

ARD Updates

ASSOCIATION OF 1890 RESEARCH DIRECTORS

February 2025, Vol. 16, Issue 2

CBG sets May 8 deadline

The 1890 Capacity Building Grants (CBG) program strengthens teaching, research and Cooperative Extension programs in the food and agricultural sciences by building the institutional capacities of the 1890 land-grant institutions. The deadline for applications is **May 8**. For more information, read the [1890 CBG program funding opportunity](#).

The CBG program supports projects that strengthen teaching programs in the food and agricultural sciences through curriculum design and materials development, faculty development, Extension program development support systems and others. This initiative will increase and strengthen food and agriculture sciences at the 1890s by integrating education, research and Extension.

CBG applications must address at least one of the following NIFA strategic goals: sustainable bioenergy, food se-



Above, from left, Shanaya Hines and Kennedy Wallace, UMES sophomores majoring in general agriculture, work on grapevine research with Dr. Sadanand Dhekney. Photo provided by UMES.

curity, childhood obesity prevention or food safety.

Message from the Chair / DR. WESLEY WHITTAKER



DR. W. WHITTAKER

Dear Friends and Colleagues,

Tracing its origins back to 1915, Black History Month is an annual celebration of the achievements of African Americans and a time to recognize their central role in U.S. history. Originally known as African American History Month, this event evolved from "Negro History Week," conceived by Dr. Carter G. Woodson, a Harvard-trained historian, and other prominent African Americans.

In 1976, during the nation's bicentennial, President Gerald Ford issued the first official proclamation for African American History Month, urging Americans to "seize the opportunity to honor the too-often neglected accomplishments of Black Americans in every area of endeavor throughout our history."

Since then, every U.S. president has officially designated February Black History Month. Countries like Canada, Ireland, the Netherlands and the United Kingdom also dedicate a month to celebrating Black history. Every February, we commence Black History

Month by remembering the integral contributions of African Americans to each chapter of the American story. Throughout February, we honor four centuries of Black history in America, reflecting on the tragedies and triumphs of the African American experience. I am proud to represent communities in the ARD region with a rich history of African American cultural life and civic contributions. Additionally, I am honored to work alongside my colleagues in the land-grant system to advance opportunity for all.

Together, we aim to make higher education more accessible, combat discrimination and address disparities in nutrition and health, education, food security, housing, sustainable food systems and next-generation leadership opportunities. We also strive to break down barriers to competitive programs, seek equitable funding and develop innovative solutions to challenges in food and agriculture.

Thus, February is a time to celebrate African Americans' remarkable achievements, bold advancements and enduring contributions to American history. The 1890 land-grant universities are a vital part of this history. From groundbreaking discoveries in agriculture, science and technology to enriching the cul-

See Whittaker on Page 5



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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 programs submitted by scientists at North Carolina A&T State University and the University of Arkansas at Pine Bluff.

Endangered sheep may offer clues to heat-resistant sheep

A researcher in the College of Agriculture and Environmental Sciences at North Carolina A&T State University is studying the genetic code that helped a now-endangered sheep develop a strong resistance to heat and parasites.

The Florida Cracker sheep is a survivor. Descended from the sheep brought to North America by the Spaniards in the 16th century, this mid-sized breed thrived in Florida's pastures and piney woods. For four centuries, these feral sheep foraged in the wild for food, dodged alligators and bobcats and endured the ranchers who rounded them up twice a year to shear them for their wool.

Along the way, Florida Cracker sheep developed, via natural selection, a tremendous resistance to heat and parasites — two key genetic characteristics that could strengthen modern sheep breeds.

"The sustainability of sheep operations depends on the ability of animals to efficiently produce goods, such as meat or wool, without overexploitation of existing resources while also maintaining adequate health and overall performance," said Dr. Zaira Estrada-Reyes, the N.C. A&T professor who's investigating the breed.

"However, because of global warming, heat stress is one of the main limiting factors of sustainable sheep production."

Estrada-Reyes has studied sheep since she was a university student in her native Mexico. While earning her Ph.D. in animal molecular and cellular biology at the University of Florida, she received grant funding from the USDA's Sustainable Agriculture Research and Education program to identify genetic markers associated with parasite resistance in sheep and goats. During her doctoral studies, Estrada-Reyes was introduced to the Florida Cracker sheep.

"I think this breed is fantastic," said Estrada-Reyes. "It's endangered, so conservation efforts are critical. Also, the Florida Cracker has unique characteristics, such as high thermal tolerance and parasite resistance, but we don't have a lot of research on it. Climate change is having a tremendous effect on livestock populations, and it's up to us as researchers to try to find solutions and incorporate this knowledge into building sustainable sheep operations."

