V(A). Planned Program (Summary)

Program # 17

1. Name of the Planned Program

Food Safety

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>501</td>
<td>New and Improved Food Processing Technologies</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>502</td>
<td>New and Improved Food Products</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>504</td>
<td>Home and Commercial Food Service</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
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</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>
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<tr>
<td></td>
<td>1862</td>
<td>1890</td>
</tr>
<tr>
<td>Actual</td>
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</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>
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<td></td>
</tr>
<tr>
<td>50000</td>
<td></td>
<td></td>
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<tr>
<td>1890 Matching</td>
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</tr>
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<td>1862 Matching</td>
<td>89939</td>
<td>1862 Matching</td>
</tr>
<tr>
<td>1890 All Other</td>
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<td>1890 All Other</td>
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<tr>
<td>1862 All Other</td>
<td>20000</td>
<td>1890 All Other</td>
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</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity

WVU Extension is working toward reducing the incidence of food-borne illness and providing a safer food supply by eliminating causes of microbial resistance to contaminants, educating consumer and food safety professionals, and developing food processing technologies to improve safety.

Beef Quality Assurance (BQA) Program: BQA training provides an opportunity for direct contact with the producers and incorporates a method of "hands on" teaching. The WV BQA certification program follows the guidelines established by the Mid-Atlantic BQA program where producers are required to participate in (1) a Level I class room training program and (2) a Level II chute side training session where they must demonstrate competence in handling and administering vaccines. Recertification is required every two years. The program has the following objectives: 1) provide BQA certification training opportunities for WV beef and dairy producers; 2) enhance production, feeder cattle marketing and leadership opportunities for WV beef and dairy producers participating in the program; 3) develop and share educational materials for Level I & II training with other Mid Atlantic member states; 4) provide opportunities to include BQA in the Dairy Quality Assurance programs; 5) develop and deliver curriculum for a Youth BQA program targeting 4-H and FFA livestock exhibitors; and 6) create and exhibit educational materials and displays for use at short courses, fairs, festivals and expositions to better educate producers and consumers about BQA.
The Acidified Foods School: The Acidified Foods School is a subset of the Better Process Control School. The school is required for processors of shelf-stable acidified foods. Products that are considered acidified foods include pickles, pickled beets, salsa, pickled eggs, and pickled ramps. It also includes a lot of BBQ sauces, pumpkin butters, peppers in tomato sauce ETC. Before any product can be actually produced and sold, a process authority has to approve the process and tell them what records to keep. Extension provides that service for free - if they go out of state it cost about $100 per food. The products have to first go to WV Ag. They inspect the facility and verify the process flow diagram and do the nutritional analysis. We then take the product, test it and specify the process to destroy spoilage organisms and pH for safety. The processor has to have our letter on file and use our information to get FDA approval so the product can be sold.

Food Preservation: The goals and objectives of the food preservation program include: 1) to increase the number of people who use best practices for home food preservation, 2) to prevent food-borne illnesses by teaching appropriate home food preservation methods, and 3) to increase access to affordable, nutritious foods by helping people to feel comfortable and confident in preserving their own food at home. Using tested procedures and recipes will help to prevent serious food-borne illnesses while preserving the quality of the food.

2. Brief description of the target audience

WV citizens who can or preserve foods, commercial food processors, beef producers, WVU Extension agents

V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2009</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Direct Contacts Adults</td>
<td>Indirect Contacts Adults</td>
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<td>{NO DATA ENTERED}</td>
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<tr>
<td>Actual</td>
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<td>3761</td>
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</tbody>
</table>

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

Patent Applications Submitted

Year: 2009
Plan: 0
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

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<thead>
<tr>
<th></th>
<th>2009</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extension</td>
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<td>Plan</td>
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<tr>
<td>Actual</td>
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</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure
- Number of training activities

<table>
<thead>
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<th>Year</th>
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</thead>
<tbody>
<tr>
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</table>
### Output #2
**Output Measure**
- Number of educational materials created or updated

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</table>

### Output #3
**Output Measure**
- Number of grants or contracts

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<th>Target</th>
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</table>

### Output #4
**Output Measure**
- Number of professional presentations

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<th>Target</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>O. No.</td>
<td>OUTCOME NAME</td>
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<tr>
<td>-------</td>
<td>------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Number of participants who increased their knowledge of food safety</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Participants took an action related to food safety training</td>
<td></td>
</tr>
</tbody>
</table>
Outcome #1

1. Outcome Measures

Number of participants who increased their knowledge of food safety

2. Associated Institution Types

● 1862 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>{No Data Entered}</td>
<td>1034</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
WVU Extension is working toward reducing the incidence of food-borne illness and providing a safer food supply by eliminating causes of microbial resistance to contaminants, education consumer and food safety professionals, and developing food processing technologies to improve safety.

