Southern Administrative Heads Updates and Highlights Winter Meeting February 2023

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College of Agriculture & Alabama Agricultural Experiment Station Auburn University January 31, 2023

Facilities

- <u>STEM+Ag Complex</u>: On February 3, 2023, the Auburn University Board of Trustees will vote on the third and final step of approving construction of a 265,000 gsf life science research building, the STEM+Ag Complex. The project, estimated to cost about \$200 million will serve the College of Agriculture and the College of Science and Mathematics. Funding for the project will be provided by a combination of state bonds, university bonds, and philanthropic gifts.
- Other Capital Projects: The College of Agriculture is actively planning and fundraising for two other projects. (1) The college is developing a 16-acre teaching and demonstration garden, The Transformation Garden. (2) The college is developing plans for the complete renovation of the historic Comer Hall, home to college and experiment station administration and the Department of Agricultural Economics and Rural Sociology. This project is estimated at about \$36 million.

Personnel

- 12 Faculty Searches: The College of Agriculture launched 12 faculty searches during fall 2022. These searches include a department head for Crop, Soil, and Environmental Sciences, director for diversity, equity, and inclusion (professor of practice), and a youth livestock extension specialist, among others. With the completion of these searches, the College will have hired about 70 of its 155 faculty members during the past 7 years.
- Experiment Station Personnel: The Alabama Agricultural Experiment Station is seeking to fill two associate station director positions and several research technician positions. A recent university-wide staff salary adjustment program has improved recruitments efforts. Still, about 20% of budgeted staff position in the experiment station are vacant.

Students

- <u>Soil Judging Team</u>: Auburn University's six-student soil judging team took home first-place honors, beating out 11 other teams at the Southeastern Region Collegiate Soil Judging Contest, hosted by Clemson University in October. An Auburn senior, Dustin Randolph, was the top scorer in the competition. By winning the Southeastern Region Contest, the Auburn team qualified for the National Contest, which will be held at Oklahoma State University in April.
- Transfer Co-enrollment Program: The College of Agriculture is participating in collaborative co-enrollment and transfer program with Southern Union State Community College (SUSCC). Through this program, participating students may take one course each semester at Auburn University, while completing freshman and sophomore course requirements for agriculture majors at SUSCC. Only SUSCC tuition is paid. After completing four semesters, students with a 2.75 cumulative GPA are admitted to Auburn University.

Operations

- Regional Experiment Station Model: Through attrition and retirements, the Alabama Agricultural Experiment Station has transitioned to a regional management model for the system. The position of station director was eliminated, and regional directors were hired to oversee the stations in each of four regions in the state. Associate directors oversee daily operations on the station. Additional research technicians are being sought on the stations.
- <u>Legislative Support</u>: Auburn University saw legislative appropriations increase across all divisions for FY 2023, including the Experiment Station and Extension. The State of Alabama saw record tax receipts in CY 2022. The budget outlook for FY 2024 is strong, but the economy is expected to soften in CY 2024, likely slowing budget growth in FY 2025.

Alabama Cooperative Extension System

Leadership

- Dr. Laura Downey has been hired as Associate Dean and Assistant Director for Human Sciences Extension.
- Dr. Becky Barlow has been hired as Associate Dean and Associate Director for Agriculture, Forestry and Natural Resources.
- Mike Clardy has been hired as Director of Communications, Strategic Marketing and Client Relations. The unit has been restructured and launched a new marketing campaign titled "The Faces of ACES." Here is our first commercial: https://www.youtube.com/watch?v= VbecerBd0M
- Alabama Extension has completed a Strategic Plan that outlines our mission of "transforming lives through science-based information, practical solutions and meaningful experiences." The complete plan is available at: https://www.aces.edu/blog/topics/about-us/2022-2026-strategic-plan-extending-knowledge-improving-lives/
- ACES Peer Review was successfully launched in April of 2022 using the platform, Scholastica. One-hundred and eighty manuscripts were submitted in 2022. Ninety-four percent of submissions have a 2-week return time or less from reviewers. As a result of the success of this project the College of Agriculture has adapted Scholastica as a platform for "Plains Press" with plans to peer review and publish Alabama Agricultural Experiment Station publications.

Agriculture, Forestry, and Natural Resources

- The ACES Agriculture, Forestry and Natural Resources team had four National Winners, two National Finalists, two Regional Winners, and six State Winners of 2022 National Association of County Agricultural Agents (NACAA) awards. We also had 16 individuals win National Association of National Resources Extension Professionals (ANREP) awards in 2022.
- ACES had 5 Summer interns who worked with Extension Agents in Agronomic Crops, Food Safety,
 Agribusiness, Home Horticulture, Commercial Horticulture, and 4-H. Interns presented information on their
 summer projects via Zoom. This was a great opportunity for cross-team collaboration and to introduce
 Extension to the next generation of professionals.

Extension Human Science

- Evidence suggests that breastfeeding support from an early childcare and education (ECE) provider can increase
 a mother's likelihood of continued breastfeeding. In 2022, agents certified 52 Alabama providers that serve
 more than 1,800 children. Supported breastfeeding mothers are more likely to continue breastfeeding, which
 decreases babies' risk for acute health issues and long-term risks of being overweight and heart disease as an
 adult.
- Alabama FAST During the 2021–2022 school year, Alabama is the fourth state in the nation to require high
 school seniors to complete the Free Application for Federal Student Aid (FAFSA) application or a
 nonparticipation waiver. Alabama FAST is a comprehensive online toolkit that includes materials that address
 many avenues of the FAFSA application process. We provide sound information to families so they can make a
 more informed FAFSA decision. After completing the Alabama FAST workshop, student intention to complete
 FAFSA increased by 19.63 percentage points.

4-H and Youth Development

• Alabama 4-H continues to create spaces for young people to belong, discover and celebrate their "sparks," and engage in caring relationships with adults. To that end, Alabama 4-H, at Auburn University, delivered in-school, after-school, and enrichment programming in 1,005 Alabama schools to 94,440 youth. Alabama 4-H is present in 68% of all Alabama schools. An additional 15,305 youth were involved in out-of-school 4-H clubs, camps, and educational programs.

Community Development

Alabama Extension has launched a new initiative in disaster preparedness. The program is funded by several
federal grants and match totaling more than \$500,000, and focuses on mitigation, preparation, response and
recovery.

Clemson - College of Agriculture, Forestry and Life Sciences

CAFLS has had an historic year across all three mission areas.

Academics

- CAFLS has seen increases in enrollment and continues to show strong retention and graduation rate, while staying true to our commitment to educate South Carolinians
 - Fall 2022 largest incoming class under current organizational/academic structure. Up 30% over Fall 2021. Indicators for Fall 2023 show on track for another increase in the range of 10%.
 - First-year retention rate = 93.3%
 - Six-year graduation rate = 86.1%
 - o 75% of our undergraduate students are SC residents

International Recognition

- Dr. Drew Lanham, Alumni Distinguished Professor of Wildlife Ecology in the Department
 of Forestry and Environmental Conservation, was selected as one of 25 MacArthur
 'genius' grant recipients. He is the first person from Clemson to receive this award
- Dr. Lanham was also recently selected as one of the top 100 Most Influential Black Americans by The Root. Sharing recognition with Serena Williams, Lavar Burton, Aaron Judge and others, Dr. Lanham was only 1 of 4 STEM scientists and the only representative from the natural sciences

Cooperative Extension

- Clemson University Cooperative Extension and South Carolina State 1890 Extension held their first joint conference in December
- Over 300 attendees
- Featured speakers included President Clements, President Conyers and Senator Thomas
 C. Alexander

Partnerships for Climate Smart Commodities

- CAFLS researchers, in partnership with SC State, received the largest grant in Clemson history (\$70M)
- CAFLS researchers were part of two other funded grants in partnership with other institutions (\$55M)

Louisiana State University AgCenter and College of Agriculture Highlights Southern Administrative Heads Section Meeting – Winter 2023



The LSU AgCenter is celebrating 50 years of advancing agricultural excellence in Louisiana

Leadership Changes

• Matt Lee Ph.D. was named Interim Vice President of Agriculture and Dean of the LSU College of Agriculture on August 1st of 2022.

Recent Developments

- The positions of Director of Louisiana Agricultural Experiment Station and Director of Louisiana Cooperative Extension Service have been re-established and new acting directors have been selected.
- Seven focal research areas and centers of excellence have been established
- A \$500k seed grant fund has been established to promote the development of collaborative interdisciplinary teams to develop strategic and large-scale grant proposals for submission to federal agencies and other funding opportunities.
- Planning for a Food Systems Security Institute is underway.
- Strategic talent recruitment with a focus on precision agriculture faculty hires are in progress.
- A funding request for a new collaborative agriculture and veterinary innovation building has been developed.
- A faculty grant writing skill enhancement program to develop highly competitive funding proposals is in place.
- We are rebuilding capacity by opening 12 new agent positions; a mix of ANR, FCS and Youth Development positions distributed across the state.
- An external and governmental affairs position has been re-established.
- A director of industry engagement has been hired in partnership with the LSU Foundation.
- We are establishing permanent academic department leader positions within the college and refocusing student support professional efforts towards timely student completion.

