

Strategic Plan

College of Agriculture and Life Sciences

Mississippi Agricultural and Forestry
Experiment Station

MISSISSIPPI STATE
UNIVERSITY™

VISION

To be a leading land-grant university by providing solutions that improve the lives of Mississippians and the global community through excellence in agriculture and life sciences.

MISSION

To advance agriculture and natural resources through teaching and learning, research and discovery, service and engagement which will enhance economic prosperity and environmental stewardship, to build stronger communities and improve the health and well-being of families, and to serve people of the state, the region and the world.

I. Objective: Provide teaching and learning opportunities for all students.

Strategy	Goal/Metric	2011 Benchmark
A. Provide relevant academic programs which will increase enrollment and prepare students for a wide range of career opportunities.	A1. Increase undergraduate enrollment by 4% annually (see Appendix A).	1,473 (Fall 2011)
	A2. Develop curricula to meet societal needs	
	A3. Conduct employer survey.	
	A4. Conduct alumni survey.	
B. Provide ample scholarships and student awards to improve the academic profile of new students as well as reward the academic performance of existing students.	B1. Increase number of scholarships awarded by 4% annually.	369 (academic 2010-11)
	B2. Increase dollars awarded for scholarships.	\$344,000 (academic 2010-11)
	B3. Increase number of awards garnered by students.	47
C. Develop recruiting strategies to target high quality students	C1. Develop recruiting strategies.	
	C2. Develop strategies to increase average ACT composite score of ≥ 25 for incoming freshmen.	23.4 (Fall 2011)
D. Increase efforts to attract a diverse student body	D1. Increase percentage of minority students in freshmen, transfer students, and new graduate students.	~34% (Fall 2011)
E. Promote study abroad activities.	E1. Increase number of students participating in study abroad programs.	
	E2. Increase number of study abroad programs developed.	
F. Establish effective relationships with community colleges.	F1. Publish articulation agreements for community college students to transfer into CALS programs.	
	F2. Establish relationships with community college representatives.	
	F3. Increase number of students transferring from community colleges.	

II. Objective: Hire and retain highly competent and qualified faculty to advance quality instruction.

Strategy	Goal/Metric	2011 Benchmark
A. Increase number of endowed chairs and professorships in each department.	A1. Increase number of endowed Professorships and endowed chairs.	3
B. Award faculty for high quality instruction and advising	B1. Increase number of faculty receiving awards.	4
	B2. Increase dollars awarded faculty instruction.	\$1,000 each
C. Hire qualified faculty which represent a wide range of educational and disciplinary backgrounds.	C1. Number of institutions represented by new faculty hires.	
	C2. Number of disciplines represented by new faculty hires..	
D. Evaluate faculty vacancies to ensure the most relevant areas of need are filled	D1. Evaluate faculty positions.	
	D2. Evaluate curricula needs.	
	D3. Evaluate faculty workloads.	
E. Hire qualified faculty which represent a wide range of ethnicity.	E1. Increase diversity of faculty within CALS/MAFES.	17% (Fall 2011)
F. Mentor new faculty	F1. Develop mentoring program	
	F2. Percent of new faculty mentored.	

III. Objective: Continuously improve programs that prepare students for successful careers.

Strategy	Goal/Metric	2011 Benchmark
A. Maintain accreditation of all accredited programs.	A1. Obtain maintain accreditation for all accredited programs.	LA, LACM, FST, FNH, HS
B. Develop distance learning courses and curricula to increase enrollment and diversity	B1. Increase number of distance learning courses developed.	FNH = 10 HS = 5 LA = 1 PSS=1 (Fall '11/ Spring '12)
	B2. Increase number of distance learning degrees offered.	1 MS – FSNHP (Fall 2011)
	B3. Increase number of students enrolled in distance learning courses.	45 (Fall '11)
C. Encourage professional experience (study abroad, internships, career-oriented summer jobs, travel to professional meetings, cooperative education) for all students.	C1. Increase number of students participating in professional experience to 80%.	56% (per strategic planning survey)
	C2. Develop mechanism(s) to promote professional experience to students	
D. Provide curricula to meet the needs of society which makes graduate employable. Provide opportunities for students to network with employers.	D1. Conduct alumni survey.	
	D2. Modify and/or alter curricula to meet the needs of societal changes.	
	D3. Survey graduates to determine those employed upon graduation.	

