



2021 Highlights

Dr. Mike Phillips has been named director of the Alabama Cooperative Extension System, the outreach organization for Auburn University and Alabama A&M University.

COVID-19 - Alabama Extension pivoted from face to face delivery of information to virtual delivery. The results are stunning. Our web page views and unique visitors nearly doubled on the website (www.aces.edu). Social media traffic nearly doubled. Alabama Extension Facebook traffic increased 96 percent, and engagements increased by 267 percent. 4-H Facebook traffic increased by 89 percent, and engagements were up 82 percent. The Alabama Extension Twitter profile visits were up 99 percent. Video production has increased an astonishing 1,250 percent. The Alabama Extension YouTube channel generated 131,458 views. Virtual farm tours, weekly webinars, and virtual 4-H activities became the hallmark of Alabama Extension. The number of live Zoom conferences exploded. During one week in March 2020, Auburn hosted 13,690 videoconferences reaching 156,010 people.

Alabama 4-H has seen a 106% increase in membership in the past five years, currently at 161,937. Volunteerism is up 205%, and the number of 4-H clubs has grown 96%.

Fire Ants in Alabama cause \$257 million annually in damages and health care costs. Nearly 1,000 homeowners learned how to use just \$15 of Fire Ant bait to control the pest in their yards.

1,400 producers enrolled in the **online Beef Basics** course. Each producer estimated the course helped them save \$90 per head of cattle.

Food insecurity – Extension offered training to 281 volunteers who led community gardening activities. The harvest from these gardens was the equivalent of the daily fruit and vegetable recommendation for 25,600 people.

From Azaleas to zucchinis, Alabama Extension is the first source of learning for home gardeners and industry professionals in the **\$570 million horticulture industry**.

The **Staying Connected Initiative for Incarcerated Fathers** helps fathers maintain or develop a relationship with their children, and improve child well-being. Fathers participating improved their communications, involvement and positive co-parenting practices.

Thirty-four **SNAP-Ed** educators provided nutrition education to 31,634 individuals. Working with communities, the group facilitated 182 unique policy changes to make it easier for people with limited resources to choose healthy foods and a physically active lifestyle.

2021 Report from Oklahoma State University, Division of Agricultural Sciences and Natural Resources, Thomas G. Coon, Vice President

1. Faculty, staff and students responded remarkably well to the challenges of the COVID pandemic, pivoting to online and hybrid instruction for courses, adopting web-based meetings and instruction for OSU Extension programs, and continuation of critical research projects under CDC guidance for safe practices. Enrollment has held steady, Extension programming has reached new audiences, and grant submissions and awards have increased since the onset of the pandemic in 2020.
2. OSU was ranked #2 in the US and #10 in the world by the Times Higher Education ranking of institution effectiveness in addressing the UN Sustainable Development Goal of Ending Hunger by 2030. Over all 17 goals, OSU was ranked #8 in the US and #85 in the world.
3. The project to equip the Division with a new building to replace Agricultural Hall has continued on schedule. Fundraising has reached \$45 million towards the \$50 million goal; groundbreaking occurred on April 23; and site preparation continues with demolition, civil engineering progress, utilities, etc.
4. A new Animal Nutrition and Physiology Center opened in January, providing state of the art facilities for research on nutrition and physiology of livestock species and aquatic species.
5. A new Dairy Visitors Center opened in Fall, 2020 at the Ferguson Family Dairy Center, featuring robotic milkers, curricular materials for Ag in the Classroom teachers, and self-guided tour materials.
6. Dr. Keith Owens retired as Assoc. VP for AES; Dr. Scott Senseman begins as new Assoc. VP as of August 1, 2021
7. New department heads: Dr. Cheryl DeVuyst, Agricultural Economics; Dr. Justin Quetone Moss, Horticulture & Landscape Architecture; Dr. Mari Chinn, Biosystems and Agricultural Engineering. Dr. Phil Mulder retired as Department Head of Entomology and Plant Pathology, and a search is underway for a new department head.
8. The Ferguson College of Agriculture is initiating a new undergraduate major in Agricultural Systems Technology, offered from the BAE department. OSU's Joint Degree in Agribusiness Management with China Agricultural University has graduated more than 190 students since the first class graduated in 2017. A fully online BS Degree in Agricultural Leadership is now offered by the college and a new online MS in Agricultural Education has been approved to begin in 2022.
9. State funding for OSU Extension and OSU Ag Research was cut 4.25% for FY2021, resulting in further position consolidation but without layoffs. Funding for FY2022 was approved with a slight (1%) increase for these two state agencies.
10. Diversity, Equity and Inclusion efforts include OSU Extension engagement with Langston University faculty and College of the Muscogee Nation faculty in the Southern Region/1890 Region program, Coming Together for Racial Understanding; faculty success in awards of grants from the USDA New Beginnings Program to support tribal students with interests in agriculture and natural resource careers; Associate Dean Cynda Clary providing leadership for one of the core teams in OSU's Diversity and Inclusion Task Force, with recommendations to strengthen OSU's effectiveness through diversity and inclusion.

Mississippi State University
Division of Agriculture, Forestry & Veterinary Medicine Update

July 19, 2021

Division Leadership

Keith Coble, William L. Giles Distinguished Professor of the Department of Agricultural Economics, began his tenure as Vice President for the Division of Agriculture, Forestry, and Veterinary Medicine (DAFVM) in February. Coble has also served as a special assistant to the vice president for DAFVM. His accomplishments include the Lifetime Achievement Award from the Southern Agricultural Economics Association and he has served as the past president of the Agricultural and Applied Economics Association. He also worked for the U.S. Senate Agriculture, Nutrition and Forestry Committee during 2013 and 2014.

More recently, Ashli Brown, a tenured professor in Biochemistry, Molecular Biology, Entomology, and Plant Pathology, has been named associate vice president of DAFVM. Brown has served since 2013 as Mississippi's State Chemist and, since January 2021, as interim head of MSU's Department of Food Science, Nutrition, and Health Promotion. Much of Brown's research focuses on using analytical techniques to improve conservation efforts, food safety, and regulatory science. While at MSU, she has obtained over \$10 million in funding from federal, state, and industry sources to develop and support a research group, as well as help fund the mission of the Mississippi State Chemical Laboratory.

