

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Horticulture

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%		21%	
204	Plant Product Quality and Utility (Preharvest)	0%		25%	
205	Plant Management Systems	85%		28%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%		3%	
212	Pathogens and Nematodes Affecting Plants	0%		9%	
213	Weeds Affecting Plants	10%		3%	
405	Drainage and Irrigation Systems and Facilities	0%		2%	
601	Economics of Agricultural Production and Farm Management	0%		4%	
604	Marketing and Distribution Practices	0%		5%	
	Total	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	20.0	0.0	4.2	0.0
Actual Paid Professional	28.2	0.0	13.8	0.0
Actual Volunteer	2424.0	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
723101	0	445260	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
723101	0	445260	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1088747	0	3095285	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Key horticulture programs addressed issues related to home landscaping; home, community and school gardens; commercial ornamentals; and turf. The Louisiana Master Gardener program provided trained volunteers to assist in addressing the growing needs of consumer horticulture audiences.

Teaching methods included extension and research activities such as result demonstrations, volunteer training, field days, studies, individual consultations, group meetings, mass media, publication development and extensive use of Web technology and social media outlets to reach target audiences.

2. Brief description of the target audience

Horticulture professionals, home gardeners, nursery industries, athletic field managers, Louisiana Master Gardener Volunteers, K-12 schools with gardens and related agribusiness clientele.

3. How was eXtension used?

287 questions submitted through eXtension's Ask an Expert system were answered by extension horticulture specialists.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	214247	16953065	24235	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	5	29	34

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Web page views

Year	Actual
2013	2175417

Output #2

Output Measure

- Number of Web page visits

Year	Actual
2013	1951647

Output #3

Output Measure

- Number of Louisiana Master Gardeners completing training series

Year	Actual
2013	302

Output #4

Output Measure

- Number of service hours contributed by all Louisiana Master Gardeners

Year	Actual
2013	73198

Output #5

Output Measure

- Number of school gardens established and/or maintained

Year	Actual
2013	230

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Adoption of recommended horticultural practices
2	Louisiana Master Gardener volunteers supplement the delivery of consumer horticulture program to clients.
3	Adoption of recommended practices by commercial horticulture producers and professionals
4	Adults effectively instruct and interact with youth in developing and managing school gardens.

Outcome #1

1. Outcome Measures

Adoption of recommended horticultural practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
213	Weeds Affecting Plants

Outcome #2

1. Outcome Measures

Louisiana Master Gardener volunteers supplement the delivery of consumer horticulture program to clients.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Louisiana has an estimated 481,000 home vegetable gardens with a projected annual production of \$240 million. There also are countless home landscapes requiring maintenance and development that relates to an ever-increasing need by consumers for research-based horticulture information, training and timely access to LSU AgCenter resources. Reduced numbers of personnel coupled with increased interest in consumer horticulture, home gardening and home grounds has exacerbated the need for trained volunteers to assist in the delivery of quality educational horticulture programs.

What has been done

The Louisiana Master Gardener (LMG) Program involves a network of highly-trained volunteers and was developed to strengthen the capacity of the LSU AgCenter's Cooperative Extension Service ability to effectively and efficiently meet the educational needs of home gardeners in Louisiana. Louisiana Master Gardeners complete the standardized LMG training course and are required to donate 40 hours of service the first year and 20 hours each year thereafter to maintain certification. Now in its 20th year, there are 26 LMG training programs in 53 of 64 parishes that represent 96% of Louisiana's population centers. The LMG Program follows the standard Master Gardener format and participants interact with Habitat for Humanity, garden foundations, parish beautification programs, local farmers' markets, schools and community gardening programs, food banks, professional organizations, local master gardener associations, and Master Gardener programs in other states. In 2013, LMG volunteers: worked with school and 4-H youth, nursing home residents, and home gardeners; answered telephone gardening questions and e-mail communications; provided information at on-site plant health care clinics and gardening information booths; conducted demonstrations, community and school gardening programs, public presentations, gardening seminars, workshops, garden shows, plant sales, educational tours, plant trials and evaluation; and urban tree protection and preservation programs; partnered

with civic organizations and municipal entities to complete landscape projects; used media efforts involving newsletters, publications, cable TV and television broadcasts; planned, organized and conducted conference events; and performed on-site consultations.

