

### ASSOCIATION OF 1890 RESEARCH DIRECTORS

November 2023, Vol. 14, Issue 11

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DR. LOUIS WHITESIDES

Message from the Chair DR. LOUIS WHITESIDES

Dear friends and colleagues,

I wish each of you a happy and safe Thanksgiving celebration. Thanksgiving is a holiday shared by most Americans, regardless of religious faith or background, and allows us to focus on our blessings and the freedoms we enjoy.

We all have much to be thankful for. We live in a country where personal and academic freedom is guaranteed by our Constitution and reinforced in our daily

lives. We also are part of a land-grant system where diversity and inclusion are celebrated, not feared.

In this spirit of Thanksgiving, I am grateful to have had the opportunity and pleasure to serve as the ARD chair for the past year. Thank you for entrusting me with the tremendous responsibility of leading the 1890 land-grant university research mission. Of course, I owe a tremendous debt of gratitude to all of you for working cooperatively, diligently and altruistically to advance the ARD's vision, mission, goals and values.

Earlier this month, I and eight of my research and Extension colleagues participated in the National Leadership Advocacy Summit in Washington, D.C., hosted by APLU's BAA. This summit brought together individuals from across the network of public and land-grant universities' colleges of agriculture, life sciences and natural resources with a focus on the dynamics of successful federal advocacy strategies, how to be effective in working our federal offices, the key elements of advocacy messaging, how to bring together diverse groups and how annual appropriations and Farm Bill priorities are determined.

With the changing political landscape, government shutdown threats and an unpassed Farm Bill, the need for advocacy is far greater now than ever before. Rather than view the current political environment with uncertainty, I challenge each of you to recognize the opportunities we have to employ strategic advocacy tactics and galvanize support to advance the land-grant mission in the halls of Congress, the galleys of our

state general assemblies and chambers of local city and county councils.

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# WVSU nabs \$750,000 DoE award

West Virginia State University's (WVSU) Energy and Environmental Science Institute received \$750,000 from the United States Department of Energy (DoE) to research bioenergy and climate change with the goal of enhancing crop improvement on reclaimed surface mine lands.

The competitive grant award will provide hands-on research and training for undergraduate students and establish a collaborative partnership for faculties with the Brookhaven National Laboratory.

"We are thankful to the United States Department of Energy for supporting the WVSU Energy and Environmental Science Institute through this grant award to support their cutting-edge research," said WVSU President Ericke Cage. "This will give our students the opportunity to be in-

See WVSU grant on Page 5



Bagyalakshmi Muthan is the principal investigator on a new \$750,000 grant from the United States Department of Energy to the WVSU's Energy and Environmental Science Institute to research bioenergy and climate change with the goal of enhancing crop improvement on reclaimed surface mine lands. Photo courtesy of West Virginia State University

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 topnotch 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 Alabama A&M University.

## Alabama A&M shares roundup of research activities

The Alabama A&M University College of Agricultural, Life and Natural Sciences (AAMU-CALNS) partners with several public and private entities to evaluate new varieties of traditional and alternative commodity crops for the northern region of Alabama. Every year, new varieties of corn, soybean, cotton, winter canola, rapeseed, barley, dry beans and other experimental crops including sorghum and hemp are planted at the station.

These plots are managed using various protocols

based on the objectives of the specific trials. Management for chemical weed control, plant population, date of planting, and impact of cover crops are among the matters being addressed as their impact on performance and yield and economic return to farmers. Throughout the growing season, stakeholders including farmers, researchers and students visit these field trials to get an understanding of new developments in the area of crop production and other related agronomic issues.

ACP

Ms. Madison and Ms. Badiane collecting data on field plots of basil, and other herbs and medicinal plants.

Among our collaborative private partners are Bayer Crop Science, Rubisco Seeds, Corteva, Hudson Alpha, Hyde Homes and BastCore.

