

# 2012 Fort Valley State University and University of Georgia Combined Research and Extension Annual Report of Accomplishments and Results

Status: New

Not Yet Submitted

## I. Report Overview

### 1. Executive Summary

This executive summary will provide background information regarding the state of Georgia and the development of Georgia Report of Accomplishments. This summary will provide background data for the state and universities, program highlights, examples of specific collaborative efforts between the University of Georgia (UGA) and Fort Valley State University (FVSU) and brief summaries for each of the ten planned programs.

#### **BACKGROUND**

Fort Valley State University and The University of Georgia address major agricultural issues as well as many other problems facing rural and urban areas, the environment, families and youth. This Accomplishment Report represents the coordinated effort between the state's 1890 and 1862 institutions: Fort Valley State University (FVSU) and the University of Georgia (UGA), and includes joint planning between Experiment Stations and Extension units at both universities.

Georgia, one of the original 13 colonies, has a land area of 57,919 square miles, which makes it the largest state east of the Mississippi River (24th overall). The total area of the state's three largest counties - Ware, Burke and Clinch (2,565 square miles) - is greater than the area of the entire state of Delaware (2,489 square miles). Georgia falls within five major physiographic regions: the Blue Ridge Mountains in the northeast; the Ridge and Valley Province and the Cumberland Plateau in the northwest; the Piedmont across central Georgia; and the Coastal Plain in the south. Elevations range from sea level to 4,784 feet at Brasstown Bald in the Blue Ridge Mountains.

Georgia's 2010 population was 9,687,653. The 2010 population listed in the 2012 Georgia County Guide reported 28.7% of Georgians were age 19 or younger and 10.7% of the state's population was 65 or older. Georgian's of white decent accounted for 59.7% of Georgians, 30.5% were of African American descent and 8.8% were of Hispanic descent. From 2000 to 2008 there was a substantial increase in the Hispanic/Latino descent, rising from 5.3% in 2000 to 8% in 2008, yet remains level to date.

Georgia Cooperative Extension has 167 offices in 157 of Georgia's 159 counties. FVSU and UGA county personnel are housed jointly in county offices. Extension programming in the areas of Agricultural and Natural Resources, Family and Consumer Sciences and 4-H is delivered as both individual county effort and as multi-county programming. State faculty members deliver training to county agents and programming directly to clientele, when appropriate. The research programs of FVSU and UGA are conducted through the Agricultural Experiment Stations system. In addition to Georgia's four main campuses located in Athens, Fort Valley, Tifton and Griffin, Georgia utilizes several research and education centers located strategically throughout the state.

This joint Accomplishment Report was developed around core programs and targeted issues. The programming directions of core programs and the identification of targeted issues are decided under a structured program development system. The Georgia program development model is a multiple step process that is operational every year. The model includes a process for assessing needs and identifying problems. It also includes program evaluation to determine impact. The Georgia program development

model works in unison with multiple advisory systems at both county and state levels.

The Georgia Federal Plan of Work does not attempt to capture all of the work of the colleges' faculty members. It is intended to document the plans and actions of the faculty members receiving specific formula funds. The majority of these dollars are used to fund core programs at the state level. These core programs range from the traditional animal and plant production, family and consumer skills, to the emerging issue of biofuels. The goals of these programs are to demonstrate short and long-term impact. However, the greatest impacts of these core programs are the foundations created to support and leverage additional resources beyond state matching funds.

The CAES 2020 Strategic Planning Committee implemented a comprehensive plan to gather data from faculty, staff, students, alumni, stakeholders and key decision makers at the university, in the agricultural industry and in state government. In addition to meetings held on the Athens campus, regional meetings were held in Tifton, Griffin, Acworth, Lyons, Gainesville and at Rock Eagle 4-H Center, with a total of 723 face-to-face contacts. Online surveys were also conducted, resulting in 284 respondents.

Once the data was collected, the committee studied it and identified common themes. The committee then developed goals along with strategies and action steps to reach the goals. Interdisciplinary action teams were established and charged to develop a plan of action for each goal. The action teams began work in October 2012 in the following subject areas: (1) Academic Programs, (2) Outreach, (3) Focus Areas, (4) Basic & Applied Research, (5) Productive and Innovative Faculty & Staff, (6) Funding, and (7) Communication. Benchmarks or indicators/measures of success were to be developed for each strategy.

More information can be found on the CAES Strategic Planning website:

<http://caesplan.caes.uga.edu/index.html>

## **HIGHLIGHTS**

Georgia is involved in many significant programs that positively impact the citizens of the state, the economy, the business arena and the environment. Just a few examples of both small and large programming are highlighted here.

Childhood Obesity: Obesity, which can lead to a host of chronic diseases including diabetes, hypertension, arthritis, asthma, cancer and heart disease, is a serious concern in Georgia. FACS and 4-H offers several programs to help Georgians get fit, become informed, and make healthier lifestyle choices. A few examples are Walk Georgia, Health Rocks!, Walk-A-Weigh, and Cooking for a Life Time.

Climate Change: Research focused on water conservation options through management changes, included turfgrass water management, conservation tillage in row crop areas, and irrigation scheduling for all areas through improved sensing and prediction of soil water deficits and rainfall.

Global Food Security and Hunger: Research efforts resulted in: **Grain crops** - Improvement of yield, efficiency, and profitability of summer and winter grain production; **Peanut** - Development of the agronomic practices that provide producers yield and quality and result in maximum economic return, while maintaining a sustainable cropping system; **Soybean** - Evaluation of agronomic practices such as variety evaluations, Asiatic soybean rust detection and control, and plant growth regulation; Computer-based software for **weed management** decisions.

Housing and the Near Environment: Faculty associated with federal funds make direct and indirect contacts to clientele. These federally funded positions, in turn, provided further impact to the community

through faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts in the area of housing programming for the residents of Georgia. The Radon Education program continues to provide radon education and test kits to Georgians. This year Extension distributed 2,140 radon test kits.

Sustainable Energy: FVSU's Landowner Initiative for Forestry Education (LIFE) works to increase communications and outreach to small, minority, and limited resource landowners and farmers on current forest management and protection strategies.

Urban Agriculture: Federally funded positions in the area of Urban Agriculture provide additional impact to the community through faculty, staff and volunteers not receiving federal funds. This county level programming results thousands of direct Extension contacts in the area of ANR programming for urban audiences. Georgia has 70 counties that are considered metropolitan according to the UGA CAES Center for Urban Agriculture. Master Gardeners, trained by faculty, volunteer their time across the state each year, increasing availability to clientele manyfold.

## **EXAMPLES OF COLLABORATIVE EFFORTS**

Aquaculture: Each year FVSU hosts four to six aquaculture workshops at FVSU at the GCAD with the participation of University of Georgia. University of Georgia faculty provide presentations pertinent to workshop topics. Each workshop is followed by a tour of the aquaculture greenhouse facilities. FVSU also collaborates with the University of Georgia and Auburn University at the Tri-State Aquaculture booth at the Sunbelt Agricultural Expo in Moultrie each year. This event represents contact with over 6,000 participants who either taste catfish and or gain information about aquaculture.

Meat and Dairy Goat Production and Processing: FVSU and UGA worked together to launch a state youth market goat show and record book program. FVSU brought to the table years of experience in leading such programs. Participation for the youth show continues to increase at the rate of about 25% per year, making this the fastest growing youth livestock program in Georgia. There is on-going collaboration between UGA Extension county agents and FVSU small ruminant specialists. County meetings, in-service and district agent training, and contacts via phone and email on technical issues and problem solving are all examples of collaborative efforts where faculty work together to meet the needs of the state clientele.

Animal Production and Protection: Several UGA faculty serve on FVSU animal and food science master's program graduate committees and participate in research implementation and final review. Collaboration has contributed to the success in classroom as guest lecturer opportunities are provided.

General Programming: Bringing the resources of both universities to the table during joint participation in monthly ANR Extension coordination meetings, planning, and information exchange provides opportunities to build a strong program for Georgia clientele.

Planned Program Summaries: There are ten planned programs for Fort Valley State University and the University of Georgia. Below is a brief summary of each planned program.

### **1. Childhood Obesity**

This planned program has a major research and Extension component to address human development, nutrition and health. Extension specialists train agents to provide educational programming to adults and youth on nutrition and lifestyle choices. Specialists also develop curricula, print media and online consumer resources, and program evaluations.

Specifically, faculty develop in-school curricula on Nutrition and Physical Activity education to

stimulate behavior changes among youth. The Food Product Development Learning Experience focuses on the benefits of healthy and safe food choices. A statewide, high school conference and 4-H Summer Camp Healthy Lifestyle classes is conducted using healthy lifestyle curriculum.

## **2. Climate Change**

This planned program is designed to provide leadership in research, teaching, and Extension activities related to (a) managing water, energy and waste; (b) plant and animal production; and (d) urban agriculture and sustainability.

Researchers look for ways to improve efficient use of resources, develop versatile, multi-purpose products, and minimize ecological damage.

## **3. Consumer Economics and Financial Literacy**

In this program, specialists disseminate personal financial literacy media and materials, and provide personal financial management education classes to agents and select clientele. Faculty also develop a long-range plan for early intervention in financial literacy and consumer education in targeted areas throughout Georgia. The program is often targeted directly to low income and at-risk individuals and families.

## **4. Food Safety**

This plan addresses food safety by providing research and education related to (a) food processing, protection and overall safety; (b) plant production; and (c) animal production and protection. This program is targeted at both commercial and home clientele. The primary goal of this program is to reduce risks of foodborne illnesses and improve public health.

## **5. Global Food Security and Hunger**

This planned program serves to provide education and research to areas of (a) animal production industry and proper management, nutrition and health; (b) agriculture and food defense; (c) aquaculture; (d) meat and dairy goat production; (e) plant production and protection; and (f) sustainability. The goals and work done under this program are vast and far-reaching in the many methods of food production.

## **6. Sustainable Energy**

The development of an integrated biorefinery industry in Georgia stimulates our rural economies, sustains our core forest and agriculture industries, increases our tax revenues, improves our environment, and contributes to addressing the critical problem of global warming. Thus, the state of Georgia has begun investing in Research, Development, Outreach, and Technology Transfer through the University of Georgia, which provides the statewide leadership required to develop and implement this biorefinery industry. Research projects are developed and conducted to improve on existing technologies and identify new and emerging technologies. New markets will be established.

