



On the Cover:

MAFES research keeps Mississippi's \$4.39 billion food and fiber industries competitive in a world economy. A sample of research areas includes, clockwise from top left, poultry, which accounts for nearly \$1.7 billion; America's third highest sweet-potato production volume; a \$270 million livestock industry; and pest control through breeding resistant plants for the state's nearly \$1 billion row crop industries.

Back Cover:

Mississippi's trademark state flower is part of a \$74 million horticultural industry.

4 Finances

MAFES stretches its resources to climb to the number-five rank among U.S. agricultural research programs.

5 Partners

Commodity groups underwrite research with portions of their member farmers' sales income.

6 Scholarship

Review a sample of MAFES research published worldwide.

8 Safer Food

Mississippi State University, long a leader in developing food products, revitalizes its Food Science Institute.

9 Beef Surveys

MAFES economists find Americans less picky about beef than their European counterparts.

10 Prohealth, Antiodor

Poultry, an enjoyable food and a profitable industry, brings environmental challenges that are being met by MAFES scientists studying chickens' diets.

12 Chicken Heart Model May Help Humans

Scientists find that a bacterium shared by chickens and humans may provide a key to dealing with hypertension.

14 Composting Solves a Smelly Problem

A modified deep-litter compost system may solve solid waste disposal challenges and provide an additional income source for livestock producers.

16 Starving Fall Armyworms

MAFES and USDA scientists are breeding corn plants that cause their insect nemeses to starve.

18 Remote Sensing Takes on Sweetpotato Production

An unmanned aerial vehicle holds promise for monitoring the quality of sweetpotatoes to produce more U.S. No. 1-grade tubers.

19 Science Roadmap

A MAFES scientist joins national colleagues in identifying research needs for agriculture's next two decades.