Today, the Florida Cracker breed is experiencing a different kind of stress: potential extinction. As the sheep industry during the 20th century turned to more standardized



Zaira Estrada-Reyes, Ph.D., an assistant professor of animal genomics at N.C. A&T, checks on some of her Florida Cracker sheep at the University Farm.

breeds of larger sheep that produce more wool and meat, interest in the Florida Cracker sheep waned. The Livestock Conservancy now lists this breed as critically endangered. Fewer than 1,000 Florida Crackers are estimated to remain, including the small flock that Estrada-Reyes keeps on the N.C. A&T University Farm.

Estrada-Reyes said it's important to preserve this breed — and to unlock its genetic secrets that can strengthen other sheep breeds.

"Heat stress in sheep is likely to be exacerbated by rising global temperatures," Estrada-Reyes said. "I believe that an effective strategy to meet this challenge is to understand the impact of heat stress on physiological, behavioral, and immunological responses to develop assessment and control measures. Research into Florida Cracker sheep has so much to offer sheep producers because this breed has such terrific characteristics."

For more information, please contact Dr. Zaira Estrada-Reyes at zmestrada@ncat.edu, Department of Animal Sciences, College of Agriculture and Environmental Sciences at N.C. A&T.

AI aids UAPB aquaculture research

Brine shrimp (*Artemia franciscana*) are bred in the U.S. for many reasons, primarily due to their use in aquaculture, research and as a live feed for various aquatic organisms.

The University of Arkansas at Pine Bluff (UAPB) investigates the different life stages of artemia as live food and spirulina and single-cell protein (SCP) as alternative food sources in shrimp, catfish and largemouth bass trials. These live foods are crucial for feeding various fish and shrimp species during their weaning periods.

In the past, students and researchers spent many hours measuring the survival rates and sizes of post-larvae shrimp, which are often measured in microns. Accurately measuring the length and width of such tiny organisms was nearly impossible.

The UAPB Department of Aquaculture and Fisheries is currently integrating artificial intelligence (AI) into aquaculture practices. The new AI-driven approach enables the real-time evaluation of shrimp health, survival rates, growth patterns and water quality. The data collected from these assessments are uploaded to the cloud, where they are processed and presented in both raw and graphical forms. This visualization allows researchers and students to easily interpret complex data, facilitating more informed decision-making in aquaculture practices.

By automating data analysis, the AI system improves the accuracy and efficiency of artemia health assessments. With AI's implementation, researchers can now process each experimental tank within seconds. This technology not only

reduces the burden and manpower required but also saves time and significantly improves the accuracy of dietary trials.

In addition to artemia trials, UAPB researchers will expand AI technology beyond local species to other commercially important finfish and shellfish, promoting sustainable practices in enclosed recirculating aquaculture systems (RAS). This broad application of AI will provide valuable insights into species-specific growth, health indices and environmental requirements, ultimately leading to more sustainable aquaculture practices.

As part of this initiative, undergraduate students and high school interns are actively evaluating data from recent shrimp trials. With AI-based water quality monitoring technology, students assess growth, survival and health indices. By working with real-time data, they gain experience in data analysis, research methodologies and the practical applications of AI in aquaculture.

For more information, please contact Dr. Yathish Ramena, director of UAPB's Aquaculture and Fisheries Center of Excellence, ramenay@uapb.edu, 870-575-8146.



DR. YATHISH RAMENA

Ridding sweet potato weeds may increase yield

Arkansas has increased sweet potato cultivation in the past decade. The other major sweet potato-growing states are California, Louisiana, North Carolina and the Mississippi Delta, which includes Arkansas.

Sweet potato is an important crop in Arkansas, providing essential economic value to small-scale farmers. Sweet potatoes are traditionally propagated vegetatively, and virus infection dramatically reduces the yield and quality of the roots produced. Virus infections, particularly from potyviruses, are predominantly transmitted by whiteflies and aphids, significantly reducing sweet potato yield and quality.

Weeds have also proven destructive to the growth of this vital crop by serving as hosts for sweet potato viruses. Weeds play an important role in harboring viruses and insect vectors, especially in sweet potato fields during the off-season. The potential role of weeds as alternative hosts and virus reservoirs remains unclear; therefore, understanding the spread of these viruses is critical for developing effective

control measures.

The University of Arkansas at Pine Bluff (UAPB) started a project to investigate the role of weeds as alternative hosts for sweet potato viruses. The objective is to identify prevalent weed types co-existing with sweet potato plants.

The weeds were collected in 2023 from sweet potato fields in different Arkansas, Mississippi and California counties. The project was launched in 2023, and the same experiment will be repeated for two more years (2024 and 2025). The different weeds collected from the locations include *Cynodon dactylon* (also known as Bermuda grass), morning glory, *Oxalis dilleni*, *Lamium applexicaule*, *Poa annua*, cutleaf groundcherry, thorn woolley croton, thorn trumpet creeper and *Gamochaeta purpurea*.

