

2019

# DAFVM

## *Annual Report*



*Division of Agriculture, Forestry, and Veterinary Medicine*

MISSISSIPPI STATE UNIVERSITY



## VICE PRESIDENT'S LETTER

Administrators, faculty, staff, and students in the Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine (DAFVM) continue to conduct research, deliver science-based educational outreach across the state, and train future leaders.

**I**N 2019, DAFVM HELPED OFFER DISASTER RELIEF, CELEBRATED PROGRESS, AND ADAPTED TO CHANGE TO DELIVER INNOVATIVE, RELEVANT, NEEDS-BASED SOLUTIONS TO MISSISSIPPIANS IN EVERY WALK OF LIFE.

Our work to train Mississippi's agricultural workforce of tomorrow continues in the Colleges of Agriculture and Life Sciences, Forest Resources, and Veterinary Medicine. More than 400 undergraduate students completed their bachelor's degrees in May, and almost 200 graduate and professional degrees were awarded. Our colleges continue to increase in applications, enrollment, and degrees awarded.

As 2019 unfolded, devastating tornadoes hit several Mississippi communities, unprecedented flooding damaged properties in the Delta, and the flood of fresh water into the Mississippi Gulf altered marine ecosystems. However, DAFVM personnel mobilized to address and mitigate both short- and long-term impacts.

MSU Extension Service agents found locations for people and animals to shelter after tornadoes and coordinated the distribution of emergency supplies. Researchers from the MSU College of Veterinary Medicine partnered with the Institute for Marine Mammal Studies to monitor and continue to evaluate dolphin and sea-turtle populations along the Mississippi Sound.

Extension agents continue to conduct agricultural damage assessments in counties affected by regional flooding to develop documentation that will aid producers as they seek financial reimbursements. Mississippi Agricultural and Forestry Experiment Station researchers are evaluating the short- and long-term economic impacts on the Gulf Coast seafood industry, as well as the impacts on soil health and implications for agricultural production. Also, scientists in the Forest and Wildlife Research Center are examining long-term flooding's potential impacts on wildlife.

These service and research efforts, however, demonstrate just a few of DAFVM's accomplishments in 2019.

One major milestone celebrated in 2019 was the 20th anniversary of the Mississippi Horse Park, a nationally recognized destination for equine and other events, which has generated more than \$43 million since it was built in 1999. In addition to hosting almost 1,000 public activities over the years, the park also holds classes and laboratories for students in the Department of Animal and Dairy Sciences. It is home to Extension's recently opened Termite Technician Training Facility. As a vital part of the division, the Mississippi Horse Park continues its role of serving the local community, offering resources to MSU students, and hosting educational workshops and activities.

Late in 2019, DAFVM faculty, administrators, and students celebrated another important milestone: the opening of the new, 34,500-square-foot Animal and Dairy Sciences Building, which will serve approximately 500 students. We look forward to the new Poultry Science Building's completion and opening in 2020. These enhancements will allow MSU to maintain its nationally and internationally recognized research and education in agricultural sciences.

2019 marked a series of transitions for the division. Dr. Greg Bohach, former DAFVM vice president, began a faculty position in the MSU Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology. MSU President Mark E. Keenum appointed me interim vice president, and I have been honored to serve our clients in this role as a continuation of my work as a DAFVM administrator for almost 20 years.

Finally, 2019 marked the passing of U.S. Senator Thad Cochran, whose legacy of service in support of the state's producers, researchers, and systems is unmatched. Cochran's advocacy for agriculture impacted a variety of associated industries in the state, and generations of Mississippi residents have benefited from his work. He will be sorely missed.

Our goals and mission remain the same, and our units continue to embrace their roles as crucial components of the state's flagship research university to extend teaching, research, and service throughout Mississippi, the nation, and the world.

Thank you for all you do to ensure our continued excellence,

**Dr. Reuben Moore**  
Interim Vice President

*In honor of*

**SENATOR WILLIAM THAD COCHRAN**  
(1937–2019)



Thad Cochran was born Dec. 7, 1937, in Pontotoc, Mississippi. He earned his undergraduate degree at the University of Mississippi, where he also completed law school in 1964. After becoming a partner in the law practice he joined after graduation, Cochran was elected in 1972 to the U.S. House of Representatives. In 1978, Cochran won a seat in the U.S. Senate, which he held until his retirement in 2018.

During his decades in the U.S. Congress, Cochran advocated for Mississippi interests, including education, agriculture, economic development, and defense. Cochran sponsored legislation supporting initiatives to benefit farm programs, teacher training, wilderness protection, shipbuilding, and military bases. His distinguished service as chairman of the Senate Appropriations Committee allowed him to direct billions of dollars to Mississippi after the devastation of Hurricanes Rita and Katrina.

