

USDA invests in A&T's environmental justice project.

# ARD Updates

ASSOCIATION OF 1890 RESEARCH DIRECTORS

February 2024, Vol. 15, Issue 2



Message from the Chair  
DR. LOUIS WHITESIDES

Dear Friends and Colleagues,  
February marks Black History Month, a dedicated time to acknowledge the remarkable achievements, bold advancements and enduring contributions of African Americans to the tapestry of American history. The 1890 land-grant universities are an important part of this tapestry. From groundbreaking discoveries in agriculture, science and technology to the enhancement of our cultural landscape through the realms of arts, humanities and

athletics, African Americans have played a pivotal role in propelling our nation to the forefront of various disciplines and industries.

The history of African Americans is interwoven with the very foundation upon which America stands. Forged through struggles and endeavors, it stands as a testament to the ongoing pursuit of enduring American principles that are justly accessible to all who contribute to its development. It serves as solemn reminder that democracy is a continual process, not a final accomplishment. American history encompasses Black history and although Black History Month is observed in February, Black history, excellence and influence persist throughout

the entire year.

From my initial employment in 1890 Research and Extension at South Carolina State University, and later as ARD chair, I've witnessed the remarkable growth and success of the tripartite mission of the 1890 land-grant universities, even in the face of financial constraints and funding disparities. We persist in advocating for substantial funding increases for our capacity, capacity building and facilities programs, maintaining and fostering the Centers of Excellence, supporting our faculty in securing funds from various programs and broadening our integrated initiatives that optimize our tripartite mission.

Aligned with this exclusive dedication to achieving financial equity and enhancing infrastructure, we simultaneously strive to contribute to solutions for the pressing needs impacting the individuals and communities we serve.

See Whitesides on Page 5

## 'Mort' retires, again

After a 53-year distinguished career in agriculture and higher education, **DR. MORTIMER H. NEUFVILLE**, Mort as he is known to all, retired in December 2023. The 1890 Foundation is the embodiment of his life's work and the beneficiary of his depth of experience, long-standing relationships and commitment to the land-grant core missions of research, Extension and education.

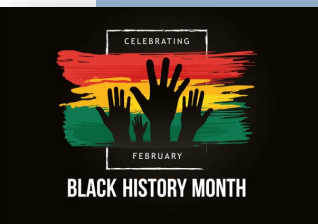
Neufville received his bachelor's degree from Tuskegee University and his masters and Ph.D. from the University of Florida in animal science.

Neufville was named the 1890 Foundation's first president and CEO in 2016. Selected by the key stakeholders and standard bearers of the 1890 land-grant community, Neufville's charge was to apply his many years of experience as an agricultural scientist, land-grant historian, academic leader and highly respected executive to building a foundation to leverage resources and elevate the profile of the 1890 Universities as a dynamic system of historically Black land-grant higher education institutions.

The 1890 Universities Foundation proudly announced the establishment of the Dr. Mort Neufville Scholarship/Fellowship Fund. This initiative is a tribute to Neufville's monumental contributions and his unyielding dedication to agricultural education, faculty and leadership development within the 1890s community.



DR. MORTIMER NEUFVILLE



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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.

Below is an example of impacts from the 1890 research program submitted by scientists at The University of Arkansas at Pine Bluff and Southern University Agricultural Center.

### UAPB researcher finds new uses for ag waste

Researchers at the University of Arkansas at Pine Bluff (UAPB) School of Agriculture, Fisheries and Human Sciences are studying the potential of converting plant and animal byproducts to multifunctional biochar – charcoal made from biomass, said Dr. Hao Chen, assistant professor for the UAPB Department of Agriculture. Biochar products are used as a sustainable soil additive to improve crop yields and can reduce the ecological risks associated with common agricultural chemicals.

“Agricultural waste can be a nuisance for producers and lead to environmental degradation,” Chen said. “Refuse, including livestock manure and crop residues and by-products, can introduce pesticides, antibiotics and other chemicals into the soil and water systems.

These pollutants can harm the environment and threaten human health if found in drinking water. Solutions are urgently needed to address the problem of agricultural waste management, so we at the UAPB Department of Agriculture are investigating the potential of converting waste into value-added products that positively affect the environment.”

Though it looks like regular charcoal, biochar actually captures agricultural chemicals from the local environment, she said. The product is added to soil through tilling and absorbs pesticides, antibiotics and other undesired chemicals during agricultural production. Biochar improves water quality by ensuring nutrients and chemicals are not leached off the field and into the groundwater or nearby bodies of water, and it also increases soil health and fertility.

