2011 Alabama A&M University and Auburn University Combined Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

The FY2011 Annual Report for the Alabama Cooperative Extension System has been reviewed and approved by the 1862 Extension Director - Auburn University and the 1890 Extension Administrator - Alabama A&M University.

The Planned Programs contained in the FY2011 Alabama Cooperative Extension System Annual Report provide fiscal accountability for all Federal Cooperative Extension formula funds and the required matching funds for both Alabama A&M University and Auburn University. In addition, it should be noted that many of the programs in the Annual Report are subject to the benefits of fiscal inputs leveraged from other sources, to include additional state appropriations, county funds, and extramural dollars. For additional information on Alabama Cooperative Extension System programs, please reference the ACES website: http://www.aces.edu/

While the Alabama Cooperative Extension System is experiencing fairly level state funding for fiscal year 2012, our state budget has decreased approximately 27% ($12.2 million) since its peak in fiscal year 2008. Other funding sources have remained fairly consistent or seen slight decreases since fiscal year 2008. Projections at this time for fiscal year 2013 show another 4% ($1.3 million) decrease in state funding.

We have continued to make reductions in program support and carefully examine the need to fill positions as they become vacant. In addition, as we rehire, the majority of our positions are being filled on a limited term basis. The ACES has been fortunate in that we have been able to avoid layoffs or furloughs, but at the same time we continue to look for ways to restructure and redefine programming to ensure that our resources are being used in the most efficient manner. Employees are also continuing to seek mission-related extramural funding opportunities to help supplement our current budget

Alabama Cooperative Extension System Administrative and Program Leadership Teams continue to make organizational adjustments and refinements that will respect our past heritage, accept and adjust to the current situation, and position the System to prosper in future years. These changes include ensuring that ACES programs prepare constituents to thrive in challenging economic and social times and to generate adequate resources to support critical System programs.

Sustainability Plus: Sustainability involves living and working in ways that address present-day needs without eroding the ability of future generations to meet their own needs. In 2011, Extension emphasized the theme of "sustainability-plus" through wide-ranging efforts in areas including economic recovery for communities suffering from natural disasters, factory closures, and dwindling rural populations; developing seed sources and promoting cultivation of crops that protect wetlands and waterways; helping small farmers with rainwater recycling systems and major crop farmers and landowners with global positioning systems; providing youth with hands-on experiences that increase respect for the natural world; food safety and security training; an expo highlighting ways to live greener and more sustainably; and many, many more efforts

FY 2011 Program Highlights

Agriculture, Forestry and Natural Resources

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 us 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.

Economic and Community Development

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.

Disaster Response

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.

4-H and Youth Development

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.

Family and Consumer Sciences

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.

Community Health Aerobics Motivational Program Initiating Optimal Nutrition--Statistics continue to show Alabama with more than 68% of its population classified as overweight or obese combined. With the cost of obesity and associated illnesses averaging over 50 million dollars annually for every 100,000 citizens in high rate cities, we can no longer afford to be overweight and unhealthy.**Responding to this health crisis,** the CHAMPION program was designed to improve the health of families and individuals through lifestyle changes such as adopting obtainable eating habits, and

in daily physical activities. CHAMPION provides educational outreach to encourage weight management, improve body image, facilitate food selection for a balanced diet, promote physical activity, and provide knowledge for intervention/maintenance of chronic diseases. The target audiences for this project were youth, adults and the elderly with limited resources living in the metropolitan inner cities that are at the highest risk for health related problems. Over 6,000 direct youth and adult contacts were made in 2011 through the CHAMPION program. Nutrition, physical activity, and chronic diseases knowledge for adults and elderly increased from pretest to posttest by 60.8% for adults; and 38% for youth. The total weight loss for the 227 adults participating in the 6 weeks weight management program was 359.7 pounds.

Youth Exploring Environmental Science (YEeS)--The YEes program is an in-school or after-schoolenrichment program that seeks to improveyouths' appreciation for science and enhance their understanding of the environment. The primary goal of YEeS is to improve literacy and knowledge in science disciplines and to promoteenvironmental awareness among today's youth. During 2011, the program reached over 5132 youth contacts.Feedback from post training assessment data indicated that 75% of the participants gained increased knowledge of environmental concepts and related terms. Seventy percent of the participating audiences modified their behavior towards environmental practices to protect and conserve including picking up litter, starting compost piles, and recycling. Customer comments included the following:

"You've made our science life much better. Here we recycle, and pick up litter, but we've never done that before. I went and told my mother and she said maybe we can do that at our house."

"It was so fun watching the process, with the worms the newspaper and the apples. It was also really fun when I got to teach my family. Thank you very much".
"Thank you for teaching us new things about the environment and its soils. You have made science twice as fun."

E-Waste Institute--The E-Waste Institute at Alabama A&M University is lead by a consortium of university researchers, educators and Extension professionals and serves as a medium to educate, train, raise public awareness, and influence public policies about safe environmental practices for the management of e-waste in Alabama and around the world. The goals of the E-Waste Institute are to: 1) Advance the knowledge, skills, and abilities of individuals, communities, organizations, and companies to adopt environmentally supportive behaviors; 2) Enhance the long-term health and well-being of citizens; and 3) Support the competitive edge of the US in the global market.

During the 2011 year the Institute initiated programs and partnered with other agencies to dispose of or recycle over 135 tons of electronic waste including 800 lbs. of cartridges and 300 lbs. of cardboard boxes, helping to secure our landfills and protect our water supply from contaminants. Over 2500 program participants increased their knowledge and understanding of environmental issues related to e-waste and e-waste management; and nearly 1100 showed behavioral changes by getting involved in recycling and proper disposal of electronic waste.

Disaster Preparedness Fair--Alabama was victim to unprecedented environmental disasters during 2011. Tornados in early spring changed the face of many communities. As climate changes bring shifts in weather patterns with potentially severe outcomes; citizens must become more responsively pro-active.

Over 40 exhibitors at the Disaster Preparedness Fair held in November at the AAMU Agribition Center shared an array of emergency and support services to prepare citizens for impending disasters. Information on emergency contacts, how to prepare a disaster kit and family escape plan, food safety, and pet care were topics shared by university faculty, extension educators and service representatives. First time responders were on hand to educate and demonstrate their emergency services. Free Clothing and household cleaning supplies were also distributed at the fair by the Teens

Making Impact (TMI) youth development program to an estimated 200 participating families that were impacted by the storms. This was a part of their teen service project.

Alabama Ethnic Food Security Network--The small ruminant industry is one of the fastest growing enterprises of the Alabama agriculture economy. Hands-on demonstrations prepare producers and nontraditional farmers with best practices for herd management. Programs service state, national and international audiences through partnerships with agencies such as the EMBRAPA-Brazil. From the population of small farmers, 160 goat producers participated in a series of training workshops on herd health management and learned about the life-cycle of GI worms, the consequences of parasite-host interaction, and the mode for de-worming. One hundred percent (100%) learned to conduct FAMACHA chart readings and perform fecal examinations for infestations to enhance quality assurance for a safe goat meat for consumers.

Welcome to the Real World--The Welcome to the Real World programbroadly aims to upgrade and uplift the state's urban and nontraditional audiences' economic capacity by engaging youth in activities/training that: (a) simulates economic deterioration; (b) educates them on the causes of economic deterioration, (c) provides direction and training on career planning, and (d) provides direction and training on education planning. The program stresses partnerships with local community based organizations to reach and engage the target audience. This approach to program delivery promotes family and community engagement in career and educational planning processes for our next age leaders. Over 2,600 direct youth contacts were made during 2011 through this program. Thirty nine percent (39%) of the participants successfully completed the Welcome to the Real World real life simulation program and achieved the objectives of: 1) receiving opportunities to explore career options and research careers possibilities, and 2) obtaining skills sets to manage income and expenses through role played simulations. Youth successfully completing the program, were provided career planning resources and were encouraged to revisit their career choices with a focus on putting in place a career plan to match their career goals. Follow data indicates 31% created a career plan based on Extension's training.

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.

Teens Making Impact--In the West Gate Community located in Decatur (one of Alabama's metro centers where garden space and fresh produce are limited), the Extension system and local youth planted a community garden as a service project for the Teens Making Impact (TMI) program. The garden needed adult supervision. So, senior citizens joined with the youth to create a youth adult partnership that had many benefits. Youth learned about the importance of community, the rewards of hard work, and the financial and health benefits of growing your own food. The senior citizens emphasized to the youth how hard work gives you a greater appreciation for education. These concepts all addressed learning outcomes for the TMI project. The small community effort had the great potential of bringing the community together as one to make a big difference in Morgan County. The garden snowballed into a significant community partnership that was fruitful in many ways. The project yielded several thousand pounds of produce for community consumption. And community partnerships grew as well to include the local Decatur General Hospital, Community Action Agency, Boys and Girls Club, the Senior Companion Program, Volunteer Center of Morgan County and the Foster Grandparents Program.

Healthy Choices Rock!--Recognizing that negative effects of drug, alcohol and tobacco usage among middle school age youth can cause life altering problems, the **Healthy Choices Rock!** Program was designed to address the impact of this challenge in Alabama urban communities. As reported on the Addiction US.com website, marijuana, methamphetamine, diverted pharmaceutical drugs, and cocaine continue to be the primary drug threat in cities in Alabama and across the nation. Drug abuse has serious consequences not only in personal lives but in homes, schools, and communities. Early intervention through educational programs has proven to have a greater impact than later intervention by changing a child's life path away from problems and toward positive behaviors. Pre and post assessment instruments were developed by the University of Nebraska to be administered to all Health Rocks! participants on a voluntary basis. These assessments were used to determine the knowledge base of participants in drug education before and after the interactive educational modules were taught (requiring a minimum of 10 contact hours per youth). Over 80 percent of surveys were returned that indicated students had been engaged in the learning process and had increased knowledge of illicit drugs and drug abuse in other substances.

During 2011, over 3300 program participants were actively involved in experiences to:

- Receive drug prevention education
- Expand youth and adult partnerships and community service activities
- Increase development of skill sets that foster leadership and volunteer service
- Increase awareness of illicit drugs and the negative impact of drug usage.
- Enhance community service activities
- Increase capacity of human resources to address local community needs.
- Expand community partnerships between students and service providing agencies.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	292.6	30.0	0.0	0.0
Actual	228.3	30.5	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel

2. Brief Explanation

PROGRAM REVIEW PROCESS

The review process for the Alabama Cooperative Extension System's FY2013-2017 Plan of Work includes several phases, which will continue yearly for the duration of the Plan. The first phase of review is conducted by the Co-Chairs of the Priority Program Areas (PPA) with input from their team members. Each of PPA Co-Chairs reviewed their respective programs to ensure that they accurately represented and addressed critical needs of Alabama residents.

A second phase of review was conducted by the Assistant Directors. The Assistant Directors checked each program area for: relevancy, ability of Extension to adequately address the issues, potential

for / inclusion of Multistate Extension Activities / Integrated Research and Extension Activities, and the inclusion of measurable impact / outcome indicators.

The third phase of Plan of Work review was conducted by the System Administrative Team. That team (Director / 1890 Administrator/ Associate Directors, Chief Financial Officer, Human Resources Officer) reviewed the Plan relative to:

- Consistency with System / University missions
- The inclusion of approved PPAs (and related ETPs),
- The adequacy of fiscal / human resource allocations needed for successful implementation of included programs,
- The capacity to offer educational services to a broad spectrum of Alabama residents, rural / urban, and across diverse demographic parameters,
- The degree to which the Plan adequately reflected the consideration and inclusion of stakeholder and advisory inputs.

As the fourth phase of the review process, relevant University administrators (Alabama A&M University / Auburn University) were afforded the opportunity to review and comment on the FY2013-2017 Plan of Work. Deans, Department Heads, and others were critical to the review process given that many of the System specialists are housed in the Academic Departments.

The final phase of review centers on scrutiny of the Plan of Work by the various state-wide Priority Program Area Advisory Councils. These Advisory Councils assist each Priority Program Area in the identification of critical issues and in setting specific System programming priorities. Specific roles for the Priority Program Area Advisory Councils include: 1) insure that the included programs address real needs of Alabama citizens; 2) promote the System's programmatic efforts and accomplishments to key stakeholder / clientele groups / decision makers; 3) provide guidance and assistance in obtaining statewide support for included programs; 4) identify critical issues and problems which might be best addressed by System educational outreach; and 5) expand the collaboration and networking capabilities of the System in support of existing and proposed programs.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals

Brief explanation.

The Alabama Cooperative Extension System conducted a comprehensive grass-tops and grassroots needs assessment in 2010. State-level constituent or consensus building groups, non-governmental agencies, community-based organizations, and governmental agencies were encouraged to participate in the grass-tops needs assessment by inviting both traditional and non-traditional stakeholder groups. Individuals representing diverse socio-economic and racial groups, new client groups, networks, and potential community partners were encouraged to participate in the grassroots needs assessment by inviting both traditional and non-traditional stakeholder individuals. Media was used to announce and encourage individuals to participate in a survey of the general public.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Needs Assessments

Brief explanation.

Assistant Directors for Programs provided leadership to 14 program teams, consisting of State Extension Specialists and Regional Extension Agents, to identify 250 state-level constituent or consensus building groups, non-governmental agencies, community-based organizations, and governmental agencies. Methods for identifying these groups included existing advisory committees and interagency directories.

Grassroots stakeholders were identified by County Extension Coordinators who led community conversations in the state's 67 counties. Methods included existing advisory committees, contacts with other agency partners, and staff knowledge of individuals representing diverse socio-economic and racial groups, new client groups, networks, and potential community partners. The grassroots web-based survey was marketed in all 67 counties through the media and directly via the ACES homepage. Citizens were offered the opportunity to participate in the survey via public access computers at County Extension Offices. Participation in the grassroots community conversations and survey was 1,743 and 1,999 respectively.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Survey specifically with non-traditional groups

Brief explanation.

A comprehensive approach to needs identification was undertaken given the complexity and scope of issues facing the citizens of Alabama. For the Alabama Cooperative Extension System (ACES), the 2010 comprehensive needs assessment began with the engagement of key external 'grass-tops' stakeholders to determine priority needs affecting Alabamians.

Assistant Directors for Programs and their respective program teams conducted the grass-tops needs assessment by engaging groups through direct telephone contacts, focus groups, advisory committees, networking, or short surveys. Each stakeholder group was asked 1) what priority initiatives were included in their strategic plan or plan-of-work, 2) what issues they envisioned affecting the economic and physical wellbeing of Alabamians across the state, 3) what priority needs of their clientele connect with ACES's educational programming expertise, and 4) what linkages did

they envision that would strengthen the working relationship with ACES's educational programming. Results gleaned from the grass-tops needs assessment activities were summarized, and 14 major themes emerged from this analysis.

The second major component of the comprehensive needs assessment involved engagement of 'grassroots' stakeholders. The Assistant Director for Program Operations and Innovations and 67 County Extension Coordinators organized grassroots community conversations to confirm, prioritize, or regionalize the grass-tops needs assessment results. Objectives were to engage a cross section of citizens to 1) discuss and understand the facts regarding significant issues facing the state and the opportunities for positive change and 2) dialogue about significant issues and the potential for programs that acknowledge and address the current changes in the way citizens think, live, and function in their daily lives, families, communities and businesses. A companion grassroots survey was administered via the ACES homepage.

Nearly 4,000 citizens participated in these activities and observational data collected by County Extension Coordinators showed that parity was achieved. Collectively, these local stakeholders helped ACES define six strategic program initiatives.

3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

Six strategic program initiatives were identified from the 2010 comprehensive grass-tops and grassroots needs assessment. The Assistant Directors for Programs collaborated on the development of a logic model for each strategic program initiative focusing on specific objectives, outputs, and outcomes that allowed for application across various program areas. Each logic model included an evaluation plan.

The Assistant Directors for Programs helped their respective program teams, consisting of State Extension Specialists and Regional Extension Agents, prepare a plan-of-work. Steps included: 1) to determine which strategic program initiatives fit with the team's capabilities and resources and to develop a programmatic response consistent with the objectives, outputs, and outcomes of the respective strategic program initiative logic model and 2) to complete the program team plan-of-work to include ongoing programs or special funded projects.

Program team plans-of-work were shared with County Extension Coordinators in preparation for seven multi-county regional meetings held across the state. County Extension Coordinators and Regional Extension Agents met to discuss program alternatives and to make mutual decisions regarding programs, staff involved, dates, locations. The ultimate outcome was an individual plan-of-work for County Extension Coordinators and Regional Extension Agents based on the grass-tops and grassroots needs assessment results.

Brief Explanation of what you learned from your Stakeholders

Collectively, grass-tops and grassroots stakeholders helped define six system-wide strategic program initiatives:

1. Health and Wellness across the Lifespan

2. Workforce Development
3. Safe and Secure Food Supply
4. Financial Literacy across the Lifespan
5. Sustainable Agricultural and Forestry Systems
6. Environmental Stewardship

Stakeholders support two major program thrusts: base programming and issue-based programming. Base programming involves applying and sharing knowledge grounded in research-based science. These programs are fundamental to the land-grant mission and are discipline or subject-matter focused. Issue-based programming involves working directly with citizens to affect positive change through research-based science. These programs address current issues and opportunities affecting the quality of life and well-being of broad range of citizens. They are multi-disciplinary in scope and are issue focused.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
6879969	2111016	0	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	5128394	2234771	0	0
Actual Matching	6879969	2234771	0	0
Actual All Other	21618414	3161576	0	0
Total Actual Expended	33626777	7631118	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	5128394	306755	0	0

V. Planned Program Table of Content

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Childhood Obesity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food	5%	5%		
702	Requirements and Function of Nutrients and Other Food Components	5%	5%		
703	Nutrition Education and Behavior	30%	30%		
704	Nutrition and Hunger in the Population	5%	5%		
723	Hazards to Human Health and Safety	5%	5%		
724	Healthy Lifestyle	25%	25%		
805	Community Institutions, Health, and Social Services	25%	25%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	22.0	3.5	0.0	0.0
Actual Paid Professional	21.4	4.3	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
685252	311692	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
555468	311692	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1524365	440957	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are 10 statewide Extension Team Projects.These are:

ETP21A - Arthritis and Osteoporosis Prevention and Control
ETP21B - Cancer Prevention and Control Education
Activities: Relay for Life Team (Metro Knights) funding raising.
Annual cancer awareness workshop in October- 165 community and college students attended.

ETP21C - Cardiovascular Health Awareness
Activities:Heart awareness program.
Heart awareness bulletin boards ad exhibits at health fairs throughout the state.
ETP21D - Diabetes and Obesity Prevention and Control
Activities: Mini workshops were conducted tby UREAs hroughout the state to limited resource groups.
ETP21F - Environmental Health
ETP21L - Healthy Families, Healthy Communities

Each project includes a variety of educational activities. Detailed descriptions of the activities of these projects are available on the ACES intranet.

2. Brief description of the target audience

The primary target audience is the general public, Adults and youth, families, Professinal Health Care Providers and Head Start Workers to reduce the burden of Obesity in AL, to advance knowledge, to ensure that nutritious foods are affordable and individuals and families are able to make informed decisions based on scientific facts about foods and its availability how to have a better quality of life.
UREAs with assignments in health and nutrition focus primarily on limited resources families and individuals in the Metropolitan Statistical Areas of Alabama (MSA's)

3. How was eXtension used?

There is an eXtension community of prctice in Health, agents and specialists use the site for resources, publications and articles

Used eXtension as a site for resources and publications.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6705	89646	1437	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	5

Output #2

Output Measure

- Workshops,training meeting, conferences, media, newsletter articles and individual contacts.

Year	Actual
2011	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.
2	Major outcome measures in Human Nutrition, Diet, and Health will be the decrease in diseases which are directly related to nutrition, and the decrease in the percent of obese adults and children. The yearly targets below are percentage decreases in diseases.
3	To increase fruits, vegetables, and calcium-rich foods in diets.

Outcome #1

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	105

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components

703	Nutrition Education and Behavior
704	Nutrition and Hunger in the Population
723	Hazards to Human Health and Safety
724	Healthy Lifestyle
805	Community Institutions, Health, and Social Services

Outcome #2

1. Outcome Measures

Major outcome measures in Human Nutrition, Diet, and Health will be the decrease in diseases which are directly related to nutrition, and the decrease in the percent of obese adults and children. The yearly targets below are percentage decreases in diseases.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior

704	Nutrition and Hunger in the Population
723	Hazards to Human Health and Safety
724	Healthy Lifestyle
805	Community Institutions, Health, and Social Services

Outcome #3

1. Outcome Measures

To increase fruits, vegetables, and calcium-rich foods in diets.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	105

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Childhood obesity is a problem. It leads to chronic conditions. Research shows that an increase in fruits and vegetables will help to reduce childhood obesity.

What has been done
24-Hour Food Recalls were collected and a Behavior Checklist

Results
n=254, 105 completed entrance/exit recalls. 46% with positive change at exit in Fruits and Vegetables. 40% with positive change at exit in calcium-rich foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Availability of fresh fruits and vegetables)

Brief Explanation

. Weather conditions keep participants from attending classes or exercising. Economy contributes to higher food and gas prices which make it difficult for participants to purchase healthy foods and travel. Programmatic challenges consist of not being able to purchase needed materials to help with educations and interactive activities. Population changes are the environments that surround the clients, for example, some areas do not have supermarkets in close proximity that provide healthy food choices and cultural -lifestyle habits passed from generation to generation, e.g. soul food; unhealthy surroundings promoting improper nutrition and sedentary lifestyles.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The nine UREAs reached over 4,000 individual and families through face to face contants. UREAs conducted a series of classes and mini workshops in which pre-posted evaluation instruments were used. However, 254 families were administered a 24-Hour Recall and a Behavior checklist. Of these families, 105 completed an entrance and exit food recall and a behavior checklist. Result indicated that 92.4% improved their diet, 46% showed an increased in fruits and vegetables consumption, and 40% showed an increase in calicum-rich food consumption. In addition, 88% of participants showed improvements in one or more food resources managment practices and 71% of participants showed improvement in one or more of the food safety practices.

Key Items of Evaluation

The positive increase in the consumption of fruits and vegetables from entry to exit. And, the positive increase in the consumption of calcium-rich foods. Participants showed improvement in food resource managment, nutrition, and food safety practices.

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Climate Change

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%	0%		
111	Conservation and Efficient Use of Water	5%	0%		
112	Watershed Protection and Management	2%	0%		
125	Agroforestry	2%	0%		
131	Alternative Uses of Land	2%	0%		
132	Weather and Climate	65%	0%		
205	Plant Management Systems	10%	0%		
211	Insects, Mites, and Other Arthropods Affecting Plants	2%	0%		
212	Pathogens and Nematodes Affecting Plants	2%	0%		
	Total	100%	0%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual Paid Professional	0.1	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
294	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
700	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1989	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Planned program activities in this area will be multi-faceted to meet the needs of this diverse program area. Continuous interactions with stakeholders will provide information about their needs and concerns as related to climate change. This information will be used to develop Extension Team Projects - ETPs. The ETPs are individual programs that target specific areas of relevance and interest to a particular community, in this case agricultural and environmental communities around climate change aspects. Regional extension agents, county extension agents, and specialists are required to devote at least 50% of their Extension appointment directly to specific ETPs. Each participant is also required to file an annual report on their activities with those projects for which they are participants.

The main activities planned for this program are:

- Increase stakeholders (farmers, county and faculty extension specialists, consultants) literacy on climate variability and change. This will be achieved through in-service training sessions, multi-state conferences, workshops, development of news letter and extension bulletins, and participation in outreach activities.
- Evaluate at state level, climate change projections developed for the Southeast which will improve skill of summer and fall forecasts.
- Identification of potential adaptation strategies to reduce the impact of climate change on agricultural systems. This is expected to be achieved through in-service training sessions combined with panel discussions with participation of farmers, agribusiness representatives, commodity associations, cooperatives, water management districts, and county and state governments.
- Evaluation of changes in pest/diseases as consequence of climate change - Monitoring and management of row crops, fruits and vegetables pest education.
- Evaluation of changes in water resources as consequence of climate change - Education on monitoring and management of water resources.
- Evaluate the scenarios for agricultural trade at international/regional levels under different climate change scenarios to understand potential implications for agricultural and trade policy as a result of climate change.
- Development of Decision Support Systems.

2. Brief description of the target audience

The activities of the Climate Change Program Priority Team will target the following groups of stakeholders: 1) row crop and fruit-vegetable producers and their representatives groups that include, but are not limited to, the Alabama Cotton Commission, Alabama Peanut Commission, Alabama Soybean Producers, Alabama Wheat and Feed Grains Committee, and the AlabamaFruit and Vegetable Producers; 2) row crop and fruit-vegetable advisors including ACES agents and specialists, public and private crops advisors; 3) governmental agency personnel including USDA, NRCS, federal crop insurance and risk managers, and State of AlabamaSoil andWater Conservation Committee; 4) public policy makers requesting information that impact Alabama's agricultural and water resources communities, and 5) private citizens impacted by policies and practices used for the production of food, fuel, and fiber. All educational programming efforts will target audiences without exclusion or discrimination, as specifically defined by ACES policy guidelines.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	572	1670	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	2	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- - Distribution of basic information about climate variability and climate change not only for Alabama but also for the Southeast. Most of the information will be related to differences

between climate variability and change, maps of the average spatial variability of the most important climatic variables (e.g., rainfall and temperature), forecasts provided by US official weather service (NOAA). Several methods of notification (email-Timely Information Sheets, articles in popular press, climate variability/ climate change web site specifically designed for the program, etc) will be used to disseminate information. - Specific outputs include: 1) News and current information posted on the Climate web site as well as agronomic crops web site (www.alabamacrops.com).