Cochran is often referred to as a statesman, exhibiting the virtues of patience, integrity, and compassion in his decision-making. His support for education, especially higher education, was reflected in his continued sponsorship of postsecondary research facilities. Throughout his congressional career, Cochran repeatedly demonstrated his advocacy for agriculture as he defended the interests of Mississippi's family farmers and advocated programs that allow producers to share expertise.

# DAFVM ADMINISTRATION



**MARK E. KEENUM**  
*President*  
Mississippi State University



**REUBEN MOORE**  
*Interim Vice President*  
Agriculture, Forestry, &  
Veterinary Medicine



**KENT H. HOBLET**  
*Dean*  
College of Veterinary Medicine



**GEORGE M. HOPPER**  
*Director*  
Forest & Wildlife Research Center

*Director*  
Mississippi Agricultural &  
Forestry Experiment Station

*Dean*  
College of Agriculture &  
Life Sciences

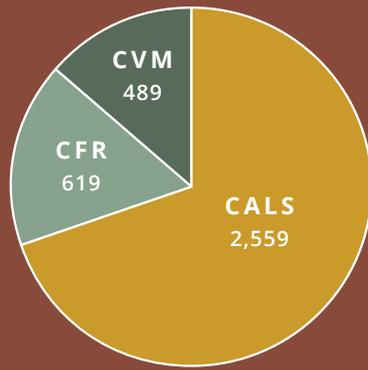
*Dean*  
College of Forest Resources



**GARY B. JACKSON**  
*Director*  
Mississippi State University  
Extension Service

# Points of Pride

ENROLLMENT  
IN FALL 2019  
WAS THE  
LARGEST EVER.



PRIVATE GIFTS TO  
DAFVM UNITS IN  
FY 2019 TOTALED  
ALMOST \$27  
MILLION—ONLY THE  
THIRD TIME THIS  
AMOUNT EXCEEDED  
\$25 MILLION.

THE \$14 MILLION  
ANIMAL AND  
DAIRY SCIENCES  
BUILDING WAS  
COMPLETED AND  
OCCUPIED IN  
SEPTEMBER 2019.

MSU RANKED NO. 11  
NATIONALLY IN  
FY 2018 RESEARCH  
AND DEVELOPMENT  
EXPENDITURES FOR  
AGRICULTURAL  
SCIENCES AND NATURAL  
RESOURCES AND  
CONSERVATION WITH  
A TOTAL OF \$105  
MILLION—43 PERCENT  
OF MSU'S TOTAL R&D  
EXPENDITURES.

GRANTS AND  
CONTRACTS AWARDED  
TO DAFVM EXCEEDED  
FY 2018 AND  
TOTALED MORE  
THAN \$87 MILLION IN  
FY 2019, THE SECOND  
HIGHEST EVER.

CONSTRUCTION  
OF THE  
\$13 MILLION  
POULTRY SCIENCES  
BUILDING SHOULD  
BE COMPLETED IN  
LATE SPRING 2020.

WITH THE  
COMPLETION OF  
THE POULTRY  
SCIENCE BUILDING  
IN 2020, THE  
10-YEAR TOTAL  
OF MORE THAN  
\$75 MILLION IN  
CONSTRUCTION/  
R&R ACTIVITY  
IN THE DIVISION  
WILL BE THE  
HIGHEST EVER.



**MISSISSIPPI STATE UNIVERSITY™**  
DIVISION OF AGRICULTURE, FORESTRY,  
AND VETERINARY MEDICINE

## DAFVM MAP

### RESEARCH & EXTENSION CENTERS

- Hiram D. Palmertree North MS Research & Extension Center VERONA
- Delta Research & Extension Center STONEVILLE
- Frank T. (Butch) Withers Central MS Research & Extension Center RAYMOND
- Coastal Research & Extension Center BILOXI

### MAFES BRANCHES & UNITS

- North Mississippi Branch HOLLY SPRINGS
- Pontotoc Ridge-Flatwoods Branch PONTOTOC
- Northeast Mississippi Branch VERONA
- Black Belt Branch BROOKSVILLE
- Delta Branch STONEVILLE
- Coastal Plain Branch NEWTON
- E.G. (Gene) Morrison Brown Loam Branch RAYMOND
- Truck Crops Branch CRYSTAL SPRINGS
- South Mississippi Branch POPLARVILLE
- Seafood Processing Lab PASCAGOULA
- Prairie Research Unit
- Beaumont Unit
- White Sand Research Unit
- McNeill Unit

