

Institutional Information Request Form

Southern Region: Value of Extension Services and Experiment Stations

Section 1: Institutional Profile

University Name	The University of Georgia
Extension Service Director (name, phone, email)	Dr. Beverly Sparks 706.542.3824 – sparks@uga.edu
Experiment Station Director (name, phone, email)	Dr. Robert Shulstad 706.542.2151 – shulstad@uga.edu

Personnel

Number of Personnel in Extension (FTE)	784.5
Number of Personnel in Experiment Station (FTE)	608.6

* Please do not include student employees, graduate assistants or temporary personnel

Section 2: Income/Revenue Sources

Income Source	2011 \$ Income Received by Extension	Funding Trend for Past 3 Years	2011 \$ Income Received by Experiment Stations	Funding Trend for Past 3 Years
Federal Formula Funds	\$ 8,796,519	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing	\$4,214,051	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing
State Appropriations	\$31,614,855	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing	\$35,212,885	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing
Local Government Appropriations (Counties, etc.)	\$20,179,689	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Federal Grants and Contracts	\$1,386,498	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$16,774,141	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing
State Grants and Contracts	\$2,040,296	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$2,134,151	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Local Grants and Contracts	\$2,088,881	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$101,168	<input type="checkbox"/> Increasing <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Industrial Grants and Contracts, including grants and contracts from commodity groups	\$1,900,055	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$7,122,769	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing

Foundation Grants and Contracts	\$	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$621,325	<input type="checkbox"/> Increasing <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Decreasing
All Other Grants and Contracts	\$	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Sales of Products and Services	\$10,696,062	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$5,895,298	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Intellectual Property Revenues	\$	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$1,731,871	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Gifts	\$3,100,000	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$6,727,126	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
Other	\$518,127	<input type="checkbox"/> Increasing <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Decreasing	\$3,070,742	<input checked="" type="checkbox"/> Increasing <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing
TOTAL	\$82,320,982	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing	\$83,605,527	<input type="checkbox"/> Increasing <input type="checkbox"/> Stable <input checked="" type="checkbox"/> Decreasing

Are these income/revenue numbers based on a cash or accrual accounting basis? Cash

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?

Trends: Decreasing foundational state and federal funding for AES and CES; Increasing state bond funding for Equipment and Major Repairs and Renovations; Increasing funding from county government, commodity groups, and Extension grants and contracts. Challenges: 1) maintaining predictable base support for basic and applied research and extension in the face of rapidly shifting funding agency priorities and declining state and federal budgets; 2) maintaining single-investigator grant opportunities for early-career PIs who may not yet have the notoriety to be invited to large multi-state grants; 3) RFAs that are too narrowly written and exclude entire disciplines across multiple years; 4) funding multi-year mega-projects over successive years, tying up funding for new projects in subsequent years. Most notable increases: funding for specialty and bioenergy crops; food science and food safety; county government funding; commodity group funding; extension contracts and grants have increased. Most notable decreases: investigator-driven basic research in the plant and animal sciences.

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.

<i>1. Plant genetics and breeding (Center for Applied Genetic Technology, Plant Genome Mapping Laboratory, Institute for Plant Breeding Genetics and Genomics, Center for Soybean Improvement) – basic research into crop genomes and evolution, applied plant breeding, training the next generation of plant breeders and geneticists</i>
<i>2. Animal genetics and reproductive technology (Regenerative Bioscience Center) – leading population genetics, cloning and stem cell programs</i>
<i>3. Food science, technology and safety (Center for Food Safety, Food Product Innovation and Commercialization Center) – top food science and food safety program</i>
<i>4. Sustainable agricultural systems (National Environmentally Sound Production Agriculture Laboratory, Initiative for Sustainable Food Systems, Center for Urban Agriculture and Environmental Sciences, Agricultural Pollution Prevention Program, Southern Sustainable Agriculture Research and Education (SARE) program) – integrated commodity teams for cotton, peanut, vegetables, forages, turf and poultry; leader in precision agriculture and irrigation, animal waste management and environmental stewardship</i>
<i>5. Peanut CRSP – research, technology, and capacity development to improve economic development and human health of small-scale farmers in developing countries</i>
<i>6. Precision agriculture and variable rate irrigation – researchers focused on the use of advanced technology to improve the efficiency of water use for irrigation purposes. Applying new technologies to traditional issues.</i>

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.

<i>1. Plant Genome Mapping Laboratory – large-scale sequencing and annotation of crop genomes and their ancestors</i>
<i>2. Stripling Irrigation Research Park – dedicated facility to support research and development of precision irrigation</i>
<i>3. Food Product Innovation and Commercialization Center - assists companies in developing new food products efficiently and economically</i>
<i>4. NESPAL – the National Environmentally Sound Production Agriculture Laboratory is a multidisciplinary laboratory facility with laboratories incorporating molecular genetics, precision agriculture technology, use of geographic information systems, global positioning systems, and other advanced technology.</i>
<i>5. The UGA Dairy Research Center in Tifton is a modern dairy research facility incorporating waste and nutrient management, environmental cooling, heat stress, and ruminant nutrition research.</i>
<i>6. Controlled atmospheric storage (CAS) research facility in Tifton allows for the study of post-harvest physiology and storage for a wide variety of fruit and vegetables.</i>
<i>7. The Agricultural and Environmental Services Laboratories (AESL) are comprised of three cooperating units: the Soil Plant and Water Lab, the Feed and Environmental Water Lab; and the Pesticide and</i>

Hazardous Waste Lab. They provide testing for soil analysis, plant tissue analysis, water quality, pesticides and hazardous wastes, and feed and forage analysis.

8. Rock Eagle 4-H Center: largest 4-H Youth Development facility in the Nation

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. Institute for Plant Breeding, Genetics and Genomics; Center for Applied Genetic Technology and Plant Genome Mapping Laboratory

2. Fully integrated extension and research teams addressing cotton, peanuts, forages, soybeans, onions, blueberries, peaches and vegetables

Animal Sciences, Animal Health, Livestock

1. Comprehensive animal breeding, population genetics, cloning, and stem cell programs

2. Center for Sustainable Grazing Systems

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

1. Food Product Innovation and Commercialization Center

2. Food Process Research and Development Laboratory

Food Safety and Biosecurity

1. Center for Food Safety

2. Center for Invasive Species and Ecosystem Health

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

1. Bioenergy Systems Research Initiative

2. Center for Bioconversion Research and Education

Environmental Sciences, Natural Resources, Sustainability

1. National Environmentally Sound Production Agriculture Laboratory

2. Center for Urban Agriculture and Environmental Sciences

Agritourism and Recreational Hunting and Fishing

1. Center for Agribusiness and Economic Development

2. AGNET System

Family Development

1. Foods and Nutrition / National Center for Home Food Preservation

2. Nutrition and Health / EFNEP, Diabetes Education, Walk-a-Weigh Weight Control Program

Youth Development

1. Georgia 4-H Youth Development

2. 4-H Environmental Education Program

Community and Economic Development

- | |
|------------------------------------------------------------------------------|
| 1. Center for Agribusiness and Economic Development |
| 2. Advancing Georgia's Leaders in Agriculture leadership development program |