LSU College of Agriculture

Fall 2022 Enrollment Numbers:

- Undergraduate Enrollment: 1502; Graduate Enrollment: 324; New Freshmen Enrollment: 375
- HUG (Historically Under Represented Undergraduate Enrollment: 474 (2.8% Increase from Fall 2021)

Short-Term College Initiatives:

- Expand internship offerings and undergraduate research
- Focus on external industry partnership opportunities for student development.
- Restructuring admissions process to free up resources to focus more on student completion

Mississippi State University Division of Agriculture, Forestry & Veterinary Medicine

Update/Highlights January 2023

Division Leadership

- Gary Jackson, who served as director of the MSU Extension Service since 2011, has filled the newly created position of associate vice president for outreach and engagement. Jackson is charged with strengthening and coordinating university outreach activities to better meet stakeholder needs at the local, state, national and international levels. The new position reports to the provost and executive vice president, vice president for the Division of Agriculture, Forestry and Veterinary Medicine and the vice president for the Office of Research and Economic Development.
- Steve Martin, currently associate director for county operations, is serving as interim Extension director. Curt Lacey is serving as the interim associate director for county operations.
- An experienced poultry pathogen specialist is the new head of Mississippi State's Department of Poultry Science. Illinois native Ken Macklin has joined the department after serving as a research professor and extension specialist at Auburn University.
- Mississippi State University named Sean Fox department head in the Department of Agricultural Economics. Fox comes to MSU from the University of Illinois, where he was professor and head of the Department of Agricultural and Consumer Economics.
- MSU's USAID Feed the Future Innovation Lab for Fish is pleased to announce that Stephen Reichley of Mississippi State University will serve as the program's new deputy director.
- Steve Bullard is Mississippi State's new associate dean of the College of Forest Resources and associate director of the Forest and Wildlife Research Center. Previously, Bullard served six years as dean of the Arthur Temple College of Forestry and Agriculture at Stephen F. Austin State University before being promoted to provost and vice president of Academic Affairs, where he served an additional six years.

Points of Pride

- The National Science Foundation ranks MSU 11th nationally for agricultural research and 13th nationally for natural resources and conservation research funding.
- DAFVM faculty wrote 950 proposals in FY22 resulting in a record total of \$116.7 million in grants and contracts awarded to expand research, education, and outreach opportunities.
- FY 2022 yielded a record number of expenditures totaling more than \$227.5 million division wide.
- 97% of Extension Agents throughout the state are trained in mental health first aid to better identify, understand, and respond to signs of mental health crises and challenges in the communities they serve
- MSU Extension's farm stress film series "On the Farm" won two Southeastern Regional Emmys.
- Mississippi State Extension's PROMISE (Preventing Opioid Misuse In the Southeast) Initiative was awarded the National Innovative Programs and Projects Partnership Award from the USDA's National Institute of Food and Agriculture (NIFA).
- For the past five years, College of Veterinary Medicine graduates have had a national board examination (NAVLE) passage rate of 98% compared to a 95% national average.
- In 2022, the MSU CVM Shelter Medicine Program surpassed 100,000 surgeries since the acquisition of the first mobile veterinary unit in 2007. This program offers services at no cost to animal shelters.
- Mississippi State researchers are taking the lead in a \$4.8 million grant from the USDA National
 Institute of Food and Agriculture to address virus, pest and disease problems jeopardizing the
 sustainability of U.S. sweet potato seed programs. The MSU-directed CleanSEED Project, is a
 collaboration with experts in Arkansas, California, Hawaii, Louisiana, North Carolina, and South
 Carolina
- A partnership with multiple conservation agencies is positioning Mississippi State University's Forest
 and Wildlife Research Center to manage and positively impact coastal forestland for teaching,
 research, and conservation of this vital ecosystem. The 14,000 acres of bottomland hardwood and
 upland forests—part of the Coastal Headwaters Protection Initiative—are in Harrison County along
 the Wolf River.

Our People

- Mississippi State University President Mark E. Keenum serves as the Board Chair for the Foundation for Food and Agriculture Research.
- Derris Devost-Burnett, associate professor in MSU's Department of Animal and Dairy Sciences and
 the university's MANRRS co-advisor, has been elected national president-elect for the professional
 organization. MANRRS promotes academic and professional advancement by empowering minorities
 in the fields of agriculture, natural resources, and related sciences.
- Jan Chambers, William L. Giles Distinguished Professor in MSU's College of Veterinary Medicine, was selected as a Fellow of the American Association for the Advancement of Science.
- The International Academy of Wood Science honored MSU's Sustainable Bioproducts Department Head Rubin Shmulsky with the designation of fellow, recognizing his significant scientific achievements and research contributions to the field.
- Jason Krutz, director of the Mississippi Water Resources Research Institute and professor in the MSU Department of Plant and Soil Sciences, is a new American Society of Agronomy Fellow.
- J. Alex Thomasson, the head of Mississippi State's Department of Agricultural and Biological Engineering is the 2022-23 president-elect the Council for Agriculture Science and Technology.
- The National Deer Association announced Steve Demarais from Mississippi State University's Department of Wildlife, Fisheries and Aquaculture as the 2022 Joe Hamilton Lifetime Achievement Award winner.
- Beth Baker, associate Extension professor/FWRC-WFA, is the lead investigator on a \$10 million grant project awarded in September by USDA to conduct climate-smart projects. The grant is one of 70 projects selected by USDA for the first "Partnerships for Climate-Smart Commodities."

College Enrollment and Instruction

Fall 2022 enrollment remained steady with 2,518 students in the College of Agriculture and Life Sciences and 602 in the College of Forest Resources. College of Veterinary Medicine enrollment increased to 565. 2021 total: 3,716; 2022 total: 3,685

New Construction

Present construction projects include remodeling Ballew Hall for a CALS/MAFES administrative building and requesting an additional \$13 million to cover increased construction costs to remodel Dorman Hall for Plant and Soil Science.

State Funding

Our separately funded units have made an 18% increase request of the Mississippi Legislature. Tax revenue for the state this fiscal year continues to be significantly higher than last year. Our units received an average increase of 6% in state funding and made merit-based pay raises averaging 4% to faculty and staff this past fiscal year.

NC STATE UNIVERSITY

January 2023 College of Agriculture and Life Sciences Report

Plant Sciences Building. The NC State Plant Sciences Building was dedicated April 12. The \$160 million project finished on time and on budget. It houses interdisciplinary programs and faculty from 6 colleges. The Plant Sciences Building is a key component of the Plant Sciences Initiative, whose vision is to be the world's premier plant sciences enterprise, accelerating discovery, talent development and applied solutions that solve agricultural challenges through interdisciplinary, team-based science.

CALS Strategic Plan. The College released its new strategic plan, *Growing Our Future*, for 2023 to 2030. This plan was created over the last two years from over 11,000 points of stakeholder input and many interviews, focus groups and listening sessions. This plan supports our vision to create sustainable social and economic prosperity and well-being for the state, nation and world through agriculture and life science discovery, learning and engagement. It consists of 10 strategic priorities, 17 goals, and 63 key initiatives.

Research

- Secured \$97.5 million in grants and contracts in 2021-22.
- Published 1,372 peer-reviewed publications, up from 1,131 in 2020.
- Increased average number of publications per tenured or tenure-track faculty member from 2.9 in 2016 to 4.5 in 2021.
- Completed 47 patent disclosures, filed for 62 patents, and received 35 patents.

Extension

- Reopened all county offices after pandemic closure.
- Completed strategic planning process for Extension.
- Created career ladder/salary adjustments for County Extension Directors, Program Assistants, Technicians and Administrative Assistant/Support Specialists positions.
- Helped secure \$5 million for guava root-knot nematode work.
- Implemented language options for Extension websites.
- Highlights from the most recent report can be found at: 2021-2022 Report.

Academics

- Created two new multi-college student agricultural communications programs in cooperation with CHASS and CVM, one for undergraduates and one for graduate students.
- Enrolled a higher percentage of rural students than urban and suburban students in Fall 2021, which would not have been possible without the efforts of the University Admission office, departments, and stakeholders.
- Revamped CALS Honors Program.
- Enrolled more than 1,000 graduate students.

• Increased undergraduate applications, which were up 9% again last year and we welcomed one of our largest undergraduate freshman classes ever in Fall 2022.

Advancement

- Secured \$43M total funding.
- Finished NC State Campaign at \$479 million total funding, 20% above goal of \$400 million.
- Completed fundraising for the Plant Sciences Building.
- Increased non-alumni giving by 37% to \$4.9 million.
- Increased Day of Giving by 23% to \$4.0 million.

Diversity and Inclusion

- Launched CALS R.E.A.D. Program for DEI.
- Offered six Conversations that Matter: Learn at Lunch sessions that encouraged 128
 CALS community members to delve into dimensions of diversity beyond gender and race.

