be live-streamed + recorded, and dialogues will be live streamed ensuring accessibility for Purdue faculty, staff, and students.

Congratulations to Rose Mumbi successfully passing her dissertation Defense!



Submitted by Sophia Qu and Jim Camberato

Click here to view the recording.

[Rose Caroline Mumbi - Dissertation Defense - Zoom](#)

Rose was also recently recognized for having a top cited article! Click the link below to view the article.

<https://acsess.onlinelibrary.wiley.com/doi/full/10.1002/jeq2.20485>



PURDUE CROPS JUDGING TEAM WINS REGIONALS!



On Saturday, March 8th, members of our Purdue Agronomy Crops Judging Team (Kate Alsdorf, Katlynn Asbury, Ahren Berlanger, Maddie Brink, Bryce Cornelius, Jason Emsweller, Luke Foxworthy, Josh Havron, Jade Larrison, Max Maschino, Anna Phillips, Josh Terrell, and Bradley Yunker) competed in a spring Regional NACTA (North American Colleges and Teachers of Agriculture) competition here at Purdue University (in preparation for Nationals that will be held in Canyon, TX; April 9th-April 12th).

It was a very exciting competition with 9 (2- and 4-year) universities/colleges competing; totaling over 74 college students.

Below are some of the highlights from the contest:

Purdue placed First in the team competition, followed by Iowa St. and then Kansas St.

- Individual Overall, 1st (Jason Emsweller); 4th (Josh Havron); 8th (Bradley Yunker); 17th (Maddie Brink); 18th (Luke Foxworthy)
- Lab Practical, 1st (Jason Emsweller); 3rd (Josh Havron); 10th (Bradley Yunker)
- Agronomic Quiz, 1st (Bradley Yunker); 2nd (Jason Emsweller); 6th (Luke Foxworthy)
- Identification, 2nd (Jason Emsweller); 5th (Bradley Yunker); 7th (Josh Havron); 8th (Maddie Brink)
- Math Practical, 1st (Jason Emsweller); 8th (Josh Havron); 8th (Luke Foxworthy)

Jeff Bradford and I are very proud of this team! We are all looking forward to Nationals!! Please congratulate them when you see them in the department.

Submitted by Corey Gerber

Congratulations to Erick Oliva Fuentes and Elijah Openiyi on their recent achievements!



Congratulations to Amiya Kalra, recipient of the IndianaView student scholarship!

The IndianaView Consortium is a group of universities and other organizations that works to promote the use of remote sensing data in education, research, and outreach, and their student scholarship program supports students using remote sensing data and other geospatial technology.



**Mark your calendars for March 31st through April 4th
and get ready for our favorite week of the year!**

AG WEEK

at a glance

| | |
|------------------|---|
| MONDAY | Milk Monday |
| TUESDAY | Tech Tuesday Cultivating Conversations |
| WEDNESDAY | Burger Bash Ag Expo |
| THURSDAY | Hammer Down Hunger |
| FRIDAY | Farm to Fork Friday |

MARCH 31ST - APRIL 4TH, 2025

* Promo will be set out at 10:00 AM and restocked at 1:00 PM every day.

Purdue Ag Week

Tuesday, April 1st
Explore Technology in
Agriculture & Enjoy Popcorn
with the Purdue Agronomy
Club!

