



## The School of Agriculture and Environmental Sciences Strategic Plan (Fiscal Year 2011-2015)

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The "Strategic Plan for the School of Agriculture and Environmental Sciences" is a cohesive vision for our preferred future in the food, agricultural, family and environmental sciences. This plan has grown out of discussions and listening sessions with individuals from throughout North Carolina and emanated from reviews of the national goals of the United States Department of Agriculture, the needs of the state, faculty expertise and interest. "A&T Preeminence 2020," the University's long-term strategic plan that was implemented to chart out a nine-year course for the University in 2011, is the primary guide for selecting the School of Agriculture and Environmental Sciences overarching objectives for establishing mutually beneficial partnerships with businesses, corporations, foundations, industry and governmental agencies. These objectives were also identified to give SAES added guidance in the allocation of resources, and to provide a focus for ongoing efforts to assure public awareness of the SAES and North Carolina A&T State University. This plan also recognizes that North Carolina A&T must be positioned to respond rapidly and effectively to emerging issues that affect the profitability and sustainability of North Carolina agriculture, now and in the years ahead. As such, SAES's growth strategy will be to maintain current strengths while expanding into the new strategic areas.

The Strategic Plan's overarching objective is to position the School of Agriculture and Environmental Sciences to build on the legacy of 1890 Land-Grant Institutions to respond to contemporary issues pertaining to more sustainable agricultural production; quality of life for individuals, families and communities; small and limited resource farms; and food distribution systems.

### Specific objectives

- Major contributions to the development of new rural and urban localized food supply chain infrastructures;
- Teaching, research and Extension that fosters development of strong families and communities through various teaching, research and outreach endeavors;
- Broad-based community stewardship to further address inequalities in financial resources;
- Educational research and Extension outreach and engagement to identify concerns and generate solutions; and
- Educational opportunities and research programs that benefit communities throughout North Carolina, the nation and the world, through our local food & health initiatives.

### Background

Agriculture and agribusiness have guided the economy of North Carolina since its beginnings. Even our state seal, which features a cornucopia, recognizes the importance of agriculture to our state. Agriculture and agribusiness remain the leading industries in North Carolina, contributing nearly \$78 billion annually to the state's economy. Agriculture and agribusiness employ more than 16 percent of the state's workforce, and account for about 17 percent of the state's income.\*

As a land-grant university, North Carolina A&T has an inherent responsibility to offer broad curricula with a blend of liberal and practical education; to conduct basic and applied research for the public interest; and to disseminate scientific and practical knowledge through Cooperative Extension and other outreach programs. When North Carolina A&T first opened its doors in 1891, the academic roots of what would later become the School of Agriculture and Environmental Sciences (SAES) were already forming. Today, more than 11 decades later, we are adhering to our land-grant roots of teaching, research and Extension while concurrently transforming the SAES into an interdisciplinary unit that is attracting a larger and more diverse student body. The SAES's portfolio is strengthened through partnerships



and collaborations with other schools and colleges on campus, as well as with stakeholder organizations throughout the state, nation and world.

Our programs in the food, agricultural, family and environmental sciences have continued to grow in the breadth of curriculum and student enrollment since the first baccalaureate program was offered in 1918, and the first master's program in agricultural education in 1940. Although there have been many shifts in the SAES's guiding principles over the years, our core principles have always included a commitment to instilling a sense of value and purpose in our students, and to vigilantly seek out solutions for pressing social and scientific issues with our Extension activities and research projects.

The SAES will use this Strategic Plan to advance the land-grant mission of catalyzing positive change that improves the quality of life for all North Carolinians. SAES faculty, staff and students share a common bond through their sincere desire to learn and serve others. We desire each individual to experience the SAES as a place to excel, think critically and creatively, communicate effectively and put knowledge to work. The SAES will forever be a place that inspires the spirit of scholarship, collaboration and excellence.

### **Our Vision**

The School of Agriculture and Environmental Sciences shall be a premiere learner-centered community that develops and preserves intellectual capital in the food, agricultural, family and environmental sciences through interdisciplinary learning, discovery and engagement.

### **Our Mission**

The School of Agriculture and Environmental Sciences provides opportunities for individuals from diverse backgrounds to achieve excellence in the food, agricultural, family and environmental sciences through exemplary and integrative instruction, and through scholarly, creative and effective research and Extension programs.