#### INDUSTRIAL HEMP PROGRAM EXPANDS

Following the 2018 Congressional Farm Bill, which allowed industrial hemp (*Cannabis sativa* L.) (≤0.3% tetrahydrocannabinol - THC) to be cultivated by farmers and universities, the state of Alabama started issuing permits for its pilot program. Alabama A&M was one of a few universities in the state that applied and received a permit in the 2019 inaugural season to initiate an industrial hemp research program and continues to expand the program with public and private partnerships.

Hemp has become an important emerging crop in the U.S.

However, there is limited access to hemp genetic resources and a lack of genetic knowledge on priority traits. USDA-ARS Plant Genetic Resources Unit (PGRU; Geneva, NY) has initiated a national hemp germplasm collection effort to collect, conserve, evaluate and distribute diverse hemp genetic resources and apply these efforts to breed adapted/improved cultivars.

As part of the collaborative efforts, we have been conducting morphometric phenotyping for novel hemp germplasm in northern Alabama since 2022. In 2023, we evaluated 23 feral

hemp accessions at Winfred-Thomas Agricultural Research Station (34.90° N, 86.56° W, Hazel Green, AL). Observations are made to collect data for plant stand, sex ratio, flowering time and plant architecture; flower, seed and stem samples were collected for post-harvest yield and yield component evaluation.

These morphometric phenotypic data will be summarized and deposited to the Germplasm Resources Information Network (GRIN-Global) and made publicly available.

This germplasm evaluation study provides

a climate zone and soil type-specific understanding of diverse hemp germplasm, especially for feral accessions lacking prior genetic knowledge and can serve as a foundation for hemp prebreeding in northern Alabama and beyond.

A current project at the WTARS involves crop rotation to promote efficient land usage and sustainability. In this study, dry beans as a summer crop and barley as a winter crop in northern Alabama are being evaluated by graduate student Andrion Erves to develop next-generation crops for a diverse Alabama agricultural economy.

For dry bean evaluation, with an overall assessment of yield, lodging and maturity, 45 black bean varieties and 96 pinto bean varieties have been evaluated since 2021. These are narrowed down to the top 12 cultivars for each dry bean

See A&M Roundup on next page.

## A&M Roundup . . . from previous page

type for further testing and scale-up production.

For barley variety evaluation, with an overall assessment of yield, winterkill, disease and maturity, 25 and 33 cultivars in the growing season of 2020-2021 and 2021-2022, were evaluated respectively. Severe winterkill for northern cultivars and mild or no winterkill for southern cultivars was observed, highlighting that cold tolerance is a crucial trait for growing barley as a winter crop in northern Alabama.

Four cold-tolerant and high-yield barley cultivars were identified for further scale-up production and quality tests in 2023; which were recently used to produce the first batch of beer brewed by Braided River Brewing Co. in Mobile from barley grown and malted in Alabama.

#### WTARS ATTRACTS NUMEROUS PROJECTS

Although many ongoing laboratory research activities on the main campus of AAMU were disrupted by COVID-19, students carrying out field research at the WTARS took advantage of the outdoor research facility to continue their work in the opened-air external laboratory. With mandated safety procedures in place, the WTARS remained active, with uninterrupted work.

Dr. Srinivasa R. Mentreddy's program in organic production of herbs, spices and medicinal plants continued to evaluate specialty crops including 63 Vietnamese turmeric varieties to assess their adaption and development in Alabama and other locations in the United States.

More specifically, the project will identify varieties of turmeric from the collection with high curcumin concentration and rhizome yield, and develop them for small- and middle-sized farms in Alabama and the midsouth. The organic production projects also work on multiple non-traditional crops including bitter melon, hibiscus, basil, mountain mint, stevia, and numerous varieties of squash.