Finance and Human Resources

- Completed (almost!) new budget modeling process for departments.
- Initiated position sharing program between College Business Office and Departments.
- Received NC State Equity for Women Award for Chris Genwright and Rebecca Zuvich of CALS Human Resources and Maru Gonzalez of the Dept. of Ag. and Human Sciences.
- Launched Monday Morning Manager e-newletter to over 800 subscribers with a 62% open rate.

Communications

- Reached 3 million views of CALS news stories and 340,000 views of CALS news videos.
- Reached 7,100 subscribers for external CALS Weekly newsletter.
- Received the Association of Communication Excellence's Gold Award the Fall Issue of the CALS Magazine.
- Increased CALS' social media efforts with Twitter, Facebook and Instagram accounts achieving 5%-19% growth and the Dean's Twitter account experienced 37.3% growth.

Division of Agricultural Sciences and Natural Resources Oklahoma State University

Annual Summary – Southern AHS meeting, February 2023

- Undergraduate enrollment in the <u>Ferguson College of Agriculture</u> increased in fall semester, 2022, with the largest cohort of freshman in the history of the college, up 9% over the previous year, and the largest cohort of transfer students in the history of the college. Undergraduate enrollment reached 2,887 (an all-time high) and graduate enrollment was 397 for a total of 3,284.
- The Biosystems Engineering program received a favorable review and renewal of accreditation.
 In addition, the Landscape Architecture program was reaccredited and modified the Bachelor's degree program to be a 4-year program instead of a 5-year program.
- The new building to replace Agricultural Hall is on schedule for completion in July 2024. The fundraising campaign reached the \$50 million goal in June 2022. The \$100 million budget had to be increased to \$115.2 million following the bidding process due to the effects of inflation and supply chain disruptions. The OSU/A&M Board of Regents approved the new budget and additional institutional financing to keep the project on schedule. By the end of the year, most of the concrete structure had been poured and installation of utilities was under way.
- Dr. Richard Coffey was hired as Department Head of Animal and Food Sciences and joined the university in July 2022. Dr. Wade Thomason was hired as Department Head of Plant and Soil Sciences and began in August 2022. Dr. Gina Peek was named Assistant Director, Oklahoma Cooperative Extension Service/Family Consumer Science Program Leader in April 2022 following a national search. Dr. Randy Taylor stepped down as Assistant Director of Extension and state program leader for Agriculture and Natural Resources and a national search is under way. Robert Klein, Assistant Vice President and Chief Fiscal Officer announced his plans to retire in early 2023. A national search for his replacement is under way.
- State funding for OSU Extension and OSU Ag Research received a slight (1%) increase for FY2023.
- OCES continues to add new online courses for staff development and for public engagement.
 Co-parenting, Backyard poultry, Market Gardens and Prescribed Fire Management have been most highly subscribed courses.
- The Biennial Extension Conference held in January 2022 included staff and faculty from all three
 land grant institutions, Langston University, College of the Muscogee Nation and Oklahoma
 State University and featured a panel of the Oklahoma land grant institution presidents and a
 presentation by NIFA Director Dr. Carrie Castille. Faculty and staff from the three land grant
 institutions have engaged in Coming Together for Racial Understanding workshops and program
 development.
- Drought has been a dominant feature affecting Oklahoma agriculture in 2022, and led to a campaign by OCES to prepare and educate livestock producers to risks of prussic acid and nitrate toxicity in drought-stressed forages.
- Research productivity was highlighted in a number of press releases related to Dr. Brett Carver
 receiving the <u>Eminent Faculty Award</u>, discovery of a <u>critical gene in wheat</u> that increases grain
 yield, the release of <u>two new turfgrass varieties</u>, and a study on <u>virtual fencing of cattle</u>. The

- OSU turfgrass program was featured recently for developing the Bermuda grass varieties that form the playing surface on both fields that hosted NFL Conference Championship games.
- The <u>New Technologies for Agricultural Extension</u> grant from USDA NIFA was renewed with OSU
 Agriculture as the host for another year. We subcontract much of the work to the <u>Extension</u>
 <u>Foundation</u>.
- Dr. Jeanette Mendez, previously Vice Provost and Interim Senior Vice President and Provost was appointed to the permanent position of Senior Vice President and Provost following a national search co-chaired by VP of Agriculture Thomas Coon.
- President Kayse Shrum developed and released the <u>new strategy</u> for OSU with an emphasis on the land grant mission of Oklahoma State University, a commitment to expand the reach of OSU Extension as a platform for the breadth of expertise at the University, and a focus on five priority areas: One Health, Agriculture, Energy, Aerospace and STEM education.
- Thomas Coon, VP for Agricultural Programs, announced on January 6, 2023 that he will retire July 2023. President Shrum and the OSU/A&M Board of Regents have launched the search for his replacement.



PRAIRIE VIEW A&M UNIVERSITY College of Ag: 2022-23 Highlights

Academic Programs:

- M.S., Natural Resources and Environmental Sciences (launched Spring 2023)
- M.S., Nutritional Sciences (expected launch Fall 2023)
- Planning: pre-vet degree program; Ag Ed & Sci concentration program; 3+2 BS + MS Agribusiness Management with Texas A&M; PhD program in Food Security and Sustainability

Partnerships:

- Shell Corp; Microsoft Corp; Cargill; Growmark; George Mitchell Foundation and Algae Foundation
- Under development: Purina; Houston Rodeo; Land O' Lakes, Gordon Foods.

Facilities:

- Meat Processing Lab (began operations in Fall 2022)
- Additional Office Wing to Cooperative Extension building (completed December 2022)
- Veterinary treatment facility (under construction)
- New Greenhouses (to be built as part of the Shell Corp C-Sequestration research project)

Examples of Impactful Outreach Programs:

- USDA Agricultural Entrepreneur Workshop: Members from the United States Department of Agriculture, the Internal Revenue Service, the U.S. Small Business Administration, and more met on the PVAMU campus for a full-day workshop equipping mall farmers and producers with the knowledge and tools needed to grow their operations, with the help and resources of federal agencies (https://www.pvamu.edu/cahs/2023/01/16/usda-agricultural-entrepreneur-workshop/)
- PVAMU Wellness in Houston Diabetes Awareness Event: Last Fall, the signature PVAMU Wellness in Houston (formerly Health Houston) Program partnered with Children's Museum Houston for Diabetes Awareness month (https://www.pvamu.edu/cahs/2023/01/16/pvamu-wellness-in-houston-diabetesawareness-event/).

A Look Back at 2022 (link to 90-second *youtube* video):

https://www.youtube.com/watch?v=OCtZH8k3lmk

New College webpage: https://www.pvamu.edu/cahs/

South Carolina State University Highlights
APLU Southern Administrative Heads Section Meeting
College of Agriculture, Family and Consumer Sciences – Winter 23
William H. Whitaker, Jr., Acting Dean

Academic Programs

The following five new concentrations have been developed for the agribusiness program and proposals will be presented at the Educational Policies Council (EDPC) meeting and will be submitted in February 2023 for review and approval:

- 1. Concentration International Agriculture
- 2. Concentration Agribusiness Management
- 3. Concentration Food Safety and Security
- 4. Concentration Plant and Soil Science
- 5. Concentration Animal Science

Memorandums of Understanding have been secured for the following educational entities:

- 1. The University of Guyana Guyana, South America
- 2. The Guyana School of Agriculture Guyana, South America
- 3. Kuru Kuru Co-Operative College- Guyana, South America

Research - Grants Awarded

Dr. LaToya N. Johnson - Family & Consumer Sciences

Name: FCSed.net Online Course Repository

Amount: \$2,620.00

Purpose: To make online courses available to students who would otherwise not have

an opportunity to prepare to teach Family and Consumer Sciences.

Ms. Carmen Thompson – Nutrition & Food Management

Name of Grant: Inclusion, Diversity, Equity, and Access (IDEA) Grant

Amount: \$10,000.00

Purpose: Recruit students and professionals from underrepresented groups within the nutrition and dietetics profession, as well as support educational cultural sensitivity programs.

Research - Grants Submitted

Ms. Carmen Thompson and Mrs. Kimberely McClain – Nutrition & Food Management Name of Grant: Capacity Building – Designing a State-of-the-Art Nutrition and Food Laboratory System for South Carolina State University

Potential Amount: \$150,000.00

Purpose: Provide upgrades to the food laboratories in Staley Hall.

Dr. LaToya N. Johnson – Family & Consumer Sciences

Name of Grant: From Learning to Leading: Cultivating the Next Generation of Diverse

Food and Agriculture Professionals (NEXTGEN)

Potential Amount: \$8.707, 728.00

Purpose: Build and sustain the next generation of the food, agriculture, natural resources, and human sciences (FANH) workforce including the future USDA workforce primarily through providing student scholarship support, meaningful paid internships, fellowships, and job opportunity matching, and also facilitating opportunities to learn the processes and pathways leading to training and employment in the federal sector.

Service/Outreach

Career Talk Tuesdays are held on selected Tuesdays in which former graduates discuss their current careers and the path they took. This series is meant to expose students to the various career paths in the Department of Family and Consumer Sciences.

The Nutrition and Food Management Program featured their first Lunch and Learn Series on Thursday, January 26, 2023. Series will be sponsored monthly on current topics in nutrition.