### MSUES UNITS

- Crosby Arboretum PICAYUNE
- MSU Horse Park STARKVILLE

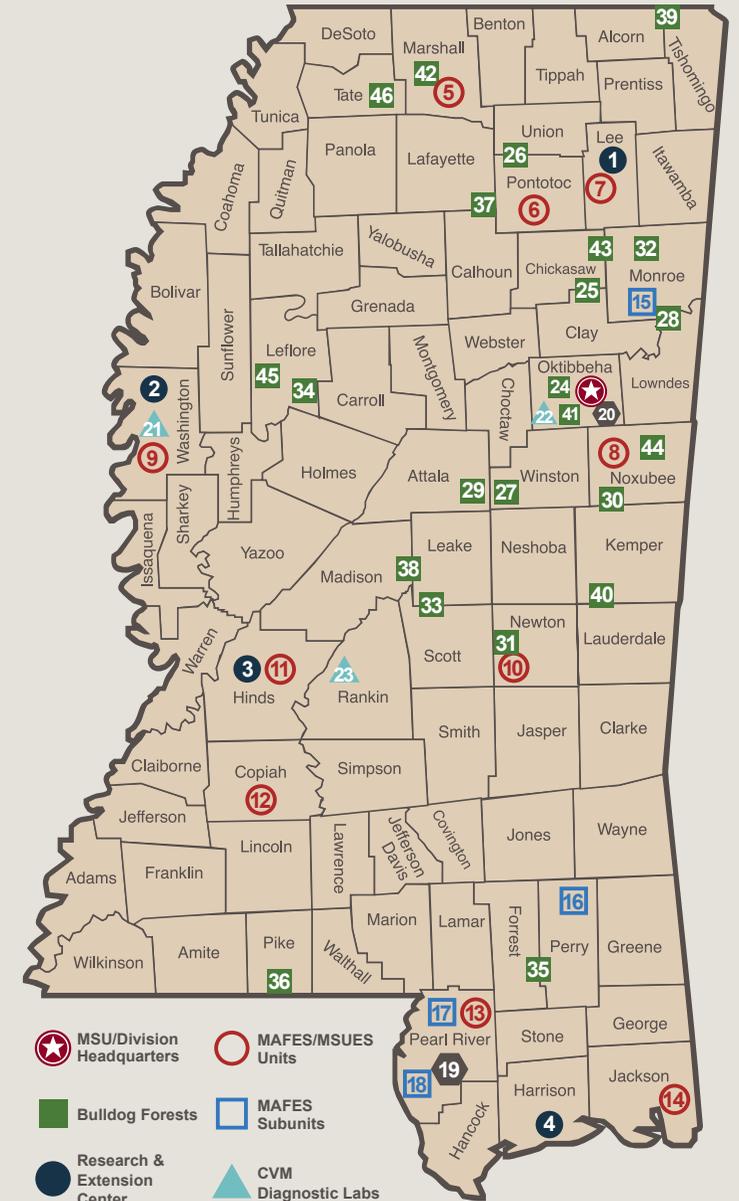
### CVM DIAGNOSTIC LABS

- Aquatic Research & Diagnostic Laboratory STONEVILLE
- CVM-Diagnostic Laboratory Services MSU
- Research & Diagnostic Lab/ Poultry Lab PEARL

### BULLDOG FORESTS

- Andrews Forestry & Wildlife Laboratory
- Brand Forest
- Brooking Forest
- C.M. Chafee Forest
- Columbus Air Force Base Property
- Gober Forest
- Hall Timberlands Forest
- Harris Forest
- H.K. & J.K. Holloway Reserve
- Col. K.D. Johnson Forest
- McGeary Sidon Plantation
- Mortensen Forest
- Norma Lea O'Quin Forest
- Phillips Memorial Forest
- John & Jane Player Property
- Sharp Forest
- Shaw-O'Reilly Property
- J.W. Starr Memorial Forest
- Annie Seal Matthew-Porter Forest
- Margaret Demoville Forest
- The Triplett Forest
- The Gullede Forest
- The Bowen Forest

Three additional forests are unidentified at the request of anonymous donors.



An MSU Extension Service office is located in each of the 82 counties.



**T**HE COLLEGE OF AGRICULTURE AND LIFE SCIENCES (CALs) GREW TO 2,559 STUDENTS THIS FALL WITH NEW PROGRAMS, FACILITIES, AND PEOPLE CONTRIBUTING TO THE COLLEGE'S CONTINUOUS UPWARD TRAJECTORY.