Year	Actual
2011	22

Output #2

Output Measure

- - Meetings, in-service trainings, and workshops, will include information on the relationships between agriculture/natural resources and climate change as well as potential impacts, relationships between pest/diseases changes in relation to climate variability and climate change. - Specific outputs include: 1) Multi-state conferences on climate change and the implications for agriculture and natural resources, 2) In-service training meetings for target audiences (e.g., row crops producers, fruit and vegetable producers, soils and water conservationists, etc).

Year	Actual
2011	13

Output #3

Output Measure

- - Reports based on reviews of current knowledge about the relationships between agriculture and climate change and potential impacts.

Year	Actual
2011	1

Output #4

Output Measure

- - Recommendations for adaptation strategies for row crops/fruit and vegetables will be development to reduce the risks of climate variability and climate change. - Specific outputs include: a) Guidelines for agronomic management under various climate variability and climate change scenarios and b) Hard copy publications for use in production meetings and trainings where deemed appropriated.

Year	Actual
2011	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Members of the ACES Climate Change team will be required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: a) why the program was conducted or the situation/problem that was addressed; b) specifically what and how it was done; c) the time period involved; d) the specific locations involved; e) who was impacted; f) how many people were served; and g) the final impacts. Short-term outcome: The most immediate outcomes are: 1) Increased understanding of the potential impacts of climate variability and climate change on row crops, fruits and vegetables;
2	2) Increased information about the impact of ENSO phases on row crops, fruits and vegetables;
3	3) Alabama stakeholders trained/educated in climate variability and climate change topics;
4	4) Alabama growers, extension agents and extension specialists trained in using agroclimatic decision support tools
5	5) Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance
6	6)Capacities strengthened to access and use resources effectively to reduce risks associated with climate variability and climate change
7	7) Capacities strengthened to understand and manage water or natural resources in the context of climate vulnerability
8	8) Identification of the most profitable row crops management practices by ENSO phase
9	9) Identification of adaptation strategies to reduce climate change impacts.
10	10) increased awareness of the impacts of climate on agricultural Production.
11	Medium-term outcomes: The medium-term outcomes of the Climate Change Extension Program are: 1) implementation of a new system of management practices for row crops and vegetables according to ENSO phase
12	2) Improved agronomic management row crops and vegetables
13	Long-term outcomes: The long-term outcomes of the Climate Change Extension Program are: 1) increased profitability of Alabama growers
14	2) improved soil conditions
15	3) reduced environmental impacts

16	4) competitive Auburn and ACES Agronomic Research, Extension and Education system.

Outcome #1

1. Outcome Measures

Members of the ACES Climate Change team will be required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: a) why the program was conducted or the situation/problem that was addressed; b) specifically what and how it was done; c) the time period involved; d) the specific locations involved; e) who was impacted; f) how many people were served; and g) the final impacts. Short-term outcome: The most immediate outcomes are: 1) Increased understanding of the potential impacts of climate variability and climate change on row crops, fruits and vegetables;

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
A group of 7 farmers from Southeast Alabama for the last two years have been participating of the Tri-state climate working group for row crops in Agriculture. Based on the climate information and knowledge of impacts of seasonal climate vriability on agriculture, Myron Jhonson, a farmer located Headland, AL decided to change the average peanut planting date for an early planting date to avaiod water and heat stress on his peanut crop. Mr .Johnson harvested an excellent crop compared with yield losses by his neighbors whom used the standard plantign date

What has been done
The climate meetings with farmers have resulted in increased knowledge, changes in farmers' attitude respect to the benefits of using climate information to support management decisions, increased skills on how to use climate information and the sources of climate information.During the meetings of the Tri-state (AL, GA, FL) climate working groups the attendees have learned that ENSO is the main source of climate variability in the Southeast,differences between ENSO phases respect to climatic variables, the immpacts of ENSO on agriculture

Results

Increased yields/reduction of the risk for yield losses

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
132	Weather and Climate
205	Plant Management Systems

Outcome #2

1. Outcome Measures

2) Increased information about the impact of ENSO phases on row crops, fruits and vegetables;

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Information about the impact of ENSO phases on row crops, fruits and vegetables is important for farmers, govermental agencies, and agriculture policy makers. Seasonal climate variability could have detrimental or beneficial impacts on the production of crops and final yield, as well as water resources; therefore increased knowledge on ENSO and its impact is key to reduce potential negative impacts or to take advantage of favorable conditions for crop production.

What has been done
Information on changes on ENSO phases, transition between phases, changes in rainfall and temperature patterns associated with ENSO was distributed through various success: emails (1670 contacts/year), timely extension publications (1), ag climate outlooks (1), internet articles (3), press articles published in the Southeast Farm Press and Southwest Farm Press magazines (3), presentations and climate displays during farmers meetings, alabama fruit and vegetable annual meeting (Feb 2011), 2011 meeting of the Greater Birmingham association of landscape professionals, six conference abstracts were submitted to professional meetings, a workshop for

certified crop advisors on the use of climate decision support tools was organized (30 people).

Results
- Knowledge on ENSO and its relation with climate variability has been gained.
- Awareness has been raised on the impact of ENSO phases in row crops.
- Skills have been developed on differentiation between ENSO phases respect to seasonal changes in rainfall and temperature patterns.
- Skills have been developed on the use of Agroclimate tools (agroclimate.org) to support management decision on agriculture.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems

Outcome #3

1. Outcome Measures

3) Alabama stakeholders trained/educated in climate variability and climate change topics;

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1845

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Climate information to make educated management decisions and preparedness for conditions that might negatively impact food production is necessary in order to implement the most appropriate adaptation and mitigation strategies.

What has been done
Climate information has been distributed through: emails (1670 contacts/year), timely extension publications (1), agricultural climate outlooks (1), internet articles (3), press articles published in

the Southeast Farm Press and Southwest Farm Press magazines (3), presentations at farmers meetings (3 presenrations, 160 people). Presentations and climate displays at the alabama fruit and vegetable annual meeting (Feb 2011), 2011 meeting of the Greater Birmingham association of landscape professionals (75 people). One training on the use of climate-based decision support tools available on Agroclimate was organized for the Alabama Certified Crop Advisors(30 people).

Results
Stakeholders gained knowledge on the differentiation between ENSO phases, impact of ENSO on climatics variables, sources of climate information, and decision support tools avaialable on Agroclimate.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate

Outcome #4

1. Outcome Measures

4) Alabama growers, extension agents and extension specialists trained in using agroclimatic decision support tools

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Knowledge on the use of climate-based decision support tools will increase the success for choosing the optimum management strategies accoording to the current climatic conditions. Trained extension agents and specialist will result in knowledge transfer to the Alabama stakeholders.

What has been done
- One training on the use of climate-based decision support tools available on Agroclimate was organized for the Alabama Certified Crop Advisors(30 people).
- Farmers and extension specialists attending the Tri-state climate working group have recieved information on the tools avaialable on Agroclimate.
- A timely information publication with title: "Climate Variability Associated with La Nina or El Nino phases: Introducing the Climate Risk Tool" was published.

- Articles published on the ACES web page: Using Climate Research to Build a More Nuanced Picture of Alabama Row-Crop Farming. ACES web page Blog (Nov 13, 2011);
- Two press articles published on the Southeast and Sothwest Farm Press managine. Title Knowledge of weather patterns is crop
management tool.

Results
- Awareness was raised on the climate-based decision support tools avaialable on Agroclimate.

- Knowledge gaining on the use of the Agroclimate Tools.

- Skills developed on how to retrive information from the Agroclimate tools.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate

Outcome #5

1. Outcome Measures

5) Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report at this moment

What has been done
Nothing to report at this moment

Results
Nothing to report at this moment

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #6

1. Outcome Measures

6)Capacities strengthened to access and use resources effectively to reduce risks associated with climate variability and climate change

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Stakeholders and extension personnel are continuously using various sources of climate data and

information to support management decisions. Therefore, an increase on the sources of climate information will result on better management decision and less food production risks associated to climate variability

What has been done
- The development of a Climate Extension web site was initialed in 2011 and it is expected to be accesible to the public in March 2012. The web site will include multiple resources or climate information.
- Trainings on the use of the tools available on the Agroclimate web site and on the use of other climate information web sites.

Results
- Knowledge on how to use the Agroclimate tools increased.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems

Outcome #7

1. Outcome Measures

7) Capacities strengthened to understand and manage water or natural resources in the context of climate vulnerability

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report on this aspect

What has been done
Nothing to report on this aspect

Results
Nothing to report on this aspect

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems

Outcome #8

1. Outcome Measures

8) Identification of the most profitable row crops management practices by ENSO phase

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Changes in management practices (planting date, variety, irrigation, tillage, fertilizer - timing and rate) implemented by farmers might be necessary to reduce climate-related yield losses or to take advantage of favorable climate conditions for crops production. Identification of adaptation and mitigation strategies for coping with climate variability will increase food production security

What has been done
Multiple studies are being conducted to:
- Identify is wheat yield differences exist between ENSO phases. Historic yield data from the Alabama Official variety trials conducted at seven research stations was used. Results showed that Wheat yield is higher under La Nina phase than El Nino phase.

- Identify the optimum site-specific planting date and wheat variety by ENSO phase. A experiment conducted at three different locations in Alabama has been conducted during the last two year. Preliminary results indicate that wheat yield decrease as the planting date is delayed. An interaction location by planting date by maturity was observed.
Results from these studies has been presented at wheat farmers meetings (145 farmers attending two wheat expo meetings), regional and national professional meeting.

Results
- Knowledge has been gained on the wheat yield differences by ENSO phase. Farmers, extension personnel and scientists from different institutions are aware of those results.
- Awareness has been raised on the wheat yield impact from changes on planting date and variety.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems

Outcome #9

1. Outcome Measures

9) Identification of adaptation strategies to reduce climate change impacts.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report on this aspect

What has been done
Nothing to report on this aspect

Results
Nothing to report on this aspect

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
131	Alternative Uses of Land
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #10

1. Outcome Measures

10) increased awareness of the impacts of climate on agricultural Production.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farmers and extension personnel including crop consultants are interested on the climate impact on food production. Increased awareness will result on the use of adaptation and mitigation strategies to cope with climate variability

What has been done
- Climate Information and climate impacts have been disseminated through email and internet, presented during farmers meetings, presented during professional meetings.

Results
Alabama farmers and extension are able to distinguish btween ENSO phases and relate those differences with the changes on climatic variables such as precipitation and temperature.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems

Outcome #11

1. Outcome Measures

Medium-term outcomes: The medium-term outcomes of the Climate Change Extension Program are: 1) implementation of a new system of management practices for row crops and vegetables according to ENSO phase

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report on yet.

What has been done
Nothing to report on yet.

Results

Nothing to report on yet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
131	Alternative Uses of Land
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #12

1. Outcome Measures

2) Improved agronomic management row crops and vegetables

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report on yet.

What has been done
Nothing to report on yet.

Results
Nothing to report on yet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
131	Alternative Uses of Land
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #13

1. Outcome Measures

Long-term outcomes: The long-term outcomes of the Climate Change Extension Program are: 1) increased profitability of Alabama growers

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report in this aspect yet.

What has been done
Nothing to report in this aspect yet.

Results
Nothing to report in this aspect yet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

131	Alternative Uses of Land
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #14

1. Outcome Measures

2) improved soil conditions

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report in this aspect yet.

What has been done
Nothing to report in this aspect yet.

Results
Nothing to report in this aspect yet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
131	Alternative Uses of Land
132	Weather and Climate
205	Plant Management Systems

Outcome #15

1. Outcome Measures

3) reduced environmental impacts

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nothing to report in this aspect yet.

What has been done
Nothing to report in this aspect yet.

Results
Nothing to report in this aspect yet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry
131	Alternative Uses of Land
132	Weather and Climate

Outcome #16

1. Outcome Measures

4) competitive Auburn and ACES Agronomic Research, Extension and Education system.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done
Extension agents and specialists (about 1000 contacts per year) have been contacted by email with information related to climate variability, impacts of climate variability on agriculture and water resources. Articles have been prepared for various web sites which discuss of the importance on including climate information as part of the decision making process. Extension articles has been published on how to use specific climate-based tools included on the Agroclimate web site.

Results
- Increased knowledge on the sources of climate variability and impacts.
- Increase knowledge on the use of climate information and climate-based decision support tools

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry
131	Alternative Uses of Land
132	Weather and Climate

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

In several meetings, stakeholders have seen reluctant to discuss the topic of climate change. They even have suggested that the words "climate change' should be avoided while talking to farmers, instead use climate variablity or weather. Therefore, no much of climate change issues have been discussed.

The identification of management practices that could be used to reduce climate variablity impacts is still on the research phase. More research years are necessary to provide climate-based recomendations.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluations (pre and post training) during the hand-on climate education activities showed: a) 100% of attendees recognized that identifying the differences between climate and weather is important for farm management, b) 92% of attendees feel that "growers can make changes to their farm management if they are provided with climate information before the growing season starts", c) 77% of attendees claimed " the use of Internet to get climate/weather information to assist in growing or marketing row crops or management or water resources", d) 62% have heard about Agroclimate.org through the annual certified crop adviser trainings organized by the Agronomy department at Auburn University; however, only until the 2011 trainings conducted none of them have used Agroclimate.org to look for climate information. Post trainings statistics indicated that: a) attendees either learned something new (38% of answers) or learned much (50% of answers), b) before the trainings the attendees have a moderate knowledge of the differences between weather and climate but after the trainings their knowledge increase to medium high (56%) and high (44%), c) before the trainings about 56% of the attendees did not know the differences between ENSO phases (El Nino or La Nina) but after the trainings 79% of them expressed to understand the differences between ENSO phases, d) before the trainings almost of the attendees were not aware of the spatial and temporal differences in precipitation between El Niño and La Niña for the state of Alabama but after the trainings 75% of them expressed to understand those differences, e) before the trainings 70% of the attendees were not aware of the climate-based decision support tools available in Agroclimate.org but after the

knowledge increase to medium high (50%) and high (50%). During production meetings the question about awareness of wheat yield differences between a cold-wet (El Nino phase) and warm-dry (La Nina) was formulated and 32% of attendees express have noticed yield differences between both season and express interest on receiving more information about climate impacts on crops production and yield.

Key Items of Evaluation

Evaluation allowed the identifcation of main topics of interest by the people attending climate education programs. This information allowed s to tailor the trainings based on their needs and interest. Also, helped us to identify what type of modifications on the climate-based decision support tools are required to make them more appealing to the users of more understandable to the users.

We will continue with the evaluations to assess changes in knowledge, awareness, attitudes and skills.

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	10%	10%		
503	Quality Maintenance in Storing and Marketing Food Products	10%	10%		
504	Home and Commercial Food Service	10%	10%		
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	35%	35%		
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	35%	35%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	11.0	0.0	0.0	0.0
Actual Paid Professional	14.9	1.3	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
602753	93360	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
387192	93360	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1068021	132078	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2011 the Food Safety, Food Preservation and Food Preparation Program Priority Team (PPT) trained 1113 Food Service Workers across the state. Just fewer than 100 classes have been taught by 9 Regional Agents in the Food Safety PPT. The training course has a very ridged exam at the end of the course to test for knowledge comprehension of food safety principles. Of the 1113 individuals completing the course 83% were able to pass the course. In 2010 one individual was required to have passed the course or the food service will have 5 points deducted from their inspection score and a new facility can not open until someone one staff has completed the course. With this certification Food Service Workers will be able to obtain employment as supervisors and increase their quality of life. While these individuals are better qualified employees, this program looks to reduce the numbers of food borne illnesses in the state of Alabama. We have seen inspection scores increase and food safety standards increase in those facilities that have completed the certification courses. Over 50 food processors were assisted through the Food Testing and Assistance Program. These individuals contacted the Regional Extension Agents and the Food Safety Specialist for assistance in starting their food processing businesses. We assisted them by testing their food products to assure that they qualified for processing under the minimum processing standards for "Acidified Food Products". These are products that under the FDA code are foods that have a pH under 4.6 or a water activity of less than 0.86. We also assist the beginning food processors with developing nutrition facts for their products. Over 80 food products were tested in our facilities and over 60 nutrition facts labels were generated for various food processors. We provide each food processor with assistance in the startup of their business and throughout the course of business with food processing questions. Twenty-five food processors took the Better Process Control School. With this course food processors learned how to safely process their acidified foods. This year we were able to open the food processing center in Clanton, AL, with this center we can assist farmers in further processing their fruits and vegetables to add value to their products.

Within the Safe and Secure Food Supply Project we assist consumers with becoming smarter shoppers through a program called the Smart Food Shopper. Through this program the consumers are taught to write a shopping list and stick with it, how to coupon and how to look for unit prices. Last year we completed over **30** of these programs in the state training over 500. With people trying to save money they are growing their own vegetables and fruits. With this we taught over **50** programs in Food Preservation training over 1300 individuals. We were even asked to train a group of agents from Arkansas. Through this training we provided them with our Master Food Preservation manual and other training materials to assist them with doing food preservation in Arkansas.

2. Brief description of the target audience

The primary target audience is food service workers, food processors as well as consumers.

3. How was eXtension used?

The Food Safety Community of Practice is lead by Alabama. There are a total of 202 members in the Food Safety CoP but only 44 are actively working the Community. We have posted over 100 articles on Food Safety on the website and we have published over 100 Frequently Asked questions. Many individuals post to the News site for Food Safety but they do not necessarily have to be members of the Food Safety CoP. In Alabama there are 16 members of the Community of Practice and 6 of these are core team members. Also the leader of the CoP is the Food Safety Specialist from Alabama.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	31178	1476303	7652	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	3	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally

evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	A major outcome will be the number of food service workers who participate in Extension sponsored Food Safety Training.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Outcome #1

1. Outcome Measures

A major outcome will be the number of food service workers who participate in Extension sponsored Food Safety Training.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #2

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Food Safety Programs are required by the Alabama Department of Public Health and in order for a restaurant to keep operating they must have this certification. Therefore, food service works, as well as, the general public are delighted that we offer this course to make the food safer when they eat out.

What has been done
Over 1000 restaurant workers have been trained in safe food practices. Over 50 food processors have been assisted with getting their food business started using safe food processing procedures. Twenty-five (25) of these processors completed the Better Process Control School.

Results

Food supply is safer for the consumer.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Of the 1113 food service workers given the certification exam 894 passed the exam.

25 individuals passed the exams required for the Better Process COntrol School.

50 processors food products were tested and certified to process under the acidified Food and Drug Administration regulations.

Key Items of Evaluation

894 of the 1113 food service workers tested passed the exam to complete certification requirements.

25 individuals passed the Better Process Control School Certification.

50 Processors successfully passed testing procedures requed by FDA.

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Global Food Security and Hunger

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
204	Plant Product Quality and Utility (Preharvest)	10%	0%		
205	Plant Management Systems	10%	10%		
213	Weeds Affecting Plants	15%	0%		
301	Reproductive Performance of Animals	5%	10%		
302	Nutrient Utilization in Animals	15%	20%		
303	Genetic Improvement of Animals	10%	10%		
307	Animal Management Systems	15%	20%		
311	Animal Diseases	5%	20%		
315	Animal Welfare/Well-Being and Protection	15%	10%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	23.0	4.5	0.0	0.0
Actual Paid Professional	19.6	2.3	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
535139	170548	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
683356	170548	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
2824767	241278	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2011, a comprehensive programming effort was established for both traditional and non-traditional agricultural sectors. Programs were implemented for all animal species and forages for the people of Alabama.

Alabama Ethnic Food Security Network

In 2011, nine (9) county workshops, two (2) county forums, three (3) out-of-state farm tours, one (1) statewide symposium and two (2) multistate conferences were conducted in the State of Alabama. These outreach activities placed emphasis on meat goat and sheep production systems and focused on areas such as reproductive and genetic evaluations, nutrition, forage management, use of FAMACHA chart, fecal-egg counts, integrated gastrointestinal parasite management, and predators and predation. Other topics of focus included pasture-raised chickens, grass-fed beef cattle, specialty vegetable production, and food safety. The programs included presentations and demonstrations by in- and out-of-state experts from academia and state and federal government while sponsors included the Alabama Cooperative Extension System, Resource Conservation and Development (RC&D) Council, USDA Food Safety Inspection Service and Alabama Agricultural A+ Marketing Association Inc.

Livestock and Forage Programming

With rising feed, fertilizer and fuel prices, many producers are focused on improving forage output, options and opportunities. In 2011, one (1) statewide forage conference, four (4) regional field days and 15 regional meetings were conducted. Three new programs were developed to meet needs including an equine forage field day, a silage and balage workshop and GrassMasters (multi-session training program). Producers were introduced to mob grazing techniques along with meetings addressing weed control, soil fertility, forage varieties, pest control and economics.

A comprehensive state-wide program (sweep net availability, youtube video, written material, web-based detection map) was established to minimize armyworm damage in hayfields and pastures. Sweep nets were placed in all counties, both with extension personnel and farmers. First reports of fall armyworm outbreaks came on July 6 from 3 counties. By September 7 they had been found in 44 counties. The sweep net program helped producers save11360 acres of forage in 2011, worth approximately $817,920. Each producer who used a sweep net saved an average 60 acres of forage on his farm by finding fall armyworms early, and helped an average 1.3 other producers find fall armyworms, resulting in 138 acres saved per sweep net.

Through programming efforts of Alabama Beef Cattle Improvement Association (BCIA) and ACES personnel, producers organized several cattle marketing opportunities with improved genetics. Four feeder calf sales grossed over $10 million marketing 11,000 head, a premium of almost $88/hd. Bull breeders sold 159 bulls to 95 different producers for an average price of $3,302/hd. These bulls should generate an additional $198,200 more farm income via increased weaning weights of calves over the next

3 years. Producers also sold 44 open and 269 bred replacement heifers netting an additional $50 to 300/hd over market price.

2. Brief description of the target audience

Alabama Ethnic Food Security Network

The primary target audience was meat goat and sheep producers developing profitable, sustainable animal production systems. Secondary target audience was small-scale producers of all natural chickens, beef, and specialty vegetables interested in supplying quality food products. Tertiary target audience was consumers of meat and vegetable products concerned with dietary cholesterol and other health issues.

In traditional animal science and forages programming conducted by agents and specialists affiliated with Auburn University, the target audience is any livestock or forage producer or youth asking for knowledge-based assistance. Much of the time is spent targeting producers with sustainable animal systems in mind. Another large target area is horse owners wanting to manage their resources more wisely.

3. How was eXtension used?

eXtension was not used in the Alabama Ethnic Food Security Network.

However, eXtension is used significantly in traditional animal science and forages programming as additional sources of information. In the traditional animal sciences programming area, the equine and small meat processor eXtension resources are ulized heavily. Another widely utilized resource is the imported fire ant area.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6403	270306	1250	45051

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	4	0	4

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	17

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Outcome #1

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	570

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Alabama Ethnic Food Security Network:

The dynamic population change that has taken place in Alabama represents new opportunities for food producers and marketers. Because consumer demand for ethnic foods is rising, farmers in Alabama have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods. In order to remain competitive in today?s market, Alabama farmers and marketers must keep pace with increasingly market segment needs. Meats such as goat and lamb are not only popular among Hispanics, but also among Caribbean Islanders and Middle Easterners. Vegetables such as peppers and eggplants are very popular among Hispanics as well as Asians. Furthermore, research data indicates that more and more Americans are changing their tastes in favor of new multicultural flavors and foods. Despite this increasing interest in multicultural dining, the public is unable to experience more of a variety of ethnic meals at home because of limited availability of high quality, authentic multicultural foods. However, to

ensure that farmers increase availability of a number of safe ethnic food ingredients, educational resources in alternative animal and vegetable production and technological advances were needed.

What has been done

Alabama Ethnic Food Security Network:
In an effort to help Alabama farmers increase the availability of a number of ethnic food ingredients in an efficient and profitable way, the Alabama Cooperative Extension System provided broadly-based and objective information about small ruminants and, to some extent, specialty vegetables and their impact on Alabama?s economy and natural resources. Besides carrying out an array of outreach activities (See Planned Program Activity), Extension Animal Science specialists published a book titled ?Meat Goats: Reproduction, Nutrition, and Health? to help farmers who are raising meat goats to become knowledgeable and successful in this particular enterprise. During 2011, over 100 copies of this book, which is only available in print, were sold to farmers in the North Alabama region. Extension Animal Science specialists also published a manual titled ?Small-Scale Commercial Rabbit Production? which enjoyed a great popularity among growers in the state and overseas.

