Bolden-Tiller named '24 Inspiring Next Gen. Awardee

Dr. Olga Bolden-Tiller, dean and research director of the College of Agriculture, Environment, and Nutrition Sciences (CAENS) at Tuskegee University, has been named the 2024 Inspiring Next Generation Awardee at the Norman E. Borlaug International Dialogue. This distinguished recognition highlights Bolden-Tiller's dedication to cultivating future leaders in global food security, nutrition and agricultural innovation.

The annual Borlaug Dialogue is a premier global event that brings together scientists, agribusiness leaders, educators, students, and experts from over 65 countries to address pressing issues in global food systems. The 2024 conference, themed around transformative solutions for sustainable and equitable food systems, continues its legacy as a catalyst for groundbreaking conversations on global food security.

Bolden-Tiller's contributions at Tuskeg-ee University have positioned her as a visionary in agricultural education and research. Her leadership in fostering innovative teaching approaches, spearheading impactful research and inspiring students to tackle critical challenges in agriculture and nutrition has earned her widespread acclaim.





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Wessage from the Chair / DR. WESLEY WHITTAKER

Dear Friends and Colleagues,

As the new year approaches, I extend warm wishes of joy, peace and happiness to each of you now and into the New Year. Here's to a year

filled with blessings and gratitude. My greatest hope this season is to continue receiving unwavering support from ARD members as we head into 2025. With the spirit of the holidays, I want to express heartfelt thanks to the ARD members, researchers, supporters, advocates, friends and the 1890 Universities Foundation, all of whom have worked

tirelessly to further ARD's vision, mission, goals and values.

DR. W. WHITTAKER

The 1890 Universities Foundation hosted its annual business meeting at the APLU Annual Meeting in Orlando. The meeting was well-attended and highly engaging, and the Foundation is grateful for the APLU's support. One primary focus of the meeting was preparing for the imminent changes stemming

from the recent federal elections and cabinet appointments and strengthening our engagement efforts.

The transition to a new administration involves a deliberate process for selecting and vetting senior-level positions, many requiring congressional approval before confirmation. To navigate this critical period, the Foundation is actively collaborating with our advocacy partner, Federal Street Strategies, to establish connections as quickly as possible. This effort focuses on engaging with new appointees, leadership assignments, and staff members in positions that directly influence agriculture policy and initiatives.

Dr. Jewel Bronaugh, president & CEO, delivered an exceptional presentation showcasing the Foundation's recent achievements. These included several key milestones in advancing its mission, such as collaborating with the Farm Service Agency (FSA) to enhance the customer service experience for historically underserved producers.

She also highlighted the partnership with the Southern Risk Management Education Center to create a network of technical assistance providers, directly engaging farmers and ranchers in consultations to support financially distressed borrowers seeking access to USDA Farm Loan Programs.

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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 topnotch 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 The University of Maryland Eastern Shore and Kentucky State University.

UMES research explores trees as a bioenergy source

The quest for renewable energy sources that will eventually replace or reduce fossil fuels is taking a new turn at the University of Maryland Eastern Shore. Research is underway to determine whether several varieties of trees and other plants, such as switchgrass, can be grown, harvested economically and used as sustainable bioenergy feedstocks.

"Bioenergy is one future source of renewable energy, but there are a lot of variables that affect the economics and

the sustainability of biofeedstock sources," said Dr. Jonathan Cumming, chair of UMES' Department of Natural Sciences. "We are investigating a diverse portfolio of feedstocks for their viability for this purpose. They require a lot of processing to yield energy-dense fuels, such as aviation fuel, but they provide many benefits."

Bioenergy feedstocks help mitigate climate change and support ecosystem health, Cumming said. These plants absorb carbon dioxide, a greenhouse gas, and convert it into biomass through photosynthesis. Carbon from plant material is used as the source of carbon for fuel, rather than fossil sources like oil, but the plants use carbon dioxide from the atmosphere and transfer organic carbon into the ground, enhancing the soil's health.

"The big thing now with bioenergy is providing alternatives to fossil fuels without taking away

from the food chain," he said, referring to the current practice of producing ethanol from corn.

Cumming and fellow researchers associated with the Center for Bioenergy Innovation at the Oak Ridge National Laboratory in Tennessee are exploring eastern cottonwood trees and nine genotypes of a poplar hybrid species altered genetically to deposit more carbon in the soil than is typical and being more drought-resistant to withstand effects of climate change.

"The proof in the pudding is putting the right genetically modified tree in the right field," Cumming said.

