Institutional Information Request Form

Southern Region: Value of Extension Services and Experiment Stations

The Battelle Memorial Institute is working with the leadership of the Association of Southern Region Extension Directors and the Southern Association of Agricultural Experiment Station Directors in producing analysis and a high-profile report on the special value of extension and experiment stations in the development of the 21st Century agbioscience economy. Each of the land grant universities in the 13 state and 2 U.S. territory southern region is collaborating in performance of this important project.

For each of the land-grant institutions participating in this project, Battelle is requesting information, data, project examples, etc. that will help illustrate the value of experiment stations and extension services. Completion of this information request is an important step in the information gathering required for this project. We are requesting that at each institution, the Experiment Station Director and the Extension Director jointly complete each section to the best or your collective ability. Note that within this form, Agbiosciences includes all aspects of agricultural, environmental, and biological sciences; as well as forestry, fisheries, wildlife, agro-tourism, and recreation; which are within the purview of the experiment station and/or extension service. Also, if you have additional supporting documents, reports, statistical summaries, etc. that you believe would be helpful to this project please forward them to the consulting team at Battelle together with your completed form. The form is set-up using MS-Word tables so you can type directly into the table boxes.

Please return the completed form to Simon Tripp at Battelle via email to tripps@battelle.org. If you have questions please direct them to Simon at:

Simon J. Tripp
Senior Director
Battelle Memorial Institute
Technology Partnership Practice
6 Jaycee Drive
Pittsburgh, PA 15243
412-276-1986
Cell: 412-523-6895
tripps@battelle.org
## Section 1: Institutional Profile

<table>
<thead>
<tr>
<th>University Name</th>
<th>Auburn University – Alabama Cooperative Extension System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension Service Director</td>
<td>Gary Lemme, 334-844-5547, <a href="mailto:gdl0003@auburn.edu">gdl0003@auburn.edu</a></td>
</tr>
<tr>
<td>Experiment Station Director</td>
<td></td>
</tr>
</tbody>
</table>

### Personnel

<table>
<thead>
<tr>
<th>Number of Personnel in Extension (FTE)</th>
<th>537.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Personnel in Experiment Station (FTE)</td>
<td></td>
</tr>
</tbody>
</table>

*Please do not include student employees, graduate assistants or temporary personnel*
### Section 2: Income/Revenue Sources

<table>
<thead>
<tr>
<th>Income Source</th>
<th>2011 $ Income Received by Extension</th>
<th>Funding Trend for Past 3 Years</th>
<th>2011 $ Income Received by Experiment Stations</th>
<th>Funding Trend for Past 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Formula Funds</td>
<td>$8,216,781</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
</tr>
<tr>
<td>State Appropriations</td>
<td>$31,084,291</td>
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<td>Local Government Appropriations (Counties, etc.)</td>
<td>$2,201,395</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
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<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Federal Grants and Contracts</td>
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<tr>
<td>State Grants and Contracts</td>
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<tr>
<td>Local Grants and Contracts</td>
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<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Industrial Grants and Contracts, including grants and contracts from commodity groups</td>
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<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
</tr>
<tr>
<td>Foundation Grants and Contracts</td>
<td>$0</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>All Other Grants and Contracts</td>
<td>$630,522</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Sales of Products and Services</td>
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<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Intellectual Property Revenues</td>
<td>$0</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Gifts</td>
<td>$47,491</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
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<tr>
<td>Other – ARRA Funding Net Investment Income</td>
<td>$3,625,089</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$56,497,599</td>
<td>__Increasing <em>X</em> Stable __Decreasing</td>
<td>$</td>
<td>__Increasing __ Stable __Decreasing</td>
</tr>
</tbody>
</table>

Are these income/revenue numbers based on a cash or accrual accounting basis? Accrual
Income Trends:

During the past five years, what trends have been observed in the funding for extension and experiment station activities? What are key funding challenges? Where have the most notable funding declines or increases occurred?

| While the majority of our funding has remained fairly stable, state funding has declined significantly since 2008. The key funding challenge has maintaining quality programs (with sufficient personnel and operating dollars) as our overall budget has continued to decline. We continue to search for other sources of funding through extramural programs and activities. |

Section 3: Research and Extension Activities

Key Initiatives, Institutes and Programs:

Please provide a description of **FIVE** key centers, institutes, programs or initiatives that are true signatures of experiment station and extension work at your institution. Here we are looking for descriptions of initiatives, centers, programs, etc. for which your university is internationally or nationally well-recognized as a leader.