“Biochar can be produced both in factories, on small farms or in your own backyard from agricultural waste such as rice husks, crop stems, peanut hulls or walnut shells,” Chen said. “This research focuses on raw materials that are abundantly found in local agricultural waste and not widely

reused. Specifically, we are converting rice husks, cotton wood, tree bark, shrimp shells and chicken feathers into value-added biochar.”

Chen and her team are currently working to design and optimize biochar products specifically suited for different agricultural applications such as nutrient retention or pollution retention and degradation.

“UAPB research has shed light on using biochar to tackle two major challenges: soil contamination and sub-optimal plant growth,” she said. “Key impacts include understanding biochar’s high-pore structure, which helps bind contaminants and diminish their ecotoxic effects on plants and microorganisms. “Furthermore, in problematic soils where traditional agricultural practices often fail, biochar has demonstrated the potential to promote plant growth.”

Beyond its direct agricultural benefits, biochar also acts as a

carbon sink, sequestering carbon and mitigating the impacts of climate change, she said. UAPB research data, backed by quantifiable results, could help redefine best management practices in agriculture by advocating for the broader use of biochar in problematic soils.

For more information contact Dr. Hao Chen, Department of Agriculture, University of Arkansas at Pine Bluff at [chenh@uapb.edu](mailto:chenh@uapb.edu).



Malcolm Jackson in Dr. Chen’s lab at UAPB



## Can wetlands help reduce potential flood damage?

Floods pose a significant threat to residential areas, causing extensive damage to homes, infrastructure and the environment. As urbanization continues, the need for innovative solutions to manage storm water becomes crucial. One such solution gaining popularity is the implementation of constructed wetlands. These man-made ecosystems mimic the natural functions of wetlands and play a vital role in reducing flood risks in residential areas.

Dr. Chris Chappell, a researcher at the Southern University Ag Center and associate professor of the Department of Urban Forestry, Environment and Natural Resources at the Southern University College of Ag, is working to advance the use of constructed wetlands to include modular urban wetland design using eco-friendly materials and agricultural waste. Through this process, Dr. Chappell is creating a “jAG Soil” that mimics a natural peat-like soil that takes 10 years per cm of development.

Modular urban wetlands are engineered systems designed to replicate the functions of natural wetlands. Unlike traditional storm water management methods that rely on concrete channels and pipes, constructed wetlands harness the power of nature to control and treat storm water. These systems consist of a variety of vegetation, soil and, in some

cases, specialized engineering structures to effectively manage water flow.

The benefits of this project are not only to help with flood reductions but also to address flood control issues that are typically comprised of debris and neglect. Modular urban wetlands offer a sustainable and environmentally friendly approach to flood control. By using natural processes, they help maintain the delicate balance of ecosystems while mitigating flood risks. The byproduct of this system is biodiversity and habitat enhancement, increased aesthetics and cost-effective infrastructure.

Modular urban wetlands stand as a testament to the harmonious integration of urban development with nature. By strategically incorporating these engineered ecosystems into residential areas, communities can effectively reduce the risks of flooding while simultaneously promoting biodiversity, improving water quality and creating attractive green spaces. As the world faces the challenges of climate change and increasing urbanization, constructed modular urban wetlands offer a sustainable solution that blends the best of environmental science and ecological design.

*For additional information on “jAG Soil,” contact Dr. Chappell at [chris\\_chappell@subr.edu](mailto:chris_chappell@subr.edu).*

## UAPB researcher examines methods to improve rice grain quality

Researchers at UAPB and the University of Arkansas are collaborating on a study meant to shed light on an increasingly common problem faced by rice producers, said Dr. Sathish Ponniah, associate professor for the UAPB Department of Agriculture.

“Global warming has caused the temperatures at night to rise, which affects crop production,” he said. “Rice breeders have been trying to understand the effects of high nighttime temperatures on rice. Rice grown in high night temperatures produces chalky grains.”

Chalky rice, he said, shows altered

cooking quality and poor milling yield. Because buyers do not want this lower-quality rice, producers have had to face shrinking market values for their crop.

“Chalkiness is related to opaque areas creates air spaces in rice endosperm and generally results in lower mill-

ing yield because chalky grain tends to be weaker and prone to break in milling,” he said.

Funded by the National Science Foundation (NSF), the study investigates why and how chalkiness is induced in rice grains through high nighttime temperatures.

“In our study, 12 locally grown rice varieties in Arkansas with variations in chalkiness were germinated in a greenhouse and then in a growth chamber with normal or high night temperature conditions until the harvesting stage,” Ponniah said. “Two plants per variety were tested with three independent replications for normal and high night temperature conditions.”

A variety of yield parameters were recorded, including the total number of filled and unfilled grains per plant. Rice grains from each treatment were also scanned to measure their chalkiness.