Other, including multi-focus:

- | |
|--------------------------------------------|
| 1. Initiative for Sustainable Food Systems |
| 2. Peanut CRSP |

Intellectual Property

	CY2009	CY2010	CY2011
# of Invention Disclosures	73	75	40
# of Patents Applied For	64	70	52
# of Patents Awarded	20	32	22
# of Licenses Executed	106	101	144
# of Business Start-Ups	3	2	0
# of Plant Variety Protection Certificates Applied For	5	5	4
# of Plant Variety Protection Certificates Awarded	4	2	1
\$ Value of Income received from Plant Variety/Germplasm Development	\$4,137,605.21	\$4,099,327.80	\$3,928,981.81
\$ Value of Income received from all other Intellectual Property	\$369,856.40	\$394,552.93	\$1,116,160.92

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:

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. InsectiGen |
| 2. ArunA Biomedical |
| 3. Certified Ag Resources of Camilla, GA. This irrigation consulting business has been started by two individuals who gained their knowledge and experience with irrigation scheduling and with sensor technologies through projects through UGA/CAES and specifically at the Stripling Irrigation Research Park. |
| 4. Sea Isle Growers |
| 5. Organic Value Recovery Solutions |
| 6. BioInquire |
| 7. Algix (formerly IntellEnergy) |
| 8. Georgia Mechatronics |
| 9. SmartHound |

10. G2O

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.

1. *Peanuts - Based on UGA's superior peanut cultivars the state of Georgia leads the US in total annual peanut production with about 50% of the total peanut production for the country. UGA peanut varieties account for over 90% of southeast U.S. market share. The primary objectives of the UGA Peanut Breeding Program are the development of improved cultivars with desirable traits including yield, commercial grade, disease and insect resistance, virus resistance, aflatoxin resistance, drought tolerance, better shelling characteristics, longer shelf-life, and enhanced flavor and nutritional qualities. Nineteen elite peanut cultivars have been developed at UGA through long-term intensive breeding efforts. Additionally, 2 improved peanut cultivars have been developed by joint research with the USDA. UGA Peanut varieties are the highest royalty producing plant cultivars for UGA.*

2. *Turfgrass - UGA's Turfgrass Breeding Program continues to develop superior cultivars of hybrid bermudagrass, seashore paspalum, and centipedegrass. Patented UGA bermudagrass cultivars include TifSport, TifEagle and the newest release, shade tolerant TifGrand. Newly developed turfgrass cultivars have increased tolerance to drought, disease and cold. Turf quality, density and color are also areas where UGA bermudagrass cultivars excel. Seashore paspalum cultivars developed at UGA include Sealsle 1, Sealsle 2000, Sealsle Supreme, SeaSpray and the newest cultivar SeaStar™. These cultivars are especially useful when there are water quality problems, such as when salt water is used as the irrigation source. UGA's elite centipedegrass cultivar TifBlair is popular on home lawns and on roadsides because it is slow growing and very dense, resulting in less mowing and fewer weeds. UGA turfgrass cultivars are also grown on sports fields worldwide. A case in point is TifSport, a bermudagrass which was used on one of the soccer fields in Durban, South Africa during 2010 World Cup Soccer.*

3. *Blueberries - Since 2001, the UGA Blueberry Breeding Program has brought 13 new and improved patented cultivars to market. There are approx. over 20,000 acres of blueberries planted in the state of Georgia; a vast increase from approx. 3,000 acres in production 20 years ago. Blueberries have surpassed peaches as the #1 fruit crop for our state. UGA blueberry cultivars account for approx. 70% of the cultivars grown in Georgia. In addition to the impact the UGA Blueberry Program has had on Georgia's largest industry (Agriculture), these cultivars are licensed, grown, and marketed in over 11 countries on all continents except Antarctica. The goals of the program are to continue developing cultivars through breeding for increased disease and pest resistance, higher yield, improved flavor, and ornamental appeal.*

4. *HatchPak Cocci III – The UGA CAES Poultry Science Department continues to develop technologies that positively impact the poultry industry which is one of Georgia's most important economic industries. A recent example is the poultry coccidial vaccine, HATCHPAK® Cocci III, marketed by Merial. The technology underlying the vaccine was developed by CAES professor Dr. Larry McDougald, and his colleague Dr. Lorraine Fuller. The vaccine technology was licensed to Merial and Drs. McDougald and Fuller collaborated with company scientists to facilitate the commercial launch of the vaccine.*

5. *Production of commodity chemicals by bio-fermentation - Researchers at the University of Georgia developed a metabolic engineering approach applied to bacterial fermentation processes in order to*

obtain increased yields of biochemical compounds. In one embodiment, this sustainable technology involves the use of especially engineered bacteria to produce commodity chemicals such as succinic and glycolic acids, multiple amino acids, and oxaloacetate - compounds that can be converted cost-effectively into pharmaceuticals, plastics, personal products, polymers, clothing fibers, solvents, animal feed and nutritional supplements. This process replaces methods that rely on petrochemicals, uses a low-cost renewable resource which requires less energy, and actually consumes, rather than produces, carbon dioxide. The technology has been licensed to multiple companies for application across a range of industries.

6. Glyphosate-resistant Palmer amaranth (pigweed) was first identified by UGA CAES weed scientists, who are on the forefront of developing alternative practices to weed control now that Round-Up Ready technology has becoming much less effective.

Additional comments or items of note regarding experiment station and extension impacts:

The AES and CES provide the Research, Development and Training expertise for Georgia’s largest industry. Food and Fiber production and processing generated a total economic impact of \$68 billion and created more than 380,000 jobs in 2010.

The diversity of products originating from research at the UGA CAES is wide and encompasses many facets of the Georgia and Southern region economy. The diversity is most notable with plant varieties that are bred at UGA. Currently, there are over 40 genera being bred for commercial improvements by UGA researchers.

Section 4: Extension Service Programs

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

Metric	Number
Number of county/parish offices	167
Number of multi-county/multi-parish regional offices	0
Number of major 4H camps	5
Number of 4H participants	172,366
Number of contacts with clients recorded by extension for the most recently completed year (include professional and volunteer contacts)	2,072,739 total contact
Number of volunteers for the most recently completed year and number of hours volunteered	30,312 total adult volunteers 172,661 total volunteer hours

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

MarketMaker helps drive consumers directly to farmers. This is a nationwide program that currently has 28,000 web hits per month during the last reporting period.

