



ENPL CONNECTIONS



Department Head Greeting

Greetings,

I hope you enjoy this update on some of the wonderful things happening in the unit. Another academic year has come to a close and we look forward to an active and productive summer in the department. This Spring semester saw seven of our graduate students defend and complete either M.S. or Ph.D. degrees in entomology or plant pathology. Our students continue to be a critical component of our success in all areas of teaching, extension and research. They are a big part of the reason that in 2025, our research programs averaged an impressive number of over 6.5 peer-reviewed publications per faculty member.

I want to take the opportunity here to express sincere congratulations and thank



Dr. Ken Korth
ENPL Department Head

Look through the content below and I'm sure you will enjoy learning about the many

you to our most recent Emeritus University Professor, Dr. John Rupe. As you might have seen in our last newsletter, John retired after 41 years as a faculty member in our department. Dr. Rupe is a highly respected soybean pathologist and valued by all as a supportive colleague. We miss having John in the department, but wish him the very best in the adventures that await him in retirement.

activities and successes in the department. As alumni and friends of the Entomology and Plant Pathology department, we always appreciate your input and support. Please reach out any time to share information or if you want to learn more about what is going on in the department.

Very best wishes,
Ken Korth

Faculty Awards & Recognition

International Presentations Highlight Advances in Plant Defense Research

Dr. Rupesh Kariyat recently traveled to Taiwan and the Philippines to present research from his lab focused on plant stress responses and defense mechanisms.

During his visit to Taiwan, he delivered seminars at both National Taiwan University and National Chung Hsing University, highlighting dissertation research from graduate students Manish Gautam, Devi Balakrishnan, Insha Shafi, and Alejandro Vasquez Marcano. Their work explored how plants respond to a variety of environmental stressors.



Dr. Rupesh Kariyat

In the Philippines, Dr. Kariyat presented at the International Rice Research Institute as part of its seminar series, where he discussed how plants develop an integrated defense phenotype in response to both biotic and abiotic challenges.

The visit helped strengthen international research connections and provided an opportunity to share ongoing discoveries from the Kariyat Lab with global scientific partners.



Dr. Allen Szalanski

Rice Stink Bug Genetics Study Offers New Tools for Pest Management

Even though rice stink bugs have challenged farmers since the 1880s, University of Arkansas researchers are now uncovering new genetic insights that could improve long-term pest control strategies.

A recent study led by Allen Szalanski, professor in the Department of Entomology and Plant Pathology, examined genetic variation in native and invasive rice stink bug species using mitochondrial DNA markers.

[Read More](#)

Graduate Student Awards & Recognition



Devi Balakrishnan

[Read More](#)

Nature's Trap: How Rice Plants Defend Against Fall Armyworms

Graduate student, Devi Balakrishnan, recently co-authored a study revealing an unexpected natural defense mechanism in rice plants against fall armyworms. While conducting experiments on rice stress responses, Balakrishnan observed that young fall armyworm caterpillars were becoming trapped and dying inside rice spikelets — the structures where grains develop.

Working with Rupesh Kariyat, Balakrishnan led a series of experiments showing that nearly half of early-stage caterpillars became trapped by the spikelet's hair-like trichomes while attempting to feed on rice florets. The team also found evidence suggesting floral scents may attract the caterpillars into the trap.

Recent Events

ENPL Earns Top Honors at ESA-SEB 100th Anniversary Meeting

The Department of Entomology and Plant Pathology made a strong showing at the 100th Anniversary Meeting of the Southeastern Branch of the Entomological Society of America in Hilton Head, South Carolina. Faculty and students proudly represented the department, returning home with a number of various awards.

Faculty excellence was recognized as Dr. Austin Jones received the prestigious ESA-SEB Distinguished Achievement Award in Teaching and Dr. Neel Joshi was awarded the ESA-SEB Recognition Award in Insect Physiology, Biochemistry and Toxicology — two notable accolades that reflect the department's excellence in both education and research.

Jones is an instructor and serves as Director of Undergraduate Education and Outreach in the department. He has built a career in science education, teaching undergraduate entomology courses and coordinating outreach activities. He also leads statewide engagement through his

Joshi is a Professor of Entomology in the department. His research focuses on pesticide toxicology, insecticide resistance, pollinator health, and pest management. Joshi's research in toxicology and risk assessment has had significant global policy impact, with his work cited in over 40 policy documents worldwide. Several of these have been further cited in numerous additional policies, highlighting the far-reaching influence and practical relevance of his contributions. He is an active educator and mentor, guiding numerous graduate students and postdoctoral researchers.