Over 200 of the trees in the U.S. Department of En-

ergy-funded study were planted three years ago and last fall in a 1.5-acre plot at UMES' Research, Extension and Teaching Farm. The trees are not irrigated, and the field is monitored for climate conditions, such as temperature, rainfall and salinity.

"We are looking at what is happening both above and below ground to understand the patterns of carbon storage in the trees and carbon transfer to the soil that are helpful



Photo by Todd Dudek, agricultural communications, University of Maryland Eastern Shore, School of Agricultural and Natural Sciences, UMES Extension, tdudek@umes.edu.

for the environment," Cumming explained.

So far, he said, the eastern cottonwood and poplar trees are "getting really good growth" in the field test. Trees could be ready for harvest after three years, and the tree trunks would be ground and the lignin and cellulose would be extracted and used for feedstocks for biofuel production.

Supported by a Climate Smart grant from USDA-NRCS, Cumming is also working with partners, the University of Maryland and Chesapeake Utilities Corporation, on using switchgrass and other Maryland cover crops as alternative cellulosic feedstocks for biogas production from the anaero-

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Kentucky State examines urban ag in low-access areas

Under the direction of Dr. Nzaramyimana Theoneste, four graduate and three undergraduate students at Kentucky State University conducted research on urban farming. Urban agriculture focuses on generating fresh produce and

making it accessible to areas without access.

This research occurred at the Dr. Harold R. Benson Research Farm and The Kentucky State University West Farm. For three months, research associates seeded, transplanted, grew and harvested 15 different species of fruits and vegetables.

Research associates began by tilling the land and implementing plastic mulching to protect crops from weeds and pests. Plastic mulching involves laying plastic sheeting over soil to suppress weeds, conserve moisture and regulate soil temperature. A drip irrigation system was also used.

Seedlings were first grown in a greenhouse because it offered several advantages, including regulating temperature, humidity, and light, reducing the risk of transplant shock and producing more resilient and adaptable plants.

After being transplanted from the greenhouse, the plants easily adapted to their new environment and produced high yields of fresh produce in just a few months. Yellow summer squash, zucchini and pickling cucumbers produced the highest yields.

During the project, the research associates recognized the need to adjust their harvesting methods to ensure produce quality. For example, for squash and zucchini, it was best to harvest when they had reached six to eight inches. If harvested too late, they become full of water, lack flavor and are at a higher risk of rotting and spreading fungus.

During the project, research associates also battled Phytophthora blight, a disease caused by the fungus-like organism Phytophthora capsicum, known as water mold. Although several factors can cause this disease, it was concluded that the crops developed it from overwatering.

Land management was another major challenge due to the overgrowth of weeds and the growth of watermelon



Dr. Theoneste and students/researchers in urban farming program.

plants. Frequent weeding was needed to ensure crops were not losing resources. The watermelon plants also threatened the collards and zucchini crops due to overgrowth. The proposed solution was to prune and/or use a trellis to control the watermelon plants.

The project produced 7,127 pounds of crops that students donated to local community shelters, students, staff and faculty. Adjustments to cropland management practices will be encouraged for future research.

For more information, contact Dr. Nzaramyimana Theoneste or at 502.597.6537, College of Agriculture, Health and Natural Resources, Kentucky State University.

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bic digestion of chicken litter. The anaerobic digestion process is a way of treating excess chicken litter, extracting usable energy in the form of methane from it, and creating a nutrient-stable end product for field application."The digestion process is much more efficient if we add plant material to the feedstock mix," Cumming said. "Switchgrass can be grown under various conditions, has everything needed for carbon sequestration and ferments well for bioenergy feedstock production." In addition, local winter cover crops can be harvested and farmers. These farmers then become used as well."

Under the USDA grant, UMES and its partners seek farmers interested in growing specific alternative crops that can add to their farm revenue stream while serving as test plant material for an anaerobic digestion process.

"Everything hinges on economics. It has to be profitable for farmers to grow," Cumming emphasized.

"Through this program, we can provide stipends and other funds to our partner

part of a renewable energy initiative on the Eastern Shore.

Click for more information. Gail Stephens, agricultural communications and media associate, UMES, School of Agricultural and Natural Sciences, UMES Extension, gcstephens@umes.edu., 410-621-3850. Photo by Todd Dudek, agricultural communications, University of Maryland Eastern Shore, School of Agricultural and Natural Sciences, UMES Extension, tdudek@umes.edu.