Results

Alabama Ethnic Food Security Network:
Alabama small ruminant producers have become more knowledgeable and stayed open to new and different management practices that allowed their operations to be more productive and profitable. Sign-in sheets showed that a total of 570 goat and sheep producers attended educational activities carried out and/or sponsored by the Alabama Cooperative Extension System. Post surveys indicated that 100% of participants gained knowledge as a result of the educational activities. Moreover, 82% of participants reported increases in production efficiency, 76% reported improvements in herd health, and 69% reported increases in profitability ranging from 5 to 18%.

Additionally, Animal Science specialists with the Alabama Cooperative Extension System performed services at an estimated value of $220, and provided merchandise at an estimated value of $1,040.

The Alabama Ethnic Food Security Network at Alabama A&M University plans to continue to provide leadership in this particular program area and to be the premier lifelong education network that helps Alabama farmers improve the efficiency of meat goat, sheep, and specialty vegetable production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases

315 Animal Welfare/Well-Being and Protection

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Competing Programmatic Challenges

Brief Explanation

Alabama Ethnic Food Security Network

Similar to other commercial agricultural enterprises, meat goat and sheep producers as well as small-scale producers of all natural chickens, beef, and specialty vegetables are also locally impacted by Extension through its' Regional Extension Agents, who handle questions, supply information, and conduct training in a wide variety ooooof subject matter areas. To have a statewide comprehensive program, additional training activities focusing on small ruminant, pasture-raised chickens, grass-fed beef cattle, and specialty vegetable production must be made available to all interested individuals across Alabama. Therefore, future plans include encouraging participatin of other Extension professionals and increasing the number of integrated outreach educational activities.

For traditional animal science and forages work especially in the northern portion of Alabama, significant programming was delayed or cancelled because of the April outbreak of tornados. Agents responded to this emergency and assisted livestock, equine and poultry growers affected by the storms. Producers hardest hit were forced to liquidate herds and flocks. Agents coordinated many of the livestock emergencies that arose and provided pertinant information to those in need.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Alabama Ethnic Food Security Network

- Increased knowledge of key production management practices.
- Improved efficiency of production.
- Improved animal health and well-being.
- Increased marketing and profitability.

Traditional Animal Sciences and Forages

- Over 800 producers increased knowledge of key forage production practices. Some also implemented new forage harvesting techniques not traditionally seen for beef cattle in AL (silage).
- Over 200 producers attended the Statewide Forage Conference in December. Participants indicated it was the most comprehensive conference to data and that they planned to implement knowledge learned at the conference.
- Utilizing a multi-faceted approach, over $800,000 was saved by early detection and elimination fall army worms in hay fields and pastures

- Horse owners increased their knowledge and implementation rates when forages programming was made specific for their needs
- With increased genetic and marketing knowledge, producers were able to market livestock realizing more net returns ($975,000+) over traditional marketing methods. Indirectly, producers purchasing bulls with increased genetic potential should realize $20 more per calf through increased market weights over each of the next 3 years ($198,200 additional farm income).

Key Items of Evaluation

Alabama Ethnic Food Security Network

- As a result of the activities, 570 goat and sheep producers gained knowledge of key production management practices.
- As a result of the activities, 77 small-scale and limited-resource farmers gained knowledge of pasture-raised chickens, grass-fed beef cattle, and specialty vegetable production.
- As a result of the activities, 467 goat and sheep producers observed improved production efficiency.
- As a result of the activities, 433 goat and sheep producers observed improved animal health and well-being.
- As a result of the activities, 393 goat and sheep producers reported increased profitability rates ranging from 5 to 18 percent.

Traditional Animal Sciences and Forages

- Over 800 producers increased knowledge of key forage production practices. Some also implemented new forage harvesting techniques not traditionally seen for beef cattle in AL (silage).
- Over 200 producers attended the Statewide Forage Conference in December. Participants indicated it was the most comprehensive conference to data and that they planned to implement knowledge learned at the conference.
- Utilizing a multi-faceted approach, over $800,000 was saved by early detection and elimination fall army worms in hay fields and pastures
- Horse owners increased their knowledge and implementation rates when forages programming was made specific for their needs
- With increased genetic and marketing knowledge, producers were able to market livestock realizing more net returns ($975,000+) over traditional marketing methods. Indirectly, producers purchasing bulls with increased genetic potential should realize $20 more per calf through increased market weights over each of the next 3 years ($198,200 additional farm income).

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Sustainable Energy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%	0%		
102	Soil, Plant, Water, Nutrient Relationships	5%	0%		
216	Integrated Pest Management Systems	40%	0%		
402	Engineering Systems and Equipment	10%	0%		
403	Waste Disposal, Recycling, and Reuse	20%	0%		
603	Market Economics	20%	0%		
	Total	100%	0%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual Paid Professional	0.2	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
2931	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
6975	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
19837	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The project consist of programs and demonstrations that 1) increased production of energy feedstocks (corn, soybeans, rapseed, cottonseed, peanuts, wheat and biomass); 2) worked with municipalities, counties and other public organizations to produce biodiesel from used cooking oil; 3) worked with entrepreneurs to develop renewable energy manufacturing plants; 4) worked with farmers and the general public to increase usage of renewable fuels.

2. Brief description of the target audience

The activities of the sustainable Energy Program target the following groups of stakeholders 1) feedstock producers and their representative groups that include, but are not limited to, the Alabama Soybean Producers, the Alabama Wheat and Feed Grains Producers, the Alabama Soybean and Corn Association and the Alabama Forestry Association; 2) fleet managers; 3) energy entrepreneurs; 4) municipalities, county governments and other public organizations; 5) feedstock production advisors including ACES agents and specialist, public and private agronomy advisors; 6) public policy makers requesting energy information; 7) governmental agency personnel including ADECA, DOE, USDA and NRCS; and 8) homeowners and others interested in energy conservation.

All educational programming efforts will target audiences without exclusion or discrimination, as specifically defined by ACES policy guidelines.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	920	47000	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total

Actual	3	0	3

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Participants reached

Year	Actual
2011	47900

Output #2

Output Measure

- video produced

Year	Actual
2011	3

Output #3

Output Measure

- web pages developed

Year	Actual
2011	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Knowledge gained
2	recomendations addopted
3	Energy saved and produced

Outcome #1

1. Outcome Measures

Knowledge gained

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Renewable fuels and luberacants decrease our relaience on imported oil.

What has been done
Conducted renewable energy workshop for Alabama Fleet Managers.

Conducted and publicised sustainable energy feedstock production demonstrations.

Results
Increased renewable fuel and lubercant useage.

Increased sustainable energy feedstock production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
603	Market Economics

Outcome #2

1. Outcome Measures

recomendations addopted

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Sustainable energy reduces our dependence on imported oil.

What has been done
Conducted renewable energy workshop for Alabama Fleet Managers.

Conducted research to increase sustainable energy feedstock production.

Results
Increased use of renewable energy and lubercants.

Increase yield of sustainable energy feedstock.

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
603	Market Economics

Outcome #3

1. Outcome Measures

Energy saved and produced

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Domestic sustainable energy decreases our use of imported oil.

What has been done
Conducted renewable energy workshop for Alabama Fleet Managers.

Conducted sustainable energy feedstock production research.

Results
Increased use of renewable fuels and lubercants.

Increased per acre yield of energy feedstocks.

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
603	Market Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The Alabama Fleet managers gave the worshop a positive rating. When contacted they said they had increased biodiesel useage 2%.

The sustainable energy feedstock research increased crop yield as follows: ethanol feedstock 11.74 bushels per acre by controling the south west corn borer and 14.08 bushels per acre by disease control and biodiesel feedstock yields increased 10.22 bushels per acre by applying chicken litter.

Key Items of Evaluation

Fleet managers and increased yield.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Forestry, Wildlife, and Natural Resources

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	0%	15%		
112	Watershed Protection and Management	0%	20%		
123	Management and Sustainability of Forest Resources	30%	5%		
124	Urban Forestry	15%	10%		
125	Agroforestry	10%	0%		
133	Pollution Prevention and Mitigation	0%	15%		
134	Outdoor Recreation	25%	5%		
135	Aquatic and Terrestrial Wildlife	15%	10%		
136	Conservation of Biological Diversity	5%	10%		
403	Waste Disposal, Recycling, and Reuse	0%	10%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	4.0	0.0	0.0
Actual Paid Professional	27.2	4.1	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
532157	299195	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
948104	299195	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
3375584	423277	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are 6 statewide Extension Team Projects. These are: 1) ETP18B - Wildlife Management - 2 broad categories: wildlife enhancement (e.g., food plots for deer, birdhouses for bluebirds) and wildlife damage management (e.g., squirrels in the attic, beaver flooding timber, feral pigs destroying crops; 2) ETP18F - Urban and Community Forestry - This ETP will reach out to Alabama communities and citizens interested in developing and/or strengthening an organized approach to city tree management through educational programs, including tours, seminars, workshops and trainings in urban forestry. It targets diverse audiences of professionals, laymen, volunteers and youth, as well as encourages participation in the Tree City, USA program, Arbor Day Contests and observances, Tree & Beautification Board Academy, and other continuing education and professional development offerings.Each project includes a variety of educational activities. Detailed descriptions of the activities of these projects are available on the ACES intranet; 3) ETP307 - Youth Exploring Environmental Science (YEeS) - U&NNTP: An in-school or after-school enrichment program that seeks to improve youth appreciation for scienceby enhancing their understanding of the environment. It provides hands-on learning experiences in areas, like water quality and quantity and energy and waste management; 4) ETP311-Urban Wildlife and Natural Resources Education Program- U&NNTP : This program provides education for both youth and adults in the areas of wildlife and natural resource protection (e.g., beekeeping, song bird recovery, wildlife nuisance); and 5) ETP312-AAMU-ACES E-waste Institute-U&NNTP: This program raises public awareness about the dangers associated with electronic waste (e.g. cell phones, printer cartridges). It entails the promotion of e-cycling drives in metropolitan areas throughout the state. 5) SPI 406-Urban Home*a*Syst Program: this helps identify low, medium and high risk, concerns or problems found in and around the home, and encourages home owners to take action. All of the U&NNTP programs target diverse audiences and include seminars, workshops, and field days.

2. Brief description of the target audience

The clientele is extremely diverse for this ppt. For ETP18B Wildlife Management, the clentele range from deer hunters and birdwatching enthusiasts all the way to clientele who are experiencing damage to their property by feral pigs or trying to exclude bats from the attic. fFor ETP18 Urban and Community Forestry, clientele, relevant subjects range from urban tree husbandry to commercial forestry operations, nontraditional programming to address urban issues to traditional extension programming related to managing fish ponds and more. The U&NNTPprograms primarily target individuals in urban and nontraditional communities within the MSAs of Birmingham, Mobile, Prattville, Montgomery, Huntsville,

Madison, Tuscaloosa, Moulton, Dothan, Anniston, Gadsden, Decatur, Florence and other relevant areas. ETP307 - Youth Exploring Environmental Science (YEeS) - targets youth enrolled in -school or in after-school enrichment programs and boys and girls clubs. ETP311-Urban Wildlife and Natural Resources Education Program-targets both youth and adults, as well as land owners. ETP312-AAMU-ACES E-waste Institute-targets youth and adults, business owners and homeowners. SPI 406-Urban Home*a*Syst Program targets urban homeowners and renters.

3. How was eXtension used?

"eXtension" was not used specifically in this program; however, there have been multiple alliances formed between the Forestry and Wildlife team and the Agronomic Crops team. These alliances have helped to provide pertinent information dealing with wildlife damage in agronomic crops such as cotton which does utilize eXtension on a national level.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	18904	2069646	10042	1500

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	10	3	12

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- The goal of S.T.A.R. is to promote nature-based opportunities for intergenerational families in urban and community forest settings through outreach efforts with a variety of collaborators and

partners. Through the provision of knowledge on the human dimensions of greenspace development, audiences will gain information that will allow them to become more environmentally aware citizens and will enhance their capacity to support organizations and community services that reconnect people to built and natural outdoor forestry and wildlife resources. The following toolkit programs will be used to achieve a greater synergy between curative effects of the social forest on the emotional, economic, psychological, spiritual and social well-being of Alabama residents in nine target counties: * Using GPS & STAR Geocaching to Promote Physical Activity and Tree Education * Building Exposure to Nature with Intergenerational Families through Traditional Street Games * Faith Gardens: A Green Pathway to Community Revitalization * Promoting Songbird Recovery Project in Under-served Neighborhoods * Honey Bee Preservation in the Urban Forest * Monitoring Impact of Human Activity on the Greater Mobile Bay * Portable SOD Toolkit: Environmental Education for Congested Urban Settings * Tree City USA: Strengthening Economic Development Efforts in Depressed Communities

Year	Actual
2011	0

Output #2

Output Measure

- When Babe Turns to Beast: These workshops are designed to help farmers and landowners manage wild pigs. These feral pigs threaten crops and the ecological balance of Alabama forestland. In Alabama, wild pigs were once limited only to the southwest region of the state; however,they have expanded into virtually all of Alabama's 67 counties. ACES has planned, coordinated, and conducted workshops on feral pig management statewide. The first workshop was in what is considered ground zero--southwest Alabama. The workshop attracted some 50 participants, including farmers. Workshops are planned for next year. These new workshops are designed to show farmers and landowners the best ways to reduce pig numbers.

Year	Actual
2011	2011

Output #3

Output Measure

- The primary goal of these Natural Resources Programs is to improve literacy and knowledge in science disciplines and to promote environmental awareness among youth and adults. The Urban Programs YEeS, the Wildlife and Natural Resources Education Program, Urban Home*a*Syst, and the AAMU/ACES E-waste Institute were implemented by 4 UREAs and 1 Specialist. The unit hosted numerous workshops, special programs field days, and participated in a number of special events. (e.g., honey bee preservation demonstrations, song bird recovery projects, GPS explorations, water festivals, environmental expos, disaster resource fairs, e-waste drives, and other nature-based events). Several partnerships/collaborations were formed or continued including those with [Lawrence Co. (Judy Jester Center); Houston Co. (Landmark Park, City of Dothan, Dothan City Schools, Wiregrass Beekeepers Association); Mobile (Market Square); Montgomery, Autauga and Elmore Co. (City schools, Natures Classroom Arboretum, Alabama Wildlife Federation). Through the provision of knowledge on environmental conservation, audiences gained information that will help them to become better environmental stewards.

Year	Actual
2011	60

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	A major outcome will be the increase in active, viable county forestry and wildlife committees.
2	Desired outcomes are improved knowledge in the human dimensions of green space development among intergenerational families, enhanced neighborhood participation in urban forestry activities, increased use of environmental stewardship practices and greater engagement with the urban forest as a recreational asset, health and wellness resource and a source of emotional and physical well-being. Knowledge Gained - 90% gain in knowledge of human dimensions of green space development and the importance of the urban forest in post-survey results from workshop/training programs in one or more of the 8 toolkit areas. Change in Behavior - 25% change in behaviors based on application of knowledge gained from S.T.A.R. workshops and training programs in one or more of the 8 toolkit areas. Change in Culture - 15% change in organizational and community functions based on one or more of the toolkit areas.
3	Major outcomes will be the total number of underserved participants who gain an increase in knowledge, adopt more environmentally friendly behavior, and fully understand the importance of environmental sustainability.

Outcome #1

1. Outcome Measures

A major outcome will be the increase in active, viable county forestry and wildlife committees.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	2011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The establishment and maintenance of local forestry and wild-life planning committees is critical to the success of natural resource management. These committees provide and organized approach for planning at the local level instead of entities that are not as familiar with local challenges making policy decisions.

landowners interested in managing timber and property for timber production and wildlife management enhancement damage management

What has been done
Historically, local forestry committees would meet to discuss and plans for forestry and timber uses. However, over time, the interest in these groups was diminished and in most places around the state were no longer active. Our team was able to re-establish a large percentage of these committees with new members that are connected to the forestry, timber, and wild-life management industries.

Results
In 2010, there were fewer than 10 committees left in the state. Through this team's efforts, there were more than 20 committees active in the state. In addition to the historical mission, a new mission emerged within a holistic environmental view where forestry, timber management, wild-life enhancement, and wild-life damage management were all taken into account. In this way, the state's environmental health was enhanced and citizens who were at one time not involved in these efforts were brought together for a common goal.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #2

1. Outcome Measures

Desired outcomes are improved knowledge in the human dimensions of green space development among intergenerational families, enhanced neighborhood participation in urban forestry activities, increased use of environmental stewardship practices and greater engagement with the urban forest as a recreational asset, health and wellness resource and a source of emotional and physical well-being. Knowledge Gained - 90% gain in knowledge of human dimensions of green space development and the importance of the urban forest in post-survey results from workshop/training programs in one or more of the 8 toolkit areas. Change in Behavior - 25% change in behaviors based on application of knowledge gained from S.T.A.R. workshops and training programs in one or more of the 8 toolkit areas. Change in Culture - 15% change in organizational and community functions based on one or more of the toolkit areas.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

124	Urban Forestry
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #3

1. Outcome Measures

Major outcomes will be the total number of underserved participants who gain an increase in knowledge, adopt more environmentally friendly behavior, and fully understand the importance of environmental sustainability.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

While each of the factors listed in the form above have the potential to impact the success of the outcomes, the economic down-turn is the most obvious. People simply did not have the financial resources to attend workshops, nor do management of their property. Natural disasters such as drought, floods, tornadoes, and hurricanic activity often changes the dynamics of forest and wildlife management since both directly affect each other. Decrease in appropriations has resulted in fewer FTEs available to service the general and private/public clientele. For example, public policy and governmental regulations have resulted in significant changes to how the environmental approaches are designed by our team. Specifically, we now have less than 40% of the extension agents and specialists that were once dedicated to these areas. However, while this has cause significant programmatic challenges, our team has once again responded to overwhelmingly address the issues of traditional and non-traditional clientele groups that have resulted from various immigration and cultural changes.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Post-program evaluations for the wild pig and deer seminars that were evaluated were very high. Relative to invasive plant workshops, survey at ALIPC meetings have

consistently indicated that a) participation rate was low relative to the total number of attendees, and b) most comments indicated that participants were most pleased with the program content. It appears that the subject of managing cogongrass has now been adequately covered such that we can now begin our programmatic process to define our upcoming team directives. Plans are underway at this point to compile comments and suggestions so that our programmatic team and team alliances can provide the proper formative and summative evaluative items.

The Natural Resource programs had a significant impact on the target audiences. The programs (YEeS, the Wildlife and Natural Resources Education Program and the AAMU/ACES E-waste Institute rendered improvements in both the youth and adult participants' abilities to communicate, evaluate, observe and collect data. Program evaluations and comments revealed that the programs were well received. Youth in general were very engaged and expressed interest in the UREAS returning with additional information related to environmental protection and preservation. Pre and posts test also revealed significant increases in knowledge, especially in areas like electronic waste management.

Key Items of Evaluation

Key items of our evaluations included:

-Surveying attitudes and concerns of the affected clientele groups;

-Personal face-to-face contacts with public and private policy makers;

-Personal contact with stakeholder groups to determine what the overriding factors and challenges are for the coming near and long-term future.

I'm an invited speaker at most of the other venues I speak at, so have no direct control over program evaluation.

TI'm an invited speaker at most of the other venues I speak at, so have no direct control over program evaluation. I'm an invited speaker at most of the other venues I speak at, so have no direct control over program evaluation. T

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Home Grounds, Gardening, and Home Pests

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%	15%		
111	Conservation and Efficient Use of Water	20%	40%		
125	Agroforestry	0%	5%		
205	Plant Management Systems	40%	15%		
216	Integrated Pest Management Systems	20%	10%		
608	Community Resource Planning and Development	0%	10%		
806	Youth Development	0%	5%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	26.0	4.0	0.0	0.0
Actual Paid Professional	16.7	1.5	0.0	0.0
Actual Volunteer	107.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
250099	113209	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
582540	113209	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1761455	160159	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

a. Master Gardener (MG) is designed to recruit & train volunteer leaders to assist county offices of the ACES in disseminating knowledge and information relative to landscaping and gardening applicable to their area of Alabama .
1) Volunteer training consists of 10 to 14 weeks of training in garden related subjects such as: soil nutrition, pest ID and management, plant ID and management, water management, etc.Classes are a coordinated effort between the REA's, CEC 's, County Agents, and various MG associations
2) MG Interns are expected to participate in the state-wide activity, Master Gardener Helpline.There are 11 MG offices in Alabama .
(1) ACES staff build and sustain partnerships with the local MG volunteer associations to maintain their support programs
(2) Printed training materials are provided
(3) A webpage is provided as support for the MG Helpline
(4) A web available database is provided for service records
b. The Alabama Smart Yard (SY) program is created to provide current, research-based instruction through a series of subject-matter workshops.The objective is to provide in-depth instruction related to best management practices; managing pests, water, and soil, plant selection, and other resource inputs that affect both gardening success and surrounding environments.Master Gardeners will conduct demonstrations and workshops on the same topics for the public.
1) Under the direction of HGGHP REAs, workshop/demo planning and implementation is a collaborative effort with CECs, Certified MG's, state Extension Specialists and possibly local professional horticultural experts.
c. The programs under the Urban Home Grounds, Gardens and Pest Management PPA focus on various aspects of horticulture, including water conservation (e.g., rain water harvesting), community and ornamental gardening, and environmental landscaping. These programs aim to promote food security and a more sustainable environment. The key goals of these programs are to conserve natural resources, increase consumer knowledge about food production, increase the ability of consumers to obtain safe secure food, educate consumers on natural, organic and conventional agricultural practices, ultimately increasing locally grown foods and improving the use of agricultural chemicals.
1). Over 35 workshops/seminars/demonstrations were conducted by Home Grounds Specialists and UREAS.
2). In-service and professional development trainings to support program delivery included the Southern Regional Water Conference and the ACES Urban Update,
3). Several partnerships/collaborations were formed or continued including those with Garden clubs promoting beautification and ecotourism projects and multiple public schools.
4). A total of 27 home grounds media articles were written and disseminated.

Water Conservation, Environmental Stewardship; Interactive Learning Lab; Garden Support Programs and Demonstrations:a) A total of 26 home grounds and related news articles were written. b) A total of 2,000 clients visited the Rainwater Collection publication online and spent 170 hours viewing the publication. The printed version was distributed to over 1,000 program participants. c). Rainwater collection reduced the nitrogen entering creeks and streams by 150 pounds and reduced potable water use by 1.3 million gallons.

Beyond Rain Barrels: Supplementing the Shiitake Mushroom Program: a). A new Beyond Rain Barrels training was conducted for agents and specialists to supplement the shiitake mushroom program. b). Agents and specialists attended a rainwater collection in-service training. c). Farmers attended the Small Farm Management Shiitake and Rainwater hands on workshop (fall), Organic Production Field Day (summer), and Agricultural Risk Management & Business Develop Workshop--Intensive Training Shiitake Mushrooms (spring). Shiitake mushroom and Rainwater Catchment presentations were made at the

aforementioned events. d). Eleven county agents and three specialists participated in 29 rainwater collection programs throughout Alabama. Rainwater workshops were conducted at Green U, Green Living Expo, and county rainwater workshops and demonstrations. e) Over 300 Rainwater Collection for Irrigation and 100 Shiitake Mushroom Production and Shiitake Proceedings publications were distributed.

2. Brief description of the target audience

a. MG - The program is specifically designed to train community volunteers who will disseminate research-based information.Master Gardeners are essential to the mission of the ACES
b. ASY - the target audience is non-commercial gardeners
c. The target audience for the Urban Home Grounds Progarms are primarity individuals in urban and nontraditional communities within the MSAs of Alabama. This includes educators in public schools, youth, civic groups, seniors, business owners, homeowners and small scale and/or limited-resource farmers .

3. How was eXtension used?

eXtension was used to enhance professional development of staff and volunteers

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	77045	36622255	31184	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	5	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- a. MG = 8. 1) Increase public awareness of resource management related to home gardens, grounds and pests for 1,500 Helpline clients. 2) 500 new volunteers for the ACES (sign the MOA, complete training, report minimum of 50 volunteer hours) 3) 20 volunteer training classes 4) Maintain 14 MG offices to support state-wide Helpline 5) Maintain web based resources for volunteer records (service hours and Helpline call data) 6) Volunteers conduct surveys of Helpline clients 7) Maintain 1,300 partnerships with Certified MG's 8) Encourage 140,000 volunteer service hours with the ACES and in local communities b. SY = 7. 1) 25 Public workshops and demonstrations 2) 1,000 workshop participants 3) 6 Master Gardener volunteer trainings in subjects related to Smart Yards (water management, sustainable practices, IPM) 4) 3 Agent trainings in Smart Yards material 5) Media stories for increased public awareness 6) Printed materials for participants 7) Evaluate workshops & trainings with a pre/post tests

Year	Actual
2011	0

Output #2

Output Measure

- Volunteer hours for urban and new nontraditional horticulture programs

Year	Actual
2011	200438

Output #3

Output Measure

- $ Value of volunteer time in urban and new nontraditional horticulture programs.