Great News to Share

The Child Development Learning Center has earned reaffirmation of accreditation for another 5 years. This was achieved under the leadership of Mrs. Stephanie Felks, Director.

A Permanent Chair for the Department of Family and Consumer Sciences has been secured as recommended from the Council for Accreditation by the American Association for Family and Consumer Sciences. Dr. Maria James has accepted this position.

Tennessee State University Update

We began a new Ph. D program in Agricultural Sciences this Fall semester.

We also began to offer our MS programs in Agribusiness and Agricultural Education on-line starting this Fall.

NIFA awarded us the Center of Excellence on Natural Resources, Renewable Energy and Environment: A Climate Smart Approach

We received \$32.25 million ARP Grant to build a One Health Center

We invite everyone to attend the NERAOC and UIDP meetings that TSU is hosting this year in Nashville in partnership with the University of Tennessee (the NERAOC meeting) and with Meharry Medical College and Fisk University (UIDP).

We are excited to host the AHS meeting 2024 in collaboration with the University of Tennessee.

University of Arkansas Division of Agriculture EXTENSION

- Dr. Martha Ray Sartor retired as Associate VP for 4-H and FCS after 14 years with Extension.
- This year's Dinner at the Vines event raised over \$47,000 dollars for 4-H scholarships, up from \$34,000 last year (first year).
- In 2022, both Extension and Research filled many vacant faculty positions after a number of retirements as well as pandemic related vacancies. This included a Horticulture weed science position and a combined Cotton/Peanut specialist position (currently advertised), as well as a reconfigured Animal Science group.
- Extension Service Summer Intern program was a success in 2022, the number of participants has been increased from 9 to 12 for the coming summer with over 35 applications so far.
- The Extension Service is advertising several upper admin positions: Assistant VP for 4-H, Assistant VP for FCS and Director of Stakeholder Relations.
- The new Jackson County Extension Center building at Newport is nearing completion. It will house the Jackson County Extension office as well as some Extension faculty.
- In December, the Extension Service held its first County Agent In-Service Conference completely in person. This was the first event of its kind in many years.
- Through the Public Policy Center's 2022 Arkansas Ballot Issues Education Center, county agents delivered nearly 40,000 voter guides to people in their communities, posted 100 yard signs and set up 206 display boards. The state-level ballot issues education web pages attracted 346,972 unique visitors who recorded 432,615 page views between Sept. 1-Nov. 11, 2022; the YouTube videos had 19,094 views between Oct. 6 and Nov. 14, 2022; and our state-level Facebook, Twitter and Instagram posts reached 69,769 viewers and were shared 1,065 times.
- About one-third of Arkansas' county agents have less than 3 years of experience and there is a high turnover rate. To help this lack of experience, Extension Educators were hired to use the subject areas of beef and forages or row crops to teach what an agent needs to know. The Educators work with subject area specialists to give hands-on experience in the field and coordinate peer-to-peer training.

RESEARCH

- Faculty with a research appointment published an average of 4.0 peer-reviewed publications for calendar year 2022 and were cited an average of 143 times.
- New grant awards for 2022 totaled \$21.7M.
- The construction of a shop building at the Northeast Rice Research and Extension Center was completed and we broke ground on the 28,000 sqft headquarters building.
- The renovated facilities for the Arkansas Clean Plant Center for Berries were finished.
- The construction a new smart farming research facility in poultry science was completed.
- Rice breeders released several new rice cultivars, including Aroma 22, Arkansas' second aromatic rice variety. Rice breeder Karen Moldenhauer received the Lifetime Achievement Award from USA Rice.
- Agricultural Economist Trey Malone was named Farm Foundation Fellow for 2023.
- Poultry Science Dept. Head, David Caldwell, was named Fellow of the Poultry Science Association.
- Crop, Soil and Environmental Sciences Professor, Mary Savin, was named Assistant Director for the Arkansas Agricultural Experiment Station.

ACADEMICS

- Former Dean of Bumpers College, Deacue Fields, was named as Vice President for Agriculture.
- Agricultural Experiment Station Director, JF Meullenet, was named Interim Dean.
- Bumpers College named Jackie Mosley as inaugural Assistant Dean for Diversity, Equity and Inclusion.
- Bumpers College moved to a professional advising model.
- Mosley was recognized by APLU with the US Department of Agriculture Excellence in College and University Teaching award.
- Bumpers College surpassed 2,000 undergraduate students for the first time in its history and awarded over \$1.1M in scholarships.

University of Florida, IFAS

J. Scott Angle, jangle@ufl.edu

Leadership

Many personnel changes are underway including leaders for most of the primary business operations of IFAS.

Chairs of Agronomy and Entomology were recently hired with searches for Departments of Food Science and Plant Pathology underway.

We will soon appointment an Associate VP for Inclusion, Diversity, Equity, and Access.

Ben Sasse (former senator from Nebraska) starts Feb 6 as the new UP president. Other changes will likely occur over this year.

Budget

A new budget model is being introduced by establishing base level unit funding with the opportunity for increases (or decreases) following leadership consultation.

Current total budget for IFAS is nearly \$450M per year. Research funding is \$200M for FY 22. NSF ranks UF #1 for agriculture and natural resources federal funding.

Modest state (about 3%) increases are expected for the current budget year.

IFAS facilities (18 statewide) are in poor shape and represent the Institute's greatest need. We estimate \$250M is needed to bring facilities to modern standards. Current focus in on 4-H camps and student dorms at research and education centers.

Hot Topics

Questions around free speech on the UF campus have dominated the past year. Much of this was investigated and found to be unsubstantiated. However, these issues will persist until the conclusion of the 2024 presidential election.

As noted, IFAS supports 18 research, education, or demonstration centers. Most have significant faculty and staff located there. With decaying facilities, a new model or plan for support is needed. An external and independent review of centers was recently completed and will be the basis for any future changes.

37,000 acres of land was recently gifted to IFAS. Funding streams have been established for teaching and research.

Hire of 15 dedicated agriculture AI faculty is complete and academics' fastest AI supercomputer has been "switched on". Will soon break ground for a new Ag AI building at a research and education center.

University of Georgia, College of Agricultural and Environmental Sciences

According to recent figures, CAES has had over \$690M in economic impact on the state of Georgia across all three mission areas, with academics contributing \$241M, research contributing \$182M and UGA Extension contributing \$262M.

Academics:

- CAES enrolls 1,470 undergraduate students and 705 graduate students as of fall 2022. We have seen a 37.4% increase in graduate enrollment since fall 2017.
- CAES awarded \$784,000 in scholarships over a total of 544 awards a large number of these awards supported experiential learning opportunities for CAES students.
- Our student/faculty ratio has decreased from 8.8:1 in fall 2021 to 8.4:1 in fall 2022.
- CAES seeks to recruit and retain high-quality students from rural areas in Georgia through our Rural Scholars program the second cohort of Rural Scholars were selected and began their studies in fall 2022, we have created two endowed funds to support the program in FY22 and two full scholarships were created in FY23.

Research:

- CAES research expenditures (Federal and Non-Federal) continued to grow significantly compared to the previous year by 31.1% compared to 2021 (\$57.4 mill. In 2022 vs. \$43.7 mill. in 2021). Total Federal research expenditures increased by 34.5% compared to 2021.
- CAES is in the process of hiring up to 24 faculty members with primary research appointments in FY23 and FY24.
- The UGA Institute for Integrative Precision Agriculture, created in May 2022, is admitting and hiring faculty members and seeking qualified candidates for permanent leadership.

Extension:

- UGA Extension had 1,584,546 face-to-face contacts (up 34% from FY21) and provided 139,171 Continuing Education Units (up 19% from FY21).
- The Agriculture and Environmental Sciences Lab (AESL) continues to serve the state with soil, water and other diagnostic samples. Over 118,000 diagnostic samples were analyzed by our labs in FY22, a record level and a 6.5% increase from FY21. Less than 50% of the overall AESL budget comes from state funds.
- In addition, over 20 grant-funded projects related to health and wellness are ongoing; helping to increase organizational capacity in this area. 187,835 face-to-face contacts were made in the area of health and wellness.

Development:

- During the last fiscal year from July 2021 to June 2022, CAES raised \$15.7 million and the Georgia 4-H Foundation raised \$3.4 million, bringing our total to \$19.1 million across the college.
- During UGA's annual Giving Day, we had a record number of donors to CAES with a total of 381 gifts, which is the second highest of any college at UGA.
- Construction of our new Poultry Science Building is set to complete in early September we are currently working to complete the roof on this 70,000-square-foot facility. CAES has secured approximately \$12M in private funding to support this \$58M public/private partnership.

University of Kentucky - College of Agriculture, Food and Environment

Nancy Cox, ncox@uky.edu

Leadership

- Dean Nancy Cox began a dual role as Vice President for Land-grant Engagement in 2020. That percentage of time was increased from 20% to 40% and is part of the university president's senior leadership team. The VP and dean role will be permanently linked.
- Associate Dean of Instruction, Carmen Agouridis, has been elevated to Senior Associate Dean.
- Associate Dean for Extension and Director of the Cooperative Extension, Laura Stephenson, will be named an Associate Vice President for Land-grant Engagement in addition to her current role, further strengthening the ties between the university, Cooperative Extension and the state.
- Department chair searches for Veterinary Science and Animal and Food Sciences are underway.
- The search for a new marketing and communications director will be completed by mid-Spring.