## **7. Housing and the Near Environment**

In this program, faculty develop and disseminate information on indoor air quality, water quality, waste management and energy management. This program also includes a homebuyer education program, which teaches how to transition from a renter, how to buy a home and how to keep a safe, healthy, home environment. Faculty develop training and educational materials for non-federally funded agents to utilize with clients in their communities.

## **8. Technology Education for Seniors**

In this program, surveys are conducted in each of the six identified counties to assess the true needs for Information Technology training. Curriculum based on the clientele needs is developed. Low intensity training classes are offered in each county, to include: "Introduction to Computers," "Introduction to the Internet," "Introduction to Email," "Introduction to MS Word" and others as the needs assessment dictate.

This hands-on training is enhanced by follow-up training via email.

### 9. Urban Agriculture

This program focuses on issues related to urban agriculture, including, but not limited to: breeding programs that incorporate variability derived from interspecific hybrids to greatly enhance the genetic pool from which new cultivars can be developed; water conservation technology and training; turf disease identification and management; development of new cost estimating and job bidding software for landscape installation; and Master Gardner programs.

### 10. Youth Life Skill Development

This program focuses on issues related to 4-H and youth life skills development. 4-H faculty members develop curriculum, train and support county Extension agents to conduct monthly educational programs for in-school club meetings around the state. They develop and support educational opportunities including individual learning projects/clubs and summer camp programs. This program also conducts a Georgia Youth Summit, which will bring youth and adults together to discuss and train on local issues affecting their communities. The Operation Military Kids Team works to meet the needs of military youth and families. A large part of this program funds specialists and their direct efforts primarily to county agents. These agents then disseminate information to youth and families in their county.

Parts of this summary were taken from UGA Research and Extension. Further details and other articles can be found at "Making an Impact: Hot Topics" - <http://www.caes.uga.edu/about/hottopics> and at Georgia FACES - <http://georgiafaces.caes.uga.edu>.

#### Total Actual Amount of professional FTEs/SYs for this State

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	98.8	6.5	58.6	13.5
Actual	311.3	29.7	315.2	23.6

## II. Merit Review Process

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

- Internal University Panel
- External University Panel
- Combined External and Internal University External Non-University Panel
- Expert Peer Review

### 2. Brief Explanation

Both universities incorporated the items above in their merit review processes. A program development team meets four times per year to review plans of work and redirect resources as needed. All research projects conducted during this year were peer reviewed by both internal and external reviewers.

In addition, greater than twenty percent of approved research projects are also associated with multistate/integrated projects which undergo an extensive review by the Southern Association of

### **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
- Survey specifically with non-traditional groups

#### **Brief explanation.**

After visiting with local advisory committees, county agents provide data directly to state specialists through listening group meetings which are conducted annually and by individual department for a total of a dozen or more meetings. The state program development team then analyzes the data from these agent/specialist sessions and gives recommendations for next year's programming. County agents also use input from advisory committees to plan, execute, evaluate and communicate programming at the local level.

The data collected from the FY2010 Review of County Operations conducted for the 1862 Extension program continues to be used in programming decision-making. A complete report is located at

<http://www.caes.uga.edu/intranet/coextopr/review/documents/UGAExRevCoOpsPublic-FINAL.pdf>.

Both internal and external stakeholders were given the opportunity to provide feedback through electronic surveys, small listening groups, large listening groups and organizational level input.

#### **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
- Open Listening Sessions
- Needs Assessments
- Use Surveys

#### **Brief explanation.**

Faculty identified statewide stakeholders and potential collaborators and recommendations were made to the dean for statewide advisory committees. The counties used a structured identification process to select a diverse advisory committee at the local level, to include representatives of both traditional and non-traditional stakeholder groups. The majority of counties reassessed and rotated their advisory committee membership this year.

External review teams have also provided suggestions as to new classifications of stakeholders, especially in regard to "departmental" advisory committees. The most dramatic changes in the research programs of the college occur when new faculty are hired. Departmental advisory committees help prioritize the needs of the stakeholders. Stakeholder input is also sought by members of search and screen committees prior to selecting candidates to interview and prior to the final recommendation.

**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
- Meeting with the general public (open meeting advertised to all)
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting with invited selected individuals from the general public

**Brief explanation.**

Individual county level advisory program specific committees met at least four times during the year. At the 4-H state departmental level, one youth development programming survey was conducted to collect county input. The statewide college level advisory committee met two times during the year.

Through the Archway Partnership, individuals from the general public were invited to participate in needs assessment and use for both Cooperative Extension and VP Public Service & Outreach (VPPSO) programming.

**3. A statement of how the input will be considered**

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

**Brief explanation.**

All input was channeled to college administration. Administration used this data as needed to make budgetary decisions. All vacant positions, in all departments, are brought to the college level administration for evaluation based on the criteria generated from stakeholder input before a decision is made to refill a position. Positions may be redirected as needed. The dean solicits input

from all faculty, staff and stakeholders prior to making hiring decisions on major administration positions.

**Brief Explanation of what you learned from your Stakeholders**

Research efforts of the colleges must be balanced to both meet the needs of stakeholders, communities and the economic and environmental sustainability of the state.

National reputation is important provided the local needs are being addressed.

Stakeholders are seeking a greater partnership with both University of Georgia and Fort Valley State University and are willing to contribute their time, talent and resources to build the overall colleges. Most are placing the long term survival and enhancement of the colleges above the needs of their particular operation, organization or community. They want to be part of the solution knowing that as the total colleges becomes stronger, all segments of our stakeholders will benefit.

**IV. Expenditure Summary**

<b>1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)</b>			
<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
7884437	2523434	6005546	3001892

<b>2. Totaled Actual dollars from Planned Programs Inputs</b>				
	<b>Extension</b>		<b>Research</b>	
	<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
<b>Actual Formula</b>	7884737	2523414	31366211	3004511
<b>Actual Matching</b>	0	0	0	0
<b>Actual All Other</b>	0	0	0	0
<b>Total Actual Expended</b>	7884737	2523414	31366211	3004511

<b>3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous</b>				
<b>Carryover</b>	0	0	0	0

## V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Childhood Obesity
2	Climate Change
3	Consumer Economics and Financial Literacy
4	Food Safety
5	Global Food Security and Hunger
6	Sustainable Energy
7	Housing and the Near Environment
8	Technology Education for Seniors
9	Urban Agriculture
10	Youth Life Skill Development

**V(A). Planned Program (Summary)**

**Program # 1**

**1. Name of the Planned Program**

Childhood Obesity

Reporting on this Program

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
305	Animal Physiological Processes	0%	0%	100%	0%
608	Community Resource Planning and Development	0%	7%	0%	0%
724	Healthy Lifestyle	0%	34%	0%	0%
801	Individual and Family Resource Management	10%	3%	0%	0%
802	Human Development and Family Well-Being	45%	15%	0%	0%
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%	3%	0%	0%
805	Community Institutions, Health, and Social Services	10%	3%	0%	0%
806	Youth Development	25%	35%	0%	0%
	<b>Total</b>	100%	100%	100%	0%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	5.1	3.0	3.7	0.0
Actual Paid Professional	4.2	2.0	1.3	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
744512	700948	369843	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The **Walk-a-Weigh Program**, our weight control program, was distributed to agents for their use via the Weight Control webpage. The **Walk Georgia program**, an online fitness program, was developed and offered statewide during a 12-week session. Weekly newsletters with health tips were written and distributed for the upcoming session.

Agents and American Cancer Society patient navigators were trained in September to present the **Cooking for a Life Time Cancer Prevention Cooking School**, which is funded by the American Cancer Society.

Extension nutrition specialists are now part of a USDA grant to implement an **obesity prevention program** in Colquitt County in the fall of 2013 with researchers from the College of Public Health and the College of Family and Consumer Sciences. Hopefully this research can be translated to other Extension offices in Georgia and throughout the country.

The **family life program** offered several programs on parenting skills. It provided information on nutrition, health, and community services to inmates that will be released within the next 5 years and to young caregivers and daycare providers. It educated youths and senior citizens on health. This program has worked with local, state and federal agencies in providing this information for public usage.

Agents provided news releases, newsletters, publications, and blogs. Other social media posts to relate information on parenting, youth development and childcare topics was disseminated by agents to print, online and broadcast media outlets.

Sections of the 4-H Fall Forum included the theme of **Healthy Lifestyles**. Additionally, the 4-H **Food Product Development team contest** was held, and Healthy Lifestyles was offered as a fifth grade curriculum club meeting track. The Ambassador program included Health Rocks, and each camper this summer attended a Healthy Lifestyles class. During this year's Junior Conference, each participant attended a Health Rocks class was well.

**Health and nutrition workshops** were held in various locations for parents, senior citizens caregivers and the youth of Georgia. Food demonstrations and interactive learning projects were the main style of teaching for this topic. Health and nutrition brochures were developed to educate the clientele

### 2. Brief description of the target audience

Specialists direct efforts primarily to educating and preparing county agents. As a result, agents reach parents, guardians, grandparents, childcare providers, and other caregivers of children and youth.

Extension professionals deliver educational programs for a diverse clientele including the rural disadvantaged, working homemakers, small scale family and part time farmers, community leaders, youth, small business operators, and other members of the general public in Georgia.

Parts of this planned program are targeted directly to at-risk individuals and families.

Researchers share findings with the scientific community through invited presentations and publications.

**3. How was eXtension used?**

Faculty working with this program provided information through the Just in Time Parenting and eXtension Alliance for Better Child Care communities of practice.