Dr. Wubishet Tadesse, and his soil science team members Dr. Monday Mbila Dr. Dedrick Davis, Dr. Zachary Senwo, Dr. Ranjani Kulawardhana and Dr. Dawn Lemke are conducting several projects at the WTARS addressing climate change and to minimizing the impacts of extreme weather in agriculture. Their various projects include "Estimating the Carbon Budgets for Major Crops in Alabama" by using various soil amendments to increase the sequestration. Their work also includes the use of Geographic Information Systems (GIS) and Unmanned Aerial Systems (UAS) equipped with the latest sensors to assess and collect various data about soil conditions.

#### WTARS SHORTENS CALVING SEASON

At the WTARS, a fall calving season fits best with the herd of Black Angus beef cow-calf operations. The calving season began in early September and lasted until mid-November. One of the program's objective is to shorten the calving season by synchronizing estrus in all eligible animals and exposing the heifers to proven bulls

earlier than cows. Females will be pregnancy-checked 45 days after removal of bulls and non-pregnant animals will be culled.

Currently, additional management tools are being introduced including e-monitoring of activities to assess performance based on daily activity.

Ranchers are invited to visit the station to learn more about the reproductive management of beef cattle. The WTARS also maintains herds of goats and sheep used for various grazing studies and to provide experiential learning to pre-vet animal science students in the food and animal sciences program.

#### FORESTRY PROGRAM CONTINUES TO LEAD

Nearly 60% of the African-American foresters employed by the United States Forest Service (USFS) are A&M graduates. This program continues to break new ground in addressing relevant issues related to the role of forestry in our environment, renewable energy and climate change.

Nearly 70,000 new pine seedlings were recently planted alongside old-growth of various species planted more than 20 years ago, in collaboration with the Tennessee Valley Authority to study the use of fast-growing species for renewable energy.

With an established Center for Forest Ecosystem Assessment, most of the AAMU faculty in the forestry, ecology, and wildlife program, along with U.S. Forest Service personnel, engage in a wide array of ecological impacts of managing the upland hardwood forests of the nearby Bankhead National Forest, to achieve the desired future condition for these strands.

## TERRESTRIAL PLANTS INCREASE BIOFUEL PRODUCTION

The WTARS is the site of multiple populations of *Miscanthus* species being studied as a potential biomass feedstock.

AAMU, a member of the DOE Center for Advanced Bioenergy and Bioproducts Innovation (CABBI) is collaborating with the University of Illinois Urbana-Champaign (<u>UIUC</u>) and Huntsville-based HudsonAlpha\_Institute for Biotechnology to address yield and flowering traits using phenotyping and genomics.

Dr. Erik Sacks of UIUC and Dr. Kankshita Swaminathan of HudsonAlpha summarized that *Miscanthus* is rapidly emerging as a premier crop for bioenergy feedstock. They view the project as being well-aligned with the USDA/NIFA's mission to "develop renewable and sustainable sources of biofuels from plant biomass" by enhancing the productivity of "terrestrial plants that can be used as feedstocks for biofuel production."

At AAMU/WTARS, Drs. Xianyan Kuang, \_Xinhua Xiao, and graduate student Friday Zakari are actively engaged in the assessment of phenotyping, and soil health components of the project. Other crops in the project also include Energy-cane and Mis-cane.

## 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**

<u>Symposium Registration</u> 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

<u>Tax and Surcharges</u>: Hotel rates are confirmed in 2024 and are subject is 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.

## MORRISON-EVANS, MAYBERRY, HILL & MAYES AWARDS

The application deadline for the Morrison-Evans Outstanding Scientist Award and the B.D. Mayberry Young Scientist Award, the Walter Hill Distinguished Service Award and the McKinley Mayes Mentoring Award is Jan. 19, 2024. External reviewers, i.e. NIFA National Program Leaders will evaluate the applications. Access the <u>applications here.</u>

In preparing the submissions, please use the following criteria:  $8\ 1/2\ x\ 11$  inch page; Times Roman no smaller than 11 points, 1.5 line spacing, one-inch margins all around.