The four major potyviruses commonly found in sweet potatoes are sweet potato feathery mottle virus (SPFMV), sweet potato virus G (SPVG), sweet potato virus C (SPVC), and sweet potato virus 2 (SPVC). Of all of them, SPFMV is the most destructive and found in combination with other potyviruses. The potyviruses were detected using Reverse Transcriptase- Polymerase Chain Reaction (RT-



FFAR accepts applications for 2025 New Innovator Award

The [Foundation for Food & Agriculture Research](#) (FFAR) is now accepting nominations for the [2025 New Innovator in Food & Agriculture Research Award](#). FFAR intends to grant up to 10 awards to early-career scientists pursuing research that supports FFAR's [Priority Areas](#) and promotes global, sustainable food production. Each applicant can receive up to \$150,000 per year for a maximum of three years, totaling \$450,000. FFAR does not require awardees to secure matching funds.

Often, early-career scientists struggle to secure grant funding at the onset of their careers. The New Innovator in Food and Agriculture Research Award allows grantees to focus exclusively on research without the pressure to secure additional funding for these ideas. This award provides early-career scientists with the investment needed to bolster their successful careers in food and agriculture. FFAR awards this unique grant to highly creative, promising scientists whose research has the potential to address major challenges facing food and agriculture.

FFAR evaluates eligible nominees to select diverse, collaborative, innovative and outside-the-box perspectives that will substantially impact tackling today's challenges in food and agriculture. The deadline for submitting nominations is Feb. 19 at 5 p.m. EST. Complete submission guidelines and program deadlines are available on the [FFAR web-site](#).

Institutions of higher education, nonprofit research institutions and the USDA are encouraged to nominate one applicant who holds a tenure-track or equivalent position and meets the eligibility criteria specified in the [Call for Nominations](#).

FFAR also highly encourages applications from Hispanic-serving institutions, 1890s Land-Grant Institutions and other Historically Black Colleges and Universities, Tribal Colleges and Universities, Alaska Native and Native Hawaiian Serving Institutions and Asian American and Native American Pacific Islander Serving Institutions.



19 Strong Celebrating 1890 Land-grant Universities: Success and Impacts

The [2024 1890 Land-grant Universities Impact Report: Making a Difference through Education, Extension & Research](#) highlights the innovative, research-based programs that educate students and help local communities. The 2025 1890 Land-grant Universities Impact Report, "The 1890 Voice: Empowering Communities, Elevating Futures" will be released next month.

Image provided by N.C. A&T

Sweet potato . . . From Page 3

PCR).

UAPB researchers observed several dicot species, such as cut-leaf groundcherry, thorn woolly croton, thorn trumpet creeper, morning glory and thorn-hemp sesbania, are hosting the sweet potato viruses. Weed interference with the crop can cause significant yield reductions and inferior product quality. Thus, weeds must be controlled at critical stages throughout the growing season.

The study supports the hypothesis that weeds serve as reservoirs and inoculum sources for these viruses, potentially playing a significant role in their epidemiology. This finding is critical for managing viral diseases in sweet potatoes, as it underscores the need for comprehensive weed management strategies. Infected weeds can maintain a viral

presence in the fields even when sweet potatoes are not actively growing, posing a continuous threat to subsequent crops.

This research highlights the importance of vigilant weed control for sweet potato growers. Farmers can focus on controlling these weeds to reduce the overall viral load in their fields by identifying specific weed species that serve as viral reservoirs. This targeted approach can help minimize sweet potato viral infections and improve crop yield and quality. Further testing would help to find the source of weeds.

For more information, please contact Dr. Sathish Kumar Ponniah, associate professor, UAPB Department of Agriculture, ponniabs@uapb.edu, 870-575-4692.

APLU's Food System Leadership Updates

Nominations accepted for FSLI award

APLU's Food Systems Leadership Award annually recognizes a leader who has made an extraordinary impact on the food system through leadership and service and who exemplifies the core principles established by the Food Systems Leadership Institute (FSLI), including personal leadership, organizational leadership, and food systems leadership. The award also recognizes the leadership, innovation, engagement, and service that APLU promotes through its programs.

The APLU Food Systems Leadership Award will be presented at "A Community of Scholars Honoring Excellence" award program at the APLU Annual Meeting held in November. The award program honors awardees for regional and national excellence in Food and Agricultural Sciences from colleges and universities across the U.S. The meeting is attended by top-level administrators from the 216 university memberships within the APLU and administrators from USDA and FDA. The recipient will be invited to address the current cohort of FSLI Fellows during one of the webinar sessions.