The number of individuals with eXtension IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	594	49	2100	0

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

**Patent Applications Submitted**

Year: 2012  
Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
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<b>Actual</b>	3	0	0
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**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	44

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	1201

**Output #3**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	97813

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	45

**Output #5**

**Output Measure**

- Website hits for diabetes, weight control, and cardiovascular disease.  
Not reporting on this Output for this Annual Report

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of people at risk for cancer who chose a lower fat or lower sodium food item.
2	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
3	Percentage of program participants reporting increased knowledge after program participation.
4	Total number of youth participants that will enhance decision making skills and develop positive leadership skills, increase knowledge of science education
5	Percentage of participants that lose weight or improve fitness.
6	Number of youth enrolled in the *Health Rocks!* program

**Outcome #1**

**1. Outcome Measures**

Percent of people at risk for cancer who chose a lower fat or lower sodium food item.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	80

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The American Institute for Cancer Research states that about a third of cancers could be prevented by weight control, a healthy diet and regular physical activity. This includes eating more whole grains, fruits and vegetables, limiting sugary drinks and alcohol, reducing the intake of processed and red meat and controlling sodium intake.

**What has been done**

Cooking for a Life Time Cancer Prevention Cooking School

**Results**

Most participants report that they intend to use healthier fats, season with herbs and spices instead of fat, eat lower fat protein and dairy foods, modify recipes to make them lower in fat and sodium and higher in fiber and begin exercising more. Of those involved in the Cooking for a Life Time Cancer Prevention Cooking School, 97% find the school helpful or very helpful and 38.7%

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
724	Healthy Lifestyle
802	Human Development and Family Well-Being
805	Community Institutions, Health, and Social Services
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	102965

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
305	Animal Physiological Processes
608	Community Resource Planning and Development
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

### **Outcome #3**

#### **1. Outcome Measures**

Percentage of program participants reporting increased knowledge after program participation.

#### **2. Associated Institution Types**

- 1862 Extension

#### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	84

#### **3c. Qualitative Outcome or Impact Statement**

##### **Issue (Who cares and Why)**

About 87% of children under six live in a family where at least one parent is employed full-time, and 33% live in a two-parent family with both parents working full-time. High-quality child care is essential for young children. Young children in high-quality child care programs learn valuable motor, language, cognitive, and social-emotional skills in child care that prepare them for school success, social relationships, and emotional well-being in elementary school and beyond.

Poor parenting skills can place children at risk for abuse and neglect. Extension agents in many counties provide parenting education programs to help parents deal with the specific issues and challenges of parenting young children.

Research suggests that adults who receive ongoing education in child development are better able to provide sensitive, responsive care for children and youth.

##### **What has been done**

FACS faculty provided parenting and child care provider education classes on a variety of topics to Extension agents, parents, and child care providers.

Including such curricula as My Healthy Body; Terrific Teeth; and Eat Healthy, Be Active

##### **Results**

Eighty percent (80%) of participants reported increased knowledge after program participation.

Positive caregiving skills can be learned. Learning and using positive caregiving skills can help parents and caregivers provide more sensitive, nurturing care for children. Sensitive care, in turn,

can decrease the incidence of child abuse and create a high quality learning environment that supports the healthy development of children and youth.

For more information, visit:  
<http://www.fcs.uga.edu/ext/families/children.php>

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

#### Outcome #4

##### 1. Outcome Measures

Total number of youth participants that will enhance decision making skills and develop positive leadership skills, increase knowledge of science education

Not Reporting on this Outcome Measure

#### Outcome #5

##### 1. Outcome Measures

Percentage of participants that lose weight or improve fitness.

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
------	--------

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

In Georgia, 28% of adults are obese and over 62% are overweight or obese. Thirty two percent have hypertension, 26.9% engage in no leisure time physical activity and 10% have diabetes. Twenty percent Georgia's children are overweight or at risk for becoming overweight.

#### What has been done

\*Walk a Weigh\* Program, our weight control program was distributed to agents for their use via Weight Control Web page. \*Walk Georgia\* program, an on line fitness program was offered statewide during a 12 week session.

For more information, visit:

<http://www.fcs.uga.edu/ext/food/walk.php>

#### Results

\*Walk Georgia\* continues to have a significant impact on the fitness level of Georgians. During the spring of 2012, 2,099 Walk Georgia participants logged the equivalent of 443,279 miles. The average individual logged 16 miles per week and the average team member logged 18 miles per week. Thirty percent of participants had done Walk Georgia previously, but for 52 percent, this was their first time. The average participant reported weighing 173 when the program began and 166 pounds at the end of the program.

At the beginning of the program, 67% of participants reported that they exercised three or more days per week, but at the end of the program 91.55% did

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

#### Outcome #6

##### 1. Outcome Measures

Number of youth enrolled in the \*Health Rocks!\* program

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	8735

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

In Georgia, nearly 42% of 4th graders are either overweight or at risk of becoming overweight according to a study conducted by Dr. Richard Lewis, UGA College of Family and Consumer Sciences. The study also showed that 38% of eight graders were also overweight or at risk of being overweight. For eleventh graders, the percentage was nearly 36%.

The Georgia Division of Public Health reports that nearly one in ten deaths in Georgia results from obesity-related health problems. Obesity prevention and education should begin as early as possible, by emphasizing healthful diets, good nutrition, and physical activity in early childhood.

**What has been done**

Sections of Fall Forum include Healthy Lifestyles. Additionally, the Food Product Development team contest was held and Healthy Lifestyles was offered as a 5th grade curriculum club meeting track. The Ambassador program included Health Rocks and each camper this summer attending a Healthy Lifestyles class. During this year's Junior Conference, each participant had a Health Rocks class was well.

**Results**

Georgia 4-H exceed its goal of reaching 7,000 youth, by reaching 8735 youth with full-time hours and 8258 youth with part time-hours. In addition, 96 youth and adults were trained as ambassadors to teach the curriculum in their counties and communities.

For more information, visit: <http://www.georgia4h.org/healthrocks/>

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
724	Healthy Lifestyle
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

## V(H). Planned Program (External Factors)

### External factors which affected outcomes

- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

### Brief Explanation

Funding sources have been decreasing at federal, state and private levels, which limit the amount of materials, trainings and programs specialists and agents can provide.

Also Medicare, Medicaid and private health insurance benefits have been fluctuating, so access to care may be preventing some individuals from implementing self-care and healthy lifestyle recommendations.

The ongoing downturn in the national and global economy has caused childcare providers to economize on training, which may have reduced attendance at Extension childcare training sessions. The Georgia Department of Early Care and Learning, which handles childcare licensing, regulation, quality improvement, and federal Child Care and Development Block Grant funds, continues to place the highest priority on funds for pre-K, which leaves fewer funds available to fund Extension and other training efforts.

## V(I). Planned Program (Evaluation Studies)

### Evaluation Results

**Walk Georgia** continues to have a significant impact on the fitness level of Georgians. During the spring of 2012, 2,099 Walk Georgia participants logged the equivalent of 443,279 miles. The average individual logged 16 miles per week and the average team member logged 18 miles per week. Thirty percent of participants had done **Walk Georgia** previously, but for 52%, this was their first time. The average participant reported weighing 173 pounds when the program began and 166 pounds at the end of the program. Over 40% of the participants reported physical activity during the last week of the program. Forty-eight percent stated that Walk Georgia had helped them to increase their physical activity and that they intended to continue this level of activity once the program ended. At the beginning of the program, 67% of participants reported that they exercised three or more days per week, but at the end of the program 91.55% did. Ninety-four percent of participants were satisfied with the program and 91.4% said they would recommend it to others.

In the **Quality Caregiving for Children and Youth** plan of work, agent knowledge was assessed by evaluation tools specific to the content provided. Evaluations assessed knowledge before and after training, either through pre-post tests or a retrospective

measure of perceived knowledge change. Intent to change behavior was also measured at the end of educational programs. Agents assessed changes in parents' and child care providers' knowledge and intent to change behavior through pre-post evaluations or retrospective evaluations designed for the content of specific programs.

### **Key Items of Evaluation**

Assessments indicated that after attending educational programs, parents' and childcare providers' knowledge and intent to change behavior increased.

**Walk Georgia** continues to have a significant impact on the fitness level of youth and adults in Georgia, with an increase in overall sense of well-being and activity levels. Ninety-four percent of participants were satisfied with the program and 91.4% said they would recommend it to others.

**V(A). Planned Program (Summary)**

**Program # 2**

**1. Name of the Planned Program**

Climate Change

Reporting on this Program

**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	6%	0%	0%	0%
111	Conservation and Efficient Use of Water	24%	0%	23%	0%
112	Watershed Protection and Management	30%	0%	23%	0%
124	Urban Forestry	0%	0%	3%	0%
133	Pollution Prevention and Mitigation	23%	0%	18%	0%
136	Conservation of Biological Diversity	0%	0%	3%	0%
141	Air Resource Protection and Management	3%	0%	3%	0%
202	Plant Genetic Resources	0%	0%	12%	0%
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	0%	0%	3%	0%
204	Plant Product Quality and Utility (Preharvest)	3%	0%	3%	0%
212	Pathogens and Nematodes Affecting Plants	0%	0%	1%	0%
215	Biological Control of Pests Affecting Plants	0%	0%	1%	0%
403	Waste Disposal, Recycling, and Reuse	7%	0%	4%	0%
511	New and Improved Non-Food Products and Processes	0%	0%	1%	0%
902	Administration of Projects and Programs	2%	0%	1%	0%
903	Communication, Education, and Information Delivery	2%	0%	1%	0%
	<b>Total</b>	100%	0%	100%	0%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	16.7	0.0	7.6	0.0

Actual Paid Professional	13.0	0.0	6.0	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
2304442	0	1761157	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

A large part of this program funded specialists and their direct efforts primarily to county agents. Agents then disseminated this latest research and best practices techniques to target audiences at the local level.

**Environmental Sciences:**

Research, work, and education continued in the following areas in order to have a better understanding of how to improve the environment: bioclimatology, waste management, molecular environmental science, nutrient management, abiotic remediation and phytoremediation, soil biology and biochemistry, water pollution and stream restoration.

**Water Conservation:**

Georgia continued to provide leadership in the Water Banner Program for the Southeast region. All Georgia agents were provided training on water conservation and many implemented it in their local programs. Through the **40 Gallon Challenge program**, over 1,400 Georgia citizens have pledged to conserve more than 273,522 gallons of water per day.

In 2012, UGA Extension provided 14 educational seminars/classes involving **greenhouse water conservation** statewide. Three out-of-state presentations and two student research presentations at a national conference involved our water conservation research. Four trade magazine articles, six scientific abstracts, and one proceeding on water conservation research was published.

