

ARD Updates

ASSOCIATION OF 1890 RESEARCH DIRECTORS

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NextGen students attend latest G7 ag conference

Three college students, including **Kennedy Bentley from Tennessee State University**, and one faculty member supported by [the NIFA's NextGen program](#) attended the [2024 G7 Ministers' Meeting on Agriculture in Italy](#). The delegation represented the U.S. and participated in the Agri-Young Hackathon to discuss and propose solutions to world issues in agriculture.

During the Hackathon, the NextGen delegates were assigned to groups with students, young farmers and professors from the G7 countries to engage in discussions and draft policy recommendations on agriculture topics. After discussing their respective issue, each group's youth delegates presented their conclusions and proposals to the G7 Ministers, including USDA Secretary Tom Vilsack. [Read more here.](#)

NextGen students (from left) Steffan Kinley, Crystal Salazar-Nieto, and Kennedy Bentley during their travels. Photo courtesy of Stacy Philpott.



Message from the Chair / DR. WESLEY WHITTAKER



DR. W. WHITTAKER

Dear Friends and Colleagues,
Happy New Year!

As we welcome a new year, I express my heartfelt gratitude for your unwavering support and dedication to ARD's vision, mission and work. Your contributions, along with the engagement of our members, the growth of our organizational capacity and the continued support from our partners, have been pivotal in strengthening ARD and the communities we serve. I am incredibly grateful for the steadfast collaborations with the AEA, the 1890 Council of Deans of Agriculture and the 1890 Universities Foundation as we continue to drive impactful conversations and meaningful

change.

January is a unique time for reflection, anticipation and gratitude. Looking back, I am proud of our remarkable journey as a community and the many achievements ARD has realized.

Looking ahead, I am eager to advance closer to our mission of fostering a comprehensive and relevant research agenda. Above all, I am deeply thankful

for the privilege of serving as ARD chair. I also want to extend my heartfelt gratitude to our past chair, Dr. Louis Whitesides, vice president for Public Service and Agriculture and executive director of 1890 Research & Extension at South Carolina State University. His thoughtful and visionary leadership over the past two years has been truly invaluable.

In 2025, ARD will continue its steadfast commitment to preparing NEXTGEN leaders, investing in our communities and addressing critical challenges within the food and agricultural sector at the local, regional and national levels. Researchers across the 1890 institutions will persist in pushing the boundaries of discovery and delivering practical

ARD Statement on Rollins Nomination for USDA Sec.

"The Association of 1890 Research Directors represents the agricultural research interest of the 19 1890 land-grant universities created to work with the farmers, families and communities across the country. We welcome the nomination of Brooke Rollins for the U.S. Secretary of Agriculture, and look forward to our continued partnership to help our citizens."

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Congress approved the Evans-Allen Act of 1977 to provide capacity funding for food and agricultural research at the 1890 land-grant universities and Tuskegee University (the 1890 Institutions) similar to that provided to the 1862 universities under the Hatch Act of 1887. Research conducted under the Evans-Allen Program has led to hundreds of scientific breakthroughs of benefit to both the unique stakeholders of the 1890 institutions and the nation as a whole. The Evans-Allen Program has been extremely important in allowing the 1890 institutions to attract top-notch scientists to their campuses, conduct high-quality and innovative research and become more fully integrated within the land-grant system.

This edition, includes impacts from the 1890 research program submitted by scientists at The University of Maryland Eastern Shore.

A healthy coastal Chesapeake is focus of UMES research

A team of University of Maryland Eastern Shore researchers are involved in a two-year project aimed at managing and protecting coastal areas of the Chesapeake Bay watershed for resilience to climate change. Low-lying and shallow areas in coastal forests are vulnerable to sea level rise and saltwater intrusion, resulting in soil salinization.

“This change in environmental conditions affects the soil microbial population that performs fundamental functions, such as nutrient cycling, breaking down residues and stimulating plant growth,” said project lead Behnam Khatabi, a UMES associate professor and plant molecular pathologist.