Results

The increased need for consumer horticulture information and enhanced accessibility to the LSU AgCenter has proven that highly trained LMG volunteers presenting science-based information are recognized in their community as an important and critical resource for gardening education. In 2013, the LMG Program trained 302 new volunteers which increased the active number of volunteers statewide to 2,424. LMG volunteers provided 73,198 hours of their time to Extension educational projects and exposed 5,752,134 residents in Louisiana to research-based, consumer horticulture information. This volunteer service, equivalent to 43 full-time employees, increased the human capacity of Extension by 21% and contributed an economic value of \$1,787,410 to the state of Louisiana.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
213	Weeds Affecting Plants

Outcome #3

1. Outcome Measures

Adoption of recommended practices by commercial horticulture producers and professionals

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Vegetable growers and fruit producers, along with turf and ornamental professionals, desire information on production improvements and better management options and practices. Louisiana retail garden centers want to expand ornamental plant promotion and marketing efforts.

Timely communication of commercial horticulture happenings and research information is desired.

What has been done

The Louisiana Super Plants promotion program has named 29 plants for professionals to promote and market to consumers. Participants include 150 retail garden centers. The Field of Excellence Turfgrass Program continued and expanded into more schools. Nursery and turfgrass studies addressed establishment, production and best management practices issues. Native habit prairie plant establishment studies expanded. Breeding efforts in figs and peaches continued. Development of horticulture plants for wildlife was initiated. Ornamental plant breeding program was initiated and selection program continued. A nursery plant research survey was conducted. A water management survey was initiated. The Louisiana Fruit and Vegetable Growers Association held several outreach events and reached new clientele. Ornamental e-news updates and trial garden e-news reports continued. Enhanced social media efforts using Facebook, Twitter, blogs and Linked In were initiated.

Results

Nursery growers, retailers and landscape horticulturists were surveyed pertaining to interest in about 80 new plants being researched by the LSU AgCenter for possible future introduction and distribution. 25-35% of the plants represented were of high interest with retailers and landscapers to use/sell, while growers said about 12% of the plants would be highly considered for production in the next year. Sod growers learned about the production potential of zoysiagrass through education and research efforts. E-News updates and trial garden reports resulted in 65,000 contacts. A 2013 survey of Louisiana Nursery and Landscape Association members found the top research, extension, and marketing effort desired was the evaluation, development, distribution, and/or marketing of new plants. Plant categories in which there appears to be additional interest include: Native Trees and Shrubs - 26.6%, Louisiana Super Plants - 23.2%, Fruit Species/Varieties for Landscape Use -21.7%, Japanese Maple Varieties - 18.7%, Alternative Warm-season Bedding Plants for Shade - 18.2%, Low Care Roses -17.7%, Alternative Cool-season Bedding Plants - 15.3%, Hardy Hibiscus and Other Unique Hibiscus Species - 13.8%, Tropical and Semi-Tropical Plants - 13.3%, New Azaleas - 12.8%.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
601	Economics of Agricultural Production and Farm Management

Outcome #4

1. Outcome Measures

Adults effectively instruct and interact with youth in developing and managing school gardens.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

School gardens can be an effective means of helping youth advance both academically and socially. It is estimated that there are about 230 school gardens in the state, most of which have been started and are maintained under the direction of LSU AgCenter extension agents. Through this hands-on experience, children learn not only about growing food, but also about habitats, insects and pollination. However, having well-trained, dedicated and willing adults to guide and direct the gardening project on a consistent basis is critical to the project's success.

What has been done

Workshops were conducted with K-12 teachers and teachers and directors in child care provider centers to educate them about teaching gardening skills, maintenance of the garden, connecting the garden to the curriculum, and creating a plan of action. Additionally, county agents learned about butterfly gardening. Participants received curriculum materials as well as some basic gardening supplies to help them start the garden. Veggie Bytes, a quarterly school garden newsletter, was developed and distributed.

Results

Among the teachers, nearly 60% indicated that they felt more confident about their ability to design, build and maintain a garden after the workshops. Sixty-six percent were more confident in their knowledge of when to plant certain vegetables. Nineteen new gardens were established at child care centers and ten new butterfly gardens were also established.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

213 Weeds Affecting Plants

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}