### **Our Core Values**

#### ***Shared Leadership***

SAES values share governance, responsibilities and decision-making.

#### ***Integrity & Honesty***

SAES values trust, trustworthiness, honesty and ethical behavior. SAES deeds will be consistent with our words.

#### ***Respect for the Individual***

SAES values civility among individuals and fosters diverse viewpoints and opinions. Employees strive for daily interpersonal relations that demonstrate commitments to treating all persons with fairness, dignity, caring, quality and compassion.

#### ***Collaboration***

SAES values working with a broad range of constituencies to bring synergy and diverse viewpoints to the University. SAES works hard to forge alliances and equitable partnerships across public and private sectors in pursuit of preparing, finding and implementing solutions.

#### ***Diversity***

SAES values and respects diversity, and works to empower all employees and students to function inclusively and effectively in a multicultural world. SAES is committed to protecting and advancing the interests of diverse populations and cultures and acceptance of others without biases based on differences of any kind.



### *Innovation/Creativity*

SAES values and uses science and technology to strengthen and advance the food, agricultural, family and environmental sciences. Critical thinking, inquiry-based learning, scientific knowledge and practical application are hallmarks of SAES work and programs. SAES encourages and challenges employees and students to find and implement solutions to existing problems and create new economic opportunities.

### *Global Awareness*

SAES values globalization and encourages staff and students to think globally in preparation for today's fast-moving and ever-changing world, and to better serve our constituencies.

## Organization

The SAES Strategic Plan was formulated in response to opportunities and challenges facing the School and the food, agricultural and environmental systems. Eleven themes were captured at faculty summits and information gathering sessions held around the state – involving many external and internal stakeholders and subsequent discussions. The national goals of the United States Department of Agriculture were reviewed, North Carolina's particular needs were assessed and they too were incorporated into the SAES Strategic Plan. Issues identified by all these sources were selected for their significant potential for reciprocating alliances with institutions of higher learning, communities, businesses, foundations and governmental agencies.

## THE 11 THEMES THAT FORM THE MATRIX FOR THE SAES STRATEGIC PLAN ARE:

- Maintain a responsive learning environment
- Attract, retain and graduate outstanding students
- Improve minority and environmental health
- Ensure a nutritious, safe and secure food supply
- Empower individuals, families and communities
- Advance biotechnology and biodiversity
- Ensure the viability of small-scale agriculture
- Protect the environment and natural resources
- Promote international trade and economic development
- Use innovative technologies
- Expand the SAES resource base and maximize relationships

*The first nine themes* are content strategies, while the last two are procedural strategies for realizing the content goals. In the document that follows, there is a brief descriptive statement, followed by goals, action strategies and success indicators. The strategies will guide how each goal will be achieved. Success indicators provide ways of measuring progress on how well the SAES is meeting its strategies and goals.

The SAES must strive for excellence in all its programs. It is particularly important that the SAES maintain its collaborative culture of partnerships among academic, research and extension programs, across disciplines, across the University and with communities, businesses and governmental agencies. The SAES Strategic Plan includes the full spectrum of SAES programs that is needed to address these issues. Because of the complex nature and magnitude of issues facing the food, agricultural, family and environmental sciences, interdisciplinary approaches also must be an important part of the SAES's learning, discovery and engagement portfolios. As reflected in this plan, an integral part of the land-grant mission is to achieve excellence in research as the underpinning to education and Extension.



SAES faculty and staff are committed to carrying out the plan, and they are committed to the University's vision of preeminence—its mission of learning, discovery and engagement. SAES faculty and staff have, and will continue to prepare, find and implement solutions.

## Theme 1: Maintain a Responsive Learning Environment

Learning is what the University is all about. Consistent and effective learning takes place only in a nurturing, supportive and responsive environment. SAES must continue to take those necessary steps to build a foundation for learning so that teaching, research, Extension, creative activity and service will flourish. The SAES must provide interdisciplinary learning experiences to our students by offering high quality programs to make them competitive in the global job market and to instill good citizenship that embodies work ethic and perseverance.

