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Mississippi Agricultural and Forestry Experiment Station

Mission of the Experiment Station

The mission of the Mississippi Agricultural and Forestry Experiment Station (MAFES) is to provide science-based solutions to benefit competitiveness of Mississippi agribusiness and to address associated social issues, while increasing competitiveness of MAFES research nationally. Thus, the foremost challenge of the Experiment Station is maintaining a continuum of research discovery and education to keep Mississippi's agricultural producers viable and competitive in a global economy and to provide its citizens with a safe food supply and new technologies to enhance the economy.

MAFES operates under mandates of the U.S. Congress (1862 and 1887) and the Mississippi Legislature (1888) to conduct scientific research in agriculture, forestry, and related sciences. Research programs of MAFES cover the spectrum from fundamental to applied. Fundamental research deals with the discovery of new knowledge and the long-range approach to solving problems in the life sciences. Applied research is directed toward early solution of problems that create immediate concerns among farmers, processors and marketers of agricultural products, homemakers, and all rural and urban citizens of the state. Extensive stakeholder input is used in setting MAFES research objectives.

MAFES operates on state and federally appropriated funds supplemented by income from sales of products from the research projects. Grants and contracts from private industry and other sources provide additional funds.

Experiment Station Organization

The Mississippi State University campus is the headquarters for MAFES. The Leveck Animal Research Center, Bearden Dairy Research Center, R.R. Foil Plant Science Research Center, and Black Belt Branch Station at Brooksville provide field laboratories for on-campus scientists and represent all important plant and animal commodities produced in the state.

On-campus units conducting research are the departments of Agricultural Economics, Agricultural and Biological Engineering, Plant and Soil Sciences, Animal and Dairy Sciences, Biochemistry and Molecular Biology, Entomology and Plant Pathology, Food Science and Technology, Human Sciences, and Poultry Science; the Social Science Research Center; the College of Veterinary Medicine; and the Eastern Research Unit of the Thad Cochran National Warmwater Aquaculture Center.

Research is conducted off campus through four regional research and extension centers and associated branch experiment stations located in areas that represent the various soil types and the concentrations of plant and animal production systems found in Mississippi.

Central Mississippi Research and Extension Center
Raymond, Mississippi

This center encompasses three branch experiment stations. The *Brown Loam Branch Station* near Raymond carries out an extensive program of beef cattle crossbreeding and management, as well as forage and field crop studies. The *Coastal Plain Branch Station* near Newton has a long-standing program in dairy and field crops research, which blends with studies of dairy waste management and management of cropland as wild game habitat. The *Truck Crops Branch Station* at Crystal Springs serves a populous urban-rural area with research on both commercial and home garden fruit and vegetable crops.

Experiment Station
Vance H. Watson, Director
Mississippi Agricultural & Forestry Experiment Station
Malcolm A. Portera, President • Mississippi State University • J. Charles Lee, Vice President

Coastal Research and Extension Center
Biloxi, Mississippi

This center encompasses four branch experiment stations. The *Coastal Aquaculture Unit* at Gulfport focuses on production of freshwater, estuarine, and other fish species that have potential for commercial production, such as redfish, hybrid striped bass, and freshwater shrimp. The *Seafood Processing Research Laboratory* at Pascagoula was established in cooperation with the National Marine Fisheries Service and operates to develop processing technologies to enhance the use of latent marine fishery resources and to improve seafood quality and safety. The *South Mississippi Branch Station* units at Poplarville, White Sand, and McNeill conduct research on beef cattle, agroforestry, and horticulture. The *Vegetable Unit* at Beaumont conducts research on commercial and home garden fruit and vegetable crops.

Delta Research and Extension Center
Stoneville, Mississippi

This center encompasses the efforts of the *Delta Branch Station* at Stoneville, which employs an integrated, multidisciplinary approach to discover, develop, and demonstrate new technologies and improved germplasm for enhanced profitability and productivity of agricultural enterprises in the Yazoo River-Mississippi River Delta. Its research programs on the major crops and animal production systems (cotton, rice, soybean, corn, and catfish) of the Delta counties are recognized nationally and internationally. Both the Southern Regional Aquaculture Center and the Thad Cochran National Warmwater Aquaculture Center are at this station.

North Mississippi Research and Extension Center
Verona, Mississippi

This center encompasses four branch experiment stations. The *North Mississippi Branch Station* at Holly Springs emphasizes research on dairy production, soil erosion management, and crop production systems using conservation tillage methods suitable for the soils of the region. The *Northeast Mississippi Branch Station* at Verona conducts conservation tillage research, as well as horticultural research and education focused on ornamentals, medicinals, and vegetable crops. The *Pontotoc Ridge-Flatwoods Branch Station* at Pontotoc emphasizes research related to sweetpotato breeding and production, peaches and other fruits, field crops, and swine production. The *Prairie Research Unit* at Prairie focuses on using forages in the economic and efficient production of beef, with emphasis on herd health management and improved conception and nutrition.

Collaboration with Other Agencies

MAFES' presence on the MSU campus adds strength to both the teaching and extension programs. Most department heads and many other faculty and staff have joint appointments involving teaching, research, and/or extension activities. They teach or administer instructional programs in agriculture, engineering, and arts and sciences. Agriculture and life sciences students at MSU have the opportunity to observe research in action, and MAFES provides graduate research assistantships and other part-time employment for many students.

MAFES also has extensive collaborative relations with other state and federal agencies, which enhance their productivity and applicability of research both on and off campus. Facilities and personnel of the USDA Agricultural Research Service and other federal and state agencies are strategically co-located to augment the total research effort.

Mississippi State University

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