Year	Actual
2011	3608676

Output #4

Output Measure

- $ Value of grants funded for rainwater collection, shiitake production, horticulture therapy, IPM

Year	Actual
2011	0

Output #5

Output Measure

- Meetings and workshops held about community gardening, ornamental gardening, environmental landscaping, rainwater collection, beekeeping farmers' markets, shiitake mushrooms, and high tunnels.

Year	Actual
2011	136

Output #6

Output Measure

- Attendance by clientele at small fruit, shiitake mushroom, rainwater collection, farmers' market, beekeeping, high tunnel, community gardening and other educational meetings.

Year	Actual
2011	24809

Output #7

Output Measure

- Donations received for farmers' market and rainwater collection workshops.

Year	Actual
2011	0

Output #8

Output Measure

- Income generated from plant sales that sustain horticulture therapy programs.

Year	Actual
2011	0

Output #9

Output Measure

- Number of beekeeping, shiitake mushroom, rainwater collection demonstrations. Output Measure

Year	Actual
2011	48

Output #10

Output Measure

- Number of success stories written on urban and new nontraditional horticulture programs.

Year	Actual
2011	21

Output #11

Output Measure

- Total number adopting recommended pesticide use/management practices, Total number

trained on urban and community gardening practices, Total pounds of produce that resulted from these urban gardens, Total pounds of produce that resulted from these community gardens,
Not reporting on this Output for this Annual Report

Output #12

Output Measure

- $value grants for Alabama Smart Yards and tornado recovery tree plantings

Year	Actual
2011	52000

Output #13

Output Measure

- # media stories written for Smart Yards

Year	Actual
2011	533

Output #14

Output Measure

- # hours professional development attended

Year	Actual
2011	423

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	knowledge gain for MG Intern pre/post tests
2	volunteer support for local ACES programs from Certified MG's
3	volunteers change a resource management habit or start a new management technique in their home landscape
4	Helpline clients try a new management technique in their home landscape
5	knowledge gain for SY wksp/demo participants
6	knowledge gain for SY trainers
7	knowledge gain for all Urban program participants
8	adoption of rainwater collection system for non commercial garden
9	gallons of community water saved
10	Perceived value of horticulture therapy programs
11	new jobs for troubled youth
12	intermediate behavior change improvement in UHI youth, %/each
13	long term behavior change and adoption of water conservation methods by homeowners, %/each
14	% increase in activity levels of urban horticulture therapy participants
15	expand crop diversity for producers selling at Moulton and Guntersville markets (NNHE program, #crops/each/40
16	Acres of rainwater irrigated fruit and vegetables
17	increase sales and profits of fruit and vegetable growers at the Guntersville and Moulton farmers' markets, $/yr

18	High Tunnels used extend fruit and vegetable market season resulted in profit increase, $
19	Number of registered honeybee colonies in Birmingham metro, Morgan, and Lawrence Counties
20	Number of beekeepers added
21	Acres of fruit and vegetables pollinated by Alabama beekeepers.
22	Honey production by beekeeper demonstrators, Total pounds
23	Income generated from fruit, vegetable, rainwater, high tunnel demonstrators
24	increase the production of fruit, vegetable, mushroom, high tunnel crops irrigated with rainwater catchment (long range by 2014), $
25	gallons of water collected (saved) and used on crops
26	Rainwater and raingarden workshops conducted
27	citizen adoption rate of rainwater collection systems (%)
28	Total number served on water conservation and irrigation practices -knowledge gained on conservation and irrigation practices -Total number of gallons of rainwater conserved as a result of these practices -Total number that adopted recommended rainwater irrigation practices to make use of water conserved = 157 -Total number of publications developed and distributed -Total number of workshops, field days and seminars conducted

Outcome #1

1. Outcome Measures

knowledge gain for MG Intern pre/post tests

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year **Actual**

2011	30

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Master Gardener training is designed as recruitment of volunteers not only assisting ACES, but also their communities at large

What has been done
trained 394 volunteers total

Results
of the 8 class groups tested a 30% knowledge increase was measured

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

volunteer support for local ACES programs from Certified MG's

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	107

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Extension lacks sufficient staff to serve its clients. Volunteers are a critical element of job accomplishments.

What has been done
trained 394 new Interns and maintained relationshps with 1302 veteran vol's

Results
total of 107 FTE's were donated by vol's, or 200,438 total hours

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

volunteers change a resource management habit or start a new management technique in their home landscape

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Master Gardener vol's are role models in their communities. If they adopt new, more sustainable practices, their neighbors are more likely to also adopt these practices

What has been done
through training classes and by volunteering at ACES workshops, they learn new methods for landscape/gardne managment

Results
100% will begin or increase their choice to purchase/use pest resistent plant varieties; 95% will begin or increase their consideration of a pest's life cycle to optimize management; 99% will bgin

or increase their use of soil testing to avoid over-fert; 94% will begin or increase the action to compost yard waste; 100% will begin or increase their action to first research information BEFORE promlem solving; 100% will begin or increase their assistance to tohers in garden problem solving

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #4

1. Outcome Measures

Helpline clients try a new management technique in their home landscape

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

knowledge gain for SY wksp/demo participants

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	93

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
residential gardeners have great potential to impose negative impacts to the environment, their yards and their health according to their management practices int eh home landscape/garden

What has been done

workshops and demonstrations were conducted as Alabama Smart Yards

Results
participants increased their knowledge: by 93% for rain barrel construction; by 91% for stormwater runoff contaminants; by77% for calculating rain harvesting volume from roof tops; by 88% for IPM in home landscapes/gardens; by 85% for pruning home fruit crops; by 92% for insect ID (beneficial/pest)

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #6

1. Outcome Measures

knowledge gain for SY trainers

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

knowledge gain for all Urban program participants

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
125	Agroforestry
205	Plant Management Systems
216	Integrated Pest Management Systems
608	Community Resource Planning and Development
806	Youth Development

Outcome #8

1. Outcome Measures

adoption of rainwater collection system for non commercial garden

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	95

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
harvested rain water from residential roof tops is a valuable on-site resource often wasted to stormwater runoff - keeping it on site also reduces the non-point pollution this can cause

(contaminants, erosion, loss of nutrients, eutrophication, etc)

What has been done
Alabama Smart Yards workshops offers rain barrel trainings and hands-on construction seminars

Results
along with knowledge gained by participants, they also took home barrels to install themselves - initial surveys revealed that 74% of participants planned to install their barrels and/or made more - a followup survey revealed that 95% did install (replies from 44% of total participants)

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
125	Agroforestry

Outcome #9

1. Outcome Measures

gallons of community water saved

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	5000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
harvested rain water is a valuable resource that could supplement irrigation needs during times of drought

What has been done
we surveyed 126 workshop/demo attendees - they reported a 93% knowledge gain for construction - many installed their rainbarrels and several added more after learning from our workshops

Results
one followup survey revealed that 95% of participants did go hoem to install their barrel - half of those added more barrels - if this is true and our average rainfall in 2011 was 54", then each barrel filled at least once - for just one barrel per reporting participant that's potentially 5,900 gallons of total harvested rain water - giving out a total of 341 total barrels thru the year, it is likely that much more was collected - reducing stormwater impacts and increasing use of on-site resources

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #10

1. Outcome Measures

Perceived value of horticulture therapy programs

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area

102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
608	Community Resource Planning and Development
806	Youth Development

Outcome #11

1. Outcome Measures

new jobs for troubled youth

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
125	Agroforestry
205	Plant Management Systems
608	Community Resource Planning and Development

806 Youth Development

Outcome #12

1. Outcome Measures

intermediate behavior change improvement in UHI youth, %/each

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
608	Community Resource Planning and Development
806	Youth Development

Outcome #13

1. Outcome Measures

long term behavior change and adoption of water conservation methods by homeowners, %/each

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

% increase in activity levels of urban horticulture therapy participants

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems

608	Community Resource Planning and Development
806	Youth Development

Outcome #15

1. Outcome Measures

expand crop diversity for producers selling at Moulton and Guntersville markets (NNHE program, #crops/each/40

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

Acres of rainwater irrigated fruit and vegetables

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
125	Agroforestry
205	Plant Management Systems

Outcome #17

1. **Outcome Measures**

   increase sales and profits of fruit and vegetable growers at the Guntersville and Moulton farmers' markets, $/yr

   Not Reporting on this Outcome Measure

Outcome #18

1. **Outcome Measures**

   High Tunnels used extend fruit and vegetable market season resulted in profit increase, $

   Not Reporting on this Outcome Measure

Outcome #19

1. **Outcome Measures**

   Number of registered honeybee colonies in Birmingham metro, Morgan, and Lawrence Counties

   Not Reporting on this Outcome Measure

Outcome #20

1. **Outcome Measures**

   Number of beekeepers added

   Not Reporting on this Outcome Measure

Outcome #21

1. **Outcome Measures**

   Acres of fruit and vegetables pollinated by Alabama beekeepers.

   Not Reporting on this Outcome Measure

Outcome #22

1. **Outcome Measures**

   Honey production by beekeeper demonstrators, Total pounds

   Not Reporting on this Outcome Measure

Outcome #23

1. **Outcome Measures**

   Income generated from fruit, vegetable, rainwater, high tunnel demonstrators

   Not Reporting on this Outcome Measure

Outcome #24

1. **Outcome Measures**

   increase the production of fruit, vegetable, mushroom, high tunnel crops irrigated with rainwater catchment (long range by 2014), $

   Not Reporting on this Outcome Measure

Outcome #25

1. **Outcome Measures**

   gallons of water collected (saved) and used on crops

   Not Reporting on this Outcome Measure

Outcome #26

1. **Outcome Measures**

   Rainwater and raingarden workshops conducted

2. **Associated Institution Types**

   - 1862 Extension
   - 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	20

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
rain water is an under-utilized on-site resource for residential gardeners and even farmers

What has been done
workshops and demonstrations were hosted

Results
participants learned (93% of particpants increased their knowledge) and adopted installation of rain barrels or cisterns

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems

Outcome #27

1. Outcome Measures

citizen adoption rate of rainwater collection systems (%)

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual

2011	95

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
608	Community Resource Planning and Development

Outcome #28

1. Outcome Measures

Total number served on water conservation and irrigation practices -knowledge gained on conservation and irrigation practices -Total number of gallons of rainwater conserved as a result of these practices -Total number that adopted recommended rainwater irrigation practices to make use of water conserved = 157 -Total number of publications developed and distributed -Total number of workshops, field days and seminars conducted

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	40

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Water conservation is becoming critically important to Alabamians. The Beyond Rain Barrels:Supplementing the Shiitake Mushroom Program was created to provide water conservation and home grounds training to citizens, extension educators, and leaders in the community, at schools and agriculture and environmental clubs and organizations. The program emphasized rainwater collection to attract participants, but provided training on all aspects of

home, farm, neighborhoods and communities.

What has been done
Several workshops/seminars/demonstrations and other extension activities were conducted by the unit. Examples include: Plasticulture & Drip Irrigation; Rainwater Harvesting and Rain Barrels, Smart Yards, and Waterwise Solutions for Businesses.

Rainwater catchment training for 40 agents and specialists was conducted to supplement the shiitake mushroom program.

Two current shiitake mushroom producers expanded production by 140% (70 logs), one other producer has plans to double their log numbers later this year, and a new producer intends to put in 2,000 logs over the winter.

Farmers (92) attending the Small Farm Risk Management Farm Tours (fall (61) spring (16), Organic Production Field Day (summer (15)), inoculated 77 additional logs. Shiitake mushroom and Rainwater Catchment presentations were made at the aforementioned events.

There were 212 participants attending Green U, Green Living Expo, and 29 county rainwater workshops and demonstrations.

There were over 600 participants at all conferences, field days, workshops and tours for shiitake mushrooms and rainwater collection.

Current and new shiitake producers collected over 10,000 gallons of rainwater for shiitake production.

Over 300 Rainwater Collection for Irrigation and 100 Shiitake Mushroom Production and Shiitake Proceedings publications were distributed.

Results
Agents attending the rainwater collection training had a 97% knowledge gain in knowledge and 75% said that as a result of the workshop they would change their training practices.

On site surveys of producers that attended the Intensive Shiitake Mushroom training in 2011 all indicated that the workshop was excellent and 93% indicated they obtained enough information to inoculate shiitake mushrooms on their own.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (grant$ and staff changes)

Brief Explanation

Extreme weather conditions, like the tornados in April of 2011 had a significant impact on ACES's horticultural and environmental programs. These events also created a demand for more educational programs that focused on the aftermath of severe storms . The economy, population changes, and the willingness of workshop attendees to participate in the programs are other external factors that affected program delivery.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Results for selected Urban Home Grounds, Gardens as Pest Management Programs were as follows:

1. After the plasticulture workshop 81% of the participants felt they might or would definitely start using mulch as a result of the workshop information presented; 90% might or definitely would install drip irrigation; 80% fertigation; and 100% planned to share the information learned. Participants increased knowledge about plasticulture by 113%, fertigation by 100%; and marketing advantages by 136%.

2. A new Beyond Rain Barrels training was conducted for agents and specialists to supplement the shiitake mushroom and Smart Yards programs. Training emphasized rainwater collection containers, harvesting potential, equipment, connectors, filters, and all aspects of water conservation for home, farm, neighborhoods and communities.. One post survey was conducted by phone to evaluate potential and actual adoption of rainwater collection in shiitake production. Eight participants responded to the phone survey. Half of the respondents began or completed research on shiitake production and 38% on rainwater. One-fourth plan to cut as many as 2,000 logs, this fall, for shiitake production and one respondent has already installed an 1100-gallon rainwater collection system. Additional workshops were hosted under ASY for 431 total participants. Initial surveys revealed that 74% would install the barrels made and one follow up survey with 55 replies showed a 95% installation rate.

3. A total of 505 participants adopted recommendations or changed their behavior as a result of Home Grounds, Gardens and Pest Management activities. The Home Grounds programs also increased the number of citizens that were aware of the need for improving food security.

4. Alabama Smart Yards wksps (ASY) measured knowledge gain from ~500 participants. Results showed tremendous learning for IPM strategies in home

landscapes/gdns (88% increased their knowledge); pest/beneficial ID (92%); pruning home fruit crops (85%)

5. Master Gardener volunteers showed a 30% knowledge gain from the 8 groups tested. These new vol's also committed to adopt or increase the following behaviors: 100% will choose pest resistent plant varieties; 95% will consider a pest's life cycle to optimize mgt; 99% will soil test before fertilizing; 94% will compost; 100% will share their new knowledge with others

Key Items of Evaluation

Personal face-to-fact contact with stakeholders to determine challenges.

2. ASY - adoption of principles taught: 73% will apply IPM principles at home; 60% will grow fruits/vegetables at home; 71% will prune home fruit crops for improved production; 95% did install a rainbarrel or cistern

3. MG's - gave a total of 107 FTE's - assisted Agents by handling 4000 Helpline calls - Extension staff support was able to maintain 11 Helpline offices and productive relationships - MG's in Baldwin, Lee, Madison, Mobile, Tuscaloosa, and Elmore counties hosted eduational wksps to supplement Extension effrots - Elmore and Lee co. MG's hosted monthly series - Autauga co MG's maintain and 11 year old demo/food garden for community (1000+ # produce) - demo gdns maintained in Randolph, Lee, Montgomery, Elmore, Etowah teaching ASY principles, historic plants and hosting school groups - Mobile supports 3 school gardens in effort to affect childhood obesity - Randolph MG's are teaching school students about growing food to encourage better eating habits - Tuscaloosa MG's helped create and continue to support a diverse Outdoor Classroom at Verner Elementary - MG's host info booths/plant clinics at public venues like Albama Nat'l Fair, Nat'l Peanut Fest and local farmer's mkts - Huntsville MG's coordinate a 7 yr hort therapy program - Jefferson MG's mainatined a sensory gdn at Glenwood Autism Ctr - many MG's assist Habitat for Humanity with landscape designs, installations and teaching the new homeowners how to care for their landscapes - celebrating 30 yrs of MG we planted 89 civic trees in donation to 2011 storm recover; several 100 more are planned for planting in 2012 - MG's learn much through our ACES training and then go on to share this with their communities - maintaining their support is critical to our Home Grounds team's success (36 ACES staff nurture relationships w/these 1,696 vol's)

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

4-H and Youth Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
704	Nutrition and Hunger in the Population	20%	0%		
724	Healthy Lifestyle	20%	0%		
802	Human Development and Family Well-Being	20%	0%		
806	Youth Development	40%	100%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	76.0	6.0	0.0	0.0
Actual Paid Professional	48.1	5.2	0.0	0.0
Actual Volunteer	6.3	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
838571	383734	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
1250128	383734	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
3117440	542876	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Activities planned for Alabama 4-H Youth Development:

4-H Volunteerism: Volunteers are vital to thousands of nonprofits and governmental agencies nationwide. As demands on organizations such as Extension have increased and the financial resources available to them have declined, the use of and resources provided to volunteers has become even more critical. Volunteerism through 4-H includes management, recruiting, training, supporting, evaluating, rewarding, retaining, and utilizing volunteers to reach a more diverse youth population with greater programmatic variety and social impact. Volunteerism and youth and adult partnerships foster a since of BELONGING, one of the key essential elements of youth development. Volunteers provide caring relationships with youth as they learn to set goals, develop critical thinking skills, learn to communicate in a complex world and provide many opportunities for self efficacy. Successes will be measured by volunteer contacts, hours served, clubs chartered, qualitative and quantitative measures such as surveys and focus groups of both youth and adult participants.

4-H Science Explorations: To help youth improve literacy, knowledge, skills, and abilities in the sciences and technological applications:

Science & Technology - Improves understanding of and appreciation for science and technology and the capacity and ability to utilize related knowledge and skills.Resource Kits and "Challenges" allow youth to learn subject matter and showcase knowledge and skills.

Natural Resources & Environment - Offers various learning experiences in the areas of land and water management, outdoor recreation, and the urban environment. Youth critically examine information and make decisions by exploring their options, setting goals, and working together.

Biological Sciences - Includes ***animal sciences***,providing opportunities for youth to develop leadership and life skills through learning about and caring for animals, animal health, behavior, nutrition, reproduction, breeds, and uses.It also includes ***Plant & Soil Sciences***, which engages youth in study of plant growth, nutrients, water and soil in plant growth, and the importance of plants to society.

4-H Healthy Lifestyles: 4-H is committed to the physical, mental and emotional health of youth and is a leader in health-related educational issues including chemical health, mental and emotional health, foods and nutrition, physical health and safety. Four-H activities increase youth knowledge and/or cause action in: healthy lifestyle practices, valuing healthy relationships, improving mental health and managing stress, valuing service and effective consumer practices, adopting risk reducing behaviors to prevent substance abuse, adopting behaviors to maintain personal health, reduce childhood obesity, and safety and developing appropriate strategies to resolve conflict. The ultimate goal is an increased number of youth that are at a lower risk of serious disease and illnesses - physical/mental/emotional - leading to a reduction in medical costs and greater economic productivity. Programming at the local, regional, and state level through 4-H projects, clubs, school enrichment and other special events and activities supports anticipated outcomes. Success will be measured by qualitative and quantitative measures.

4-H Citizenship & Leadership: Youth gangs and guerilla movements recognize the capabilities of young people for leadership and sacrificial service.Citizenship must provide equally challenging, but constructive, opportunities to engage and extend youth capabilities in partnership with adults.Specific issues identified by local advisory councils to be addressed include: lack of communication between adults & youth, lack of opportunities for youth to lead, youth's lack of goals, citizen apathy, loss of work ethic, and insufficient parental involvement.4-H has a long history of community service (club projects, conference activity, and contest requirements), youth experiences in governance and leadership (club officers, county/regional/state councils, national conference) and youth-adult partnerships (pervasive throughout the 4-H program).Extending these opportunities to more youth is critical.Programming at the local, regional, and state level through 4-H projects, clubs, school enrichment and other special events and activities supports anticipated outcomes. Success will be measured by qualitative and quantitative measures.

4-H Communication and Expressive Arts: The arts are widely recognized as a means of providing not only self expression and emotional well-being, but also as an aid to academic, economic, and personal success. Through this project, youth and adult advisors will be introduced to music, theater, public speaking, and/or the visual arts, with appropriate opportunities to build and demonstrate their artistic

growth. Programming at the local, regional, and state level through 4-H project, club, school enrichment and special events and activities supports anticipated outcomes. Success will be measured by qualitative and quantitative measures.

Youth Leadership and Health Rocks are educational programs established to provide a framework for youth to learn and demonstrate leadership and basic life skills through the organization and implementation of community service projects.

Teen Making Impact is an informational and life skill building program that prepare teens with information that support the development of skills for making sound career decisions, engaging in effective communication, pursuing of healthier lifestyles, and understanding of issues that contribute to productive citizenship.

Volunteers In Urban Programsis designed to recruit, enroll and train volunteers for programming targeting urban audiences.

2. Brief description of the target audience

The primary target audience is youth from age 5 through 18 years old and adult volunteer leaders who work with these youth.

3. How was eXtension used?

eXtension is used as a resource by staff and external stakeholders. Staff have their eXtension user names and access eXtension as needed in their jobs. As clientele need information, they can search and access eXtension.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	231697	10902519	454319	16425102

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Recruit, screen, orient, train, and suppoort volunteers; number of volunteers in Alabama 4-H, direct and indirect

Year	Actual
2011	2987

Output #2

Output Measure

- Club and group organization, management, and reporting, number of clubs in Alabama

Year	Actual
2011	1674

Output #3

Output Measure

- After School 4-H; number of after school clubs.

Year	Actual
2011	45

Output #4

Output Measure

- Enrichment programs; number reported by REAs in 2010.

Year	Actual
2011	3213

Output #5

Output Measure

- Operation Military Kids and Military Clubs

Year	Actual
2011	14

Output #6

Output Measure

- Technology Support and Development (people hours of distance education and training per year)

Year	Actual
2011	792

Output #7

Output Measure

- Grant Development (percent of prorata budget)

Year	Actual
2011	18

Output #8

Output Measure

- Marketing and Public Relations (media counts, presentations, enews, and newsletters)

Year	Actual
2011	2500

Output #9

Output Measure

- 4-H Camping and Environmental Education

Year	Actual
2011	4427

Output #10

Output Measure

- Staff professional development; number of sessions, everyone ready, scopia, and PPT.

Year	Actual
2011	315

Output #11

Output Measure

- Positive Youth Development Knowledge and Research (articles, curriculum development, teaching kits)

Year	Actual
2011	26

Output #12

Output Measure

- Leadership and community service programs/institutes

Not reporting on this Output for this Annual Report

Output #13

Output Measure

- Teens Making Impact Annual Statewide Conference

Year	Actual
2011	0

Output #14

Output Measure

- Volunteers In Urban Programs' Annual Statewide Recognition

Year	Actual
2011	0

Output #15

Output Measure

- Teens Making Impact enrichment groups (after and in-school sessions)

Year	Actual
2011	0

Output #16

Output Measure

- Health Rocks Educational Programs were conducted in ACES's urban centers reaching 3306 youth participants.

Year	Actual
2011	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Volunteer led clubs will increase and membership in clubs community-based clubs will increase. Measure is community-based clubs, special interests, and military clubs total. Number of youth in contact reporting.
2	Help youth build Belonging, Independence, Generosity, and Mastery through the visual and performing arts. Number of youth in contact reporting.
3	Youth will improve literacy, knowledge, skills, and abilities in the sciences and technological applications: Number of youth in contact reporting.
4	Increase youth knowledge and/or cause action in: healthy lifestyle practices, valuing healthy relationships, improving mental health and managing stress, valuing service and effective consumer practices, adopting risk reducing behaviors to prevent substance abuse, adopting behaviors to maintain personal health and safety and developing appropriate strategies to resolve conflict. Number of youth in contact reporting.
5	Help youth learn citizenship and leadership, and improve lifeskills associated with citizenship and leadership. Number of youth in contact reporting.
6	Increased awareness of illicit drugs and the negative impact of drug usuage.

Outcome #1

1. Outcome Measures

Volunteer led clubs will increase and membership in clubs community-based clubs will increase. Measure is community-based clubs, special interests, and military clubs total. Number of youth in contact reporting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	5088

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Volunteer led clubs allow professional employees to focus on enrichment programs in 2011 while volunteer leaders provide club facilitation for special interest or project clubs.

What has been done
As ACES ramped up enrichment programming in school systems we had to depend more heavily on volunteers to shephard community and project clubs. Clubs decreased from 340 in 2010 to 327 in 2011.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population
724	Healthy Lifestyle
802	Human Development and Family Well-Being
806	Youth Development

Outcome #2

1. Outcome Measures

Help youth build Belonging, Independence, Generosity, and Mastery through the visual and performing arts. Number of youth in contact reporting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	3007

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #3

1. Outcome Measures

Youth will improve literacy, knowledge, skills, and abilities in the sciences and technological applications: Number of youth in contact reporting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	21596

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #4

1. Outcome Measures

Increase youth knowledge and/or cause action in: healthy lifestyle practices, valuing healthy relationships, improving mental health and managing stress, valuing service and effective consumer practices, adopting risk reducing behaviors to prevent substance abuse, adopting behaviors to maintain personal health and safety and developing appropriate strategies to resolve conflict. Number of youth in contact reporting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	39672

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Alabama is second nationally in youth obesity.