The impact of high nighttime temperatures on rice kernels varied with different rice cultivars, he said. Medium grain cultivars were more resistant to high night temperature, while long grain cultivars were highly susceptible.

“Studies like this one are of utmost importance as rice is the single most important food crop, providing 21% of the world’s caloric needs and contributes approximately \$4 billion to state economy,” he said.

*For more information contact Dr. Sathish Ponniah, Department of Agriculture, University of Arkansas at Pine Bluff at [ponniabs@uapb.edu](mailto:ponniabs@uapb.edu).*



Dr. Sathish Ponniah at UAPB

## Climate, Health & Cultivating the Next Generation of Agricultural Leaders: Creating Solutions in Food, Agricultural and Natural Resources

April 6-9, 2024 | Gaylord Opryland, Nashville, TN



Regular Registration: Oct. 18, 2023—Feb. 23, 2024—\$700

Late Registration – Feb. 24 – April 5, 2024—\$725

On-Site Registration - April 6, 2024—\$750

### REGISTRATION

[Symposium Registration](#) No refunds. Substitutions will be accepted until April 4, 2024. (Note: Credit card users need to pay an additional fee to cover bank charges).

### HOTEL REGISTRATION

[Hotel Guest Room Rates](#): Single and Double Occupancy: \$249

[Tax and Surcharges](#): Hotel rates are confirmed in 2024 and are subject to applicable taxes (currently 9.25% state tax, 6% occupancy tax, plus a \$2.50 per night city tax) in effect at the time of check in. Deadline to book, March 7, 2024.

### DISPLAYS & EXHIBITS

Each 1890 campus is invited to display a university display at no-cost. Additional exhibits and non-1890 exhibits must pay the fee of \$3,000 by Feb. 9, 2024. All exhibitors, including the 1890s, must submit the Exhibit Registration Form by the deadline of Feb. 9. [To become an exhibitor, click here.](#) [To become a sponsor, click here.](#)

For additional information contact: [Dr. Alton Thompson](#), ARD Executive Director, (336) 285-2955 or

## APLU seeks leadership award nominees; Feb. 29 deadline

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 [www.FSLI.org](http://www.FSLI.org). 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. 29th**.

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



## FAMU's Magee retires after 40 years

After over 40 years at seven different universities, **DR. CHARLES MAGEE** is retiring from Florida A&M University. He has held several administrative positions in the agricultural and engineering sciences at two land-grant universities.

Magee earned a bachelor's degree in general agriculture (animal science) from Alcorn State University (1970); a master's degree in agricultural engineering from the University of Minnesota, St. Paul (1973), and a Ph.D. in agricultural and biological engineering from Cornell University (1980).

Magee's educational and professional career has over 40 years at seven universities. He had held several administrative positions in the agricultural and engineering sciences at two land-grant universities, Fort Valley State University and Florida A&M University.

Significant Accomplishments:

- First and only Alcorn State University graduate to earn a Ph.D. degree in agricultural and biological engineering.
- First African American to earn a master's degree in agricultural engineering from the University of Minnesota.
- First African American to earn a Ph.D. in agricultural and biological engineering from Cornell University and the third African American in the United States to earn a Ph.D. degree in agricultural and biological engineering.
- First patent in the history of Fort Valley State University and Biological Systems Engineering at Florida A&M University. Magee has 10 U.S. patents, one co-patent and six pending patents.
- First African American graduate of a Historically Black College or University to earn a Ph.D. in agricultural and biological engineering.
- A founding and charter member of the National Society for Minorities in Agriculture, Natural Resources and Related Sciences, [www.manrrs.org](http://www.manrrs.org).

- First and founding director of Florida A&M University's Biological Systems Engineering Program.
- First African American assistant professor in the College of Agriculture at the University of Arkansas-Fayetteville.
- Founder and owner of Kairo Klocks, LLC.
- Creator and executive producer of Florida A&M University's TV-20 Show, Land-Grant Today.
- Teacher of the Year, 2017, Florida Section of the American Society of Agricultural and Biological Engineers.
- Elected Senior Member, 2022, National Academy of Inventors (NAI) class.
- Hall of Fame Inductee, 2020, NIFA.



DR. CHARLES MAGEE

While Magee is proud of his many successes as a teacher, researcher, inventor and administrator, he indicated that his most excellent satisfaction is derived from teaching and mentoring students.

Magee as a national leader and promoter for African Americans pursuing advanced degrees in science, technology, engineering and mathematics (STEM). During Magee's 40-plus years in higher education, 14 former students and advisees earned Ph.D. degrees. Ten of the 14 earned their Ph.D.s in engineering or science. Eight of the 14 Ph.D.s are African American females. Further, three of his advisees are in Ph.D. programs at three other universities and four are in the masters programs at Florida A&M University.