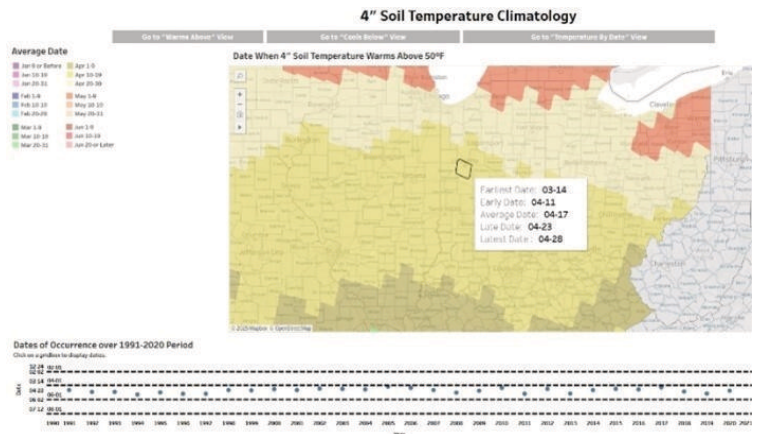
TECH TUESDAY

10:00 AM - 3:00 PM

A Look at the MRCC's Soil Temperature Climatology - By Austin Pearson

Spring field operations have already begun across the state, including tillage, anhydrous ammonia applications, and even some planting. Temperatures look up from here, but we cannot rule out periods of cooler conditions between now and May that could impact crop emergence. As of March 18, 2025, the 7-day average 4-inch soil temperature at the Purdue Agronomy Farm (ACRE) was 40.5°F, according to data derived from the [Purdue Mesonet Data Hub](#). Daily soil temperature data can be accessed through the Data Hub, which can be downloaded to compute 7-day running average temperatures. A future update will allow 7-day soil temperatures to be readily accessible.

How does the current soil temperature compare to those of previous years? A collaboration between the [Midwestern Regional Climate Center \(MRCC\)](#) and the [USDA Midwest Climate Hub](#) has resulted in the [Soil Temperature Climatology Tool](#), which can provide that answer. This tool offers historical statistics for 4-inch soil temperatures across the North Central United States from 1991 to 2020. It supports management decisions by answering key questions such as:

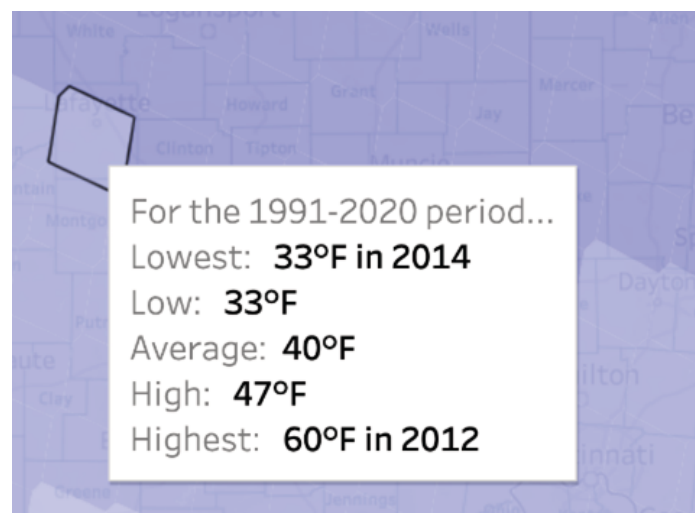


Average Crossing Dates: On which day of the year does a location's 7-day average soil temperature typically rise above or fall below a specific threshold, such as 50°F?