Facilities

- Planning is ongoing to rebuild University of Kentucky Research and Education Center at Princeton, Kentucky that was destroyed in the December 2021 tornado outbreak.
- Cleanup of the Robinson Center for Appalachian Resource Sustainability (RCARS), following historic flooding in July, is nearly complete. We have been able to make some needed upgrades in IT infrastructure as a result.
- Significant capital investments are underway in CAFE that improve the teaching, research and service work of the college
 - \$4 million renovation of the historic Cooper House, which will house student recruitment, philanthropy and alumni relations.
 - \$9 million construction of the Beam Institute for Kentucky Spirits, which will include a distillation facility and maturation warehouse.
 - \$45 million expansion of the Barnhart building is currently in the design phase and will include a 250-seat auditorium, 11 new classrooms, student and meeting space, a café and office/workspace.
 - \$65 million USDA-ARS lab, which will house UK scientists and the USDA-ARS Forage Animal Production Research Unit.

Engagement

- Over the last year, the UK Engage Visioning Committee has been planning and identifying priorities for expanding land-grant engagement opportunities across campus and the state.
- CAFE is participating in the Healthy Kentucky Initiative, a partnership with UK HealthCare.
- New partnerships in engagement include collaborations with the colleges of Public Health,
 Social Work, Nursing, Pharmacy and Dentistry.

Meeting our Strategic Priorities

- Total college enrollment exceeds 2,500 students, including 500 first-year students, 16% of which are underrepresented minority students and one-in-four are first-generation.
- The Agricultural Experiment Station continues to advance and earn more external research support. Grants and contracts increased by 5% in FY22 to more than \$47 million, comprised of 244 awards, 120 principal investigators and 100 sponsors.
- The college is conducting its Kentucky Equine Survey, a 10-year follow-up to 2012 survey. Data available in the spring.

University of Puerto Rico COLLEGE OF AGRICULTURAL SCIENCES Dr. Raúl E. Macchiavelli, Dean and Director Highlights from January 2022 to December 2022

AGRICULTURAL EXPERIMENT STATION RESEARCH PROGRAM

1. Leading Research Programs: Plant Breeding and Production Systems Research Program

- Through germplasm introduction, evaluation and preservation we continue to develop improved cultivars and better management practices for our principal commodities that have helped them to become more productive and competitive.
- With NIFA-AGFEI funding we are also incorporating new technologies helpful to the development of this program such as CRSPR/Cas-9 for insects and plants transformations and advanced pollen/seed preservation facilities at Isabela.
- As a result of this program, we have been able to improve local food security.
- Set up an internet-based system where seeds can be easily checked for availability and purchase thus improving the distribution of seeds and planting materials

Outstanding Research Accomplishments: Food Security, Plants & Animal Systems; Plants

- Problems addressed: our work emphasizes research efforts that target the most important production constraints faced by our stakeholders in crops essential to our food security and the economic viability of local farming.
- Accomplishments include: increased availability of disease-free cultivars and planting materials with better agronomic traits and resistance to major diseases and abjotic stresses.

2. Leading Research Programs: Plant protection Integrated Management of Pests and Diseases

- Pest and Plant Disease Clinic (PPDC) at Juana Diaz part of the Southern Regional Plant Diagnostic Network (SPDN) lead by the University of Florida.
- Center for Excellence in Quarantine and Invasive Species plays a crucial role in studies of prevention and preparedness for invasive species threats to US and Caribbean agriculture
- IR-4 project at Corozal develops new pesticide and biopesticide registration of tropical specialty crops; identifies pests of economic importance and potential pesticides for local registration.

Research Accomplishments: Integrated Management of Pests and Diseases

 Problem addressed: Crop production is continuously threated by pests and diseases that require effective management tools. Collaborative research and

- surveillance efforts of our current crops and farming systems are needed to respond to the increases in diseases, pests and weeds associated with warmer temperatures and changed rainfall and drought patterns, among other factors.
- Accomplishments include: Continued registration and labeling of agricultural pesticides for use in crops grown in Puerto Rico while developing early detection protocols for the management of plant pathogens.

3. Leading Research Programs: Animal Production Systems

Three areas of emphasis:

- Characterization of slick haired dairy cattle in PR to establish if they have a
 genetic advantage over other breeds with respect to heat tolerance and
 therefore, be more productive under warmer temperatures expected with
 climate change.
- Production of genetically superior beef cattle by maintaining a Senepol cattle herd and conducting beef quality studies geared at improving economic returns to beef producers.
- Research on small ruminants promising niche market, races, and value-added products, heat tolerance.

Research Accomplishments: Animal Production Systems Program-Slick Haired Cattle

- Problems addressed: research addresses the need for increasing the efficiency and productivity of livestock industries, both from the point of view of food security and of making a positive contribution to the mitigation of climate change impacts. Our program currently has three main research foci: characterization of local slick haired dairy cattle, improving beef cattle production and marketing, and strengthening small ruminant production and profitability.
- Continued progress in the characterization of Slick cattle vs Wild Type (WT) in different parameters: genomic, growth and performance, reproductive performance, and reproductive endocrinology, among others.

Research Accomplishments: Animal Production Systems Beef Cattle & Small Ruminants

- New production and marketing strategies to add value to local beef have been devised and are being evaluated at our local beef cattle research farm.
- Puerto Rico lamb producers have adopted recommendations based on research results to enhance their operations, including animal management, carcass handling, and meat retail cuts production and marketing.

4. Leading Research Programs: Environment and Natural Resources

- The AEXS is the only local institution with an active research program and lab
 facilities dedicated to evaluating the impact of nutrients on the integrity of
 surface waters and promoting environmentally sound management practices of
 nutrients in agricultural and natural landscapes.
- Problems addressed: Our program focuses on issues related to soil quality and best management practices, mitigation of threats to water quality, microirrigation technologies for water conservation and improvement of crop productivity, establishment of forests, as well as the identification and protection of natural enemies of harmful insect pests.

Agricultural Experiment Station Challenges & Opportunities

- Continued lost of skilled management staff and the lack of resources to recruit replacements.
- Government of PR, and with it the UPR AEXS, under the Fiscal Adjustment Plan by PROMESA Federal Law.
- High recruitment needs for researcher in areas of importance for Tropical Agriculture.
- General challenges for Puerto Rico in the past 5 years: the most disastrous hurricane in our recent history, earthquakes that hit the South, the past two years under a pandemic, and since 2016 under a fiscal adjustment plan of PROMESA federal law.

AGRICULTURAL EXTENSION SERVICE

1. Outstanding achievements of Extension Educational Programs

Food Security, Plants and Animal Systems

What is the issue?

Puerto Rico has a highly vulnerable food supply chain. Food imports exceed 80% of the food products consumed.

Target audience

Farmers, growers, housewives, students, teachers, and the general public Results

- ✓ Home- School and Community Gardens: as resilience strategy against food insecurity
- ✓ Increasing food availability by improving local agricultural production and agri-business marketing strategies.

• Extreme Weather, Natural Resources and Environment, and Sustainable Energy What is the issue?

- ✓ Soil management is an important aspect for climate change mitigation as well as for adaptation. There has been an increasing need for soils instruction and education for the PRAES county agents.
- ✓ PRAEXS is supporting this process through a project that is working towards creating a soil data bank that will facilitate soil management and use, preserving the quality and health of soils

Target audience

PRAES county agents, USDA agency personnel, farmers, producers, government professionals, community leaders and members, and 4-H youth.

<u>Results</u>

Soil Quality and Nutrient Management in Tropical Soils

Family and Well-Being

What is the issue?

- ✓ Adults living in Puerto Rico have several lifestyle risks factors and high prevalence of chronic diseases. Conditions such as diabetes, asthma, hypertension, cancer (including breast cancer), cardiovascular diseases and depression predominate in this group. adults living in Puerto Rico
- ✓ The current COVID-19 pandemic impacts the lives and well-being of our populations, particularly low-income and educationally disadvantaged older adults

Target audience

Families, people in charge of groceries, single women, children, heads of families, communities, and low-income adults.

Results

- ✓ Health promotion and disease prevention for the elderly and caregivers during the COVID-19 pandemic
- ✓ Promoting Healthy Lifestyles

• Positive Youth Development

What is the issue?

The lack of educational opportunities and inaccessibility to food due to closing of schools, economic challenges, and a more alarming situation, domestic violence, worsening because of the lockdown, increase youth vulnerability.

Target audience

Extension Educators and 4-H Youth Leaders and communities were trained to improve their capabilities to identify the needs of Puerto Rico's Youth and Families.

Results

✓ Access, Equity and Opportunity; the Power of Youth.