IV. Objective: Develop research projects and programs which attract highly qualified graduate students.

Strategy	Goal/Metric	2011 Benchmark
A. Provide regional and national competitive fellowships and graduate assistantships to attract highly qualified graduate students	A1. Increase number of fellowships offered.	20
	A2. Increase stipend and benefits of fellowships offered.	\$20,000/each
	A3. Increase number of assistantships offered.	
	A4. Increase stipend and benefits of assistantships offered.	
B. Increase enrollment of graduate students at both the master's and doctoral level	B1. Increase master's student enrollment by 13% annually.	225
	B2. Increase doctoral student enrollment by 10% annually.	117

V. Objective: Hire and retain faculty who are committed to advancing science through research.

Strategy	Goal/Metric	2011 Benchmark
A. Nationally advertise and aggressively recruit the best and brightest new faculty.	A1. Hire faculty.	9
	A2. Provide competitive salaries	
B. Hire exceptional faculty which represent a diversity of thought, skills, backgrounds and expertise	B1. Increase diversity of faculty within CALS/MAFES.	17%
C. Provide equipment and laboratory facilities to support highly successful research programs.	C1. Develop prioritized list of research areas (see addendum).	
	C2. Establish equipment needs which serve numerous departments.	
	C3. Establish laboratories to meet the needs of research.	
D. Reward faculty for exceptional research.	D1. Increase number of faculty receiving research awards.	3
	D2. Increase monetary awards for exceptional faculty research (internal).	\$1000/each
E. Encourage faculty sabbaticals to improve research methodology and interest.	E1. Increase number of faculty taking sabbatical.	1

VI. Objective: Obtain and dedicate funds to prioritized research which meet societal needs.

Strategy	Goal/Metric	2011 Benchmark
A. Develop a process that identifies, supports and invests in programs of excellence which meet societal needs.	A1. Process to identify programs of excellence developed (see addendum).	
	A2. Increase dollars dedicated to programs of excellence.	
B. Increase extramural funding across the college and experiment station.	B1. Increase extramural funding by 6% per year	\$19,958,207
	B2. Increase dollars awarded per FTE.	\$99,591.85 per FTE
	B3. Increase number of proposals submitted for competitive grants.	385 submitted
	B4. Increase success rate of proposals.	
C. Increase research-related cooperation with stakeholders by supporting visiting scientists, and adjunct or affiliated scientists.	C1. Increase number of adjunct professors.	
	C2. Increase number of visiting scientists.	
	C3. Increase number of seminars by guest scientists.	
D. Communicate and facilitate research efforts across disciplines, departments, colleges, universities, and research centers/institutes.	D1. Increase number of interdepartmental/interdisciplinary research projects.	
	D2. Increase number of collaborative projects with other institutions.	

VII. Objective: Produce scholarly information.

Strategy	Goal/Metric	2011 Benchmark
A. Promote, fund, and report the development of patents, copyrights, licensing agreements, fees, endowments, cooperative agreements, memoranda of understandings/agreements, and other means to generate revenues and other support for research.	A1. Increase number of invention disclosures submitted to patent.	13
	A2. Increase number of provisional patents obtained.	9
	A3. Increase number of patents obtained.	3
	A4. Increase number of memoranda of understandings/agreements.	
	A5. Increase number of licensing agreements obtained.	2
	A6. Increase royalties obtained through licensing agreements.	\$244,000
B. Increase number of refereed publications.	B1. Increase number of refereed publications	219
	B2. Improve citation rate of publications.	
	B3. Increase impact factor of scientists and their publications.	
	B4. Increase number of publications submitted to high quality journals.	
C. Increase number of presentations given to scientific communities.	C1. Increase number of presentations by 5% annually.	305

VIII. Objective: Encourage and reward faculty participation in service activity.

Strategy	Goal/Metric	2011 Benchmark
A. Encourage and acknowledge the status of Fellow in professional societies.	A1. Increase number of fellows.	20
B. Encourage and acknowledge service to professional societies.	B1. Increase number of faculty serving in leadership positions of professional societies.	3
C. Encourage and acknowledge editorships of journals and peer-reviewed publications.	C1. Increase number of faculty serving as editors.	3
	C2. Increase number of faculty serving as reviewers of refereed papers.	10
D. Encourage and acknowledge service on committees at the department, college, and university level.	D1. Increase number of faculty serving on department committees.	
	D2. Increase number of faculty serving on college committees.	
	D3. Increase number of faculty serving on university committees.	67
E. Recognize faculty for outstanding service to the university, community, and profession.	E1. Increase number of faculty awarded for service.	1

IX. Objective: Enhance educational and outreach programs that address critical issues.

Strategy	Goal/Metric	2011 Benchmark
A. Develop web sites that are user-friendly, accessible, and provide information.	A1. Increase number of web sites developed/redesigned.	1
B. Encourage and fund field days, workshops, short courses and seminars.	B1. Increase number of field days, workshops, short courses, and seminars by 5% annually.	5
C. Encourage and acknowledge non-credit activities including publications, radio and television appearances, news releases, and presentations.	C1. Increase number of non-refereed publications produced.	292
	C2. Increase number of radio and television appearances.	24
	C3. Increase number of news releases.	47
	C4. Increase number of presentations at non-scientific venues.	239
D. Continue to encourage and promote faculty involvement in K-12 activities including summer camps.	D1. Increase number of faculty involved in K-12 activities.	4
	D2. Increase number of K-12 activities offered on campus.	1