AGNET is an agritourism and nature based tourism website. This site currently has over 600 sites registered. The UGA Center for Agriculture and Economic Development is continuously working with the newly formed Georgia Agritourism Association to grow and expand its customer base, products, and services. This site generates over 80,000 hits annually as of the last reporting period.

Flavor of Georgia - Over 600 Georgia food products have been submitted in the six years of the contest, with nearly three quarters of finalists experiencing increase in interest in their products and business contacts. Many of our contestants have products in retail, restaurants and other venues across the state and internationally. Lauri Jo Bennett is an example. Her products are featured in Harrah's Casinos, Whole foods and she is selling them internationally.

Feasibility studies – The UGA Center of Agriculture and Economic Development has completed over 60 feasibility studies for a wide variety of industries. A number of these studies have resulted in businesses being created, expanded or revamped.

Community Development Programs/ Impacts

The Archway Partnership Project is a joint project between the Vice President for Public Service and Outreach and UGA Cooperative Extension. Archway professionals are located in eight communities in the state to assist communities in identification of barriers/challenges and then bringing resources from the University system to address these challenges. Two communities have graduated from the program and the project moved to new areas.

UGA Center of Agricultural and Economic Development County profile projects. For example: working with the UGA Fanning Institute and the Small Business Development Center and the Decatur County Development Authority to profile the county for economic development recommendations. Data has been presented verbally to Decatur County's leadership and written report soon to follow. The CAED supplied an agricultural impact/profile, farm gate data, and NASS data for Decatur County, contiguous Georgia, and Florida counties and close Alabama Counties to allow Decatur County to see their relative position to other counties.

Family and Consumer Science Programs/ Impacts

Supporting Families Managing Through Difficult Economic Times: *Extension assists Georgians in understanding and identifying the financial practices which made them more vulnerable during the recent recessionary period. Extension seeks to help individuals, families, communities, and households understand and respond to the current economic conditions or their "new" financial realities. It is important for Georgians to recognize their "new normal" may differ significantly from their pre-recession financial lifestyle. Finally, based upon an understanding of financially vulnerable characteristics, Georgians will become better prepared to manage future economic challenges. Extension is committed to helping individuals, families, farms, and communities to improve their financial livelihood through extension outreach, research, and community service by applying research based knowledge to their locally identified critical issues and creating financial education learning opportunities.*

Impacts:

- *UGA Extension in Georgia works with the Small Business Development Centers to offer **Money Matters! Basic Personal Finance for Aspiring Entrepreneurs**. The comprehensive 4-hour workshop is*

being offered at multiple locations across Georgia. A total of 28 workshops reached more than 800 entrepreneurs.

- The UGA Family and Consumer Sciences Consumer Economics/Financial Management department started an online database, **CASH (Consumer's Acquiring Saving Habits)**. County Extension agents enroll participants from various financial education programs in this database and data is entered to set goals to reduce debt or increase savings. As of July, 2011, 599 individuals enrolled have set a goal to either reduce debt or increase savings by \$92,523 each month.
- Conserving resources used at home reduces impact on the environment and saves money. UGA Extension agents conducted 465 programs on energy conservation last year. They taught over 7,800 Georgians ways to save energy at home. Most participants in an energy conservation workshop are connected to community action agencies throughout the state that provide weatherization for low-income households. During the past two years, these agencies have weatherized over 15,000 Georgia homes. Residents save an average \$350 per year on utility bills. They also reduce water consumption by installing low-flow shower heads and aerators on kitchen and bathroom faucets.

Keeping Children and Families Safe: A study released in 2010 by PEW Charitable Trusts indicated that Georgia ranks 9th in the nation in the number of estimated cases of foodborne illness annually, having more than 2.5 million cases at a cost of \$4.7 billion. Improving the safety of home food processing can save money as well as prevent other losses from illness.

The UGA-based National Center for Home Food Preservation (NCFHP) has tremendous reach in Georgia and across the nation. Last year more than 1 million visitors came to their website for helpful information and the popular book/DVD series **So Easy to Preserve** continues to be a top-selling publication. Over 30,850 copies of the 5th edition of **So Easy to Preserve** have been distributed since 2006.

According to the National Restaurant Association, about 30% of all restaurant employees are between the ages of 15 and 19. From 2010 data, Georgia has over 22,000 inspected foodservice establishments and an industry that employs over 382,000 people and generates over \$13 billion in sales. The National Restaurant Association has estimated that the average cost of a foodborne illness outbreak to an establishment is about \$75,000. Lawsuits usually result in the greatest associated cost. An ever-increasing diversity in the food supply and diversity among types and sizes of foodservice establishments and community-based food assistance programs present challenges to food safety and keeping a knowledgeable workforce. The Georgia Department of Early Care and Learning licenses and monitors approximately 10,000 center-based and home-based child care facilities; the state also monitors 2,000 informal day care homes.

Organic produce sales have increased 20% annually since 1990. Many consumers view organic and locally grown foods as healthier, safer alternatives and better for the environment than conventional produce. However, the local and/or organic small to medium farms that sell directly to consumers often do not have the personnel to develop **Good Agricultural Practices (GAP)** plans to address food safety concerns nor do they have resources to pay for third party audits required as part of GAP. According to the 2007 Census of Agriculture, the average primary operator of a farm selling directly to consumers had four years of less experience than operators not engaged in direct-to-consumer sales. Two out of five of these farmers were classified as beginning farmers. These data indicate a need for documentation of

food safety practices and training to ensure the use of “best practices” on small farms and in markets to enhance the safety of produce being grown and marketed locally.

*This multi-state USDA-funded project led by UGA Family and Consumer Sciences Extension has developed and implemented surveys to identify current practices on farms and in farm markets that could pose food safety risks to consumers. Curriculum packages have been developed and agents trained to educate farmers and market managers about “best practices” to keep locally grown and marketed produce safe. Over 40 Extension Agents in Georgia, South Carolina and Virginia have been trained to deliver and evaluate **Enhancing the Safety of Locally Grown Produce** and have begun implementation in communities throughout the three states.*

Impacts:

- *The on-line self-study, **Preserving Food at Home**, from the NCFHP remains popular also. The number of enrolled participants increased by 2,664 in 2011. The total is now over now over 11,500.*
- *In 2011, the 1.1 million unique visitors to the NCFHP website viewed 3,905,696 pages. 75.65% were new visitors, with 24.35% being returning visitors. Visits per month ranged from 54,758 (February) to 247,537 (August). Pages viewed per month ranged from 155,095 to 693,335. Visits per day range from 1,644 (Feb) to 11,049 (August).*
- *Doing an online search for the term ‘food preservation’ brings up the NCFHP website within the first 2-7 links using different search engines (Google, Yahoo, Lycos, AOL). The URL <http://nchfp.uga.edu> appears in 92,500 pages in sites indexed by Google.*
- *County FACS Agents regularly offer locally accessible and affordable programs food handler education programs. In 2011, 83 ServSafe® manager or employee level programs were reported. These manager certification programs represent over 235 teaching hours and 3,500 educational contact hours.*
- *40 Extension Agents in Georgia, South Carolina and Virginia have been trained to deliver and evaluate **Enhancing the Safety of Locally Grown Produce** and have begun implementation in communities throughout the three states.*
- *140 farmers and market managers were trained to use best practices to keep locally grown and marketed produce safe in Georgia to date . Evaluation data from **Enhancing the Safety of Locally Grown Produce** programs are currently being collected and data analysis is scheduled for fall 2012.*
- ***Wash Your Paws Georgia** handwashing campaign taught more than 6,700 Georgians how to properly wash hands.*

Promoting Healthy Lifestyles in Children and Families

Impacts:

- *The **Expanded Foods and Nutrition Education Program (EFNEP)** trains educators who are members of the communities they support who are able to influence changes in behavior and impact the lives of those they teach. The EFNEP program brings together federal, state, and local resources to target two primary audiences: low-income families with children and low-income youth. In FY 2011, EFNEP*

reached 4,370 participants directly and 15,008 family members indirectly. Of the participants, 74% are minorities and 69% received public assistance. A total of 3,047 adults completed the EFNEP curriculum series with 96% improving their diets, consuming 0.7 additional cups of fruits and vegetables and 0.3 cups of calcium-rich foods per day. Families saved an average of \$9.45 per month on food. 57% improved food safety practices. 78% practiced better food resource management skills; and 86% improved nutrition practices.

- **EFNEP Childhood Overweight Prevention Projects (COPP)** utilized County Extension Agents and 4-H Program Assistants to teach a series of lessons to children using the Georgia 4-H Nutrition and Healthy Lifestyles Curriculum. A total of 20,300 Georgia 4-H youth were reached with the following evaluation results:

- 35% of 14,165 youth were more likely to try to eat foods from all food groups every day.

- 28% of 14,655 youth increased the amount of fruits and fruit juice consumed daily.

- 27% of 14,668 youth increased the amount of vegetables consumed daily.

- 43% of 14,678 youth gained knowledge about serving sizes of foods.

- 49% of 14,557 youth gained knowledge on the nutrient density of foods.

- 35% of 13,866 youth have a greater understanding of how to eat a healthy diet.

- 39% of 14,407 youth gained knowledge on how to read food labels to compare fat and calories.

- 16% of 14,632 youth reported they decreased the amount of high-sugar beverages consumed. 22% of 14,386 youth increased their exercise and physical activity.

- **Nutrition for Youth.** In 2011, UGA Extension launched a new Childhood Overweight Prevention Project. Using the Family and Consumer Sciences 4-H Nutrition and Healthy Lifestyles curriculum, 104 Georgia 4-H agents and program assistants from 68 counties taught 581 sessions during the school year with 16,260 children participating. Evaluations showed half of 10,874 youths increased their nutrition knowledge; 44 percent reported eating more fruit; 29 percent are eating more vegetables; 39 percent are more likely to eat foods from all of the food groups each day; 44 percent increased their ability to select low-cost, nutritious foods; 31 percent decreased their consumption of high-sugar beverages; and 26 percent increased their physical activity.

- An 8-week session of **Walk Georgia** was offered during Spring 2011 by local county offices. During the 2011 spring session of Walk Georgia, 3,688 Georgians enrolled and 2,488 were still participating at the end of eight weeks. Participants logged the equivalent of 394,584 miles. The self-reported average weekly mileage for an individual participant was 18 miles and for a team member 20 miles.

4-H and Other Youth Development Programs/ Impacts

Georgia 4-H Environmental Education Program: since its inception in 1979, this program has reached over 800,000 participants

Georgia 4-H is recognized as one of the top 4-H programs in the nation and reaches between 160,000 and 172,000 youth annually. The core values of 4-H are Leadership, Citizenship, Communications, Agricultural & Environmental Sciences and Family & Consumer Sciences. 4-H membership is split evenly between rural/small towns and urban/suburban youth. The ethnic breakdown of 4-H members is consistent with the broader population of Georgia. 4-H has programs targeting youth in Military families and home school communities. For over 100 years, Georgia 4-H has provided research-based youth development programming designed to address relevant societal issues while preparing youth to be

leaders in their communities.

In 2011:

-Georgia 4-H engaged 68,428 youth in science-based programs designed to increase interest in science and build analytical skills.

-37,889 youth attended intensive Environmental Education programs at 4-H Centers.

-In order to fight the issue of childhood obesity, 4-H engaged 46,621 youth in programs designed to educate them about the importance of healthy eating and exercise and to encourage them to share what they've learned with others.

-Over 47,000 youth participated in Citizenship activities and 36,905 youth participated in 4-H Project Achievement.

-In addition, over 9,000 youth annually participate in the 4-H Summer Camping program.

-4-H coordinates many high quality youth programs designed to engage youth in a program which research shows makes them more likely to succeed in school, less likely to participate in risky behaviors and more likely to become a positive, contributing member of society.

Other high impact/notable Extension programs

Fulton County Fresh Food Program; Monroe County Uranium Education Project; Peanut Disease Risk Index

Additional comments or items of note regarding extension:

What diagnostic or other service facilities are operated by extension? What is the annual volume of business in number of clients and dollars?

Agricultural and Environmental Services Laboratory: provides objective analytical services to agricultural producers, consumers, and agribusinesses. The total number of samples processed for FY11 was 97,130, for a total amount collected of \$1,310,000.