Two searches are underway for Dean/Director and Professor, College of Agriculture and Life Sciences/Mississippi Agricultural and Forestry Experiment Station and for Dean/Director and Professor, College of Forest Resources/Forest and Wildlife Research Center. These positions are to close in the fall.

COVID Response

Our teaching faculty continued to adapt to the needs of our students during the pandemic. We finished out the spring semester with a mixture of in-person and virtual formats. We are currently strongly encouraging vaccination as we prepare to return to a traditional fall semester. Our Extension Service has returned to a more normal schedule, but also clientele are now comfortable with educational programs delivered through technology. Our DAFVM units finished fiscal year 2021 with more than \$97 million in grants and contracts. This is the second-highest total in history.

College Enrollment and Instruction

Enrollment in the three colleges of DAFVM continued to increase. Our fall 2020 enrollment includes 2,609 in the College of Agriculture and Life Sciences, 609 in the College of Forest Resources, and 498 in the College of Veterinary Medicine - about a 4% increase over last year.

New Construction

In October, we moved into our new Poultry Science building. This is the third of three buildings completed in the last two years in an Animal Science Complex consisting of an Animal and Dairy Science building, a Muscle Biology building, and a Poultry Science facility. This

construction was funded with State Bond funding. Present construction includes a new modern Forestry Greenhouse and an aviary for our Wildlife, Fisheries, and Aquaculture Department. We are about to begin remodeling Ballew Hall for a CALS/MAFES administrative building and Dorman Hall for Plant and Soil Science.

State Funding

The MS Legislature restored the cuts from the previous year, which averages a little more than a 2.43% increase. Tax revenue for the state this fiscal year continues to be significantly higher than last year. Merit-based pay raises averaging 2.5% were provided to faculty this new fiscal year.

High-Level NC State CALS Highlights for 2020-2021

Research

- \$98M competitive research, 1131 publications, patents: disclosed/filed/issued 76/64/32
- New partnerships w/ SAS, Microsoft, & Novo Nordisk Foundation
- NSF STC funded program with engineering (first at NC State)
- NC Plant Sciences Initiative (PSI) ROI = \$122M/18 months, 6 colleges/79 faculty engaged
 - o NC PSI Building (\$160.2M) opens April 12, 2022
- \$11 M NC Food Innovation Lab–GMP facility fully operationally in Kannapolis
- \$4 M NCSU Bee Building in this year’s budget

Extension

- Second largest network in the U.S., significant ROI and statewide impacts
- Remarkable response and engagement during the pandemic
- Dr. Richard Bonanno appointed to new 5-year term
- New partnership with IR-4 (will bring \$10+M/year in research/outreach \$ support)

Academic Programs

- Student numbers
 - o 3% growth in undergraduate students to >2600
 - o 5% decrease in graduate students to 977
 - o 30% decrease in 2-year AGI program, due to COVID-19
- >\$5 M FFAR grant to support graduate student leadership
- \$1M grant from Golden Leaf Foundation to support recruitment for 2-year AGI program

Advancement

- \$43M total funding, will near \$475M in capital campaign (~ 25% of NCSU campaign total)

Diversity and Inclusion

- Significant new efforts during pandemic, (national racial challenges, presidential election)
- Significant increases in women, black, Hispanic, and Asian faculty (past 5 years)

Human Resources and Communication

- Incredible effort and impact for our faculty, staff, and students during the pandemic

Strategic Planning

- College process begun and will be completed April 2022

**College of Agriculture, Forestry and Life Sciences
Clemson University**

Clemson/USDA unite to educate students to tackle critical global ag factors – Thanks to a grant from the United States Department of Agriculture National Institute of Food and Agriculture (USDA-NIFA), Clemson University students will learn how sustainable agriculture practices can sustain today’s food demand without risking the resources needed for future generations. The grant was awarded to a team of researchers led by Juan Carlos Melgar, an associate professor of pomology in the College of Agriculture, Forestry and Life Sciences and funds the project, FLORECE!: Future Leaders Obtaining Research and Extension Career Experiences. Through this project, undergraduate students will learn how to become globally-engaged professionals with world-class research and Cooperative Extension Service skills that allow them to identify critical factors that impact the sustainability of agricultural systems.

Clemson research seeks to make industrial hemp more profitable for South Carolina farmers – More South Carolina farmers are applying for permits to grow industrial hemp and Clemson University researchers believe applying best management practices can result in higher quality and increase profits. One variety developed was “Hurricane Hemp – Florence,” developed after Hurricane Florence leveled much of the hemp crop in 2018 and farmers lost about 15% to 20% of their yields. Lines that were being planted weren’t bred for South Carolina blew down. After this happened, researchers with Arrowhead Seed Company went to the drawing board with their breeders and came up with this cultivar. A massive stalk system and massive root system give Hurricane Hemp – Florence stability and make it suitable for growing in South Carolina. Additional research on new cultivars focuses on cultural practices, yields, traits and active phytochemicals.

Clemson Extension launches author series aimed at improving food literacy for SC youth – Continuing its quest to give young people around South Carolina a better understanding of the food they eat, Clemson Extension has teamed up with *South Carolina Farm to School* to launch a series of virtual events this summer to introduce educators to books that will help students do just that. Geared to school and community gardeners, educators, librarians, Master Gardener volunteers or really anyone who works with youth, gardening and nutrition, the Readers to Eaters Food Literacy Summer Author Series aims to get more young people around South Carolina involved in growing and eating fresh fruits and vegetables and reading great books, Clemson Extension’s Statewide School and Community Gardening Coordinator Amy Dabbs said.

