

# Urban Agriculture

Urban Agriculture

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

### 1. Name of the Planned Program

Urban Agriculture

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

### 1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area                                           | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|----------------------------------------------------------|-----------------|-----------------|----------------|----------------|
| 102     | Soil, Plant, Water, Nutrient Relationships               | 10%             | 10%             | 10%            | 10%            |
| 111     | Conservation and Efficient Use of Water                  | 15%             | 15%             | 15%            | 15%            |
| 124     | Urban Forestry                                           | 10%             | 10%             | 10%            | 10%            |
| 202     | Plant Genetic Resources                                  | 10%             | 10%             | 10%            | 10%            |
| 205     | Plant Management Systems                                 | 10%             | 10%             | 10%            | 10%            |
| 211     | Insects, Mites, and Other Arthropods Affecting Plants    | 10%             | 10%             | 10%            | 10%            |
| 212     | Pathogens and Nematodes Affecting Plants                 | 10%             | 10%             | 10%            | 10%            |
| 213     | Weeds Affecting Plants                                   | 10%             | 10%             | 10%            | 10%            |
| 601     | Economics of Agricultural Production and Farm Management | 10%             | 10%             | 10%            | 10%            |
| 602     | Business Management, Finance, and Taxation               | 5%              | 5%              | 5%             | 5%             |
|         | <b>Total</b>                                             | <b>100%</b>     | <b>100%</b>     | <b>100%</b>    | <b>100%</b>    |

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

### 1. Actual amount of professional FTE/SYs expended this Program

| Year: 2008    | Extension |      | Research |      |
|---------------|-----------|------|----------|------|
|               | 1862      | 1890 | 1862     | 1890 |
| <b>Plan</b>   | 2.0       | 0.0  | 1.0      | 0.0  |
| <b>Actual</b> | 4.8       | 0.0  | 0.1      | 0.0  |

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

| Extension                     |                | Research       |                |
|-------------------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c<br>410270 | 1890 Extension | Hatch<br>13071 | Evans-Allen    |
|                               | 0              |                | 0              |
| 1862 Matching<br>410270       | 1890 Matching  | 1862 Matching  | 1890 Matching  |
|                               | 0              | 13071          | 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**

Two software programs on cost estimating and job bidding were created and used in workshops for landscape professionals. HortScape is a cost estimator for landscape installation services, and Hort Management is a cost estimator for landscape management services. Two workshops using the software were done in 2007 and two were done in 2008. In addition, Gary Wade provided seminars on the software at four industry meetings throughout the year. Also created was a full color brochure advertising the two cost estimating programs.

Published a manuscript on genetic diversity in azalea. Presented a paper to professional society on abelia cultivar release 'Cloud 99'. A patent on a new abelia cultivars 'Raspberry Profusion' was awarded.

Two computer Wimba organic trainings were taught to over 400 attendants. Six articles on xeriscape and organic alternatives were done for local news media. Four radio spots were delivered on topics of pesticide safety. Five advanced Master Gardener trainings were held with 275 attendants and were taught in diagnostics, urban forestry, and water wise landscape techniques.

Within the program an active applied research was implemented to address new or recurring problems or knowledge voids. In 2008; Research endeavors have resulted in 1 peer-refereed (blind review) journal articles, 4 peer-reviewed, non-refereed specialty scientific publications, and 5 abstracts and proceedings. 9 field and greenhouse trials evaluating 65 treatments have been evaluated. Results from these investigations have been applied to extension activities and delivery of information. Under scope of this program these Extension outputs have been delivered: Publication of one book; 1 chapter in manual; 3 peer-refereed journal articles; 1 peer reviewed, non-refereed extension bulletins and circulars; 12 sections in 12 special extension bulletins; 15 articles in industry journals; 10 e-learning module; 5 abstracts and proceedings and 2 newspaper and online articles. These publications have been recognized as having significant impact. Implementation of statewide and local trainings has been the core of this program. Under this program 9 state and regional industry, professional and educational conferences/workshops/seminars and has conducted 3 statewide educational workshops/seminars. 5 county programs. Other efforts included attending and delivering information to underrepresented clientele and in bilingual format. Several innovative programs were implemented. Examples include computer-based trainings for industry personnel. Extramural funding was obtained through competitive grants and industry collaborations

We provided 5 educational seminars/classes involving greenhouse water conservation on campus. We provided 6 county-based grower programs or regional trade group programs on water conservation in greenhouses that were part of greenhouse updates and other meeting venues. We published 6 refereed Extension bulletins on water conservation in greenhouses to support the program efforts. These were provided as web-based downloadable documents to all participants. They are also available 24/7 on the UGA outreach website. We have met numerous times with the local grower groups in Georgia to discuss water conservation. I have also served on the Athens-Clarke County water conservation committee to help them devise new rules and regulations for the county that involve the greenhouse, nursery and landscape industries.

A recently received grant from the Georgia Forestry Commission will help provide practical training for advanced Master Gardeners in four locations across the state as a trial run. The subsequent training materials and website will be a big boost to this program.

Various MG programs were conducted/classes taught. Publications were created for use by both County Agents and homeowners with internet access.

Over 250 trees have been visited and documented.

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

Small, minority, and limited resource landowners and farmers.

Extension agents Tech School and Vo-ag. students Landscape Professionals

The targeted audience will be the Georgia public.