We've met numerous times with the local grower groups in Georgia to discuss water conservation. Our **USDA SCRI Grant** work will continue through 2014, as will our related field demonstrations and our graduate student research projects in water conservation. We also continued to provide mandated certification workshops for operators and planners. Faculty worked with a wide variety of audiences

including policy makers, youth, farmers, and concerned citizens.

**Environmental Issues for Poultry Producers:**

We have also worked with a many of agents and farmers on an individual basis to help them **address environmental concerns** on their farms. A comprehensive validation of ammonia emissions from broiler houses was completed this year. A recent bulletin from UGA Extension identified a number of straightforward measures that growers can implement to reduce electrical usage. Rising fuel prices have further encouraged producers to weatherproof and tighten broiler houses to conserve energy. In addition to publishing 12 newsletters per year on poultry housing and energy conservation, poultry ventilation workshops are conducted twice a year.

**2. Brief description of the target audience**

The target audiences included county Extension agents, growers, producers, farmers, industry representatives, manufacturers, consultants, contractors, greenhouse owners, media, scientific peers and environmental professionals.

The focus also includes public sector decision-makers (federal and state), regulatory and policy representatives, community leaders, environmental concern/interest groups, and the general public

**3. How was eXtension used?**

The number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	4339	22130	672	650

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	3	9	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

Year	Actual
2012	180

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

Year	Actual
2012	919

**Output #3**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

Year	Actual
2012	73

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	90

**Output #5**

**Output Measure**

- Number of plant species propagated  
Not reporting on this Output for this Annual Report

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
2	Percentage of Georgia poultry producers trained in Phosphorous(P) reduction/management methods.
3	Estimates of savings (\$ millions) resulting from reduced phosphorous (P) supplementation in poultry diets
4	Number of plantings by clientele
5	Implementation of water savings practices in commercial greenhouses

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	43338

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
124	Urban Forestry
133	Pollution Prevention and Mitigation
136	Conservation of Biological Diversity
141	Air Resource Protection and Management
202	Plant Genetic Resources
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants

403	Waste Disposal, Recycling, and Reuse
511	New and Improved Non-Food Products and Processes
902	Administration of Projects and Programs
903	Communication, Education, and Information Delivery

**Outcome #2**

**1. Outcome Measures**

Percentage of Georgia poultry producers trained in Phosphorous(P) reduction/management methods.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	55

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Phosphorous (P) in poultry manure can be an environmental concern when applied in excess to crop land or pasture. Research and extension efforts are needed to develop methods of reducing P in poultry manure and to encourage poultry companies and farmers to adopt effective methods to minimize the chance excess P may negatively impact the environment.

**What has been done**

Educational programs were conducted on nutrient management planning (NMP) which included phosphorous management strategies to reduce environmental impact.

**Results**

Training poultry producers in P reduction/management methods helps assure P is being applied using best management practices.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

### **Outcome #3**

#### **1. Outcome Measures**

Estimates of savings (\$ millions) resulting from reduced phosphorous (P) supplementation in poultry diets

#### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

#### **3a. Outcome Type:**

Change in Condition Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5

#### **3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

### **Outcome #4**

#### **1. Outcome Measures**

Number of plantings by clientele

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

Implementation of water savings practices in commercial greenhouses

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	2

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Water availability for irrigation is an increasing problem for agriculture, due to increased water demands from urban areas. This makes it necessary to use irrigation water as efficiently as possible.

Irrigation in greenhouses and nurseries can be difficult to manage, because many of the plants are grown in fairly small pots that may need to be watered several times per day. And most greenhouse and nurseries grow a wide variety of crops; adjusting irrigation of all these crops based on the actual watering needs is too time consuming for growers.

**What has been done**

To address this challenge, we have conducted research to quantify water needs of various greenhouse and nursery crops and developed mathematical models of how needs vary based on weather conditions. Presentations were made at scientific and industry meetings about more efficient ways to irrigate greenhouse and nursery crops. Practices were adopted by two commercial greenhouses in this reporting period

**Results**

Efficient irrigation practices were adopted by two commercial greenhouses in this reporting period.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
204	Plant Product Quality and Utility (Preharvest)

## 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

Policy changes have been developed which affected research and funding.

Drought conditions in Georgia during the last year and watering restrictions put some limits on our outdoor plant propagation activities.

The economic downturn has reduced production on top of previous reductions due to drought. Hispanic laborers have left the area, and sales of plant materials are minimal. Water conservation is occurring but may be greatly influenced by reduced demand for plants.

Regulations and the interpretation and enforcement of the rules is constantly evolving and impacting our programs. The increases in fertilizer prices is positively influencing the value of animal manures and increasing off-farm demand. In addition, the national push for biofuels is influencing nutrient management as animal diets are changing due to the high costs of corn. Finally, drought has impacted many producers as some have cut herd sizes due to a lack of feed. The economy is also causing hardships for producers resulting in less funding available for on-farm environmental improvements. In addition, the slow economy has resulted in budget cuts for our college which has made it more challenging to deliver our programs.

## V(I). Planned Program (Evaluation Studies)

### Evaluation Results

**Water Conservation in Greenhouses:** Evaluations were performed following presentations at grower meetings

**Native Plant Propagation:** Weekly meetings of the Plant Conservation Program staff of the State Botanical Garden have provided the venue for evaluating the program and making changes as required.

**Energy conservation in poultry production:** Evaluations of workshops were completed. Program participants ranked the value of workshops very highly. In addition, government and industry funding agencies have provided evidence of the impact of this work by volunteering to supply resources for energy conservation projects. Poultry farmers have adopted new energy efficiency strategies that have been recommended.

**Managing ammonia emissions from Georgia poultry houses:** A major validation of ammonia emissions from broiler houses was completed. A significant equipment grant was received by the UGA ammonia emission team.

#### **Key Items of Evaluation**

Government and industry funding agencies have provided evidence of the impact of this work by volunteering to supply resources for energy conservation projects.

Educational program have shown an increase in knowledge and change in behaviors.

**V(A). Planned Program (Summary)**

**Program # 3**

**1. Name of the Planned Program**

Consumer Economics and Financial Literacy

Reporting on this Program

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
607	Consumer Economics	47%	20%	0%	0%
723	Hazards to Human Health and Safety	7%	10%	0%	0%
801	Individual and Family Resource Management	33%	50%	0%	0%
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	13%	20%	0%	0%
	<b>Total</b>	100%	100%	0%	0%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.7	0.3	0.0	0.0
Actual Paid Professional	1.5	0.3	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
265897	87619	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Financial literacy fact sheets were distributed. Ten different trainings ranging from 30 minutes to six hours in length were conducted for FACS agents and 4-H agents. In turn, agents provided training to other clients.

The **SMARTT Program** is an educational program designed to meet the financial literacy needs of Georgians. The program offered specialized instruction to individuals on the application of money management skills and strategies. The program assisted individuals in establishing healthy banking relationships, building assets and securing a better future for themselves and their families.

Listings and details of financial literacy programs and workshops can be found at:

[http://www.fcs.uga.edu/ext/econ/financial\\_literacy.php](http://www.fcs.uga.edu/ext/econ/financial_literacy.php)

**2. Brief description of the target audience**

Specialists will direct efforts primarily to county agents. As a result, agents will reach youth, parents, senior citizens and others.

The targeted audiences of the FVSU faculty will be all Georgians and residents in surrounding areas with emphasis on all limited resource and low income families and individuals.

**3. How was eXtension used?**

The Consumer Economics and Financial Literacy planned program has faculty serving as leaders and/or active members in one public **eXtension** Communities of Practice. Our faculty utilized Ask an Expert Widgets and offered various resources for the public.

Overall, the number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	265	11953	342	18311

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	1	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

Year	Actual
2012	264

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

Year	Actual
2012	14

**Output #3**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

Year	Actual
2012	3

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

2012 Fort Valley State University and University of Georgia Combined Research and Extension Annual Report of Accomplishments and Results

<b>Year</b>	<b>Actual</b>
2012	1

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
2	Number of Financial Literacy Education Opportunities
3	Georgian consumers will adopt effective financial management practices.

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	10601

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
607	Consumer Economics
723	Hazards to Human Health and Safety
801	Individual and Family Resource Management
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

**Outcome #2**

**1. Outcome Measures**

Number of Financial Literacy Education Opportunities

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	1

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Too many individuals and families are experiencing financial crisis because of inadequate savings, consumer debt, and poor planning for potential major life events. Financial security is defined as a family's ability to meet its short term needs and to reach its long term financial objectives.

**What has been done**

The FVSU Financial Literacy program provided one workshop to Georgians. The \*SMARTT\* Program is an educational program designed to meet the financial literacy needs of Georgians. The program offered specialized instruction to individuals on the application of money management skills and strategies.

Pre and post assessments were done to gauge the program's benefit to participants.

**Results**

Of those clients that attended the class 88% reported having a better understanding of the concepts of financial literacy including: credit reports, debt management and budgeting. Additionally, 25% indicated they would seek assistance to reduce debts prior to entering college. Mr. Taylor stated "I had no idea how credit worked and the importance of a good credit score. One Financial Literacy opportunity was provided to Georgians.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
801	Individual and Family Resource Management

**Outcome #3**

**1. Outcome Measures**

Georgian consumers will adopt effective financial management practices.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

An increasingly sophisticated financial marketplace, a dramatic shift from defined benefit to defined contribution retirement plans, and longer life spans make it vitally important for Georgia families to understand and implement sound financial management skills and practices.

Georgia's bankruptcy rate increased to 1 of every 96.35 houses the second highest rate in the nation (behind Tennessee).

**What has been done**

FACS agents were trained and delivered to clientele a six-hour workshop developed by state specialists, \*Money Matters for Aspiring Entrepreneurs\*.

In pre-tests, participants reported they would be unlikely to engage in long-term planning, review credit reports, calculate net worth, or save for emergencies.

Follow-up phone surveys with participants six months later, showed a positive change in behavior.

**Results**

Since attending the workshop, participants reported exercising more budgeting and spending control, paying down debt, saving more, and feeling more focused on their financial lives.

In follow up interviews, participants said:

"We went on a budget, documented our spending, and set goals."