News from across the system that you can use

N.C. A&T offers BS in Al

A bachelor's degree in artificial intelligence will be taught at North Carolina Agricultural and Technical State University. The Triad Business Journal <u>reports</u> this is the only AI degree program at an HBCU, and the UNC System Board has approved it of Governors. North Carolina A&T, the largest <u>HBCU</u> in the world, plans to enroll the first cohort of <u>students</u> in the fall of 2025. The program will be available both on-campus and online, as <u>reported</u> by WFMY-2 News.

Florida A&M accepts TFFP applications

Florida A&M University is accepting applications for the 2025 Cohort of the Feed the Future Innovation Lab for Horticulture Trellis Fund Fellowship Program (TFFP).

The TFFP is an international research internship program that connects organizations in developing countries with U.S. graduate students from minority-serving institutions who have agricultural expertise. This partnership generates benefits for both the students and the in-country institutions.

Together, they collaborate on short-term projects in four global regions to address horticultural challenges faced by local farmers. This program is part of the U.S. Government's global hunger and food security initiative, supported by the Feed the Future Innovation Lab for Horticulture and funded by the U.S. Agency for International Development. Please see the program website for application. The deadline is Dec. 12.

Contact Harriett A. Paul, principal investigator, Trellis Fund Fellowship Program, <u>harriett.paul@famu.edu</u>, 850 599-8867.

K-State plans summer research fellows

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.

Participants are not expected to provide any service to the university. By the end of the program, students should have produced tangible research results demonstrating his/her knowledge of experimental research and will report the results in a special research forum. The Summer Research Fellows Program is an excellent experience for participants who plan to attend graduate or professional school.

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

This KSRE Fellowship program seeks 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. Applicants 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 eligible to apply.

Applications are due Feb. 7, 2025. Early applications are being reviewed on a continuous basis beginning Oct. 1, 2024.

Application Procedure

- 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.

FSLI seeks cohorts

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 weeklong 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.

NIFA webinar will address ag research transdisciplinary approach

Join NIFA at 1 p.m. EST on Dec. 11 for a webinar series highlighting the opportunities and challenges of transdisciplinary approaches in agricultural research.

Presented by USDA's NIFA and the National Agricultural Library, the seminar series will examine strategies for implementing transdisciplinary approaches, team-building and overcoming challenges to encourage adoption and training in transdisciplinary systems.



As more research funding agencies support the use of transdisciplinary and engaged research practices in their programs to help generate tangible, positive societal impacts, we can take advantage of opportunities to learn from programs that have been

early adopters of these modes of research. The increased emphasis on engagement throughout the research process is helping to shine a light on the importance of partnerships, relationships and trust in moving research into practice and policy. Yet identifying these intangible characteristics in proposals and project reports is not always straightforward.

In this webinar, we will hear from program leaders who have solicited, reviewed, funded and evaluated transdisciplinary and engaged research for several years. They will share what they have learned about crafting requests for proposals to encourage the inclusion of transdisciplinary research practices, how their programs review and rate proposals, and the criteria and tools they use to evaluate the outcomes of individual projects and the impacts of their programs.

Click here for more information and to register: Reviewing and Evaluating Transdisciplinary and Engaged Research Projects: Perspectives from Funding Programs.

Bolden-Tiller... From Page 1

Inspiring Next Generation Award is a profound honor," said Bolden-Tiller. "This recognition underscores the importance of equipping our students with the skills and knowledge to address global food security challenges. I am deeply grateful to Tuskegee University and my colleagues for their support in driving this mission forward."

The Borlaug Dialogue is named in honor of Norman E. Borlaug, a Nobel Peace Prize Laureate often called the "father of the Green Revolution," who deeply admired Tuskegee and its legacy, particularly the work of George Washington Carver. Borlaug visited Tuskegee multiple times, reflecting his respect for its pioneering contributions to agriculture and education.

This connection is rooted in mentorship and friend-

ship. Henry A. Wallace, the 33rd Vice President of the United States and 11th Secretary of Agriculture, mentored Borlaug, and George Washington Carver mentored him during Wallace's youth. Wallace's father taught Carver at Iowa State University, where Carver was encouraged to study plants instead of pursuing art. Wallace and Carver maintained a close friendship throughout Wallace's career, including his tenure as secretary of agriculture and vice president.

Tuskegee celebrates Bolden-Tiller's achievement and her role in continuing the institution's legacy of excellence in agricultural sciences. Her recognition at this international platform underscores Tuskegee's commitment to preparing the next generation of leaders who will advance sustainable and equitable solutions for the world's food systems.

