

# 2013 Fort Valley State University and University of Georgia Combined Research and Extension Annual Report of Accomplishments and Results

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## 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 2012 population was 9,919,945. The 2012 population estimates listed in the 2014 Georgia County Guide reported 28.1% of Georgians were age 19 or younger and 11.5% of the state's population was 65 or older. Georgian's of white decent accounted for 63.4% of Georgians, 31.2% were of African American descent and 9.3% were of Hispanic descent.

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.

## **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 in 2013 are highlighted here.

Global Food: UGA state specialists worked with Georgia Department of Natural Resources and the Environmental Protection Division as expert advisors on rule changes and permit development.

The resistant varieties of fruit developed will lead to higher production and higher quality products, while decreasing fungicide use.

Research on detection and development of fungicide resistance has resulted in the development of improved assay methods for detection and monitoring of fungicide resistance.

Thousands of fungal isolates were screened for production of new compounds that can be used to control plant parasites, resulting in more crops/nematodes being added to the efficacy list for biorational nematicides.

With the weather conditions in 2013, many pecan cultivars would have experienced close to 100% loss without fungicide applications. With the number of fungicide applications required, recommendations helped offset the risk of fungicide resistance and direct losses due to plant disease.

Childhood Obesity: During the Spring 2013 session of Walk Georgia, 1,859 people actively participated in Walk Georgia and 341,531 miles were logged. In the Fall of 2013, 2,489 participants were active and 389,760 miles were logged. Generally those participating on a team walk 3 - 4 miles more per week than those who participate as individuals.

Consumer and Financial Literacy: Extension Agents in some counties have developed a financial education program in partnership with the Department of Labor for persons receiving unemployment compensation. In the past year, 168 persons completed that program.

Climate Change: Farm testing of wireless sensor networks (WSNs) to monitor and control irrigation continued. Overcoming specific challenges has resulted in improved software and hardware, and improved grower confidence in WSNs.

Research continued on water use in agricultural production, and the management of water for ecosystem services in the midst of volatile weather conditions.

Food Safety: Statewide, 35 child care providers, 832 adults and 2,441 youth were reached with food

safety education. Through media outreach, an additional 270,000 contacts may have been reached with food safety messages.

Urban Ag: Control strategies for warm and cool season grasses were improved. Research findings facilitated the availability of some 24 commercial fungicides now labeled in turfgrass. As a result of these efforts, strategies for better timing of application, alternative dosages, new formulations, and optimal application methods for fungicides have been developed.

Science based knowledge on turfgrass disease identification and control has been shared with academic colleagues and industry professionals in Spain, Thailand, Mexico and Honduras.

## **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.

## **PLANNED PROGRAMS**

### **1. Childhood Obesity**

This planned program has a major research and Extension component to address human

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/instruction 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/instruction 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 brings 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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	98.8	6.5	58.6	13.5
Actual	410.6	9.5	412.5	45.3

**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 respective merit review processes. 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 Agricultural Experimental Station Directors. Extension reviews the quality and relevance of the state program goals at the State, District, and County levels. Departmental Extension Coordinator Contacts provide insight at the state level. The Program Development Team is the district level input. This team consists of the district program development coordinators, evaluation specialist, and Extension administrators. County agents provide input directly to the Program Development Team and the State Extension Coordinators. The constituents provide input through the County Council as part of the Extension Leadership System.

### **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 data from these agent/specialist sessions is then analyzed by the state program development team and recommendations are made 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 UGA College of Agriculture began a comprehensive strategic planning process in late 2010. The process gathered information from stakeholders aimed at informing the future of CAES work. During 2013, action items were established in order to move toward reaching the seven identified goals for the future. Further details can be found at <http://caesplan.caes.uga.edu/>

#### **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.**

Statewide stakeholders and potential collaborators were identified by faculty 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 committees met at least four times during the year. One youth development statewide survey was conducted to collect county input. The statewide CAES advisory committee met two times during the year. With the Archway Partnership, we invite individuals from the general public 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 is channeled to college administration so they have the knowledge to make budgetary decisions. All vacant positions in all departments are brought to college level administration for evaluation based on these criteria before a decision is made to refill. Or 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 College 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 the College and are willing to contribute their time, talent and resources to build the overall College. Most are placing the long term survival and enhancement of the College above the needs of their particular operation, organization or community. They want to be part of the solution knowing that as the total College 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>
7333710	2326379	5578526	2774620

<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>	7336430	2326378	5237464	2774619
<b>Actual Matching</b>	7336430	2326378	5237464	2774619
<b>Actual All Other</b>	64852049	0	66065838	0
<b>Total Actual Expended</b>	79524909	4652756	76540766	5549238

<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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.1	3.0	3.7	0.0
Actual Paid Professional	5.0	2.0	3.5	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
519577	624531	358730	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
519577	624531	358730	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
4592921	0	4525057	0

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

### 1. Brief description of the Activity

We disseminated parenting publications, information through print and web sources. We provided information through the Just in Time Parenting and eXtension Alliance for Better Child Care communities of practice. We provided parenting and child care provider education classes on a variety of topics to Extension agents, parents, and caregivers. We provided news releases, blog posts and other social media, and related information on parenting, youth development, and child care topics to be disseminated by agents to print, online, and broadcast media outlets.

In the past year, Walk-a-Weigh, Extension's weight control program and Walk Georgia, Extension's on-line fitness program have been offered. Also cooking schools have been presented to help participants make changes in their food selection and preparation and physical activity.

We have also trained agents on methods for working with children to reduce overweight and done inservices for agents on diabetes management.

We conducted in school classes in a majority of Georgia's Counties. We conducted Food Product Development contest and local practice sessions as part of the 4-H program. We conducted statewide youth meetings focused on Healthy Lifestyles. As part of the program, Healthy Lifestyles Ambassadors were trained on research and relevant information. 4-H Summer Camp Healthy Lifestyle classes were also conducted.

Health and nutrition workshops were held in various locations for different types of clientele. Classes/workshops were held in local program areas for parents, senior citizens caregivers and the youth of Georgia. Food demonstrations and interactive learning projects were the main style of teaching education for this topic. Health and nutrition brochures were developed to educate the clientele.

Faculty continued to conduct research on weight control and health.

Sections of Fall Forum include Healthy Lifestyles. Additionally, the 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 attending a Healthy Lifestyles class. During this year's Junior Conference, each participant had a Health Rocks class as well

### 2. Brief description of the target audience

Specialists directed efforts primarily to educating and preparing county agents. As a result, agents

reach parents, guardians, grandparents, youth, child care providers, and other caregivers of children and youth.

The planned program also target directly limited resources individuals and families.