For additional information contact: <u>Dr. Alton Thompson</u>, ARD Executive Director, (336) 285-2955 or <u>Dr. Orlando McMeans</u> (225) 771-4310.

## Reddy, former ARD chair, received ESS/AgInnovation award

#### DR. CHANDRA RED-

DY received the ESS/ agInnovation National Excellence in Leadership Award from the ARD Region at the 2023 ESS agInnovation Annual Meeting in Grand Rapids, MI. Reddy is dean of the College of Agriculture and director of Research/administrator of Extension at Tennessee State University, Nashville, TN. Reddy earned his bachelor's and master's degrees from India and his Ph.D. in agronomy from the University of Florida.

Reddy has focused much of his research on soil quality, crop production and environmental sustainability issues. He directs the Center of Excellence on Natural Resources, Energy and Environ-

ment. Reddy has published his research findings in several prestigious journals, books and conference proceedings, with current totals including 266 publications and numerous externally funded research projects. He has taught undergraduate and graduate-level courses and directed the thesis/dissertation research of several master's and Ph.D. degree



Dr. Chandra Reddy holding his agInnovation award.

candidates. He is a fellow of the American Society of Agronomy and the Soil Science Society of America.

Reddy serves on the Boards of Agriculture Future of America (AFA), 1890 Universities Foundation Board, Emerging Technologies Life Sciences Advisory Board, Ag Launch Technical, the Boards of the National Agricultural Research, Extension, Education, and Economics Advisory Board and LEAD 21/APLU. He is the immediate past chair of the Association of Research Directors (ARD) of 1890 land-grant universities. Reddy is an internationally recognized research scholar and an institution-building expert. He received several prestigious honors and awards including the USDA/ NIFA Partnership Award in 2013;

a Joint Resolution from the Tennessee State Legislature in 2012 for his outstanding contributions to Tennessee Agriculture and the George Washington Carver Agricultural Excellence Award sponsored by the USAID in 2008 for his impactful international research and institution building efforts.

## **NSF** schedules webinars

NSF will host three webinars with the HBCU-Excellence in Research Program (HBCU-EiR) team to discuss questions about the Ideas Lab: Advancing Research Capacity at HBCUs through Exploration and Innovation (ARC-HBCU) NSF 23-626 opportunity. The preproposal deadline to participate in this workshop is **Dec.** 



**19.** The office-hours discussions will center on an overview of what an Ideas Lab is, how to apply to participate in the lab and key dates and milestones for the workshop.

The dates and times for the informational webinar series are

as follows. Registration is required:

- Nov. 28, 9:30 10:30 a.m. ET
- Dec. 12, 3:30 4:30 p.m. ET

See <u>HBCU-EiR website</u> for more information about the HBCU-Excellence in Research Program.

Click here to learn more about "Advancing Research Capacity at HBCUs through Exploration and Innovation (ARC-HBCU)"

## WVSU grant . . . from Page 1

volved in meaningful, hands-on research that has tremendous potential to impact the state and region."

Principal Investigator Bagyalakshmi Muthan, who will serve as the project's lead research scientist, said she hopes the research will ultimately attract industry and academic partners to the region, enhancing economic development and workforce opportunities.

"This research will advance knowledge in the field of plant biotechnology by characterizing previously unidentified mechanisms regulating oil biosynthesis in plants, and unlock new and creative avenues for enhancing molecular engineering of energy crops," Muthan said.

The \$750,000 award from the DOE to the WVSU Energy and Environmental Science Institute will be split among the partnership institutions on the project, with \$600,000 awarded to WVSU and \$150,000 to Brookhaven National Laboratory.

WVSU launched the Energy and Environmental Science Institute in 2014 with the mission of enhancing the University's capacity to participate in evolving opportunities in energy and environmental research, teaching and outreach.

Follow West Virginia State University on Facebook, Instagram @wvsu\_official, and Twitter @WVStateU.