1. **The Auburn Marine Extension and Research Center (AUMERC), located in Mobile** was established in 1988 when Auburn University added a research component to existing the Mississippi-Alabama Sea Grant Consortium’s Marine Advisory Program; established in 1977. In 2003 the Auburn University Shellfish Laboratory (AUSL) was opened and is a sub-unit of AUMERC. Faculty and staff are supported by the Department of Fisheries and Allied Aquacultures (FAA), the Alabama Cooperative Extension System (ACES), the Mississippi-Alabama Sea Grant Consortium (MASGC) and through grant funds.

2. **Alabama Fish Farming Center**. Established in 1982, the Alabama Fish Farming Center is located in Greensboro — the heart of Alabama’s catfish industry. The center provides technical assistance statewide in all aspects of fish farming. Every year, the Fish Farming Center analyzes thousands of water samples, diagnoses disease cases and surveys pond sites comprising hundreds of acres. Its staff, supported by AU's Department of Fisheries and Allied Aquacultures, the Alabama Soil and Conservation District, ACES, the Alabama Agricultural Experiment Station and the USDA's Wildlife Services Agency, provides assistance in most of Alabama’s 67 counties.

3. **ALABAMA BEEF CATTLE IMPROVEMENT ASSOCIATION**: Alabama BCIA’s mission is to promote, educate and facilitate the use of performance data, record keeping and marketing opportunities for BCIA members, while providing a leadership role to improve the Alabama cattle industry. Alabama BCIA is a non-profit organization of persons, firms, partnerships, and corporations in the State of Alabama who are engaged in the production and marketing of purebred or commercial beef cattle. Alabama BCIA was established in 1964 and cooperates with the Alabama Cooperative Extension System (ACES) of Auburn University under formal agreement. BCIA is guided by a board of directors made up of purebred and commercial producers, industry leaders in the state, the director of ACES, Department chair of Auburn Animal Sciences, and Regional and County Extension Agents.

4.

5.
Special Research and Extension Infrastructure

Please provide a description of FIVE special assets or infrastructure investments that support agbioscience and related development at your institution. Examples might include pilot plant facilities, unique scientific research infrastructure, biosecurity facilities, camps, etc.

1. The Chilton Food Innovation Center is a fully equipped industrial kitchen that will provide local farmers and other aspiring entrepreneurs with opportunities and technical assistance with food processing. The Food Innovation Center is a grassroots effort made possible by people from several local and state public and private entities in partnership with the Alabama Cooperative Extension System and the Alabama Agricultural Experiment Station.

2. The Hanna Center is housed at the Birmingham Botanical Gardens (directions). The center serves as a horticulture and environmental resource for the Birmingham Metropolitan Region. Services are directed toward the unique challenges of managing the urban ecosystem. Specifically, the Hanna Center focuses on the following program areas:
   - Horticulture
   - Urban Forestry and Wildlife
   - Plant Problem Diagnosis

A large part of our mission is to work with and train volunteers to help carry out our broader mission. One such volunteer group is the Jefferson County Master Gardeners who operate the Gary Gerlach Plant Information Center (GPIC) located on the first floor of the Birmingham Botanical Gardens just below the Hanna Center.

3.
4.
5.
Most Notable Assets, Centers, Programs or Initiatives by Category

For each of the areas of focus listed below, please provide what you consider to be the top TWO most notable strengths (programs, assets and infrastructure, centers, etc.) of your institution:

### Plant Sciences, Crop Science, Plant Genetics and Agronomy

1. Geospatial education and precision agriculture programs
2. Herbicide resistance management programs

### Animal Sciences, Animal Health, Livestock

1. Poultry house technology and management programs
2. Livestock and forage programs

### Food Science, Food Product Development, Advanced Nutrition and Health Products

1. Better Process Control School
2. Food Testing and Assistance Program

### Food Safety and Biosecurity

1. Good Agricultural Practices (GAP) & Food Safety training for farmers
2. ServSafe Programs

### Industrial Bioeconomy, Biofuels, Biobased Chemicals, Biobased Materials and Fibers

1. Renewable energy programs for Alabama fleet managers
2. 🟢

### Environmental Sciences, Natural Resources, Sustainability

1. Wildlife damage management programs
2. In-school or after-school enrichment program in environmental stewardship

### Agritourism and Recreational Hunting and Fishing

1. Tourism and retiree attraction programs
2. Management of recreational and sport-fishing ponds

### Family and Youth Development

1. Caregiver training
2. Program for high-risk families with children ages 6 to 11 years of age

### Community and Economic Development

1. Intensive Economic Development Training Course
2. Trade Adjustment Assistance for Farmers program targeting seafood producers that were adversely impacted by the Gulf Oil Spill and economic downturn

### Other, including multi-focus:

1. Emergency and disaster preparedness and response
2.

**Intellectual Property**

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Invention Disclosures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Patents Applied For</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Patents Awarded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Licenses Executed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Business Start-Ups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Plant Variety Protection Certificates Applied For</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Plant Variety Protection Certificates Awarded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ Value of Income received from Plant Variety/Germplasm Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ Value of Income received from all other Intellectual Property</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Company Spin-Offs and Commercialization**

Please provide examples of any start-up companies located in your state or the southern region that resulted from research discoveries, innovations or technologies developed at your institution in the past 10 years:


**High Impact Innovations and Technology Development**

Please provide FIVE examples of innovations or technology developments that have had a substantial impact on the field of agbioscience and/or associated agbio industries in the past 10 years. Examples might include crop varieties with enhanced yield characteristics, new processes or technologies introduced that significantly enhance productivity in industry, etc.


**Additional comments or items of note regarding experiment station and extension impacts:**
Section 4: Extension Service Programs

Statistics: please provide basic metrics and statistical information for extension:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of county/parish offices</td>
<td>67</td>
</tr>
<tr>
<td>Number of multi-county/multi-parish regional offices</td>
<td>9</td>
</tr>
<tr>
<td>Number of major 4H camps</td>
<td>1 with capacity for 185 campers</td>
</tr>
<tr>
<td>Number of 4H participants</td>
<td>85,000</td>
</tr>
<tr>
<td>Number of contacts with clients recorded by extension for the most recently completed year (include professional and volunteer contacts)</td>
<td>1,051,663</td>
</tr>
<tr>
<td>Number of volunteers for the most recently completed year and number of hours volunteered</td>
<td>5,493 volunteers; 284,730 hours</td>
</tr>
</tbody>
</table>

Please provide selected examples of notable/high impact projects or programs of extension that you would like considered for inclusion within the Battelle report. Please give consideration to including both rural and urban programs.

Business Development Programs/ Impacts

Minority Mall--Small business ownership offers options to unemployment and can supplement incomes in a difficult economy. Minoritymall.com works with minority and small business owners to enhance their capacity through marketing and technical assistance. The project seeks to stimulate economic growth by educating owners on small business development procedures and facilitates and promotes an online presence. The project provides participants with a host of online resources to enhance their small business. Resources are accessed through a virtual business development center housed inside a virtual shopping mall. One hundred and twelve (112) new businesses signed up to participate in the Minority Mall program during 2011. The site received over 1200 visits during the year to view participating businesses and 400 visits to the business development and links page.

Community Development Programs/ Impacts

Economic and Community Development--The Economic & Community Development Institute (ECDI) and ACES are conducting a $1.2 million project, "Connecting Alabama: Boosting Broadband to Bridge the Digital Divide." This includes educating and training residents and community leaders in every Alabama county about the social and economic benefits and applications of broadband technology.

Family and Consumer Science Programs/ Impacts

Health and Wellness--ACES is addressing issues through multiple programs across disciplines and partnerships. These programs include the New Leaf Program, which is evidence-based behavioral change curriculum involving adults and the Body and Soul Program for youth as well as the 4-H program Just Move Alabama. ACES is engaged in prostate cancer education, caregiver training, Community Health, Aerobics, and Motivational Program Initiating Optimal Nutrition (CHAMPION), and PROmoting School-community-university partnerships to Enhance Resilience (PROSPER).
**SERV SAFE**—certification has been conducted for food services in more than 1,000 schools. This has contributed to the reduction of food-borne illnesses.

