V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program
Aquaculture Equipment and Information Development Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
<th>%1862 Extension</th>
<th>%1890 Extension</th>
<th>%1862 Research</th>
<th>%1890 Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Engineering Systems and Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>404</td>
<td>Instrumentation and Control Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1862</strong></td>
<td><strong>1890</strong></td>
<td><strong>1862</strong></td>
<td><strong>1890</strong></td>
</tr>
</tbody>
</table>

V(C). Planned Program (Inputs)

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

<table>
<thead>
<tr>
<th>Year: 2009</th>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1862</td>
<td>1890</td>
</tr>
<tr>
<td>Plan</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Actual</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>1890 Extension</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>Hatch</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>Evans-Allen</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>1890 Matching</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>1862 All Other</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
<tr>
<td>1890 All Other</td>
<td>(NO DATA ENTERED)</td>
<td>(NO DATA ENTERED)</td>
</tr>
</tbody>
</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity
• Further test and refine aquaculture equipment
  • Develop recommendations for appropriate use of new technologies
  • Monitor commercial production facilities adopting new technologies
  • Publish results
  • Give presentations
  • Design of computer experiments
  • Conduct computer simulations by programming
  • Reconfiguration of simulation models with feedbacks from extension specialists.

2. Brief description of the target audience
• Fish farmers throughout the southern region, primarily Arkansas Catfish producers
  • Arkansas Game and Fish personnel
  • Research scientists
  • County Extension agents Catfish farmers
V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th></th>
<th>Direct Contacts Adults</th>
<th>Indirect Contacts Adults</th>
<th>Direct Contacts Youth</th>
<th>Indirect Contacts Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>15</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Year: 2009
Plan: 0
Actual: {No Data Entered}

Patents listed
{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

<table>
<thead>
<tr>
<th></th>
<th>Extension</th>
<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Abstract Publications
  Not reporting on this Output for this Annual Report

Output #2

Output Measure

- Number of Conference Presentations
  Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Number of Refereed Journal Publications
  Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Number of publications
  Not reporting on this Output for this Annual Report
V(G). State Defined Outcomes

### V. State Defined Outcomes Table of Content

<table>
<thead>
<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of Commercial Arkansas Catfish Farmers Learning About New Technologies</td>
</tr>
<tr>
<td>2</td>
<td>Number of Commercial Arkansas Catfish Farmers Adopting New Technologies</td>
</tr>
<tr>
<td>3</td>
<td>Number of Commercial Arkansas Catfish Farmers Increasing Efficiency and Profitability</td>
</tr>
<tr>
<td>4</td>
<td>Number of Commercial Arkansas Catfish Farmers That Learned New Methods to Access Fish Inventories</td>
</tr>
<tr>
<td>5</td>
<td>Number of Commercial Arkansas Fish Farmers Learning New Handheld Computer Technologies for Record Keeping</td>
</tr>
<tr>
<td>6</td>
<td>Number of Commercial Arkansas Catfish Farmers Accurately Assessing Their Fish Inventories</td>
</tr>
<tr>
<td>7</td>
<td>Number of Commercial Catfish Farmers That Utilized Hand Held Computer Technologies for Record Keeping</td>
</tr>
<tr>
<td>8</td>
<td>Number of Arkansas Fish Farmers who have Increased Their Management Efficiency or That Conducted Comprehensive Annual Financial and Economic Analysis Because of Better Fish Inventory Assessment Methods or the Use of Improved Computerized Record Keeping Systems</td>
</tr>
<tr>
<td>9</td>
<td>Percentage of Catfish Farmers that are Informed About the Effectiveness and the Optimal Sample Size of the Trawl Sampling Method Through Extension Specialists</td>
</tr>
<tr>
<td>10</td>
<td>Percentage of Catfish Farmers that Effectively Adopt and Use the Optimal Sample Size of Trawl Sampling for Inventory Estimation</td>
</tr>
<tr>
<td>11</td>
<td>Percentage of Satisfaction Rate of Farmers who Adopted the Trawl Sampling with Recommended Sample Size for Inventory Estimation</td>
</tr>
<tr>
<td>12</td>
<td>Number of Arkansans gaining access to needed information</td>
</tr>
</tbody>
</table>
Outcome #1

1. Outcome Measures

Number of Commercial Arkansas Catfish Farmers Learning About New Technologies

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of Commercial Arkansas Catfish Farmers Adopting New Technologies

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of Commercial Arkansas Catfish Farmers Increasing Efficiency and Profitability

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of Commercial Arkansas Catfish Farmers That Learned New Methods to Access Fish Inventories

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Number of Commercial Arkansas Fish Farmers Learning New Handheld Computer Technologies for Record Keeping

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done
Results

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>404</td>
<td>Instrumentation and Control Systems</td>
</tr>
</tbody>
</table>

Outcome #6

1. Outcome Measures

Number of Commercial Arkansas Catfish Farmers Accurately Assessing Their Fish Inventories

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Number of Commercial Catfish Farmers That Utilized Hand Held Computer Technologies for Record Keeping

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Number of Arkansas Fish Farmers who have Increased Their Management Efficiency or That Conducted Comprehensive Annual Financial and Economic Analysis Because of Better Fish Inventory Assessment Methods or the Use of Improved Computerized Record Keeping Systems

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Percentage of Catfish Farmers that are Informed About the Effectiveness and the Optimal Sample Size of the Trawl Sampling Method Through Extension Specialists

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Percentage of Catfish Farmers that Effectively Adopt and Use the Optimal Sample Size of Trawl sampling for Inventory Estimation

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Percentage of Satisfaction Rate of Farmers who Adopted the Trawl Sampling with Recommended Sample Size for Inventory Estimation

Not Reporting on this Outcome Measure
Outcome #12

1. Outcome Measures

Number of Arkansans gaining access to needed information

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

(No Data Entered)

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

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

(No Data Entered)

Key Items of Evaluation

(No Data Entered)