"I have done a budget. It's tough, but it helped me."

"I handled my credit better and disciplined myself (about using credit)"

"I eliminated credit cards, paying of \$3,600 in credit card debt and \$500 in loans."

"I paid off my credit cards and put the money (once used for credit card payments) into savings."

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
607	Consumer 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
- Public Policy changes
- Populations changes (immigration, new cultural groupings, etc.)

##### **Brief Explanation**

Slow recovery from the recession and recent changes in credit card policies and a contracted lending market encouraged clients to secure additional information regarding personal finance.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

The **2-hour Financial Literacy** helped participants to improve financial practices such as budgeting and paying bills on time.

Participants in the **When Your Income Drops** program revealing feeling more upbeat and positive about their situation and that they planned to try one or more of the suggestions offered during the workshop.

Post-test assessments for the middle school youth **six-part series** of 30-minute showed the students were more likely to save for goals, give to charities, and understand the time value of money after the workshop series.

Participants in the **Money Matters for Aspiring Entrepreneurs** workshop were overwhelmingly female (70%), African American (72%), and between the ages of 40 and 59 (43%). About a third had college or graduate degrees. Follow up telephone calls placed six months later found that since attending the workshop, participants reported exercising more budgeting and spending control, paying down debt, saving more, and feeling more focused on their financial lives.

##### **Key Items of Evaluation**

Pre-tests for the **Money Matters for Aspiring Entrepreneurs** workshop revealed that participants were unlikely to engage in long-term planning, review credit reports, calculate net worth, or save for emergencies.

Follow up telephone calls found that since attending the workshop, participants reported exercising more budgeting and spending control, paying down debt, saving more,

and feeling more focused on their financial lives.

**V(A). Planned Program (Summary)**

**Program # 4**

**1. Name of the Planned Program**

Food Safety

Reporting on this Program

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
202	Plant Genetic Resources	0%	0%	1%	0%
204	Plant Product Quality and Utility (Preharvest)	0%	0%	8%	0%
301	Reproductive Performance of Animals	0%	0%	1%	0%
302	Nutrient Utilization in Animals	0%	0%	3%	0%
307	Animal Management Systems	0%	0%	1%	0%
311	Animal Diseases	13%	0%	11%	0%
315	Animal Welfare/Well-Being and Protection	0%	0%	1%	0%
401	Structures, Facilities, and General Purpose Farm Supplies	0%	0%	1%	0%
501	New and Improved Food Processing Technologies	15%	0%	14%	35%
502	New and Improved Food Products	13%	0%	11%	0%
503	Quality Maintenance in Storing and Marketing Food Products	12%	0%	13%	25%
511	New and Improved Non-Food Products and Processes	0%	0%	2%	0%
606	International Trade and Development	0%	0%	4%	0%
701	Nutrient Composition of Food	6%	0%	3%	20%
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	31%	0%	22%	20%
723	Hazards to Human Health and Safety	10%	100%	4%	0%
	<b>Total</b>	100%	100%	100%	100%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.6	0.0	0.5	6.0

Actual Paid Professional	3.3	0.3	2.0	11.8
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
576111	87619	587052	1565543
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Educational programs were conducted with various clientele groups: **ServSafe education classes** were conducted for Extension agents and clientele; **food safety trainings** were provided to FACS, 4-H and ANR agents; food safety was taught as a part of specific college classes in foods and nutrition; **food preservation training** was provided to FACS agents; consumer resources were developed and distributed both in print and online; curriculum packages, lesson plans and other food safety teaching tools were developed and disseminated to Extension agents for use in county programming; and news releases, newspaper articles and radio scripts were developed for agents to use with media outlets in local communities.

New training opportunities were developed as requested by clients.

Research has been and continues to be conducted on food safety as related to poultry. Evaluation of novel chemistry techniques to disinfect or remove microbial pathogens from poultry products have been conducted in research and field studies. Individual processing plants in Georgia have been visited and provided with assistance.

Additionally, research was conducted on goat milk as an alternative to using cow milk in yogurt by testing caprine yogurts for texture and probiotic viability. The experimental yogurts were manufactured using goat milk produced at the Georgia Small Ruminant Research & Extension Center at FVSU. The results of the studies were disseminated through presentations at the scientific conferences and publications in refereed journals.

**2. Brief description of the target audience**

Extension specialists conducted training primarily targeted Extension agents. As a result, agents provided adult and youth consumers, foodservice employees, care providers, volunteers and media with

food safety education.

Educational programs targeted food industry managers and food service professionals, especially those working for poultry companies or poultry processing plants.

Researchers shared findings with the scientific community through invited presentations and publications.

**3. How was eXtension used?**

The **Food Safety** planned program has faculty serving as leaders and/or active members in one public **eXtension** Communities of Practice. Our faculty utilized Ask an Expert Widgets and offered various resources for the public.

Overall, the number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	8385	199665	5411	9700

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	2	7	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	867

**Output #2**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications.

<b>Year</b>	<b>Actual</b>
2012	32

**Output #3**

**Output Measure**

- Number of persons taking and passing the HACCP certification exam.

<b>Year</b>	<b>Actual</b>
2012	209

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	30

**Output #5**

**Output Measure**

- Number of food handlers receiving ServSafe certification from Extension Agent programs.

<b>Year</b>	<b>Actual</b>
2012	627

**Output #6**

**Output Measure**

- Food Preservation website number of files viewed

<b>Year</b>	<b>Actual</b>
2012	4100000

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.
2	Average percentage of increase food safety test scores as a result of programs conducted statewide.
3	Multiple or repeat attendance by food processing company personnel (ie, company sends more than one person to our course(s) from one year to the next)

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	16662

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
401	Structures, Facilities, and General Purpose Farm Supplies
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
503	Quality Maintenance in Storing and Marketing Food Products
511	New and Improved Non-Food Products and Processes

606	International Trade and Development
701	Nutrient Composition of Food
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety

**Outcome #2**

**1. Outcome Measures**

Average percentage of increase food safety test scores as a result of programs conducted statewide.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	20

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #3**

**1. Outcome Measures**

Multiple or repeat attendance by food processing company personnel (ie, company sends more than one person to our course(s) from one year to the next)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	33

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
501	New and Improved Food Processing Technologies
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

**Brief Explanation**

**Economy:** Budget shortages have resulted in the loss of key faculty and county Family and Consumer Sciences Agent positions and remain a critical issue. Decreases in state and external funding have limited research capacity. Tightened budgets in the food industry have reduced training attendance.

**Government Regulations:** Regulations requiring certification of restaurant managers/designated employee increased demand for ServSafe training.

**Competing Programmatic Challenges:** Lack of support for dairy goat products research, probably resulted from competing public priorities on cow milk research due to the cow milk driven society and public priorities. In addition, emphasis on biotechnology, genetic engineering and stem cell research programs have been extreme challenges to dairy goat research for enhancing limited small goat farmers.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

**Preventing Foodborne Illness:** Agent knowledge was assessed by written tests specific to the content provided. In some instances, pre- and post-tests were used to assess knowledge gained. In **ServSafe** trainings, agents were administered the certification exam from the Educational Foundation of the National Restaurant Association

**HACCP Training for the Food Industry:** Overall evaluations from participants were consistently high again in 2012. The results of the evaluations were distributed to all speakers, and reviewed during program planning for the 2013 calendar year. The 2012 workshops were well attended and received high marks on the participant evaluations, ranging from 4.39 to 4.89 out of possible 5.0 in the overall course rating.

**Improving food safety in poultry processing and production (farm to fork):** Problem solving activities were able to prevent several poultry processing plants from failing additional food safety inspections and prevented possible plant closings.

**Bio-security/Ag-security for Georgia poultry producers:** Evaluation will be based on negative results; that is the failure of AI to infect Georgia poultry flocks will be considered a successful outcome. Data will be collected from participants in trainings and state and federal agencies responsible for poultry health.

**Food Processing, Production and Safety:** Two experiments on textural properties and viability of probiotics in normal goat milk yogurts were conducted. The first study found that locust bean and xanthum were choice of gums for the best textural quality of caprine milk yogurt. The second study showed that the use of gums in goat milk yogurt could maintain the probiotics viability and improve the texture, which may lead to higher consumer acceptability.

### **Key Items of Evaluation**

Food Safety workshops were well attended and received high marks on satisfaction

and increase in knowledge on participant evaluations.

Research continues to provide valuable information on food safety and human health.

**V(A). Planned Program (Summary)**

**Program # 5**

**1. Name of the Planned Program**

Global Food Security and Hunger

Reporting on this Program

**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	12%	11%	12%	6%
111	Conservation and Efficient Use of Water	2%	3%	2%	1%
112	Watershed Protection and Management	4%	5%	4%	3%
121	Management of Range Resources	1%	0%	1%	0%
125	Agroforestry	0%	0%	1%	0%
131	Alternative Uses of Land	0%	8%	0%	4%
133	Pollution Prevention and Mitigation	5%	6%	4%	3%
201	Plant Genome, Genetics, and Genetic Mechanisms	27%	0%	26%	0%
204	Plant Product Quality and Utility (Preharvest)	11%	0%	13%	0%
205	Plant Management Systems	18%	0%	18%	0%
216	Integrated Pest Management Systems	6%	0%	4%	0%
301	Reproductive Performance of Animals	1%	0%	1%	0%
303	Genetic Improvement of Animals	1%	0%	1%	23%
304	Animal Genome	0%	0%	0%	7%
307	Animal Management Systems	5%	22%	6%	22%
311	Animal Diseases	0%	13%	0%	0%
403	Waste Disposal, Recycling, and Reuse	0%	2%	0%	1%
503	Quality Maintenance in Storing and Marketing Food Products	4%	0%	4%	0%
601	Economics of Agricultural Production and Farm Management	3%	30%	2%	16%
701	Nutrient Composition of Food	0%	0%	1%	14%
	<b>Total</b>	100%	100%	100%	100%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Extension	Research
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<b>Year: 2012</b>	<b>1862</b>	<b>1890</b>	<b>1862</b>	<b>1890</b>
	59.5	1.5	42.0	9.3
Plan	13.5	2.2	9.7	10.8
Actual Paid Professional	0.0	0.0	0.0	0.0
Actual Volunteer				

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
2398392	771043	28472040	1438968
<b>1862 Matching</b>	<b>1890 Matching</b>	<b>1862 Matching</b>	<b>1890 Matching</b>
0	0	0	0
<b>1862 All Other</b>	<b>1890 All Other</b>	<b>1862 All Other</b>	<b>1890 All Other</b>
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

This planned program encompasses the largest area of combined research and Extension work for UGA and FVSU.