Clemson University and the University of Glasgow partner on veterinary degrees – the partnership began several years ago to help animal and veterinary science students complete their bachelor’s degrees and, in some cases, receive a Bachelor of Veterinary Medicine and Surgery (BVMS) degree, which is the equivalent of a Doctor of Veterinary Medicine (DVM) in the United States. The program is FEEPASS, or Facilitated Early Entry Program of Animal Science Students. The first Clemson student to participate in the program, Lindsay Rodenkirchen, from Timmonsville, South Carolina, graduated with a BVMS this year (June 2021).

Clemson researcher developing new line of wheat to withstand Southeast growing conditions – Year-to-year weather variability is creating challenges for wheat growers, and Clemson University researcher

Rick Boyles is working to determine how to develop new wheat lines that can withstand environmental changes and produce under tough conditions. Boyles will leverage a deep base and wide range of elite wheat genetics through the Southeastern University Small Grains Cooperative Breeding Program (SunGrains). Clemson formally rejoined this cohort of land-grant research universities in September 2020. SunGrains allows for the distribution and open sharing of genetic materials, or germplasm, researchers can use to breed for new and improved lines of small grain cultivars.

New book highlights the science of managing sports fields – Sports fields across the Carolinas are said to be some of the finest in the world and information found in a book written by turfgrass experts from Clemson University and North Carolina State University can help keep these fields in excellent shape. *Best Management Practices for Carolina Sports Fields* was written by Clemson professor and turfgrass master Bert McCarty and North Carolina State University professor Grady Miller. In this book, McCarty and Miller provide information related to designing sports fields, construction and installation of sports fields, agronomic practices to maintain the fields, and integrated pest management strategies including safe and effective use of pest control products. Although the name states “Carolina,” the information is applicable worldwide.

Clemson Extension diabetes education program goes virtual – Clemson University has expanded its Health Extension for Diabetes program to include virtual education sessions accessible by anyone from anywhere. *Know Diabetes By Heart* are free, 1-hour online educational sessions designed and hosted by the Clemson Rural Health and Nutrition Extension Program team and sponsored by the American Diabetes Association (ADA) and American Heart Association. Faculty and doctoral students in Clemson’s Department of Public Health Sciences provide research evaluation support for the program. These hour-long sessions help participants better understand the link between diabetes and heart disease and learn more about risks associated with the medical conditions. The sessions also connect participants with community and clinical resources needed to help control these risks.



PRAIRIE VIEW
A&M UNIVERSITY

College of Agriculture and Human Sciences: 2020-21 Highlights

- **Healthy Houston Initiative (HHI):** Launched in Fall 2020 and led by PV Cooperative Extension, HHI is a partnership of the Texas A&M University System, PVAMU, and Mayor Turner's Complete Communities Initiative (CCI) with the goal of improving nutrition and health disparities through a holistic healthy lifestyle approach. It uses a portfolio of educational, healthcare assessment, and outreach programs centered around food and nutrition to promote healthy lifestyles in selected inner-city communities (<https://www.pvamu.edu/cahs/healthy-houston/>).
- **Texas Rural Workforce Academy (TRWA):** Following recent weather disasters and economic downturns, we launched a grant-funded pilot workforce rebuilding and recovery effort in selected rural counties through which industry experts train rural county residents through 4-8 week welding, electrical installer and service technician, core construction, and certified nursing assistant programs free of cost (<https://www.pvamu.edu/cahs/rural-workforce-academy/>).
- **Gov. Bill and Vara Daniel Farm & Ranch:** With almost \$10 million in recent construction and renovations made possible by NIFA capacity funding, this R&D farm has been transformed into a beacon of activity and discovery, laying the groundwork for even more transformative future growth and impact. Key facilities completed recently include a new Meat Lab which makes PV the only known LGU in the country to have the capability for a comprehensive goat research, breeding and outreach program, from genetics to processing and value-added including through a renovated goat dairy.
- **College Strategic Plan Implementation:** we undertook a bold and robust transformation of the College in all three mission areas (https://www.pvamu.edu/cahs/strategicplan_book_view/). In the academic area, these are reflected in enrollment and graduation records (despite the pandemic), faculty growth, record growth in scholarships, new courses and degree programs, and student experiential learning opportunities as well as academic success initiatives to facilitate timely graduation and career success, such as:
 - **New Curricula:** Proposed new degree programs include a BS and MS in Natural Resources & Environmental Sciences; MS in Nutritional Sciences; MS in Food Sustainability & Security; and we are also exploring a collaborative PhD program.
 - **Strategic Restructuring:** We transitioned from what was just one academic department to four departments (or "Programs") that better leverage College strengths and capabilities: Plant and Environmental Sciences, Animal and Veterinary Sciences, Nutrition and Food Security, and Human and Social Sciences. The goals are to provide a more cohesive structure, eliminate "silos," increase enrollment, and facilitate land grant mission integration (in this case research and teaching as with our aspirational peers).
 - **Legislative Internship Program:** launched at the suggestion of our Advisory Board to foster student placement for internships with elected representatives as well as the Texas Department of Agriculture (TDA). The goals are to increase the breadth and depth of internship opportunities available to students and expose them to policy, regulatory and legislative areas that they otherwise may not be familiar with or consider and, indirectly, as one component to help us get the state match (<https://www.pvamu.edu/cahs/pvamu-legislative-internship-program/>).
 - **Agro Innovation Technology Center:** to better integrate science and technology, create platforms for enterprise resource management, and artificial intelligence applications and tools (<https://aitc.pvamu.edu/>).

More details on these and other initiatives are available through the College website:
<https://www.pvamu.edu/cahs/>

Southern Academic Heads Section

University of Florida, IFAS, Report

J. Scott Angle, jangle@ufl.edu

“A few high-profile projects and issues”

Artificial Intelligence – AI is the vehicle by which the University of Florida has chosen to move into the top 5 of public universities (currently # 6, US World and News Report). This past legislative session appropriated funds for UF to hire 100 new faculty in AI, with 16 in the College of Agricultural and Life Sciences. Hiring is currently underway across almost all agriculture and natural resource disciplines. Focal areas are AI-assisted breeding, robotics and resource management (especially ecosystem services).