**Financial Literacy Across the Life Span**—More than 6,000 direct contacts were made through programs to help consumers better manage their financial resources. At the completion of ACES training, 54 percent of participants knew how to obtain information on their credit score, 44 percent understood the advantages and disadvantages of credit cards, 42 percent were putting in place a family spending plan, 66 percent learned to complete a job application, and 26 percent learned how to participate in technology-assisted interview or job application processes.

### 4-H and Other Youth Development Programs/Impacts

**Inquiry Based Learning**—Alabama 4-H has undertaken a major initiative focused on inquiry-based learning. The immediate objective is to build young people’s education foundations in science, technology, engineering, and math through hands-on investigation.

**BodyQuest: Food for the Warrior, an Innovative Extension Education Program**—
- During the 17-week curriculum, youth participate in Warrior Tastings, where they try fresh vegetables; Warrior Workouts, where they learn about fruits and vegetable through interesting, jazzy exercise activities; and play iPads games, using a battery of interactive, colorful, and anime-style characters.

**Teens Getting Involved for the Future (TGIF)**—Eighteen separate grants have funded the program totaling, $2,014,213. The 4-H T.G.I.F. served fourteen counties. The program helps young people develop skills to resist pressure to become sexually involved outside the context of marriage.

### Other high impact/notable Extension programs

**Forage Production**—A statewide forage conference, four regional field days, and 15 regional meetings were conducted on forage production. Three new programs were developed to meet needs, including an equine forage field day, a silage and baleage workshop, and GrassMasters.

**Tornado Recovery**—ACES connected many of the victims of the 177 tornados that struck Alabama last year with agencies providing assistance; helped Farm Service Agency agents assess agriculture damage; addressed the needs of timber producers (204,590 acres affected with an assessed value of $228,360,576) and poultry producers (more than 3.2 million chickens were killed and 700 poultry houses damaged or destroyed). ACES also had representatives on long-term recovery committees.

**Herdbuilder Project**—The Herdbuilder project had a goal of bringing the value of heifer calves equal to that of their steer mates. The project produced gross sales of more than $3.7 million by retaining superior genetics of the calves.

**Water Conservation**—During 2011 as Alabama continued to make its come back from previous bouts with droughts, Extension’s home grounds programs focused on conservation and stewardship to educate consumers on all aspects of conserving water for home, farm, neighborhood and community use.
Beyond Rain Barrels workshops educated over 575 clients on water conservation and irrigation practices. Two hundred fifty four or (44%) adopted recommended rainwater irrigation practices to make use of water conserved or changed their watering practices to conserve more water. Over 12,000 gallons of water were conserved for recycling to supplement garden and niche crop irrigation.

Disaster Response--Of the 177 tornadoes that struck Alabama last year, nearly 100 struck in April 2011. More than 250 people died as a result of these tornadoes. The tornadoes destroyed homes, businesses, and schools, uprooted trees, knocked over cell towers and utility poles, damaged transmission towers and lines throughout central and north Alabama, creating nearly 10 million cubic yards of debris. Many communities not directly affected by the tornadoes experienced power outages and interrupted access to water for an extended period of time. Many animal agriculture producers were without power for up to three weeks. ACES employees contacted the local emergency management offices to offer assistance and then pitched in to help communities in the recovery process. They helped direct volunteers; connected victims with agencies; helped Farm Service Agency agents assess agriculture damage; addressed the needs of timber producers (204,590 acres impacted with an assessed value of $228,360,576) and poultry producers (more than 3.2 million chickens were killed and 700 poultry houses damaged or destroyed); and provided just in time education to those in need. As the communities started down the road to recovery, ACES was represented on Long Term Recovery Committees. Extension continues to provide education relevant to community long term recovery and for individuals as they establish a new normal. Severe weather did not stop with the close of 2011. In the first quarter of 2012, 52 tornado preliminary reports have been submitted. Some of those tornadoes have affected areas impacted by tornadoes in April 2011. Extension agents responded as before, assessing needs and providing education to meet those needs. Team members conducted post-storm tree management workshops that documented a 75% overall knowledge gain by participants. The print media effort reached 50,000 people through the newspaper and more than 150,000 through three magazine articles.