County agents Golf course superintendents Turfgrass professional managers Landscape companies Sod Producers Grounds maintenance personnel Sports Fields Managers General green industry personnel

The audience will include greenhouse owners, employees of greenhouse owners, county agents involved in assisting greenhouses, and community leaders involved in water conservation policy.

Homeowners, County Agents, Master Gardeners and other gardening groups. Landscapers.

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

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

|             | <b>Direct Contacts<br/>Adults</b> | <b>Indirect Contacts<br/>Adults</b> | <b>Direct Contacts<br/>Youth</b> | <b>Indirect Contacts<br/>Youth</b> |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| <b>Year</b> | <b>Target</b>                     | <b>Target</b>                       | <b>Target</b>                    | <b>Target</b>                      |
| <b>Plan</b> | 5000                              | 300000                              | 550                              | 1000                               |
| 2008        | 4095                              | 35990                               | 645                              | 1500                               |

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

**Patent Applications Submitted**

**Year Target**

**Plan: 0**

2008: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

|             | <b>Extension</b> | <b>Research</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| <b>Plan</b> | 0                | 0               |              |
| 2008        | 0                | 0               | 5            |

**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>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2008        | 700           | 455           |

**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>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2008        | 500           | 197           |

**Output #3**

**Output Measure**

Number of significant publications including referred journals articles, bulletins and extension publications.

| <b>Year</b> | <b>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2008        | 15            | 70            |

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

| O No. | Outcome Name                                                                                                                                                                                                          |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Percentage of program participants reporting increased knowledge after program participation.                                                                                                                         |
| 2     | Percentage of program participants who indicated a plan to adopt one or more of the practices recommended in this program.                                                                                            |
| 3     | 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. |
| 4     | Number of technical school students taught how to use the software in their classes as a direct result of this program.                                                                                               |
| 5     | Collaboration on community mapping projects occurring as a direct result of this program.                                                                                                                             |

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

| <b>Year</b> | <b>Quantitative Target</b> | <b>Actual</b> |
|-------------|----------------------------|---------------|
|-------------|----------------------------|---------------|

**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> |
|----------------|-----------------------|
|----------------|-----------------------|

**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**

The economy and fuel cost may decrease ability of people to attend programs. Creative computer alternatives may be needed to address needs. Decrease of state and federal funds have had a negative affect on program support and attendance.

Drought was a major factor in turfgrass production and management. Cold weather spells and high fluctuation in temperatures had a detrimental effect on turfgrass production and disease management. Water use regulation, policies, law enactment and other were constant priorities for turfgrass managers. However, the program objectives for the year were and surpassed predictions. Economic downturn has influenced the turfgrass industry and this program itself. However we have been successful in attaining extramural funds for travel and other activities.

The ordinances and rules involving water conservation are changing monthly in Georgia due to the "The Water Wars between GA/FI and TN. Additionally our Governor and Legislature are changing rules in response to the increasingly severe drought, and our local officials are introducing new ordinances on the local level for the same reason. This has caused much confusion and difficulty delivering a cohesive message as the rules change monthly. We are doing everything we can to keep up. The economic downturn has reduced production on top of previous reductions due to drought. Hispanic laborers have left the area, and sales of plant materials are minimal. Water conservation is occurring but may be greatly influenced by reduced demand for plants.

New companies are entering the market, providing lower-cost GPS data collection units. Unfortunately, this is creating a wide range of available products that use different software.

The extreme drought situation in Georgia affected the focus of my publication topics, as well as the disease pressure in the state.

## **V(I). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

After Only (post program)

Retrospective (post program)

Before-After (before and after program)

During (during program)

Case Study

Comparisons between program participants (individuals,group,organizations) and non-participants

Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

## Evaluation Results

Ask for written comments at the conclusion of our workshops. Also receive unsolicited comments throughout the year from people who use the software.

Promising new cultivars with drought and heat tolerance are being developed. Close to release as new cultivars are plants of abelia, native azalea, and little bluestem.

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

Pre and post test evaluations of trainings, retrospective evaluations and appropriate modifications were implemented. Programs were constantly evaluated and improved based on feedback and evaluations.

Evaluations are used to constantly improve and modify the program. Improved methods of delivery, content of programs are constantly updated. Research results have been evaluated, selected and implemented to address clientele needs. Detailed observation of site and behaviors or participants can be implemented. Number of references, citations, web links to published articles can be implemented. In fact, a detailed description of these later efforts has been the topic of the impact statement submitted to the college.

As of 2008, the laws and regulations are not yet finalized. We will attempt a survey of water use technique and attitude changes after the crisis passes as rules and regulations expected of growers is changing rapidly. We cannot assess this until the level of new ordinance writing and new rules and edicts from the Governor and city leaders are finished. As of January, 2009, we are still without state water agreements, and our local ordinances are yet to be finalized. Growers reluctant to change are not the main problem. Delays, legal challenges and legislative disagreements in technical language is becoming the larger challenge to adoption of water conservation technology because growers don't want to invest until they see the new laws and regs legislators keep telling them are coming. Water conservation systems may cost tens of thousands of dollars and if you buy the wrong system, and have to retrofit or buy yet another system, growers could face serious financial issues.

Post-training survey to determine effectiveness and additional needs.

The trainings and publications were successful in familiarizing the target audience with plant pathology topics.

Highlights are being placed on nomination website.

## Key Items of Evaluation