### 3. How was eXtension used?

There are currently 2 leaders and 57 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

##### 1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	435809	227469	173775	90701

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

###### Patent Applications Submitted

Year: 2013

Actual: 0

###### Patents listed

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

###### Number of Peer Reviewed Publications

2013	Extension	Research	Total
<b>Actual</b>	3	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
2013	126

**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>
2013	795

**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>
2013	2385

**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>
2013	47

**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
2013	74

**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.

**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>
2013	334063

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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
- 1890 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2013	85

#### **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

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

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-five percent (85%) 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:

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
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

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

<b>Year</b>	<b>Actual</b>
2013	5829

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

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

Childhood obesity is an epidemic Georgia. According to the Center of Disease Control (2007) Georgia Obesity Epidemic Report, 59% of Georgia's population is obese. In Georgia, fourteen thousand (14,000) (14%) children aged 2-4 years in the Women, Infant, and Children (WIC), program are obese, 28,000 (24%) third grade children are obese, 59,000 (16%) middle school

students are obese, 50,000 (12%) high school students are obese.

**What has been done**

The 4-H staff facilitated 4-H Science Meetings Sessions, Leadership/Citizenship Meetings Sessions, Healthy Living Meeting Sessions and Entrepreneurship/Workforce preparation Meetings Sessions.

**Results**

These program components focused on initiating success by empowering the minds of our youth to a higher level of thinking through leadership, healthy lifestyles, workforce preparation, entrepreneurship, citizenship, and 4-H SET experiential learning activities to youth between the ages of 6-18.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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 #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**

<b>Year</b>	<b>Actual</b>
2013	71

**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.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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>
2013	18416

### 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 as well.

#### Results

Georgia 4-H exceed its goal of reaching by reaching 18,416 youth.

In addition, 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

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

### 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

New federal policy changes in reference to health and nutrition have had a strong impact on programming efforts.

The Georgia Department of Early Care and Learning has begun a new Quality Rated initiative that provides free training and support for child care providers enrolled, which has resulted in a temporary reduction in the demand for community-based child care training provided by Extension (and other sources). Interest from the foster parenting community for education has increased.

People in Georgia live in a toxic environment where it is easier to obtain unhealthy food and to be inactive than it is to be active. The built environment tends to promote use of cars for transportation. Some communities also have food deserts where healthy food is not available. Many communities do not have health educators or diabetes educators to help people make positive changes in their health behaviors. Unfortunately we no longer have Family and Consumer Sciences agents in most of Georgia's counties so we cannot provide health programs and those agents are stretched thin and struggle to do in depth health programming.

External factors which also affected the outcome of participants were clientele that were unable to participate in classes because of the economy or personal obligations.

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

### **Evaluation Results**

Funded by the United States Department of Health and Human Services, Administration for Children and Families (Grant: 90CT0151), and through a multi-state Extension partnership, a training curriculum was developed to support professionals in teaching healthy couple relationship skills to individuals in the child welfare system. In 2013, eight 1-day trainings were conducted across Georgia reaching 281 child welfare professionals. Following the training, 67% strongly agreed (versus 48% at pre-test) that relationship education was relevant to the clients they served, 84% felt it would be very helpful (versus 68% at pre-test) for professionals to receive training, and 85% reported that their knowledge and ability improved following the training.

During the spring and fall sessions of the Walk Georgia program, over 731,291 miles were logged by 4348 participants. Due to the past success of this program, the Coca Cola Foundation has awarded UGA Extension a grant for \$1,000,000. The Cooking for a Life Time Cancer Prevention Cooking School reached 400 women through 21 schools. In 2013, the American Cancer Society awarded UGA Extension \$30,000 to support the presentation of the schools and the publication of the first cookbook. In the fall of 2013, an additional \$15,000 was awarded to support schools in 2014.

The FVSU nutrition program has been able to educate clients on nutrition and health concerns. With the encouragement to clients of advancing their diets to alternative meats and fresh fruits and vegetables, local grocery stores now offer more variety of low fat/lean meats than previously offered. With locally grown fruits and vegetables the local farmers market has increased the times and days of being open. For the before and after questions that were asked 84% of the participants were able to verbally identify 2/3 of the workshop goals.

**Key Items of Evaluation**

- The Walk Georgia program logged over 731,291 miles by 4348 participants
- 84% reported this training was very helpful
- 85% reported an increase in knowledge and ability
- The local farmers market has increased the times and days of being open.

**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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	16.7	0.0	7.6	0.0



Actual Paid Professional	16.7	0.0	7.5	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
1735388	0	768708	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1735388	0	768708	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
15340357	0	9696552	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 then disseminated this information to the appropriate target audiences at the local level.

Knowledge in environmental sciences was improved by applied and basic research studies and by dissemination of results through journal articles, conferences, and professional meetings. Extension outputs to improve public understanding of environmental management consisted of bulletins, flyers, short courses, meetings, and web pages related to implementation of environmental management programs.

Georgia was actively involved in regional and national efforts consistent with the goals of our water quality programs. We led the regional efforts in animal waste management and were involved with numerous state, regional, and national efforts in this area. Research projects and educational efforts were developed to address nutrient management, animal waste management and irrigation water management under the agricultural pollution control program. In the rural environmental protection area, drinking water was a primary focus along with wastewater management. There was also focus on watershed management. Many parts of the water quality program reach audiences beyond the agricultural community including support for communities and local governments.

Both new and enhanced processes for treatment and utilization of animal manures were provided to producers through extension and continuing education activities. Applied research projects were conducted to develop methods to manage or reduce ammonia emissions in poultry production.

Research was published in research publications. New information was shared through the Extension education program. This program included a breeding program that incorporates variability derived from interspecific hybrids to greatly enhance the genetic pool from which new cultivars can be developed. The genus *Abelia* contains approximately 30 species that potentially can be crossed to obtain hybrids with desired characteristics. Hybrids have been obtained from several of these species crosses and are undergoing evaluation. Improved cultivars from this program will be released.

Faculty held several educational programs that focus not only on water conservation, but on specific examples that support the economics of technology conversion, specific behavior training for employees, and specific water use monitoring procedures to support management decisions. Trade journal articles

were written for the local area that support these educational goals.

The Center for Urban Agriculture identified and addressed issues concerning agriculture that evolve within the urban community. They also investigated issues and formed collaborations of faculty to address the issues.

Quantitative and qualitative assessment tools and information on the value of ecosystem services were developed and disseminated. Research continued on water use in agricultural production, and the management of water for ecosystem services in the midst of volatile weather conditions. Regulations continued to be examined with respect to irrigation management, stream and water management, and public good provisions to see how optimal mechanisms can be designed to maximize the net public benefits. The economic relationships between biofuels, oil and gasoline prices were explored.

Fatty acid levels were determined for 18 cultivars. Seed was sent to the University of Oklahoma to test for extraction of the oil with surfactants instead of organic solvents. Smoke point temperatures were determined for 15 different oils. Presentations were given at three industry/growers meetings.

The wireless sensor networks are being tested in commercial nurseries to see if they meet the needs of the industry. At the same time, we are conducting experiments at the University of Georgia to develop guidelines on how to get the most value out of these systems.

Training opportunities for the poultry industry on effective environmental management practices continue to be conducted with regard to its environmental impact and the need for appropriate use of generated by-products.

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

The primary target audiences are county extension agents, growers, industry representatives, consultants, contractors, media, regulatory and policy representatives, community leaders,

**3. How was eXtension used?**

There are currently 2 leaders and 25 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	176263	924422	23657	124071

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 2

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	3	11	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
2013	486

**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
2013	1458

**Output #3**

**Output Measure**

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

Year	Actual
2013	17

**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>
2013	14

**Output #5**

**Output Measure**

- Percent of GA poultry producers utilizing NMPs to manage P appropriately

<b>Year</b>	<b>Actual</b>
2013	40

**Output #6**

**Output Measure**

- Number of plant species propagated

<b>Year</b>	<b>Actual</b>
2013	210

**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>
2013	199249

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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>
2013	40

### **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**

Most poultry companies in GA are now incorporating enzymes in their rations that increase P availability and thus reduce P excreted in poultry manure. Poultry industry representatives, poultry

farmers and litter brokers are better informed on phosphorous issues related to the environment and have incorporated P into their nutrient management plans. P is less likely to impact surface water because of the educational efforts made as a result of this program.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
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

Not Reporting on this Outcome Measure

#### Outcome #4

##### 1. Outcome Measures

Number of plantings by clientele

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2013	32

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

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

Landscaping in urban areas is under increasing scrutiny by local and state stakeholders. UGA conducts regular online and face-to-face trainings for the commercial landscapers to ensure that they employ proper practices to protect the environment and sustain their businesses.

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

Monthly online trainings and regular face-to-face trainings throughout the state.



**Results**

Clientele put knowledge obtained through trainings into practice.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)

**Outcome #5**

**1. Outcome Measures**

Implementation of water savings practices in commercial greenhouses

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	3

**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.

**What has been done**

Research was conducted to quantify water needs of various greenhouse and nursery crops. We have quantified water needs of nursery crops and developed mathematical models of how these water needs vary based on weather conditions. Presentations were made at scientific and industry meetings about more efficient ways to irrigate greenhouse and nursery crops.

**Results**

Participants implemented greenhouse and nursery irrigation technique that uses water more efficiently and reduces the negative environmental impact of greenhouse and nursery production based on knowledge obtained through presentations.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
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

Government regulations concerning water use also increased the need for more efficient irrigation. Stricter regulations regarding ground water withdrawal as well as runoff force horticultural growers to use their irrigation water more efficiently.

Although Georgia is no longer in severe drought, interest and work continues on how to best manage water resources under volatile weather conditions to protect human uses and the value of ecosystem services. Government regulations continue to be key to designing best management practices for meeting the State's environmental and natural resource conservation objectives.

Camellia oil is a new crop that has never been grown in the US before. Currently it is not recognized as a crop by US funding agencies. Funding is required for economic analysis and further work on harvesting and processing.

Downturn in the economy affects poultry production practices that impact manure generation and management. Compliance with governmental regulation impacts the need for additional training. Shifts in program emphasis based on industry need may impact the outcome of the nutrient management planning effort.

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

##### Evaluation Results

On farm trials have shown that we cannot only greatly reduce water use, but that more efficient irrigation also has direct financial benefits for growers. More efficient

irrigation practices can improve plant quality and shorten the production cycle. These factors can reduce production costs, while increasing sales and thus positively impact farm profits.

Irrigation management practices and the effective valuation of various non-market goods and services continue to be observed to see if the recommendations made are accurate and being adopted.

Smoke point temperature of camellia oil was determined to be 40F higher than that of olive oil.

Nutrient management planning programs continue to have a positive impact on the environment by helping farmers develop and implement nutrient management plans designed to protect Georgia water quality and enhance environmental stewardship efforts.

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

### **Key Items of Evaluation**

- More efficient irrigation also has direct financial benefits for growers
- Camelia oil research continues to provide insight on the potential of biofuels
- Nutrient management planning programs protect water quality and enhance environmental stewardship efforts.

**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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	1.7	0.3	0.0	0.0
Actual Paid Professional	1.7	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
176656	78066	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
176656	78066	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1561593	0	0	0

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

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

Programs in financial management and family resources were implemented to strengthen limited resource families and communities to enhance their quality of life.

The program was implemented through group discussions, workshops, demonstrations and training supplemented by print and electronic media resources.

Preparing for the Workforce publications were developed and distributed to educate the clientele seeking employment.

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. More than 50 news articles were developed for distribution by agents to media outlets.

Faculty continued work on the long range plan developed for early intervention in financial, literacy and consumer education in targeted areas throughout the state of Georgia.

Resources and materials from like-minded consumer advocacy organizations was disseminated. The program targeted consumer advocacy organizations and form partnerships with approximately fifty (50) additional collaborators for program goal enhancement, program funding and coalition.

Programs in financial management and family resourcement were implemented to strengthen limited resource families and communities to enhance their quality of life. FVSU Financial literacy program provided 4 workshops 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. The program assisted individuals in establishing healthy banking relationships, building assets and securing a better future for themselves and their families.

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

Specialists directed efforts primarily to county agents. As a result, agents reached youth, parents, senior citizens and others.

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

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

There are currently 15 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	11548	278218	2134	51413

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

**Patent Applications Submitted**

Year: 2013

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
<b>Actual</b>	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
2013	157

**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
2013	5075

**Output #3**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	6

**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>
2013	8

**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



**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>
2013	9187

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

**Issue (Who cares and Why)**

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

**What has been done**

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

**Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

**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**

<b>Year</b>	<b>Actual</b>
2013	4

**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.

**What has been done**

Our Financial literacy program provided 4 workshops to Georgians. The SMARTT Program is an educational program designed to meet the financial literacy needs of Georgians.

**Results**

Clients test scores increased an average, and participants indicated they had a better understanding of the concepts of financial literacy.

Ms. Jenkins of Americus, GA stated, "keep offering the class. The information is useful and timely."

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

### **Brief Explanation**

Slow recovery to the recession of 2009 has resulted in an increased demand for financial literacy education, and due to budget cuts, a dwindling capacity to meet the financial information needs of Georgia families.

The economic trends in the economy has forced many to take a hard look at their personal finances. FVSU in conjunction with MANNRS offered a workshop during their annual conference to assist youth in money matters. Wanting more information on credit and money management also had a direct affect on the class. Current changes in credit card policies and a contracted lending market encouraged clients to secure additional information regarding personal finance.

Family resource management program was affected by budget constraints and limited resources.

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

### **Evaluation Results**

Agent knowledge was assessed by evaluation tools specific to the content provided at each training. Three major program evaluations were conducted. Participants in a 2-hour financial literacy class mandated for individuals that have filed for bankruptcy completed a pre-test and a post-test with a selected portion receiving a follow-up survey to measure behavior change. The 2-hour workshop helped participants to improve financial practices such as budgeting and paying bills on time. Middle school youth (4th through 8th grades) participating in a ten-part series of 30-minute lessons completed pre- and post-test assessments that showed the students were more likely to save for goals, give to charities, regret an impulse purchase, and understand the time value of money after the workshop series. Participants in a program entitled "Is Starting a Home-Based Business for You?" used clickers to respond to questions about the program which helped participants to think more realistically about running a business from home. About a third said they were less likely to start a business, saving them the money they'd have spent to launch the business.

A Pre and post test was provided at each workshop. In general test scores increased for individual participants after the workshop was completed. Additionally, participants

indicated they would use resources learned in the workshop to improve their personal finances.

Participants revealed that the programs helped them personally and that the program served its purpose. Participants felt that the programs were a success. The overall ratings of the programs were excellent.

### **Key Items of Evaluation**

- Workshops helped participants to improve financial practices such as budgeting and paying bills on time
- Middle school youth reported they were more likely to save for goals, give to charities, regret an impulse purchase, and understand the time value of money after the workshop series
- Participants indicated they would use resources learned in the workshop to improve their personal finances
- Participants felt that the programs were a success and helped them personally.

**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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	2.6	0.0	0.5	6.0

Actual Paid Professional	2.5	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
259789	78066	204989	1445755
1862 Matching	1890 Matching	1862 Matching	1890 Matching
259789	78066	204989	1445755
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2296461	0	2585747	0

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

**1. Brief description of the Activity**

ServSafe Education and Food Preservation classes were conducted for Extension Agents and clientele.

Food Safety was taught as a part of specific college classes in Foods and Nutrition.

Consumer resources were developed and distributed both in print and on-line.

Curriculum packages, lesson plans, and other food safety teaching tools were developed and disseminated to Extension Agents for use in county programming.

News releases, newspaper articles and radio scripts were developed for agent use with media outlets in local communities. 8)Trainings for farmers on small farms and farmers market managers.

Research was carried out on practical methods to reduce pathogens in live production, processing and further processing. Educational meetings were conducted with poultry processing professionals. Individual problem solving activities were conducted with processing plants experiencing excessive contamination levels.

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

Food industry managers, food service professionals, quality assurance professionals, HACCP coordinators, microbiologists, third-party auditors, government inspectors, county extension agents

**3. How was eXtension used?**

There are currently 10 leaders and 10 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	60235	101353	14240	23960

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
<b>Actual</b>	1	4	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.

Year	Actual
2013	1977

**Output #2**

**Output Measure**

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

Year	Actual
2013	28

**Output #3**

**Output Measure**

- Number of persons taking and passing the HACCP certification exam.  
Not reporting on this Output for this Annual Report

**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>
2013	14

**Output #5**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	897

**Output #6**

**Output Measure**

- Food Preservation website number of files viewed

<b>Year</b>	<b>Actual</b>
2013	2240000



**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)
4	Number of agents increasing knowledge as a result of food safety training by specialist.

## **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>
2013	32928

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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**

<b>Year</b>	<b>Actual</b>
2013	22

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

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

CDC estimates that each year roughly 1 out of 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die from foodborne diseases.

The Economic Research Service (ERS) estimates the cost of foodborne illness from five foodborne illnesses alone at \$6.9 billion per year.

Easily accessible training for child care providers, school employees and restaurant workers at the local level is in demand. Employee turnover rates are very high in the foodservice industry so the need for education is continual.

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

ServSafe Education classes were conducted for Extension Agents and clientele.

**Results**

Participants demonstrated an average increase in knowledge of 22%.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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)

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Number of agents increasing knowledge as a result of food safety training by specialist.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	238

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

**Issue (Who cares and Why)**

In recent years, Georgia had the highest incidence of salmonellosis of all 10 sites monitored by CDC's FoodNet system. Infants, young children, the elderly and those with weakened immune systems are most at risk of serious complications.

**What has been done**

Food safety trainings were provided to Family and Consumer Sciences, 4-H and Agriculture Extension Agents.

Curriculum packages, lesson plans, and other food safety teaching tools were developed and disseminated to Extension Agents for use in county programming.

**Results**

Agents receiving training reported an increase in knowledge. They then disseminated that knowledge to industry professionals and individuals.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
503	Quality Maintenance in Storing and Marketing Food Products
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**

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

**Brief Explanation**

Regulations requiring certification of restaurant managers/designated employee increased demand for ServSafe training. Decreases in state funding and loss of county Family and Consumer Sciences Agent positions remain a critical issue.

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

**Evaluation Results**

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.

**Key Items of Evaluation**

Participants reported an increase in knowledge and ability after trainings.

**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: 2013</b>	<b>1862</b>	<b>1890</b>	<b>1862</b>	<b>1890</b>
	59.5	1.5	42.0	9.3
Plan	33.7	2.2	32.6	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)**

<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
3501950	686984	3341318	1328864
<b>1862 Matching</b>	<b>1890 Matching</b>	<b>1862 Matching</b>	<b>1890 Matching</b>
3501950	686984	3341318	1328864
<b>1862 All Other</b>	<b>1890 All Other</b>	<b>1862 All Other</b>	<b>1890 All Other</b>
30956290	0	42147678	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. Below are highlights of work done on select projects.

New scientific information was made available to scientific peers through the publication of original research articles in scientific journals. More applied knowledge was disseminated to the audience at large by publishing results in journal articles, Extension bulletins, and departmental research reports and by coordinating presentations with Extension personnel.

Research continues on:

- Cattle- Offered the Master Cattlemen's Program.
- Pesticides- Provided updates on pest control and Georgia Pest Management Handbook and estimations of pest losses in livestock and dairy.
- Pecans - Seedlings have begun to fruit and are being selected for nut quality and monitored for quality and pest resistance. Phone hotline was maintained.
- Fungicide Resistance - Developed effective disease management programs that minimize the development of fungicide resistance in many crops. New active ingredients of chemical fungicides have been evaluated. Field experiments have been conducted on the efficacy of biological and chemical.
- Species-specific primers were developed for detection. Fungicide programs were developed over a 3-year period in field trials in Mexico. The small grains team released four new wheat varieties with disease

2013 Fort Valley State University and University of Georgia Combined Research and Extension Annual Report of Accomplishments and Results  
and insect resistance.

- Blueberries - Detected pathogens, overwintering, and yield loss relationships. Evaluated natural detachment of mature fruit and various genotypes evaluated. Demonstrated the benefits of appropriate cultural methods.
- Veterinary entomology - Provided mandated certification. Worked with GA DNR and EPD as expert advisors.
- Agribusiness, sustainability, and economic development - Information on social capital, education, and poverty is being collected and provided to policy makers, industry and the public. Researched agricultural management and marketing. Researched production and management alternatives in a variety of crop and cattle enterprises.
- Plant disease - Conducted research projects, field experiments, and screenings on plant disease management and developed management programs to reduce losses. Improved management of seedborne disease.
- Goat and sheep - Trained National Guard troops prior to deployment to Afghanistan. Developed info on parasites and general small ruminant management techniques. Conducted on-farm research and station studies.

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

The target audience is sheep, goat, beef & pork producers, dairymen, county agents, veterinarians, and industry professionals.

**3. How was eXtension used?**

There are currently 7 leaders and 68 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	846380	726020	117706	100968

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

**Patent Applications Submitted**

Year: 2013



Actual: 20

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	380	18	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
2013	92

**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
2013	25

**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
2013	40330

**Output #4**

**Output Measure**

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

Year	Actual
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2013 90

**Output #5**

**Output Measure**

- Number of disease samples processed by diagnostic laboratory.

<b>Year</b>	<b>Actual</b>
2013	8546

**Output #6**

**Output Measure**

- Number of field experiments to develop disease management approaches.

<b>Year</b>	<b>Actual</b>
2013	18

**Output #7**

**Output Measure**

- Number of international contacts

<b>Year</b>	<b>Actual</b>
2013	85

**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>
2013	920997

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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
- 1862 Research

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2013	110

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

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

Every one of Georgia's 159 counties has cattle. Georgia cattle producers need educational opportunities that will help them apply research based techniques to their herds.

In order for Georgia cattle producers to be economically viable they must stay abreast of

economic and environmental conditions which have a direct impact on production and profit. Effort must be made by producers to increase production and management efficiency, thus it is important that as educators we help keep cattle producers current on the latest production and management information. Georgia cattle producers seek educational opportunities that will help them apply new innovative management techniques to their herds.

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

Over twenty years ago, the UGA Animal and Dairy Science Department developed an intensive cattle production program for producers known as the Georgia Master Cattlemen's Program. Over the years the program has been modified to meet changes in production methods and environmental concerns and/or issues.

Georgia Master Cattlemen's Program was held at the Georgia County Extension Office regularly. The educational effort consisted of classes on nutrition, facilities, forages, economics/marketing, foreign animal diseases, agro-terrorism, general herd health, external parasites, reproduction, Beef Quality Assurance Certification, sire selection, record keeping and the benefit of being a member of the Georgia Cattlemen's Association. The educational programs are taught by Extension Specialists and county agents.

#### **Results**

A total of 110 producers received Master Cattleman certification.

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

<b>KA Code</b>	<b>Knowledge Area</b>
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
- 1862 Research

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	257354865

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Poultry production is one of Georgia's largest agricultural industry, and agriculture is Georgia's largest industry.

#### What has been done

A survey of Georgia Cooperative Extension county agents and commodity specialists was conducted for the purpose of providing annual county-level information for the value of all food and fiber commodities grown in the state.

#### Results

The Farm Gate value of poultry showed an increase of 4.7%

## 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 #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**

<b>Year</b>	<b>Actual</b>
2013	257354865

**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>
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%

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure



### 3b. Quantitative Outcome

Year	Actual
2013	60

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

The profitable and sustainable production of vegetables in Georgia is severely impacted by a number of diseases. Among which Phytophthora blight, southern blight, Fusarium wilt, gummy stem blight, and downy mildew are the most destructive and most difficult to control.

#### What has been done

Studies have been conducted to develop effective management programs to reduce losses caused by vegetable diseases.

In field studies, the new fungicides applied alone or in conjunction with other selected fungicides were demonstrated to be among the most effective in reduction of Phytophthora blight.

A series of field experiments have been conducted to determine the efficacy of biological and chemical fungicides for control of southern blight on tomato caused by *Sclerotium rolfsii*.

#### Results

Experiments with disease management approaches proved a 60% reduction in crop damage.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

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

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

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

### **Brief Explanation**

Heavy summer rainfall led to high levels of pecan scab infection, which allowed us to screen populations more effectively, but reduced quality in susceptible cultivars and selections. Wet weather also resulted in significantly more fungicide use in peanuts, pecans, and watermelons.

Removal of some pesticidal products from the market has reduced weapons in the pest control arsenal. Insecticide resistance continues to diminish the efficacy of existing products.

Regulations and the interpretation and enforcement of the rules is constantly evolving and impacting our programs. The high cost of inorganic fertilizer is positively influencing the value of animal manures and increasing off farm demand.

Constant fluctuation of animal feed ingredients has influenced changes in animal diets. The economy is also causing hardships for producers resulting in less funding available for on farm environmental improvements.

Stagnant incomes and personal spending, tight credit, a real state/foreclosure crisis, high unemployment, and a government focus on improving the economic situation continued in 2010.

Immigration is leading to issues of financial literacy and access to credit.

Volatile input and commodity prices continued to affect industry performance.

Case studies were conducted for particular agribusiness operations and ventures. Extension personnel observed agribusiness performance as they worked one-on-one with growers. Financial success in this sector continues to be a challenge, particularly at the farm production level.

Although the drought conditions have lessened, weather variability continued to affect many producers in Georgia and public programs such as crop insurance are still being impacted, making it necessary to respond with improved risk management strategies. Also changes in public policy, particularly trade and farm bill legislation, needed responses.

Volatile output and input prices had to be addressed as well.

There is a continual risk for the introduction of exotic disease causing fungi into the U.S. Previous introductions include daylily and gladiolus rust fungi and the Asian soybean rust fungus. These introductions directly impact growers due to mandatory quarantine and eradication measures at great cost. Introductions also result in the need for basic and applied research on these pathogens.

Public policy on biofuel and impact on land use, food supply, and feed supply. Government regulations on meat inspection had an impact. Increase in target population and market brought higher demand. Marketing practice and opportunities are factors often cited by clients as challenges.

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

### **Evaluation Results**

Multiple projects have occurred under this planned program. Below are a few highlights of evaluation findings from select projects.

- County agents and other stakeholders continue to request assistance through the program which indicates some level of satisfaction in the service they receive. GA Dept of Ag and EPD also continue to ask our / assistance in developing and implementing regulations. Commodity groups have shown great support and have frequently asked for our assistance with environmental issues and educational programs.
- Now that ten years of data has been collected on pecan cultivars, recommendations for improved disease resistance, greater genetic variability, and cultural attributes such as harvest date, regular bearing, and nut quality.
- Research found that *A.citrulli* quorum sensing contributes to seed-to-seedling transmission of bacterial fruit blotch. It was also found that commercial cucurbit seed represents a significant source of *A. citrulli* inoculum in China. Certain provinces in China present high risks for cucurbit seed contamination by *A. citrulli*.
- Lime sulfur, Indar, and Captan were found to be excellent fungicides for management of *Exobasidium*. Organic materials failed to manage mummy berry, whereas chemical fungicides provide excellent activity. Additional fungicides have been tested and found more effective than those recently utilized.
- The candidate gene for parthenogenesis was shown to express in the egg cell and induce fertilization-independent initiation of embryos from meiotically-reduced eggs.
- Biorational nematicides developed in this program have shown efficacy against plant-parasitic nematodes on fruit crops.
- Resistant line to FOS 1 and FOS 2 were identified and the selections made will form the basis for further breeding efforts for resistance to *Fusarium* wilt races 1 and 2 in watermelon. Mapping populations were created identify region associated with resistance.

- New knowledge has been gained regarding the point of mature fruit detachment and molecular aspects of fruit detachment. This information has potential implications for breeding of new blueberry varieties.
- Our integrated management research plots showed that successful production of blueberry on a replant site requires a combination of preplant treatment with nematicides, plastic mulches, and soil amendment with pinebark.
- Research progress has been made as scheduled and yearly objectives have been reached.
- Incorporation of resistance to rust fungi in winter wheat varieties provides long term management of diseases. The assessment of fungicide efficacy provides growers with broader choices to incorporate into an integrated disease management plan.
- With the number of fungicide applications required, recommendations helped offset the risk of fungicide resistance and direct losses due to plant disease.
- Row covers were found to be important during the first few weeks after planting squash to prevent squash bug invasion and the development of cucurbit yellow vine disease.
- Response to evaluation of Small Ruminant Toolbox training for Extension Educators were positive.

### **Key Items of Evaluation**

- New chemical fungicides provided excellent activity
- GA Dept of Ag and EPD also continue to ask our / assistance in developing and implementing regulations.
- Recommendations helped offset the risk of fungicide resistance and direct losses due to plant disease
- Mapping populations were created identify region associated with resistance
- Ten years of data has been collected on pecan cultivars
- Small Ruminant Toolbox training were successful.

**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%	100%	33%	0%
	<b>Total</b>	100%	100%	100%	0%

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

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	4.9	0.0	4.8	0.0
Actual Paid Professional	1.5	0.2	2.0	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
155873	78066	204989	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
155873	78066	204989	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1377876	0	2585747	0

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

1. Brief description of the Activity

Research projects were developed and conducted to improve on existing technologies and identify new and emerging technologies. Examples of research projects under development or implementation are discussed below. Many projects are currently underway or in the planning stages.

A project evaluating the production of hydrogen from peanut hull and pine chips biomass is underway. Peanuts and pine chips are plentiful in Georgia. Additional tests are continuing on the use of char in Agriculture. Two chars (peanut hulls and pine chips) produced from the process are being evaluated for nutrient benefits, water holding and irrigation benefits, and carbon sequestrations benefits.

BioOil has been developed by pyrolyzing pine pellets in a pilot scale system. Blends of BioOil with other solvents/fuels have been prepared and are being characterized. BioOil blend analysis and testing is ongoing. Plans for engine performance testing will begin soon.

The transesterification of oils and fats to produce biodiesel is being studied. This work evaluates new sources of oils and fast that could be substrates for producing biodiesel. Once developed, the biodiesel will be tested for properties and behavior in engine testing. Georgia grasses are being hydrolyzed through a hot water extraction process to generate fermentable sugars. These were further broken down before fermentation. The final sugar solution will be fermented for producing ethanol.

Faculty provided workshops and field days; newsletters and/or fact sheets development and distribution; site visits; educational exhibits related to forestry.

In the LIFE program, seven workshops/resource clinics were held and one publication related to estate planning were distributed. Exhibits were also present at the workshops, field days, and demonstration in seven black-belt counties.

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

Farmers, agribusiness, community leaders, entrepreneurs

Small, minority, and limited resource landowners and farmers

**3. How was eXtension used?**

There are currently 1 leader and 20 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	40743	6501	14312	2284

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	0	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
2013	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
2013	77

**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
2013	1931

**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>
2013	1

**Output #5**

**Output Measure**

- Number of site visits to landowners/farmers

<b>Year</b>	<b>Actual</b>
2013	300



**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>
2013	12897

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

**Issue (Who cares and Why)**

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

**What has been done**

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

**Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

**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>
2013	300

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

**Issue (Who cares and Why)**

Several research studies have documented that small, minority and limited resource landowners and farmers are often not aware of and/or been denied access to opportunities that will aide in sustaining and/or increasing their land productivity in the area of forest management. Of Georgia's 24.7 million acres in forestland, 17.96 million acres are owned by private non-industrial landowners. Timber is the highest valued vegetative crop in Georgia. Georgia's forest resource creates a 12.7 billion dollar direct economic impact in the state.

**What has been done**

Specialist visited small, minority, and limited resource landowners and farmers to increase education and awareness of availability of federal and state programs.

**Results**

Specialist visited landowners and farmers.

**4. Associated Knowledge Areas**

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

### **Brief Explanation**

Lack of the Farm Bill changes are still effecting targeted audience. Slumping housing market are still affecting prices as well as financial institutions lending practices. Weather is still a constant factor.

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

### **Evaluation Results**

The LIFE Program was able to increase the overall knowledge of 250 landowners in the following topic areas: wills and estate planning by over 70%; timber management and marketing by Over 50%; USDA cost-sharing programs by over 50%; wildlife mangement by over 45%and land management including surveying by over 60%. A total of 40 estate plans were completed for minority landowners provide clear title to over two million dollars in total assets including forestland.

### **Key Items of Evaluation**

**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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	3.2	1.0	0.0	0.0
Actual Paid Professional	3.1	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
322138	312266	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
322138	312266	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2847611	0	0	0

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

**1. Brief description of the Activity**

Specialist worked with faculty in the UGA AES Lab to update 4 publications in the water quality series. A paper on energy conservation was presented at an international conference. Much of the outreach done in this area is incorporated into blog posts on [www.UGAGreenWay.org](http://www.UGAGreenWay.org).

Trainings were conducted on the Seven Principles of Healthy Housing. Attendees included health department professionals and nurses. Peer reviewed publications focused on making the home safer for children. A multistate publication was developed in cooperation with the University of Maryland. The other publication was a home safety checklist for people with young children in their homes.

As a HUD approved housing counseling agency, UGA FACS Extension Agents provided prepurchase housing counseling for 6 Georgians, and counseled 3 people dealing with mortgage delinquencies. Forty two people attended pre purchase home buyer workshops, 6 attended mortgage delinquency workshops, and 168 participated in financial literacy workshops.

Faculty also developed training and educational materials for non-federally funded agents to utilize with clients in their communities on home buying. Faculty developed and disseminated information on indoor air quality, water quality, waste management and energy management. Faculty promoted Extension as a resource for housing education information to housing and community organizations.

FVSU's program offered homebuyer education workshops to 163 consumers throughout the year. The workshops raised consumer awareness of programs available to assist with homeownership needs. 14 participants purchased homes valued at approximately \$1.4 million.

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

The primary audience for the federally funded specialist is the county agent. The county agents take the information into the communities where it is disseminated to the general public.

**3. How was eXtension used?**

eXtension was not used in this program

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	20822	67718	4471	14541

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	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
2013	60

**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
2013	3544

**Output #3**

**Output Measure**

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

Year	Actual
2013	7

**Output #4**

**Output Measure**

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

Year	Actual
2013	8

**Output #5**

**Output Measure**

- Number of home-buyer education opportunities

<b>Year</b>	<b>Actual</b>
2013	6



**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 number 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.

**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>
2013	11908

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

**Issue (Who cares and Why)**

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

**What has been done**

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

**Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

**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.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

The number 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 Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	534

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

**Issue (Who cares and Why)**

Indoor air quality problems are caused by indoor contaminants. Health effects of these contaminants range from allergic reactions in sensitive populations to death. Additionally, health effects of some IAQ contaminants are unknown at this time.

**What has been done**

UGA provided healthy housing training for professionals as a training partner with the National Center for Healthy Housing.

**Results**

Recipients tested their homes for indoor contaminants.

**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.

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

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

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	18

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

**Issue (Who cares and Why)**

The goal of homeownership for many consumers is unattainable. Housing is an essential need for all persons. Not only is it a place for shelter, but it also has deep psychological and emotional influences on people providing them with a feeling of safety and security. Many consumers are overwhelmed by the home buying process.

**What has been done**

Our program offered homebuyer education workshops to consumers throughout the year.

**Results**

The workshops raised consumer awareness of programs available to assist with homeownership needs.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

#### Brief Explanation

Although still important, a plentiful water supply in much of the state turned consumer's attention away from conserving water. Home heating and cooling costs remain an issue of concern in many parts of Georgia. There is an increased interest in recycling, reusing and reducing waste.

Delays in notification and receipt of federal funding for the radon program impacted the productivity of the program.

Improvements in the financial and housing markets have resulted in less demand for mortgage delinquency counseling. Jobs are still difficult to find in rural Georgia, so people continue to seek information on budgeting.

Clients are more aware of the pitfalls of foreclosure, scams and predatory lending practices and therefore, attend the classes to educate themselves. Additionally, as employment improves so does the Housing market. Public policy changes most notably down payment assistance programs for first time homebuyers also helped to increase enrollment. Lastly, new federal regulations regarding lead and renovations also assisted in increasing enrollment for the classes.

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

#### Evaluation Results

Evaluations indicate an interest in changing behaviors to improve indoor environment by testing for radon. Over 50% of people who receive a radon test kit use it to test for radon in their home.

Among those clients participating in individual counseling, 1 purchased a home, 1 was mortgage ready in 90 days, 2 were mortgage ready after 90 days and 2 decided they were not ready to buy.

At the beginning and at the conclusion of each homebuyer education series a test was

administered beforehand to gauge clients knowledge prior to completing the class, and then the same test was given at the conclusion of the series to see if the test scores increased. On average individual test scores increased. Additionally, participants indicated an increase in knowledge and felt empowered enough to make informed decisions.

### **Key Items of Evaluation**

- Over 50% of recipients tested their home for radon
- Participants indicated an increase in knowledge and felt 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: 2013	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	156133	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	156133	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 were conducted in each of the six identified counties to access the true needs for Information Technology training. Curriculum based on the clientele needs were developed. Low intensity training classes were offered in each county to include: "Introduction to Computers", "Introduction to the Internet", "Introduction to Email", "Introduction to MS Word". This hands-on training was enhanced by follow-up training via email.

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

The target audience consists primarily of senior citizens and retirees. However, in cases where space is available, others were 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**

2013	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: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	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>
2013	2250

**Output #2**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	1

**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>
2013	6

**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>
2013	9

**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	Number of 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

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	676

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

**Issue (Who cares and Why)**

Georgians to enhance their lives by learning and applying information technology in their everyday lives. One of the consistent findings is that individuals 50 years of age and older are among the least likely computer/Internet users. As the baby boomer generation prepare entering retirement age, more and more of them will retire without being proficient in computer technology.

**What has been done**

Training courses offered included Introduction to the Internet and Introduction to Computers.

**Results**

Participants reported they were able to send and receive emails.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
903	Communication, Education, and Information Delivery

**Outcome #2**

**1. Outcome Measures**

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

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	328

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

**Issue (Who cares and Why)**

Georgians to enhance their lives by learning and applying information technology in their everyday lives. One of the consistent findings is that individuals 50 years of age and older are among the least likely computer/Internet users. As the baby boomer generation prepare entering retirement age, more and more of them will retire without being proficient in computer technology.

**What has been done**

Introduction to the Internet training courses were offered.

**Results**

Participants reported they were better able to search the internet for useful consumer information.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
903	Communication, Education, and Information Delivery

**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.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

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

**Issue (Who cares and Why)**

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

**What has been done**

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

**Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
903	Communication, Education, and Information Delivery

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

**External factors which affected outcomes**

- Economy
- Appropriations changes
- 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 # 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: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	0.7	0.0	0.1	0.0

Actual Paid Professional	2.0	0.0	3.5	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
207831	0	358730	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
207831	0	358730	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1837169	0	4525057	0

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

**1. Brief description of the Activity**

Faculty conducted statewide and local trainings, programs on turf diseases identification and management. Publication of electronic and printed materials on turf diseases identification and management were published. Implementation of research trials to measure efficacy and proper timing of fungicides to control in different diseases are being conducted.

Development of partnerships and research collaborations with commercial companies and educational institutions are still being established to support the work of this program. Faculty are developing new cost estimating and job bidding software for landscape installation. New software to use with GPS devices will be developed to support inventory systems.

Faculty continue to support the Master Gardener program by training county extension agents to conduct local programs. Faculty members worked with local county extension agents to support consumer educational efforts related to urban agriculture.

Historically and Horticulturally Significant Trees of Georgia were visited and documented. Google Map for Campus was generated.

Research was conducted on the development of disease resistance in petunia by inactivating plant genes used by pathogens for infection. A chemically mutagenized petunia population was screened for mutations induced in the gene MLO using high resolution melting analysis. A petunia line was discovered with a mutation in MLO that was predicted by bioinformatic analysis to be deleterious to the function of the protein it encodes.

Petunia was also transformed with a gene construct that can potentially eliminate MLO expression. A mutant line that enabled self-pollination of petunia was characterized.

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

The target audience for this planned program includes urban agriculture industries professionals, public policy makers and regulators, county Extension faculty, homeowners.



**3. How was eXtension used?**

There are currently 10 leaders and 52 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	160094	604132	18643	70351

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
<b>Actual</b>	0	1	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
2013	45

**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>
2013	3532

**Output #3**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	52

**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>
2013	30

**Output #5**

**Output Measure**

- Number of research trials conducted

<b>Year</b>	<b>Actual</b>
2013	18

**Output #6**

**Output Measure**

- Number of disease management recommendations based on disease samples processed

<b>Year</b>	<b>Actual</b>
2013	306

**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 Master Gardener 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>
2013	323086

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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 Master Gardener program

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	355

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

**Issue (Who cares and Why)**

The Master Gardener program to help transfer research-based information about gardening and related subjects to the public. Master Gardener Volunteers are active in many Georgia counties. Through this program, Cooperative Extension is able to reach out and serve more citizens with educational programming and demonstrations in these 5 target areas:

Environmental Stewardship, Home Food Production, Gardening with Youth, Value of Landscapes, Health Benefits of Gardening

**What has been done**

Master Gardener trainings have been conducted throughout the state.

**Results**

A total of 355 certificates were granted for completion of Master Gardener program.

**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
206	Basic Plant Biology
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management
806	Youth Development

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

**External factors which affected outcomes**

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

**Brief Explanation**

In 2013 there were changes in weather patterns with an incessant rainy periods and cold weather throughout much of the year resulted in widespread turfgrass disease incidences especially in warm season grasses. Changes and additions of fungicides provided added both challenges and new ways to combat disease. However, the program objectives for the year were accomplished and surpassed predictions. We have been successful in attaining a variety of extramural funds for travel and other research and extension activities.

The genomes of the two Petunia species that gave rise to modern petunia hybrids were sequenced by an international group. Once this genomic data is released publicly, the identification of petunia genes will be greatly simplified.

High rainfall levels in 2013 led, in general, to an enhancement of turfgrass diseases in Georgia.

Weather, insects, and diseases have impacted trees as some have fallen

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

### **Evaluation Results**

The results and activities of the program provided 36 new outlets of information and research findings published in several venues. The latest information and research results on turfgrass disease have been disseminated at 23 international, national, state and local meeting and conferences. Additionally, under this program new and/or improved turfgrass disease control strategies have been developed. Furthermore three previously unreported diseases in Georgia have been described.

Research and extension expertise and advice from this program are commonly sought by industry, stakeholders and government entities. This program has secured substantial extramural funding to perform and expand activities.

Research findings enhanced our understanding of *L.perlatum* and fairy ring disease in Georgia, and other states and regions.

### **Key Items of Evaluation**

- Program provided 36 new outlets of information and research findings published in several venues
- Three previously unreported diseases in Georgia have been described
- Findings were disseminated at 23 international, national, state and local meeting and conferences

**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%	20%	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%	10%	0%	0%
802	Human Development and Family Well-Being	4%	20%	0%	0%
806	Youth Development	49%	50%	0%	0%
	<b>Total</b>	100%	100%	0%	0%

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

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	4.4	1.0	0.0	0.0
Actual Paid Professional	4.4	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
457228	312266	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
457228	312266	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
4041771	0	0	0

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

### 1. Brief description of the Activity

4-H faculty members developed curriculum, trained and supported county extension agents to conduct monthly educational programs for in-school club meetings around the state.

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

We offered topics such as living history, ropes, team building, ecology, outdoor studies, animal studies, and environmental education.

The 4-H Youth program developed curriculum and trained staff to conduct a summer camping program that allows young people to learn and practice life skills. Five residential camps are supported through the work of this program.

The 4-H Youth program conducted a Georgia Youth Summit where youth and adult teams prepared information on local issues, received training on enacting change and working together and returning to home communities to enact the change. State federally funded faculty provided in-service training and web based information for county faculty, staff, and volunteers for working with youth in civic engagement.

They trained 4-H issue ambassadors to work on community change during ambassador training and prepare complimentary information for ambassadors to use as reference. State faculty trained youth and adults to work with communities on meeting the needs of suddenly military youth and families under the direction of the Operation Military Kids Team. Faculty members produced and provided web based training and information for directing and assisting youth in individualized community engagement with recognition within the Leadership in Action program.

FVSU 4-H staff facilitated twelve (12) 4-H Science Meetings Sessions, twelve (12) 4-H Leadership/Citizenship Meetings Sessions, twelve (12) Healthy Living Meeting Sessions and twelve (12) 4-H Entrepreneurship/Workforce preparation Meetings Sessions. The 4-H staff also facilitated a 4-H Summer Day Camp for 3 weeks on campus.

A large part of this program funded specialists and their direct efforts primarily to county agents. These agents then disseminated this information to youth in their county.

### 2. Brief description of the target audience

The target audience for this planned program includes two groups. County agents and volunteers are targeted to multiply the efforts of faculty associated with this program. In many cases, faculty 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 target 5<sup>th</sup> through 8<sup>th</sup> grades. Different activities within the program 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?**

There are currently 34 active members associated Communities of Practice related to this planned program.

The membership in **eXtension** has continued to grow. Overall, there are currently 195 members in Communities of Practice in 62 approved communities. (Up from 150 members in 59 communities in 2012)

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	3066121	549557	1010396	181098

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
<b>Actual</b>	6	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>
2013	36

**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>
2013	11748

**Output #3**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	15

**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>
2013	19

**Output #5**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2013	36

**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>
2013	1292829

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

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

Faculty associated with federal funds also make indirect contacts to clientele. These federally funded positions provide further impact to the community through county faculty, staff and volunteers not receiving federal funds. This county level programming results in thousands of additional direct Extension contacts.

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

County faculty have presented research based information directly to clientele through presentations, workshops, on-site visits, meetings, and other trainings.

#### **Results**

UGA Extension extended lifelong learning to the people of Georgia through unbiased, research-based education.

### **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>
2013	5829

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

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

Youth need opportunities to practice and assume leadership roles. Active engagement in organizations is declining in younger generations. In providing youth the opportunity to become active and engaged as leaders in their program where their voices are a part of decision making, Georgia 4-H can contribute to leadership skill development and in meeting its mission.

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

Georgia 4-H provides youth the opportunity to learn leadership skills and engage in opportunities to lead peers and younger youth.

#### **Results**

Youth participants increased their knowledge and skills in decision making, leadership, entrepreneurship, and science education.

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

### **Brief Explanation**

The American economy is unpredictable, and Extension budgets have been reduced significantly. These economic challenges 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 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: 75% of youth participants increased their knowledge of science technology, Leadership: 75% of youth participants acquired strategies to enhance their ability to make good decisions, and Entrepreneurship: 75% of youth participants learned information that taught them how to start their own business.

### **Key Items of Evaluation**