Climate-smart agriculture—UF/IFAS is partnering with Solutions from the Land in facilitating a producer-led conversation on how to promote and incentivize climate-smart practices and technologies in agriculture. The farmers, ranchers and foresters came to a consensus that they would like UF to focus some of its AI work on quantifying through sensing technologies the ecosystem services delivered by agriculture. UF/IFAS is hosting a field day in July to demonstrate emerging applications of AI to commodity leaders and government officials. The group is also in contact with legislators interested in carrying implementing legislation to incentivize agriculture’s delivery of ecosystem services.

Hiring - Prior to my arrival at UF and for about 3 months after that time, UF/IFAS was in a soft hiring freeze. In November, I released 27 new hires at the faculty level. Positions were competitively released for Departments and Research and Education Centers.

Earmarks - Our federal earmark request was successful this year, with a single project being funded at a 4-H camp. There was literally a small handful of funded projects nationwide. Were projects not submitted or were submissions not successful? Land-grants need to be more aggressive.

Inclusion, Diversity, Equity and Access (IDEA) - Each UF/IFAS entity was asked to develop an IDEA plan for internal implementation. We are standing up 54 individual plans, some stronger than others. Many creative plans already show success. We plan to review what worked/did not work in December with adoption of best practices the first of the new year.

The Budget – We have about a 3% budget increase for the current year. Like most states, this is a dramatic turnaround from six months earlier where I was socializing the notion of furloughs for faculty and staff. Faculty and staff will receive a 3% salary increase this year. Funding is provided (for the most part) centrally by the provost’s office. This was a decision made directly by the president even though the legislature nor the Board of Governors recommended an increase.

Facilities – UF/IFAS facilities are not in good shape. Significant funding is needed for renovation. Florida does not have an appropriate funding mechanism for renovation, replacement or new building. Each unit is left to its own. UF/IFAS 4-H camps are in especially terrible shape. Decades old, lack of maintenance during COVID-19 and overall neglect have rendered our three camps almost unsuitable for use. There is no word yet on UF federal funding dedicated to facilities. Anything will help!

Experiential learning—UF/IFAS has launched a fund-raising initiative aimed at supporting the expansion of experiential learning opportunities for undergraduates, such as internships, research, study abroad and attendance at professional conferences and symposia. The aim is to guarantee each UF/IFAS CALS undergraduate an opportunity to have at least one meaningful beyond-the-classroom experience and remove financial barriers to pursuit of those opportunities.

Partnership with medicine—While UF/IFAS has long collaborated with UF Health, we are in my opinion entering a new phase with the rollout of a partnership that will make 13 rural county Extension offices sites for telemedicine. If successful the program will expand to many more counties and serve as the foundation for future partnerships between Extension and medicine. It has the potential to expand the entire university's notion of Extension beyond the too common misperception that it is only for agriculture.

Plant breeding—As noted above, AI is contributing to what is already one of the most active and innovative university-based plant breeding programs in the world. (27 breeders working on more than 50 crops). We are hiring additional faculty, sharing our work more widely through a dynamic website redesign and launching a plant breeding Ph.D. program this fall.

AHS representation - I will be the AHS representative for the next year. I look forward to representing you at our future APLU meetings.

LSU College of Agriculture Update:

2021 Student Enrollment:
1480 Undergraduate
328 Graduate

Strategic Plan 2025:

The final College of Agriculture Strategic Plan 2025 was released in early 2021. The next step will be the creation of an annual report that will be released this summer with an additional update meeting with stakeholders.

Recruitment: -270 Deposits for Fall 2021

Ag Mentoring Program: Over 60 mentor and mentee pairings were organized through the new fall/spring career development course. Due to the success of the course, it has officially been added to the catalog to be taught each fall/spring.

Retention & Development Focus:

- **Peer Mentors:** A team of 28 undergraduate students were selected to serve as Peer Mentors for the fall with the AGRI 1001 course.
- **Les Voyageurs:** A team of 20 undergraduate students were selected to serve as Les Voyageurs for the fall semester.
- **Ag Law Course-**The Ag Law course will be offered this fall and will be taught on both the LSU and Southern campuses. One law school student from LSU and Southern will be selected to assist with the course.
- **Undergraduate Research Course-**New for the fall, a course focused on preparing students for undergraduate research opportunities will feature a culminating project of a research proposal.

Highlights

Diversity, Equity, and Inclusion: Intentional and meaningful focus on diversity, equity and inclusion efforts with key hires and initiatives put into place, including AVP of Diversity, Inclusion, and Opportunity, established a Diversity Council, Diversity Ph.D. Graduate Assistantships and the creation of the Diversity & Inclusion Champions: https://lsu.edu/agriculture/diversity_inclusion/commitment.php

The Stately Oak is the culmination of LSU AgCenter and College of Agriculture philanthropy, alumni relations and outreach. This is the third issue of the Stately Oak and highlights donors, alumni, students and faculty. In this edition, you can learn more about our capital campaign priorities and our plans to build a strong future for Louisiana through innovative agricultural solutions. With a faculty driven by passion, a student body ready to transform agriculture in the South and beyond,

strong industry partnerships and the unwavering support of our alumni and donors. <https://www.lsu.edu/agriculture/invest/statelyoak2020/stately-oak-2020.php>

Virtual Food Symposium with Mendel University (Czech Republic) was conducted simultaneously. The joint food symposium focused on the regional food supply during COVID-19. Students, teachers and researchers interested in food science, nutrition, food technology, super foods and micronutrients, food microbiology, food safety, food systems, food waste, food entrepreneurship, economics and regional development participated. About 450 people took part in the event, including faculty, staff, students and alumni of the two universities; participants from Southern University and LSU's Pennington Biomedical Research Center; and business partners.

Intellectual Property

Our scientists continue to bring innovative discoveries to the world marketplace through the Office of Intellectual Property. To date in the current fiscal year, we have garnered \$7.3 million in royalties, had ten patents and eleven plant variety protection certificates issue, filed 14 patents, and entered into 4 new license agreements. 18 new companies have been started since office inception based on our licensing technology. Our intellectual property truly contributes around the world. Royalties from these companies and from other licensing agreements have generated over to \$85 million since 1999.

