V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Small Farms

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>202</td>
<td>Plant Genetic Resources</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
<td>36%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>211</td>
<td>Insects, Mites, and Other Arthropods Affecting Plants</td>
<td>4%</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>Pathogens and Nematodes Affecting Plants</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>215</td>
<td>Biological Control of Pests Affecting Plants</td>
<td>5%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
<td>20%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
<td>10%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>604</td>
<td>Marketing and Distribution Practices</td>
<td>5%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></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>1.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Actual</td>
<td>5.5</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>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td>Hatch</td>
</tr>
<tr>
<td>188668</td>
<td>128907</td>
</tr>
<tr>
<td>1890 Extension</td>
<td>Evans-Allen</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1862 Matching</th>
<th>1890 Matching</th>
<th>1862 Matching</th>
<th>1890 Matching</th>
</tr>
</thead>
<tbody>
<tr>
<td>188668</td>
<td>0</td>
<td>128907</td>
<td>0</td>
</tr>
</tbody>
</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity

Multiplication, evaluation and distribution of improved taro and banana varieties.
Laboratory bioassay for foliar plant diseases.
List of plant-parasitic nematodes on taro, their distribution and management.
Vegetable variety evaluation demonstrations
Budding, grafting and airlayering workshops for citrus and other fruit trees
Pig project to reduce inbreeding of farmers’ animal operations - buying/selling or trading of stock, boar services, artificial insemination (work with U.H. in re-starting this program).
Tissue culture of traditional staples and increasing genetic diversity to improve crop security.
Plant clinic diagnoses and recommendations
Pest surveys
Testing of reduce-risk pesticides
Biological control studies of economically important pests
Technical assistance with nuisance bee problems and assessment of apiculture
Pesticides Safety Training
Farm Safety Training
Farm visitations and demonstrations

Continued quarantine surveillance trapping program from exotic fruit flies in collaboration with American Samoa Department of Agriculture. A total of 114,960 fruit flies were trapped and identified during the year. Fortunately no exotic invasive species were detected. The plant clinic made 11 diagnoses and recommendations to help community members deal appropriately with various pest problems. Advice and assistance was also provided to several residents faced with feral honey bee problems. Initial anecdotal assessments indicated that the biological control project to control Seychelles scale insects affecting breadfruits and other trees on Ta'u Island was succeeding after introductions of the predatory lady beetle Rodalia pumila.

2. Brief description of the target audience
Small and resource-limited farmers and ranchers, commercial farmers, aquaculture farmers, forestry clients, hobby farmers, general publice, schools, and all 4-H youth and other community group members.

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>1000</td>
<td>3500</td>
<td>500</td>
<td>2000</td>
</tr>
<tr>
<td>Actual</td>
<td>950</td>
<td>2000</td>
<td>5000</td>
<td>7000</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></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

Report Date 05/26/2010
### Output #1
**Output Measure**
- Number of research projects completed

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

### Output #2
**Output Measure**
- Number of cultivars of disease resistant taro and/or banana multiplied and released

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10</td>
<td>21</td>
</tr>
</tbody>
</table>

### Output #3
**Output Measure**
- Number of improved taro setts and/or banana suckers/bits disseminated

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3000</td>
<td>5729</td>
</tr>
</tbody>
</table>

### Output #4
**Output Measure**
- Number of plant clinic diagnoses and recommendations made to assist farmers

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>25</td>
<td>11</td>
</tr>
</tbody>
</table>

### Output #5
**Output Measure**
- Number of vegetable variety trials completed

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

### Output #6
**Output Measure**
- Number of new fruit tree varieties introduced

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

### Output #7
**Output Measure**
- Number of fruit tree propagation workshops

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
### Output #8
Output Measure
- Number of pigs sold/traded and piglets born from AI

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>20</td>
<td>14</td>
</tr>
</tbody>
</table>

### Output #9
Output Measure
- Number of directories published

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

### Output #10
Output Measure
- Number of pesticide efficacy tests conducted

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

### Output #11
Output Measure
- Number of Pesticide Applicator's Training workshops conducted

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

### Output #12
Output Measure
- Number of biological control species introduced or augmented to control local pests.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### Output #13
Output Measure
- Number of video production

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
### V(G). State Defined Outcomes

