V(A). Planned Program (Summary)

Program # 24

1. Name of the Planned Program

Youth Food Producing Animal Quality Assurance (Extension)

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>306</td>
<td>Environmental Stress in Animals</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
<td>5%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>308</td>
<td>Improved Animal Products (Before Harvest)</td>
<td>5%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>315</td>
<td>Animal Welfare/Well-Being and Protection</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>711</td>
<td>Ensure Food Products Free of Harmful Chemicals, Including Residues from</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agricultural and Other Sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>723</td>
<td>Hazards to Human Health and Safety</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>806</td>
<td>Youth Development</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</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>15.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Actual</td>
<td>25.0</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></td>
<td>1890 Extension</td>
<td>Hatch</td>
</tr>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td>1224674</td>
<td>0</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>1224674</td>
<td>0</td>
</tr>
<tr>
<td>1862 All Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity

1. Extension Education: Development of Ohio's "Youth Food Animal Quality Assurance Curriculum Guide" (YFAQACG) including 12 chapters (Animal Welfare and Ethics, Food Safety, and the 10 Good Production Practices recognized by the Animal Industry), power-point presentation style notes and 22 hands-on experiential learning activities complimenting the important information that youth need to learn about animal production and food safety.

2. Volunteer Training: Yearly Quality Assurance (QA) in-service for 4-H extension educators and volunteers who will be instrumental in delivering quality assurance programming in Ohio at the county, club and species clinic level. This will serve to
train the educator for QA programming state wide making each individual county, club or species clinic training session consistent from program to program.

3. Youth Training: County, club and species clinics will be used to educate youth exhibitors reaching 56,500 youth and their parents involved in youth food producing animal projects in Ohio.

4. Youth Evaluation: In 2007 a test out option was introduced into the Ohio State QA program. This option allows students which truly comprehend the information they have been taught to test out for up to a three year period at the county level.

5. All can use as reference: Further information will be posted in electronic form on the 4-H animal sciences website and will include updates to the YFAQACG.

2. Brief description of the target audience

**Activity 1 and 5:** "Educating the Educator" training portion of QA programming will be directed toward Extension Educators (n=100) that will be in a leadership role for the purpose of delivering QA sessions at the County, Club and Species Clinic Level. This will be a face to face training and Extension Educators will be able to interact with authors of the curriculum piece (YFAQACG).

**Activity 2 and 5:** Extension Educators will serve in the capacity of training volunteers (n=1500) that will deliver QA material to Youth at the county, club and species clinic level. These too will be face to face sessions that will allow for interaction with those teaching QA to Youth.

**Activity 3 and 5:** Volunteers at the county, club and species clinic level will deliver QA material to Youth (n=56,500) and any attending parents in Ohio.

## 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>1600</td>
<td>25000</td>
<td>56500</td>
<td>56500</td>
</tr>
<tr>
<td>Actual</td>
<td>1483</td>
<td>25000</td>
<td>69025</td>
<td>69025</td>
</tr>
</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**

<table>
<thead>
<tr>
<th>2009</th>
<th>Extension</th>
<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>0</td>
<td>0</td>
<td>0</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
- Communicate with Extension Educators yearly during the in-service/updates to determine if we are meeting their need for curriculum and use of the curriculum through yearly training. (track # of participants and # of sessions and topics discussed)

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>80</td>
<td>65</td>
</tr>
</tbody>
</table>

Output Measure
- Survey volunteers through extension educators to determine if YFAQACG is an effective tool in conducting QA programming at county, club and species clinic level

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>150</td>
<td>223</td>
</tr>
</tbody>
</table>

Output #3

Output Measure
- Survey youth (n=56,500) participating in QA programming to determine if the program is meeting the needs of youth exhibitors maintaining the content standards that we have set for the curriculum and increasing the hands-on experiential activities as mode of delivery to youth.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2500</td>
<td>1000</td>
</tr>
</tbody>
</table>

Output #4

Output Measure
- All can use as reference: Further information will be posted in electronic form on the 4-H animal sciences website and will include updates to the YFAQACG (track visits to website)