LSU AgCenter is now in the second year of a seven-year agreement for the development of advanced germplasm funded through a combination of sponsored research and charitable donations. These funds support the **LSU AgCenter Center for Crop Development and Biotechnology**. This prestigious Center will serve the needs of our faculty and research associates, increase competitiveness for external grants, and help to develop next generation agricultural technologies.

Our Research Targets:

- **nanoparticle delivery** systems and tracing systems
- improved rice, sweet potato and sugarcane **varieties**
- **embryology**/health survival of embryo
- **epigenetic** factors influencing phenotype of agricultural species
- **invasive species**/Roseau cane, salvinia, feral hogs
- sustainability/agricultural inputs – **digital ag and big data**
- **biological** disruptors as pesticides

Philanthropy

Currently there has been \$16.2M raised toward the \$29M campaign goal for the College of Agriculture and LSU AgCenter.

- In the fiscal year to date, the Bengal cohort has executed over 1,100 meaningful moves for managed prospects and conducted 650 face-to-face, zoom and phone visits, with 51 new major gift solicitations.

- Proposal activity is nearly double FY20 performance by all officers in the Bengals cohort.

- Development officers within the Bengals cohort presented over \$17M in solicitations in FY21.

The LSU AgCenter and College are always seeking opportunities to develop **public/private partnerships**. These partnerships enhance and extend our current programs:

- **The Arlene and Joseph Meraux** Foundation has been a tremendous partner to the LSU AgCenter this year by funding a \$320,000 professorship to support Citrus Research, which will be matched by the Louisiana Board of Regents creating a \$400,000 professorship.

- **Loveland Product Inc.**, an affiliate of Nutrien, continued their support with another \$500,000 gift to support the H. Rouse Caffey Rice Research Station for the development of advanced rice inbred lines, hybrid lines, parent lines, genetic marker development, and determination and development of advanced agronomic traits such as disease resistance, herbicide tolerance and yield enhancement.

- **The Rice Research Board** continued additional support of their Rice Research Chair of Excellence by contributing an additional \$500,000 totaling the giving to their chair at \$3,000,000 creating the largest chair in the college and AgCenter.

- The LSU AgCenter is in year 3 of a 4 year \$1.4 million grant from the **Patrick F. Taylor Foundation**. The project researches reducing nutrient runoff from crop fields.

Food Innovation Institute (FOODii) assists new and existing food companies with safety, testing, packaging and marketing. The bottling line has been fully implemented and can process 25,000 units per day. The Louisiana Legislature approved \$2 million in funding to begin phase 2 of FOODii, to grow the facility to 19,126 Sq. Ft. FOODii embraces the concept of “food for the future,” which includes advances such as:

- **3D printing of food**

- **Alternative sources of food and protein**

- **Cellular production of meat and seafood**

<https://www.LSUAgCenter.com/FOODii>

Covid-19 and Virtual Information Delivery

- Due to Covid-19 the majority of **College courses** moved to an online format for the 2020-21 academic year. As a result, we are prepared to teach F2F, online or a hybrid combination for the Fall 2021 semester.
- Because of restricted travel for **international exchanges**, our global network retooled two large programs to go virtual. These were the LSU AgCenter/Mendel University Food Symposium (Czech Republic) and an 8-week Ag Extension Certification course for Zamorano University (Honduras) students.
- **4-H** created a daily virtual recess for young students. Hundreds of 4-H’ers across the state competed and congregated online for a virtual 4-H University.
- More than 12 **virtual field days** were developed. Instead of driving trailers full of producers around a field of test plots, the AgCenter experts created videos and articles. This format allowed presenters to include images and graphics in their talks that added to the content and reached a larger, broader audience and can be seen at any time. <https://www.lsuagcenter.com/profiles/tblanchard/articles/page1593195537388>
- **Online gardening course reaches more than 35,000.** The agents decided to offer a 10-week online series of classes at no charge. This was a way to address increased number of telephone calls and emails as people started gardens as a result of staying home during the pandemic. <https://www.lsuagcenter.com/profiles/rbogren/articles/page1596479977987>
- **Fast answers for how to live safely.** Food safety specialists created fact sheets, posters and videos to help the community respond to public health concerns. Through sharing these on social media, AgCenter websites and targeted emails, the materials were seen by tens of thousands of Louisiana residents and beyond.

Many of the virtual forms of outreach that became crucial during the pandemic will likely supplement traditional educational forms in the future. Whatever the future holds, the agents, researchers and support employees of the AgCenter can continue fulfilling the organization’s mission.

Respectfully submitted:

William B. Richardson, LSU Vice President for Agriculture and Chalkley Family Endowed Chair, LSU AgCenter
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Langston University
School of Agriculture and Applied Sciences

LU-SAAS Institutional Update - Southern Administrative Heads Section Meeting, 2021

Cooperative Extension Program

- **The 35th Langston University Goat and Hair Sheep Field Days and Conference were held virtually between May 1-June 5, 2021.** The format was creatively structured and combined a series of (4) Saturdays, (1) Thursday, and (1) Friday over six weeks to allow participants to maximize participation and gain as much enriching knowledge as possible. Each segment ran for 2-4-hours via zoom. This year's theme was "Goat and Lamb Cookery and More." The conference was highly successful and showcased the intricate connection between goat and lamb production, marketing, and consumption. (Dr. Gipson, Senior Research Scientist, and Extension Program Leader chaired the planning committee).
- **Summit of Oklahoma Black Towns Mayors' will be held on Tuesday, August 31, 2021.** The LU-CEOP team will host the black mayors' summit on Tuesday, August 31st at Langston University. The goal for the mayors' summit is for LU-SAAS to build on continuing efforts to strengthen the connectivity between the respective Oklahoma towns and Langston University Land-Grant program offerings (academic, research, extension).
- **LU-CEOP Sustainable Gardening School and Beginner Farmers and Ranchers Program**—Started on May 26 - July 14. This is an 8-week in-person classroom and on-farm instruction training for new and beginning farmers interested in business gardening/farming. The course is provided by Langston University Extension and OSU Extension. Classes will be held in several counties and will be led by Mr. James Arati and Mr. Micah Anderson.

