

**V(A). Planned Program (Summary)**

**Program # 2**

**1. Name of the Planned Program**

Food Security

Reporting on this Program

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
102	Soil, Plant, Water, Nutrient Relationships	0%		10%	
111	Conservation and Efficient Use of Water	5%		0%	
202	Plant Genetic Resources	10%		15%	
205	Plant Management Systems	10%		15%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%		10%	
212	Diseases and Nematodes Affecting Plants	10%		10%	
215	Biological Control of Pests Affecting Plants	5%		10%	
306	Environmental Stress in Animals	5%		0%	
307	Animal Management Systems	0%		10%	
315	Animal Welfare/Well-Being and Protection	5%		0%	
401	Structures, Facilities, and General Purpose Farm Supplies	5%		0%	
604	Marketing and Distribution Practices	5%		10%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	10%		0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	10%		0%	
723	Hazards to Human Health and Safety	5%		0%	
903	Communication, Education, and Information Delivery	10%		10%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	8.0	0.0	5.0	0.0
<b>Actual Paid</b>	4.0	0.0	3.7	0.0
<b>Actual Volunteer</b>	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
147566	0	145627	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
147566	0	145627	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Plant clinic diagnoses and recommendations  
 Pest surveys  
 Testing of reduced-risk pesticides  
 Produce and evaluate growing media of locally sourced materials as alternatives to peat and mined top soil  
 Develop Food Safety Policies & Procedures  
 Implement Food Safety, Sanitation, and Protection Practices  
 Develop Public Awareness  
 Maintain Center for Sustainable Integrated Agriculture and Aquaculture  
 Provide technical assistance on production, disease, and nutrition issues to aquaculture farmers  
 Conduct workshops on aquaculture, including integrated practices such as aquaponics and tilapia-cum-pig systems  
 Multiply, evaluate and distribute improved taro, banana, and vegetable varieties.  
 Conduct vegetable and fruit tree workshops.  
 Conduct nutrient analysis of fruits (banana variety - soa'a) and other crops  
 Reduce inbreeding of farmers' animal operations- buying/selling or trading of stock, boar services, artificial insemination, training in feeding management, manage control and improvement in facilities  
 Import Tissue culture of traditional staples and order vegetable seeds and improved fruit tree varieties to increase genetic diversity to improve crop security  
 Conduct Pesticides Safety, and Farm Safety Trainings  
 Conduct Farm visitations and demonstrations

Conduct workshops to present locally produced growing media to farmers

**2. Brief description of the target audience**

Small and resource-limited farmers, commercial farmers, aquaculture farmers, forestry clients, hobby farmers, potential farmers, general public, school students, 4-H members, church youth and other community group members.

All residents of American Samoa are included in the target audience, which includes: students, teachers, food handlers, food vendors, homemakers, cooks, farmers, village residents, church members, children and youth program participants.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	800	3500	2000	3000

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of cultivars of disease resistant taro, banana, and improved varieties of sweet potato multiplied and released.

<b>Year</b>	<b>Actual</b>
2014	16

**Output #2**

**Output Measure**

- Number of improved taro setts, banana suckers/bits, and/or sweet potato slips disseminated.

<b>Year</b>	<b>Actual</b>
2014	3399

**Output #3**

**Output Measure**

- Number of plant clinic diagnoses and recommendations made to assist clients.

<b>Year</b>	<b>Actual</b>
2014	23

**Output #4**

**Output Measure**

- Number of vegetable variety demonstrations completed.

<b>Year</b>	<b>Actual</b>
2014	11

**Output #5**

**Output Measure**

- Number of new fruit tree varieties introduced.

<b>Year</b>	<b>Actual</b>
2014	0

**Output #6**

**Output Measure**

- Number of fruit tree propagation workshops conducted.

<b>Year</b>	<b>Actual</b>
2014	1

**Output #7**

**Output Measure**

- Number of pigs and piglets sold/traded.

<b>Year</b>	<b>Actual</b>
2014	64

**Output #8**

**Output Measure**

- Number of pesticide efficacy tests completed.