Several entomology doctoral students in the department earned top honors across a variety of competitive categories. Ph.D. student Alejandro Vasquez secured second place in the 10-minute oral presentation competition. In the Ph.D. research poster competition, Duy Trinh earned second place. Additionally, another Ph.D. student, Devi Balakrishnan, placed second in the poster presentation category.

mobile STEAM program, the ENTO-ROADSHOW.

Graduate students also made presentations with Claire Graves earning second place in the Master's Section 3 category and Gage Maris placing second in the Ph.D. Section 4 category.



Duy Trinh recognized at ESA Southeastern branch meeting



Gage Maris recognized at ESA Southeastern branch meeting



Claire Graves recognized at ESA Southeastern branch meeting



Dr. Neel Joshi recognized at ESA Southeastern branch meeting



Dr. Austin Jones recognized at ESA Southeastern branch meeting

ENTO Roadshow Inspires Young Learners Across Arkansas

The ENTO Roadshow recently brought the world of insects to life for second-grade students at Central Park Elementary, where curiosity and excitement were on full display. Students explored live specimens and learned how insects contribute to our environment, gaining hands-on experience they won't soon forget.

The program is led by Dr. Austin Jones of the Department of Entomology and Plant Pathology, who serves as Director of Undergraduate Education and Outreach Coordinator. While classroom visits like this one make a lasting impact, they represent just a small part of Dr. Jones' extensive outreach efforts.



Dr. Austin Jones presenting from the ENTO Roadshow trailer

From Fayetteville to El Dorado, Bentonville to Russellville, his ENTO Roadshow connects thousands of students and community members with the importance of insects in agriculture, ecosystems, and everyday life.

Throughout the year, Dr. Jones travels across Arkansas—visiting schools, hosting workshops, and participating in community events such as STEM nights, nature center programs, 4-H workshops, and public science events.



Dr. Austin Jones inside the ENTO Roadshow trailer

These efforts are often supported in partnership with organizations like NatureSTEAM, which provides opportunities for students and volunteers to engage in educational programming, field research, and community outreach. Together, these initiatives help expand access to science education and inspire the next generation of scientists.

Through his dedication to teaching, mentoring, and outreach, Dr. Jones continues to make a meaningful impact—bringing entomology to communities across the state, one stop at a time.

Learning at the Hive: Joshi Lab Hosts American Society of Agricultural and Biological Engineers Student Tour

The Joshi Lab hosted visiting students participating in the 2026 American Society of Agricultural and Biological Engineers (ASABE) Student Rally Industry Tour on Friday, March 13, at the Apiary at the Milo J. Shult Agricultural Research and Extension Center, University of Arkansas Division of Agriculture.



Dr. Neel Joshi and others presenting information about apiaries

The visiting group consisted of 19 undergraduate students from North Carolina State University in Raleigh, North Carolina.

The tour was led by Nathan Elliott, Duy Trinh, Gurveer Singh, Leah Elliott and Neel Joshi. Visiting students interacted with lab members to learn about the beekeeping industry and gained hands-on experience using hive tools to open hives and move frames, as well as smokers, which calm bees by masking alarm pheromones.

The tour also demonstrated how wax is extracted using a homemade solar wax melter, where frames are heated under plexiglass in direct sunlight to melt and collect wax for further processing. Indoors, visitors learned about honey extraction, extractor and filters, and viewed products such as honey, beeswax bars, and pollen. Visiting students enjoyed sampling honey produced at the teaching apiary. The experience provided a fun, educational, and hands-on introduction to beekeeping.

Extension Research Evaluates Corn Nematode Management in Arkansas Fields



Dr. Travis Faske

Dr. Travis Faske and his University of Arkansas extension team planted corn nematocide experiments in April 2026 in a cooperating farmer's field located in Central Arkansas. These experiments aimed to evaluate the effectiveness of several nematocides under real-world growing conditions and to better understand how plant-parasitic nematodes impacted corn growth and yield in Arkansas production systems.

The team conducted their work directly in a commercial field to generate practical, Arkansas-specific data to help farmers make informed management decisions regarding corn nematodes.

More specifically, they aimed to determine whether nematocides are beneficial and profitable in Arkansas. This project is funded by the Arkansas Corn and Grain Sorghum Promotion Board, which prioritizes research that supports farmers' decision-making.

This partnership between university extension scientists and farmers emphasizes the importance of applied field-based research for Arkansas farmers, significantly affecting their production systems and return on investment (ROI).



On the left, starting in the foreground, Max Sturdivant (Post Doctoral Fellow), Brandon Baker (Program Technician), and Terry Coats (Part-Time Employee). On the right, starting in the foreground, Michael Emerson (Field Program Associate), and Emily Lewis (Part-Time Employee)

Student Leadership Powers Another Successful Tomato Plant Sale



Tomato plants for sale



Left to Right: Raul Cifuentes, Anmol Kaur, Dev



Left to Right: Anmolpreet Kaur, Adil Zahoor and his wife, Habeeb Yinka Atanda, Dev Crippen, Cristina Raya, Kona Swift



More plants for sale

The annual tomato plant sale was a success again this year, surpassing last year's totals with nearly in overall revenue. The sale generated almost \$3,000 in total sales. The continued growth of the event reflects both strong community support and the dedication of the Graduate Student Plant Pathology Association, who organized and managed the sale.