Research Program

- At the Langston University American Institute for Goat Research (LU-AIGR), 17 separate active research projects are ongoing for the 2021 summer months. Importantly, new research and related extension concepts have recently been introduced to AIGR that are seeking to improve connectivity with markets, consumers, and small producers. Management Practices for Production of Goats in The South-Central U.S. (Examples of projects are as follows):
 - "Relationships Between the Microbiome and Internal Parasitism in Goats."
 - "Genomics of Resilience in Sheep to Climatic Stressors."
 - "Sustainable Control of Greenhouse Gas Emission by Ruminant Livestock."
 - "Combating Anthelmintic Resistant Parasitic Nematodes in The Small Ruminant Industry."
 - "LINC 2.0 – Enhanced Goat Research and Educational Tool."
 - "Effects Of Nutritional Plane Before Breeding and During Gestation on Performance of Hair Sheep."
 - "Measuring Ruminant Methane Emission and Heat Energy of Small Ruminants with a Portable Calorimetry System."
 - "Characterizing The Behavior of Sheep for Enhanced Grazing Strategies in Algeria."
 - "Targeted Research and Extension Interventions for Enhanced Goat Production in Jamaica."
- **Construction of LU-SAAS's new state-of-the-art Horticulture Research and Extension Center** began in June 2021 and will be completed in summer 2022. The new facility will build new dimensions and broaden Langston's capacity in high technology plant-based related research and extension activities.
- **Through the funding of four proposals, Langston University receives \$1.80 million** in the recent USDA-NIFA 1890 Institution Capacity Building Grant Program, 2021.

Academic Program

- **Langston's School of Agriculture and Applied Sciences' Letter of Intent** to introduce a Master of Science program in the Department of Agriculture and Natural Resources received approval from the Oklahoma Board of Regents. The curriculum application package will now be submitted to the Oklahoma State Regents for Higher Education.
- For the second year of the **Langston University 1890 Land-Grant Scholarship Program**, Langston University has awarded 24 new Scholarships to incoming 2021-2022 matriculating freshmen. These scholarships are in addition to the 2020-2021 Scholars who will maintain their scholarship for the second year because of their outstanding performances during their first year at Langston.

Tennessee State University
College of Agriculture
Dr. Chandra Reddy, Dean

On top of the challenges present by COVID-19, TSU agriculture is still rebuilding from a tornado that essentially leveled our farm in the spring of 2020. Despite these hardships, our college is growing and remains very productive.

Academics:

- 81 B.S. and 18 M.S. degrees were awarded last year.
- Undergraduate enrollment in the Department of Agricultural Sciences increased by 11%
- Two new degree programs were approved, a M.S. in Food and Animal Science and a M.S. in Environmental Sciences.
- A Ph. D. degree in Agricultural Sciences is expected to be in place for fall of 2022.

Outputs:

- Published 132 articles in peer-reviewed journals. Of these articles, 61 had students as senior author, 20 included students as junior authors, and 51 were faculty publications.
- 186 presentations at professional meetings, of which 88 were made by student presenters and 98 by faculty presenters.
- Published 73 Extension, outreach, or popular press articles.
- Obtained 68 competitive (non-formula) grants totaling \$20,288,344.

Research Highlights:

- Identification of new anti-viral omega interferon molecules with 100 to 1,000 times greater activity than the conventional interferon alpha type. These new interferon molecules are now being released for use in research applications and a process has been initiated for animal tests and antiviral development.
- Innovative techniques for vegetable production for urban dwellers
- New \$6M SCRI grant to address insects in nursery, nut, and fruit production
- Identification of new methods to reduce toxins that are resistant to normal pasteurization techniques
- Development of environmentally friendly microorganisms to control diseases in food crops

Extension Highlights:

- Tennessee (TSU) New Farmer Academy
- Outreach and assistance for socially disadvantaged, minority, women and limited farmers
- TSU Annual Small Farms Expo and Small Farmer Recognition program
- Educational outreach for incarcerated youth and adults
- Plant Nutrition deficiency digital diagnosis global outreach education
- Biofuels, bioenergy and bio-char research and education program
- TSU Extension Hemp research and education program
- Extension outreach to teach food safety, food handling and food safety regulations
- TSU Supplementary Nutrition Assistance Education Program Outreach and Assistance for Socially Disadvantage, Minority, Women and Limited Farmers

CAES: College of Agricultural and Environmental Sciences, UGA

As of June 2021, CAES employs 2,634 individuals across the state of Georgia in tenure- and non-tenure track faculty, postdoctoral, and staff positions. CAES has led a number of nationwide searches to fill leadership positions within the College during FY21, including the successful appointment of Dr. Manpreet Singh to lead the Department of Food Science and Technology, Dr. Jennifer Waldeck to lead the Department of Agricultural Leadership, Education and Communication and Cassie Ann Kiggen to lead the CAES Office of Marketing and Communications. CAES is in the process of identifying individuals for the following leadership positions: Director and Assistant Provost of UGA Griffin, Department Head of Crop and Soil Sciences, Department Head of Agricultural and Applied Economics and Senior Director of Finance and Administration.

CAES has a projected undergraduate enrollment of 1,450 and a projected graduate enrollment of 650 across our nine academic departments for fall 2021. In FY21, CAES provided nearly \$830,000 in scholarship funding for students at the college and department level, including \$43,000 to support undergraduate research efforts. Additionally, in AY20:

- 92% of CAES graduates confirmed employment or graduate school in Fall 2020
- 20% increase in undergraduate credit hours from FY17 to FY20
- 29% increase in graduate credit hours from FY17 to FY20

During the COVID-19 pandemic, UGA Extension saw a 66% increase in digital media distribution and a 27% increase in publication downloads as communities sought resources and information on a variety of topics. From 2019-20, our Agriculture and Natural Resources Extension Agents completed nearly 35,000 on-site consults with producers. From March 1 to December 31, 2020, UGA Extension reached over 1.7 million Georgians through outreach programs.