<b>Year</b>	<b>Actual</b>
2014	0

**Output #9**

**Output Measure**

- Number of Pesticide Applicators' Training workshops conducted.

<b>Year</b>	<b>Actual</b>
2014	3

**Output #10**

**Output Measure**

- Number of Tilapia released from breeding program.

<b>Year</b>	<b>Actual</b>
2014	38

**Output #11**

**Output Measure**

- Number of participants at aquaculture workshops conducted

<b>Year</b>	<b>Actual</b>
2014	10

**Output #12**

**Output Measure**

- Number of vegetable gardening workshops conducted.

<b>Year</b>	<b>Actual</b>
2014	17

**Output #13**

**Output Measure**

- Number of vegetable gardens established.

<b>Year</b>	<b>Actual</b>
2014	12

**Output #14**

**Output Measure**

- Pounds of Tilapia feed produced at ASCC feeds lab.

<b>Year</b>	<b>Actual</b>
2014	2168

**Output #15**

**Output Measure**

- Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture

<b>Year</b>	<b>Actual</b>
2014	595

**Output #16**

**Output Measure**

- Number of food safety procedures, publications, brochures and educational materials distributed

<b>Year</b>	<b>Actual</b>
2014	1

**Output #17**

**Output Measure**

- Number of participants attending food safety and sanitation workshops

<b>Year</b>	<b>Actual</b>
2014	24

**Output #18**

**Output Measure**

- Number of farmers that participated in locally produced growing media workshops

<b>Year</b>	<b>Actual</b>
2014	0

**Output #19**

**Output Measure**

- Number of farmers participating in the small scale chicken farms program/project

<b>Year</b>	<b>Actual</b>
2014	0

**Output #20**

**Output Measure**

- Number of pest surveys completed with department of agriculture

<b>Year</b>	<b>Actual</b>
2014	3

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of farmers growing improved varieties of taro, bananas, and sweet potatoes.
2	Number of clients targeting problems according to recommendations on plant clinic form.
3	Number of farmers/clients growing improved vegetable cultivars.
4	Number of people growing improved budded/grafted or airtlayered fruit trees in their back yards.
5	Number of pig farmers upgrading their stock.
6	Number of reduced risk pesticides recommended for use.
7	Number of pesticide applicators trained and certified.
8	Number of farmers growing improved genetic stocks of tilapia.
9	Number of farmers making their own tilapia feeds.
10	Number of participants trained on Farm Safety
11	Number of farmers switching from use of peat or mined topsoil to locally produced soilless growing media.
12	Number of new aquaculture farmers
13	Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture
14	Number of food policies developed to address food safety issues
15	Number of participants who acquired knowledge and followed safe food handling guidelines
16	Number of pest species for which presence or absence in American Samoa was determined

## **Outcome #1**

### **1. Outcome Measures**

Number of farmers growing improved varieties of taro, bananas, and sweet potatoes.

### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	113

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

#### **Issue (Who cares and Why)**

The taro leaf blight of the 1990s and the black leaf streak disease of bananas negatively impacted the production of taro and banana in American Samoa.

#### **What has been done**

The Agriculture Extension, Researchers, and tissue culture specialist continues to multiply the best taste varieties of traditional staples of American Samoa.

#### **Results**

In FY2014, the Agriculture Extension distributed 3399 improved taro setts and banana planting materials to 113 farmers. With the continued multiplication and distribution of improved varieties, farmers and producers now have a great diversity of disease-resistant products.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
202	Plant Genetic Resources
205	Plant Management Systems
212	Diseases and Nematodes Affecting Plants

**Outcome #2**

**1. Outcome Measures**

Number of clients targeting problems according to recommendations on plant clinic form.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	17

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

**Issue (Who cares and Why)**

American Samoa's tropical climate provides suitable conditions year-round for growing a wide variety of crops, but is also conducive to sometimes severe pest and disease problems. The introduction of new crops not traditionally grown in the islands presents additional challenges. Accurate diagnosis of a pest or disease is the first critical step for effectively managing the problem. Home gardeners, as well as subsistence and commercial farmers, sometimes require expert assistance to make a correct diagnosis.