**Goal 1:** *Produce graduates who are competent, prepared to perform in the workplace and prepared to become outstanding leaders in an increasingly diverse society.*

### Action Strategies

- Provide support for faculty to develop innovative and integrative instructional methods
- Ensure that programs and activities meet state and national accreditation standards
- Promote student participation in value-added certificate programs and other activities
- Provide more inquiry-based, interdisciplinary and experiential learning opportunities
- Encourage and motivate students to continue with lifelong learning
- Prepare students with opportunities to apply knowledge to the solution of real-world problems and be of service to their communities
- Strengthen student support services

### Success Indicators

- Maintain accreditations
- Ten percent annual increase in number of faculty enrolled in the Academy of Teaching and Learning (ATL) teaching enhancement workshops and programs
- Improve the UNC system-wide student evaluations, i.e. sophomore, seniors
- Ten percent annual increase in refereed publications and participation in symposia, lecture series and national and international
- Five percent annual increase in the number of students maintaining an electronic portfolio and participating in experiential learning opportunities
- Ten percent annual increase in the number of students with interdisciplinary certificates and participation in lectures, seminars and other programs

**Goal 2:** *Enhance an academic culture that is challenging, supportive and fosters achievement and intellectual interaction*

### Action Strategies

- Recruitment and retain a high quality faculty and staff
- Improve and implement an SAES performance evaluation system
- Develop a reward and recognition-system
- Routinely review all policies and procedures
- Communicate adequately with faculty, staff and students
- Promote academic and social interaction among faculty, staff and students
- Encourage and support infrastructure for professional growth and development for faculty and staff



#### **Success Indicators**

- Continue to review and improve evaluation and coaching procedures, with appropriate rewards that match performance expectations for all employees
- Performance and evaluation system implemented
- Continue to review and improve strategies for professional development and mentoring of new and junior faculty and staff
- Policies and procedures updated
- Improved personnel performance
- Number, type and medium of communications directed toward students
- Availability of joint activities attended by faculty, staff and students
- Results of SAES graduating seniors exit interviews
- Recognize and reward superior achievement and scholarship by faculty, staff and students

## **Theme 2: Attract, Retain & Graduate Outstanding Students**

Educating students was the earliest mission of the SAES and remains the most important way that we enhance the future of this state. Instruction is fully integrated with our other missions—research and Extension. The SAES expects its graduates to become leaders in their professions and their communities. To this end, SAES must attract and graduate outstanding students with diverse backgrounds and equip them with the knowledge and skills appropriate for multiple career paths and to meet the challenges of the future.

**Goal 1:** Develop and implement innovative strategies to recruit outstanding students

#### **Action Strategies**

- Strengthen and enhance a learning environment that supports student success
- Secure additional support for scholarships and recruitment programs
- Develop an SAES recruitment marketing strategy
- Develop an alumni base to assist in student recruitment

#### **Success Indicators**

- Seven percent annual increase in number of students, undergraduate and graduate
- Increase scholarship funding awarded by 20 percent
- Implementation of SAES recruitment marketing plan
- Five percent annual increase in the number of alumni volunteers working on recruitment

**Goal 2:** *Increase graduation and retention rates*

#### **Action Strategies**

- Provide the best possible curriculum opportunities supported by a faculty of dedicated and skilled instructors and advisors
- Foster student participation in personal and professional development opportunities beyond the classroom, including student research and professional organization memberships and internships
- Develop a retention plan
- Monitor curriculum offerings for contemporary relevance, ensuring that students are both fully engaged and performing at optimal levels
- Offer a full scope of learning opportunities for all disciplines in SAES with access to graduate and professional studies, distance learning and continuing education
- Establish a network of partnerships with community colleges for the recruitment of students



#### **Success Indicators**

- Retention plan developed
- Three percent annual increase in retention rates
- Five percent annual increase in graduation rates
- Five percent annual increase in the number of students with community college degrees who enroll in SAES
- Bi-annual curriculum review to reflect student, alumni, contemporary relevance
- Five percent annual increase in students participating in personal and professional development opportunities
- Demonstrated improvement on indicators of quality education and success of graduates
- Increased opportunities for graduate and professional studies, distance learning and continuing education

### **Theme 3: Improve Minority & Environmental Health**

Disparities in health status and access to health care among minority populations are ongoing public health concerns. Nationally, minority populations, particularly African Americans, suffer higher rates of morbidity and mortality. Changes in medical technology, lifestyle adjustments and environmental protections have not produced equal benefits in racial and ethnic populations. Differences among socioeconomic classes in environmental and occupational exposures are thought to play a key role in health disparities. There is also a disproportionate placement of pollution-intensive industries and hazardous waste sites in low-income and minority communities.