What has been done
4-H junior master gardener nutrition in the garden, Just Move Alabama, Health Rocks, JIFF, 4-H JMG and other healthy living programs.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

Help youth learn citizenship and leadership, and improve lifeskills associated with citizenship and leadership. Number of youth in contact reporting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	182356

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Improved life skills are needed for citizenship and leadership growth.

What has been done
We do not measure Strategic Program Initiative contacts in citizenship and leadership. Other contacts are reported in this program area due to our limited contact reporting headings.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

704	Nutrition and Hunger in the Population
802	Human Development and Family Well-Being

Outcome #6

1. Outcome Measures

Increased awareness of illicit drugs and the negative impact of drug usuage.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	13194

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Middle school age youth are increasingly becoming involved with illicit drugs and the Health Rocks program serves as as awareness of the risks associated with risky behavior.

What has been done
The Health Rocks program has been implemented in all Urban Centers and was able to reach 3306 youth.

Results
Evaluation results indicate an increased awareness to the negative effects of drug usage; knowledge was gained which fosters change in behavior.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Economy is a big impact on some more expensive 4-H project areas like beef cattle that have to be fed special diets and transported. We had tragic tornado damage in Alabama. Competing activities will be more dynamic in youth development programming as it has in the past.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Youth participants in the Health Rocks program (HR) showed consistent increase in knowledge about smoking, drinking and other drug use after training.

About 95% of HR participants demonstrated social competency, volunteerism, self-confidence and strong values.

Nine out of ten HR participants were confident that they would be able to say "no" if other people, such as their friends or peers, offer them drugs.

Results from TMI evaluations reveal that more than 750 youth participated in a series of five TMI educational modules; 80% improved in decision making skills; 75% improved in public speaking skills; 71% improved skills in interviewing and collecting information; and 95% improved skills in social behavior.

4-H evaluation was conducted in our three Strategic Program Initiatives: Healthy Living Across the Lifespan, Environmental Stewardship, and Workforce Development.

Youth report positive results in all programming areas using self-report post testing with five-point likert scales. Example: Health Rocks (n=752):

84.5% know it is not worth taking risks to try cigarettes, alcohol, and other drugs
86.7% report that manageing stress in a positive way is an important life skill
88.3% report it is important for them to help a friend stop using drugs.
88.5% report they are able to choos healthy behaviors to deal with stress
85.5% report they can refuse drugs in any situation.

Coosa River Science School, Environmental Education and Stewardship (n=2089):

- 93% agree or strongly agree that they can make better decisions about the environment
- 88% agree or strongly agree they have a better understaning of the importance of plants and animals
- 61% agree or strongly agree they know more about problem-solving

- 75% agree or strongly agree they have a better understanding of the connection between growing food and the environment
- 79% agree or strongly agree they better understand the benefits of challenging their own abilities
- 82% agree or strongly agree they have a better understanding of the importance of clean water
- 82% agree or strongly agree they can work better with others as a result of their experience at Coosa River Science School

Key Items of Evaluation

Healthy Living:

Environmental Stewardship:

Workforce Development:

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Family and Child Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	70%	70%		
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%	10%		
806	Youth Development	20%	20%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	27.0	5.0	0.0	0.0
Actual Paid Professional	9.3	4.0	0.0	0.0
Actual Volunteer	0.0	12.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
276144	294784	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
240213	294784	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
684471	417037	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are 6 statewide Extension Team Projects.These are:

ETP13A - Healthy Families, Health Communities to continue the Caregiver training and secure funds to provide additional resources and curriculum to the participants. The Caregiver curriculum will be modified and adapted for the Preparing Families for Future Health and Wealth Challenges. This is a capacity building grant with Southern University, Louisiana. Agents from both Alabama and Louisiana will organize classes, recruit participants, and build partnerships. Utilize current information posted from Family Caregiving Community of Practice to continue to educate caregivers in the states of Alabama and Louisiana.

ETP13B - Child Care Provider Education to target audiences based which will connect the quality of care (in the home or in child care settings) that children experience prior to entering the formal educational environment with their subsequent academic and social trajectories. With the increasing number of parents of young children entering the workforce and requiring child care in order to work, training and education initiatives are key to increasing the quality of care being provided to children.

ETP13D - Grand RAPP Grandparents and Relatives as Parents Program - U&NNTP - A network of state agencies in partnership with the Alabama Cooperative Extension System offers services to grandparents or other relatives who have taken on the responsibility of surrogate parenting.this effort combined with other nontraditional parenting outreach programs, forms the core of the "Grand" Parenting Extension Team Project

ETP13E - Successful Aging Initiative - U&NNTP - The Alabama Cooperative Extension System's Urban Affairs Unit has partnered with the state of Alabama's Bureau of Geriatric Psychiatry to deliver educational and training programs to address issues relevant to aging/dementia and associated health, financial and legal education. These collaborative efforts are called the Successful Aging Initiative (SAI)

ETP13G - Strengthening Relationships and Marriages to continue offering the RS+ curriculum to Alabama through school-based classes in Family and Consumer Science and in Health, and as part of after school programs throughout the state. A supporting curriculum, Bridging the Great Divide, for helping parents talk with their adolescent children about dating and related issues is in the process of being tested.

ETP13I - Parenting will continue to facilitate parenting competencies in parents of children between the ages of 0-5. Educators will focus on client identified needs and develop educational workshops and programs on a variety of parenting topics. Programming is guided by Extension-developed resources and programs, including but not limited to: Stay Connected, Nurturing Parenting, First Years Count, and Partners for Tomorrow.

Each project includes a variety of educational activities. Detailed descriptions of the activities of these projects are available on the ACES intranet.

2. Brief description of the target audience

The primary target audiences are parents, grandparents, caregivers, child care providers, married couples, unmarried couples, single parents, senior citizens and youth.

3. How was eXtension used?

eXtension was used in this program to provide up-to-date resources and articles for agents and participants

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	65258	423520	36264	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	3	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	0

Output #2

Output Measure

- Workshops, trainings, heatlh fairs, train the trainer, educational workshops per curricula, and community capacity to build partnership

Year	Actual
2011	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	A major outcome will be the number of parents who participate in Extension sponsored parenting training.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Outcome #1

1. Outcome Measures

A major outcome will be the number of parents who participate in Extension sponsored parenting training.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The PROSPER program, for those that are attending, has shown over the last 20 years of research to produce positive youth outcome by likely delaying the initiation of substance abuse. The PROSPER partnership is a partnership among Alabama Cooperative Extension System, local schools, community volunteers and university-based researchers. Our initial efforts for implementation included, 6th grade family-focused evidence-based programs in the seven counties. We also engaged community volunteers by organizing a PROSPER Community Team of 8 ? 10 community members of various backgrounds to provide input and form a foundation for sustainability in that specific community

What has been done
Research of the PROSPER program estimated that for each dollar invested in the family family-focused intervention there is up to a $9.60 return. We have an impact of 97 families at an estimate of $300 per family yielding a $29,100.00 statewide investment of economic benefit.

Results
The initial phase of PROSPER in Alabama involved recruiting families to attend a 7-week session that involved the parent(s) or caregiver and the child. During this 7-week session a total of 97 families throughout the seven county area were engaged in the PROSPER training.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #2

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nontraditional families are different from the picture of two parents with children living in one household. In recent years single parent households and grandparents and relatives serving as primary caregivers have been a rapidly growing trend. Additionally, the senior population also continues to grow, thus demanding policies, programs and services to meet their health, financial and legal needs.

What has been done
The Alabama Cooperative Extension System has established a Grandparents Raising Grandchildren Initiative,a Successful Aging Initiative (SAI) and a Family Advocacy Initiative to address home care, legal, health and financial security for these vulnerable populations.

Results

Over 61 Grandparents Raising grandchildren workshops and seminars were conducted in 15 of Alabama's metro service areas to increase knowledge in parenting, communication and legal rights and build support groups. Family Day events were conducted across the state with over 500 clients, increasing family interaction by 2500 hrs; and SAI conferences and seminars prepared over 540 individuals with Estate Planning Basics and Advance Directives valued at $1500 per client.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Some of the external factors that have affected programs have been the financial hardships of the state and the citizens of the state. This impact was expressed as persons were unable to afford the expense of transportation to attend the workshops, trainings, or programs. There were also several days of extreme weather, Tornados, that impacted the state for many weeks.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Over 61 Grandparents Raising grandchildren workshops and seminars were conducted in 15 of Alabama's metro service areas. Post evaluation data indicated an increase in knowledge related to parenting, communication and legal rights. Support groups established in 2010 were maintained and/or increased. Family Day events were conducted across the state with over 500 clients, encouraging family mealtime increasing family interactions by 2500 hrs; and SAI conferences and seminars had attendance of over 2400 and prepared over 540 individuals with Estate Planning Basics and Advance Directives valued at $1500 per client and provided free health screenings (including Alzheimer's disease) valued at over $135,000.

PROSPER families completed and graduated from their 7-week program. This program is for high-risk families with children ages 6 to 11 years of age. Alabama PROSPER has reached 97 families and all participated in evaluation results. The PROSPER program was conducted in seven communities throughout the state. The graduation rate for the program was 86%. To qualify for graduation, a family must attend four of the seven sessions. The program yielded a recruitment rate of 12% (National Average of recruitment 1-6%). The programs fidelity rate for Alabama was 94%.

Key Items of Evaluation

Family Day events were conducted across the state with over 500 clients, encouraging family mealtime and increasing family interactions by 2500 hrs; SAI conferences and seminars prepared over 540 individuals with Estate Planning Basics and Advance Directives valued at $1500 per client; free health screenings provided through health care partnerships were valued at over $135,000.

Research of the PROSPER program estimated that for each dollar invested in the family family-focused intervention there is up to a $9.60 return. We have an impact of 97 families at an estimate of $300 per family yielding a **$29,100.00** statewide investment of economic benefit. Currently 22 full time ACES staff and 70 community members work together to make Alabama PROSER a success. Beginning the second program for the families has noted an increase in the enrollment to 138 families. As of Feb 2011, these families are currently completing the 7- week Strengthening Families Program. The programs are evaluated at the end of the 7-weeks.

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Economic and Community Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
605	Natural Resource and Environmental Economics	13%	5%		
608	Community Resource Planning and Development	65%	10%		
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	12%	5%		
805	Community Institutions, Health, and Social Services	10%	80%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	5.0	0.0	0.0
Actual Paid Professional	19.7	2.5	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
278655	182310	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
511839	182310	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
2170171	257918	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area were individualized community, county and regional economic and community development programs conducted as part of the 6 Strategic Program Initiatives (SPI401-406), 1 Special Funded Project (SFP214) and 2 Priority Program Areas (PPA 105A & 105B), plus 2 statewide Extension Team Projects (ETP 304 & 305)

The activities of the individualized programs included:

- Connections and Partnership
  - Administration of the Alabama Community Leadership Network and two state conferences
  - Providing leadership and support for Alabama Communities of Excellence program
  - Providing technical support and funding for adult and youth leadership programs throughout the state
  - Participate on economic and community development boards throughout the state

- Education and Training
  - Conducting the Intensive Economic Development Training Course
  - Created new executive economic development training program for Alabama's top economic leaders (Impact Alabama)
  - Conducting Prosperity Forums educational workshops
  - Administers inter-disciplinary Graduate Minor in Economic Development
  - Conducting Alabama-Mississippi Rural Tourism Conference
  - Conducting statewide County Extension Coordinator Training

- Research and Communications
  - Developed instrument to be used in multiple community settings to stimulate citizen and stakeholder engagement
  - Developed report for Kettering Foundation's Citizens at Work: Engaging for Prosperous Communities project
  - Publication of quarterly ACTION newsletter

- Consulting, Community Support & Engagement
  - Administering $1.2 million Sustainable Broadband Adoption grant. Conducted regional training sessions for all CECs, developed first 3 of 10 modules.
  - Administration of Extension funded Rural Alabama Initiative mini-grant program
  - Developed a strategic economic development plan partnering with Economic Development Partnership of Alabama for 8 Alabama Counties most directly impacted by BP Deepwater Horizon oil spill
  - Developed "Stronger Economies Together" project in partnership with SRDC for 5 Alabama counties
  - Developed economic development plan for Russell County
  - Designed and managed Old Federal Road Rural Development Project
  - Developed strategic plan for City of Hartselle

• Administration of RC&D Councils grant program
Provides consultation services to communities throughout Alabama on rural and agritourism projects

Welcome To The Real World: Career Exploration and Educational Planning-
The Community Resource Development (CRD) team of the Urban Affairs and New Nontraditional Programs (UANNP) unit worked extensively on this ETP. During the program year a total of 14 Welcome to The Real World (WTTRW) programs were conducted throughout the State of Alabama. The program served approximately 594 young adults. Programs were conducted in the following counties: Madison, Morgan, Limestone, Jefferson, Montgomery, Macon, Houston, and Mobile. Each UREA partnered with a local organization in order to deliver the program. For each of the 14 programs agents conducted an introduction, pretest, simulation, debriefing, posttest, and delayed posttest. Results obtained from Extension professionals showed that over 100,000 contacts were made through this project.

Virtual Minority Business Development and Marketing-
This Extension Team Project focuses on addressing the economic needs of residents in Alabama's urban areas as well as those who are underserved by traditional means. This project seeks to work with minority business owners to enhance their capacity through online marketing and technical assistance.

2. Brief description of the target audience

The primary target audiences are current and future community leaders and local governmental officials in all communities across the state. Programs in this area also target youth interested in career exploration and entrepreneurs looking to develop or expand their business.

3. How was eXtension used?

The Economic and Community Development program of ACES used eXtension primarily through Virginia Morgan, Administrator III, Outreach Programs in responding to and assisting Alabama citizens and communities following the devastating and deadly series of tornadoes that hit many communities last spring.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	59181	2162590	22261	806807

2. Number of Patent Applications Submitted (Standard Research Output)
Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	4	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	0

Output #2

Output Measure

- Career Exploration and Education Planning program for this program year conducted 14 programs and served close to 600 youth. The program initially set as a target 10 programs and 500 youth. The virtual business development program created two new publications and 6 video clips. A total of 112 new businesses signed up to participate in the program. The site received over 1200 visits during the year to view participating businesses and 400 visits to the business development and links page.

Year	Actual
2011	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Outcomes from this program area include: a) Number of community and economic development programs conducted, b) Community and economic development training resources developed, c) Number of community and economic development projects conducted
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.
3	The Career Exploration and Education planning extension team project set as a goal significant improvement in each area where a learning objective was set which includes: create an education plan, create a career plan, improvement in school, and improvement in academic performance.

Outcome #1

1. Outcome Measures

Outcomes from this program area include: a) Number of community and economic development programs conducted, b) Community and economic development training resources developed, c) Number of community and economic development projects conducted

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	650

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There is no shortage of ideas about what we should be doing for rural communities. Leaders in every community already have good ideas for local projects. What they often lack are the financial resources to support the strategies and projects that they have identified.

What has been done
The Rural Alabama Initiative (RAI) grant program was created to provide seed money for some of these worthwhile community initiatives. Priority was given to projects featuring collaborations among organizations and jurisdictions in rural Alabama. The Extension-funded RC&D grant program was also administered.

Results
ECDI funded 12 Rural Alabama Initiative projects for 2011 at a total of over $50,000. The RAI grant application process was very competitive. The 12 RAI projects addressed a range of community and economic development issues throughout the state. Approximately $1,020,000 dollars of Extension-funded RC&D grants were administered that funded over 110 projects.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

805 Community Institutions, Health, and Social Services

Outcome #2

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	56

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The Success Stories for 2011 specific to the Economic and Community Development PPTs are available online on the ACES intranet. The 56 Success Stories are broken down as follows: 34 for PPA 105A, 2 for PPA 105B, 11 for SPF 214, 6 for ETP 304 and 3 for ETP 305.

What has been done
The Success Stories for 2011 specific to the Economic and Community Development PPTs are available online on the ACES intranet. The 56 Success Stories are broken down as follows: 34 for PPA 105A, 2 for PPA 105B, 11 for SPF 214, 6 for ETP 304 and 3 for ETP 305.

Results
The Success Stories for 2011 specific to the Economic and Community Development PPTs are available online on the ACES intranet. The 56 Success Stories are broken down as follows: 34 for PPA 105A, 2 for PPA 105B, 11 for SPF 214, 6 for ETP 304 and 3 for ETP 305.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #3

1. Outcome Measures

The Career Exploration and Education planning extension team project set as a goal significant improvement in each area where a learning objective was set which includes: create an education plan, create a career plan, improvement in school, and improvement in academic performance.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Career Exploration and Education Planning workshops provide program participants with the necessary tools to prepare to enter the workforce. This training helps participants align their carreer paths and education plan in order to achieve a desirable outcome. The information provided helps participants and their families work together to develop a strategy to sucessfully enter the workforce.

What has been done
This ETP broadly aims to upgrade and uplift the state?s urban and nontraditional audiences economic capacity by engaging them in activities/training that: (a) simulates economic deterioration; (b) educates them on the causes of economic deterioration, (c) provides direction

and training on career planning, and (d) provides direction and training on education planning.

Results

Of the program participants who responded to the post survey: 28% created an education plan, 31% created a career plan, 22% reported improvement in school, and 21% reported improvement in academic performance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes

Brief Explanation

Damage from strong tornadoes and storms coupled with the poor national and state economies were the two largest external factors that had an impact on outcomes. Many communities across Alabama were devastated by a series of deadly tornadoes this spring. Several communities were totally destroyed. This obviously had immediate impacts, and the rebuilding is still continuing. The economy resulted in less than expected state and federal revenues which resulted in appropriation changes. One of the largest impacts was on the RAI grant program, which was cut by 90% from the initial funding.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Economic and Community Development included many different activities and projects. Each of these has its own specific evaluation methods. The evaluation methods for Extension Team Project (ETP) within Economic and Community Development is explained in detail within the data-collection and evaluation sections of the Extension Team Project description sections on the ACES program planning, evaluation and reporting section of our intranet.

Of the participants in the Carreer Exploration and Education Planning Program they reported a significant number reported change in knowledge, action, and condition. Of the program participants: 87% strongly believed that the program was interesting, 76% strongly believed that the information was useful, 72% strongly believed that the activities were helpful, and 82% strongly believed that their involvement would have an impact on their future.

Of the program participants 61% were unable to successfully complete the WTTRW simulation. These individuals for a variety of reasons (budgeting, career choices, purchasing decisions, etc) experienced economic deterioration during the simulation. Of those who experienced economic deterioration 49% of them were able to identify the cause

and prescribe solutions to their specific problem.

Key Items of Evaluation

The Career Exploration and Education planning extension team project set as a goal significant improvement in each area where a learning objective was set. Of the program participants who responded to the surveys: 59.8% learned how to research careers, 48% learned to balance a checkbook , 71% learned about opening a savings account, 58% learned to keep track of funds in a savings account, and 64% learned to balance income and expenses.

Of the program participants who responded to the post survey: 28% created an education plan, 31% created a career plan, 22% reported improvement in school, and 21% reported improvement in academic performance.

The virtual business development program sought to increase minority business participation. The VBD extension team project signed up 112 business in the program year and provided information on business development to 400 individuals.

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Consumer Science and Personal Financial Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
602	Business Management, Finance, and Taxation	15%	5%		
607	Consumer Economics	5%	5%		
801	Individual and Family Resource Management	80%	85%		
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	0%	5%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	12.5	2.5	0.0	0.0
Actual Paid Professional	7.9	5.2	0.0	0.0
Actual Volunteer	0.0	11.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
114543	382999	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
206191	382999	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
598575	541836	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are 3 statewide Extension Team Projects.These are:

ETP15A - Employment and Entrepreneurship- This project will help individuals move toward self-sufficiency and improve quality of life through employment and entrepreneurship activities. Youth and adults with limited resources and/or minimal work experience will be targeted. Entrepreneurship activities will focus on home-based and micro business start-up. Career development activities will promote career awareness and job preparation skills.

ETP15C - Family Financial Security and Consumer - This project will increase the level of financial knowledge and financial management skills of youth, adults and senior citizens statewide. Topics that will be taught include budgeting, heir property, retirement, estate planning, wise decision making related to credit, debt, savings, investments, retirement, and protection from fraud and identity theft.

ETP15D - Urban Family Financial Security and Consumer Education - U&NNTP

Each project includes a variety of educational activities. Detailed descriptions of the activities of these projects are available on the ACES intranet.

2. Brief description of the target audience

The primary target audience is the general public.

Urban Family Financial Security and Consumer Education (U&NNTP) programs including Consumers Scores, Promoting Readiness for Employment Possiblities and LifeSmarts targeted limited resource families, unemployed underemployed and pre-professionals, and youth grades 9-12.

The Trade Adjustment Assistance for Farmers program targeted seafood producers that were adversely impacted by the Gulf Oil Spill and economic downturn. Identity Theft and Fraud programs focused primarily on senior citizens.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6929	591601	1325	147899

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	4	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Total number of people completing financial management education programs who actually adopted one or more recommended practices to decrease consumer credit debt, or increase investing and savings, and plan for retirement within six months after completing one or more of these programs.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Outcome #1

1. Outcome Measures

Total number of people completing financial management education programs who actually adopted one or more recommended practices to decrease consumer credit debt, or increase investing and savings, and plan for retirement within six months after completing one or more of these programs.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #2

1. Outcome Measures

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Alabama citizens encountered unprecendented financial challenges in 2011 including issues related to an unstable economy, high unemployment, man-made and natural disasters and an upset housing market.

What has been done
Programs were designed to help consumers better manage their resources including banking, saving, investing and securing assets to improve their consumer score. And, supporting training toolkits were designed to advance job search skills for unemployed, under employed and pre-professionals.

Results

At the completion of ACES training, 54% of participants knew how to obtain information on their credit score, 44% understood the advantages and disadvantages of credit cards, 42% were putting in place a family spending plan, 66% learned to complete a job application correctly, and 26% learned how to participate in technology assisted interviews or job application processes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The nation's economic downturn, state unemployment statistics, natural disasters (tornadoes), and man-made disasters (Gulf oil spill) all impacted program outcomes.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Pre, post and delayed post measures were used to assess customer outcomes. At the completion of ACES training, 54% of participants knew how to obtain information on their credit score, 44% understood the advantages and disadvantages of credit cards, 42% were putting in place a family spending plan, 66% learned to complete a job application correctly, and 26% learned how to participate in technology assisted interviews or job application processes.

Post-evaluations of estate planning programs revealed a gain in knowledge: 100% indicated that their general knowledge of estate planning increased, 99% learned the difference between a will and a trust, 98% learned how a living will is used, 97% learned steps to take to create an estate plan.

Key Items of Evaluation

Limited resource, unemployed and pre-professionals developed skills and knowledge for job searches and job promotions for financial advancement. Individuals with limited

computer access learned skills to support computer assisted job searches and interviews, and learned how to access their consumer scores. Eleven unemployed clients found employment, and more than 40% inproved their knowledge of best management practices for credit and resource management through planned spending, saving and investing .

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Commercial Horticulture

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	25%	25%		
111	Conservation and Efficient Use of Water	5%	5%		
205	Plant Management Systems	50%	50%		
215	Biological Control of Pests Affecting Plants	10%	10%		
216	Integrated Pest Management Systems	10%	10%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	0.0	0.0
Actual Paid Professional	9.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
152698	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
315335	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
950018	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

ACES Commercial Horticulture Program Area consists of 7 Regional Extension Agents (REAs) and several Extension Specialists working together on Team Projects across the 67 counties of Alabama. Feedback collected from needs assessment surveys, County Advisory Boards, commodity groups, and Extension Plan of Work meetings were used to prioritize, develop, implement, and improve commercial horticulture programs statewide for providing solid support to farmers and gardeners. Overall activities are listed below along with links to Success Stories at the end.

- Planned programs (need based): 39 fruit production meetings and 33 vegetable production meetings for producers. Also completed 49 horticulture crop production demonstration plots in 2011.
- Reactive programs (issue based): Completed 110 meetings on a number of issues that included special on-demand programs. The Commercial Horticulture Team also organized the Alabama Fruit & Vegetable Conference that was attended by 210 participants in 2011 - an increase of 110% compared to 2010. This conference has multi-track agenda that caters to the training needs of large and small producers, new and experienced growers, gardeners and homeowners.
- Hours of programming & contacts: Approximately 697 hours of training to 8,882 audiences across Alabama (see later section for details about participants). About 60% of the audiences (~ 5,300) are also on email lists for receiving newsletters from REAs. REAs & some Specialists answered over 12,535 phone calls and 16,720 emails. Provided 400 on-site consultations to producers (rural + urban) and gardeners.
- Program relevance & impacts: High direct contact numbers from this Team indicate that we are doing relevant programing resulting in effective technology transfer with improved technology adoption rates. For example, the integrated pest management (IPM) adoption rate is estimated to be at 62% among crop producers. The IPM program has also removed barriers to technology adoption (more on this under evaluation). Total Commercial Horticulture Team program impact exceeds $8-10 million.
- External linkages: The ACES Commercial Horticulture Team has strong partnerships with the following agencies for intensive outreach - the Alabama Fruit and Vegetable Growers Association, the Alabama Sustainable Agriculture Network, the Natural Resources Conservation Service (NRCS-USDA), Alabama Nursery and Landscape Association, Alabama Crop Advisors Association, and Federation of Southern Cooperatives. The organic agriculture program involves all three land-grant institutions in Alabama, i.e., Auburn University, Alabama A&M University, and Tuskegee University in order to provide consistent training to producers.