With Alcorn State University, CALs launched an undergraduate dual-degree program in poultry science to prepare more leaders for the state's top agricultural industry. The college also added two new online graduate degrees this year. The early intervention master's degree, offered through the School of Human Sciences, is designed to address the shortage of trained professionals with expertise in working with infants, toddlers, and preschoolers with special needs and their families. A new online option is available for the Master of Science in agriculture with an animal and dairy science concentration.

Two new certificate programs provide graduates with a competitive edge. The Retail Certificate in the fashion design and merchandising major complements existing bachelor's degree tracks with a formal grouping of retail-focused courses. The Trauma-Informed Child Advocacy Certificate

provides advocacy training for majors in human development and family science.

The Precision Agriculture Certificate program continues to soar with two new flight-technology courses that help prepare unmanned aerial vehicle commercial pilots to earn Federal Aviation Administration certification. Additionally, a \$500,000 USDA grant supports a cross-college collaboration between CALs and the MSU Bagley College of Engineering to build virtual-reality technology that trains students to use environmental control equipment commonly found in state-of-the-art greenhouses and livestock facilities.

In addition to new programs, CALs has a new 34,500-square-foot Animal and Dairy Sciences Building, part of a complex at the corner of Blackjack Road and Hail State Boulevard on the MSU campus. The complex includes the newly

constructed, 15,000-square-foot Meat Science and Muscle Biology Laboratory and the 26,500-square-foot Poultry Science Building, which should be completed in spring 2020.

The college welcomed Dr. Darrin Dodds as the new head of the MSU Department of Plant and Soil Sciences. Dr. Jonathan Pote, former head of the MSU Department of Agricultural and Biological Engineering, retired after a distinguished career, and Dr. Wes Burger is serving as interim head while a national search takes place.

The college continues to excel, thanks in large part to our many alumni and friends. One generous donor, John M. Dean, established an endowed agricultural real-estate professorship through a bequest in his will. Others have likewise contributed to the college's success. Through the generous support of alumni and friends, our internationally renowned faculty and award-winning students continue to discover solutions to feed and clothe the world, improve health and wellness, and protect the environment.



COLLEGE OF AGRICULTURE & LIFE SCIENCES





THE MISSISSIPPI AGRICULTURAL AND FORESTRY EXPERIMENT STATION (MAFES) DELIVERS RESEARCH THAT IMPROVES AGRICULTURAL AND ANIMAL PRODUCTION SYSTEMS, ENSURES FOOD SAFETY AND QUALITY, ADVANCES SUSTAINABLE AGRICULTURE, PROMOTES HUMAN HEALTH AND WELL-BEING, AND HELPS BUILD SUSTAINABLE COMMUNITIES. MSU RANKS 11TH NATIONALLY IN RESEARCH AND DEVELOPMENT EXPENDITURES IN AGRICULTURAL SCIENCES, A DIRECT RESULT OF WORK PERFORMED BY MAFES SCIENTISTS THROUGHOUT THE STATE.

MAFES-developed rice is now commercially available to growers. To meet the needs of Mississippi rice growers, the experiment station's rice-breeding program develops new and improved varieties locally adapted to the state's production systems, climate, and soils.

To solve regional water problems, MAFES scientists have joined the newly created National Center for Alluvial Aquifer Research. A joint venture with USDA-ARS, this center supports scientists who focus on water conservation and quality, as well as farm profitability.

MAFES scientists recently commercialized vaccination technologies to help the catfish industry save millions annually

by combatting a devastating bacterial disease in catfish. MAFES scientists have also developed and licensed an early-detection kit to help combat foodborne pathogens.

In sustainable agriculture, MAFES scientists use precision agriculture to measure soil erosion, nutrient deficiencies, and insect and weed pressures. MAFES scientists are helping farmers determine best management practices to reduce costs and sustain a healthy environment.

With colleagues in the MSU College of Veterinary Medicine, MAFES scientists received a patent for a nerve-gas antidote, which restores critical enzyme activity in both the peripheral and central nervous systems.

To study therapies and treatments for cardiovascular disease more accurately and effectively, MAFES scientists have also developed a three-dimensional bench model to study diseased arteries.

MAFES scientists develop tools to help communities prosper and protect the surrounding ecosystems. To help resource managers improve habitat for coastal species, MAFES scientists are leading several research projects to understand how birds use the Gulf of Mexico. MAFES scientists are also evaluating the economic damage from the extended opening of the Bonnet Carré Spillway and collaborating with partners to determine alternative growing methods for Mississippi's most popular seafoods, including inland farming of blue crab.