Forests are critical to the Chesapeake Bay’s health, Khatabi said, but sea level rise is altering the region’s forests, killing trees and damaging the crucial ecosystem processes forests perform. This leaves behind ghost forests leading to coastal erosion and further saltwater intrusion.

“Soil microbial communities and their biological processes play a critical role in maintaining soil health and productivity, which in turn, influence sustainability of ecosystems and mitigate the effects of climate change,” he said.

The multidisciplinary group is collecting and studying soil in the Monie Bay in western (between Deal Island and Mount Vernon) Somerset County to add to the knowledge of the role of microbial communities in maintaining and improving soil health and their response to salinizing conditions in coastal forests. The site is a component of the Chesapeake Bay National Estuarine Research Reserve managed by the Maryland Department of Natural Resources. Funding for the project is through the National Science Foundation’s Critical Zone program.

The UMES project is complementary to the NSF Coastal Critical Zone study at the University of Delaware with Stephanie Stotts, an associate professor in UMES’ departments of Natural Sciences and Agriculture, Food and Resource Sciences, serving as a co-project director and liaison between the two studies. UMES students working with her

can be found in the ghost forest’s marshy low lands and in higher forested areas nearby taking tree measurements and core samples to compare.

“Dr. Khatabi’s project fills gaps in our understanding



UMES biology seniors Shivani Patel, left, and Rhune Liverpool, center, study the bacterial community in the Chesapeake Bay as part of an NSF-funded research project in the molecular plant pathology lab with Drs. Behnam Khatabi and Mozghan Sepehri, right. Undergraduates learn standard lab procedures related to isolation and culturing bacteria and fungi, genomic DNA isolation, sequencing library construction and DNA sequencing.

of system function,” Stotts said. “The critical zone research group, studying the processes and feedback associated with inland marsh migration driven by sea level rise and the creation of ghost forests, found itself asking questions about the microbial system, but lacked the expertise to answer these questions.”

Khatabi, with the involvement of undergraduate students and research scientist and soil molecular biologist, Dr. Mozghan Sepehri, are taking soil samples at the research site and analyzing them in the lab for an in-depth look at how host plants adapt to environmental stresses. Sepehri, he said, is generating extensive microbial genomic data that will serve as key resources to “identify habitat-specific microbial inter-

UMES designs farm worker safety clothing

The safety of workers who spray pesticides took a major leap forward in August when a new product, backed by science, hit the market to protect them from inadvertent exposure.

The ISO-certified garment looks like an ordinary jumpsuit, but it is protective clothing that is comfortable, affordable and the first-of-its-kind available in Africa.

Dr. Anugrah Shaw is a textile technologist and director of the International Center for Personal Protective Equipment, or ICPPE, at the University of Maryland Eastern Shore. She has conducted research on protective clothing for pesticide applicators for more than 20 years. The center tested and compiled information on fabrics available throughout the world and guidance on the level of protective property each has against spray pesticides.

The ICPPE at UMES worked in collaboration with the Pest Control Products Board (a Kenyan governmental entity), chemical company BASF and agricultural technology company Syngenta, to develop the new protective garment for farmers and pesticide operators. The garment could prove essential to those workers in Africa, where PPE is not yet standardized.

“Certified garments will go a long way in assisting our farmers with identifying a particular garment suitable for their use,” said Fredrick Muchiri, CEO of the Pest Control Products Board.

According to articles appearing in mass circulation newspapers including “The Daily Nation” in Kenya and “The Citizen” in Tanzania, the garment is made of breathable, reusable textiles reviewed by more than 110 Kenyan farmers.

“One of the challenges with users not wearing appropriate protective clothing is due to heat stress and com-

fort. This is an even bigger issue in tropical climates. Our approach with the new ISO-certified garment is to balance protection and comfort,” Shaw told Science Africa.



Dr. Anugrah Shaw (at right), a textile technologist and director of the International Center for Personal Protective Equipment (ICPPE) at the University of Maryland Eastern Shore, conducts research on protective clothing for farmers and pesticide operators in Africa.