**What has been done**

The ASCC-CNR Plant Clinic provides pest and disease diagnostic services to extension agents, farmers, and the general public. As a member of the USDA's National Plant Diagnostic Network, the ASCC-CNR Plant Clinic has access to regional and national-level diagnostics expertise when required.

**Results**

The ASCC-CNR Plant Clinic continued to provide assistance to CNR extension agents, the department of agriculture, farmers, and others through plant pest and disease diagnosis and management recommendations. In most cases recognizing the causes of their production problems helped clients deal with them effectively or to be better prepared to prevent or manage problems in future crops.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

### **Outcome #3**

#### **1. Outcome Measures**

Number of farmers/clients growing improved vegetable cultivars.

#### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

#### **3a. Outcome Type:**

Change in Action Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	112

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

##### **Issue (Who cares and Why)**

Farmers continued to farm vegetable varieties that are beneficial to them of providing food and to generate an income for the family.

##### **What has been done**

The Ag. Extension outreach programs continued to provide seeds/seedlings to the community, like schools and 4-H clubs, for vegetable gardening. The agents also conducted follow-up visits to farmers, schools, and producers. The Extension office continues to sell seeds of improved vegetable varieties at an affordable price to the public to encourage vegetable farming.

##### **Results**

The Agriculture Extension program sold more than 1000 vegetable seeds to 112 farmers. The Agriculture Extension were able to identified improved cultivars that perform well in the topics and are disease resistance.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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202	Plant Genetic Resources
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
604	Marketing and Distribution Practices

#### **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 Condition Outcome Measure

##### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	76

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

###### **Issue (Who cares and Why)**

There is a great need in American Samoa to increase consumption of fruits and vegetables to help address the issue of obesity and Non-communicable disease. Providing fruit tree planting materials for families and farmers to plant fruit trees in the backyard can provide easier access to healthy foods.

###### **What has been done**

The Ag. Extension continued to multiply and distribute fruit tree varieties to the community. The "Fruit for Life" greenhouse also serves as a teaching lab for the students and farmers in methods of asexual propagation to increase the availability of diverse varieties of fruits in American Samoa.

###### **Results**

76 residents planted improved budded/grafted or air-layered fruit trees in their backyard. The EFNEP and 4-H conducted 35 workshops in nutrition, and to promote the consumption of vegetables and fruits.

##### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
604	Marketing and Distribution Practices

### **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**

<b>Year</b>	<b>Actual</b>
2014	86

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

##### **Issue (Who cares and Why)**

There is still a need to address the pig waste management system, and to introduce biodiversity in the local pig gene pool for inbreeding perspective.

##### **What has been done**

The Programs continued to use the ASEPA funded piggery to demonstrate the four recommended waste management systems to farmers, students and the general public. Agents worked together with Partners in conducting outreach workshops for piggery compliance.

##### **Results**

The ASCC-CNR piggery serves as a demonstration site for farmers, students and public visitors. Ag. Extension agents worked with 86 farmers to reduce inbreeding and provide recommendation in upgrading stock.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
306	Environmental Stress in Animals
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection

#### **Outcome #6**

##### 1. Outcome Measures

Number of reduced risk pesticides recommended for use.

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	0

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

###### **Issue (Who cares and Why)**

American Samoa's farmers manage their traditional and non traditional cropping systems under environmental conditions and pest combinations that are unique. Pest control solutions that work elsewhere in the U.S. or its territories may or may not work for American Samoa's farmers. It is important to test technologies that offer effective, environmentally sound pest control to ensure that they work for American Samoa's farmers.

###### **What has been done**

This activity had to be curtailed in 2014 due to shortage of staff.

###### **Results**

This activity could not be completed in 2014 due to lack of personnel.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
903	Communication, Education, and Information Delivery

**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**

<b>Year</b>	<b>Actual</b>
2014	53

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

**Issue (Who cares and Why)**

The continued usage of illegal pesticide in the territory is still an issue, and how it arrived in the territory are still questionable. Another issue is the proper way of handling pesticides before, during and after usage.

**What has been done**

During FY 2014, ASCC-CNR conducted 4 Pesticide Applicator workshops.