SUMMARY OF ACTIVITY AREAS (baseline and reactive programs together):

- Good Agricultural Practices (GAP) & Food Safety training for farmers
- Developing new Extension publications based on research on trap crops, hoop house fruit and vegetable production, organic pest management, etc.
- On-farm demonstrations related to integrated pest management (IPM), cultural practices, and new cultivars.
- Specially funded project for increasing the adoption of IPM on conventional and organic fruit and vegetable farms.
- Specially funded project on fire ant management in Alabama (state funded project).
- Professional development training for REAs on IPM and program evaluation techniques through face-to-face meetings and Web conferences.
- Assistance program for local producers affected by tornadoes in central and north Alabama.
- Food processing, marketing and consumer education - The development of Chilton Food Innovation Center in 2011 was facilitated by a Regional Extension Agent (Gary Gray). The center is currently open and making tremendous social impact. REAs also lead the development of Greensboro Farmers Market in order to provide a source of economic benefit for producers.
- Assisting producers in diversifying income via specialty crops: REAs assisted producers with market feasibility studies for specialty crops like bamboo, blueberries, grapes, etc.
- Immigration training program: The shortage of agricultural labors due to new Alabama regulations

(House Bill 56, passed on June 9th, 2011) was a sudden development to which the Commercial Horticulture REAs reacted very strategically. The Team participated or facilitated grower meetings and webinars about immigration issues. ACES is also updating a publication on the Federal H-2A program to make it available to the producers.

• Training of Urban Farmers: Cities in Alabama are expanding in population and many inner city dwellers do not have access to fresh food. Urban farms, as community wide initiatives, are becoming a popular source for locally produced foods that is bringing nutritional benefits to city population. The Commercial Horticulture Team is providing the expertise to clientele from crop production to consumption. The REAs are actively assisting the urban farms in sustainable agriculture.

• Training program for Master Gardeners: All REAs and Specialists in this Team participated in Master Gardener training events organized by ACES Home Grounds Team (over 35 programs completed in 2011) educating about 900 gardeners about backyard fruit, vegetable and flower production, and lawn maintenance. Master Gardeners also provided over 200 hours of volunteer service to the backyard vegetable IPM program valued at $3600. About 35% of phone calls for some REAs comprise of backyard food production questions which indicate strong relevance of this activity.

• Numerous field visits (400 approx.) were made by REAs and Extension Specialists to resolve critical crop production and plant protection issues. Farmers are provided research-based information that they can immediately use resulting in over 90% adoption rates for crop production recommendations.

• Success stories from Commercial Horticulture Team Members:
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f10f66ef0dfa
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f036bf5daa13
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4da4ea7a65d81
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4da37618023d7
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f10f66ef0dfa
https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f07b7c1c31e0

2. Brief description of the target audience

ACES Commercial Horticulture Program is multifaceted that reaches to a variety of audience. In 2011, nearly 8,882 participants that attended 212 meetings conducted statewide. The Commercial Horticulture Team also conducts an Annual Fruit & Vegetable Conference that was attended by 210 participants in 2011 - an increase of 110% over the year before. The statewide audience included:

- Conventional fruit and vegetable producers
- Urban farms (Huntsville, Birmingham, and Montgomery)
- Nursery and landscape producers
- Young and beginning farmers
- Certified Crop Advisors
- Low resource farmers
- Organic producers
- Master gardeners
- Home owners
- Community leaders and policy makers (like the Alabama State Department of Agriculture)
- Farm workers (including immigrant population)
- Youth members
- USDA/NRCS personnel (hoop house and organic projects)
- School teachers
- Jail inmates (through a special project in Clay County)

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3. How was eXtension used?

The Commercial Horticulture Team is very active in three eXtension Communities of Practice (CoP). Overall, the REAs responded to 48 'Ask the Experts' queries to resolve fire ant issues relevant to Alabama producers.

Fire ant eXtension: The entire Commercial Horticulture Team participates in the Fire Ant eXtension through the educational program lead by Dr. Kathy Flanders at Auburn University. The Fire Ant Management Program provides support to REAs for travel and demonstrations. This Community of Practice (CoP) was discussed at over 5 grower meetings and through demonstrations of a working bait spreader in various counties. This is one of the oldest eXtension CoP with a very high visibility and excellent participation from Commercial Horticulture REAs and Specialists.

All about Blueberries eXtension: The home page for All About Blueberries CoP content is www.extension.org/blueberries. Within this resource area, there are articles on the following topics: blueberry production, blueberry diseases, blueberry health benefits, blueberry canning/freezing/storing, blueberry recipes, blueberry youth topics and blueberry links. Online learning interactive lessons include fruit production for growers, health benefits of blueberries, two Moodle courses, videos and blueberry activities oriented toward youth. Some of this content was created by the Commercial Horticulture team members. The REAs conducted 5 eXtension meetings where the producers were made aware of the resources. The blueberry CoP homepage also includes links to social media pages/channels. By the end of 2011, the blueberry CoP has 796 Facebook fans; 127 Twitter followers; 2,722 Word Press views; 2,317 Flickr views; 2,490 You Tube views; total of 114,049 page views coming from 22 countries and 5 continents.

eOrganic: The Team also participates in eOrganic through the Extension IPM program lead by Dr. Ayanava Majumdar, Extension Entomologist. This is one of the newest introduced CoPs for REAs and one

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	9925	1114829	150	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total

Actual	4	1	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the ETPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.

Year	Actual
2011	0

Output #2

Output Measure

- Management of exotic pests ex. Asian citrus psyllid
  Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Integrated pest management education/adoption

Year	Actual
2011	22

Output #4

Output Measure

- In-state educational meetings

Year	Actual
2011	212

Output #5

Output Measure

- On-farm demonstrations in pest management, new cultivar evaluations, and cultural practices

Year	Actual

2011	49

Output #6

Output Measure

- Horticulture training for Extension faculty and Master Gardeners in fruits, vegetables, turf, and ornamentals

Year	Actual
2011	35

Output #7

Output Measure

- Multi-state/agency planning and implementation of commodity meetings for experienced and novice producers

Year	Actual
2011	72

Output #8

Output Measure

- On farm consulting

Year	Actual
2011	400

Output #9

Output Measure

- Special training program for high tunnel crop producers (new in 2011)

Year	Actual
2011	8

Output #10

Output Measure

- Organic vegetable production & IPM campaign (new in 2011)

Year	Actual
2011	7

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	ACES employees will provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program.
2	Integrated pest management adoption
3	Commodity educational meetings
4	Extension faculty and master gardener training
5	On-farm demonstrations
6	Multi-state/agency commodity meetings
7	Asian citrus psyllid and citrus greening disease education and management
8	Increase adoption of horticultural crop production and pest management recommendations through on-farm consultations
9	Special training program for high tunnel crop producers to increase adoption of appropriate crop production practices (new in 2011)
10	Increase adoption of organic vegetable production and insect pest management tactics in Alabama (new in 2011)

Outcome #1

1. Outcome Measures

ACES employees will provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

Integrated pest management adoption

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	22

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Vegetable production is Alabama is worth over $20 million and those producers often are also fruit producers. Insect pests are one of the severe challenges to fruit and vegetable production; there is zero tolerance of insect pests in some vegetable crops since they are high value commodity. Unmanaged insect pests can cause 100% yield loss in marketable produce. Organic vegetable producers have a bigger challenge in pest management since OMRI approved insecticides are short-lived and slow acting.

What has been done
Vegetable and fruit producers receive hands-on training in integrated pest management (IPM) as a baseline program. On-farm IPM demonstrations are often result of reactive programing where the goal is to train producers regarding a critical pest management issue. In 2011, over 22 vegetable IPM events were organized by REAs that reached over 600 producers. This Team is also partnering with nonprofit agencies, community groups and urban farms in conducting innovative IPM programs.

Results
The Alabama Vegetable IPM program was revitalized in 2009 using new grants and streamlined program delivery with a farmer-centric approach. Published literature indicates that the cost: benefit ratio of insect control in vegetables is about 1:16 (i.e., $16 return for every dollar spent) due to very low or zero tolerance of insects on certain crops. Extension surveys conducted by REAs and Specialist (Dr. Majumdar) during events, online evaluations, and on-farm interviews

indicate that commercial farmers make about $248 per acre gain by using IPM tactics recommended by ACES Commercial Horticulture Team. Adoption rate for IPM tactics and publications among commercial farmers receiving direct training is about 62% in 2011, which is an improvement of 24% in three years. Thus, IPM training program must continue to assist farmers in protecting their crops in an environmentally friendly manner. Small producers and gardeners use IPM publications that have been revised and improved resulting in better IPM decision-making. Some barriers to knowledge transfer have also been removed after multiple years of consistent programming statewide.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

Commodity educational meetings

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	212

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
All Commercial Horticulture REAs identify issues based on direct input from farmers, advisory boards, commodity organizations, and consumers. The critical crop production issues are then prioritized during the Plan of Work process and then programmatic resources are utilized to mitigate issues. Some identified issues in 2011 included integrated pest management training, crop cultivar selection and planting methods, fertilizer dosage and delivery systems, cover cropping, organic fruit & vegetable production, hoop house crops, pesticide safety, food safety, processing, and marketing. Immigration law and H-2A labor availability were also critical issue in 2011.

What has been done
Nearly 212 education meetings and one major statewide conference have been done that incorporated joint effort of REAs and Extension Specialists. These meetings were attended by over 8,800 participants that included conventional fruit and vegetable farmers, organic and naturally grown family farmers, low resource farmers, new and beginning, hoop house producers, crop advisors, gardeners, USDA/NRCS personnel, youth members, school teachers, etc. REAs also answered over 12,535 phone calls and 16,720 emails from variety of clients.

Results
Commercial Horticulture baseline programs and reactive programs are highly relevant to the crop producers of Alabama. The large number of meetings and participation in them indicates high relevance of our Commercial Horticulture programs. Over 90% audiences that come to Extension meetings indicate strong preference to continuation of their training. The CH Team members also provided about 300 on-site consultations to rural and urban farms as an invaluable service. Extension surveys conducted by REAs and Specialists suggest a minimum impact of $8 to 10 million on fruit & vegetable industry. More in-depth impact assessment instruments are under development by this Team.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #4

1. Outcome Measures

Extension faculty and master gardener training

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	35

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Home horticulture or backyard crop production is an activity that has increased significantly in recent years. Producing edible fruits and vegetables in the backyard requires training well-rounded training in crop production, plant protection, food safety, and storage. About 30-30% of total phone calls received by some Commercial Horticulture REAs are regarding backyard fruit and vegetable production. Master Gardeners (MGs) also needed training in pest management tactics since pest spectrum is varied in rural/urban settings.

What has been done
REAs from this Team participated in over 35 MGs and urban gardening training programs organized (in majority) by the ACES Home Grounds Team. About 900 participants received crop production and pest management training from REAs/Specialists on this Team. The Baldwin County Master Gardeners have been participating intensively in integrated pest management garden plots which has provided over 200 hours of volunteering opportunity for MG Interns in 2010 and 2011. In 2011, the Lauderdale County MGs also participated in the IPM program.

Results
MG groups provide consistently high (80%) survey return rates for Extension surveys which results in consistent information. The pest management training received by Baldwin County MGs increased awareness about IPM issues by 50% or more after completing hands-on insect identification training. Almost 100% MGs who undergo IPM training request further continuous training on pest identification and management issues, especially using organic gardening approaches. A comprehensive assessment of behavioral changes and economic impacts after crop production and IPM training is yet to be measured, but trends strongly favor continued focus on urban/rural gardeners from this Team via joint program with other ACES Teams.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #5

1. Outcome Measures

On-farm demonstrations

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	49

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Fruit/vegetable cultivars and pesticide formulations can change significantly from year to year. This is also true in case of nursery/landscape industry and home garden pest control. There are over 28 different chemistries of conventional insecticides (Restricted Use Pesticides) and 12 product classes for organic crop producers. Thus, farmers and gardeners need constant research-based (and unbiased) information from Extension regarding cultivar evaluations and appropriate pest management materials.

What has been done
The Commercial Horticulture Team of REAs and Specialists established nearly 49 demonstration plots related to cultivar selection, specific pest management tactics like insecticide rotations and trap cropping, disease monitoring, plasticulture, and drip irrigation systems. Every site was used for one of more Field Days or extension events that provided hands-on training to farmers and gardeners.

Results
Demonstration plots are always very popular among farmers, irrespective of the size of their operation. Pest management demonstration plots showcasing insecticide rotations and trap cropping system were highly successful (107 participants at 4 locations statewide). The IPM Field Days attracted many new and beginning crop producers (2%) and low resource farmers (10%), naturally grown family farmers (34%), besides conventional producers (50%). Lack of IPM training was at 30% of total before the training events. About 90 to 100% audiences attending commercial horticulture demonstrations strongly support future training events because it is easy for farmers to adopt new cultivar or IPM recommendations after they have seen it successful on demonstration farms.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants

216 Integrated Pest Management Systems

Outcome #6

1. Outcome Measures

Multi-state/agency commodity meetings

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
This report pertains to the major annual producer conference statewide, not the regional meetings that have been reported elsewhere. The Alabama Fruit & Vegetable Growers Association (AFVGA) partners closely with the ACES Commercial Horticulture Team in conducting a statewide annual meeting every year. This annual meeting is the only multi-track event currently available for fruit and vegetable producers (new/experienced/conventional/organic/low resource farmers/gardeners) to provide them advanced training in fruit and vegetable production methods, new cultivar selections, fertilizer recommendations, invasive insects, beneficial organisms, alternative pest management tactics, etc.

What has been done
The first day of this event trains producers hands-on and in-field regarding cover crops, sprayer calibration, conservation tillage systems, plasticulture, pruning methods, and correct soil sampling. The second day of the event consists of as many as 25 presentations by crop production/pest management/food saftey experts from Alabama as well as other states. Together, this meeting provides a well-rounded training opportunity that covers topics in-depth at a broader level than regional meetings. Farmers attending the annual conference are strongly encouraged to attend the regional fruit and vegetable production meetings as a follow-up training to learn about local issues.

Results
In the past two years (2010, 2011), the AFVG Annual Conference has been attended by over 360 crop producers and crop advisors who have adopted Extension recommendations. USDA NRCS personnel also attended the meeting for training on high tunnel crop production. Compared to 2010, the participation increased by 40% in 2011 conference indicating strong support for this

annual event. Program quality surveys completed in the past two years indicate that growers from nearly 22 counties of Alabama attend the event each year. About 70% audience rated event location and facilities as excellent. Adoption rates for new crop production recommendations by active farmers: food safety (66%), greenhouse/hydroponics (93%), soil fertility (92%), high tunnel crop production (84%), improved fruit & vegetable cultivars (84%), and pest management (100%). Audience members are provided thousands of Extension handouts at this event in folders that they can keep for future reference.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #7

1. Outcome Measures

Asian citrus psyllid and citrus greening disease education and management

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Increase adoption of horticultural crop production and pest management recommendations through on-farm consultations

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	400

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Commercial Horticulture REAs and Specialists serve clienetele via emails and phone calls. In 2011, it is estimated that the Team responded to 12,535 phone calls and 16,720 email queries which shows excellent strength in reactive/issue-based programing. About 5,300 farmers, gardeners, crop advisors, NRCS and industry personnel are also on various email newsletter subscription lists. Often, the emails and phone calls lead to on-site visits for resolving critical crop production issues related to fruit and vegetable production as well as nursery and landscape issues.

What has been done

In 2011, various Team members together completed about 300 field visits on special request and provide consultation that is critical to the farmers. Farmers are always provided research-based information that is unbiased and immediately useful.

Results

Although there is no formal framework for evaluating the success of field visits, Commercial Horticulture Team members do follow-up telephone calls and meetings with farmers to determine usefulness of their recommendations. Many of the farmers are regular attendees at Extension meetings done by this Team indicating relevancy of the service to them. Based on follow-up informal surveys, it is estimated that adoption rate for crop production recommendations after field visits average over 90%. Cultivar selection, pruning methods, fertilizer and pest management recommendations are immediately adopted by farmers since it is vital for them to stay in business and adapt to new technologies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #9

1. Outcome Measures

Special training program for high tunnel crop producers to increase adoption of appropriate crop production practices (new in 2011)

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The Natural Resources Conservation Service (USDA) initiated the EQUIP program few years back that provided thrust to high tunnel crop production. Many moderate to small vegetable producers have received the NRCS grant but the farmers lacked know-how for crop production inside a high tunnel. The ACES Commercial Horticulture Team was requested to provide assistance to producers as well as NRCS field agents to help with the transition.

What has been done
This Team has developed seven statewide publications on high tunnel crop production related to construction materials, planting and irrigation techniques, list of suppliers, insect control, ornamental and fruit production. These new publications complemented numerous existing Extension publications related to each major vegetable and fruit crop in Alabama. Thus a tremendous of amount of information was organized very quickly by the Team and made available to the producers during eight meetings. Some REAs and Extension Specialists also provided direct field visits to needy producers. Events were conducted in conjunction with NRCS and the Alabama Sustainable Agriculture Network.

Results
Farmers are increasingly utilizing crop production recommendations for high tunnel crop production. Separate meetings on high tunnel crop production, during regional meetings and annual conference, has allowed farmers to network among themselves and know the Extension resources. NRCS field agents now involve the Extension REAs in most of their educational events due to their technical knowledge. Direct field visits to the high tunnel crop producers has increased visibility of this new initiative.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #10

1. Outcome Measures

Increase adoption of organic vegetable production and insect pest management tactics in Alabama (new in 2011)

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Organic crop production is a small industry in Alabama at present but it is the fastest growing agricultural enterprise supported by USDA Natural Resources Conservation Service and other private institutions. The hoop house crop production system is also closely linked to organic cropping system. ACES Commercial Horticulture Team is actively engaged in reorganizing the organic Extension education program in Alabama in order to provide thrust to this organic food production campaign.

What has been done
In the first step, the Commercial Horticulture team networked with organic farmers, urban farms (e.g., Jones Valley Urban Farm, Birmingham and Hampstead Institute, Montgomery), and supporting agencies like the NRCS, the Alabama Sustainable Agriculture Network (a farmer grassroots group), local food production initiatives (e.g., Fairhope), food banks (e.g., Food Banks of North Alabama at Huntsville), and the Alabama Department of Agriculture and Industries. Small demonstration plots showcasing trap cropping and insecticide rotations were set up by Home Ground REAs and Commercial Horticulture REAs where field days were conducted as a preliminary effort.

Results
The IPM Field days (4) and presentations (3) were very well attended by over 150 audience members. The high interest of small and low resource producers to observe alternative pest management systems despite the incredible heat levels in Alabama during summers was an indicator for high relevance of our initiative. The audience included naturally grown producers (34%), organic producers (10%), new/beginning farmers (2%), gardeners (45%) and conventional producers (8%). About 25% attendees coming to Extension organic meetings did not have prior IPM training and were extremely satisfied with the hands-on exercises (plot size had no

relationship to the number of audience but location of demonstration plots was important). Lack of awareness of Extension programs and high cost of organic inputs are some barriers that participants indicated as problems that are focus of our continued efforts to support the growing organic food industry. This team is now involved in supporting local agricultural production and marketing systems, sustainable urban farms, and policy councils as part of various grants in the pipeline.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Rising age of farmers, low availibility of new insecticides)

Brief Explanation

Rising average age of experienced producers (56 years) is also a concern that affects adoption of new agricultural recommendations.

• We lost a trap crop demonstration site in north Alabama to the devastating tornado in April 2011. REAs from this Team helped relief workers and rebuild affected communities.
• Difficult economic conditions of farmers does not allow them to travel to far away educational events, so the participation is sometimes low.
• Organic producers suffer greatly from the poor availability of pest management products like biopesticides in local stores.
• Conventional producers may not find the new environmentally-safe insecticides and other inputs at the distributor resulting in low adoption of crop production recommendations.
•

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The Commercial Horticulture Team focuses on program monitoring and evaluations via Extension surveys done at events and after farm visits. Programming models used by Team members include: Program Logic Model Framework (USDA-NIFA and internal ACES),

Extension Evaluation Logic Model (University of Wisconsin 2003), and Transformation Extension Education Model (Rockwell et al. 2003).

The overall evaluation/feedback system also allows the Team to track technology adoption rates, barriers, and program impacts. A variety of qualitative and quantitative information is compiled every year by REAs and discussed during professional development meetings for training purposes (this ACES team has completed 2 evaluation capacity building events in 2011). Evaluation results are also discussed monthly during Team video conferences resulting in high awareness of the evaluation process. Here are evaluation findings from some major horticultural programs.

- In 2011, the ACES Commercial Horticulture Team members provided approximately 697 hours of training via 230+ Extension meetings reaching 8,882 audiences across Alabama. About 60% of the audiences (~ 5,300) are also on email lists for receiving newsletters from REAs serving their area. Based on newsletter and field day surveys conducted by this group, a conservative estimate of technology adoption rate is about 35-90% depending on the type of audience and the need.
- Surveys indicate that small conventional or organic producers and gardeners are often able to adopt new production/pest management practices quickly but large farmers may take two years or more years to transition to a new system. Age of farmer and market fluctuations also moderate adoption of improved crop production practices.
- The REAs answered over 12,535 phone calls and 16,720 emails from variety of clients. Team members provided 400 on-site consultations to producers (rural + urban) and gardeners. It is estimated that this type of reactive programming is highly effective in changing attitudes and behaviors in over 90% of the clientele.
- The Greensboro Farmers Market was initiated by a Commercial Horticulture REA (Gary Gray) in 2011 with assistance from several other REAs from other Teams. Students from the Rural Studio at the Rural Heritage Center in Thomaston (AL) designed portable market stands that the farmers could use at this new market. A highly successful marketing campaign resulted in about 150 visitors per Market Day that generated up to $300 in revenue for 8 vendors. The City Officials and farmers are highly impressed by ACES efforts that led to a substantial social and economic impact (see link to full story below).
- Another REA (William East) initiated the gardening project at Clay County Jail to benefit the inmates. The inmates took active participation in the project and raised enough vegetables for local consumption. The project was supported by the Sheriff and his spouse, who are very pleased with the outcomes of this unique project.
- The Vegetable IPM program Specialist (Dr. Ayanava Majumdar) has been awarded the Southern Region IPM Center's 'Friends of IPM-Future Leader Award' recognizing the high program quality and impact it has made statewide. Since 2008, many Commercial Horticulture REAs assisted in this IPM initiative and conducted evaluations. Findings are as follows. Over 2,500 vegetable producers have received direct IPM training at meetings, workshops, and conferences (74 completed in three years). Extension publications are used by over 75% farmers and IPM adoption rate is about 62% (growth rate of 8% annually). The vegetable entomology website gets about 100 hits per day during the summer season; 600+ farmers are subscribed to the IPM newsletter; over 120 farmers are on 'Alabama Vegetable IPM' Facebook page. The average size of conventional vegetable farms is 23 acres, organic farm is 4 acres, and low resource farms have less than 2 acres of land.
- The IPM newsletter (called 'The Alabama IPM Communicator') provides $500-1,000 benefit to farmers adopting pest management recommendations. About 68% respondents regularly visit ACES website for IPM information.
- The Baldwin County Master Gardeners, who establish and maintain a vegetable IPM demonstration garden in Fairhope, have donated time (210 h) worth nearly $3,700 in 2011.

- Impact assessment for vegetable IPM program (2009-2011): Crop loss without IPM can be nearly 100% for some crops. Average return on investment is 1:16 ($16 benefit for $1 investment in IPM). Survey results also indicate adoption of university recommended IPM program in Alabama saves about $247 per acre (insecticide cost savings). It is estimated that the IPM program leads to $1 to 1.5 million in savings statewide due to reduced use of insecticide, more energy efficiency and environmental benefits, and farm profits from timely pesticide applications.
- The Peach Production meeting in Clanton is attended by majority of the area peach producers who cumulatively increase their production by $4 million, based on on Extension surveys.
- The overall Team impact on the horticulture industry resulting from various programs is about $8-10 million (a conservative estimate).
- Success stories are listed in the next segment.

Key Items of Evaluation

The Team Leader (Dr. Ayanava Majumdar) of Commercial Horticulture Program is a certified evaluation practitioner with continuing education credits from the Southeast Evaluation Association and the American Evaluation Association. Dr. Majumdar and Assistant Director (Dr. Paul Mask) have conducted three capacity building workshops for this Team in the past two years that has led to a firm commitment to Extension evaluations as a core activity. The Commercial Horticulture Team conducts Extension process and outcomes surveys at each meeting; results are shared through annual progress reports. Below are unique details about our award-winning programs and publications.