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Additionally, Dr. Bronaugh discussed the collaboration with Rural Development to establish and support rural economic development summits at 1890 universities, focusing on how these institutions can drive rural economic development, enhance their capacity to access federal resources and foster public-private partnerships. She also emphasized the ongoing work with the Natural Resources Conservation Service (NRCS) to sponsor career development conferences to develop tools to recruit and train students from 1890 institutions for federal job opportunities with USDA. To conclude, Dr. Bronaugh introduced the newly refreshed and streamlined 1890 Universities Foundation website, *Promoting the 1890 Foundation*, available at

www.1890foundation.org.

As 1890 leaders across the three mission areas continue collaborating to serve individuals, families and communities within and beyond the 1890 footprint, ARD and AEA will again co-host a joint meeting with the 1890 Council of Deans of Agriculture. This event is scheduled for Jan. 27-30, 2025, at the Hyatt Regency Crystal City, VA. If you have not yet registered, I encourage you to do so today.

In closing, I extend my warmest wishes for a joyous holiday season filled with the love of family and friends. May the year ahead bring peace, prosperity and countless blessings to you and yours. Warm thoughts and best wishes always.

ARD OFFICERS

Wesley L. Whittaker (Chair)

Langston University
Email: wesley.whittaker@langston.edu

Gregory Goins (Chair-Elect)

Email: gdgoins@ncat.edu

Ami M. Smith (Secretary)

West Virginia State University Email: smitham@wvstateu.edu

Jose Ulises Toledo (Treasurer)

Central State University

Email: jtoledo@centralstate.edu

Olga Bolden-Tiller (Member-at-Large)

Tuskegee University
Email: oboldentiller@tuskegee.edu

Louis Whitesides (Immediate Past Chair)

South Carolina State University Email: lwhitesides@scsu.edu

Chandra Reddy (agInnovation Chair-elect) Email: creddy@tnstate.edu

Non-Elected
Alton Thompson (Exec. Director)

Email: athompson1@ncat.edu

Lisa Williamson (Exec. Asst.) Email: lmwilliamson1@ncat.edu

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

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, <u>Associate Director for Cooperative Research</u>

NORTH CAROLINA A&T STATE UNIVERSITY, College Of Agriculture and Environmental Sciences, <u>Assistant Professor</u>, Dietetics; <u>Program Director</u>, <u>Dietetics Graduate Program</u>; <u>Assistant Professor</u>, <u>Nutritional Services</u>; <u>Assistant/Associate Professor</u>, <u>Nutritional Sciences</u>

SOUTHERN UNIVERSITY SYSTEM, Department of Agricultural Sciences and Technology, <u>Assistant/Associate</u> 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, <u>Assistant/Associate Professor of</u> Agricultural Economics and Agribusiness

TUSKEGEE UNIVERSITY, College of Agriculture, Environment and Nutrition Sciences, <u>Climate-Smart Project Associate</u> and <u>Agroforesty Project Coordinator</u>

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, <u>Associate Dean/</u> Associate Director for Research

LANGSTON UNIVERSITY SHERMAN LEWIS SCHOOL OF AGRICULTURE & APPLIED SCIENCES, <u>Associate Professor of Biosystems Engineering/Precision Agriculture</u>, <u>Associate Extension Administrator</u>

LINCOLN UNIVERSITY OF MISSOURI, <u>Director of Agricultural Communications.</u> Contact the Search Committee Chair, <u>Dr. Douglas LaVergne</u> with questions.

KENTUCKY STATE UNIVERSITY, SCHOOL OF AGRICULTURE, HEALTH & NATURAL RESOURCES <u>Assistant Professor position for Integrate Pest Management</u>; <u>Assistant Professor of Organic Agriculture</u>; <u>Assistant Professor of Forestry</u>; <u>Assistant Professor of Livestock Nutrition</u>

PRAIRIE VIEW A&M UNIVERSITY, COLLEGE OF AGRICULTURE, FOOD AND NATURAL RESOURCES, <u>Associate Professor or Professor & Associate Dean</u>

FORT VALLEY STATE UNIVERSITY, COLLEGE OF AGRICULTURE, FAMILY SCIENCES AND TECHNOLOGY, Assistant Professor of Animal Nutrition

UNIVERSITY OF MARYLAND EASTERN SHORE, <u>Associate Dean of 1890 Programs and Associate Director</u> 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, <u>Director, Center for Sustainable Farms and Urban Agriculture</u>.

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.



Agricultural
Outlook Forum