ICPPE is supported in part through USDA National Institute of Food and Agriculture, Evans-Allen, NI241445XXXXG016.

Kara Nuzback, agricultural communications, University of Maryland Eastern Shore, School of Agricultural and Natural Sciences, knuzback@umes.edu.

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action strategies that impact plant fitness.”

“Our ultimate goal is to apply beneficial microorganisms as a natural way to help plants defend themselves and cope with hostile environmental stresses like saltwater intrusion,” Sepehri said.

“Findings from both projects can be used to better predict and subsequently plan for the future to better manage our forest and coastal ecosystems,” Stotts said. Left unchecked, the implications of saltwater intrusion are far-reaching, she added, impacting loss of fields for farming, reduction in commercially important loblolly pine and helping to mitigate climate change as forests play a central role in absorbing and storing carbon dioxide — one of the main drivers of climate change.

“One of the keys to restoring the Chesapeake Bay is building coastal forest resiliency in a salinizing environment

through cooperative grant-funded research,” said Jonathan Cumming, UMES professor and chair the Department of Natural Sciences and a co-director on Khatabi’s research project. “No program is completely successful without the active participation of students. The NSF grant provides assistantships for undergraduates along with the research scientist. Engaging minority students in intensive experiential learning with interdisciplinary research is life-changing and creates pathways to science professions.”

This project is supported by the Critical Zone program in the Division of Earth Sciences and the Historically Black Colleges and Universities Undergraduate Program in the Human Resources Division. NSF ORE-CZ grant #2229056.

Gail Stephens, agricultural communications, University of Maryland Eastern Shore, School of Agricultural and Natural Sciences, UMES Extension, gcstephens@umes.edu, 410-621-3850.

K-State seeks applications for summer program

The K-State Research and Extension (KSRE) Summer Research Fellows Program in the College of Agriculture will allow degree-seeking students at other universities to train closely with faculty members in a laboratory and other experiential research settings. This program is educational and designed so that participants learn hands-on research techniques, methods, procedures and related topics.

Fellows will receive a training grant stipend during the program, and all housing, travel, and meal expenses will be provided by the KSRE.

Eligibility

Talented undergraduate students who have completed at least two semesters at an accredited U.S. institution with a cumulative GPA of 2.5 or higher on a 4.0 scale. Must be U.S. citizens or have proof of legal resident alien status. Students from underrepresented minority groups are strongly encouraged to apply. Seniors graduating in May 2024 are eligi-

ble to apply.

Applications are due Feb. 7, 2025.

- Submit this completed KSRE Summer Research Fellowship application form.
- Submit a brief statement of purpose that includes academic and career goals, research interests and agriculture.
- Submit a brief writing sample, i.e., past research paper, class assignment, or PowerPoint presentation.
- Submit a current unofficial or official transcript of undergraduate work.
- Have two faculty members at your home institution complete and return the [KSRE Summer Research Fellows Program form](#), which can be sent as an email attachment to zwiley@ksu.edu and april2023@ksu.edu.

If you have any problems with this form, contact Dr. Zelia Wiley (zwiley@ksu.edu) or April Mason-Taylor (april2023@ksu.edu). [For additional information, click here.](#)

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solutions to meet the urgent needs of our nation and the world.

Our dedication remains resolute in ensuring a future where food, fiber and water supplies are safe, abundant and accessible to all. We strive for sustainable management of natural resources and businesses, serving the public good and advancing innovative solutions to tackle global challenges. Together, we will shape a brighter, more sustainable future.