As the only state agency developed to conduct original research to improve agricultural production, the experiment station supports scientists dedicated to finding solutions that will increase agricultural yields and profits and minimize environmental impacts. MAFES research improves health, food security, and livelihoods in Mississippi and beyond.



MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION





**T**HE COLLEGE OF FOREST RESOURCES (CFR), WHICH HAD 619 STUDENTS IN 2019, CONTINUES TO DEVELOP NEW CONSERVATION LEADERS. STUDENTS GAIN PROFESSIONAL EXPERIENCE THROUGH SUMMER JOBS AND INTERNSHIPS, SCIENTIFIC KNOWLEDGE THROUGH THE UNDERGRADUATE RESEARCH SCHOLARS PROGRAM, AND CAREERS WITH EMPLOYABLE SKILLS LEARNED IN CFR.

The wildlife, fisheries, and aquaculture major added a new conservation-biology concentration, which prepares students to address population ecology, imperiled and at-risk species, and global threats to biodiversity. Students also study the social and cultural elements of conservation, how to preserve naturally occurring wildlife and habitat, and how to conserve wildlife outside the natural habitat, such as in zoos or preserves.

The MSU student chapter of the Society of American Foresters is again the number one student chapter in the nation, for the second consecutive year. The chapter has ranked in the top three chapters for the last 23 consecutive years. Students earn this distinction through community service, networking, and professionalism. The students' hard work is evident

on campus as MSU continues its recognition as a Tree Campus USA by the Arbor Day Foundation for the sixth year.

Students in sustainable bioproducts are also in the spotlight this year. They won first place at the International Forest Products Society quiz bowl competition.

CFR offers important hands-on learning. From the 9-week forestry summer field program to the Undergraduate Research Scholars program, CFR students are career-ready at graduation. More than a dozen students participated in the Undergraduate Research Scholars program, and many students work in laboratories and fields as technicians during the academic year. CFR graduates are in high demand, and career placement has never been better.

Additionally, 2,500 acres were added to the 30,000-acre Bulldog Forest, a statewide network of forestland. These forests provide opportunities for students to gain practical experience in the field.

This year saw administrative changes when long-time forestry department head Dr. Andy Ezell retired. Dr. Donald Grebner, a 21-year veteran of the department, took the helm on July 1.

CFR celebrated Col. Kenneth D. Johnson's award of an honorary doctorate from MSU in 2019. Johnson is the college's largest benefactor. A Leake County native and Ridgeland resident, Johnson is a veteran with more than three decades of service during which he earned many commendations, including the Legion of Merit and the Distinguished Flying Cross for heroism and extraordinary achievement in aerial flight.

With more than 4,000 alumni leading conservation efforts around the world, an internationally renowned faculty, and exceptional students, CFR remains a preeminent program for students interested in making a difference in the environment.



COLLEGE OF FOREST RESOURCES



# RECOVERY & ASSISTANCE Efforts



After tornadoes touched down in April, MSU Extension Service (MSUES) personnel provided agricultural disaster assessments with a variety of technology, including unmanned aerial vehicles that recorded videos of the damage.



In October 2019, the College of Veterinary Medicine was awarded a \$1.25 million grant to investigate whether the opening of the Bonnet Carré Spillway had an impact on the dolphin and sea turtle populations in the Mississippi Sound.



The south Delta was flooded in February 2019 and was still under water in April. MSUES personnel, available in every county, supported producers who were unable to plant.

RECORD RAINFALL LEVELS IN EARLY 2019 LED TO 600,000 FLOODED MISSISSIPPI ACRES, INCLUDING 250,000 OF FARMLAND. BY SUMMER, THE MISSISSIPPI SOUND WAS GLUTTED WITH FRESH WATER, IMPACTING SEAFOOD AND GULF ECOSYSTEMS. DESPITE HISTORIC FLOODS IN THE SPRING AND DAMAGING TORNADOES IN FEBRUARY AND APRIL, DIVISION PERSONNEL MOBILIZED TO EDUCATE AND ASSIST MISSISSIPPI RESIDENTS.

Beginning in July 2019, MSUES held flood-recovery meetings throughout the region. Listening sessions allowed residents to explain their challenges, and MSUES shared information about how to clean up homes and property.





**T**HE FOREST AND WILDLIFE RESEARCH CENTER (FWRC) CONTINUES TO FIND NEW AND INNOVATIVE METHODS TO CONSERVE, MANAGE, AND OPTIMIZE THE USE OF FOREST, FOREST PRODUCTS, WILDLIFE, AND FISHERIES RESOURCES.