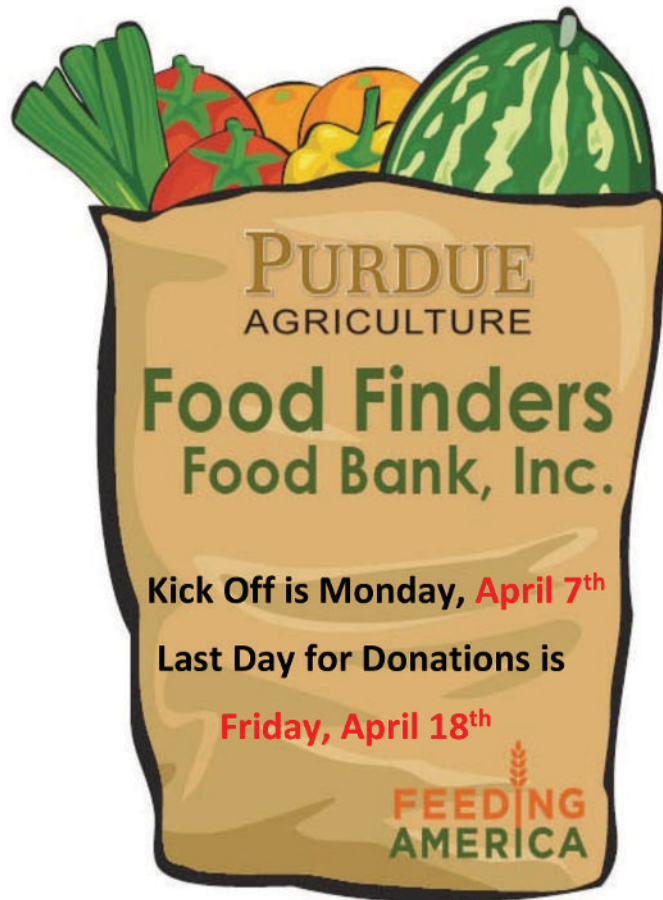
- **Early or Late Events:** What constitutes an early or late date for 7-day average soil temperatures to cross the 50°F threshold?
- **Record Dates:** What are the earliest and latest recorded dates for 7-day average soil temperatures to cross the 50°F threshold?
- **Date Distribution:** How are the dates distributed when 7-day average soil temperatures rise above 50°F?

The tool utilizes daily average 4-inch soil temperature data from the [North American Regional Reanalysis \(NARR\)](#), available at approximately 20-mile grid spacing from 1991 to 2020. The MRCC has recently added features to the tool, including a time series of all occurrences over the 1991-2020 period and another feature that allows users to select a date and see the historical range of temperatures on that chosen date.

To revisit the original question, the 7-day average soil temperature at ACRE on March 18, 2025, was 40.5°F. This temperature is considered climatologically normal, as it aligns with the 1991-2020 average displayed in the Soil Temperature Climatology tool. You can verify this information by clicking on "Go to 'Temperature by Date' View" and selecting March 18. In comparison, the 7-day average soil temperature at a depth of 4 inches reached 60°F in 2012, while the lowest recorded temperature was 33°F in 2014. That's quite the spread!



2025 COLLEGE OF AG FOOD DRIVE



It is time to kick off the Food Drive competition between CoA Academic Departments. Who will win the bragging rights and trophy this year?

This year we will be accepting non-perishable items along with cash and online donations made to your department. Please contact your departmental rep for your department link or bin location.

Keep up to date on Food Drive events and post your activities on our Facebook page <https://www.facebook.com/PurdueFoodDrive?ref=hl>

For more information please contact Melissa Funk @ mjfunk@purdue.edu

Online giving can be done through the link below or the QR code to the right.

Agronomy: <https://donate.food-finders.org/-/NHUXCMFV?member=SELJZJHM>



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 25, 11am - 12pm LILY 2425

April 14, 10am - 11am LILY 2425

April 15, 11am - 12pm LILY 2458

April 23, 1pm - 2pm LILY 2425

May 5, 11am - 12pm LILY 2425

May 20, 1pm - 2pm LILY 2425

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



Hemp Seminar
-From Field to Function

26 MARCH

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



PURDUE UNIVERSITY Agronomy | **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



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 Kladvko |
| 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 Kladvko |
| 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

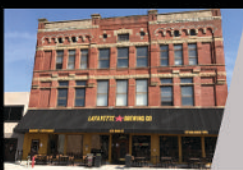
COLLEGE OF AGRICULTURE NETWORKING GATHERINGS

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*

**THANK YOU TO
OUR SPONSORS:**





LONG-SLEEVE DRIVE

MARCH 31ST-APRIL 14TH, 2025

Help us support farm workers across Indiana by donating long-sleeve shirts. These donations help protect farm workers from pesticide exposure and heat-related illness.



Shirts must be:

- long-sleeved
- light color
- natural fabric



DROP LOCATIONS

AGAD office
615 W State St
West Lafayette, IN 47907

ABE Business office
225 S University St
West Lafayette, IN 47907

MESA office
915 W. State St Lily 4-L41
West Lafayette, IN 47907