**Goal 1:** *Enhance the health and well-being of people – particularly minorities – and the environment in which they live*

#### **Action Strategies**

- Foster inter-and multidisciplinary faculty teams in securing resources within SAES, across the University and with other universities and external organizations
- Pursue increased resources and funding for high quality research, instructional and outreach programs
- Create sound educational programs and initiatives that promote the health and safety of underserved populations
- Engage underserved communities in identifying research and extension priorities in health and the environment

#### **Success Indicators**

- The number and caliber of interdisciplinary collaborations
- Marked increase in external funding for research, instructional and outreach programs
- Amount of research and Extension outputs in the area of minority and environmental health
- Community involvement in identifying research and outreach priorities

**Goal 2:** *Establish and enhance partnerships to promote minority health*

#### **Action Strategies**

- Initiate and lead an agromedicine alliance among 1890 land-grant universities
- Increase SAES involvement and participation in the North Carolina Agromedicine Institute
- Strengthen and expand existing partnerships with state, regional and national minority health organizations
- Promote linkages and collaboration between SAES and the University's Public Health Institute

#### **Success Indicators**

- Number of strategic partnerships established
- Number of North Carolina Agromedicine Institute events and activities and increased funding
- Number of research, education and outreach activities
- Organization of an 1890 Agromedicine Alliance
- The extent to which SAES faculty participate in projects, activities and programs associated with the University's Public Health Institute



**Goal 3:** *Provide educational opportunities in minority health and environmental health*

**Action Strategies**

- Develop new courses, enhance existing courses and an undergraduate certificate program
- Conduct symposia, workshops and seminars
- Secure additional funds for scholarships, assistantships and internships

**Success Indicators**

- Certificate and courses approved
- Number of symposia, workshops and seminars conducted
- Increased number of scholarships, assistantships and internships

## Theme 4: Ensure a Nutritious, Safe & Secure Food Supply

Nutrition-related health problems (e.g., obesity, diabetes, cardiovascular diseases and nutritional deficiencies) are major public health concerns at the local, state and national levels. Obesity has reached epidemic proportions and remains the leading cause of osteoarthritis, cancer, hypertension and other preventable diseases. Another preventable destabilization of public health, foodborne illnesses, are affecting thousands of consumers annually. The SAES must help the residents of North Carolina ensure farm-to-fork safety of a nutritious food supply that accelerates more North Carolinians to adopt healthy eating habits.

**Goal 1:** *Enhance educational opportunities in nutrition-related health issues*

**Action Strategies**

- Review and modify undergraduate and graduate programs in food and nutritional sciences
- Develop a certificate program producing registered dietitians
- Incorporate nutrition into the University studies core
- Effectively utilize industry and agency partnerships to enhance learning opportunities

**Success Indicators**

- Completion of curriculum audit and upgrade
- Registered dietitians certification program established and approved
- Nutrition courses added to the University studies core
- Increase number of scholarships, assistantships and internships by 10 percent
- Student participation in local and national meetings
- Evidence of industry involvement in educational opportunity development

**Goal 2:** *Expand research and strengthen Extension programs in nutrition-related health issues*

**Action Strategies**

- Develop interdisciplinary proposals in nutrition, nutraceuticals and functional foods
- Establish a Food Product and Technology Center
- Promote interdisciplinary faculty collaboration, particularly with the University's Public Health Institute
- Develop collaborative research partnerships with business and industry

**Success Indicators**

- The number of interdisciplinary proposals developed and funded
- Food Products and Technology Center established
- Extent of interdisciplinary collaboration



**Goal 3:** Expand innovative research, education and outreach efforts in food safety and security

**Action Strategies**

- Seek additional funding in food safety and security
- Establish interdisciplinary collaboration with the nation's leading universities working to protect the food supply
- Develop collaborative research partnerships with business and industry

**Success Indicators**

- The number of interdisciplinary proposals developed and funded
- A 10 percent increase in funding for research
- Amount of and extent of collaboration with universities that are national leaders in food safety
- Amount and extent of collaboration with business and industry

## Theme 5: Empower Individuals, Families & Communities

Empowerment for individuals, families and communities entails increasing both knowledge and the skill base, and nurturing behaviors to address daily quality-of-life issues. These issues include family finance management, parenting and child development, aging, health, nutrition, personal safety and workforce readiness. Aligned issues are strengthening community infrastructures – including housing – and leadership development.