With our persistent endeavor for excellence across our various campuses and in the work you do, please know that I acknowledge and am deeply appreciative of the vital role each of you plays in achieving ARD's mission and vision. As I communicated in the October 2024 issue of *ARD Updates*, ARD, in 2025, will:

- Persistently advocate for our FY 2025 and FY 2026 appropriations;
- Consistently advocate for the 1890 priorities and programs in the next Farm Bill, including research and Extension capacity programs; capacity building grants, facilities grant programs; centers of excellence, scholarships for students at 1890 institutions and authorization to cover tuition for graduate research assistants in our Evans-Allen Program;
- Support the Research Facilities Act to address critical infrastructure needs for colleges of agriculture at land-grant universities;
- Champion the 1890 multi-state, multi-disciplinary Ecological Resilience and Extreme Weather Events Initiative;
- Bolster the 1890 Artificial Intelligence (AI) Working Group; and
- Support the six agInnovation priorities (enhance funding for agricultural research, address critical infrastructure needs, promote diversity, equity and inclusion, lead in environmental and sustainability solutions, strengthen collaborative partnerships and increase organizational visibility and impact) and the three agInnovation Chair's Initiatives (finalize and implement the agInnovation Roadmap, create a formal

framework to facilitate research collaborations among 1862, 1890 and 1994 land-grant institutions and massively accelerate the development of important food crop.)

Our agenda is undoubtedly ambitious, but our students and stakeholders deserve no less.

By now, you should have completed your arrangements for our upcoming joint meeting with AEA that will be held on Jan. 27–30 at the Hyatt Regency Crystal City, VA. We will engage in a series of crucial conversations that will identify obstacles affecting the success of major 1890 programs and strategies to overcome these obstacles. Our agenda provides an opportunity for AEA, ARD and the deans to meet jointly, to have separate business meetings, to hold joint meetings with NIFA representatives and other invited food and agricultural science scholars, to discuss funding and program opportunities, the farm bill, the federal budget, advocacy and working with the 119th Congress, the scholarship program, centers of excellence, the integrated strategic roadmap and the 135th anniversary of the signing of the Second Morrill Act.

As I wrap up my first message of the New Year, I want to express my gratitude to the dedicated faculty and staff who are committed to the success of our students and to enhancing the quality of life for individuals throughout the 1890 region. I encourage you to take a moment to reflect on your ARD connection and the meaningful impact it has had on broadly supporting our universities and advancing research and education. Your continued commitment to collaboration and support is vital as we work together to address the grand challenges facing the food and agricultural sector. Strategic partnerships within and beyond the 1890 system are essential to addressing the critical issues necessary for the sustainability of food and agriculture. Only through collective effort can we inspire current and future generations to secure national and global food security.

Let's continue to build a brighter future—together!

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1890 Land Grant Universities

[Alabama A&M University](#)

[Alcorn State University](#)

[Central State University](#)

[Delaware State University](#)

[Florida A&M University](#)

[Fort Valley State University](#)

[Kentucky State University](#)

[Langston University](#)

[Lincoln University](#)

[North Carolina A&T State University](#)

[Prairie View A&M University](#)

[South Carolina State University](#)

[Southern University and A&M College](#)

[Tennessee State University](#)

[Tuskegee University](#)

[University of Arkansas at Pine Bluff](#)

[University of Maryland Eastern Shore](#)

[Virginia State University](#)

[West Virginia State University](#)

ARD Updates is published monthly by the Association of Research Directors. To suggest articles, contact Dr. Alton Thompson at athompson1@ncat.edu

JOB OPPORTUNITIES

LINCOLN UNIVERSITY, School Of Agriculture, Environmental and Human Sciences, [Associate Director for Cooperative Research](#)

NORTH CAROLINA A&T STATE UNIVERSITY, College Of Agriculture and Environmental Sciences, [Assistant Professor, Dietetics](#); [Program Director, Dietetics Graduate Program](#); [Assistant Professor, Nutritional Services](#); [Assistant/Associate Professor, Nutritional Sciences](#)

SOUTHERN UNIVERSITY SYSTEM, Department of Agricultural Sciences and Technology, [Assistant/Associate Professor of Agricultural Economics](#).

PROGRAM SPECIALISTS, Office of Partnerships and Public Engagement, Department of Agriculture, Multiple Locations (Alabama A&M University; Alcorn State University and University of Arkansas at Pine Bluff).