- ✓ Route for a Healthy living
- √ 4-H Healthy Living Ambassadors
- ✓ True Leaders Equity Institute
- √ 4-H Ag-Challenge
- ✓ Life Skills Program

Community Economy for Sustainable Development

What is the issue?

Communities continue to be aware of the importance of becoming self-sufficient. One of the strategies that PRAES promote as a means to better cope with emergencies is through the start-up of new microenterprises. In addition, raising awareness about the importance of community collaboration to promote family and community financial strength.

Target audience

Voluntary leaders and community members

<u>Results</u>

- ✓ Training and workshops help communities to achieve higher levels of resilience
- ✓ Facing adversity through community economic development, disaster management, and volunteer training programs

2. External Factors or Challenges

Hurricane María (2017)

Massive emigration (over 250,000 of people), long power outages (months), shortages of drinking water, educational and social instability, and agricultural losses surpassing \$780 million

Earthquakes (2020)

Damage to vital infrastructure facilities

- COVID (2020-2022)
 - ✓ Extension Agents and Educators lacked their habitual spaces and methods (face-to-face) to train their clientele due to strict COVID-19 curfews and regulations by executive order.
 - √ 38% of our population unemployed

ACADEMIC PROGRAMS

- Undergraduate Programs Bachelor's Degree in Agricultural Science (~1,200 students)
- Graduate Programs Master of Science Degree (~200 students)

• New Academic Programs

✓ Online MS program in Agricultural Economics, the first fully online master's degree in UPRM.

- ✓ PhD program in Tropical Agriculture, approved to start hopefully in Aug. 2023.
- ✓ BS program in Food Science and Technology.
- ✓ Online Master's program in Food Science and Technology (in the approval process).

• Hiring

UPRM recruited four new faculty members for the College of Agricultural Sciences (two in Animal Science, one in Precision Agriculture, one in Rural Sociology), with shared responsibilities in the Faculty of Agricultural Sciences and the Agricultural Experiment Station.

University of Tennessee Institute of Agriculture Highlights APLU Southern Administrative Heads Section Meeting — Winter 2023

CONSTRUCTION

- A \$10-million College of Veterinary Medicine Teaching and Learning Center addition was completed in December, 2022. The addition boasts a theater classroom and new simulation equipment to enhance student experiential learning.
- Construction on a \$100-million Energy and Environmental Science Building is expected to be completed in late 2023 or early 2024.
- Construction of the new UT Extension 4-H & Youth Development Center at Lone Oaks Farm has been completed. The Center will focus on STEM rooted in outdoor hands on learning.
- Installation of a milking robot system that is co-located with the traditional dairy housing system is near completion at the East Tennessee UT AgResearch and Education Center – Little River dairy facility. Dedication of the new robotic milking system is expected in spring of 2023. The robotic milking system is a part of the newly launched UT Precision Livestock Farming (PLF) Initiative (https://plf.tennessee.edu/).
- Construction on the new UT Creamery has been completed and ice cream production and sales will begin in late Spring.
- Work is underway to modernize key infrastructure and equipment at the ten UT AgResearch and Education Centers across the state with \$50M in ARP grant funding.

LEADERSHIP CHANGES

- Dr. Keith Carver, currently Chancellor of UT Martin has been chosen as UTIA's new Senior Vice Chancellor / Senior Vice President effective March 1, 2023, pending approval of UT's Board of Trustees. Dr. Carver will replace Dr. Carrie Castille who is transitioning into a role as special advisor to University of Tennessee President Randy Boyd.
- After serving 15 years as Dean of the Herbert College of Agriculture, Dr. Caula Beyl retired at the end of 2022. Dr. David White is serving as Interim Dean of the College.
- Other appointments: Dr. Gary Bates as Department Head of Plant Sciences; Dr. Justin Rhinehart as
 UT Extension Assistant Dean for Agriculture & Natural Resources / Community Economic
 Development; Dr. Ethan Parker as Director of East Tennessee UT AgResearch and Education Center;
 Chris Hicks as UT Extension Central Region Director; Chris S. Shotwell as Associate Vice Chancellor
 for Business and Finance; Doug Bohner as Chief Operating Officer; Tom Looney as Interim Chief
 Advancement Officer; and Dr. Christopher Clark as Acting Executive Dean.

OTHER

- The Department of Agricultural Leadership, Education and Communications has started a PhD
 program. The program will support the state's student success, family prosperity, and future work
 goals by providing an opportunity for adults to reengage in higher education, complete an advanced
 degree, and prepare for the work of the future.
- The Department of Forestry, Wildlife and Fisheries has been elevated to the School of Natural Resources and is broadening academic offerings and research and Extension programs.
- A team of turfgrass specialists has been chosen to oversee the research for designing, installing, and managing the stadium and training fields for the 2026 FIFA World Cup in collaboration with Michigan State University.
- A team of research and Extension specialists has been awarded \$30M by the USDA's Climate Smart Commodities Initiative, in collaboration with 28 academic and stakeholder partners. The project "Climate-Smart Grasslands the Root of Agricultural Carbon Markets," focuses on a nine-state

- region that represents the core of grassland agriculture for the eastern U.S. The goal is to equip and empower grassland farmers to enter the carbon economy while enhancing operation resiliency and optimizing profitability, soil health and biodiversity.
- UTIA has assumed leadership of the Tennessee RiverLine, a partnership between UT Knoxville, TVA, and local communities to promote economic and community development, as well as natural resource-centered recreation and tourism in Tennessee and beyond. The project is developing and promoting North America's next great regional trail system along the 652 miles of the Tennessee River stretching from Knoxville, Tennessee to Paducah, Kentucky.
- HERD research expenditures for FY22 exceeded \$80M, a new record.



HIGHLIGHTS January 31, 2023

Academic Programs

The School of Agriculture, established in 2020, is now offering the following academic programs:

Certificates

- Agricultural Business
- Agrotourism
- Aquaculture
- Horticulture
- Forestry and Nursery Management
- General Agriculture

Associate of Applied Science Degrees

- Agricultural Business
- Agroecology
- Horticulture
- General Agriculture

Bachelor of Science Degrees

- Aquaponics
- Horticulture

Three additional Bachelor of Science program proposals in Agricultural Business, Animal Science, and Agroecology are completed and expected to be approved by the University Board of Trustees in Fall 2023.

New MOUs

Two new Memoranda of Understanding (MOU) have been signed with the School of Agriculture:

- 1. College of Agriculture, Science, and Education (CASE) in Jamaica to help build, equip, and train scientists on plant biotechnology/tissue culture laboratory facility.
- 2. Oscar Henry Family's Farm, Inc. to have access and use the property for agricultural research, teaching, and extension demonstrations purposes.

Recruitment Efforts

Recruitment activities for the School of Agriculture continued to include outreach to community-based organizations, schools, academic enrichment programs, as well as participation in career fairs, UVI campus activities, and cultural events. However, the most effective recruitment activity involved direct communication with prospective students through individual phone calls, emails, and office visits. Plans are underway for virtual and in-person open houses. Over the past four months, we have participated in the following three activities: AG Science Career Fair

(Hosted by V.I. Department of Agriculture), 50th Agriculture and Food Fair, 26th Mango Melee (hosted by St. George Village Botanical Gardens).

A team of four people from the School of Agriculture, led by the Dean and Director, travelled to Tortola, British Virgin Islands on September 13-14, 2022, and met with H. Lavity Stoutt Community College (HLSCC) and Ministry of Agriculture officials on reviving partnership in the areas of student recruitment through a 2 plus 2 arrangement, high school student recruitment, faculty exchange, agricultural extension staff training and development, and youth program development. Also, at this meeting, further agreement was reach for a second visit by the rest of the UVI academic deans in November.

Cooperative Extension Service (CES)/Agricultural Experiment Station (AES)

The Cooperative Extension Service (CES) staff made presentations to students, teachers and counselors at several private, parochial and public schools about agriculture, careers in agriculture, the UVI School of Agriculture academic and outreach programs, crop production and soils.

Expanded Food and Nutrition Education Program (EFNEP) Adult Nutrition Education outreach classes were conducted on St. Thomas at the VI Department of Education Raphael O. Wheatley Skills Center and the VI Sports, Parks & Recreation Afterschool Program at Winston Raymo Community Center.

In partnership with UVI Residence Life on the Albert A. Sheen Campus, CES developed a robust life skills program for UVI students to include basic sewing, EFNEP Nutrition, Financial Management, and Leadership.

The CES staff, in partnership with the office of Senator Milton Potter and other public and private collaborators, launched phase II of the *Plant a Seed Challenge* initiative. Phase II of this initiative targets residents and families throughout the entire territory through a contest that encourages Virgin Islands youth to become involved in gardening activities, thereby increasing their skills and knowledge about urban gardening. Another goal of the competition is to expose the participants to career opportunities in agricultural science, while promoting the academic program at the UVI School of Agriculture. In response to inquiries and suggestions from the Virgin Islands community, phase II includes a category for senior citizens who are interested in participating.

The Agriculture and Natural Resources (ANR) Program staff facilitated the *Tax Basics for Farmers Webinar*, in partnership with the Small Business Development Center and the VI Internal Revenue Bureau. Attendees increased their knowledge and skills regarding the business of agriculture and gained insight about the Virgin Islands Tax Code, pertinent laws, and tax filing requirements for farmers.