Extension evaluation capacity building initiatives (since 2009):

- Developed an evaluation training module with 3 new Extension bulletins & pocket guides for Extension Agents and Specialists. Dr. Majumdar received appreciation from USDA-NIFA regarding evaluation efforts and led a workshop for IPM State Coordinators in 2011.
- Launched Evaluation Toolkit website that archive publications (2010): https://sites.aces.edu/group/evaltoolkit/Pages/EvaluationArchive.aspx
- Majumdar, A., and P. Mask. 2011. Evaluation capacity building exercise-Part 1: Relationship between program outcomes and impacts. ACES Commercial Horticulture Team Plan of Work Meeting, Opelika, AL. September 21, 2011. 27participants. 60 min.
- Majumdar, A., and P. Mask. 2011. Extension Evaluations as part of the Logic Model. Workshop at the Annual Meeting of the Alabama Association of County Agricultural Agents and Specialists, Eufaula, June 2, 2011. 15 participants registered. 60 min.
- Majumdar, A.,and R. Williams. 2009. Measuring program outcomes and impacts. May 4, 2009. Extension Technology Web Conference. 75 participants. 30 min.

Recent success stories by Commercial Horticulture REAs and Specialists indicating program outcomes and impacts:

- Majumdar, A., G. J. Queen, J. D. Miles, C. M. Becker, L. E. Chapman, and W. E. Datcher. 2012. IPM exhibitions are an effective educational tool for organic producers. [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f287cad296db
- Majumdar, A., G. J. Queen, J. D. Miles, C. M. Becker, L. E. Chapman, W. E. Datcher, A. Jackson, J. Jacobi, E. J. Sikora, and J. M. Kemble. 2012. Statewide IPM campaign for gardeners, organic producers, and low resource farmers. [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f10f66ef0dfa

- Majumdar, A., R. Yates, B. Dillard, L. E. Chapman, W. T. East, G. D. Gray, N. G. Kelly, J. D. Miles, and M. D. Reeves. 2012. Long-term behavioral changes in certified crop advisors receiving entomology IPM training, 2001-2011 (PPA101). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f07b7c1c31e0
- Majumdar, A., C. M. Becker, L. E. Chapman, W. E. Datcher, W. T. East, G. D. Gray, N. G. Kelly, J. D. Miles, M. D. Reeves, E. J. Wheeler, and A. Jackson. 2012. Long-term outcomes and impacts of the Alabama statewide vegetable entomology IPM campaign, 2009-2011 (PPA110). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f036bf5daa13
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- Majumdar, A., L. Chapman, W. East, N. Kelly, J. Miles, M. Reeves, G. Gray, E. Wheeler, and C. Becker. 2011. Positive impacts of the statewide vegetable IPM educational campaign, Alabama, 2009 & 2010 (ETP19B/SPI405). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4da37618023d7
- Boozer, R., L. Chapman, E. Coneva, W. East, T. Glover, G. Gray, C. Hesselein, N. Kelly, A. Majumdar, J. Miles, M. Reeves, T. Tyson. 2010. ACES Commercial Horticulture Team responds to high tunnel educational needs (ETP19A). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4d83855aa17e5
- Majumdar, A. 2012. Community engagement bulletin. January 2012. http://www.aces.edu/pubs/docs/E/EX-0132/EX-0132-low.pdf
- Reeves, M., R. W. Britnell, L. D. Chapman, E. D. Coneva, K. L. Flanders, T. A. Glover, G. D. Gray, M. D. Henshaw, C. B. Pinkston, D. W. Porch, D. R. Shanklin, and R. D. Sims. Blueberry varieties highlighted at field day (PPA110). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f3044554b432
- Chapman, D., R. Boozer, W. T. East, D. Fields, G. D. Gray, N. G. Kelly, J. D. Miles, C. D. Monks, J. L. Novak, B. A. O'Rear, and M. D. Reeves. 2012. Alabama's New Immigation Law (PPA110). [Online] https://ssl.acesag.auburn.edu/etp/eval_public_view.php?id=4f05c2ffa1c81
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Success stories by Home Grounds REAs with significant input from Commercial Horticulture Team members:

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V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Agronomic Crops

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	15%	0%		
111	Conservation and Efficient Use of Water	10%	0%		
205	Plant Management Systems	20%	0%		
211	Insects, Mites, and Other Arthropods Affecting Plants	10%	0%		
212	Pathogens and Nematodes Affecting Plants	10%	0%		
213	Weeds Affecting Plants	10%	0%		
215	Biological Control of Pests Affecting Plants	5%	0%		
216	Integrated Pest Management Systems	20%	0%		
	Total	100%	0%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	24.5	0.0	0.0	0.0
Actual Paid Professional	18.5	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
623327	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
645675	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1913907	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

1. Geospatial Education and Precision Agriculture Programs: Public and private interest in utilizing geospatial technologies is increasing as the technology less expensive and more user friendly. "Geospatial Technologies Program" was initially a "train the trainer" effort where ACES staff were trained in global positioning system (GPS) hardware, geographic information systems (GIS), and remote sensing. The ETP provided internal in-service training session and training workshops. The workshops were tailored according to the specific needs of the clientele group that was being served. The groups included ACES, extension personnel from other states, forestry and wildlife users, agronomic crop producers and private representatives, and athletic uses.

2. Herbicide Resistance Management Program: The proper use of herbicides, sprayer calibration, and crop rotation benefits help limit the spread of herbicide resistant weeds. Farmers were able to report weeds in their fields that were resistant to foliar herbicides such as glyphosate. Herbicide resistant weeds have the potential to dramatically increase weed control costs. Success of the project will be determined by how well we are able to limit the spread of herbicide resistant weeds in Alabama. Pigweed is a major concern to Alabama farmers since a resistant species currently infests several fields in Georgia. The ultimate goal of this ETP is to rapidly detect and limit the spread of herbicide resistant weeds by educating the farmers in methods designed to slow and/or prevent the occurrence and spread of herbicide resistant weeds. Herbicide resistance could cost Alabama cotton farmers alone over $8,000,000 per year.

3. Asian Soybean Rust Project: Asian soybean rust was originally discovered in Brazil a number of years ago. Over the past 10 years, it has been documented in the United States and it has been found that soybeans are susceptible to this fungal pathogen. This project consists of a statewide season-long monitoring program that provides an early warning system for soybean growers in Alabama and the Southeast. In fact, this information is fed into a national database as an "early warning" system for the millions of acres of soybeans produced in the mid-western U.S. The project consists of REAs, CECs, and specialists establishing and monitoring soybean sentinel plots located throughout the state. When soybean rust is detected in a sentinel plot, growers were alerted via the AU Soybean Rust Hotline and the USDA-Soybean Rust Website.

2. Brief description of the target audience

2011 Agronomic Crops Program Priority Team activities included the following groups of stakeholders: 1) row crop producers and their representative groups that include, but are not limited to, the Alabama Cotton Commission, Alabama Peanut Commission, Alabama Soybean Producers, and the Alabama Wheat and Feed Grains Committee; 2) row crop advisors including ACES agents and specialists, public and private crop advisors; 3) governmental agency personnel including USDA, NRCS, and federal crop insurance and

risk managers, 4) public policy makers requesting information that impacts Alabama's agricultural community, and 5) private citizens impacted by policies and practices used for the production of food, fuel, and fiber. All educational programming efforts will target audiences without exclusion or discrimination, as specifically defined by ACES policy guidelines.

3. How was eXtension used?

There are two eXtension COPs that are related directly to interation with ACES: cotton and GIS. Members of our team are also directly involved with the Fire Ant COP that was one of the first communities of practice that was developed, approved, and funded by the national effort. Extension Specialists are involved at some level in the development of web-based material within their own institutions. Moreover, all are involved in the generation of newsletters, numbered extension publications, advisories, circulars, etc. While some of the information contained in these web sites and newsletters is specific to the state in which it was developed, much of the information is applicable across the respective clietele georgraphic areas. A major part of the curriculum to be developed by the CoP is the compilation, and review of this information for publication and dissemination to a national audience. A review process was developed and continues to be maintained to identify information and content that has relevance to a national audience and that this content be presented, maintained, and updated by the CoP, primarily in a web-based format. This information would be of great interest to the CoI and through our marketing has become a primary source of information for end-users in the US.

Research reports and articles reporting the results of applied research in GIS, fire ant biology and management, and cotton production have been generated within each state by qualified scientists. Because of the nature of the research and problems inherent in generating peer-reviewed journal articles in a format easily used by the industry, much of this research is rarely published in peer-reviewed journals. An information void has historically existed, therefore, for relevant applied research findings in these areas to be published in an understandable and usable format for clientele across state lines. The CoP continues to accomplish this through a peer-review system, similar to many journals, but with the end product being in a format (written article or multimedia) that is published and made available through eXtension. The Extension Specialists serve as authors and also as an editorial board to facilitate the publication of applied research information that is of interest across state lines to the CoI.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	374000	721000	25674	221432

2. Number of Patent Applications Submitted (Standard Research Output)
Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	8	8	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Several outputs will be generated by this project including distribution of state and region-wide information on the occurrence of Asian soybean rust, insect pest management, field crop diseases, and potential herbicide resistance in crops around the state. Alternative control measures will be developed to reduce the impact of the problem pests on the current crop. Recommendations for a management plan for agronomic row crops will be developed. Several methods of notification (e-mail, Timely Information Sheets, articles in the popular press, etc.) will be used to disseminate information. Meetings, conferences, and trainings throughout the year will include resistant weed management, geospatial and precision agriculture information, soil fertility and fertilizer management, and in-season tours and field days will be used to provide local information on the problem. Other methods such as printed articles and web-site information will be distributed through e-mail and website publications to inform the farming community. Specific outputs will include: 1- In-service training meetings for target audiences and on-farm visits for cotton, soybean, Asian soybean rust, peanuts, field corn, and small grains production; precision agriculture techniques including geospatial technologies, herbicide resistance as well as integrated management of insect pests; 2- Response via phone, e-mail, internet, and on-farm visits at the request of the producer to diagnose and deliver agronomic crop production recommendations; 3- Information posted on the agronomic crops and the national Asian soybean rust website (i.e., www.alabamacrops.com) and through the Auburn University Soybean Rust telephone hotline; 4- Publications like the 2011 IPM Guides and demonstration results reports for use by clientele groups; 5- Hard copy publications for use in production meetings and trainings where deemed appropriate; 6- Establishment of disaster responses when a natural environmental disaster occurs.

Year	Actual
2011	2011

Output #2

Output Measure

- The team was prolific in 2011 outputs with 23 abstracts, 202 county presentations, 52 other presentations, 102 extension publications, 22 peer reviewed extension publications, 15 research

peer reviewed publications, 1 newly established blog, and 75 on-line publications.

Year	Actual
2011	2011

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Members of the ACES Agronomic Crops team is required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: 1) why the program was conducted or the situation/problem that was addressed; 2) specifically what and how it was done; 3) the time period involved; 4) the specific locations involved; 5) who was impacted; 6) how many people were served; and 7) the final impacts.
2	Short-term outcomes: The most immediate outcomes are: 1) to document the direct positive financial impact that our agents and specialists have on our clientele and their farming operations. For example, advice that leads a producer to consider a higher-yielding crop variety, use of available animal manures for fertilizer, or increased efficiency from prescription site-specific management of agricultural chemicals, seeding or fertilizers can result in increased income totaling millions of dollars across the state; and 2) to provide research information and recommendations that allow producers to control pests only when needed and save them money on unnecessary treatments or save their crop from destruction. In addition, directing producers to sustainable IPM for weeds, insects, and diseases can have a major positive impact on lessening the costs associated with herbicide resistant weeds, insecticide resistant insect pests, and devastating crop diseases such as Asian soybean rust.
3	Long-term outcomes: The long-term outcomes of the Agronomic Crops Extension program are: 1) to ensure the long-term economic viability of Alabama row crop producers; 2) to ensure that there is a stable, domestic source of food and fiber for the citizens of Alabama and their future generations; 3) to ensure that there will continue to be row crop farms operating in the state for many generations to come; 4) to ensure that the recommendations and resulting decisions that are made by the row crop industry in the state is environmentally and economically sustainable; 5) to ensure that the activities and outputs generated by the practices investigated and recommended by this team will benefit and serve to conserve natural resources for all agricultural and general citizen audiences

Outcome #1

1. Outcome Measures

Members of the ACES Agronomic Crops team is required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: 1) why the program was conducted or the situation/problem that was addressed; 2) specifically what and how it was done; 3) the time period involved; 4) the specific locations involved; 5) who was impacted; 6) how many people were served; and 7) the final impacts.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	2011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The primary audience for the ACES Agronomic Crops Team's success stories include producers, industry representatives, crop managers including extension professionals, and policy makers. The stories provide a foundation for understanding how much work is conducted for the clientele, often without appropriate recognition.

What has been done
Wiregrass Cotton Expo for Southeast Alabama; Glyphosate-Resistant Pigweed Monitoring and Control in Alabama;Long-term Behavioral Changes in Certified Crop Advisors Receiving Entomology IPM Training; Extension Row Crop Variety Tests Provide Useful Information

Results
Wiregrass Expo: The total economic impact was over 30 million dollars through agronomic and marketing education.

Herbicide resistance: Through the education program and information disseminated concerning the threat of herbicide resistance in weed and higher row crop prices in 2011, farmers saved over $4.5 million.

IPM Program: Increasing interest in IPM; increased use of IPM publications; increasing adoption of IPM practices; removing barriers to IPM adoption.

On-farm soybean, small grain, field corn, and cotton trials help producers select appropriate varieties which increases income several million dollars for the state.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

Short-term outcomes: The most immediate outcomes are: 1) to document the direct positive financial impact that our agents and specialists have on our clientele and their farming operations. For example, advice that leads a producer to consider a higher-yielding crop variety, use of available animal manures for fertilizer, or increased efficiency from prescription site-specific management of agricultural chemicals, seeding or fertilizers can result in increased income totaling millions of dollars across the state; and 2) to provide research information and recommendations that allow producers to control pests only when needed and save them money on unnecessary treatments or save their crop from destruction. In addition, directing producers to sustainable IPM for weeds, insects, and diseases can have a major positive impact on lessening the costs associated with herbicide resistant weeds, insecticide resistant insect pests, and devastating crop diseases such as Asian soybean rust.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	2011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Cotton producers in the northern area of Alabama that were affected by the regulations that had been proposed would have lost a primary soil-applied herbicide tool for controlling herbicide resistant marestail and Palmer amaranth. This would have increased costs and resulted in further spread of these resistant biotypes.

What has been done
Members of the team under the direction of the north Alabama agronomist worked with various governmental and cotton groups in developing guidelines for re-registration of fluometuron use in five north Alabama counties. Numerous visits to sample well sites were conducted in conjunction with the regulatory agencies involved. Numbers meetings with agronomists and AU environmental scientists were also conducted to determine why regulatory actions were initiated.

Results
Through the efforts of the north Alabama agronomist and associated team members, revisions to current labeling were enacted. This saved producers a minimum of $15.00 per acre of additional herbicide cost since fluometuron is considered a "generic" herbicide with low cost. With over 200,000 acres of cotton in the counties affected, the overall short-term effect was $3 million in that area of the state alone.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

Long-term outcomes: The long-term outcomes of the Agronomic Crops Extension program are: 1) to ensure the long-term economic viability of Alabama row crop producers; 2) to ensure that there is a stable, domestic source of food and fiber for the citizens of Alabama and their future generations; 3) to ensure that there will continue to be row crop farms operating in the state for many generations to come; 4) to ensure that the recommendations and resulting decisions that are made by the row crop industry in the state is environmentally and economically sustainable; 5) to ensure that the activities and outputs generated by the practices investigated and recommended by this team will benefit and serve to conserve natural resources for all agricultural and general citizen

audiences

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	2011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Multiple teams including the Agronomic Crops Team are working closely with industry personnel to develop optimal IPM practices that will allow judicious use of insecticides and reduce the cost of crop production.

What has been done
IPM meetings in peanuts and other row crops have been success in attendance and in response. Funding from production group check-off funding has allowed the team to provide information during meetings and to answer calls based on IPM trainings they have received through programs lead by three entomology specialists. Newsletters, articles written, and programs specifically designed for the clientele have been put into place.

Results
Long-term use of IPM strategies is now on the rise as indicated by surveys and by personal observation of our team members when making on-farm calls. The high cost of inputs, concern for protecting the environment, sustaining food and fiber sources in Alabama and the entire U.S. have all been part of the impetus behind ensuring that IPM strategies are implemented and on the first order of importance when managing pests in field crops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

External factors that affected the Planned Program Outcomes included the following: natural disasters, economy, appropriations changes, public policy changes, government regulations, competing public priorities, competing programmatic challenges, and population and demographic changes across the state. The nature of agricultural sciences and biological systems ensure that external factors are common occurrences as are the policy and political changes that can change the landscape quickly and permanently with respect to short- and long-term planning windows. It is the unforeseen, unpredictable factors that cause so many problems for our planning process. While the planning process certainly helped us in 2011 to have organization and purpose to our efforts, rigid processes that are not allowed flexibility hampered our field efforts to some extent. Flexibility that comes with understanding the external factors was considered as a positive by our team. Many of the situations encountered in 2011 could not be foreseen like drought and early-season hot weather; however, it should be noted that the agronomic crops team has historically responded in a timely and appropriate fashion when dealing with these situations. In 2011, as in other years, dealing with unforeseen events meant that additional stakeholder meetings had to be planned while other meeting and trainings with clientele had to be postponed. Programmatic plans must take into consideration that flexibility is an absolute necessity if we are to be successful in future years as we were in 2011. Policy, funding, and staffing changes were positive and negative during the 2011 programmatic year. Reduction in overall funding due to national and economic downturns has made hiring staff into vacant positions a challenge. This was not different in 2011 where a number of new hires came in the ACES program. However, newly hired staff outside of administrative positions was offered a one to two year contract. The net result in 2011 was that positions that had historically been career positions served as a training ground for young agents and specialists to move on after their contract to private industry. Salary differences between private industry and ACES made it difficult to hire and maintain young staffing.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Aerial web blight (a foliar disease of soybeans) was detected in a 100-acre field in Sumter County in July. The grower was contacted and advised to apply a fungicide as soon as possible to avoid significant yield loss from the disease. Based on weather conditions I estimated a 10% yield loss would have occurred without this action by the grower who followed through on my recommendation. Results: Field produced 38 bushels/acre x $11.60/bushel x 100 acres = $44,080; Cost of fungicide application was $20/acre x 100 acres = $ 2,000; Crop value with fungicide application $2,080. We estimated a 10% yield loss would have occurred without the fungicide application resulting in a yield loss of 3.8 bushels/acre at $11.60/bu x 100 acres = $4,408 estimated loss. Our rapid response increased grower profit by $2,408 in this situation.
A grower in Pickens County asked if they should apply a fungicide to a 250 acre soybean field for general disease control in September. Based on the weather conditions and the advanced growth stage of the crop, we deemed the crop not at risk to yield loss from foliar diseases and recommended that they not apply a fungicide (at a cost of $20/acre). The grower did not spray the 250 acre field with fungicide and a return visit to the field showed that there was no yield loss due to foliar diseases. Our rapid response increased grower profit by approximately $5,000 by avoiding an unnecessary fungicide application and reduced the potential for environmental impact to 0.
Our team has conducted seeding rate studies at the WREC in SE AL. We have used the seeding rate of 1.7 - 1.8 seed per foot as the low seeding population. The reason being is that many growers are using 2 seed per foot to 2 seed per 13 or 14 inches of row in an effort to reduce the cost of production. We studied 5 different seeding rates and the rates ranged from the low seeding rate to 4.5 seed per foot. In 2010, we also tested this with 3 different varieties, replicated four times. The data was variable in yield except one trend was consistent for all three varieties and seeding rates. From the low seeding rate of 1.7 - 1.8 to the second seeding rate of 2.4 seed per foot, we saw around 160 pounds per acre more lint cotton being produced on average. After several group production meetings and farm visits this spring, producers have decided to not lower their seeding rates this year or they have decided to increase their seeding rate because of the yield that was not being captured to a seeding rate that was too low. With cotton at $1.32 per pound, this information can lead to significant income increases in 2011. If the usual acreage of 175,000 acres is planted in the Wiregrass this year, the impact from this information from Extension could lead to nearly 37 million dollars in revenue from the addition seeding investment of 4.2 million dollars, just from the wiregrass area alone.

Key Items of Evaluation

Through plenary evaluation training events conducted by Dr. Ayanavah Majumdar, entomologist and specialist with the Alabama Cooperative Extension System located in SW AL, our team members were much more familiar with evaluatory procedural techniques that in past years. For example, the GIS SPI, lead by Chris Dillard, GIS specialist and leader of the ACES GIS Program, the following was developed and conducted: 12 workshops in Tuscaloosa, Sumter, Conecuh, Mobile, Autauga, Cullman, Dallas, Clarke, Blount, Henry, Mobile, and Lee Counties; support manuals for participants, and tutorial videos developed through the use of Google Earth. Evaluation of the first eight events indicated that there were 142 attendees, workshop quality was at 90%, and that there was a 23% increase in the overall knowledge level of the participants. The challenges that were encountered included attendees who were not comfortable with the technology (initially), older laptop computers,

attendees with many varied skill levels, and the lack of additional hardware for larger trainings. Overall interest has increased such that a second tier educational process is under development and will be offered in 2012 as "GPS 201".

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Farm Management and Agricultural Enterprise Analysis

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	45%	0%		
602	Business Management, Finance, and Taxation	35%	0%		
605	Natural Resource and Environmental Economics	10%	0%		
801	Individual and Family Resource Management	10%	0%		
	Total	100%	0%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	8.5	0.0	0.0	0.0
Actual Paid Professional	5.7	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
83112	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
197782	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
591619	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are conducted relative to one Extension Team Project:ETP16D, Agicultural Business Management and Profitability.Detailed descriptions of the activities of this project are available on the ACES Intranet.In summary, Economists work with the Farm Analysis cooperators to assemble and maintain accurate farm records.They compile and analyze these records and develop standard financial and business statements.They advise cooperators relative to their operations in areas such as feasibility of alternative enterprise mixes, alternative technologies, alternative markets and methods, and alternative resource mixes.Consideration is given to impacts on efficiency, finance, taxation, income, and estate planning.Individual farm level data are compiled into Association and State Summaries which focus on major farm enterprises in the State and major production areas.Analyses are provided for lower, middle, and upper thirds of farms so as to isolate practices and conditions that might relate to particular farms being better or worse than others.The better farms can potentially serve as benchmarks for other farms.Information and knowledge gained from working with participating farmers is used to advise others who might be interested in particular practices, technologies, or conditions that promote effficiency and profitability.Basically, the program involves much real world, one-on-one education and advisement.

2. Brief description of the target audience

Primary focus and interaction is on cooperators in the State's four Farm Analysis Associations.However, data and information from these contacts will be used in conjunction with knowledge and expertise of Economists to guide and advise numerous other clientele, including but not limited to: other farmers; lenders; governmental authorities; tax consultants and accountants; research, teaching, and extension faculty; and leadership of agricultural commodity organizations.This program involves much education and training in farm management in the most broad terms, including decision making related to feasibility of enterprises, enterprise mixes, technologies, and/or alternative markets and methods; resource allocations; financial considerations; tax issues and ramifications; estate tax issues and ramifications; and family living conditions.

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	4750	62000	150	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	12	4	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Direct advisement and counselling of roughly 275 association members.

Year	Actual
2011	275

Output #2

Output Measure

- Advise and counsel other, non-member, clientele

Year	Actual
2011	75

Output #3

Output Measure

- Publish Annual Summaries

Year	Actual
2011	4

Output #4

Output Measure

- Participate in tax and commodity meetings

Year	Actual
2011	24

Output #5

Output Measure

- Indirect impacts on decisions of those who attend meetings, read publications, and/or review blog listings or newsletters.

Year	Actual
2011	95

Output #6

Output Measure

- Farming as a business versus a hobby

Year	Actual
2011	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Contacts will better understand the farm decision environment.
2	Direct and indirect contacts will make better, more informed, decisions.

Outcome #1

1. Outcome Measures

Contacts will better understand the farm decision environment.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	395

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
All of Alabama nearly 50,000 farms are required almost daily to make farm decisions. The vast majority of these farms make decisions with profit as the primary goal. Understanding the decision environment and how decisions impact the producers? profitability is critical to the long-term, sustainability of the farm. Demand for decision-making tools exist with many beginning farmers as well as established farms.

What has been done
Extension economists have developed nearly 150 fact sheets, timely information bulletins, Excel spreadsheets, enterprise budgets, Power Point presentations, popular press articles, and other publications to assist producers with becoming better decision makers. Team members conducted over 400 one-on-one meetings and participated in over 100 group meetings in conjunction will all other commodity teams.