This year's most popular tomato varieties were Cherokee Purple and Arkansas Traveler, with additional customer favorites including Dad's Sunset, Orange Hat, Evil Olive, Blue Beauty, A Grappoli D'Inverno Tomato, and Basil.

The success of the sale was made possible by the dedication of the student team—Kona Swift (President), Anmolpreet Kaur (Vice-President), Adil Zahoor (Treasurer), Cristina Raya Vaca, Habeeb Yinka Atanda, Maira Shakeel, Raul Cifuentes, and Insha Shafi—along with Dev Crippen, who supported the students and plant throughout the project. Their collective efforts in plant preparation, organization, sales, and customer engagement were instrumental in delivering another successful year for the program.

Recent Graduates

ENPL Spring 2026 Graduates

M.S. Graduates:

Emma Critchfield, M.S., Entomology
Advisor: Dr. Ashley Dowling

Soumya Unnikrishnan, M.S., Entomology
Advisor: Dr. Rupesh Kariyat

Brenna Broussard, M.S., Plant Pathology
Advisor: Dr. Martin Egan

Ph.D. Graduates:

Devi Balakrishnan, Ph.D., Entomology
Advisor: Dr. Rupesh Kariyat

Blythe Bunkers Ph.D., Entomology
Advisor: Dr. Emily McDermott



Devi Balakrishnan's defense; from left to right: Manish Gautam, Soumya Unnikrishnan, Yutka Sharma, Arun Karrem, Alejandro Vasquez, Jessica Ayala, Insha Shafi, Devi Balakrishnan, and Rupesh Kariyat.



Brenna Broussard



Blythe Bunkers with advisor, Emily McDermott



Soumya Unnikrishnan with advisor, Rupesh Kariyat



Emma Critchfield following her thesis defense

Upcoming Events

ENPL Connects with Community at Fayetteville Farmers Market

ENPL students and faculty had a great time engaging with the community at the Fayetteville Farmers Market on Saturday, May 30. Our booth featured hands-on demonstrations and plenty of conversation about arthropods and plant diseases.

We'll be back at the Market from 7:30 a.m. to 1:00 p.m. on June 20, July 11, and August 8—if you're there, stop by and say hello!



Left to right: Nisha Gautam, Manish Gautam, Vanshika Jindal, Cristina Raya, Taylor Klass, Joanna Kud



Left to right: Duy Trinh, Jared Linn, Gurveer Singh, Habeeb Yinka Atanda

Save the Date: Arkansas Insect Festival 2026



Mark your calendars for the Arkansas Insect Festival on Saturday, September 12, from 9:00 a.m. to 3:00 p.m. at the Pauline Whitaker Animal Science Center in Fayetteville.

This free, family-friendly event invites visitors of all ages to see, touch, and learn about insects and arthropods through interactive exhibits, live specimens, and hands-on activities led by faculty, students, and community partners.

Highlights include a live arthropod zoo, butterfly house, honeybee displays, and fan-favorite cockroach races—plus opportunities to connect with entomologists and explore how insects impact agriculture, the environment, and everyday life.

Interested in getting involved? If you would like to volunteer or participate as an exhibitor, please sign up at the link below.

[Volunteer](#)

New Faculty



ENPL Welcomes New Nematology Specialist Dr. Lynhe Demesyeux

Dr. Lynhe Demesyeux joined the University of Arkansas in January 2026, bringing a strong background in applied agriculture and nematology. She earned her B.S. from EARTH University and both her M.S. and Ph.D. from the University of Florida. Dr. Demesyeux's research and extension program focuses on plant-parasitic nematodes in crop production systems, with an emphasis on diagnostics, population assessment, and translating research into practical, field-ready recommendations for growers. Originally from Haiti, she has long been drawn to hands-on, field-oriented work and continues to enjoy spending time outdoors. Outside of work, she stays busy with her dog and is looking forward to building collaborations and connections across the department.

[Read More](#)

Dr. Demesyeux is leading efforts to strengthen nematode research and outreach in Arkansas through the development of her lab and extension programming, aimed at supporting producers with improved pest management strategies.

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Give to the Department of Entomology and Plant Pathology

Alumni, we would love to hear from you! Reach out to us with updates or let us know how you are using your ENPL degree at enpl@uark.edu. We would love to feature you in our department newsletter.



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