**Results**

In FY 2014, 53 participants were trained and certified. The EPA Pesticide officer was present to certify the participants. The certification allowed the participants to buy pesticides from the Department of Agriculture. Due to the training, farmers and users are more aware of the Integrated Pest Management strategies and biological programs.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
307	Animal Management Systems
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

#### Outcome #8

##### 1. Outcome Measures

Number of farmers growing improved genetic stocks of tilapia.

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	7

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

###### **Issue (Who cares and Why)**

Tilapia introductions in American Samoa have been few and far between. Inbreeding of existing stocks has been known to reduce growth rates and maximum sizes. This limits maximum farm yields and profits.

###### **What has been done**

The introduction of Genetically Improved Tilapia (GIFT) with formulated fish feed to the local farmers.

###### **Results**

GIFT grows faster and spawns earlier. The farmers are using this new breed of tilapia, and new farmers are encouraged to do the same.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection
604	Marketing and Distribution Practices

#### Outcome #9

##### 1. Outcome Measures

Number of farmers making their own tilapia feeds.

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	7

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

###### **Issue (Who cares and Why)**

The main issue is the high cost and availability of commercial feeds for the farmers.

###### **What has been done**

The Center for Sustainable Integrated Agriculture and Aquaculture (CSIAA) continues to maintain equipment for the production of fish feeds that is available to local fish farmers with no charge.

###### **Results**

Farmers continued to make use of feeds facilities to produce feed for the farm. In 2014, the CSIAA produced 2168 pounds of tilapia feeds.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
306	Environmental Stress in Animals
307	Animal Management Systems

315	Animal Welfare/Well-Being and Protection
401	Structures, Facilities, and General Purpose Farm Supplies
604	Marketing and Distribution Practices

**Outcome #10**

**1. Outcome Measures**

Number of participants trained on Farm Safety

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	679

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

**Issue (Who cares and Why)**

In FY2014, questions have been posted on the quality of the produce sold to the public, especially the school lunch program. The Department of Health have cited or shut down farming business due to poor sanitation or illegal usage of pesticide. Local Produce have been rejected by the School Lunch Program because of poor quality due to lack of knowledge in better farming practices to ensure good quality produce.

**What has been done**

The Ag. Extension have conducted 4 Farm Safety Workshop and 3 Pesticide Training with Farmers, Schools and Partners. The FCS program conducted 12 food safety workshops.

**Results**

679 participants acquired knowledge on Farm Safety through the workshops, activities, and training. The Ag. Extension program were able to assist Farmers with issues concerning Farm Safety.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
903	Communication, Education, and Information Delivery

### **Outcome #11**

#### **1. Outcome Measures**

Number of farmers switching from use of peat or mined topsoil to locally produced soilless growing media.

#### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

#### **3a. Outcome Type:**

Change in Action Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	0

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

##### **Issue (Who cares and Why)**

Use of peat based media and mined topsoil in vegetable seedling, container plant, and hydroponic production is a non-sustainable practice. Locally sourced organic materials should be evaluated as replacements for peat and topsoil.

##### **What has been done**

Due to delay in procuring project equipment, starting date for this project was changed to March 1, 2015.

##### **Results**

No results to date due to delay in procuring project equipment.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems

#### Outcome #12

##### 1. Outcome Measures

Number of new aquaculture farmers

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	2

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

###### **Issue (Who cares and Why)**

There is little, available, arable land in American Samoa. Much of the available land is compromised of poor soils that are not suitable for gardening. With the slow economy and high cost-of-living, people are looking for ways to improve food security and financial stability.

###### **What has been done**

Conducted one workshop which highlighted the benefits and practice of Aquaponics. The participants improved their knowledge of Aquaponics, including assembly, fish care, and marketability of Aquaponic products.

###### **Results**

In FY2014, 2 farmers were able to set up their aquaponics and using the Center for Sustainable Integrated Agriculture and Aquaculture (CSIAA) for the production of fish feeds for their farms.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
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102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
315	Animal Welfare/Well-Being and Protection

### **Outcome #13**

#### **1. Outcome Measures**

Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture

#### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

#### **3a. Outcome Type:**

Change in Action Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	595

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

##### **Issue (Who cares and Why)**

Food Security is an issue in American Samoa with 95% of the food supplies are imported. Tilapia introductions in American Samoa have been few and far between.