<table>
<thead>
<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of farmers growing improved varieties of taro and/or bananas</td>
</tr>
<tr>
<td>2</td>
<td>Number of farmers targeting problems according to recommendations on plant clinic form</td>
</tr>
<tr>
<td>3</td>
<td>Number of farmers growing improved vegetable cultivars</td>
</tr>
<tr>
<td>4</td>
<td>Number of people growing improved budded/grafted or airlayered fruit trees in their back yards.</td>
</tr>
<tr>
<td>5</td>
<td>Number of pig farmers upgrading their stock</td>
</tr>
<tr>
<td>6</td>
<td>Number of reduced risk pesticides recommended for use.</td>
</tr>
<tr>
<td>7</td>
<td>Number of pesticide applicators trained and certified</td>
</tr>
</tbody>
</table>
Outcome #1

1. Outcome Measures

   Number of farmers growing improved varieties of taro and/or bananas

2. Associated Institution Types

   ● 1862 Extension
   ● 1862 Research

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>100</td>
<td>427</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

   Issue (Who cares and Why)
   As reported in 2008, the taro leaf blight of the 1990s and black leaf streak disease of bananas negatively impacted taro and banana production in American Samoa. With the continued multiplication and distribution of improved (disease resistant) varieties, taro and banana producers now have greater diversity of disease-resistant varieties to choose from and to address the food security issue (food supply).

   What has been done
   Agriculture Extension, in collaboration with Research continued to conduct more Taro Taste Tests to identify the best tasting varieties for American Samoa. These improved (disease resistant and acceptable taste) taro and banana varieties were multiplied and distributed to the farming community and the public.

   Results
   In FY 2009, the Agriculture Extension staff distributed 5729 improved taro setts and banana planting materials from more than 10 cultivars of disease resistant taros and bananas to 427 farmers.

4. Associated Knowledge Areas

   KA Code  | Knowledge Area                                     
   --------|---------------------------------------------------
   202     | Plant Genetic Resources                           
   205     | Plant Management Systems                          
   212     | Pathogens and Nematodes Affecting Plants          
   601     | Economics of Agricultural Production and Farm Management 
   604     | Marketing and Distribution Practices              

Report Date 05/26/2010
Outcome #2

1. Outcome Measures

Number of farmers targeting problems according to recommendations on plant clinic form

2. Associated Institution Types

- 1862 Extension
- 1862 Research

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>15</td>
<td>11</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
In 2009, experienced farmers and extension agents continued to identify common pest problems and provide recommendations. Assistance from ASCC-CNR Entomologist is provided for less common pests or pests that are new to the area. The Entomologist also contacted counterparts in Hawaii, Pacific Region, and mainland USA for confirmation and additional recommendations.

What has been done
Similar to 2008, ASCC-CNR staff continued to assist agricultural producers and vegetable farmers utilizing the ASCC CNR plant clinic, USDA's National Plant Diagnostics Network (NPDN), the associated Pacific Islands Distance Diagnostics and Recommendation System, and local expertise. Continued quarantine surveillance trapping program for exotic fruit flies in collaboration with the American Samoa Department of Agriculture.

Results
A total of 114,960 fruit flies were trapped and identified during the year. Fortunately no exotic invasive species were detected. The plant clinic made 11 diagnoses and recommendations to help community members deal appropriately with various pest problems. Advice and assistance were also provided to several residents faced with feral honey bee problems. Initial anecdotal assessments indicated that the biological control project to control Seychelles scale insects affecting breadfruits and other trees on Ta’u Island was succeeding after introductions of the predatory lady beetle Rodolia pumila.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
</tr>
<tr>
<td>211</td>
<td>Insects, Mites, and Other Arthropods Affecting Plants</td>
</tr>
<tr>
<td>212</td>
<td>Pathogens and Nematodes Affecting Plants</td>
</tr>
<tr>
<td>215</td>
<td>Biological Control of Pests Affecting Plants</td>
</tr>
</tbody>
</table>
Outcome #3

1. Outcome Measures

Number of farmers growing improved vegetable cultivars

2. Associated Institution Types

● 1862 Extension
● 1862 Research

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>75</td>
<td>127</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
In 2009, farmers continued to grow improved vegetable varieties that are beneficial to the farmers and consumers in terms of buying safer and cheaper seeds and generating additional revenues for the family. Also, consumers benefit in terms of reducing costs and meeting nutritional needs of the family and community members.

