

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Climate Change: Water Gardens (Aquaculture)

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
401	Structures, Facilities, and General Purpose Farm Supplies		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.2	0.0	0.3
Actual Paid Professional	0.0	0.2	0.0	0.3
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	7210	0	4597
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	24896	0	24896
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	78036	0	14137

V(D). Planned Program (Activity)

1. Brief description of the Activity

Studies were conducted on water garden filtration utilizing native submergent aquatic vegetation and on biological filter design for koi ponds.

2. Brief description of the target audience

All aquaculture farmers in Oklahoma.

3. How was eXtension used?

eXtension was not used in this program.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	300	350	50	100

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

Patent Applications Submitted

Year: 2012

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Research Projects completed on Water Gardens

Year	Actual
2012	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of farmers learning water garden techniques.
2	Number of farmers using water garden techniques.
3	Farmers who improve the water quality of their water gardens and reduce operational costs.

Outcome #1

1. Outcome Measures

Number of farmers learning water garden techniques.

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	500

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers and sellers of fish and hard goods for ornamental ponds need accurate information and appropriate technologies to grow their businesses and purchasers need proper information and technology to sustain their enthusiasm for the hobby. Policy makers and regulatory administrators need credible information before and during the rule/law making process.

What has been done

During 2012, we conducted the Annual Langston University Aquaculture Field Day and participated in the meeting of the Kansas Aquaculture Association. Presentations were made during the Langston University Small Farms Conference regarding the opportunities for aquaculture production and sales in Oklahoma and surrounding states. We also made presentations to a national audience at a trade show sponsored by Pond Pro Shop (an Oklahoma water garden retailer) and to several lay water garden organizations.

Results

Pond Pro Shop, a nationally rated "top 10" water garden store in Oklahoma, reported a 50% increase in sales of aeration systems. The shop also added advanced filtration systems to its inventory; increasing store sales and profits. More producers reported extending the portion of the year that fish were actively fed and maintained. The prolonged season resulted in increased opportunities for fish sales and increased profits.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #2

1. Outcome Measures

Number of farmers using water garden techniques.

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #3

1. Outcome Measures

Farmers who improve the water quality of their water gardens and reduce operational costs.

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	30

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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What has been done

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4. Associated Knowledge Areas

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V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

External factors did not affect outcomes.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Development of best management practices for the water garden industry.

Key Items of Evaluation

Sharing best management practices with clientele.