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 name	Athens Campus - Double Bridges Farm
Location (zip code)	30683
Size (acres), including owned and long-term leased land	233
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Beef, sheep and swine teaching and demonstration; research; swine nutrition; swine meats and muscle biology
Notable or unique characteristics or assets	Transgenic pig production for biomedical research; State of art swine waste management system with bio digester
Number of personnel (FTEs)	3

Station name	Athens Campus – Sams Farm
Location (zip code)	30683
Size (acres), including owned and long-term leased land	557
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Teaching dairy, milk and mastitis quality research, dairy nutrition research
Notable or unique characteristics or assets	
Number of personnel (FTEs)	3

Station name	Athens Campus – Poultry Research Center
Location (zip code)	30605
Size (acres), including owned and long-term leased land	85
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Poultry production, nutrition, breeding
Notable or unique characteristics or assets	Premier poultry research center in the world; feedmill, Hatchery, live bird facilities, poultry processing simulating commercial slaughter, further processing, product development, refrigeration, food laboratory
Number of personnel (FTEs)	8

Station name	Athens Campus – Wilkins Farm
Location (zip code)	30660
Size (acres), including owned and long-term leased land	877
Key focus area(s) (e.g. poultry,	Beef production; seed stock facility; forage program impact on meats and

<i>crop demonstration, etc.)</i>	<i>muscle biology</i>
<i>Notable or unique characteristics or assets</i>	<i>Beef feed lot with Calan Gates for individual animal feed intake data collection</i>
<i>Number of personnel (FTEs)</i>	2

<i>Station name</i>	<i>Athens Campus – Durham Horticulture Farm</i>
<i>Location (zip code)</i>	30677
<i>Size (acres), including owned and long-term leased land</i>	90
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Pecan breeding and evaluations, disease management of peaches, vegetable production and breeding, ornamental breeding and evaluations, and a two acre certified organic production area in support of an organic certificate program. We also host the UGA Honey Bee Research Lab and a test orchard for the Georgia chapter of the American Chestnut foundation</i>
<i>Notable or unique characteristics or assets</i>	<i>Proximity to campus , <6 miles, <15 minutes; traditional and organic production programs</i>
<i>Number of personnel (FTEs)</i>	5

<i>Station name</i>	<i>Athens Campus – Plant Science Farm</i>
<i>Location (zip code)</i>	30677
<i>Size (acres), including owned and long-term leased land</i>	522
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Row crop, forage and biomass crop breeding, forage and biomass agronomics, weed control management, entomology, pathology</i>
<i>Notable or unique characteristics or assets</i>	<i>Proximity to campus , <20 miles, <25 minutes; irrigation available on all plot land</i>
<i>Number of personnel (FTEs)</i>	4

<i>Station name</i>	<i>Athens Campus – J. Phil Campbell, Sr. Natural Resource Conservation Center</i>
<i>Location (zip code)</i>	30677
<i>Size (acres), including owned and long-term leased land</i>	1070 acres
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Integrated livestock and conservation cropping systems, sustainable cattle and forage management, nutrient management, water quality and conservation</i>
<i>Notable or unique characteristics or assets</i>	<i>3 cropped watersheds, 2 grazed watersheds, and 14 paddock-sized watersheds providing a unique and comprehensive outside hydrological laboratory; 12 water quality plots with facilities to collect runoff and leachate; rainfall simulation plots to determine runoff, infiltration, microbial movement, etc.; cropland that has been transitioned to organic production.</i>

Number of personnel (FTEs)	5 (anticipated)
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Station name	4-H Center: Rock Eagle
Location (zip code)	31024
Size (acres), including owned and long-term leased land	1,435
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	4-H Environmental Education program; largest 4-H camping facility in the nation.
Notable or unique characteristics or assets	Rock Eagle Effigy Mount is located on the property and is listed on the National Register of Historic Places
Number of personnel (FTEs)	39 full time; 180 hourly temporary part-time

Station name	4-H Center: Jekyll Island
Location (zip code)	31527
Size (acres), including owned and long-term leased land	8
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Environmental Education program focused on coastal ecology; summer 4-H camping programs
Notable or unique characteristics or assets	Location of facility on the south end of Jekyll Island, GA
Number of personnel (FTEs)	13 full time; 25 hourly temporary part-time

Station name	4-H Center: Burton
Location (zip code)	31328
Size (acres), including owned and long-term leased land	5.88
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Environmental Education programs focused on coastal ecology; summer 4-H camping programs
Notable or unique characteristics or assets	
Number of personnel (FTEs)	5 full time; 36 hourly temporary part-time

Station name	4-H Center: Fortson
Location (zip code)	30228
Size (acres), including owned and long-term leased land	77
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	4-H Environmental Education program; 4-H summer camping programs

<i>Notable or unique characteristics or assets</i>	<i>Located near Atlanta Speedway, Atlanta Airport</i>
<i>Number of personnel (FTEs)</i>	<i>3 full time; 15 hourly temporary part-time</i>

<i>Station name</i>	<i>4-H Center: Wahsega</i>
<i>Location (zip code)</i>	<i>30533</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>17</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>4-H Environmental Education program; 4-H summer camping programs</i>
<i>Notable or unique characteristics or assets</i>	<i>Located in North Georgia Mountains near Dahlonega, GA.</i>
<i>Number of personnel (FTEs)</i>	<i>5 full time; 13 hourly temporary part-time</i>

<i>Station name</i>	<i>Vidalia Onion & Vegetable Research Center</i>
<i>Location (zip code)</i>	<i>30436</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>142</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Variety testing, crop production, pest management of sweet onions and other vegetable crops</i>
<i>Notable or unique characteristics or assets</i>	
<i>Number of personnel (FTEs)</i>	<i>2 full time; 1 part-time</i>

<i>Station name</i>	<i>Bamboo Farm and Coastal Garden</i>
<i>Location (zip code)</i>	<i>31419</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>52</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Home to several world-class horticultural exhibits including the world's largest collection of bamboo. Other collections include camellia, palms, day lilies and iris.</i>
<i>Notable or unique characteristics or assets</i>	<i>The facility is developing an educational center.</i>
<i>Number of personnel (FTEs)</i>	<i>7 full time; 5 part-time</i>

<i>Station name</i>	<i>Blueberry Research and Education Center</i>
<i>Location (zip code)</i>	<i>31510</i>

<i>Size (acres), including owned and long-term leased land</i>	25
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Blueberry product development. Blueberry frost protection, monitoring, pest management</i>
<i>Notable or unique characteristics or assets</i>	
<i>Number of personnel (FTEs)</i>	<i>1 full time; part-time seasonal help</i>

<i>Station name</i>	<i>Attapulcus Research and Education Center</i>
<i>Location (zip code)</i>	<i>31715</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>300</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Plant disease, entomology, and weed research in most of the important agronomic crops in Georgia, due to the challenging environment (hot, humid, drought).</i>
<i>Notable or unique characteristics or assets</i>	<i>The very hot, humid environment gives extensive weed, disease, insect and other pest pressure. This challenging environment provides the opportunity to conduct plant disease, weed control, and entomological research.</i>
<i>Number of personnel (FTEs)</i>	<i>5</i>

<i>Station name</i>	<i>Central Research and Education Center</i>
<i>Location (zip code)</i>	<i>1508 Godfrey Road, N.W., Eatonton, GA 31024</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>1831 acres</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Beef cattle, forages; environmental impacts of grazing and fertilization programs on water quality.</i>
<i>Notable or unique characteristics or assets</i>	<i>Soil types; climate</i>
<i>Number of personnel (FTEs)</i>	<i>6</i>