In 2019, 54 FWRC scientists worked on 280 research projects. To conserve and manage natural resources, FWRC research answers questions asked by landowners, biologists, and industry professionals. The quality of FWRC research is reflected by its numerous sponsors and projects.

In forestry, FWRC scientists are developing new practices to expand the growth of timber resources and improve environmental services. To estimate the role of forests in improving air quality, FWRC scientists build models that determine the amount of carbon dioxide stored in trees. Prescribed fire is an important management tool in pine forests; however, FWRC scientists have found that fires may also, by removing undesirable species, assist in oak regeneration. FWRC scientists are also studying the impact trees have in filtering chemicals in the soil.

Wildlife, fisheries, and aquaculture scientists in the FWRC work to improve habitats and populations. FWRC scientists, collaborating with the Mississippi Agricultural and Forestry Experiment Station, have established the world's first genome resource bank for threatened amphibians to protect frogs and salamanders on the verge of extinction.

Wild hogs wreak havoc on landscapes and carry numerous diseases. FWRC scientists discovered that invasive swine reduce the presence of other wildlife and birds by 26 percent. MSU Deer Lab scientists, tracking radio-collared white-tailed deer, researched where bucks go during hunting seasons and found that a third of the bucks have a limited home range. Another third of the bucks moved from one place to another, and the remaining third fell somewhere between the two extremes.

Sustainable bioproducts scientists in the FWRC are finding new ways to extend the use of wood and other natural resources. FWRC scientists are helping make better, stronger wood pellets from southern yellow pine lumber to improve wood pellet characteristics and lowering the energy needed to produce energy pellets. FWRC scientists are also developing new chemicals from wood to replace petroleum products used in plastic manufacturing. Finally, FWRC scientists are designing new models to determine the strength and stiffness of southern yellow pine, adding value to this natural resource.

FWRC uses relevant research to contribute to the economic and environmental benefits of Mississippi's natural resources through advanced management and conservation.



FOREST & WILDLIFE RESEARCH CENTER





**T**HE MISSISSIPPI STATE UNIVERSITY COLLEGE OF VETERINARY MEDICINE (CVM) REMAINS COMMITTED TO IMPROVING THE HEALTH AND LIVES OF ANIMALS AND PEOPLE. THE COLLEGE CONTINUES TO HAVE SIGNIFICANT IMPACTS NOT ONLY IN MISSISSIPPI AND THE U.S., BUT ALSO THROUGHOUT THE WORLD.

CVM and the Institute for Marine Mammal Studies received \$1.25 million to evaluate how the Bonnet Carré Spillway opening impacted dolphins and sea turtles in the Mississippi Sound. The spillway was opened twice in 2019 to control flooding along the Mississippi River. The research and evaluation, supported by Gulf of Mexico Energy Security Act funds, supports coastal conservation, restoration, and hurricane protection. This partnership will examine the abundance, health, and habitat of dolphins and sea turtles in the area to give personnel an indication of overall environmental health.

The CVM Animal Health Center unveiled its newly renovated Nutramax Laboratories Veterinary Services Inc. Pharmacy in

April 2019. Made possible by the company's endowment-level gift of \$250,000, the renovation was much needed. The pharmacy area, which had not been updated since the 1981 opening of the Wise Center, now reflects the advanced services it provides. CVM alumnus Dr. Todd Henderson leads the Nutramax Family of Companies, which was founded by his father. Since its founding, Nutramax has become an industry leader in setting and adhering to high standards in manufacturing and quality control as it develops products for both animal and human health.

Additionally, CVM continues its work to provide a higher standard of living for humans and animals in Mississippi, the U.S., and the world. In our state, the Mississippi Veterinary

Research and Diagnostic Laboratory, a CVM unit located in Pearl, is working actively with the Mississippi Department of Wildlife, Fisheries, and Parks, along with the National Veterinary Services Laboratory, to assist with the diagnosis and management of chronic wasting disease in white-tailed deer. Globally, the USAID Feed the Future Innovation Lab on Fish, led by Dr. Mark Lawrence, maintains its mission to reduce poverty and improve nutrition, food security, and livelihoods in developing countries.

In May, 91 new doctors of veterinary medicine earned their diplomas from CVM. The new doctors boast a North American Veterinary Licensing Exam pass rate of 99 percent and an employment rate of 100 percent. The new graduates began their careers in 23 states and three countries.



COLLEGE OF VETERINARY MEDICINE





**N**OW IN ITS 105TH YEAR, THE MISSISSIPPI STATE UNIVERSITY EXTENSION SERVICE (MSUES) REMAINS COMMITTED TO EXTENDING KNOWLEDGE AND CHANGING LIVES. IN 2019, THOUSANDS OF STATE RESIDENTS BENEFITED FROM MSUES SERVICES AND INSTRUCTION.