Additional comments or items of note regarding extension:

The Alabama Cooperative Extension System engages a broad range of Alabamians in a conversation about the significant issues facing the state at this point in our history and the opportunities for positive change. From these conversations, six Strategic Program Initiatives have been identified to guide Extension’s issue-based educational programs that acknowledge and address the current changes in the way citizens think, live, and function in their daily lives, families, communities, and businesses.

Health and Wellness

Obesity is Alabama’s number one health problem and is directly related to a number of chronic conditions. Reversing the trend of childhood obesity involves creating a healthconscious environment.

Goals

- Improve the health of Alabamians, with special emphasis on combating obesity and encouraging physical activity, nutrition education, and health literacy
- Empower families to improve health and well-being
- Increase access to and consumption of fresh fruits and vegetables
Benefits
Healthier lifestyles and a reversal of the obesity trend, increased health advocacy; improved health behaviors that affect state health expenditures; decreased disparities in the population; advancement of policies that affect health and wellness; development of a statewide coalition for health and wellness.

Highlights
- 3,300 youth educated in reducing drug, tobacco, and alcohol use through Healthy Choices Rock program.
- 2,000 third graders received nutrition education through Body Quest: Food of the Warrior iPad apps.
- 995 youth and 97 families improved parenting skills and reduced substance abuse in the Prosper Program; $9.60 return in reduced public expenses per dollar spent.
- Sexual abstinence education offered to 65,000 6th through 9th grade youth since 1995 resulted in 40 percent less sexual activity among 9th graders.
- 2,000 homes tested for radon; 4,600 new homes built radon resistant; and 90,000 youth educated about the risk of elevated home radon levels.

Workforce Development
Technological advances and global competition require a knowledgeable, skilled, and adaptable workforce. Economic survival depends on continuous training, lifelong learning, technology skills, and transferable skills.

Goals
- Improve workforce awareness, knowledge, and skills with emphasis on entrepreneurship and broadband adoption
- Build stakeholder connections and networks
- Foster citizen engagement in education, workforce development, and entrepreneurship

Benefits
Elevated workforce knowledge and skills; increased number of entrepreneurs; expanded use of broadband technology; reduced high school dropout rates and increased number of students in technical career tracks and dual enrollment programs; engaged stakeholder participation in workforce development.

Highlights
- Inland shrimp producers experienced a 500-pound per acre increase; $175,000 annual impact.
- 11,500 residents across Alabama trained on applications and broadband connectivity.
- 1,500 local leaders trained per year in Community Leadership Network.
- 100 consultation sessions with tourism-related entrepreneurs.
**Safe and Secure Food Supply**

Communities need adequate food supplies that are safe from foodborne illness. Food insecurity is not just an issue of money to buy food but a lack of availability. Large processors and budding entrepreneurs need food sanitation and processing standards.

**Goals**
- Educate consumers in all aspects of food safety
- Educate food processors in food safety principles and practices
- Provide a Good Agricultural Practices course and HACCP training
- Help communities provide citizens with an adequate, affordable, food supply
- Help citizens effectively manage food dollars

**Benefits**
Increased vigilance by consumers, processors, and producers to reduce foodborne illness; increased consumer awareness of how food is produced; improved animal welfare; greater consumer confidence in a safe, secure food supply; more locally produced food; increased access to affordable food in communities with food deserts.

**Highlights**
- 1,113 food service workers trained through ServSafe program.
- 80 food products tested and 60 nutrition labels developed by Food Testing and Assistance Program.
- 159 bulls sold from 95 producers with impact of $198,200 via increased weaning weights through the Alabama Beef Cattle Improvement Association.

### 4. Financial Literacy

The decline of the overall median income, high unemployment, community disasters, the mortgage foreclosure crisis, and other financial challenges have caused Alabamians to take a closer look at their financial resources and their need to better understand financial matters.

**Goals**
- Increase the financial literacy of youth and adults
- Improve Alabamians’ ability to handle opportunities and manage resources
- Promote competent protection of assets and personal identity
- Improve the financial well-being of all Alabamians, with a focus on limited-resource families and individuals

**Benefits**
Reduced debt; increased number of individuals, families, and communities prepared to respond to financial challenges at all stages of life; increased wealth and improved economic conditions; expanded and improved business enterprises; decreased stress; improved financial health for Alabamians.