The criteria for the award and the directions for submitting, along with the nomination form, can be found on the [FSLI Website](#). To get a sense of the caliber of the person who would be competitive for this award, please visit the FSLI website on the [Leadership Award page](#). The deadline for submittal is **Feb. 28**.

Please contact [Dr. Sarah Kotzjian](#), FSLI Program Manager, with any questions.

Applications open for new FSLI cohort

Are you ready to join the next cohort of fellows, advance your leadership skills and become purpose-driven catalysts for the food system? Then FSLI may be what you need.

The Food System Leadership Institute is designed for those currently serving as department heads or chairs (or equivalent titles) or higher and looking to advance their leadership skills and future career goals.

FSLI provides fellows with strategies to handle leadership challenges and opportunities in the future. The FSLI experience develops or reinforces a series of core leadership competencies identified by a team of top-level leaders, including university presidents and chancellors and leaders from industry and the non-profit sector who understand the requirements of food systems leadership. These professionals offer a wealth of understanding about leadership and the food system to help the fellows better understand their leadership potential.

The two-year FSLI experience includes three week-long residential sessions, personal leadership coaching, mentoring, individual leadership projects, a personal development plan and distance learning activities.

The two-year program costs \$24,000. The deadline to apply is March 20, 2025. This covers all instruments used, books, speaker fees, hotel lodging and food during the three residential sessions.

Limited funds to offset the program costs are available for need-based units. If you are interested in a scholarship, please include that request on the nomination form.

[Click for more information and to apply online.](#)



Whittaker . . . From Page 1

tural landscape through arts, humanities and athletics, African Americans have propelled our nation forward in many fields. Their history is interwoven with the foundation of America, reflecting the enduring pursuit of democratic principles accessible to all contributors. Black history, excellence and influence extend beyond February, underscoring their continuous impact throughout the year.

Since Aug. 30, 1890, the 1890 universities have made remarkable contributions to the land-grant system, particularly in the food, agriculture and natural resources sciences through research, education and Cooperative Extension programs. While we honor and take pride in this rich history, complacency is not an option. We stand on the shoulders of giants who have paved the way, and it is now our responsibility to carry the torch for the next generation of 1890 leaders and scientists and guide their paths forward.

Although it is natural to feel disheartened by society's leaders' acquiescence to the vanity of the times, this is a test of our faith and resilience. With steadfast determination, ARD and the 1890 community will continue to move forward.

Last month, members of the ARD, AEA and the Council

of 1890 Deans of Agriculture gathered for their seventh annual joint business meeting. This engaging and productive event brought together 1890 administrators to address key challenges facing our universities.

Key topics included developing an integrated strategic roadmap for agriculture, food and natural resources; creating a blueprint for 1890 AI initiatives; enhancing infrastructure and capacity-building efforts; advancing multi-state integrated research and Extension projects; supporting centers of excellence; and discussing the 1890 scholarship program.

The attendees also focused on FY 2025/2026 federal appropriations, the Farm Bill, NIFA programs and policies, 1890 Foundation initiatives, efforts by APLU and the role of strategic communications in organizational success. The operative words of our meeting were "opportunities" and "possibilities."

Special thanks go to my colleagues—Carolyn Williams, chair of the AEA; Olga Bolden-Tiller, chair of the Deans' Council; Albert Essel, executive administrator of the AEA; and Alton Thompson, executive director of the ARD—for orchestrating a series of content-rich and impactful sessions.

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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](#)

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[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](#).

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](#) : [Associate Research Director](#)

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](#).

NEW APPOINTMENT

DR. DERRICK C. SCOTT, interim dean and research director, College of Agriculture, Virginia State University, effective Jan. 21.

CALENDAR

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.

The **2025 CARET/BAA Washington Conference**, *Securing Our Future*, begins in one month. Registration is filling up, so [register here](#). A [draft agenda](#) is here. Meeting materials will be sent soon. Questions, contact [Flannery Bethel](#).

2025 AI IN AGRICULTURE AND NATURAL RESOURCES CONFERENCE, Theme: The Role of AI in Autonomous Agricultural Systems and Socioeconomic Effects," hosted by Mississippi State University, March 31 – April 2. The Early Bird Registration deadline has been extended to Feb. 14. The Poster Abstract Deadline has also been extended to Feb. 14. [Register now](#) to lock in the savings. For more information, contact Amber Lynn Moore at amoore@aai.msstate.edu or 662.325.7971.

NERAOC 2025 registration is now open. Click the link below for information on the registration, draft agenda, hotel booking link, and travel information. [2025 NERAOC – agInnovation-West](#). March 31-April 3 in Reno, Nevada.