CES staff participated in monthly meetings of the Plant Restoration Group, at the request of the VI Department of Planning and Natural Resources and its Division of Fish and Wildlife Service, to develop plant databases and web outreach botanical education materials to inform public habitat restoration, community planting initiatives, private landowner outreach, and research priorities for territorial and federal programs.

SOA faculty and staff participated in the 50th Annual Agriculture and Food Fair of the U.S. Virgin Islands, Agrifest 2022, with the theme Agriculture 2022: "A GOLDEN Opportunity to Grow". It was held on May 28-30, 2022 and was jointly organized by the Virgin Islands Department of Agriculture and the University of the Virgin Islands (UVI) SOA. Approximately fifteen thousand fairgoers came to Agrifest 2022. Twenty-four UVI departments/programs participated under the UVI tent, with educational displays that showcased publications and services offered to the community. Keeping with the Agrifest 2022 theme, the exhibit's centerpiece focused on a variety of crops that can be grown in the U.S. Virgin

Islands. To signify the golden jubilee, the crops produced yellow and orange fruits and vegetables. UVI continues to play an instrumental role in supporting the progression of the agricultural industry in the Virgin Islands.

On June 22nd, the UVI School of Agriculture celebrated its 50th Land-Grant Anniversary at the University of the Virgin Islands' Great Hall on the Albert A. Sheen campus from 9 a.m. until 3:30 p.m. The event began with a formal opening ceremony, with speakers who spoke on the importance the Land-Grant programs and the positive impact that it made in improving the quality of lives of the people of the Virgin Islands in the last 50 years. The presentations gave attendees an opportunity to visualize the next 50 years and consider how the Land-Grant programs (Research, Extension and Teaching) can continue to make a lasting impact. The opening ceremony was followed by an open house where the School of Agriculture's faculty and staff highlighted the research, extension, and academic programs offered to the community.

The SOA successfully executed the AgDiscovery Enrichment Summer Program on the UVI Albert A. Sheen Campus on July 17-30, 2022. During the two-week program, a wide diversity of SOA faculty and professional staff delivered interactive educational presentations on various topics, including composting, aquaculture, hydroponics, entomology, integrated pest management, value-added processing, etc. In addition, the student participants worked closely with members of the Agricultural Experiment Station (AES) staff on various research projects. Tasks included planting, harvesting, and data collection. Finally, students worked with several crop and livestock producers on their farms. They learned about local production operations while providing assistance to the farmers. This assistance included tasks, such as the transplanting of fruit tree saplings and vegetable seedlings and providing livestock healthcare under the supervision of the VI Department of Agriculture. As a result of the AgDiscovery Enrichment Summer Program, 20 twenty (20) teens in grades 7-12 increased their knowledge and awareness of local agricultural production practices, the importance of the agricultural industry, career opportunities in the field of agriculture, and academic programs offered by the UVI School of Agriculture. Eighteen (18) of the participants were from various parts of the U.S mainland, while two (2) were from the Virgin Islands. It is noteworthy to mention that as a result of the program. two (2) students from the U.S. mainland and both students from the VI plan to submit applications to enroll in the UVI SOA academic program.

The Expanded Foods and Nutrition Education Program (EFNEP) reestablished a strong partnership with the V.I. Department of Education to reach 22 adults at the Ralph O. Wheatley Skills Center, and youth enrolled at the Julius E. Sprauve K-8 School (44) on St. John, and Addelita Canryn Middle (96), and the Lockhart (88) and Ulla Muller (42) Elementary Schools on St. Thomas (290 total). The partnership, initially established in summer 2021, was built upon to provide EFNEP education to youth enrolled in afterschool and summer camp programs at the Winston Raymo Recreation Center (21), and the Joseph Aubain (50), Emile Griffith (49) and Alvin McBean (40) summer sports camps. New partnerships were established with four (4) private and/or parochial organizations to include the Salvation Army (afterschool program hosted at Winston Raymo Recreation Center), Angels of Love Daycare (12), Blue Water Bible College Summer Camp (42) and the Wesleyan Academy Summer Program (65).

The 4-H Healthy Habits Program engaged eleven (11) teens in completing approximately 30 hours of training for service as 4-H Health Ambassadors and 'teens teaching youth.' An additional ten (10) teens took part in a 5-week summer intensive program, representing 30 direct training hours, peer-to-peer teach-backs and presentations during the UVI School of Agriculture Land Grant 50th Anniversary and the UVI Wellness Fridays.

Pesticide Safety Education Program (PSEP) Trainings/Examinations were conducted on St. Croix and St. Thomas. Eighty-three (83) participants attended the trainings. The categories were Recertification Training for expired certified applicator licenses (5 attendees), Integrated Pest Management Training (30

attendees STX, 3 STT), CORE Pesticide Safety training (36 STX, 3 STT), Ornamental and Turf Category (7 STX, 2 STT), Agricultural Plant Pests Category (3 STX). A total of 14 examinations were proctored for pesticide applicator licensing purposes (1 Industrial, Institutional, Structural and Health, 2 Right of Way, 11 CORE).

The World Food Day 2022 observance, sponsored by the UVI School of Agriculture and the V.I. Department of Agriculture, was held on Sunday, October 16th from noon until 6:00 p.m. on the grounds of the UVI Albert A. Sheen Campus, St. Croix. This year's World Food Day theme, selected by the Food & Agriculture Organization (FAO) of the United Nations, is Leave No One Behind: "Better production, better nutrition, a better environment and a better life". The observance of World Food Day promotes awareness, seeks to highlight the challenges associated with poverty and world hunger, and encourages action to help feed less fortunate people in the territory. Activities included a formal opening ceremony, educational workshops, a food vendors' court, a farmers' market, and vegetable seedling distribution. The vegetable seedling distribution was intended to encourage and enable residents to grow some of their own food. The World Food Day Opening ceremony began at 1:00 p.m. and was followed by educational workshops on the three featured World Food Day 2022 agricultural products – banana, eggplant, and chicken.

The Cooperative Extension Service (CES) staff provided technical support to the Plant a Seed Challenge initiative, in partnership with the office of Senator Milton Potter and other public and private collaborators. The St. Thomas contest concluded with an award ceremony to recognize the winners in various age categories, as well as all participants for their efforts. This challenge targeted youth and senior citizens through a contest that encouraged participants to become involved in gardening activities. Although the CES staff interacted and shared technical advice with more than 500 contestants throughout the contest, the closing activity recognized 25 finalists and their family members who expressed a commitment to continuing their urban gardening efforts as clients of the Cooperative Extension Service.

The Agriculture and Natural Resources Program (ANR) staff successfully conducted a three-month urban gardening initiative with the residents and administrators of the Ebeneezer Gardens Home for the Elderly. The project consisted of a series of lecture presentations and demonstrations, which covered the topics of variety selection, site selection and preparation, proper plant spacing, transplanting, plant nutrition, and irrigation. The ANR staff worked with the residents to establish a garden area where urban gardening concepts were put into practice. The residents also benefitted from cultivating and harvesting a bountiful crop of sorrel which they shared and enjoyed for the Holiday Season. This activity was conducted in collaboration with the office of Senator Milton Potter. The administrators at the Yellow Cedar Residence then requested the ANR staff to develop a similar urban garden initiative. Subsequently, members of the ANR staff and the office of Senator Milton Potter met with the administrators and evaluated the project site and developed a plan of action. CES staff agreed to prepare a list of materials needed and a budget for the project while Senator Potter's office staff will seek sources of financial support from the private sector.

Faculty and Staff Achievements

Worku Burayu and David Hensley. Awarded \$19,236 for Southern SARE On-Farm Research Grant, Potential Grasses as Alternative Forage Crops for the Virgin Islands. Southern Sustainable Agriculture Research and Education. February 2022.

Kenneth Olasee Davis. History of Marine Biology in United States Virgin Islands - Krause Lagoon to 15 biology students and teachers from the St. Croix Educational Complex. February 2, 2022 (virtual presentation).

Jessica Ewer, Thomas W. Zimmerman, Henry O. Awika. Influence of Potting and Soil Type on Quality and Yield of Muskmelons in the U.S. Virgin Islands. Southern Region American Society for Horticultural Science (SRASHS). February 11-15, 2022. New Orleans, LA (in person).

Annette James. 2022. Global Climate Change and Impacts on Agriculture and the Environment What is Climate Change and is it a Reality? AGRIFEST Bulletin. Agriculture 2022: A Golden Opportunity to Grow. Agriculture and Food Fair. US Virgin Islands.

Michael Morgan and Thomas W. Zimmerman. Propagation of Tropical Lily Thorn (Catesbaea melanocarpa), a federally endangered tree on St. Croix. Tree Planters Notes 65(1): in press.

Olubukola Ehinmowo. *Establishing a Successful Agricultural Business Enterprise*. AGRIFEST Bulletin. Agriculture 2022: A Golden Opportunity to Grow. Agriculture and Food Fair. US Virgin Islands.