**Goal 1:** Strengthen the economic, social and physical well-being of individuals and families through educational programs

**Action Strategies**

- Promote research in family issues and individual roles in family dynamics
- Design and develop sound educational programs to increase knowledge transfer to families
- Expand and broaden the scope of the financial literacy and planning programs
- Establish a year-round, state-of-the-art child development laboratory for training, research and learning
- Establish a family resource center that offers family and housing counseling, resource management, consumer trends evaluations, financial planning, self-esteem seminars and related programs

**Success Indicators**

- Increase the number of programs developed and implemented that address family issues
- Ten percent annual increase in external funding for research related to family issues individual roles in family dynamics
- The number and quality of educational programs related to family issues
- Growth in the number of financial literacy programs and financial planning (specifically those targeting minorities and families financially at-risk)
- Year-round state of the art child development laboratory established
- Family Resource Center established
- Marked increase in external funding that addresses child development issues
- Increased number of community partnerships

**Goal 2:** *Improve the capacity of communities to address critical issues through programs in leadership development and civic engagement*



**Action Strategies**

- Develop and strengthen partnerships with community-based organizations
- Expand community-based leadership and volunteer development training

**Success Indicators**

- Number and quality of partnerships formed with community-based organizations
- Type and quality of community-based leadership and volunteer development training

**Goal 3: Stimulate entrepreneurship and economic development in rural communities**

**Action Strategies**

- Engage communities in identifying community infrastructure needs that stimulate community development
- Enhance economic development and rural policy research

**Success Indicators:**

- The number of workshops developed and number of people attending sessions on entrepreneurship and business development
- The number of business started
- The number of people engaged in activities to improve the community infrastructure
- Ten percent annual increase in funding for economic development and rural policy research

## Theme 6: Advance Biotechnology & Biodiversity

North Carolina's roadmap for biotechnology and biodiversity – “New Jobs Across North Carolina: A Strategic Plan for Growing the Economy Statewide Through Biotechnology” – shows that the state's biotechnology industry is among the nation's five largest, with more than 180 companies employing 21,000 people and generating \$4 billion in annual revenues. The SAES has unique resources and expertise to provide education, to address basic scientific research issues, and to help position the state to gain the economic and social benefits from biotechnology and biodiversity.

**Goal 1: Strengthen research competitiveness in biotechnology and biodiversity**

**Action Strategies**

- Aggressive pursuit of extramural funding and additional collaborations
- Development of collaborative partnerships with private-sector industries, educational institutions, state and federal laboratories (including the North Carolina Biotechnology Center)
- Stimulate research and development in biotechnology and biodiversity techniques
- Review and implement selected strategies identified in North Carolina's biotechnology roadmap
- Develop SAES centers of excellence – edible and medicinal mushrooms, medicinal herbs, genomic diversity, as well as biotechnology and biodiversity
- Promote development and commercialization of intellectual property

**Success Indicators**

- Number of extramurally funded projects, and total amount of extramural funding
- Number of partnerships
- Number of papers published, presentations, and faculty and staff involvement in professional activities
- Number of filings for intellectual property



- Center of excellence established
- Number of biotechnology laboratories established or upgraded
- Number of strategies in North Carolina biotechnology roadmap reviewed and implemented

**Goal 2:** *Provide new educational experiences in biotechnology and biodiversity*

**Action Strategies**

- Develop new courses, and enhance existing courses and undergraduate certificate program
- Develop a graduate certificate program or an M.S. in Biotechnology
- Conduct symposia, workshops and seminars
- Attract and retain talented faculty, post-docs and graduate students
- Seek faculty and student internship opportunities and funding for scholarships, instrumentation and assistantships