##### **What has been done**

The program conducted a workshop and offer outreach services to highlight the benefits and practice of aquaponics.

##### **Results**

About 70% of the visitors and workshop participants improved their knowledge of aquaponics, including assembly fish care, and marketability of products.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
315	Animal Welfare/Well-Being and Protection

401	Structures, Facilities, and General Purpose Farm Supplies
604	Marketing and Distribution Practices

**Outcome #14**

**1. Outcome Measures**

Number of food policies developed to address food safety issues

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	0

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

**Issue (Who cares and Why)**  
{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
903	Communication, Education, and Information Delivery

**Outcome #15**

**1. Outcome Measures**

Number of participants who acquired knowledge and followed safe food handling guidelines

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	898

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

**Issue (Who cares and Why)**

Obesity, overweight, poor nutrition, and food safety issues continued to be major problems for both adults and youth in American Samoa. There is a need for more nutritional educational and vegetable garden workshops to educate the community in healthy lifestyle.

**What has been done**

The FCS program has conducted 24 workshops in Nutrition and Food Safety for 300 plus participants per month. The Ag. Extension conducted 2 workshops on vegetable gardening in the schools and 3 Pesticide training.

**Results**

About 90% of the participants in the workshops were able to prepare and consume healthy food demonstration through activity programs from the FCS and Ag. Extension. At the same time, the participants acquired knowledge and followed safe food handling guidelines.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #16**

**1. Outcome Measures**

Number of pest species for which presence or absence in American Samoa was determined

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	8

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

**Issue (Who cares and Why)**

American Samoa's managed and unmanaged ecosystems are highly susceptible to disruptions by accidentally introduced exotic plant pests. Exotic pest detection surveys may allow for early detection of such pests so that they can be eradicated before they spread and become established in the territory.

**What has been done**

ASCC CNR and the American Samoa Department of Agriculture work together to implement exotic pest detection surveys under the USDA APHIS Cooperative Agricultural Pests Survey program. The partners maintain a trapping network for exotic fruit flies to detect such threats as the Oriental fruit fly, melon fly, and Mediterranean fruit fly which are present in Hawaii, and the Tongan fruit fly present in nearby Tonga. Bait stations are used to monitor for exotic invasive ant species such as the imported fire ant, present in the southern U.S., and the little fire ant which is present in Hawaii and some other Pacific islands. In addition, citrus and related species are surveyed for evidence of harmful citrus greening disease. (The major citrus greening vector, the exotic Asian citrus psyllid, is now widespread in American Samoa.)

**Results**

The fruit fly trapping network did not detect any non-native fruit flies among the 9,294 flies trapped and identified during the reporting period, and citrus greening disease was also not detected at any of the 57 sites sampled in that survey. The exotic ant survey did not find imported fire ant or little fire ant in any of the 1,640 bait stations placed at 38 locations considered at high risk for accidental introduction of exotic ants. Another exotic species, the Singapore ant, *Monomorium destructor*, was detected for the first time. Through funding from the Farm Bill and training

assistance from the California Department of Food and Agriculture's Plant Pest Diagnostics Center, three members of the local pest detection survey team received training in taxonomy and identification of exotic fruit flies thus increasing local capacity for detection of these important pests.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants

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

##### External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Lack of staff; procurement proc )

##### Brief Explanation

Delay in processing requests to hire replacement for lost staff limited program capacity. The college business office continued to impede attempts to use grant funds to procure supplies and equipment for the planned programs.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

Based on the evaluation, feedback form, and focus groups - the planned programs are doing a fair job in promoting out in the public. There's still a need to do more outreach for the planned programs. Fruit trees propagation workshops is also doing a fair job, but it needs more new varieties. The stakeholders agreed that the program is doing an excellent job in improving varieties of traditional crops, vegetable gardening workshops and demonstration, and the Pesticide Safety Education Program. Also doing a good job with the Progressive Agriculture Safety Days and the Piggery Waste Management workshops.

##### Key Items of Evaluation