Early in the year, MSUES played an important role in offering tornado- and flood-related disaster relief. As 2019 continued, MSUES shifted to monitoring the effects of prolonged backwater flooding in the Delta, assessing and recording damage sustained by producers and rural families, and surveying flooding impacts on the Mississippi Sound.

Even as planters were forced to adapt to environmental challenges, MSUES agriculture and forestry agents and specialists continued offering research-based information to make the 2019 growing season as productive as possible. Along with regular meetings with row- and truck-crop producers, MSUES also worked with tree farmers as the timber market changed.

Throughout 2019, MSUES personnel continued government and community development work with elected

and appointed officials to train leaders to solve constituents' challenges efficiently. MSUES specialists are assisting with improving public water systems, training newly elected officials, and increasing rural tourism, while MSUES agents continue hosting their local county and city officials to inform them of services and programs offered, successes achieved, and people reached.

MSUES continues its work to address chronic wasting disease in Mississippi deer. Extension is partnering with the Mississippi Department of Wildlife, Fisheries, and Parks to spread information about where the "zombie deer" disease has been identified, the best management practices for hunting, and locations for testing harvested deer. By addressing this disease early, MSUES officials hope to protect Mississippi's wildlife-recreation system.

Family and consumer sciences programs expanded in 2019. The PReventing Opioid Misuse in the SouthEast (PROMISE) Initiative allows MSUES to join the fight against the opioid epidemic. Advancing, Inspiring, Motivating for Community Health through Extension (AIM for CHangE) promotes improved access to healthier foods and addresses public transit and walkability in the Delta. In the fall, MSUES began developing a national early-childhood education model for the U.S. Department of Health and Human Services.

Finally, 4-H programs are teaching young Mississippians life skills. For example, kindergarteners learn science, technology, engineering, and mathematics skills in the 4-H LEGO Engineering Program, and teens sell their award-winning animals at the Dixie National Sale of Junior Champions. These are just two examples of the unique opportunities 4-H offers young people in Mississippi.

MSUES continues to staff agents in all 82 Mississippi counties, and we are proud of our efforts to extend knowledge and change lives.