**Success Indicators**

- Number of new courses developed and existing courses enhanced, and number of students interested in biotechnology and biodiversity
- Graduate certificate program or M.S. program in biotechnology established
- Number of symposia, workshops and seminars conducted
- Number of new faculty, post-docs and graduate students in biotechnology
- Number of internships and scholarships and increased resources

**Goal 3:** *Enhance outreach activity in biotechnology and biodiversity*

**Action Strategies**

- Develop and disperse outreach materials
- Conduct seminars, workshops, open houses and field days
- Provide expertise to the community and stakeholders about biotechnology and biodiversity related concerns

**Success Indicators**

- Volume of educational materials developed and disseminated
- Number of seminars, workshops, open houses and field days conducted
- Number of communities and stakeholders provided expertise, and number of concerns received and addressed

**Goal 4:** *Develop a plan for campus program centers of excellence for biotechnology and biodiversity*

**Action Strategies**

- Update SAES's asset inventory
- Work collaboratively with the Colleges of Arts and Sciences and Engineering
- Encouraging university-industry interactions
- Establish internal and external partnerships
- Establish a Center for Edible and Medicinal Mushrooms and Medicinal Herbs
- Establish a Center of Excellence for Studies in Genomic Diversity
- Develop an Interdisciplinary Biotechnology and Biodiversity Program
- Conduct campus asset inventory

**Success Indicators**

- A written proposal or proof of concept
- Number of partnerships
- A campus asset inventory report



## Theme 7: Ensuring the Viability of Small-Scale Agriculture

More than 90 percent of the farms in North Carolina are categorically small (grossing less than \$250,000 annually). Surviving as a small-scale farmer requires strategies for many perils. These include marketing, risk management, profitability, knowledge of the technical climate and technology advances, changes in public policy, and resource assessments. Also adversely affecting small farm viability is the length and segmentation of the production processes and the forces of nature that affect short-term supply in the face of relatively constant demand. In-depth knowledge of, and research on, this population and issues they face are central to the SAES

**Goal 1:** *Enhance the sustainability and profitability of small-scale agriculture*

### **Action Strategies**

- Assist beginning and existing farmers in developing management and business practices to ensure farm survival and future success
- Develop techniques that add value to agriculture products
- Identify alternative enterprises for small farms
- Use the University Farm effectively to promote research and outreach activities

### **Success Indicators**

- The extent to which farmers use best management and business practices
- The extent to which value-added products are explored and developed
- The extent to which farmers adopt alternative enterprises
- Increased use of the University Farm for research and outreach activities

**Goal 2:** *Develop alternative marketing channels for small-scale producers*

### **Action Strategies**

- Identify market outlets
- Engage farmers in identifying relevant marketing issues
- Involve farmers in the marketing process

### **Success Indicators**

- Type and number of market outlets identified
- Type and number of marketing issues identified
- The extent to which farmers participate in marketing programs and activities

**Goal 3:** *Assist farmers and small-scale landowners in managing assets, farm income, land, people and other resources*

### **Action Strategies**

- Develop estate planning, land and resource ownership and risk management programs
- Promote linkages and collaboration among SAES, non-governmental organizations, and government agencies such as North Carolina Department of Agriculture and Consumer Services and the Risk Management Agency, to strengthen farm management support to farmers and beginning farmers

### **Success Indicators**

- Implementation of farm management plans
- Amount of funding for risk management
- Type and quality of linkages and collaborations developed



## Theme 8: Protect the Environment & Natural Resources

Agriculture, beyond growing crops and producing food, also means conserving scarce natural resources and environmental stewardship. Farmers and all other citizens of North Carolina are faced with ground and surface-water contamination, soil erosion, declining soil quality, and other environmental degradations. The SAES must respond to the need for profitable agricultural systems that protect the environment, conserve the state's natural resources, develop new ways to harness the state's renewable resources, and enhance our rural communities.