### Whitesides . . . from page 1

ARD's collaboration with the AEA and the Council of 1890 Administrative Heads (S-AHS) is critically important.

To wit, last month, these three associations held their annual joint business meeting. Hosted by Tennessee State University, this in-person gathering of 1890 administrators was interactive, productive and by design and structure, a forum that allowed attendees to engage in critical discussions about pressing issues and other important programs confronting 1890 universities. Our deliberate dialogues focused on communicating the impact and public value of the institutions; sustaining the Centers of Excellence and expanding our work in the realms of climate change and artificial intelligence.

We also discussed the Farm Bill, FY 2024 and FY 2025 appropriations and the advocacy for the funding, infrastructure, compliance and partnerships. It should be noted that the NIFA administrators, the Southern Rural Development Center (SRDC),

the Economic Research Service and Cornell University were also fully engaged in our meeting. The meeting left all participants upbeat and with a willingness to work a little harder and more collaboratively to develop and advance a set of goals and priorities to define a path forward that will further improve the quality of life and prosperity of the stakeholders we serve.

Finally, since Aug. 30, 1890, the 1890 universities have made important contributions to the land-grant system. The food and agricultural sciences in the research, education and 1890 Extension programs at the 1890 land-grant universities have made significant contributions to the local, regional and national food systems. While the 1890s are proud of their collective history, we cannot become complacent. We stand on the shoulders of giants, who carved the path for us to follow. Now we bear the torch for the NEXTGEN of 1890 leaders and scientists, whose paths we help to illuminate.



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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](mailto:athompson1@ncat.edu)

## MSP seeks new cohort of scholars

The Higher Education Multicultural Scholars Program (MSP) provides scholarships to support recruiting, engaging, retaining, mentoring and training committed multicultural scholars, resulting in either baccalaureate degrees within the food, agricultural, natural resource and human sciences disciplines or Doctor of Veterinary Medicine degrees. MSP increases the multicultural diversity of the food and agricultural scientific and professional workforce and advances the educational achievement of all Americans by providing competitive grants to colleges and universities. Deadline for applications closes on **April 1**. For more information, read the [MSP funding opportunity](#).



## Census of Ag data sets Feb. 13 release

The 2022 Census of Agriculture data will be released on Feb. 13. NASS [recently shared information](#) about data release, preliminary return rate and upcoming special studies. NASS Public Affairs Office states that with the census data that was collected in 2022, over 400 reports about agricultural commodities were produced.

## JOB OPPORTUNITIES

JOB

**NORTH CAROLINA A&T STATE UNIVERSITY, College of Agriculture and Environmental Sciences, Dean**

**ALCORN STATE UNIVERSITY, School of Agriculture and Applied Sciences, Dean**

**UNIVERSITY OF MARYLAND EASTERN SHORE, School of Veterinary Medicine, Inaugural Dean**

**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, WV SU Research & Development Corporation, Associate Dean/Associate Director for Research**

**USDA FOREST SERVICE, SOUTHERN RESEARCH STATION, Research Economist or Research Forester** to conduct research in in economics and policy focused on wildfire and other forest-based disturbances. This is a permanent, full time position at the GS-12 level or the GS-13 level.

**FLORIDA A&M UNIVERSITY, COLLEGE OF AGRICULTURE AND FOOD SCIENCES, Executive Director,** Brooksville Agricultural and Environmental Research Station (BAERS) in Brooksville, Florida.

**CALIFORNIA POLYTECHNIC STATE UNIVERSITY, San Luis Obispo | San Luis Obispo, CA, College of Agriculture, Food and Environmental Sciences, Dean.**

**IOWA STATE UNIVERSITY, Associate Dean for Global Engagement.**

**LINCOLN UNIVERSITY, College of Agriculture, Environmental, and Human Sciences, Associate Extension Administrator**

**SOUTH CAROLINA STATE UNIVERSITY, Senior Director for Research Development.** Send resume and cover letter to [PSAhumanresources@scsu.edu](mailto:PSAhumanresources@scsu.edu) 803536835.

## CALENDAR



**THE FUTURE OF RESEARCH INTEGRITY CONFERENCE** | May 20-21, 2024 | The University of South Alabama. Our primary goal is for research communities and stakeholders to be better informed about the effects of technological change and perceived barriers within the research ecosystem and to be prepared to cultivate a climate that advances responsible and ethical research.

**2024 BAA Summer Leadership Meeting (formerly known as Joint COPs)** | July 16-18, 2024  
Providence, Rhode Island