Results
From one-on-one meetings 300 producers have improved their knowledge of the decision environment. Through group meetings and online downloads over 3,000 producers have increased their knowledge of policy changes, government programs, and the risks and returns of the decision environment for commercial horticulture, agronomic crops, and animal agriculture. All producers have indicated through assessments of team information that they were exposed to new information during meetings.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

605	Natural Resource and Environmental Economics
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

Direct and indirect contacts will make better, more informed, decisions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	200

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
All of Alabama nearly 50,000 farms are required almost daily to make farm decisions. The vast majority of these farms make decisions with profit as the primary goal. Making more informed decisions directly impacts the producers? profitability is critical to the long-term, sustainability of the farm. Demand for decision-making tools exists with many beginning farmers as well as established farms. Producers are seeking methods to cut input costs and reduce tax burdens.

What has been done
Extension economists have developed nearly 150 fact sheets, timely information bulletins, Excel spreadsheets, enterprise budgets, Power Point presentations, popular press articles, and other publications to assist producers with becoming better decision makers. Team members conducted over 300 one-on-one meetings and participated in over 100 group meetings in conjunction will all other commodity teams. Summary benchmark data was developed from comprehensive records collected from one-on-one meetings with farm analysis participants.

Results
About one third of the producers (1,000 producers) who have been exposed to decision making information actually adopted tools for improving their decision making ability. Producers have used information to manage production, financial, legal and other risks related to their operation. Producers have made simple production and record keeping changes, developed succession plans and wills, improved tax planning, as well as record keeping practices. Benchmark data provided by the farm analysis association members assisted producers with evaluating their operation based upon similar operations and making positive changes. Nearly 100 producers have began using new technology such as smart phones and internet material for marketing and decision aids.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
605	Natural Resource and Environmental Economics
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Participation of farmers in Asso)

Brief Explanation

Alabama was hit with major tornadoes during 2011 which influenced programs delivered and the ability to deliver some programs. Many direct farm cooperators were negatively impacted by storms. The team responded by provided facts and decision aids to assist producers with insurance issues, tax planning and the ability evaluate decisions to rebuild the farming operation. Human resource constraints related to retirements has made it difficult to meet the demand for services. One of the major outcomes from the Farm Analysis program is a state summary of all commodities that serves as a benchmark. The retirement of an Extension Economist in late 2010 made it impossible to complete a statewide report for 2010 and for 2011. A retirement a few years prior also reduced the number of clients directly served by the Farm Analysis program. A new specialists has been required to basically start from scratch to rebuild the program in the Wiregrass region of the state.

The economy has increased the demand for the services we deliver because the high cost environment has made producers more aware of the impact each decision can make on profitability. The amount of volatility in commodity markets has also caused producers to be more interested in being educated about economic and marketing factors. With a relatively small team and the demands to provide services to farm analysis clients and producers of all agricultural commodities, the team cannot effectively address all concerns. The average age of producers is continuing to rise, which is also an issue for program delivery.

Changes in immigration laws in Alabama has also made a huge impact on how we deliver programs. Producers are trying to determine planting intentions and future enterprise mixes with major changes in the amount of farm labor available. A large percentage of migrant labor has left the state.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The team developed a pre and post assessment tool to better evaluate changes in the knowledge and attitude of Farm Analysis clients who they provide specialized one-on-one training.

In Response to the April 27th tornadoes in North Alabama, specialists developed presentations for Post-Storm Tax Management strategies that focused on Timber and Poultry producers. The team was able to document that strategies presented were implemented by 11 producers. It is likely that many other producers who viewed the video conference adopted some of the strategies presented. These strategies will result in significant reductions in tax burdens which can assist producers with rebuilding their operation.

From post evaluations at Farming: Hobby vs Business presentations 175 producers (over 50% of group participants) indicated that they increased their knowledge of IRS criteria for determining whether their operation would be considered a business or a hobby. 70 producers (over 20% of group meeting participants) indicated that they would definitely implement practices that were presented by specialists to be better prepared for a farm tax audit.

84 Farm Analysis clients provided detailed records that will be used to develop benchmark information for other producers in the state.

9 producers have used information and resources provided by team members to develop estate and succession plans for their operation. This area will be more heavily promoted in future years and it will have a substantial impact on the long term sustainability of farms in Alabama.

Key Items of Evaluation

The team developed a pre and post assessment tool to better evaluate changes in the knowledge and attitude of Farm Analysis clients

The team was able to document that Post-Storm Tax Management strategies presented were implemented by 11 producers. It is likely that many other producers who viewed the video conference adopted some of the strategies presented.

From post evaluations at Farming: Hobby vs Business presentations 175 producers (over 50% of group participants) indicated that they increased their knowledge of IRS criteria for determining whether their operation would be considered a business or a hobby.

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84 Farm Analysis clients provided detailed records that will be used to develop benchmark information for other producers in the state.

9 producers have used information and resources provided by team members to develop estate and succession plans for their operation.

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

Aquaculture, freshwater, and marine resources

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	5%	15%		
112	Watershed Protection and Management	10%	20%		
134	Outdoor Recreation	15%	20%		
135	Aquatic and Terrestrial Wildlife	10%	5%		
136	Conservation of Biological Diversity	5%	5%		
302	Nutrient Utilization in Animals	5%	0%		
303	Genetic Improvement of Animals	5%	0%		
307	Animal Management Systems	15%	0%		
311	Animal Diseases	10%	0%		
601	Economics of Agricultural Production and Farm Management	5%	0%		
605	Natural Resource and Environmental Economics	5%	5%		
806	Youth Development	10%	30%		
	Total	100%	100%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	8.0	0.0	0.0	0.0
Actual Paid Professional	4.4	0.1	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
71220	2940	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
154527	2940	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
464655	4160	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The primary activities in this area are associated with 5 statewide focus areas and general activities of our Program Area.These are:

Aquaculture/Aquascience Education designed to support school teachers, administrators and others to establish and improve aquaculture/aquatic science programs within Alabama schools.

- maintain education section of www.alearn.info web site
- Conduct school visits
- Conduct field days and exhibitions of aquaculture and its potential as a career
- Provide intensive training for teachers from AL, GA, and CT on recirculating aquaculture systems as tool to teach math and science
- Conduct activities and camps for students interested in fisheries, aquaculture and aquatic ecology
- Support K-12 programs with fish, supplies and equipment with funded grants

Management of recreational sportfishing ponds designed to provide training and support to pond owners

- public workshops and presentations involving pond management
- Newspaper articles, radio spots, and television appearances
- Maintain pond management section of www.alearn.info web site
- Conduct surveys of pond owners to provide feedback to extension

- Weed and water quality analyses and recommendations

Coastal resources and mariculture program designed to address environmental and economic issues in the coastal zone.

- Support for the oyster gardening program
- Develop a working demonstration off-bottom oyster culture system
- analysis of working waterfronts
- educational support for the clean marina program
- Maintenance of the Auburn University Marine Extension and Research Center web site

Aquaculture extension to increase the viability and profitability of producers.

- Development of and multiple training sessions involving intensive aquaculture systems
- Maintenance of the aquaculture portion of the www.alearn.info web site
- Responses to fish kills in aquaculture
- Provide reactive services
- Provide economic analyses and projections to the industry

General Activities of this team:

- Training of agents in basic fish biology
- Cooperation and participation with other agencies concerning timely aquatic resource issues
- Provide angler education presentations
- Collaboration with Forestry and Natural Resources in support of the Alabama Water Watch volunteer water quality monitoring program

2. Brief description of the target audience

While our activities potentially impact everyone given the importance of water and water management, our focused audiences include: highshcool math and science teachers and students, recreational anglers, commercial fishers, recreational fish pond owners, aquaculture producers, aquatic conservation organizations, 4Her's involved in aquatic programs.

3. How was eXtension used?

Specialists from this extension team contributed to the eXtension COP for freshwater aquaculture as experts available to answer submitted questions. Dr. David Cline, and Area Specialist in this program, was instrumental in forming this COP. The freshwater aquaculture COP covers production

aquaculutre, fish pond management, and ornamental culture and management.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	9532	2136796	780	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	12	1	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- pond management workshops

Year	Actual
2011	20

Output #2

Output Measure

- Aquaculture workshops

Year	Actual
2011	0

Output #3

Output Measure

- Number of teacher trainings

Year	Actual
2011	6

Output #4

Output Measure

- Number of visits to our extension website www.ALEARN.info

Year	Actual
2011	130826

Output #5

Output Measure

- Number of Aquatic Natural Resource and Oyster Gardening events

Year	Actual
2011	13

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Aquaculture/Aquascience Education Short-term * Improve attendance and performance of students in school * Increase appreciation of both aquaculture and aquatic natural resources by students and teachers Long-term * Increase graduation rates * Produce better trained labor for aquaculture
2	Improving the Survival of Live Bait in Bait Shops Short-term * Train bait dealer in basic water quality and proper handling techniques * Increase profitability of bait dealers
3	Management of recreational sportfishing ponds Short-term * Increase the understanding of pond function and management by owners Long-term * Reduce improper management by consultants * Increase satisfaction and enjoyment of ponds by owners * Increase profitability of pay-to-fish operations
4	Coastal resources program Short-term * Increase public awareness of coastal environmental issues * Increase public awareness of loss of working waterfront Long-term * Establish a viable mariculture industry in Alabama
5	Aquaculture Short-term * Increase the knowledge of producers in more efficient practices * Expand the use of hybrid catfish in production Long-term * Diversify species produced in Alabama * Improve marketing of Alabama aquaculture products * Cause a shift in the industry to more efficient intensive production methods
6	General Activities * Increase the public understanding of water conservation * Increase public appreciation for watershed and wetland conservation and management * Improve angler education to increase understanding of fisheries management and increase enjoyment of angling

Outcome #1

1. Outcome Measures

Aquaculture/Aquascience Education Short-term * Improve attendance and performance of students in school * Increase appreciation of both aquaculture and aquatic natural resources by students and teachers Long-term * Increase graduation rates * Produce better trained labor for aquaculture

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Using aquaculture in the classroom provides K-12 teachers with a tool to reach students in a way different from in-class lectures. This is a hands-on experiencial learning tool that can be used in all areas of science, math, and in fact other areas including marketing, design, computer science, etc.

What has been done
Training events have provided teachers with the tools needed to establish and maintain limited aquaculture facilities. These facilities are primarily at high schools but a few are located at middle schools.

Results
The most significant training was a 5 day event where Extension Specialists and other faculty worked with 22 teachers to provide them detailed information and curricula on the use of aquaculture in the classroom. Teachers in the training rated the experience as excellent. Scores on tests increased from 61% pre-training to 94% correct post-training.

The teacher resources section of our Extension website (www.ALEARN.info) remains one of the most visting parts of the site providing resources to educators across the world.

Aquaculture in the high schools has remained a viable program in spite of declining funding.

4. Associated Knowledge Areas

KA Code	Knowledge Area

302	Nutrient Utilization in Animals
307	Animal Management Systems
311	Animal Diseases
806	Youth Development

Outcome #2

1. Outcome Measures

Improving the Survival of Live Bait in Bait Shops Short-term * Train bait dealer in basic water quality and proper handling techniques * Increase profitability of bait dealers

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Management of recreational sportfishing ponds Short-term * Increase the understanding of pond function and management by owners Long-term * Reduce improper management by consultants * Increase satisfaction and enjoyment of ponds by owners * Increase profitability of pay-to-fish operations

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Recreational fishing ponds are important fisheries resources across the US and particularly in Alabama. Phone call and site visits to these ponds can dominate the reactive portion of the time of several Regional Agents, Area Specialists, and Statewide Specialists in Alabama during the spring and early summer. Ponds provide recreational and economic opportunities for landowners.

What has been done
Our team provides reactive services and programtic development in the area of pond management. The primary modes of program delivery (other than reaction to individual pond

owners' problems) are county/regional workshops and maintainence of internet information resources.

Results
Approximately 20 workshops were held during 2011. Of those 7 were evaluated with pre vs post testing of knowledge. These tests reveiled a significant increase in knowledge (approximately 80% improvement in scores). Discussion with our state agency indicates that our efforts in Extension may be resulting in fewer pond related calls and requests coming to them.

Research in the area of pond enhancement through the use of pelleted feeds was completed in 2011 demonstrating the effect of attraction, increased growth in bluegill, and somewhat increased growth in juvenile largemouth bass.

4. Associated Knowledge Areas

KA Code	Knowledge Area
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
307	Animal Management Systems
605	Natural Resource and Environmental Economics

Outcome #4

1. Outcome Measures

Coastal resources program Short-term * Increase public awareness of coastal environmental issues * Increase public awareness of loss of working waterfront Long-term * Establish a viable mariculture industry in Alabama

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
While our coastline is small, the 2 counties that make up this region of the state are critical economic engines for all of Alabama. Development in this region, industrial impacts, and changes in both social and economic climate threaten to impact the environment, and reduce the

sustainability and viability of tourism, fisheries, and mariculture.

What has been done
Our team has worked with community leaders to provide training the area of community resilience. Our specialists provided workshops, training, and help with proposal writing and submission to local city planners to help these communities maintain sustainable working waterfronts. The oyster gardening program coordinated the efforts of more than 100 participants. A demonstration farm for off-bottom culture of oysters was established and tests of culture approaches conducted.

Results
Over 60 facilitors were trainined in the use of the "Resiliency Index for Communities". Two communities are participating in a multi-year evaluation of the index as a planning/evaluation tool. External funding was sought for the City of Gulf Shores to help them incorporate working waterfronts into city planning. Oyster Gardeners conitinue to produce oysters to help restor reefs in Mobile Bay and adjoining waters. In 2011 more than 55,000 oysters were produced; enough to restore nearly 3 acres of reef. Our Specialist has worked with 3 coastal residents to start off-bottom oyster farms in Alabama's coastal waters, including one farm (Point aux Pins Oyster Farm in Bayou la Batre) that has surpassed $15,000 in annual gross sales. Further expansion of sustainable oyster production continues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
302	Nutrient Utilization in Animals
307	Animal Management Systems
311	Animal Diseases
601	Economics of Agricultural Production and Farm Management
605	Natural Resource and Environmental Economics

Outcome #5

1. Outcome Measures

Aquaculture Short-term * Increase the knowledge of producers in more efficient practices * Expand the use of hybrid catfish in production Long-term * Diversify species produced in Alabama * Improve marketing of Alabama aquaculture products * Cause a shift in the industry to more efficient intensive production methods

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Alabama is one of the largest producers of warm water aquaculture products in the US. In freshwater, channel catfish (and hybrids) are the dominant species produced in Alabama. The downturn in the economy, increased costs, and competition from both domestic and imported seafood and other meat has resulted in a dramatic decline in catfish aquaculture.

What has been done
Our Extension team in coordination with other Extension professionals and research faculty from multiple institutions has focused on 3 areas. First, development of new species for culture to diversify the industry. Second, develop new intensive culture techniques to reduce cost. Third, to increase the efficiency of the entire production and marketing cycle via a lean manufacturing and buisiness approach. Workshops and trainings involving labor, suppliers, marketers, producers, and processors have been done.

Results
While the catfish industry has declined across the Southeast, Alabama has experinced less decline than neighboring states. New quality control efforts have been developed based on the color of the catfish fillet that will improve marketability. Both striped mullet and blue crabs have been shown to be able to be grown in the saline groundwater of West Alabama. The number of intensive in-pond raceway systems continues to increase in Alabama.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
601	Economics of Agricultural Production and Farm Management

Outcome #6

1. Outcome Measures

General Activities * Increase the public understanding of water conservation * Increase public appreciation for watershed and wetland conservation and management * Improve angler education to increase understanding of fisheries management and increase enjoyment of angling

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Protection and management of aquatic resources is critical to the long term sustainability of ecosystems and human society. Anglers, home owners, city planners, farmers, ranchers, and many other interest groups are direct consumers of the information we provide. Indirectly, everyone is a constituent of this program due to the need for sustianable clean water.

What has been done
Youth fishing and aquatic resource information activities involving several of our Specialists have been conducted reaching over 300 school age children. A Specialist on the team is actively involved in a stream restoration demonstration project. Workshops on the construction of rain barrel collection systems and rain gardens for water conservation have successfully trained many in the public.

Results
While some of this general response work is difficult to evaluate, we have clearly reached a significant population through or mass media efforts, workshops, and website development. Efforts in water conservation and watershed management resulted in the following: 1,000 linear feet of stream stabilized, 0.5 acres of floodplain enhanced, construction of 50 rain barrels for water conservation, and the installation of 5 low impact development stormwater practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

112	Watershed Protection and Management
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
605	Natural Resource and Environmental Economics
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (competing imports for seafood)

Brief Explanation

The downturn in the economy continues to strongly limit program delivery. Given the reductions in funding to higher education in general and Cooperative Extension in particular, we have not been able to replace personnel that are important throughout the state.

Competition from imported seafood created a real opportunity for education and evolution in the aquaculture industry. Clearly the industry needed to become more efficient and responsive to the market if it was to remain viable.

The BP oil spill in the Gulf of Mexico in 2010 continues to impact the regional economy and focus the efforts of Extension personnel. The oil spill caused a shift in efforts to deal with this issue along the coast.

Drought was severe in 2010-2011. This created both problems and opportunities. In some cases the drought eliminated ponds reducing the interest in pond management; however, the drought refocused many in the public concerning the importance of available clean water.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Pond management

Evaluations of pond management workshops have indicated that the participants valued the information they received. A pre vs post test at 7 of the workshops produced an average increased score from 35% to 79% correct indicating an increase in knowledge of the

area.

Aquaculture/ Aquascience in the classroom

A 1-day teacher workshop focused on using aquaculture in K-12 curricula produced a significant increase in correct score (18% increasing to 82%) in a pre vs post test of subject matter knowledge. (See further impacts in the next section)

Youth development

Our youth fishing events featuring skills such as casting, tackle crafting, and actual angling as well presentations about aquaculture, natural resources, and associated career opportunities continue to be well received and requested by the agents and the youth groups involved. For example our contribution to the Chambers County outdoor field day for high school students sponsored by the local forestry commission was rated as excellent and among the most interesting of the subjects presented by the students involved.

Coastal programs

Thanks to training by our team, 2 coastal communities are participating in a multi-year evaluation of the "Resiliency Index for Communities" as a planning/evaluation tool indicating the value of the training to the community. External funding was sought for the City of Gulf Shores to help them incorporate working waterfronts into city planning. (See further impacts in the next section)

Aquaculture

Our team continues to evaluate and develop new tools that are helpful and supportive of the aquaculture industry including new evaluation of a color scale to rate the market quality of catfish fillets and new intensive in-pond raceway systems. Adoption of these practices by increasing numbers of producers and processors represents successful impact in the industry. (See further impacts in the next section)

Watershed and water conservation

Efforts in water conservation and watershed management resulted in the following: 1,000 linear feet of stream stabilized, 0.5 acres of floodplain enhanced, construction of 50 rain barrels for water conservation, and the installation of 5 low impact development stormwater practices. The absolute impact of these effort on the quality and quantity of available water is virtually impossible to determine; however, the adoption of practice does indicates an increase in knowledge by the participants.

Key Items of Evaluation

Aquaculture/ Aquascience in the classroom

An intensive 5-day workshop was conducted to train K-12 teachers in the techniques for using aquaculture and aquatic sciences in the classroom. Twenty two teachers participated in the training. Teachers were asked to rank various measures of their satisfaction with the training(1 as dissatisfied and 5 as completely satisfied); the average score was 4.8. Pre vs. post training testing showed an increase from 61% to 94% correct answers indicating a strong increase in subject-matter knowledge. This training plus other support has helped maintain aquaculture/aquascience in approximately 60 active aquaculture/aquascience programs in schools in Alabama.

Aquaculture

Our ACES team continues to lead efforts to help the Alabama catfish industry to modernize and remain competitive. The Pond-to-Plate program has emphasized LEAN manufacturing and continuous improvement practices in training workshops and facilitated meetings. While the industry has seen declines Alabama's catfish production has declined

less than 20% while the other major catfish producing states has dropped more than 50% in the past 5 years. The Pond-to-Plate program has contributed to improving the efficiency of Alabama's catfish aquaculture industry. The program has evolved to form a new business-oriented institute at Auburn University that will initially be led by Specialists from our team. This institute will bring together expertise from all relevant disciplines (aquaculture, business, engineering, food science, etc.) to help advise and analyze the catfish culture industry.

Oyster Gardening and Culture

In the Oyster Gardening Program, individual participants from around Mobile Bay grow out baskets of oysters over the summer. These oysters are then stocked to help restore the reefs that are vitally important to the ecology and commercial fisheries. In the process the participants contribute to restoration and learn about the ecology of the ecosystem. Over the 11 years of the program, participants have produced about 486,000 oysters, enough to restore 24 acres of reef. In 2011, more than 100 participants from 49 sites produced more than 57,000 oysters enough to restore nearly 3 acres of reef.

Development of sustainable culture of valuable fish and shellfish in our marine waters could provide a positive economic impact to the region and help diversify the local seafood industry. Off-bottom oyster culture is example of an approach that could have positive economic impact while causing little negative and in some ways positive effects in the environment. Our ACES team has worked with 3 residents to start off-bottom oyster farms in Alabama's coastal waters, including a farm that has surpassed $15,000 in annual gross sales. This farm is planning to double production in the coming year, and the other two farms expect to begin harvest this year. ACES has worked with Organized Seafood Association of Alabama to permit a nearly 60-acre off-bottom oyster farm. Beginning production of at least 1 million oysters will generate initial economic impact of nearly $0.5 million to the area.

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

Poultry Production and Processing

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
307	Animal Management Systems	35%	0%		
311	Animal Diseases	15%	0%		
403	Waste Disposal, Recycling, and Reuse	25%	0%		
601	Economics of Agricultural Production and Farm Management	25%	0%		
	Total	100%	0%		

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual Paid Professional	5.6	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
81499	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
193944	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
551540	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Our activities include state and regional training seminars organized by our extension group, the Alabama Poultry and Egg Association and the U.S. Poultry and Egg Association. In addition, we produce popular press materials in the form of Extension publications,Timely Information Sheets and articles in trade journals to disseminate materials to producers. We also provide direct service to poultry companies when asked to do so. This takes the form of site visits and phone consultations. We also participate in result demonstrations to test field techniques of interest to poultry producers. Seminars and consultations with small flock producers have increased in recent years as more consumer interest has emerged in this area.

2. Brief description of the target audience

Target audiences include;
Poultry growers (farmers)
Poultry industry technical personnel
Allied industry support personnel
Backyard poultry flock owners
Gamebird (quail, pheasant, chukor) producers

3. How was eXtension used?

eXtension has recently increased in use as Jacquie Jacobs at the University of Kentucky has started a small flock and organic site. Auburn is helping with this effort.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10000	25000	500	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2011
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	5	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Train poultry industry personnel through workshops

Year	Actual
2011	6

Output #2

Output Measure

- Produce popular press publications

Year	Actual
2011	15

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Increase producer awareness of methods to reduce waste management issues on farm
2	Increase producer confidence in litter management techniques
3	Train poultry industry personnel in poultry house technology and management
4	initiate Master Poultryman Program for broiler growers

Outcome #1

1. Outcome Measures

Increase producer awareness of methods to reduce waste management issues on farm

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Waste Management is an important societal issue in poultry peoduction areas.

What has been done
Producer training on manure management

Results
Continued trainig of producers on litter sales and/or application to crop lands.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
403	Waste Disposal, Recycling, and Reuse

Outcome #2

1. Outcome Measures

Increase producer confidence in litter management techniques

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Litter management is an ongoing issue of importance to poultry growers and poultry industry personnel.

What has been done
Continued grower training on the use of windrow composting to reduce in-house disease through regional grower seminars.

Results
Windrow composting continues to increase as a method to manage disease with reused litter.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
311	Animal Diseases
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Measures

Train poultry industry personnel in poultry house technology and management

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Technology of poultry production changes rapidly and is an important part of today's profitability for poultry producers.

What has been done
National Poultry Technology Center seminars, newsletters and website are widely used regionally and nationally.

Results
National Poultry Technology Center seminars, newsletters and website are widely used regionally and nationally.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #4

1. Outcome Measures

initiate Master Poultryman Program for broiler growers

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations

Brief Explanation

Recent interest in eating local has drastically increased the proportion of time some portions of our group have spent with small flock owners. Individual consultations, seminars and extension publications have all increased in this area.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluations of backyard flock seminars have been favorable. Exit surveys indicated that flock owners were pleased to leave the seminar with enhanced information on poultry husbandry, so increased knowledge was a primary benefit mentioned.

The Alabama Poultry and Egg Association evaluates all joint seminars in which we are stakeholders. Evaluations have been consistently high through those evaluations as to the usefulness of seminar materials. Exit surveys have shown that poultry company personnel have gained knowledge through the seminars, and were pleased with the seminar content.

Seminars involving lighting sources through the National Poultry Technology Center have helped to facilitate a National move from incandescent lighting to cold cathode lighting in broiler houses.

Extension poultry efforts to train the industry in the use of windrow composting have led to limited adoption of this technique. The Alabama Poultry Disease Consortium does suggest the use of this technique to kill organisms in the litter during poultry disease outbreaks.

Key Items of Evaluation

Seminars involving lighting sources through the National Poultry Technology Center have helped facilitate a National move from incandescent lighting to cold cathode lighting in broiler houses.

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