**Goal 1:** *Expand soil and water quality research and outreach*

### **Action Strategies**

- Increase funded research for soil and water quality, conservation tillage and waste management technologies for small-scale farming operations
- Develop research and outreach partnerships with federal and state agencies
- Develop and implement Extension programs that disseminate research results and report impacts of research and Extension activities

### **Success Indicators**

- Increased number of externally funded projects and total funding for research
- Increased number of jointly sponsored projects and activities with federal and state agencies
- Increased adoption of best management practices by farmers and associated positive environmental, economic and social impacts

**Goal 2:** *Enhance SAES instructional, research and Extension programs to embrace the new partnership with USDA/Natural Resources Conservation Service (NRCS)*

### **Action Strategies**

- Collaborate with NRCS to develop a comprehensive plan that fosters research and Extension efforts that address the adoption of best management practices by a wide variety of producer groups
- Align SAES resources and seek additional resources to support the NRCS strategic plan
- Foster the exchange and interaction of SAES faculty, staff, students and NRCS specialists to facilitate the interchange of ideas and promote scientific discourse
- Conduct symposia, seminars, workshops and field days

### **Success Indicators**

- Production and implementation of a comprehensive plan for research and Extension that promotes the adoption of best management practices
- Evidence of enhanced infrastructure, staffing, funding and other SAES initiatives that support the NRCS strategic plan
- Increased student internships at NRCS, and increased partnerships between NRCS and SAES faculty in academic, research and Extension activities
- Number of symposia, seminars, workshops and field days conducted

**Goal 3:** *Develop a renewable energy and bioproducts center*

### **Action Strategies**

- Increase funded research for renewable energy and bioproducts research and outreaches



- Identify and build collaborations with industry partners
- Identify and secure resources to support a renewable energy and bioproducts center

#### **Success Indicators**

- Increased number of externally funded projects and total funding for research and outreach
- Development of a renewable energy and bioproducts consortium that includes industry partners
- Evidence of infrastructure for a center, including funding, faculty positions and office and laboratory facilities

## Theme 9: Promote International Trade & Economic Development

International trade is increasingly important for the food and agricultural sectors. In recent years, agricultural exports and imports have each represented about 12 percent of our national income or gross national product. The inherent opportunities provided by the recent wave of globalization present important opportunities to harness the collective skills of SAES faculty in mitigating international development challenges in agriculture and related disciplines such as forestry, engineering, veterinary medicine, health and applied education.

**Goal 1:** *Prepare faculty and students for life in a global society*

#### **Action Strategies**

- Incorporate a global perspective into the SAES's teaching, research and Extension programs
- Enhance faculty and student participation in global interdisciplinary experiences
- Educate students – particularly minorities – in international trade and international marketing
- Collaborate with the Office of International Programs
- Encourage students to earn certificates in Global Studies
- Educate, prepare and mentor faculty and students to participate in international educational activities

#### **Success Indicators**

- The extent to which faculty and students participate in international opportunities
- Ten percent annual increase in the number of students graduating with a certificate in International Trade, Global Studies or the Master's International Program
- The extent to which faculty incorporate a global perspective in their courses, research projects and Extension programs
- Increased funding for students and faculty to engage in international experiences
- The extent to which faculty and students participate in the programs and activities sponsored by the Office of International Programs

**Goal 2:** *Conduct research and develop solutions to international issues and problems*

#### **Action Strategies**

- Seek funding to support research in international trade and development
- Collaborate with international partners to identify food and agricultural research issues
- Design and implement research to find solutions to issues that affect economic growth and development

#### **Success Indicators**

- Increase the number of proposals developed and funded by 15 percent
- Develop international collaborations and partnerships



**Goal 3:** *Assist small businesses and farmers in developing international markets*

**Action Strategies**

- Identify and create business opportunities for small businesses and small-scale farmers
- Collaborate with USDA's Foreign Agricultural Service and other international partners in implementing technical assistance projects
- Seek funds to maintain and develop relationships with donor agencies
- Build capacity of faculty and staff to work in international markets
- Encourage campus collaboration with the International Trade Center
- Enhance the service capacity of the International Trade Center

**Success Indicators**

- The number of small businesses involved in international activities
- The number of entities seeking assistance at the International Trade Center
- The number of technical assistance projects implemented
- The number of faculty and staff collaborations and partnerships
- Amount of funds directed to maintenance and development of international collaborations and partnerships
- The extent to which faculty and staff work in international markets

## Theme 10: Use Innovative Technologies

The Internet, informational, instructional, spatial, environmental and biomedical technologies are essential to advances the food, agricultural, family and environmental sciences. These technologies also expand learning choices and methodologies in support of just-in-time learning and lifelong learning. The SAES must continue to fully embrace these innovative technologies and assure that the use of these new technologies is relevant, appropriate and accessible.