**Highlights**
- 8,475 youth and 2,041 adults received financial training.
112 new businesses joined MinorityMall.com.

Sustainable Agricultural and Forestry Systems

Global food production is expected to fall short of population growth over the next 25 years. As national and global food demand increases, improvements in technology and the adaptation of production systems will be essential to sustain Alabama's economy, communities and environment. The need to meet the nation’s demand for forest products and fuel as well as for clean water, recreation, and wildlife habitat will require profitable, sustainable production systems.

Goals

- Increase adoption of sustainable production practices for food, feed, fiber, and biofuel
- Promote safe, quality products and animal welfare
- Expand marketing options and increase consumer understanding of practices needed to provide food, feed, fiber, and fuel
- Encourage beginning and small-farm enterprises to develop new and niche products

Benefits

Improved economic and environmental conditions for new-land-use enterprises; expanded markets for producers; improved production of food, feed, fiber, and fuel that benefits the environment and preserves natural resources; enlightened consumer understanding of food production practices; improved animal welfare.

Highlights

- Poultry producers realized $10 million a year in energy savings, an additional $10 million per year in improved bird performance, and $9.6 million per year through decreased insurance and structural damage. (Total $29.6 million)
- Beef cattle producers increased gross sales by $3.7 million by retaining calves with superior genetics.
- Field crop producers realized a $30 million impact from agronomic and marketing education and a $4.5 million impact from treatment of herbicideresistant weeds.
- Commercial horticulture producers realized a $10 million impact from improved pest management ($4.4 million) and production management education ($5.6 million).
- $800,000 impact in hayfields and pastures from fall armyworm management protocols.
- Forestry programs on invasive plants, tornado damage, and wildlife management generated $1.2 million in additional income.

Environmental Stewardship

The State of Alabama has some of the most diverse landscapes in the United States that provide habitat for the nation's highest number of aquatic species and among the highest number of land species. Forest and agricultural products; outdoor tourism and recreation; and access to ample, clean water drive a significant sector of the state’s economy. For the future, Alabama has the potential to become a leader in growing biomass for biofuels and other biorenewables.

Goals

- Expand knowledge of sustainability concepts and increase awareness
of how local actions affect the environment

- Increase citizen empowerment to lead local sustainability efforts
- Advance solutions for complex environmental problems and increase citizen advocacy
- Encourage personal responsibility for the environment

**Benefits**

Expanded citizen environmental stewardship; added innovative solutions for environmental problems; improved environmental advocacy; more career opportunities related to environmental stewardship; added revenue attributed to environmental sustainability; increased use of alternative, renewable sources of energy.

**Highlights**

- Stewardship training provided to 27,821 youth; 3,727 landowners; 24,800 homeowners; and 111,188 coastal residents (167,536 total people trained).
- 17,500 oysters grown by Master Oyster Gardeners.
- 24,000 patches of cogongrass reported by trained technical advisors; 11,800 treated.
- $3.6 million in community outreach activities by Master Gardener volunteers.
- 341 people saved 230,000 gallons of water and $2,500 in home water usage from rain barrel construction workshops.

**Disaster Response**

**Highlights**

- Created tree landscaping guide for tornado victims; more than 250,000 copies distributed.
- Provided 100,000 residents with phone charging and Internet access via ACES Internet trailer after tornadoes.
- Oil spill workshops for 807 individuals had a $1.9 million impact in Baldwin and Mobile Counties.
- 290 shrimpers developed business plans resulting in a direct economic impact of $19,000/shrimper and total regional impact of $5.5 million.