CAES is currently fundraising for a \$54.1 million public-private partnership to build our new Poultry Science Building; our no.1 ranked poultry science program will soon be housed in a 70,000+ square foot facility with modern instructional and laboratory space. CAES also recently received \$5 million in public funds to start construction on a multidisciplinary greenhouse complex, which will advance our efforts in controlled environment agriculture projects such as hydroponics and aeroponics.

Our research efforts, including projects to mitigate and treat traumatic brain injury and continued success in plant patenting have potential to create meaningful change in agriculture and beyond. In FY21, CAES secured 24 IP protections including plant patents, utility patents for plants, and certificates nationally and internationally.

UGA is ranked as a top 25 university in the world for precision agriculture according to *Precision Ag*. UGA's IPA researchers in CAES are working closely with Georgia's producers to provide solutions to the agricultural challenges faced across our state. We are partnering with other colleges at UGA to determine the feasibility of efforts involving GPS systems and wireless soil moisture sensing systems. To support these efforts, UGA has committed to a cluster hire of five critical positions in IPA.

CAES faculty, staff, students, donors and friends have achieved a number of significant goals in the last year. CAES ranked second on the 2021 list of best colleges for agricultural sciences in the United States based on U.S. Department of Education data, up one spot from last year's rankings. Donors raised a total of \$14,939,461 for college priorities, making FY21 one of our most successful private fundraising years to date.

UT Institute of Agriculture Highlights

Southern Administrative Heads Section Meeting

July 30 – August 1, 2021

- 1) State support for FY22 has been strong, with a 1% salary bonus paid in May of 2021, and a 4% merit pool distributed on July 1, 2021. In addition, UT Extension received a recurring increase of \$2.1 million to hire 32 additional Extension agents in rural and distressed counties. Minimum wage was increased to \$13/hour for full-time employees.
- 2) Leadership changes include the appointment of Dr. Ashley Stokes as Dean of UT Extension, and our Chief Business Officer, Mr. Tim Fawver, retired in March. Dr. Rob Williams began serving as Department Head of Food Science in January, joining the Institute from Virginia Tech, and Dr. Janet Fox joined our Family and Consumer Sciences program as Assistant Dean for UT Extension, joining the Institute from Louisiana State University. Hollie Schrieber, Oklahoma State, is our new Sponsored Programs Director.
- 3) The [UT OneHealth Initiative](#) was launched in 2020, and is being led by Dr. Deb Miller who is a joint faculty member of Veterinary Medicine and Forestry, Wildlife and Fisheries. Partners include UT AgResearch, UT Extension, College of Veterinary Medicine, UT Knoxville Office of Research, and Oak Ridge National Laboratory. Seed grants totaling \$460,000 were awarded in spring, 2021.
- 4) Two major [capital outlay projects](#) are underway.
 - a) College of Veterinary Medicine Teaching and Learning Center addition, \$10 million. The new addition to the existing facility will add a large theater classroom and new simulation equipment to enhance student experiential learning.
 - b) Energy and Environmental Science Building, \$100 million. This new building will house Plant Sciences; Entomology and Plant Pathology; Forestry, Wildlife and Fisheries; the Smith Sustainable Agriculture International Center; and other programs and faculty. Expected completion is December 2023.
- 5) The Herbert College of Agriculture awarded an Honorary Doctorate degree to Mr. Bill Dance during the May, 2021 commencement ceremonies. Mr. Dance is a Tennessee native, is passionate about fisheries and conservation, and always wears a Power T Tennessee cap when he films his Bill Dance Outdoors fishing shows, which first aired in 1968 and continue today, 53 years later.
- 6) Cross will retire on August 31, 2021. An interim Sr. Vice President/Sr. Vice Chancellor is expected to be appointed in early August, and a search will be conducted for a continuing leader sometime in the fall.
- 7) Top budget priorities for FY23 include a \$50 million non-recurring request to improve infrastructure and equipment on campus and across our 10 AgResearch and Education Centers, and \$5 million in recurring support to address market gaps for faculty and staff salaries.

Southern Region Joint CARET/AHS Meeting

West Virginia State University

Institutional Update - Summer 2021 Meeting

July 30 – August 2, 2021

West Virginia State University is celebrating its 130th Anniversary through a year-long series of events. WVSU kicked off its year-long celebration through a day of giving on Founder's Day March 17th, which resulted in more than \$480,000 in donations. The 130th Anniversary celebrations will continue throughout the year at events like the West Virginia State Fair, the incoming Freshman welcome event, State Stride, Homecoming, and will culminate on founder's day March 17th, 2022.

WVSU is restructuring its area of Research and Public Service. In order to more fully integrate the Land-Grant Research and Extension programs into the fabric of the University, WVSU is reorganizing its Research and Public Service area by moving these functions to Academic Affairs. The long-term vision will be the establishment of a new College of Agriculture. For now, the Dean of Extension and Associate Dean for Research will report directly to the Provost. In place of the Research and Public Service, WVSU will create the new Research and Economic Development unit. This new unit will be developed and overseen by a Vice President. The Vice President will oversee the functions of the Office of Sponsored Programs, IRB, a newly created Office of Undergraduate Research, and IP/Tech transfer. Additionally, the Vice President will work to expand the capacity of the existing WVSU Economic Development Center to include innovation HUBS and Faculty start-ups.

West Virginia State University (WVSU) is expanding its educational opportunities in food, agriculture and natural resources with increased scholarship funding and additional degree opportunities for students interested in agricultural careers. Through the federally funded 1890 Scholarship Program, scholarships are available to eligible students majoring in the following programs at WVSU: (1) Bachelor of Science in Biology: Option in Plant-Soil Science; (2) Bachelor of Science in Chemistry: Option in Applied Chemistry; (3) Bachelor of Science in Business Administration: Concentration in Agribusiness; (4) Bachelor of Arts in Economics: Concentration in Agricultural Economics. WVSU began receiving scholarship funding last year, along with the nation's 18 other 1890 land-grant institutions.