MISSISSIPPI STATE UNIVERSITY EXTENSION SERVICE



# DAFVM

## BUDGET OVERVIEW

# RANKED

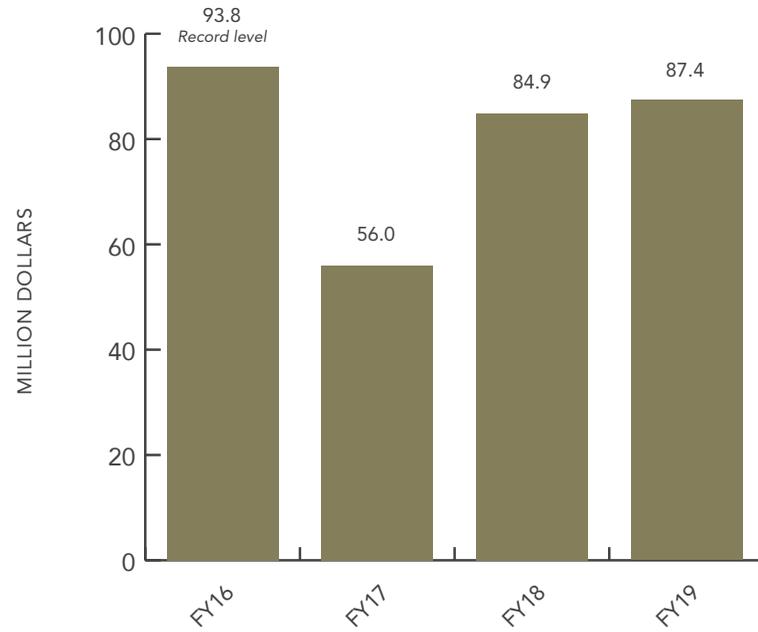
### #11 NATIONALLY

TOP 12 SINCE 1998

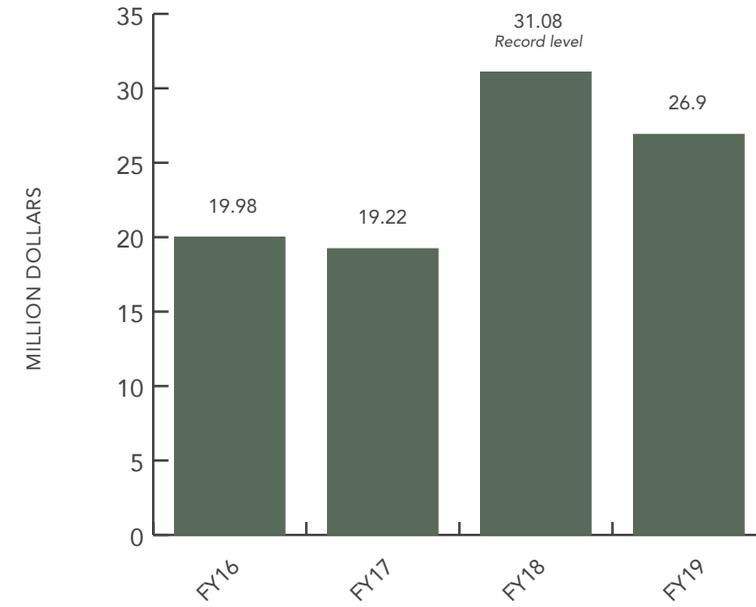
In Total Higher Education R&D Expenditures in Agricultural Sciences and Natural Resources and Conservation | FY 2018

Source: National Science Foundation Higher Education Research and Development Survey | FY 2018

### GRANTS & CONTRACTS RECEIVED



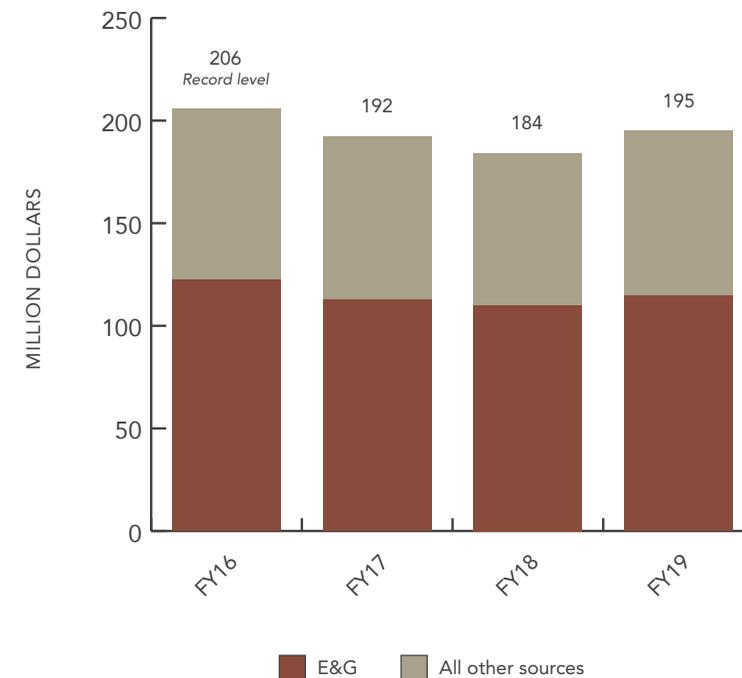
### PRIVATE CONTRIBUTIONS



### ENROLLMENT



### TOTAL EXPENDITURES



Combines CVM, FWRC, MSUES, and MAFES. E&G expenditures include the educational and general spending for each student's education and related expenses, organized research, and public service. E&G funds include state, federal, tuition, sales, etc. All other sources include restricted and designated funds.



Thank you for your interest in the MSU Division of Agriculture, Forestry, and Veterinary Medicine. For more information about the photographs in this report, please visit our online slideshow at [DAFVM.MSSTATE.EDU/ANNUALREPORT/PHOTOS/](http://DAFVM.MSSTATE.EDU/ANNUALREPORT/PHOTOS/).

## NEW FACILITY NAMING OPPORTUNITIES

### MEAT SCIENCE AND MUSCLE BIOLOGY LABORATORY

The 15,000-square-foot building includes a harvest area, demonstration area, and freezer space, as well as research laboratories and a classroom.

### ANIMAL AND DAIRY SCIENCES BUILDING

This three-story building contains about 34,500 square feet of offices, conference rooms, classrooms, and labs. Construction was completed in September 2019.

### POULTRY SCIENCE BUILDING/CONNECTOR

This two-story building will contain 26,500 square feet of offices, conference rooms, classrooms, and labs. The ADS/Poultry Science connector is about 7,000 square feet. Construction should be complete in spring 2020.

#### IF INTERESTED, CONTACT:

**JUD SKELTON** 662-325-0643 **WILL STAGGERS** 662-325-2837



**MISSISSIPPI STATE UNIVERSITY™**  
DIVISION OF AGRICULTURE, FORESTRY,  
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