Herbert E. Quintero. 2022. Requisitos básicos de acuacultura como sistema de producción de alimentos (*Basic Requirements for Aquaculture as a Food Production System*). Corporación Universitaria del Huila - CorHuila, Extension Service. Neiva, Colombia, March 24, 2022 (virtual presentation).

J. Reis J, *H. E. Quintero*, L Roy. 2022. Feeding Practices for Automated Systems in Commercial Shrimp Production, pp. 357-373. The Shrimp Book II (Edited by Victoria Alday-Sanz). 5 M Pub. 660 pp.

N'bari Alexander and *David A. Hensley*. 2022. Effects of fertilizer application rates on germination and growth of Mombasa grass for livestock grazing in St. Croix. August 28, 2022. UVI 23rd Fall Student Research Symposium, St. Thomas, VI.

Kenneth Olasee Davis (2022, May 13). Cultural, Natural, & Marine Resources of the Virgin Islands at the opening of USVI Coral Innovation Hub Lab on St. Croix. Estate Little Princess. 300 attendees. St. Croix U.S. Virgin Islands/nature.org/caribbeancoral.

Kenneth Olasee Davis (2022, May 22). Usage of four different medicinal plants and their history at the "Crucian Tea Party with a Twist: Guardians of Culture Moko Jumbies)" Caribbean Museum Center for the Arts in Frederiksted. 65 attendees.

Amy J. Dreves (2022, May 25). Invited and accepted as a member of a PhD graduate committee for a Doctor of Plant Medicine (DPM) program at UF Gainesville, for a student, Raquel Hill, who was mentored on St. Thomas in 2019-2020. She completed her bachelor's in biology and is now under the guidance of Dr. Carrie Lapaire Harmon, Director, UF-IFAS Plant Diagnostic Center.

Amy J. Dreves (2022, May 28). PR-USVI Stairway to Sustainability and Land Stewardship - conversation regarding Integrated Pest Management (IPM) best practices at the Collaboration Team Meeting (12 in-person attendees). (Invited presentation).

Amy J. Dreves and Nate Olive, (2022, May 28-30) "Fruit Vegetable Seed Varieties Suited for the USVI Farm to School Program" (Sustainable Agriculture Research & Education Producer Grant program from the United States Department of Agriculture). Poster presentation at the 2022 Agriculture and Food Fair of the U.S. Virgin Islands.

Samuel Joseph and Thomas W. Zimmerman 2022. Influence of Photoperiod and Sweetpotato Spacing on Virgin Islands Production. American Society for Horticultural Science. July 30 - August 4, Chicago, IL.

Richards, Daryl A. Jr., Jessica Ewer, Thomas W. Zimmerman. 2022. Radish: A Quick Crop for the US Virgin Islands. American Society for Horticultural Science. July 30 - August 4, Chicago, IL.

Stryker, Race, Hensley, D. A., Nemeth, R., and Ramos-Scharrón, C. 2022. Developing vegetative buffers to reduce runoff connectivity and sedimentation from ridge to reef: Lessons learned. Poster presentation. Annual Fall Student Research Symposium. August 28th, 2022. University of the Virgin Islands, St. Thomas, Virgin Islands.

Turnbull, D., *Quintero, Herbert E.* 2022. Water quality data analysis for molluscan mariculture. 23rd Annual Fall Student Research Symposium "Resilience in Research", Emerging Caribbean Scientist Program & College of Science and Mathematics. University of the Virgin Islands. St. Thomas, USVI, August 28th.

Awika, *H.O.* and *J. Ewer.* 2022. Modeling the influence of leaf and flower carotenoid, flavonoid and chlorophyll on field cucumber fruit count using machine learning and rank fraction. Annual Meeting, American Society of Agronomy, Baltimore, MD.

Awika, H. O., Jessica Ewer, and *Amy J. Dreves.* (2022, Nov. 6-9). Total leaf flavonoid influences the resistance to melonworm in diverse cucumber accessions in the US Virgin Islands. ASA, CSSA, SSA Tri Society International Annual Meeting.

Burayu, W. and *D.A. Hensley*. 2022. Emergence, growth, biomass production and weed suppression ability of cover crops. Poster presentation. 2022 Annual Meeting, American Society of Agronomy, Baltimore, MD.

Burayu, W. and *D.A. Hensley*. 2022. Yield response of forage crops to NPK fertilizer. Poster presentation. 2022 Annual Meeting, American Society of Agronomy, Baltimore, MD.

Martínez, E., D. Rivera, and Amy J. Dreves. (Dec. 2, 2022). Preliminary results for IPM Implementation in Specialty Crops: Ornamentals and Vegetables. Sociedad Puertorriqueña de Ciencas Agrícolas (SOPCA) Conference, Puerto Rico. Oral presentation.

Hensley, D.A., *T. Knappenberger, and B.V. Lancellotti*. 2022. Soil moisture regimes under mulch covers in tropical plantain production. Poster presentation. 2022 Annual Meeting, Soil Science Society of America, Baltimore, MD.

Michael Morgan conducted a tree pruning workshop held at the UVI campuses on St. Thomas and St. Croix in September. He also attended the Tree Nursery workshop put on by the USDA International Institute of Tropical Forestry in Christiansted and provided attendees a tour of UVI forestry greenhouse and forestry shade house. Restoration plantings of *Buxus vahlii* and *Catesbaea melanocarpa*, native

federally endangered trees species, at the Sandy Point National Wildlife Refuge during the two-day Tree Nursery workshop put on by the USDA International Institute of Tropical Forestry, held in Christiansted.

STUDENT ACHIEVEMENTS

Yasmin Laurencin conducted research on air layering Bayleaf (*Pimenta racemosa*) trees in the AES Biotechnology & Agroforestry program.

Allana Jackson conducted research on parasites levels in St Croix White Hair Sheep and Dorper crosses in the Animal Science program.

Lamani Santiago, a UVI Junior, was awarded a certificate - Appreciation of Student Excellence - from Career Services for Student Involvement. April 2022.

Race Stryker conducted research as part of EPSCOR in the AES Agronomy program.

Virginia Tech Updates for SR-AHS Meeting (January 2023)

Academic Enrollment:

Further growth in the University's undergraduate student enrollment has been limited due to infrastructure capacity, so enrollment has been holding fairly steady at 30,000 undergraduate students. Consequently, undergraduate enrollment in the College of Agriculture and Life Sciences (approximately 3,000) has been steady over the past several years. Applications for undergraduate admissions have increased significantly in recent years, and there is on-going discussion about increasing student housing capacity, so that enrollment can grow. Graduate student enrollment in the College of Agriculture and Life Sciences has grown to approximately 660 graduate students.

Budget:

The 2022 Virginia General Assembly supported several higher education initiatives with incremental increases from the General Fund for the biennium, including additional increases in the 2nd year of the biennium (FY24, which begins July 1, 2023). On December 15th, Governor Youngkin presented amendments to the Commonwealth's 2022-24 biennial budget sharing that Virginia's economy continues to exhibit strength, projecting a \$2.2 billion revenue surplus over the biennium. Combined with surplus revenue from 2021-22 and other policy adjustments, the Governor projected a total of \$3.6 billion in unappropriated resources available for the remainder of the 2022-24 biennium; however, the prospect of an economic slowdown impacted how the Governor's administration approached proposed changes to the 2022-24 biennial budget. The General Assembly has convened to consider amendments and will finalize the Commonwealth's budget this spring. As part of a multi-year plan, Virginia AES and Coop Extension budgets have been receiving increases in new funding to support personnel (new faculty positions and increased compensation for recruitment and retention), new technology and equipment, and IT infrastructure and maintenance; and we are hopeful for additional new funding for year three of this multi-year plan.

Capital Projects:

Virginia Tech's and the Commonwealth's investments in new capital projects showcases the university's commitment to boost Virginia's agriculture and food industries. Among the current major capital projects in the College of Agriculture and Life Sciences are:

- Completion of the construction of a new Seafood Agricultural Research & Extension Center in downtown Hampton, VA (replacing the current facility); co-funded by federal, State, City, and VT;
- Significant progress on Phase 1 of a State-funded capital project to upgrade, renovate, and replace livestock and poultry facilities (campus farm sites); expected completion is summer 2023.

New Associate Dean and Director of Virginia Cooperative Extension Director:

Following the retirement of Dr. Ed Jones, we recruited Dr. Mike Gutter from the University of Florida to serve as the new Director of Virginia Cooperative Extension. He began his new role on November 1, 2022. The Director also serves as an associate dean in the College of Agriculture and Life Sciences.

Virginia Agricultural Experiment Station Director Search:

Dr. Saied Mostaghimi, who has served in the role since 2009, has announced his plan to retire, so a national search is underway to fill the position. The Director also serves as an associate dean in the College of Agriculture and Life Sciences.

Biochemistry Department Head Search:

A national search for head of the Department of Biochemistry is underway. Dr. Glenda Gillaspy, former head of biochemistry, left Virginia Tech in 2022 to become the new dean of the College of Agricultural and Life Sciences at the University of Wisconsin.