What has been done
Agriculture Extension staff continued to provide small quantities of different vegetable seeds/seedlings to homemakers, schools, and 4-H clubs interested in growing their own vegetables. Also, staff conducted visitations to provide follow up assistance to back-yard farmers, commercial vegetable growers, and school and church vegetable projects. Moreover, Extension continued to sell vegetable seeds of good quality at break-even price to encourage people to grow more vegetables. ASCC-CNR continued to order improved seeds of vegetable varieties and sell the seeds to the farmers and interested members of the community. Extension staff completed 3 vegetable variety trials.

Results
Extension staff have identified improved vegetable cultivars that perform well in the tropics and are disease resistant. Similar to 2008, the success of the improved cultivars in the farming community is evident by the increase in the number of seed purchases, demand to order more seeds to cover the shortage of the seed supply, increase in production and human consumption, and vegetable sales. 127 farmers cultivated improved vegetable cultivars.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Plant Genetic Resources</td>
</tr>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
</tr>
<tr>
<td>215</td>
<td>Biological Control of Pests Affecting Plants</td>
</tr>
<tr>
<td>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
</tr>
<tr>
<td>604</td>
<td>Marketing and Distribution Practices</td>
</tr>
</tbody>
</table>
### Outcome #4

1. **Outcome Measures**

   Number of people growing improved budded/grafted or airlayered fruit trees in their back yards.

2. **Associated Institution Types**

   - 1862 Extension
   - 1862 Research

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>25</td>
<td>29</td>
</tr>
</tbody>
</table>

3c. **Qualitative Outcome or Impact Statement**

   **Issue (Who cares and Why)**
   As reported in 2008, there is a great need to increase consumption of fruits to address the many non-communicable diseases such as diabetes, hypertension, heart disease, obesity, and others. Parents continued to be concerned to ensure that their children have enough fresh fruits to eat. Making fruit trees available to families to plant in the back yard or land is critical in addressing the above-mentioned challenges.

   **What has been done**
   Agriculture Extension staff continued to multiply and distribute the recommended varieties to the farmers, homemakers, and interested residents. Extension staff received the ordered materials for a new greenhouse and are putting together the greenhouse to accommodate the multiplication of fruit-tree planting-materials, and to serve as a teaching/learning lab for ASCC Agriculture students and farmers on the different methods of asexual propagation to increase the availability of diverse varieties of fruits for the people of American Samoa. Agriculture Extension continued to work EFNEP and 4-H to conduct the "Fruit of Life" program to increase the consumption of vegetables and fruits in order to address the poor nutrition problem and lifestyle diseases.

   **Results**
   Extension program now received the ordered greenhouse materials and are putting together the new greenhouse to accommodate the multiplication of fruit-tree planting-materials, and to serve as a teaching/learning lab for ASCC Agriculture students and farmers on the different methods of asexual propagation. Agriculture Extension continued to work with EFNEP and 4-H to conduct the "Fruit of Life" program to increase the consumption of vegetables and fruits in order to address the poor nutrition problem and lifestyle diseases. Introduced 7 new fruit tree varieties and conducted 2 fruit tree propagation workshops. 29 farmers propagated improved budded/grafted or airlayered fruit trees in their back yards.

4. **Associated Knowledge Areas**

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Plant Genetic Resources</td>
</tr>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
</tr>
<tr>
<td>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
</tr>
<tr>
<td>604</td>
<td>Marketing and Distribution Practices</td>
</tr>
</tbody>
</table>
Outcome #5

1. Outcome Measures

Number of pig farmers upgrading their stock

2. Associated Institution Types

- 1862 Extension
- 1862 Research

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>5</td>
<td>9</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Similar to 2008, pig farmers are concerned because of inbreeding of their stock which has manifest itself in lower production due to increased mortality and overall slower growth. There is a continued need to introduce biodiversity in the local pig gene pool, not only from an inbreeding perspective but a homeland security one as well. Also there is a great need to address the pig waste management problem.

What has been done
CNR Extension continued to collaborate with ASEPA, DOC, DOA, NRCS, and other agencies in developing waste management systems demonstrations and educational programs. Completed the ASEPA funded CNR piggery to demonstrate the recommended waste management systems.