Applied and basic research resulted in several articles and other papers and patents. Additionally, this information was extended to the target audiences via educational trainings, workshops, conferences and other media outlets.

Georgia's producer organizations have continued to work closely with us in educational and outreach efforts. Through participation one-on-one consultations, publications, meetings, etc., we provided timely and pertinent information to agents, producers and the general public.

Breeding/genetics programs were conducted on cereals, comparative grasses, cotton, forages, legumes, peanuts, soybeans, oilseed crops and turfgrasses. The goal was to develop cultivars that are adapted to the Southeast's climatic conditions and have superior yields, agronomic traits, durable pest resistance and end-use quality. Additionally, transgenic plants were produced and screened.

Other research projects included understanding and developing strategies to overcome endophyte-infected tall fescue pastures; improving yield, efficiency, and profitability of summer and winter grain production; and developing agronomic practices that provide peanut and soybean producers high yield and quality with maximum economic return.

Research and Extension programs in insect pest management were carried out in all major commodity areas. The **commercial vegetable pest control handbook** for Georgia was updated and published in 2012. Forty-two research and demonstration projects were conducted in vegetable IPM.

Information and programs were also provided for the following: herbicide efficacy and crop weed management; determining disease resistance of new breeding lines, peaches and blueberries; alternatives for methyl bromide in plasticulture vegetable production; invasive plant ecology and management; fruit thinning as a recommended practice for pecan producers.

A bull testing program, heifer evaluation and reproductive development program were conducted at multiple locations. The **Georgia Beef Challenge** evaluated calves for feedlot performance and carcass evaluation in commercial feedlots. Multi-breed evaluation programs were implemented in order to make genetic values available to producers of both purebred and crossbred cattle, whereas before they were available to only purebred cattle breeders.

New forages and byproduct feeds were evaluated for nutritional and economic value in beef production systems, as well as for their effects on human nutrition. Research was also conducted to develop improved methods of feeding and managing broiler breeders to increase egg production, improve fertility and reduce stress.

Research findings have resulted in greater understanding of host-parasite interactions and more effective biological toxins and patents for compounds to enhance Bt toxin efficacy for agricultural and medical pests. Research is also ongoing in colony collapse disorder and with collaborators throughout the U.S. in implementing IPM practices and developing thresholds.

Work at the **Georgia Center for Aquaculture Development (GCAD)** at FVSU included developing and evaluating aquaculture species, production methods and systems, and the demonstration of recirculating aquaculture systems (RAS). Demonstrations of sustainable aquaculture production and aquaponics continued with workshops, tours, student training and aquatic animal and aquaponic production. Visitors to the FVSU campus obtained first-hand experience with freshwater prawns, three species of tilapia and hybrids, koi, channel catfish, copper nose bream, largemouth bass, pacu and Australian red claw cultured in the greenhouse RAS.

More than 6,052 participants gained information on aquaculture from the GCAD staff from exhibits at the Sunbelt Agricultural Expo, the Tri-State Aquaculture Association exhibit, the Georgia Organics annual meeting and other presentations around the state. In 2012, the GCAD at FVSU continued to enhance the opportunities for producers to create commercially viable aquaculture enterprises. The GCAD helped form the **Georgia Aquaponics and Aquaculture Network**, which was incorporated as a cooperative in the state of Georgia to develop initiatives to promote and enhance aquaculture enterprises.

## **2. Brief description of the target audience**

As Georgia's largest, this planned program has a broad and varied range of audiences.

Federally funded Extension Specialists provided training, information, and resources to Extension Agents. Agents were able to reach far and wide into Georgia and the surrounding region. Between programming provided by Specialist and Agents, audiences include:

- Sheep and goat producers
- Dairymen
- Beef cattle producers
- Poultry Producers
- Aquaculture professionals
- Catfish processing plant operators
- Agribusiness professionals and entrepreneurs
- Plant breeders

- Fruit, berry, and nut producers
- Vegetable growers
- Government officials and policy makers
- USDA personnel
- Non-Governmental Organizations (NGO's)
- Neighbors in animal agricultural environments
- Typically underserved clients in livestock enterprises

Researchers have shared findings with the scientific community through invited presentations and publications. Audience also includes biotech companies, chemical companies, and multiple industry professionals and producers.

**3. How was eXtension used?**

The number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	12137	58766	5293	6230

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 5

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	290	26	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	336

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	867

**Output #3**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	1167

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	481

**Output #5**

**Output Measure**

- Number of disease samples processed by diagnostic laboratory.

<b>Year</b>	<b>Actual</b>
2012	7587

**Output #6**

**Output Measure**

- Number of field experiments to develop disease management approaches.

<b>Year</b>	<b>Actual</b>
2012	19

**Output #7**

**Output Measure**

- Number of international contacts

<b>Year</b>	<b>Actual</b>
2012	10

**Output #8**

**Output Measure**

- Website page views  
Not reporting on this Output for this Annual Report

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.
2	Number of Master Cattlemen certifications granted through this planned program.
3	Increase in the farm gate value of livestock production in Georgia. Reported in millions of dollars.
4	Farm gate value of poultry production in Georgia. Value reported annually in millions of dollars.
5	Medium term: development of disease management approaches the reduce disease damage by 65%

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research
- 1890 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	107380

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
121	Management of Range Resources
125	Agroforestry
131	Alternative Uses of Land
133	Pollution Prevention and Mitigation
201	Plant Genome, Genetics, and Genetic Mechanisms
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
304	Animal Genome
307	Animal Management Systems
311	Animal Diseases
403	Waste Disposal, Recycling, and Reuse
503	Quality Maintenance in Storing and Marketing Food Products
601	Economics of Agricultural Production and Farm Management
701	Nutrient Composition of Food

**Outcome #2**

**1. Outcome Measures**

Number of Master Cattlemen certifications granted through this planned program.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	66

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
121	Management of Range Resources
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems

311	Animal Diseases
601	Economics of Agricultural Production and Farm Management
701	Nutrient Composition of Food

### **Outcome #3**

#### **1. Outcome Measures**

Increase in the farm gate value of livestock production in Georgia. Reported in millions of dollars.

#### **2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research
- 1890 Research

#### **3a. Outcome Type:**

Change in Condition Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	33

#### **3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

1,282,465,381 an increase of 33,865,639 from 1,248,599,742

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
121	Management of Range Resources
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
304	Animal Genome
307	Animal Management Systems

311	Animal Diseases
503	Quality Maintenance in Storing and Marketing Food Products
601	Economics of Agricultural Production and Farm Management
701	Nutrient Composition of Food

**Outcome #4**

**1. Outcome Measures**

Farm gate value of poultry production in Georgia. Value reported annually in millions of dollars.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	5468

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

5,468,931,372  
(increase of 81,236,811)

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
601	Economics of Agricultural Production and Farm Management
701	Nutrient Composition of Food

**Outcome #5**

**1. Outcome Measures**

Medium term: development of disease management approaches the reduce disease damage by 65%

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 Programmatic Challenges

**Brief Explanation**

{No Data Entered}

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 6**

**1. Name of the Planned Program**

Sustainable Energy

Reporting on this Program

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
133	Pollution Prevention and Mitigation	34%	0%	34%	0%
403	Waste Disposal, Recycling, and Reuse	33%	0%	33%	0%
605	Natural Resource and Environmental Economics	33%	0%	33%	0%
	<b>Total</b>	100%	0%	100%	0%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	4.9	0.2	4.8	0.0
Actual Paid Professional	3.0	0.0	1.0	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
531794	0	29356	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

Faculty at UGA are involved in numerous research and Extension projects related to energy production from biomass. Six workshops/resource clinics were held, and three publications related to forestry were distributed.

In the **LIFE** project, 6 workshops/resource clinics were held and three publications related to forestry were distributed. Exhibits were also present at the workshops, field days, and demonstration in Six black-belt counties.

Field plantings of biofuel plant species were continued to study vitro plant regeneration and genetic enhancement for value added traits.

Fish wastes from Georgia Center for Aquaculture Development at FVSU were also used as the nutrient mixture for different species of algae known to be valuable as live feeds and as biofuel.

## 2. Brief description of the target audience

Audiences for this planned program included farmers, agribusiness, community leaders and entrepreneurs.

Programs were also presented to small, minority and limited resource landowners and farmers.

## 3. How was eXtension used?

The Sustainable Energy planned program has faculty serving as leaders and/or active members in three public Extension Communities of Practice. Our faculty utilized Ask an Expert Widgets and offered various resources for the public.

Overall, the number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

## V(E). Planned Program (Outputs)

### 1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	400	750	45	125

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	1	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

Year	Actual
2012	3

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

Year	Actual
2012	0

**Output #3**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

Year	Actual
2012	200

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	2

**Output #5**

**Output Measure**

- Number of site visits to landowners/farmers

<b>Year</b>	<b>Actual</b>
2012	300

**Output #6**

**Output Measure**

- Total number of publications developed that targeted small, minority, and limited resource landowners and farmers

<b>Year</b>	<b>Actual</b>
2012	3

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
2	Total number of site visits made to small, minority, and limited resource landowners and farmers

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5223

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse
605	Natural Resource and Environmental Economics

**Outcome #2**

**1. Outcome Measures**

Total number of site visits made to small, minority, and limited resource landowners and farmers

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	300

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
133	Pollution Prevention and Mitigation

**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**

{No Data Entered}

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 7**

**1. Name of the Planned Program**

Housing and the Near Environment

Reporting on this Program

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	0%	25%	0%	0%
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	100%	50%	0%	0%
903	Communication, Education, and Information Delivery	0%	25%	0%	0%
	<b>Total</b>	100%	100%	0%	0%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	3.2	1.0	0.0	0.0
Actual Paid Professional	2.0	1.0	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
354530	350474	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

## **V(D). Planned Program (Activity)**

### **1. Brief description of the Activity**

Our program offered seven homebuyer education workshops to 176 consumers throughout the year. The workshops raised consumer awareness of programs available to assist with homeownership needs. 18 participants purchased homes valued at approximately \$2.8 million.

FACS agents continue to receive ongoing updates and information to keep their knowledge about the housing market current. UGA continued to provide healthy housing training for professionals as a training partner with the National Center for Healthy Housing. In 2012, a new partnership was formed with an Assistant Professor at Georgia Southern University to offer a course targeting community health workers.

Education and information was provided to adults and youth in group programs, presentations, fairs and individual meetings. Publications and news articles were distributed to agents for use in local programs and media outlets. Additional research-based information on ways to improve the indoor environment was disseminated through the **UGA GreenWay** online network ([www.ugagreenway.org](http://www.ugagreenway.org)), which includes a webpage, Facebook page, twitter and YouTube accounts, as well as a blog.

The **Radon Education program** continues to provide radon education and test kits, reaching 5,818 adults and students through education programs and presentations. Another 1.28 million were reached through media.

### **2. Brief description of the target audience**

The primary audience for the federally funded Extension specialists was county Extension agents. Agents disseminated the information to the communities they serve, including homeowners, families, the media and industry professionals.

FVSU Extension continues to respond to the needs of minorities and residents of rural areas that are classified as limited resource clientele.

### **3. How was eXtension used?**

The Housing and the Near Environment planned program has faculty serving as leaders and/or active members in one public **eXtension** Communities of Practice. Our faculty utilized Ask an Expert Widgets and offered various resources for the public.

Overall, the number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

## **V(E). Planned Program (Outputs)**

### **1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	213	648	105	0

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	3	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

Year	Actual
2012	214

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

Year	Actual
2012	7392

**Output #3**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	13

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	0

**Output #5**

**Output Measure**

- Number of home-buyer education opportunities

<b>Year</b>	<b>Actual</b>
2012	7

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
2	The percentage of participants who increased their knowledge of Indoor Air Quality issues as a result of the educational programs conducted by county agents.
3	The percentage of participants who tested their homes for indoor air quality contaminants as a result of the educational programs conducted by county agents.
4	The percentage of participants who indicated a change in behavior, such as conserving water, purchasing Energy Star products or testing their well.
5	Total number of consumers transitioning from rental to homeownership after participating in this program.
6	Homes identified with high radon levels

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	6097

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
801	Individual and Family Resource Management
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures
903	Communication, Education, and Information Delivery

**Outcome #2**

**1. Outcome Measures**

The percentage of participants who increased their knowledge of Indoor Air Quality issues as a result of the educational programs conducted by county agents.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	75

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

**Outcome #3**

**1. Outcome Measures**

The percentage of participants who tested their homes for indoor air quality contaminants as a result of the educational programs conducted by county agents.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	70

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

**Outcome #4**

**1. Outcome Measures**

The percentage of participants who indicated a change in behavior, such as conserving water, purchasing Energy Star products or testing their well.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	45

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

**Outcome #5**

**1. Outcome Measures**

Total number of consumers transitioning from rental to homeownership after participating in this program.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	18

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
801	Individual and Family Resource Management
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures
903	Communication, Education, and Information Delivery

**Outcome #6**

**1. Outcome Measures**

Homes identified with high radon levels

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	292

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Indoor air quality problems are caused by indoor contaminants, which can lead to health effects that range from allergic reactions, in sensitive populations, to death. Asthma is a known issue, and a program priority.

**What has been done**

Between 10/2011 and 09/2012 UGA Extension distributed 2,140 radon test kits and received 1,301 test results (an average usage rate of 61%).

**Results**

High test results were received by 292 households, with about half of those households fixing (or mitigating) the problem.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

Clients are more aware of the pitfalls of foreclosure, scams and predatory lending practices and therefore, attend the classes to educate themselves. Programs for first time homebuyers and federal regulations regarding lead and renovations helped to increase

enrollment.

Economic conditions, job losses and housing foreclosures continue to impact housing programs.

The economic improvements helped some families, but energy costs continued to be an issue of concern. Drought conditions impacted large parts of the state.

Changes in funding from EPA impacted the Radon Education Program. FACS Agents who were funded in part by the radon grant were removed from grant funding and moved to other sources of funding. This reduced the number of Radon Educators from 5 to 2. The 2 remaining educators are fully funded by the radon grant and the counties in GA they cover have expanded so we are still providing services to the entire state despite the reduction in designated educators. This has resulted in lower outreach numbers and impact across the state.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

At the beginning and at the conclusion of each homebuyer education series, a test was administered to gauge clients' knowledge to see if there was an increase in knowledge. On average, individual test scores increased. Additionally, participants reported feeling empowered enough to make informed decisions.

Trainings to agent were assessed informally during the program to guide the program and make sure gaps in knowledge were addressed.

Evaluations from indoor environment education programs showed a statistically significant increase in knowledge gained and intent to change behavior through participation in the program.

Pre and post tests were used to evaluate the impact of the 3rd grade Environmental Summit in Madison County.

The majority of participants in radon education programs report an increase in knowledge after the class and the intent to test their home if they have not already done so.

### **Key Items of Evaluation**

Evaluations from indoor environment education programs showed a statistically significant increase in knowledge gained and intent to change behavior through participation in the program.

Homebuyer reported feeling empowered enough to make informed decisions.

**V(A). Planned Program (Summary)**

**Program # 8**

**1. Name of the Planned Program**

Technology Education for Seniors

Reporting on this Program

**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	0%	50%	0%	0%
903	Communication, Education, and Information Delivery	0%	50%	0%	0%
<b>Total</b>		0%	100%	0%	0%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.5	0.0	0.0
Actual Paid Professional	0.0	0.5	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
0	175237	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

Surveys will be conducted in each of the six identified counties to access the true needs for Information Technology training. Curriculum based on the clientele needs will be developed. Low intensity training classes will be offered in each county to include: "Introduction to Computers", "Introduction to the Internet", "Introduction to Email", "Introduction to MS Word", and others as the needs assessment dictate. This hands-on training will be enhanced by follow-up training via email.

**2. Brief description of the target audience**

The target audience will consist primarily of senior citizens and retirees. However, in cases where space is available, others will be allowed to enroll in a particular training.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	0

**Output #2**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	0

**Output #3**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	0

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	8

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of program participants who will be able to send and receive email at the completion of training
2	participants will be able to intelligently search the internet for useful consumer information.
3	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this plan.

### **Outcome #1**

#### **1. Outcome Measures**

Number of program participants who will be able to send and receive email at the completion of training

Not Reporting on this Outcome Measure

### **Outcome #2**

#### **1. Outcome Measures**

participants will be able to intelligently search the internet for useful consumer information.

Not Reporting on this Outcome Measure

### **Outcome #3**

#### **1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this plan.

Not Reporting on this Outcome Measure

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

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

#### **Brief Explanation**

No external factors affected the outcome. The Mobile Information Technology Center is continuing to see a high demand in its requests for services.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Evaluations of the programs was done informally. Pre and post surveys indicated that everyone owned a computer who came to the workshop or had access to a computer. After the training, all clients demonstrated a basic level of proficiency in the classes they selected. Telephone calls and emails were used for communications for post survey responses. Clients also indicated that they knew others and would disseminate the skills learned to friends and family.

**Key Items of Evaluation**

Clients also indicated that they knew others and would disseminate the skills learned to friends and family.

**V(A). Planned Program (Summary)**

**Program # 9**

**1. Name of the Planned Program**

Urban Agriculture

Reporting on this Program

**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	3%	0%	10%	0%
111	Conservation and Efficient Use of Water	17%	0%	15%	0%
124	Urban Forestry	2%	0%	10%	0%
202	Plant Genetic Resources	17%	0%	2%	0%
206	Basic Plant Biology	2%	0%	2%	0%
211	Insects, Mites, and Other Arthropods Affecting Plants	0%	0%	10%	0%
212	Pathogens and Nematodes Affecting Plants	8%	0%	10%	0%
213	Weeds Affecting Plants	3%	0%	10%	0%
216	Integrated Pest Management Systems	8%	0%	2%	0%
404	Instrumentation and Control Systems	3%	0%	2%	0%
405	Drainage and Irrigation Systems and Facilities	3%	0%	2%	0%
601	Economics of Agricultural Production and Farm Management	5%	0%	10%	0%
602	Business Management, Finance, and Taxation	10%	0%	5%	0%
605	Natural Resource and Environmental Economics	13%	0%	2%	0%
609	Economic Theory and Methods	3%	0%	2%	0%
806	Youth Development	3%	0%	6%	0%
	<b>Total</b>	100%	0%	100%	0%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	0.7	0.0	0.1	0.0

Actual Paid Professional	1.0	0.0	0.5	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
177265	0	146763	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

A large part of this program funded specialists and their direct efforts primarily to county agents. These agents disseminated this information to target audiences at the local level.

Within the program, active applied research was implemented to address new or recurring problems or knowledge voids. In 2012, research endeavors have resulted in one new Extension circular; three abstracts and proceedings; four peer reviewed scientific articles; 18 Plant Disease Management Reports, which are specialty peer reviewed publications; and 14 field and greenhouse trials evaluating 95 treatments have been evaluated. Results from these investigations have been applied to Extension activities and delivery of information.

Under the scope of one project, Extension outputs include: the publication of one book chapter; one peer reviewed, non-refereed Extension bulletin/circular; 14 sections in 12 special Extension bulletins; 11 articles in industry journals; 10 informational mass media and visual aids; and two new smart phone applications.

Information was communicated to targeted audiences through electronic newsletters, websites ([www.gaurbanag.org](http://www.gaurbanag.org) and [www.ugaurbanag.com](http://www.ugaurbanag.com)), conference presentations, agent updates and professional meetings.

Implementation of statewide and local trainings has been the core of this program. One project includes three international professional educational conferences; 15 state and regional industry professional and educational conferences/workshops/seminars; and 13 county programs.

Other efforts included attending and delivering information to underrepresented clientele and in a bilingual format. Several innovative programs were implemented, including computer-based trainings for industry personnel.

A recently received grant from the Georgia Forestry Commission helped provide practical training for

advanced Master Gardeners in four locations across the state as a trial run. The subsequent training materials and website will be a big boost to this program.

## **2. Brief description of the target audience**

Extension specialists provided training and information to Extension agents. Agents then took the information into the communities where it was shared with the key clientele general public.

Researchers shared findings with the scientific community through invited presentations and publications.

The target audience for this planned program included:

- Golf course superintendents
- Turfgrass professional managers
- Landscape companies
- Sod producers
- Grounds maintenance personnel
- Sport field managers
- General green industry personnel
- Landscape professionals
- Urban ag industries representatives
- Public policy makers and regulators
- Master Gardeners
- Arborists
- City foresters
- Homeowners
- Scientists interested in diseases of turfgrasses

## **3. How was eXtension used?**

The **Urban Agriculture** planned program has faculty serving as leaders and/or active members in two public **eXtension** Communities of Practice. Our faculty utilized Ask-an-Expert Widgets and offered various resources for the public.

Overall, the number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

### **V(E). Planned Program (Outputs)**

#### **1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10673	223652	4	0

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	20	6	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

Year	Actual
2012	70

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

Year	Actual
2012	8172

**Output #3**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	31

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	34

**Output #5**

**Output Measure**

- Number of research trials conducted

<b>Year</b>	<b>Actual</b>
2012	14

**Output #6**

**Output Measure**

- Number of disease management recommendations based on disease samples processed

<b>Year</b>	<b>Actual</b>
2012	870

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.
2	Pre and post tests, email follow-up evaluation
3	Number of Certificates granted for completion of program

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by county faculty not receiving federal funds, staff or volunteers as a direct result of the work of faculty receiving federal funds within this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	34456

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
124	Urban Forestry
202	Plant Genetic Resources
206	Basic Plant Biology
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
404	Instrumentation and Control Systems
405	Drainage and Irrigation Systems and Facilities
601	Economics of Agricultural Production and Farm Management

602	Business Management, Finance, and Taxation
605	Natural Resource and Environmental Economics
609	Economic Theory and Methods
806	Youth Development

## **Outcome #2**

### **1. Outcome Measures**

Pre and post tests, email follow-up evaluation

Not Reporting on this Outcome Measure

## **Outcome #3**

### **1. Outcome Measures**

Number of Certificates granted for completion of program

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	1923

### **3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
213	Weeds Affecting Plants

216	Integrated Pest Management Systems
605	Natural Resource and Environmental 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**

Job layoffs brought an increased number of people into the landscape profession who have little to no training in horticulture or business management skills.

Changes in the housing market directly affect the green industry.

Numerous nurseries and greenhouses in Georgia have closed or have significantly cut back their production for financial reasons resulting from drought, watering restrictions, and poor sales due to the economy and reduction in new home construction.

Fuel costs may decrease ability of people to attend programs. Creative computer alternatives may be needed to address needs.

Decrease of state and federal funds have had a negative effect on program support and attendance.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Programs conducted had both pre and post surveys done to evaluate the skills learned and knowledge obtained. Evaluations also revealed future program needs. Post training surveys are used to determine effectiveness and additional needs. The Master Gardener program uses a professionally operated evaluator to assess the needs and success of the program statewide.

Research results have been evaluated, selected and implemented to address clientele needs. Detailed observation of site and behaviors of participants are implemented. A number of references, citations, weblinks to published articles are implemented. The publications department in the college collects numerical information on number of web visits, top accessed publications etc.

For the Significant Trees of Georgia project, highlights are being placed on nomination website.  
A Google map is almost completed

**Key Items of Evaluation**

Master Gardener program continues to be popular and well received.

Research results have been evaluated, selected and implemented to address clientele needs.

**V(A). Planned Program (Summary)**

**Program # 10**

**1. Name of the Planned Program**

Youth Life Skill Development

Reporting on this Program

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
134	Outdoor Recreation	5%	0%	0%	0%
135	Aquatic and Terrestrial Wildlife	8%	0%	0%	0%
136	Conservation of Biological Diversity	1%	0%	0%	0%
206	Basic Plant Biology	1%	0%	0%	0%
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	4%	0%	0%	0%
307	Animal Management Systems	8%	0%	0%	0%
315	Animal Welfare/Well-Being and Protection	16%	0%	0%	0%
608	Community Resource Planning and Development	4%	20%	0%	0%
802	Human Development and Family Well-Being	4%	0%	0%	0%
806	Youth Development	49%	80%	0%	0%
	<b>Total</b>	100%	100%	0%	0%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	4.4	1.0	0.0	0.0
Actual Paid Professional	3.0	1.0	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
531794	350474	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The 4-H staff facilitated 21 4-H Science Meeting Sessions, 21 4-H Leadership/Citizenship Meetings Sessions, 21 Healthy Living Meeting Sessions and 15 4-H Entrepreneurship/Workforce preparation Meetings Sessions. Monthly 4-H Club Meetings focused on the areas of Science, Healthy Living, Entrepreneurship and Leadership/Citizenship.

4-H faculty members continue to develop and support educational opportunities including individual learning projects, animal projects, entrepreneurship clubs, science clubs, environmental clubs and product evaluation/judging activities.

Youths fed and managed livestock and demonstrated their skills at shows held for cattle, swine, sheep and goats. This program continues to be successful and have impact on our youth. Studies were conducted to determine the relationship between weight, age, average daily gains (ADG) and placing in a commercial dairy heifer's performance, as well as to determine if these heifers are being grown according to industry guidelines.

The Georgia Youth Summit is a biannual event and was held once again with representation from across the state. The Leadership in Action Program was also held. Participation in Leadership in Action increased as additional programs were offered. Six youth were selected to attend the National 4-H Conference.

The 4-H Ambassador program trained youth and adult partners in Health Rocks, Operation Military Kids, Science, Engineering & Technology and Global Awareness. The Ambassadors completed one year of activities in which they shared information learned from training. Through the Operation Military Kids program, youth have been trained to lead programs for military families. Additionally, training through Community of Opportunities has been offered in order to plan and conduct community programs in service regions in South Georgia.

In addition, Environmental Education, State Horse Show, Hippology, Judging Contest, Horse School and Quiz Bowl were all offered for 4-H members.

### 2. Brief description of the target audience

The target audience for this planned program includes two groups. County agents and volunteers will be targeted to multiply the efforts of faculty associated with this program. In many cases, faculty will have direct contact with the youth.

All Georgia youth from Kindergarten through college are targeted for life skill development programs. The in-school club program will target 5<sup>th</sup> through 8<sup>th</sup> grades. Different activities within the program will target different ages.

Many programs identify more specific audiences. An example of these would be programs that target youth of military families or programs that target audiences at risk. Some programs target low-income and limited resource families.

**3. How was eXtension used?**

The Youth Life Skill Development planned program has faculty serving as leaders and/or active members in one public **eXtension** Communities of Practice. Our faculty utilized Ask an Expert Widgets and offered various resources for the public.

The number of individuals with **eXtension** IDs has continued to grow. Current membership for UGA is 524; State of Georgia membership is 605.

There are 32 active Experts from Georgia on Ask an Expert, with 13 widgets on Georgia sites. There were 558 questions answered by UGA.

There are 150 members of Community of Practice in 46 of the 69 approved communities. (Up from 125 members in 59 communities in 2011)

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	8042	1963	12400	6876

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	10	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented to county extension agents by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	286

**Output #2**

**Output Measure**

- Number of educational contact hours generated from formal educational programs presented directly to clientele by state faculty directly associated with this planned program.

<b>Year</b>	<b>Actual</b>
2012	21793

**Output #3**

**Output Measure**

- Number of significant publications including articles, bulletins and extension publications. (excluding peer reviewed articles)

<b>Year</b>	<b>Actual</b>
2012	10

**Output #4**

**Output Measure**

- Number of invited presentations by faculty directly resulting from the success of this planned program.

<b>Year</b>	<b>Actual</b>
2012	16

**Output #5**

**Output Measure**

- Number of Leadership, Entrepreneurship, and Science Meeting sessions coordinated

<b>Year</b>	<b>Actual</b>
2012	78

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.
2	Total number of youth participants that will enhance decision making skills and develop positive leadership skills, increase their knowledge of entrepreneurship education, and increase their knowledge of science education.

**Outcome #1**

**1. Outcome Measures**

Number of additional direct extension contacts made by volunteers, staff, or county agents not receiving federal funds as a direct outcome of the work of federally funded faculty associated with this planned program.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	587673

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
206	Basic Plant Biology
214	Vertebrates, Mollusks, and Other Pests Affecting Plants
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection
608	Community Resource Planning and Development
802	Human Development and Family Well-Being
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

Total number of youth participants that will enhance decision making skills and develop positive leadership skills, increase their knowledge of entrepreneurship education, and increase their knowledge of science education.

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	4832

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
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
- Populations changes (immigration, new cultural groupings, etc.)

### **Brief Explanation**

Monthly 4-H program activities do not cost youth participants as long as Extension funds or external grant funding are available to provide funding for these programs. However, current economic challenges and other external factors have affected the outcome of some 4-H Programming activities.

Economic situations effected schools accessibility to the program

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

Based on pre and post testing results and post program evaluations of each respected area there were increases in youth participants acquiring knowledge in the following areas: Science education, Leadership and Entrepreneurship.

4-H'ers all across the state continued to serve other citizens through Georgia 4-H.

Educators today often describe the new three "R's" of education: rigor, relevance, and relationships; citing their significance related to student achievement. The Georgia 4-H Environmental Education program helps school systems by providing opportunities for students to experience rigorous and relevant programming, and opportunities to build and develop relationships.

Data collected from evaluations of the 4-H Environmental Education, conducted during the 2010-11 school year, demonstrates a statistically significant increase in student (1) relationships with their classmates, (2) relationships with their teacher, (3) environmental awareness, (4) environmental behavioral intent, and (5) connectedness to nature. Each of these results can be linked directly back to one of the new 3 R's of education.

### **Key Items of Evaluation**

Georgia 4-H program is well received and continues to provide Georgia's youth with valuable skills and character development.