**4-H and Youth Development**

**Highlights**

- 92,841 youth (9–19 years = 84,626; 5–8 years = 8,215) enrolled in school and volunteer-led 4-H programs/clubs (9.5 percent of all Alabama youth).
- 84,292 hours valued at $1.8 million contributed to youth leadership development by adult volunteers in 1,674 4-H Clubs.
- 2,841 children of Alabama’s military families served in 85 special 4-H programs.
What diagnostic or other service facilities are operated by extension? What is the annual volume of business in number of clients and dollars?

| Plant and Insect Diagnostic Laboratory at two locations: Auburn and Birmingham |
| 7,000 client samples submitted annually @ $15 per sample |

**Section 5: Off-Campus Experiment and Extension Stations, Research and Extension Farms, and Outlying Research and Extension Centers**

Please provide a listing of your off-campus agricultural experiment and extension station locations, including those near the main campus but not on campus, and other key research and extension locations across the state where faculty conduct research and/or extension activities, together with key characteristics or focus areas of each. *Note: please cut and paste table as needed to create enough entry places for all of your experiment station sites.*

**Station 1**

<table>
<thead>
<tr>
<th>Station name</th>
<th>Location (zip code)</th>
<th>Size (acres), including owned and long-term leased land</th>
<th>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</th>
<th>Notable or unique characteristics or assets</th>
<th>Number of personnel (FTEs)</th>
</tr>
</thead>
</table>

**Station 2**

<table>
<thead>
<tr>
<th>Station name</th>
<th>Location (zip code)</th>
<th>Size (acres), including owned and long-term leased land</th>
<th>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</th>
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<th>Number of personnel (FTEs)</th>
</tr>
</thead>
</table>

**Station 3**

| Station name | Location (zip code) | Size (acres), including owned and long-term leased land | Key focus area(s) (e.g. |
Additional comments or items of note regarding off-campus experiment and extension stations, county offices, etc.:  

**Section 6: Industry Partnerships**

Please provide a description of **FIVE** notable partnerships that your experiment station and/or extension service has with industry. Examples might include a joint engineering center with an agricultural equipment manufacturer, plant breeding or transgenes programs with seed companies, bioprocess development with chemical or biofuels companies, food product development with food manufacturing companies, etc.

Provide details on companies, groups of companies, commodity groups etc. worked with, key results achieved and thoughts on benefits provided.

1. A cooperative agreement has been established involving the Alabama Cooperative Extension System, the Bormie Plant Farm, and the eXtension Foundation. Bonnie Plants is a national plant wholesaler based in Alabama that supplies retail stores throughout the United States. In March 2010, Bonnie Plants, ACES, and eXtension entered into a one-year agreement that extended the functionality of eXtension’s Ask an Expert I FAQ system to the Bonnie Plants web site via a customized web form and a dedicated expert to answer questions.

2. The Alabama Cooperative Extension System and National Young Farmers Education Association are collaborate to:
   1. Coordinate educational programs and services targeting young and beginning farmers in Alabama.
   2. Assess needs of young and beginning farmers and retiring farmers in Alabama.
   3. Develop and maintain collaborative partnerships with related centers and consortiums, key faculty and staff, state organizations, producer groups, and not-for-profit organizations in Alabama interested in beginning farmer program development.
   4. Pursue grant and contract opportunities to grow and sustain young and beginning farmer programs in Alabama.
   5. Develop an annual plan-of-work based on specific objectives, including defined outputs and measurable outcomes.

3. The Alabama Cooperative Extension System and the Alabama Wildlife Federation are partnering to expand conservation and environmental stewardship education to K-12 youth.
What areas of R&D at your institution do you believe hold the most promise for increasing industry engagement in the next five years?

What agriculture, forestry, fisheries or wildlife and natural resource-related industries do you expect to see grow in the southern region during the next five years?

Additional comments or items of note regarding industry partnerships:
Section 7: Regional Cross-Institutional & Governmental Partnerships

Please provide a description of FIVE projects, initiatives, centers or programs, etc. that your experiment station and/or extension service is engaged in together with other institutions in the southern region. Examples might include joint initiatives in biofuels development, food safety, biosecurity, rural economic development, etc.

1. 
2. 
3. 
4. 
5. 

What federal agencies do you partner with on major joint projects and programs? Please list the top 3 federal initiatives you are engaged with.

What state agencies do you partner with on major joint projects and programs? Please list the top 3 state agency initiatives you are engaged with.

What do you believe are some of the unique assets of the southern region that make it particularly well-suited to leadership in the 21st Century agbioscience economy?