## 1980 Foundation spotlights champions during National HBCU Week

In September, the 1890 Foundation joined The Environmental Collective to host an inaugural event

attended by over 200 supporters of HBCUs during National HBCU Week in the spirit of unity and shared vision while magnifying the rich legacy of the 1890 land-grant universities.

During the event, the 1890 Foundation and the 1890 universities paused to uplift and acknowledge our Congressional Champions who have been instrumental in fueling the forward mofunding support needed to advance the 1890 mission. Congresswoman Alma Adams, chair of the Bipartisan HBCU Caucus and a leading advocate for the 1890 Universities, was recognized by 1890 Foundation leaders.

The 1890 Foundation was grateful to join forces with The Environmental Collective (EC), an African American organization dedicated to forging opportunities that benefit HBCUs, to collaborate on issues related ing. to environmental justice, climate

mentum with public policies and federal change, conservation, food insecurity and nutrition. EC has a "Path to Innovation & Excellence" program with the National Institute of Health (NIH) that involves four 1890s - Central State, Delaware State, Florida A&M and North Carolina A&T in various NIH research programs. NIH representatives were in attendance at the 1890 Recognition Reception to promote a new funding opportunity for HBCU's in the area of biomedical imaging and bioengineer-

## **LEAD 21** issues call for upcoming leadership class

The LEAD21 program is intended to meet the future needs for leadership development of faculty, specialists, district and regional directors, program and team lead-



ers, research station and center directors, department heads and chairs and others in the universities' colleges of agricultural, environmental, natural resources, veter-

inary sciences, and human sciences and USDA/NIFA. Individuals from land-grant, NARRU institutions and USDA are encouraged to participate.

#### Program goals are for participants to:

- Enhance application of skills and knowledge learned in four core leadership development areas (change, conflict, communication, and collaboration).
- Develop a peer leadership network in order to enhance personal leadership practice, collaboration, and diversity of perspective.
- Develop and implement an individual leadership development process.

Applications are due Nov. 15. View the call for applications here.

## Whitesides . . . From page 1

As with any plan, an intentional and well-thought-out plan will provide a clear path for executing a strategic advocacy campaign. While there are several best practices available as effective tools, there are three that sit top of mind for me.

- 1. Grassroots Organizing Builds Power: There is certainly power in numbers. Grassroots coalition-building consisting of your most influential supporters and constituents may prove more beneficial for your institution and the policy for which you are advocating. Where you may experience obstacles contacting a legislator, one of your local advocates may have the relationship that gets you through the door. Tap into your supporters – from corporate partners to local farmers and youth- in your 4-H programs. By educating them on your programs, you are developing ambassadors who will elevate awareness of your impact in ways you may be unable to do.
- 2. Use Data to Your Advantage: Crunching numbers can lead to champions for your advocacy efforts. Legislators are becoming more critical of allocating funding. Demonstrating your return on investment through data could lead to the support you need to expand services and programs or procure equipment to conduct the next research phase. Using metrics to communicate your outcomes better positions your institution's value to legislators.

3. Craft compelling stories: Meaningful messages and impactful testimonials personalize the often "impersonal" data used to communicate outcomes. First-person accounts provide real stories of real people whose lives have been transformed through innovation and education. Stories increase stakeholder engagement, and where numbers and infographics provide key data points, personal accounts connect meaning and purpose.

Each day, we witness the power of our work, and I believe our conviction to provide creative solutions through innovation compels us as researchers to improve the quality of life. Despite the uncertainty of today's political climate, we have the unique opportunity to leverage the best advocacy practices with our collective "why" to advocate for our constituents, who need our cutting-edge research to lead more empowering lives.

This edition of ARD Updates contains a lot of information about the 2024 ARD Research Symposium. Please visit the website for additional information about registration, deadlines, etc. An exciting symposium is being planned, and I want to encourage all of you to participate in this biennial event.

