V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Animals & Animal Products

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>135</td>
<td>Aquatic and Terrestrial Wildlife</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>203</td>
<td>Plant Biological Efficiency and Abiotic Stresses Affecting Plants</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>204</td>
<td>Plant Product Quality and Utility (Preharvest)</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>206</td>
<td>Basic Plant Biology</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>301</td>
<td>Reproductive Performance of Animals</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>302</td>
<td>Nutrient Utilization in Animals</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>303</td>
<td>Genetic Improvement of Animals</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>304</td>
<td>Animal Genome</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>305</td>
<td>Animal Physiological Processes</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td>306</td>
<td>Environmental Stress in Animals</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>308</td>
<td>Improved Animal Products (Before Harvest)</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>311</td>
<td>Animal Diseases</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>315</td>
<td>Animal Welfare/Well-Being and Protection</td>
<td>6%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
<td>10%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>0%</strong></td>
<td></td>
<td></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>21.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Actual</td>
<td>1.2</td>
<td>0.0</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>1890 Extension</td>
<td>Hatch</td>
</tr>
<tr>
<td>20646</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>1890 Matching</td>
<td>1862 Matching</td>
</tr>
<tr>
<td>16774</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1862 All Other</td>
<td>1890 All Other</td>
<td>1862 All Other</td>
</tr>
<tr>
<td>119121</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct educational meetings, workshops, farm visits to educate agricultural producers
Conduct tours, field days, and demonstrations
Conduct one-on-one consultations
Publish educational materials
Conduct mass media efforts (radio, TV, etc.)
Conduct train-the-trainer education
Partner with industry (when appropriate)
Design and conduct practical and applied research to improve the efficiency of growth, reproduction, health and management of livestock, forages, aquaculture, and poultry

2. Brief description of the target audience

Agricultural producers
Non-farm private landowners
Aquaculture producers
Small pond owners
Agricultural businesses/allied industry personnel
Consultants
Breeder managers
Hatchery managers
Commercial poultry producers
Commercial poultry companies
Other researchers
Students
Extension specialists
Teaching faculty
Research funding personnel and agencies
Policy and decision makers
Public

V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th>2009</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>46800</td>
<td>50000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Actual</td>
<td>34608</td>
<td>159575</td>
<td>2234</td>
<td>1765</td>
</tr>
</tbody>
</table>

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

Patent Applications Submitted

Year: 2009
Plan: 8
Actual: 1

Patents listed
Lactic acid bacteria and their use in swine direct-fed microbials

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

<table>
<thead>
<tr>
<th>2009</th>
<th>Extension</th>
<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>13</td>
<td>125</td>
<td>138</td>
</tr>
<tr>
<td>Actual</td>
<td>15</td>
<td>91</td>
<td>106</td>
</tr>
</tbody>
</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure
- Number of educational programs, workshops, educational meeting and/or field days
  Not reporting on this Output for this Annual Report

Output #2

Output Measure
- Number of clientele attending educational programs (field days, workshops, etc.)
  Not reporting on this Output for this Annual Report

Output #3

Output Measure
- Number of producers receiving educational material (newsletters, fact sheets, etc)
  Not reporting on this Output for this Annual Report

Output #4

Output Measure
- Number of producers conducting on farm demonstrations
  Not reporting on this Output for this Annual Report

Output #5

Output Measure
- Number of farm visits or one-on-one consultations with producers
  Not reporting on this Output for this Annual Report
### 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 business start ups related to animal and animal products</td>
</tr>
<tr>
<td>2</td>
<td>Number of livestock producers who increased knowledge or gained awareness related to livestock production management practices</td>
</tr>
<tr>
<td>3</td>
<td>Number of livestock producers who adopted a new practice</td>
</tr>
<tr>
<td>4</td>
<td>Number of livestock producers who initiated or improved their record keeping</td>
</tr>
<tr>
<td>5</td>
<td>Number of poultry producers who adopted new practices or technology</td>
</tr>
<tr>
<td>6</td>
<td>Number of allied poultry industry personnel who adopt new practices or technology</td>
</tr>
<tr>
<td>7</td>
<td>Number of livestock producers who changed a management practice</td>
</tr>
<tr>
<td>8</td>
<td>Arkansas cash receipts from farm marketing ($1,000) related to aquaculture enterprises.</td>
</tr>
<tr>
<td>9</td>
<td>Number of clientele who reported knowledge gained related to aquaculture.</td>
</tr>
<tr>
<td>10</td>
<td>Number of clientele who adopted new aquaculture practices.</td>
</tr>
</tbody>
</table>
Outcome #1

1. Outcome Measures

Number of business start ups related to animal and animal products

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of livestock producers who increased knowledge or gained awareness related to livestock production management practices

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of livestock producers who adopted a new practice

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of livestock producers who initiated or improved their record keeping

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Number of poultry producers who adopted new practices or technology

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of allied poultry industry personnel who adopt new practices or technology

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Number of livestock producers who changed a management practice

Not Reporting on this Outcome Measure
Outcome #8

1. Outcome Measures

Arkansas cash receipts from farm marketing ($1,000) related to aquaculture enterprises.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Number of clientele who reported knowledge gained related to aquaculture.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Number of clientele who adopted new aquaculture practices.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

External factors in 2009 included the soaring costs of feed for livestock and poultry. This was caused by public policy mandating and subsidizing conversion of corn to ethanol. Impacts of poultry and livestock were direct, namely increased costs of production. Cattle producers felt the direct increased costs of supplemental feed for grazing cattle and also the reduced prices for their products &ndash stocker and feeder calves. Ironically, greatly increased costs of feedlot production increased the value of weight gain on grass and created the opportunity for improved profits by growing calves to heavier market weighs on forages. In terms of rainfall, 2009 was a record year. For most of the state, rainfall exceeded the average rainfall by 30 to 50 inches. This impacted timely application of fertilizer and the ability to produce high quality hay. Many cattle producers lost an entire hay crop due to excessive rainfall. Many pastures or hay meadows flooded many times throughout the year resulting in weakened grass stands and opportunity for weed encroachment. The nation's economy pressured demand for meat, especially at the restaurant level as consumer had less disposable income for luxury expenditures. Diversion of grain to ethanol forced Arkansas cattlemen to utilize more by-product feeds instead of corn to supplement their cow herd. Soaring costs for fuel and fertilizer had the obvious impact on production economics. Internal parasites are becoming an increasing concern for livestock and poultry producers. No new products for control are being developed and organisms are becoming resistant to existing products.
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
   - Other (Secondary Data)

Evaluation Results

Data related to animal productin outputs and outcomes are included this year in the new Planned Program - Global Food Security & Hunger

Key Items of Evaluation

Data related to animal productin outputs and outcomes are included this year in the new Planned Program - Global Food Security & Hunger