Additional comments or items of note regarding potential or existing partnerships with other institutions across the southern region:
**Section 8: Education and Human Capital Development**

**Student Population**

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students graduated in most recent year with Bachelor’s degrees in related field of study</td>
<td></td>
</tr>
<tr>
<td>Number of students graduated in most recent year with Master’s degrees in related field of study</td>
<td></td>
</tr>
<tr>
<td>Number of students graduated in most recent year with Doctorate degrees in related field of study</td>
<td></td>
</tr>
<tr>
<td>Number of students graduated in most recent year with Associates or other less than baccalaureate qualifications in related field of study</td>
<td></td>
</tr>
</tbody>
</table>

**Education and Training Programs**

In a science and knowledge-driven economy, skilled human capital is a critically important asset for our states. Please provide details pertaining to education and skills development in the sections below:

- New or innovative education programs or degree programs developed (for example: bioprocessing or biorefinery operator training, biosecurity training, education programs in new fields such as functional foods, nutraceuticals, etc.)

- Continuing education programs or training for producers or industry

- Professional Certification Programs

- Leadership training, including civic, commodity, government, youth, etc.

- Entrepreneur training and other special training or education initiatives

- National defense, including National Guard, training or educational initiatives

- K-12 specific educational programs and initiatives

- Additional comments or items of note regarding education and training:
Section 9: Into the Future

What key challenges does your institution face in the future:

Top 5 key challenges for the Experiment Station in your state

1. 
2. 
3. 
4. 
5. 

Top 5 key challenges for the Extension Service in your state

1. reduced state allocations and flat federal capacity funds
2. future retirement bubble of specialists and agents
3. forging fiscal and programmatic partnerships with traditional and non-traditional public agencies, NGOs, and commercial businesses
4. serving traditional audiences with decline populations while increasing service to expanding urban and suburban populations
5. creating an indispensable extension system for the citizens of Alabama

What emerging opportunities or trends do you see impacting your institution:

Top 5 emerging opportunities and trends for the Experiment Station

1. 
2. 
3. 
4. 
5. 

Top 5 emerging opportunities and trends for the Extension Service

1. increased food security and agricultural sustainability
2. adapting to increased climatic variability
3. consumer commitment to local foods
4. chronic diseases and nutrition
5. integration of extension education into community innovation for workforce development

For the southern region overall, what do you see as the top five challenges/issues moving forward

1. water supplies
2. Impact of climatic changes on agricultural and timber systems
3. gulf natural resource development
4. urbanization of population into concentrated hubs
5. obesity and chronic health costs
What are the top five differentiating factors of the southern region in agriculture, agbiosciences, community/family/youth development, etc. What makes the region unique or provides key comparative advantages.

1. Impact of the high timber landcover on community viability and economic development
2. Widening separation of socio-economic groups within the population
3. Wide diversity of landscapes result in a multitude of potential opportunities
4. Strong social religious foundation
5. Potential to market the SE as a retiree destination

Section 10: Interview Suggestions

Battelle would like to interview some key stakeholders (outside of the land-grant institutions) across the southern region to discuss their perspective on the importance of extension and agricultural research. Please provide the names and contact information for three individuals who you would suggest for interviewing in your state:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organization</th>
<th>Telephone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jimmy Sanford</td>
<td>Auburn Trustee, Chair of University Research &amp; Technology Foundation; Cotton Commissioner</td>
<td>Auburn University Trustees; Auburn Research &amp; Technology Foundation; Alabama Cotton Commission</td>
<td>334-365-0077</td>
<td><a href="mailto:jhsanford@aol.com">jhsanford@aol.com</a> <a href="mailto:jhsanford@homeplaceal.com">jhsanford@homeplaceal.com</a></td>
</tr>
<tr>
<td>Paul Pinyan</td>
<td>Executive Director</td>
<td>Alabama Farm Federation; Alabama 4-H Club Foundation</td>
<td>334-288-3900</td>
<td><a href="mailto:Ppinyan@alfafarmers.org">Ppinyan@alfafarmers.org</a></td>
</tr>
<tr>
<td>Tommy Eden</td>
<td>Attorney at Law</td>
<td>Capell &amp; Howard</td>
<td>334-501-1540</td>
<td><a href="mailto:tme@chlaw.com">tme@chlaw.com</a></td>
</tr>
</tbody>
</table>

Section 11: Additional Comments

Please provide any additional comments, information, data, case-studies, impact assessment results, etc. that you feel may be useful or relevant for inclusion in this project and resulting report: