

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

### Program # 1

#### 1. Name of the Planned Program

Animal Production

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%
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	6%	13%	4%	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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	9.5	2.5	2.0	10.8
<b>Actual Paid</b>	12.1	2.0	9.5	6.8
<b>Actual Volunteer</b>	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
1402773	718393	1010655	926118
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1402773	718393	1010655	926118
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**

Research was conducted. County, regional, state, and multistate meetings, trainings, and workshops were held. Field days, on-site visits, tours, and hands-on sessions took place. Diagnostic services were provided.

Research findings were shared via bulletins, newsletters, eXtension, lay-person articles, industry publications, peer-reviewed journals, scientific proceedings, state and national conferences, broadcast media, websites, and expos.

**Aquaculture**

GCAD continued improvement and operation of facilities. Sustainable aquaculture was demonstrated in campus greenhouses. The number of aquaponic units in the greenhouses increased to 28 units.

**Beef Cattle**

The HERD program provided information on proper management nutrition and health. The 2014 bull sales -169 people registered with 59 buyers, purchasing the 88 beef bulls.

UGA's Beef Team offered the Master Cattlemen's Program. Ninety-nine cattlemen attended 5 to 7 sessions around the state to receive certification.

Experts on the development of forage from several UGA departments provided up to date industry information to participants. Participants included producers and agents from GA, FL, and AL - more than 2,500 head of cattle.

Specialists updated 11 sections in the Georgia Pest Management Handbook. A reduction in pesticide misuse was observed. Researchers collaborated with all the state's food animal associations, as well as the pest control associations.

**Dairy Cattle**

New treatments were developed that successfully controlled of mastitis and improved animal health.

New models and software were developed. Specialists served as liaison between the ADS Department and several groups. Research was done on reducing heat stress in dairy cattle. Improved techniques were developed, resulting in improved fertility and milk production.

**Poultry**

Nutrient management planning programs continued to have a positive impact on the environment. Research and training continued on issues of nutrient management, nutrient balance, and sustainable water quality.

**Small Ruminant**

Over 450 responses were made to technical inquiries via email and phone. Georgia National Guard troops were trained prior to deployment to Afghanistan. Researchers studied the effect of various preslaughter factors. Researchers prepared genome walker libraries and submitted this information in GenBank. Fibroblast cell lines were established.

**Equine**

A Master Equine Specialist program was developed to be delivered in 6 to 8 week meetings weekly. Environmental assessment and a conversation plan were conducted for those receiving the certification.

**Apiculture**

Efforts are underway in development of sustainable honey bee. IPM programs and studies on the ecology of honey bees and pollination continue. Georgia now provides national leadership in honey bee research and outreach. Research is ongoing in colony collapse disorder and with collaborators throughout the US. Pollination studies were conducted. Breeding for resistance to pests was continued as well.

**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 6 leaders and 56 active members associated Communities of Practice related to this planned program.

The membership in eXtension has continued to grow. Overall, there are currently 291 members in Communities of Practice in 62 approved communities (Up from 150 members in 59 communities in 2012). 190 questions were answered by in-state experts.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	5009	25725	1590	2990

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	11	30	41

**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
2014	34

**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
2014	602

**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
2014	1827

**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>
2014	73

**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.

## **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>
2014	680430

### **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**

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>
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
304	Animal Genome

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

## **Outcome #2**

### **1. Outcome Measures**

Number of Master Cattlemen certifications granted through this planned program.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	99

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

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

To be competitive in the beef market, producers must understand existing beef management practices as well as become informed of new technologies as they are developed.

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

The University of Georgia's "Beef Team" is currently offering the Master Cattlemen's Program. This program involves detailed, in-depth educational seminars related to beef cattle.

#### **Results**

There were 99 participants in the Master Cattlemen program in 2014.

### **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 #3**

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

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

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

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

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	176629757

#### **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
304	Animal Genome
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**

Year	Actual
2014	5

**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 poultry production.

**Results**

The Farm Gate value of poultry was \$5,438,180,731.

**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

## **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**

- Weather conditions, high feed prices and marketing situations from milk diversions and pooling.
- Regulations and the interpretation and enforcement of the rules are constantly evolving and impacting our programs. The increases in fertilizer prices are positively influencing the value of animal manures and increasing off farm demand. In addition, the national push for biofuels is influencing nutrient management as animal diets are changing due to the high costs of corn. Finally, weather inconsistencies have impacted many producers as some have cut herd sizes due to a lack of feed. The economy is also causing hardships for producers resulting in less funding available for on farm environmental improvements.
- Increased cost of wood shavings has lengthened cycles between broiler house cleanouts, increasing darkling beetle populations and putting greater pressure on control strategies.
- High beef prices have made cattle more valuable, leading to producer willingness to invest more in pest management.
- Price of commercial fertilizer will promote the use of organic fertilizers in areas of crop production outside of the poultry producing region.

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

### **Evaluation Results**

- At the completion of the workshops evaluations were given to workshop participants for comments on each topic of the workshop. An overwhelming positive response was given

by the workshop participants on the usefulness and quality of information available at the different workshops.

- One case study on beef marketing was completed. One set of "before" data was collected to measure impact following intervention of deworming protocol. Three "after only" assessments were conducted. Response to evaluation of Small Ruminant Toolbox training for Extension Educators was completed and outcomes were positive.
- Preliminary data show that growing goats supplemented with 95% pelleted sericia lespedeza leaf meal grow as well as those supplemented with 16% CP commercial pellets.
- Surveys, data analysis, and pregnancy evaluations were positive.
- Submission rate of poultry litter samples to the lab for analysis to aid in NMP decisions increased.
- Program evaluations were completed by participants and case studies were done on specific programs such as the Beekeeping Institute and changes were made as appropriate. Findings were positive.
- Research is evaluated annually and on longer term through graduate program assessment. Continued long term funding of these programs by sponsoring agencies is another important factor. In addition, annual evaluations of productivity are made.

### **Key Items of Evaluation**

Workshops were well received and showed an overall increase in knowledge and satisfaction with the programs.  
Analysis and techniques taught improved product quality and value.