Results
ASEPA funded the renovation of the CNR piggery to demonstrate the three recommended waste management systems. The renovated piggery now serves as a demonstration for the pig farming community regarding their options should they want to keep their piggeries operational. Once these piggeries gain compliance of the local laws, the intent is to work with the farmers to upgrade their stock to reduce inbreeding by making available boar service and trading/selling to them some of our own improved stock. Extension staff also assisted ASEPA and FSA staff, piggery council members, and other government agencies with piggery compliance workshops/outreach in Tutuila and Manu'a islands. Nine (9) pig farmers upgraded their stock.

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>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
</tr>
</tbody>
</table>

Outcome #6

1. Outcome Measures

Number of reduced risk pesticides recommended for use.

2. Associated Institution Types
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>2</td>
<td>0</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
As reported in 2008, American Samoa's environment, cropping systems, and pest problems are unique in many respects. Pest control solutions that work elsewhere may be ineffective or inappropriate in the territory. Agriculture extension agents must help provide proven pest control recommendations that are environmentally sound and safe for applicators.

What has been done
Continued quarantine surveillance trapping program for exotic fruit flies in collaboration with American Samoa Department of Agriculture. A total of 114,960 fruit flies were trapped and identified during the year. Fortunately no exotic invasive species were detected.

Results
The plant clinic made 11 diagnoses and recommendations to help community members deal appropriately with various pest problems. Advice and assistance was also provided to several residents faced with feral honey bee problems. Initial anecdotal assessments indicated that the biological control project to control Seychelles scale insects affecting breadfruits and other trees on Ta'u Island was succeeding after introductions of the predatory lady beetle Rodolia pumila. No "reduced risk pesticide" was recommended for use.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>Insects, Mites, and Other Arthropods Affecting Plants</td>
</tr>
<tr>
<td>215</td>
<td>Biological Control of Pests Affecting Plants</td>
</tr>
</tbody>
</table>

Outcome #7

1. Outcome Measures
Number of pesticide applicators trained and certified

2. Associated Institution Types

● 1862 Extension
● 1862 Research

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>
</table>
3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Similar to 2008, impacts of unsafe and illegal use of pesticides to humans and environment are documented. Also people who imported and use non-EPA registered pesticides were cited by ASEPA.

**What has been done**
During this year, ASCC-CNR Pesticide Instructor conducted 4 Pesticide Applicator Safety workshops that enrolled 62 participants. Another Extension staff member was on hand to observe with the hope that he takes over the training in the absence of the current Pesticide Instructor. The EPA Pesticide Officer was also present to certify the participants. The Farm Safety Agent conducted 28 radio talk shows on safety and environmental topics. Two (2) Progressive Agriculture Safety Days in selected Elementary Schools were conducted this year in addition to one (1) Community Safety workshop conducted on-campus. Extension Agents reached 421 residents through the Farm Safety program.

**Results**
In FY 2009, 62 participants were trained and certified. Similar to 2008, more people now understand the importance of handling pesticides in a safe manner and are aware of how to use these chemicals safely. Many residents are now aware of Integrated Pest Management strategies and successful biological control programs. As a result, some farmers have dramatically reduced the use of pesticides, while others are no longer using pesticides. Importation of illegal(non-EPA registered) pesticides cases are reduced.

4. **Associated Knowledge Areas**

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>205</td>
<td>Plant Management Systems</td>
</tr>
<tr>
<td>211</td>
<td>Insects, Mites, and Other Arthropods Affecting Plants</td>
</tr>
<tr>
<td>212</td>
<td>Pathogens and Nematodes Affecting Plants</td>
</tr>
<tr>
<td>307</td>
<td>Animal Management Systems</td>
</tr>
<tr>
<td>601</td>
<td>Economics of Agricultural Production and Farm Management</td>
</tr>
</tbody>
</table>

V(H). Planned Program (External Factors)

**External factors which affected outcomes**
- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Staff Recruitment)

**Brief Explanation**

The impacts of the September 29, 2009 earthquake and tsunami delayed and/or cancelled program activities.

Loss of staff reduced program capacity.

Entomology technician promoted to another position in the department.

In the process of recruiting for: Plant Pathologist, Forestry Researcher, Forestry Program Manager, Animal Specialist, Fruit Tree Specialist, Marketing Specialist, and field and support staff.

V(I). Planned Program (Evaluation Studies and Data Collection)
1. Evaluation Studies Planned
   ● After Only (post program)
   ● Before-After (before and after program)
   ● During (during program)
   ● Time series (multiple points before and after program)

Evaluation Results

Key Items of Evaluation