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5000</td>
<td>3788</td>
</tr>
</tbody>
</table>
## 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>(Activity 3) To determine the effectiveness of QA programming, there will be a Pre- and post-test set administered for determining the comprehension of youth in QA principles. This will determine the effectiveness of the information listed in the YFAQACG and the implementation of the minimum standards delivered to 56,500 yearly in Ohio.</td>
</tr>
<tr>
<td>2</td>
<td>(Activity 3) To determine the effectiveness of QA programming, there will be a Pre- and post-test administered to the parents of youth exhibitors who attend QA sessions for determining comprehension of QA principles being taught using the YFAQACG and the minimum standards.</td>
</tr>
<tr>
<td>3</td>
<td>(Activity 1 and 2) Yearly QA in-service evaluations will be administered to extension professionals and volunteers that will be teaching QA to determine the efficiency of educational materials offered to teach youth in QA.</td>
</tr>
<tr>
<td>4</td>
<td>(Activity 1, 2, and 3) Tracking the incidence of drug residues in fair animals intended for food - Comprehension of QA principles will lead to a better understanding and a subsequent reduction in the amount type and degree of drug residue detected and subsequent retained and then condemned from human consumption.</td>
</tr>
<tr>
<td>5</td>
<td>(Activity 1, 2, and 3) Administer packer surveys to determine if an improvement in product quality post-QA education has been noticed by the commercial packing industry.</td>
</tr>
<tr>
<td>6</td>
<td>(Activity 1, 2, and 3) Survey producers that began their education in QA programming as a youth exhibitor and determine the impact that has had on there production practice today. Further compare and contrast their efforts with those producers who did not learn about QA from a youth based extension program.</td>
</tr>
<tr>
<td>7</td>
<td>(Activity 1, 2, and 3) Assuring that youth comprehend QA principles will increase the number of Livestock producers in the future that will be assuring consumers that they are receiving a safe wholesome product from the food producing animal industry.</td>
</tr>
</tbody>
</table>
Outcome #1

1. Outcome Measures

(Activity 3) To determine the effectiveness of QA programming, there will be a Pre- and post-test set administered for determining the comprehension of youth in QA principles. This will determine the effectiveness of the information listed in the YFAQACG and the implementation of the minimum standards delivered to 56,500 yearly in Ohio.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(Activity 3) To determine the effectiveness of QA programming, there will be a Pre- and post-test administered to the parents of youth exhibitors who attend QA sessions for determining comprehension of QA principles being taught using the YFAQACG and the minimum standards.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

(Activity 1 and 2) Yearly QA in-service evaluations will be administered to extension professionals and volunteers that will be teaching QA to determine the efficiency of educational materials offered to teach youth in QA.

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>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>50</td>
<td>123</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Educators have been looking for new ways to educate youth as well as a helping hand in areas that they are unfamiliar with. Each year we hold an educator in-service training that will give educators the tools they need to educate youth and volunteers in the county.

What has been done

We have taken the survey information and utilize that in order to put together a useful hands-on in-service with curriculum pieces that educators can use in order to put on programs in their counties.

Results

The result is a starting point for further curriculum development within the county. As well there is a certain level of consistency with in the state of Ohio from one county to the next. As a result youth in Ohio are regardless from which county they reside are hearing the same message.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>306</td>
<td>Environmental Stress in Animals</td>
</tr>
</tbody>
</table>
Outcome #4

1. Outcome Measures

(Activity 1, 2, and 3) Tracking the incidence of drug residues in fair animals intended for food - Comprehension of QA principles will lead to a better understanding and a subsequent reduction in the amount type and degree of drug residue detected and subsequent retained and then condemned from human consumption.

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>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Drug residues in the food supply may have an impact on human health. The State of Ohio has been checking animals randomly as well as any fair champion to determine the rate of violation. Some drugs or unnatural or unacceptable practices may put consumers at risk.

**What has been done**
As a result of concerns drug testing is being conducted by the Ohio Department of Agriculture on all food producing animal champions and then a certain percentage of random animals. These tests are expense but the state government sees a benefit in regard to consumer safety. Further with the educational materials that have been produced, they have been completed with sound scientific information.

**Results**
The results of this awareness, the partnership between the state government, and the QA educational program have resulted in 2 positive drug residue tests in 2009 and 0 in 2008 where as in 2007 there were 12 positives. There has been a reduction in the amount of drug residue detected since the inception of this program in Ohio.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
</tr>
<tr>
<td>308</td>
<td>Improved Animal Products (Before Harvest)</td>
</tr>
<tr>
<td>315</td>
<td>Animal Welfare/Well-Being and Protection</td>
</tr>
<tr>
<td>711</td>
<td>Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources</td>
</tr>
<tr>
<td>723</td>
<td>Hazards to Human Health and Safety</td>
</tr>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>
Outcome #5

1. Outcome Measures

(Activity 1, 2, and 3) Administer packer surveys to determine if an improvement in product quality post-QA education has been noticed by the commercial packing industry.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

(Activity 1, 2, and 3) Survey producers that began their education in QA programming as a youth exhibitor and determine the impact that has had on their production practice today. Further compare and contrast their efforts with those producers who did not learn about QA from a youth based extension program.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

(Activity 1, 2, and 3) Assuring that youth comprehend QA principles will increase the number of Livestock producers in the future that will be assuring consumers that they are receiving a safe wholesome product from the food producing animal industry.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition 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>200</td>
<td>1105</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The consuming public is becoming increasingly more inquisitive about their food supply.