Finally, the ARD community celebrates the ARD veterans and all who have served in the U.S. Armed Forces. We appreciate your service and immense sacrifice to our great country.

#### ARD OFFICERS

## Louis Whitesides (Chair)

South Carolina State University Email: <a href="mailto:lwhitesides@scsu.edu">lwhitesides@scsu.edu</a>

## Wesley L. Whittaker (Chair-Elect)

Langston University

Email: wesley.whittaker@langston.edu

## Ami M. Smith (Secretary)

West Virginia State University Email: <a href="mailto:smitham@wvstateu.edu">smitham@wvstateu.edu</a>

#### Jose Ulises Toledo (Treasurer)

Southern University

Email: jose\_toledo@suagcenter.com

## Olga Bolden-Tiller (Member-at-Large)

Tuskegee University

Email: oboldentiller@tuskegee.edu

## Chandra Reddy (Immediate Past Chair)

Tennessee State University Email: <a href="mailto:creddy@tnstate.edu">creddy@tnstate.edu</a>

## Non-Elected Alton Thompson (Exec. Director)

Email: athompson1@ncat.edu

#### Lisa Williamson (Exec. Asst.)

Email: <a href="mailto:lmwilliamson1@ncat.edu">lmwilliamson1@ncat.edu</a>

#### **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

<u>Tennessee State University</u>
<u>Tuskegee University</u>

<u>University of Arkansas at Pine Bluff</u> <u>University of Maryland Eastern Shore</u>

Virginia State University
West Virginia State University



## JOB OPPORTUNITIES

UNIVERSITY OF MARYLAND EASTERN SHORE, School of Agriculture and Natural Resources.

Assistant or Associate Professor: Bioinformatics and/or Biostatistics

Assistant or Associate Professor: Precision Agriculture

Assistant Professor of Biology: Cell Biology/Immunotoxicology/ Metabolism

Assistant or Associate Professor: Fashion Merchandising and Textiles Program

Assistant or Associate Professor: Nutrition and Dietetics

Assistant Professor and Agribusiness / Resource Economist Specialist

Chair, Department of Agriculture Food Resources Science

**WEST VIRGINIA STATE UNIVERSITY**, WVSU Research & Development Corporation, <u>Associate Dean/Associate Director for Research</u>

**USDA FOREST SERVICE, SOUTHERN RESEARCH STATION**, <u>Research Economist</u> or <u>Research Forester</u> 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.

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

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

#### CALENDAR

AEA-ARD JOINT WINTER MEETING, The Inn at Opryland, Nashville, TN, Jan. 24-26, 2024.

The rates are \$175 plus tax for exterior rooms and \$195 plus for atrium/interior rooms. One-day pre and one-day post will be at the group rates, but are based on availability. A credit card is required to hold the room. The hotel does not charge a deposit. The cancellation policy is 72 hours prior to arrival. Cancellation within 72 hours of arrival will forfeit one (1) night room and tax. **Hotel** (s) offering your special group rate:

The Inn at Opryland, A Gaylord Hotel for 175 USD and 195 USD per night Book your group rate for 1890 Research Directors Planning/Joint AEA-ARD Winter Meeting - Jan 22-26, 2024. The cut-off date for the block is Tuesday, Dec. 26, 2023.

**BEST PRACTICE WEBINAR:** Nov. 16, 4 p.m. ET, A Lived Experience: Tribal Relations and Natural Resource Stewardship, Jennifer Ballinger, Tribal Relations Specialist, U.S. Forest Service, Hosted by the Diversity Catalyst Committee. For more information and to register click here.

2024 CARET/AHS JOINT MEETING, Omni Shoreham Hotel, Washington, DC, Feb. 25-28, 2024

## The Food Forum 30th Anniversary Symposium











USDA'S 100TH ANNUAL

# AGRICULTURAL OUTLOOK FORUM

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