

Improved Management Options to Improve Catfish Production Efficiencies and Lower Costs

Improved Management Options to Improve Catfish Production Efficiencies and Lower Costs

V(A). Planned Program (Summary)

1. Name of the Planned Program

Improved Management Options to Improve Catfish Production Efficiencies and Lower Costs

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
302	Nutrient Utilization in Animals		20%		20%
307	Animal Management Systems		20%		20%
308	Improved Animal Products (Before Harvest)		20%		20%
601	Economics of Agricultural Production and Farm Management		15%		15%
602	Business Management, Finance, and Taxation		15%		15%
603	Market Economics		10%		10%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.8	0.0	0.7
Actual	0.0	0.8	0.0	1.5

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	95378	0	261034
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	49277	0	237370
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

- Conduct field trials
- Conduct method demonstrations
- Publish results
- Give presentations
- Develop individual enterprise budgets for catfish producers
- Develop news articles on improving farm efficiency
- Develop producer workshop targeting efficiency improvements for producers
- Work with catfish industry to develop copper sulfate use protocol
- Work with fish processing plants in valuing use of copper sulfate for off flavor control.
- Work with industry supplies who manufacture copper sulfate on proper use of the product Initially, a suite of alternative diet ingredients will be screened in pilot studies for potential efficacy in full studies.
 1. Candidates for alternative protein sources are cuphea meal, soybean concentrates, poultry meals, and invertebrate meal.
 2. Candidates for lipid sources are non-fish sources of n-3 fatty acids such as canola, flaxseed oil, and algal concentrates.
 3. Prebiotics and probiotics may include Grobiotic™, Daily™, and Bacillus spores.

2. Brief description of the target audience

- Catfish farmers throughout Arkansas
- County Extension agents
- Grocery store managers
- Consumers
- Commercial catfish producers
- Interested potential producers
- Commercial Bankers
- Copper sulfate manufacturers and suppliers

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	12	100	0	0
2007	2337	9000	52	5

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

Patent Applications Submitted

Year	Target
Plan:	0
2007:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	4	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Refereed Journal Articles

Year	Target	Actual
2007	4	15

Output #2

Output Measure

Number of Abstracts Published

Year	Target	Actual
2007	8	24

Output #3

Output Measure

Number of Presentations at Scientific Meetings

Year	Target	Actual
2007	7	22

Output #4

Output Measure

Number of Trade Magazine Articles

Year	Target	Actual
2007	3	6

Output #5

Output Measure

Number of Catfish Farms Adopting Recommendations

Year	Target	Actual
2007	90	65

Output #6

Output Measure

Number of Catfish Acres Using Recommendations

Year	Target	Actual
2007	16000	25500

Output #7

Output Measure

Number of Ponds in Copper Sulfate Demonstrations

Year	Target	Actual
2007	5	1

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of commercial pond owners informed of the options to improve water circulation through aerator placement
2	Number of farm managers considering increased pond circulation in the placement of new aerators
3	Number of producers responding to project results
4	Number of producers willing to test successful ingredients or feeding strategies on a commercial scale
5	Percent of CFAR members aware of effect aerator placement has on circulation
6	Number of Farmers Gaining Access to Catfish Market Information
7	Number of Stores Adopting Recommendations
8	Number of Stores Increasing Sales of Catfish
9	Number of Arkansans Gaining Access to Catfish Management Information
10	Number of Arkansans Adopting Management Recommendations
11	Number of Arkansans Increasing Efficiency, Profitability Through Improved Catfish Management
12	Number of diets with new ingredients that are commercially available, or number of new feeding strategies implemented by industry

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual
------	---------------------	--------

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
---------	----------------

V(H). Planned Program (External Factors)

External factors which affected outcomes

Other (Changing market demand for aquacultured products, new disease or other production barrier, and public acceptance of recommendations. Global economic situation changes, regulatory laws change. Changes in EPA regulations. Costs and feasibility of moving aer)

Brief Explanation

Factors affecting overall profitability of fish culture that may have nothing to do with diet or feeding strategies:

1. fuel costs
2. weather
3. competition from domestic and imported products
4. unfavorable publicity

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

1. Evaluation Studies Planned

During (during program)

Evaluation Results

Key Items of Evaluation