Virginia Tech Updates for SRAHS-CARET Meeting (July 2021)

Academic Environment:

Applicant numbers for undergraduate admission were up significantly this year compared to last year at the university and college levels. Virginia Tech is planning for a fall 2021 semester in formats similar to pre-pandemic formats (i.e., face-to-face). Students are required to have COVID-19 vaccinations (waivers for medical and religious reasons), and employees are highly encouraged (not required) to have vaccinations. Those not vaccinated will be part of a COVID testing program.

Budget:

Virginia is currently in a budget surplus situation. Virginia Tech implemented a faculty/staff compensation program this year (average 5%). Virginia AES and Coop Extension budgets received increases in new funding (\$4M one-time and \$1M recurring) to support personnel, new technology and equipment, and IT infrastructure and maintenance, largely at off-campus sites.

The freeze on faculty/staff recruitment that was put in place in spring 2020 (except for those supported on non-general funds and for high priority/essential faculty and staff positions), ended in spring 2021, so many searches, including tenure-track faculty positions and extension agent positions, are underway with more to begin this fall.

New Centers:

Center for Advanced Innovation in Agriculture – the College of Agriculture and Life Sciences has launched a new Center for Advanced Innovation in Agriculture to focus on scientific discovery and the application of technology-driven innovative solutions for the agricultural challenges of tomorrow: <https://vtnews.vt.edu/articles/2021/01/cals-center-for-advanced-innovation-in-agriculture.html>

Controlled Environment Agriculture Innovation Center – a partnership between the College of Agriculture and Life Sciences and the Institute for Advanced Learning and Research in Danville, VA is creating a hub of innovation and economic development for the controlled environment ag industry: <https://vtnews.vt.edu/articles/2020/01/cals-ialr.html>

Center for Emerging, Zoonotic, and Arthropod-borne Pathogens – the College of Agriculture and Life Sciences is a partner with several colleges in a new center created in 2020 to tackle infectious diseases: <https://vtnews.vt.edu/articles/2020/07/07-17-20-Fralin-Life-Sci-Center-for-Infectious-Diseases.html>

New Facilities:

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 new facilities are: Large Animal Learning Center; Large Animal Metabolic Research Laboratory; and New Seafood Agricultural Research and Extension Center (Hampton, VA). In addition, a major State-funded capital project is underway for renovation and new construction of livestock and poultry facilities:

<https://vtnews.vt.edu/articles/2020/11/cals-new-facilities.html>

<https://vtnews.vt.edu/articles/2019/10/cals-seafoodarec.html>

Virginia State University
M. Ray McKinnie, Ph.D.
Dean and Extension Administrator

ADMINISTRATION

- Virginia State University (VSU) is planning for a full return to campus, as of August 2021. Classes will return to a predominant face-to-face instructional mode, twelve month faculty/staff returning to campus on July 12, 2021 and academic faculty returning on August 9th.
- Dr. Michelle M. Corley, Interim Chair – Dept. of Agriculture, was recently appointed Dean of the College of Engineering, Science, Technology, and Agriculture (CESTA) and Director of Land-Grant Programs at Central State University in Wilberforce, Ohio.
- 1890 Centers of Excellence were authorized and established per the 2018 Farm Bill. The centers are: Center for Innovative and Sustainable Small Farms, Ranches and Landowners (CISSFRL), Center of Excellence for International Engagement and Development (CEIED) and Center of Excellence to Motivate, Educate and Achievement (MEA). VSU-College of Agriculture is a sub-awardee participant in all three centers and has applied for Co-Leader roles in the CEIED and MEA centers and the newly established Center of Nutrition, Health and Wellness.

ACADEMIC PROGRAMS

- On Sunday, May 23, 2021, Virginia State University (VSU) conducted its first in-person graduation since December 2019. Spring-2020, Fall-2020 and Spring-2021 graduates were invited to participate, making it one of the larger graduations in recent history.
- During the 2020-2021 academic year, the College of Agriculture launched its “**1890 Scholarship Program**”, subsequently renamed the “VSU Food and Agri-Science Scholarship Program. Twenty-two full scholarships were established and seventeen new food and agricultural sciences scholars welcomed to the COA. As of Fall-2021, the scholarship program will have 25 full scholarship recipients (17 returning and 8 new scholars) and 15 one and two-year partial scholarship recipients. The program has positively impacted recruitment, retention and student/faculty engagement within the college.
- VSU and Virginia Tech are collaborating on the launch and instruction of an “Introduction to Cooperative Extension” academic course, Fall-2021.

AGRICULTURAL RESEARCH

- VSU-College of Agriculture has finalized all contractual agreements/construction documents for the initiation of construction on M. T. Carter Agricultural Station Annex. Construction is anticipated to take eighteen months at an approximate cost of \$10 million.
- Agricultural research has returned to full operation, with a full slate of research projects underway relative plant and soils, specialty crops, food science, technology and safety and small ruminants. .
- Agricultural researchers, **Yixiang Xu and Rafat Siddiqui**, are recipients of “VSU Outstanding Faculty Awards” for 2020-2021. Dr. Xu, received the “Outstanding Research/Scholarship Star Award and Dr. Siddiqui, the “Rising Star Award in Research/Scholarship”.

COOPERATIVE EXTENSION PROGRAM

- **Dr. Chantel Wilson** (4-H STEAM Specialist), recent award winner with National 4-H Council’s STEM Initiative Curriculum – “*Mars Base Camp*”, was awarded the “VSU Outstanding Faculty Awards” for 2020-2021 – Rising Star Award for Teaching, Research/Scholarship and Service”.
- **Dr. Leonard Githinji**, Urban and Sustainable Agriculture Specialist, was awarded a 2020 Capacity Building Grant (CBG) “Optimized micro-farms as a potential solution to food insecurity in urban neighborhoods”, which will utilize a “Crop Box” to produce micro-greens.
- **VSU Mobile Processing Unit** and **Mobile Education Unit** are nearing completion and the start-up of operation in Fall-2021. The mobile education unit will be displayed as a part of Virginia’s showcase for the 2021 Ag Expo at Moultrie, GA in October 2021.