X. Objective: Maintain excellent facilities.

Strategy	Goal/Metric	2011 Benchmark
A. Develop and implement prioritized needs for facility improvements	A1. Develop plan for facilities improvements.	
	A2. Implement plan for facilities improvements.	
B. Implement smart classrooms in each building	B1. Increase number of smart classrooms.	

XI. Objective: Develop, maintain and communicate operating procedures, administrative structure and processes that promote excellence.

Strategy	Goal/Metric	2011 Benchmark
A. Communicate CALS/MAFES accomplishments and benefits internally and externally	A1. Report CALS accomplishments.	
	A2. Report MAFES accomplishments.	
B. Assess and communicate to faculty and staff the productivity and benefits of CALS and MAFES investments	B1. Communicate benefits of CALS and MAFES investments.	
C. Maintain the relevance and effectiveness of programs through external input from advisory committees	C1. Establish Advisory committees.	
D. Establish committees and charters at the college level	D1. Number of committees established.	
E. Review faculty workloads and compensation annually.	E1. Faculty workloads evaluated.	

MAFES RESEARCH PRIORITIES

As Mississippi's leading research university and land-grant institution, Mississippi State University plays a central role in development and transfer of technology that contributes to well-being of Mississippi's agricultural producers, forest landowners, and communities. Our mission is to advance agriculture and natural resource management through research and discovery that enhances economic prosperity and environmental stewardship, builds stronger communities and improves the health and well-being of families, and serves people of the state, the region and the world.

The Mississippi Agricultural and Forestry Experiment Station (MAFES) conducts fundamental and applied research leading to discovery of knowledge that supports economic development, improved nutrition, food safety, and human health, which benefits all citizens of Mississippi. MAFES develops and delivers emerging technologies to agricultural producers, bridging the gap between science and application.

Agricultural Production – In a global market projected to reach 9 billion consumers over the next 4 decades there is no more pressing need than development of sustainable agricultural production systems that delivery abundant, safe, nutritious, and affordable food while also producing essential fiber and renewable fuels.

Plant Production Systems – Development of production systems that optimize yield, energy efficiency, profitability, and environmental stewardship.

1. Commodity Cropping systems
2. Specialty Cropping systems
3. Fruits and Vegetables
4. Turf grass and Ornamentals
5. Water Quality and Quantity Management
6. Climate Change Adaptation/Mitigation
7. Agricultural Policy, Economics and Risk Management
8. Biotechnology, Genomics, and Proteomics

Animal Production Systems – Development of efficient, cost-effective, and humane animal production systems that optimize environmental stewardship.

1. Animal Nutrition
2. Herd, Flock, and Pond Management Systems
3. Reproductive and Stress Physiology
4. Animal Breeding and Genetics
5. Biotechnology and Genomics
6. Agricultural Policy, Economics, and Risk Management
7. Waste management and Water Quality

Food Safety and Quality – Development of food production, harvesting, processing, packaging, and preparation systems that ensure high quality, nutritious and safe food supplies.

1. Quality Assurance in Production, Processing and Packaging
2. Prevention/Detection of Food-borne Pathogens
3. Extending Shelf-life and Protecting Nutritional Content

Sustainable Energy – Development of enhanced feedstocks, conversion technologies, harvesting and transportation systems and energy conservation practices that increase profitability and contribute to energy independence.

1. Energy Efficient Agricultural Systems
2. Biomass-to-Energy Conversion Technologies
3. Biomass Feedstock Development and Production
4. Biomass Harvesting and Transportation Systems
5. Economics and Life-cycle Analyses of Bio-energy Systems

Human Health and Well-being - Integrative research addressing nutrition, dietetics, and human behaviors that promote physical and mental health; prevent disease, injury, and disability; and enhance quality of life for Mississippi residents.

1. Access to Affordable, Nutritious, and Nutraceutical foods
2. Obesity and Diet-related Diseases Prevention
3. Child, Youth, and Family Development
4. Healthy Lifestyles
5. Science to Protect Human Health

Sustainable Communities – Management plans and tools to allow communities to develop economic systems for prosperity while protecting the surrounding ecosystem.

1. Water Management Tools and Best Management Practices
2. Natural Resource Enterprises and Agritourism
3. Community Supported Agricultural Enterprises
4. Disaster Preparedness and Management
5. Community Growth Dynamics