What has been done
By setting up opportunities for youth participate in knowledge based hands-on learning experiences in the form of State Fair Skill-a-thons, we expose the youth to an array of items that we think will challenge them yet also inspire them to learn. Further, the more times they do this they will continue increase their knowledge base and learning of sound scientific information.

Results
The result is clear youth seem do the best at the station that deals with food and animal safety. They understand and will take what they have learned and begin to build their knowledge base further.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
</tr>
</tbody>
</table>
V(H). Planned Program (External Factors)

**External factors which affected outcomes**
- Government Regulations

**Brief Explanation**

(No Data Entered)

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

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

**Evaluation Results**

1. The survey was sent to 91 potential respondents on September 22, 2009. By the survey close on October 7, 2009, there was a 76% response. Although this response rate is good, it is a bit disappointing for such a “hot topic”; however, it is high enough to extrapolate results to all 88 counties.

2. Extension Educators assume the lead for Quality Assurance (QA) programs in 93% of counties; Fair Boards assume the lead for QA programs in 7% of counties; and High School Agricultural Educators do not assume the lead for QA program anywhere

3. QA is mostly an Extension function instead of Fair Boards or High School Agricultural Educators; Of all the roles related to QA, the only role that Extension Educators do not lead in is, “Establishing local rules”, but even in this, half the county respondents indicated they had a role in this.

4. Summary of descriptives:
   - 38,000 youth attend QA programs annually (extrapolated to 88 counties; 430+ per county average)
   - 3/4 of counties allow QA participants to go to another county
   - Almost all have at least one county-wide QA training
   - About 20% have an option to deliver QA programs through local 4-H clubs
   - 2/3 of counties require youth only to attend QA programs; 1/3 require youth and one parent
   - 2/3 of counties allow the QA test out option

5. Only 10 counties charge for out-of-county QA participants; Only 7 counties charge for in-county participants (mostly for “last chance” sessions)

6. Options described for QA Test Out options included:
   - Schedule BEFORE trainings, so that those who do not pass can still attend a training to meet qualifications
   - High School Agricultural Educators and Extension Educators gave QA Tests by appointment
   - Times were scheduled at local schools during study halls or lunch hours for QA Test Out option
   - Scheduled at the end of a QA group training session, so that if the participant failed the test, s/he was still qualified that year
   - Only used the QA Test Out option for those 15+, because it was easier to track

7. QA Instructors &dash Average of 5.9 per county with a range of zero to 39: Percentage of counties reported the following people taught at QA sessions:
   - 81% 4-H Educators
   - 39% ANR Educators
   - 27% Extension Program Assistants or Program Coordinators
   - 46% Vo-Ag teachers
   - 49% 4-H Advisors
   - 13% Fair Board Members
   - 18% Veterinarians

8. When asked who deals with QA non-compliance issues, percentage of counties reported the following:
   - 68% Fair Board
62% Extension staff
14% Junior Fair Committee
10% Junior Fair Board

[9] When asked how likely QA processes would happen in 2010:
- 69% of counties reported would likely not change
- 80% of counties reported would likely cooperate with multi-county QA programming
- 71% of counties likely to host a multi-county QA training on an annual basis
- 88% of counties likely to take their turn to host a multi-county QA training

[10] Major obstacles to overcome before changes in QA program delivery can overcome:
- Large number of youth participants
- History/ Attitudes/ Resistance to change
- Travel
- Fair Board ownership/ Must cooperate for a change
- Certification of more instructors
- Need for more uniform requirements from county to county

[11] Other Comments made most often:
- Develop web-based alternative that includes a test-out option
- Update/ expand resources and lesson plans
- Charge for the program
- Need more consistency across the state

[12] Other Ideas and Insights by Archer as a result of reviewing the results of this survey:
- If develop web-based options for completion of QA requirements, how to insure that it is the youth who complete?
  - How about making QA more of an ANR Educator responsibility, or at least, incorporate ANR Educators more?

- If increase the number of youth completing the test out option, this would reduce the number of youth who would need to be serviced through group trainings.

Key Items of Evaluation

When asked how likely Quality Assurance processes would happen in 2010:
- 69% of counties reported would likely not change
- 80% of counties reported would likely cooperate with multi-county QA programming
- 71% of counties likely to host a multi-county QA training on an annual basis
- 88% of counties likely to take their turn to host a multi-county QA training

Major obstacles to overcome before changes in Quality Assurance program delivery can overcome:
- Large number of youth participants
- History/ Attitudes/ Resistance to change
- Travel
- Fair Board ownership/ Must cooperate for a change
- Certification of more instructors
- Need for more uniform requirements from county to county