ALCORN STATE UNIVERSITY, School of Agriculture and Applied Sciences, [Assistant/Associate Professor of Agricultural Economics and Agribusiness](#)

TUSKEGEE UNIVERSITY, College of Agriculture, Environment and Nutrition Sciences, [Climate-Smart Project Associate](#) and [Agroforestry Project Coordinator](#)

PRAIRIE VIEW A&M UNIVERSITY, Cooperative Agricultural Research Center, [Veterinarian](#)

PRAIRIE VIEW A&M UNIVERSITY, Cooperative Agricultural Research Center, [Research Associate/Professor and the Director of the International Goat Research Center \(IGRC\)](#)

WEST VIRGINIA STATE UNIVERSITY, WVSU Research & Development Corporation, [Associate Dean/Associate Director for Research](#)

LANGSTON UNIVERSITY SHERMAN LEWIS SCHOOL OF AGRICULTURE & APPLIED SCIENCES, [Associate Professor of Biosystems Engineering/Precision Agriculture](#), [Associate Extension Administrator](#)

LINCOLN UNIVERSITY OF MISSOURI, [Director of Agricultural Communications](#). Contact the Search Committee Chair, [Dr. Douglas LaVergne](#) with questions.

KENTUCKY STATE UNIVERSITY, SCHOOL OF AGRICULTURE, HEALTH & NATURAL RESOURCES [Assistant Professor position for Integrate Pest Management](#); [Assistant Professor of Organic Agriculture](#); [Assistant Professor of Forestry](#); [Assistant Professor of Livestock Nutrition](#)

PRAIRIE VIEW A&M UNIVERSITY, COLLEGE OF AGRICULTURE, FOOD AND NATURAL RESOURCES, [Associate Professor or Professor & Associate Dean](#)

FORT VALLEY STATE UNIVERSITY, COLLEGE OF AGRICULTURE, FAMILY SCIENCES AND TECHNOLOGY, [Assistant Professor of Animal Nutrition](#)

UNIVERSITY OF MARYLAND EASTERN SHORE, [Associate Dean of 1890 Programs and Associate Director of UMES Agricultural Experiment Station](#)

KENTUCKY STATE UNIVERSITY, SCHOOL OF AGRICULTURE, HEALTH & NATURAL RESOURCES, [Assistant professor position for Integrate Pest Management](#); [Assistant Professor of Organic Agriculture](#); [Assistant Professor of Forestry](#); [Assistant Professor of Livestock Nutrition](#)

SOUTHERN UNIVERSITY AGRICULTURAL RESEARCH & EXTENSION CENTER, [Vice Chancellor for Research](#).

PRAIRIE VIEW A&M UNIVERSITY, College of Agriculture, Food and Natural Resources, [Director, Center for Sustainable Farms and Urban Agriculture](#).

CALENDAR

2025 CARET/BAA Washington Conference | Feb. 23-26, 2025, The Watergate Hotel, 2650 Virginia Ave. Washington, D.C. | The meeting will feature food and ag thought leaders, advocacy presentations, networking with BAA stakeholders, and opportunities to connect with champions on the Hill.

Association of Extension Administrators (AEA) and Association of Research Directors (ARD), Joint Winter Business Meeting, Jan. 27 – 30, 2025, Hyatt Regency Crystal City, VA.

Registration is now open for the **101st Agricultural Outlook Forum**. The event, titled "Meeting Tomorrow's Challenges, Today," will be held at the Crystal City Gateway Marriott on Feb. 27-28, 2025. Additionally, all forum sessions will be livestreamed on a virtual platform.

The forum program will feature a presentation on the 2025 outlook for the U.S. agricultural economy and trade by USDA Chief Economist Seth Meyer. The program will also include a plenary panel of distinguished guest speakers, alongside 30 breakout sessions organized by USDA agencies that will explore a wide range of current issues.



USDA's 101st Annual

Agricultural Outlook Forum