What has been done
The BQA Youth Program; Developing Herd Health for Marketing Pools; Persistent BVD monitoring; Managing to Improve Reproductive Efficiency and Low-cost Development of Heifers; West Virginia Beef Cattle Short Course: Feeder Cattle Marketing Update
Body Condition Scoring - Farm Field Day; From Farm to Fork: The Quest for Value Added; The Acidified Foods School; Food preservation classes held in many counties; Testing of pressure gauges for home canners and consultations with WV food processors; Venison 101 classes were delivered in 7 counties

Results
* Participants increased knowledge in: the safety issues related to pressure canning; preserving acid-based foods; preparing and preserving venison
* Participants increased their knowledge in: feeder cattle marketing; BVD monitoring; developing whole-herd immunity; managing to improve reproductive efficiency; low-cost development of replacement heifers; body condition scoring; adding value to farm products; injection sites: consumer confidence; cattle handling and care; and herd culling
* Participants gained knowledge in: Why BQA?; herd health; recordkeeping; feedstuffs; handling medicinals; and transportation.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
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<tr>
<td>502</td>
<td>New and Improved Food Products</td>
</tr>
<tr>
<td>504</td>
<td>Home and Commercial Food Service</td>
</tr>
</tbody>
</table>
Outcome #2

1. Outcome Measures

Participants took an action related to food safety training

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
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</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
The beef cattle industry every five years conducts quality audits as a means to address problems that affect product quality, food safety, and consumer demand. The Acidified Foods School is required for processors of shelf-stable acidified foods. Products that are considered acidified foods include pickles, pickled beets, salsa, pickled eggs, and pickled ramps.

**What has been done**
We deliver BQA programs to ensure that the beef and dairy cattle in West Virginia are maintained in a manner which will result in a safe and wholesome beef product for the consumer. The BQA program has as one of its objectives: 1) provide BQA certification training opportunities for WV beef and dairy producers. The Acidified Foods School is a subset of the Better Process Control School. Before the product can be sold (even at farmers markets) the person has to go to a school and pass all the tests. WVU ES provides that certification.

**Results**
- 42 processors passed the course and were able to sell their products.
- Producers were certified in Beef Quality Assurance

4. Associated Knowledge Areas

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**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

**Brief Explanation**
The National BQA program and the state programs have recently been scrutinized by some of the membership of the National Cattlemen's Association. Some have questioned if future funding should be continued for the program. Discussions have been held at the annual state contact meetings about how to maintain funding and how to secure additional funding.

New quality issues will have to be continuously addressed as the five year beef audits have revealed. The challenge is to develop training materials that keep the beef producer informed and provide them with the tools to make production changes to insure a safe, quality beef product.

Communication to all producers is still going to be a major obstacle. Bidding for the part time producers time will not get easier in the future. Most producer are demanding that trainings be held locally and are showing they are less willing to attend meetings requiring lengthy travel.

Only a small percentage of producers are likely to attend meetings or become part of a membership effort. We are often caught "preaching to the choir" for many educational efforts.

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

1. Evaluation Studies Planned
   - After Only (post program)

Evaluation Results

The method of using check stuffers was evaluated. Not surprising was the fact that recipient surveys received were overwhelmingly from those already associated with or with some knowledge of the BQA program or already "certified" BQA producers. In comments received the information was noted as "attractive", "useful", and "contained information that served as a helpful reminder." In personal interviews with local recipients one indicated that this (the check insert) "should go a long way to making those who don't attend (your) meetings aware that what they do affects us all as beef producers."

The responses from the Livestock Auction Markets appear to reinforce the efforts. Although these are, by design, fewer in number, the sentiment appears to be positive. Some of the clerks indicated that this was the first time they had seen the information but indicated that it was a "good idea." They also tended to not mind the additional effort of including the "check inserts" with the payment documents for producers.

Key Items of Evaluation