<i>Station name</i>	<i>Mountain Research and Education Center</i>
<i>Location (zip code)</i>	<i>195 Georgia Mountain Experiment Station Road, Blairsville, GA 30512</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>415 acres, 107 tillable acres, 65 acre cattle farm, 18 acres fruit research</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Cold hardiness evaluation of turf and woody ornamentals and grasses, apple and grape disease evaluation, corn variety evaluation, soybean aphid and kudzu bug biology and control methods, corn insecticide evaluations, stocker beef cattle by-products comparison, corn population and row spacing comparison, hemlock woolly adelgid control, outreach programs with the Community Council.</i>
<i>Notable or unique</i>	<i>Plant zone 6b allows cold hardiness test of plants by plant breeder faculty,</i>

<i>characteristics or assets</i>	<i>coldest environment for all forage, turf and plant testing by CAES faculty, Outreach Programs with Community Council serve over 4500 people annually</i>
<i>Number of personnel (FTEs)</i>	8

<i>Station name</i>	<i>Northwest Research and Education Center</i>
<i>Location (zip code)</i>	<i>300 Battey Farm Road, NE, Rome, GA 30161</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>905 Acres</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Beef cattle are the primary focus with some emphasis on forage and row crop research</i>
<i>Notable or unique characteristics or assets</i>	<i>Large acreage of open, productive land and a 225 head brood cow herd provide the base for large scale beef cattle research and extension projects. Bull and heifer testing programs provide many opportunities for interaction with producers and Extension agents from across the state. Irrigation from a river is available for forage and row crop plots.</i>
<i>Number of personnel (FTEs)</i>	7

<i>Station name</i>	<i>Southwest Research and Education Center</i>
<i>Location (zip code)</i>	<i>31780</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>512 owned; 100 leased</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Major Georgia row crop research, including peanuts, cotton, and corn. Crop production research, weed control, statewide variety research, and beef cattle research.</i>
<i>Notable or unique characteristics or assets</i>	<i>Large tracts of irrigated land which represent the central and southwest regions of Georgia, where research applies to a large portion of the state's agricultural core.</i>
<i>Number of personnel (FTEs)</i>	7

<i>Station name</i>	<i>Southeast Research and Education Center</i>
<i>Location (zip code)</i>	<i>30441</i>
<i>Size (acres), including owned and long-term leased land</i>	<i>720</i>
<i>Key focus area(s) (e.g. poultry, crop demonstration, etc.)</i>	<i>Large tracts of research plots: row crop variety testing, biofuels crop production, soybean kudzu bug (new invasive species) as well as other entomological research.</i>
<i>Notable or unique characteristics or assets</i>	<i>Large tracts of irrigated land which represent the southeastern region of Georgia, where research applies to a large portion of the state's agricultural core. Are able to do large scale testing of field crops, particularly insect pests.</i>
<i>Number of personnel (FTEs)</i>	4

Station name	<i>C.M. Stripling Irrigation Research Park</i>
Location (zip code)	<i>31730</i>
Size (acres), including owned and long-term leased land	<i>130 acres (75 acres in plots / cultivation)</i>
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	<i>Key focus area is irrigation of cotton, corn, peanut, soybean, sweet corn, tomatoes, peppers</i>
Notable or unique characteristics or assets	<i>Location – lower Flint River basin, Floridan Aquifer (Dougherty Plain) recharge area Center pivot systems with state of the art computer control panels 1 center pivot system with Variable-Rate Irrigation (VRI) controls 2 linear-move systems with VRI controls Subsurface drip irrigation (SDI) systems designed for maximum plot flexibility for studying sensing, timing, drip tape depth, fertigation, etc. on full cotton, corn, peanut rotations</i>
Number of personnel (FTEs)	<i>3 EFT field personnel (state funded) including superintendent, 1 EFT field person (grant funded), 1 EFT office person (state funded)</i>

Station name	<i>CAES Tifton Campus – Main</i>
Location (zip code)	<i>31793</i>
Size (acres), including owned and long-term leased land	<i>1,620 acres, all owned by UGA College of Agricultural and Environmental Sciences</i>
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	<i>A wide variety of research is covered by several farms associated with the UGA Tifton Campus. Dairy and beef cattle, aquaculture, row crops, vegetable research, irrigation, entomology, water quality, energy crops, and other crops are under research. Entomology, plant pathology, agronomic crops are all evaluated.</i>
Notable or unique characteristics or assets	<i>Excellent infrastructure is in place. Irrigation, differing soil types, farms which target specific research projects are in place. Numerous farms in close proximity to the campus give scientists ready access to research lands.</i>
Number of personnel (FTEs)	<i>2.25</i>

Station name	<i>CAES Tifton Campus – Grazing Station</i>
Location (zip code)	<i>31622</i>
Size (acres), including owned and long-term leased land	<i>2,804 acres. About 700 are in pasture for grazing research, another 50 are in, or are planned for, blueberry research. The remainder is in timber which is being managed.</i>
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	<i>Livestock grazing and blueberry research, timber genetics. Remaining timber is managed for production, wildlife enhancement, and sustainable forestry.</i>
Notable or unique characteristics or assets	<i>Soil types which are typical of the southeastern portion of Georgia. Low quality soils lend themselves to timber production, pasture for cattle grazing, and blueberry production.</i>

Number of personnel (FTEs)	4
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Station name	CAES Tifton Campus – Ponder Farm
Location (zip code)	31793
Size (acres), including owned and long-term leased land	305
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Weed management in vegetables and row crops, organic systems weed control, pecan and muscadine grape breeding, pecan disease management, peanut production management, cotton physiology, energy biomass crops.
Notable or unique characteristics or assets	Large acreage lends well to pecan breeding, soils typical for the area.
Number of personnel (FTEs)	1

Station name	CAES Tifton Campus – Lang-Rigdon Farm
Location (zip code)	31793
Size (acres), including owned and long-term leased land	256
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Cotton, vegetable, and corn entomology, peanut diseases, agronomic row crop production management, variety testing
Notable or unique characteristics or assets	Excellent irrigation capability, close proximity to campus.
Number of personnel (FTEs)	2

Station name	CAES Tifton Campus – Gibbs Farm
Location (zip code)	31793
Size (acres), including owned and long-term leased land	311
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Cotton breeding and physiology, peanut breeding, nematology, watershed research in riparian areas, energy biomass crops.
Notable or unique characteristics or assets	Excellent soils, excellent irrigation capacity. Close proximity to Tifton Campus.
Number of personnel (FTEs)	1.5

Station name	CAES Tifton Campus – Hampton Farm (Bull Test Farm)
Location (zip code)	31733
Size (acres), including owned and long-term leased land	254

Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Bull evaluation test facility, HERD Program (Heifer Evaluation and Reproductive Development).
Notable or unique characteristics or assets	Well drained sand provides excellent cattle handling facility. Facilities are well constructed for cattle handling and movement, minimal labor requirements.
Number of personnel (FTEs)	1

Station name	CAES Tifton Campus – Bowen Farm
Location (zip code)	31793
Size (acres), including owned and long-term leased land	75
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Tobacco agronomic management and variety testing, tobacco disease and entomology, peanut breeding, corn, soybean and corn entomology. IR4 for vegetables.
Notable or unique characteristics or assets	Soil type is a flatwoods soil, ready access to a southeast Georgia soil, in the immediate Tifton area.
Number of personnel (FTEs)	2

Station name	CAES Griffin Campus – Main
Location (zip code)	1109 Experiment Street, Griffin, GA 30223
Size (acres), including owned and long-term leased land	120 acres
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Horticultural crops; turf grass, household and structural pest training facility, USDA Plant Genetic Resources Conservation Unit
Notable or unique characteristics or assets	Soil type, irrigation, location, rain shelter facilities for drought stress
Number of personnel (FTEs)	6

Station name	CAES Griffin Campus – Westbrook Farm
Location (zip code)	West Ellis Road, Griffin, GA 30223
Size (acres), including owned and long-term leased land	537 acres
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Ornamental breeding, blueberry breeding, small grain disease
Notable or unique characteristics or assets	Soil type, irrigation, septic wastewater facility
Number of personnel (FTEs)	1

Station name	CAES Griffin Campus – Research and Education Garden
Location (zip code)	129 West Ellis Road, Griffin, GA 30223
Size (acres), including owned and long-term leased land	60 acres
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Horticultural demonstration, research and education
Notable or unique characteristics or assets	Soil types, location, water source, irrigation
Number of personnel (FTEs)	2

Station name	CAES Griffin Campus – Dempsey Farm
Location (zip code)	1655 GA 16, W, Griffin, GA 30223
Size (acres), including owned and long-term leased land	133 acres
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Horticultural crops—herbicides
Notable or unique characteristics or assets	Soil type, irrigation, climate, irrigation. Envirotron: Controlled environment facility for crop/environment interactive research
Number of personnel (FTEs)	1

Station name	CAES Griffin Campus – Bledsoe Farm
Location (zip code)	5673 Blandon Mill Road, Williamson, GA 30292
Size (acres), including owned and long-term leased land	204 acres
Key focus area(s) (e.g. poultry, crop demonstration, etc.)	Agronomic crops—breeding, disease, insect research
Notable or unique characteristics or assets	Soil type, irrigation, climate
Number of personnel (FTEs)	1

Additional comments or items of note regarding off-campus experiment and extension stations, county offices, etc.:

All the Research and Education Centers and some campus based farms host Field Days and demonstrations and serve as outdoor classrooms for University classes, 4-H activities, and community events.

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 transgenics 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. The UGA-CAES, through its scientists in the Institute of Plant Breeding, Genetics, and Genomics (IPBGG), collaborates closely with the Georgia Seed Development Commission (GSDC), the University of Georgia Research Foundation (UGARF), and the Georgia Crop Improvement Association (GCIA) in the development, increase, marketing, and quality assurance of novel and superior plant varieties. This public-private partnership results in the availability of innovative plant varieties with increased levels of productivity and nutritional quality, high commercial value, environmental enhancement, and low maintenance costs for growers in Georgia, the southern U.S., and around the world. A unique aspect of this partnership is the return of 30% of plant royalties into a competitive cultivar development fund, to which all CAES plant breeders may apply for support annually. This system helps jump-start cultivar development in specialty and minor crops where royalty flow has not yet reached the level to fully support the fledgling breeding program. Over 40 different genera are being bred for commercial production.

2. The Center for Food Safety is one of the leading academic centers in the US today, performing basic and applied research on mechanisms and vectors by which food-borne microorganisms cause disease as well as mitigation strategies. The Center is highly respected by food safety professionals in the food industry and plays a unique and vital role on promoting the collaboration between government, academia and industry on advancement of food safety of microbial etiology. The CFS is highly respected by the CDC, FDA, USDA, the Georgia Department of Agriculture and other food safety professionals globally. Board members from 22 of the largest food companies in the U.S. provide annual funding for research to address, identify, eliminate, and prevent food-borne diseases. Results are available to the total industry. Most recent: Chlorine-Free Water Treatment; Antimicrobial treatments of seeds and sprouts; hand, food and food contact surface sanitizer for foodborne and respiratory viruses.

3. The Georgia Cotton Commission is providing full funding to hire a tenure track Cotton Physiologist to research new production methods to produce higher yields and quality while using less water and pesticides.

4. The Georgia Agribusiness Center of Innovation connects existing and potential agribusinesses with UGA CAES scientists and economists and provides matching funding to assist in feasibility studies, product and process development, industry specific expertise, and commercialization, keeping the state's largest industry profitable and expanding.

What areas of R&D at your institution do you believe hold the most promise for increasing industry engagement in the next five years?

1. Plant genetics and breeding, food science and product development, bioenergy, poultry genetics and physiology, environmental sensing and regulation (e.g., for water quality and quantity management),

renewable energy, agrichemicals.

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?

Agritourism; fruit, nut, and vegetable production and associated processing and value-addition facilities; bioenergy; all poultry and livestock-associated industries; precision agriculture technology; plant genetics

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. Southeast Climate Consortium – climate and weather-based decision support tools for agricultural, forest, and natural ecosystems

2. Southern Regional Water Program – providing coordination, education, and regional training related to water quantity and conservation and water quality

3. Tri-State Joint Peanut Research Project - demonstrate crop rotations and conservation tillage and the profitability associated with cropping systems that are integrated with grazing systems

4. Plant Genetic Resources Conservation Unit – USDA ARS

5. Southern Regional Extension Forestry

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

USDA-NIFA; USDA-ARS (multiple locations), NRCS, EPA, US Forest Service, Department of Energy, U.S. Department of Defense; National Institute of Alcohol Abuse and Alcoholism; Agency on Healthcare Research and Quality; National Highway Traffic Safety Admin (NHTSA); Centers for Disease Control; Department of Justice; Corporation for National and Community Service

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.

Georgia Department of Agriculture, Georgia Department of Natural Resources, Georgia Center of Innovation in Agribusiness, Department of Community Affairs-Youth Leadership Programs; Georgia Department of Public Health; Governor's Office of Highway Safety; Department of Education; Department of Community Affairs; The Georgia Research Alliance

The Georgia Research Alliance (GRA) is a division of the Ga Dept. of Economic Development. It provides

matching funds to endow GRA Eminent Scholars whose research programs have the potential to spawn significant economic development through creation of new industries or increasing the competitiveness of existing industries. Research equipment, facilities, and base annual support is provided. The AES has Eminent Scholars in Animal Reproductive Physiology and Diseases of both Animals and Humans, Agricultural Biotechnology, and Plant Genetics and Functional Genomics

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?