**Goal 1:** *Position SAES to embrace relevant and appropriate technologies*

**Action Strategies**

- Develop an innovative technologies plan
- Coordinate efforts with the Division of Information Technology and Telecommunications (ITT), and with the Academy of Teaching and Learning (ATL) and Center for Distance Learning (CDL)
- Develop capacity of faculty and staff to use innovative technologies
- Develop partnerships with private sector organizations
- Commit resources for the purchase, use and maintenance of state-of-the art technology

**Success Indicators**

- Implementation of innovative technologies plan
- Degree of coordination with ITT, ATL and CDL
- Extent of faculty and staff use of technology
- Number of partnerships developed
- Development of technology budget

**Goal 2:** *Integrate technology in the transfer of knowledge in teaching, research, outreach and Extension*

**Action Strategies**

- Build staff capacity to participate in the national "Extension initiative"
- Use technology to integrate program delivery from campus, to field to clients



- Provide 24-hour instruction to statewide clients
- Coordinate SAES efforts with internal and external clients

**Success Indicators**

- Number of faculty and staff participating in electronic program delivery training
- Creation of on-line courses, 24-hour access

## Theme 11: Expand Resource Base & Maximize Relationships

As the priorities of traditional funding sources shift, it's critical that SAES seek new sources of funding to accommodate growth in critical programs and to recruit and retain top-quality employees and students. Tapping into these new funding streams requires targeted and effective marketing of SAES programs and accomplishments. Expanding the resource base, creating an aggressive marketing campaign and strengthening stakeholder relationships are necessary for the SAES's survival.

**Goal 1:** *Strengthen and enhance SAES funding sources*

**Action Strategies**

- Develop comprehensive solicitation strategies to attract contributions from alumni and other potential donors
- Develop SAES fundraising priorities
- Develop targeted strategies to increase extramural research funding from all sources, with particular emphasis on federal competitive programs

**Success Indicators**

- Increased number of new SAES donors and funded grants
- Attainment of SAE's fundraising goals
- Identify and support targets of opportunity in research areas consistent with SAES major program initiatives

**Goal 2:** *Promote SAES with key policy makers*

**Action Strategies**

- Communicate impacts and economic benefits of SAES research and Cooperative Extension programming
- Develop a comprehensive legislative strategy to ensure continued and additional funding for Cooperative Extension and the Agricultural Research Program
- Engage key constituencies – particularly alumni – to help the SAES achieve its objectives

**Success Indicators**

- Additional funding for SAES programs and activities
- Availability of impact statements and other marketing publications
- Meeting federal match requirements for Cooperative Extension and Agricultural Research programs
- Number of new state and national contacts that lead to partnerships, collaborative efforts or increased external funding

**Goal 3:** *Increase SAES's exposure and value by marketing to the general public*

**Action Strategies**

- Develop a long-term aggressive SAES marketing plan
- Create media opportunities to highlight SAES accomplishments
- Seek and commit resources for marketing



**Success Indicators**

- Creation and implementation of SAES marketing and communications plan
- National recognition of the SAES and its varied people, programs and activities
- Development of SAES marketing budget

**Goal 4:** *Develop partnerships and collaborations that promote the mission, vision, goals and objectives of SAES*

**Action Strategies**

- Develop local, state, national and international partnerships to foster research, learning and outreach
- Through partnerships, apply SAES knowledge and expertise to address and solve local, state, national and international issues
- Build and strengthen relationships with key constituency groups, including alumni and advisory boards
- Develop inter- and multidisciplinary teams (teaching, research and Extension) within SAES, across the University and with other universities and agencies

**Success Indicators**

- Increases in both the number and caliber of new partnerships that are developed and maintained
- Impacts garnered from new partnerships
- Type, number and caliber of inter- and multidisciplinary teams developed
- Type, number and extent to which problems and issues are identified and resolved
- Participation and involvement of advisory board members

\*Data current as of August 2015

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