Relative abundance of land, water, and energy from the sun; strong research and extension capacity (home to two of the top-five agricultural colleges in the nation); excellent transportation infrastructure, including major sea ports; geographical pockets with high concentration of venture capital, bio-based companies, and research talent (e.g., RTP). Climate suited for almost year round food production; ability to produce large quantities of biomass for fuel production; excellent land-grant institutions in the region.

Additional comments or items of note regarding potential or existing partnerships with other institutions across the southern region:

Research and extension MOUs and faculty sharing with neighboring states (Clemson, NC State, U of Tennessee) in the area of fruit, U of Florida Tobacco extension, Auburn Irrigation research and extension.

Section 8: Education and Human Capital Development

Student Population

<i>Number of students graduated in most recent year with Bachelor's degrees in related field of study</i>	420
<i>Number of students graduated in most recent year with Master's degrees in related field of study</i>	104
<i>Number of students graduated in most recent year with Doctorate degrees in related field of study</i>	35
<i>Number of students graduated in most recent year with Associates or other less than baccalaureate qualifications in related field of study</i>	0

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.)

Undergraduate certificates in Organic Agriculture; Local Food Systems; Agrosecurity; Agribusiness Law. Master of Biomanufacturing and Bioprocessing (MBB) Program; new graduate degrees in Plant Breeding Genetics and Genomics; off-campus and distance-based degrees in Agribusiness; Agricultural Education; Agriscience and Environmental Systems; Biological Sciences; Environmental Resource Science; Food Industry Marketing and Administration

Continuing education programs or training for producers or industry

Statewide commodity conferences (i.e. Fruit & Vegetable Conference, Poultry Conference, etc.), County production meetings and updates conducted annually in most counties for dozens of commodities throughout the state.

Professional Certification Programs

Georgia Certified Landscape Professional Program; SuperCrew: Employee Training for Landscape Professionals (in English and Spanish); Georgia Certified Plant Professional Program; ServSafe; Structural Pest Control Training

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

1. Advancing Georgia's Leaders in Agriculture Program: educates and empowers Georgia business leaders to become effective advocates for the state's agriculture and natural resource industries.

2. Vice President for Public Service and Outreach Leadership Academy

3. UGA Cooperative Extension Leadership Academy

4. UGA Cooperative Extension EXTEND Program

5. Youth Summit

Entrepreneur training and other special training or education initiatives

Food Business Workshops and Food Safety

National defense, including National Guard, training or educational initiatives

Training of three National guard Agribusiness development teams

K-12 specific educational programs and initiatives

Young Scholars Program; Animal Science in Action; Georgia Plant Science Scholars Program; Avian Adventures; Weekend in the Classic City; G.I.F.T.; Georgia 4-H; 4-H Environmental Education Program

Additional comments or items of note regarding education and training:

CAES has record numbers of undergraduate, graduate and minority enrollments and generated student credit hours.

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. Reduced state and federal funding for agricultural research

2. Aging research farm and equipment infrastructure to include aging buildings (labs, offices and other

<i>accommodations)</i>
<i>3. Reduced numbers of faculty and technical staff</i>
<i>4. Political and stakeholder pressures to maintain broad (including low-impact) programs</i>
<i>5. Hierarchical and sometimes inflexible structure based around departments and campuses</i>

Top 5 key challenges for the Extension Service in your state

<i>1.Reduced local, state and federal funding for extension programs</i>
<i>2.Reduced number of Extension specialists, county agents and staff</i>
<i>3.Recruitment and retention of employees due to non- competitive salaries</i>
<i>4.Shifting demographics and political support from rural to urban areas</i>
<i>5.Leadership Succession</i>

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

Top 5 emerging opportunities and trends for the Experiment Station

<i>1. Increased need and opportunity for interdisciplinary research and graduate education will help break down traditional barriers and address the most difficult scientific, technological, and societal challenges</i>
<i>2. Weakening support for research in neighboring states will allow formation of regional centers of excellence</i>
<i>3. Increased realization in the public that food is not only the cause, but also the solution to many health-related issues; will provide additional research and funding opportunities</i>
<i>4. Establishment of medical and engineering programs at the university will bring unprecedented opportunities for collaboration at the interface of agriculture and health and for the development of biobased products</i>
<i>5. Excellent level of credibility and support in the state legislature will improve funding environment as the state economy recovers</i>
<i>6. Increased reliance on revenue from intellectual property and development.</i>

Top 5 emerging opportunities and trends for the Extension Service

<i>1.Increased integration of extension faculty into applied research and instruction programs without removing traditional responsibilities to county agents and clientele</i>
<i>2.Increased demand for services(lab services, certification programs, etc.) as opposed to educational programs</i>
<i>3. Increased emphasis on sustainable production and locally grown.</i>
<i>4. Need for more education for the general public on food production and science-based information on food safety and nutrition.</i>
<i>5. Navigating issues surrounding the urban-rural interface. Balancing the conflict between increased urbanization and the need for increased food and fiber production.</i>

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

<i>1. Too much duplication of programs across state lines, not (yet) enough sharing</i>
<i>2. Conflicts around water between urban and agricultural and among states as well as Urban/Rural interface issues.</i>
<i>3. Historical over-reliance on state, formula, and earmark funds</i>
<i>4. Often overly hierarchical structures, artificial separation of research, extension, and teaching functions at some southern institutions</i>
<i>5. Strong linkages to stakeholder groups and legislators provide a more reliable support and funding system than in other regions, but may also restrict ability to change directions and innovate</i>

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.

<i>1. More diverse agriculture and more diverse clientele</i>
<i>2. Higher rates of societal ills: low educational attainment; high levels of poverty, obesity, and other health problems; poor diets</i>
<i>3. Relative abundance of land, water, and energy from the sun though Climate change has increased the vulnerability of coastal plain to drought</i>
<i>4. Region will increasingly become attractive for hi-tech industries (automotive, pharma, biotech), providing opportunities for partnerships with industry</i>
<i>5. Greater importance of specialty crops, forestry, and fisheries than in other regions, providing unique research and extension opportunities</i>

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:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Telephone</i>	<i>Email</i>
Bill Brim	Owner	Lewis Taylor Farms and Quality Produce	229-382-4454	Bill@LewisTaylorFarms.com
Don Koehler	Executive Director	GA Peanut Commission	229-386-3470	don@gapeanuts.com
Mike Giles	President	Georgia Poultry Federation	770-532-0473	mike@gapf.org
Mike Beatty	Commissioner	Department of Community Affairs	404-679-0583	mike.beatty@dca.ga.gov

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:

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