

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

**Program # 5**

**1. Name of the Planned Program**

Food Safety

Reporting on this Program

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

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
315	Animal Welfare/Well-Being and Protection	50%			
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	50%			
	<b>Total</b>	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>	0.5	0.0	0.0	0.0
<b>Actual Paid</b>	0.6	0.0	0.0	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
44541	0	0	0
<b>1862 Matching</b>	<b>1890 Matching</b>	<b>1862 Matching</b>	<b>1890 Matching</b>
44541	0	0	0
<b>1862 All Other</b>	<b>1890 All Other</b>	<b>1862 All Other</b>	<b>1890 All Other</b>
14957	0	0	0

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

**1. Brief description of the Activity**

Nevada Extension attended several food safety and agricultural trainings to better assist producers in Nevada. This led to development of expertise that Nevada Extension now offers as a state program to fruit and vegetable producers. This program seeks to mitigate risk and expand market access through agricultural practices that promote food safety.

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

The target audience is mainly producers of fresh fruit and vegetables in the state of Nevada. It also has drawn other agricultural professionals and public health professionals.

**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
Actual	167	0	97	0

**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
Actual	2	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- Not reporting on this.  
Not reporting on this Output for this Annual Report

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

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

O. No.	OUTCOME NAME
1	Number of individuals who gain knowledge about food-borne illness, farm/ranch food safety, and quality assurance.
2	Number of individuals who implement practices to prevent food-borne illness, which include farm/ranch food safety plans and quality assurance practices.

## **Outcome #1**

### **1. Outcome Measures**

Number of individuals who gain knowledge about food-borne illness, farm/ranch food safety, and quality assurance.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

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

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

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

The number of farms in some agricultural counties has decreased by as much as 25% in the past two decades. There is interest in strengthening agriculture in the county and state. Increased market access and risk reduction is a goal of this program. Fruit and vegetable producers are entering an uncertain climate with the Food Safety Modernization Act being implemented. In addition, many are seeking to be GAP certified due to buyer demands. A survey conducted as part of the Governor's Office of Economic Development Agriculture Report identified laws and regulations as the biggest impediment to growth of agriculture (26% of respondents), 20% of producers identifying food safety laws as an impediment and 56.4% of producers indicated that they were willing to grow other crops if sufficient demand existed.

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

Nevada Extension held two Good Agricultural Practice (GAP) trainings in Nevada's major population centers (Las Vegas and Reno). Nevada Extension also completed three publications related to GAP and food safety and conducted workshops one GAP as part of an Urban Farming course and at Nevada's annual Small Farm Conference.

#### **Results**

Participant post-then-pre evaluation indicated a statistically significant improvement in knowledge of all topics taught at the Reno training. The overall quality of the training had a mean ranking of 6.46/7. The vast majority of participants indicated that they would use the technical skills learned during the training in their line of work. Participant post-then-pre evaluation indicated a statistically significant improvement in knowledge of topics presented at the workshop. The overall quality of the training had a mean ranking of 6.33/7. The majority of participants indicated that they would use the technical skills learned during the training in their line of work. This training brought in

expertise from the Southern Nevada Health District, who presented a public health agency's perspective on farmers markets, farm-to-fork events and the cottage food industry in Nevada. Other speakers discussed food safety in school gardens, GAP audits and resources at the Nevada Department of Agriculture. Most importantly, both trainings showed statistically significant improvement in understanding of GAPs, GHPs, food safety regulatory aspects as it relates to produce, risk management and the relationship between produce quality and food safety; and most participants indicated that they were likely to use their improved skill sets in their line of work. Long term impacts to participants would include risk reduction and mitigation, improved market access and understanding of aspects of food safety regulations at the federal level.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
315	Animal Welfare/Well-Being and Protection
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

**Outcome #2**

**1. Outcome Measures**

Number of individuals who implement practices to prevent food-borne illness, which include farm/ranch food safety plans and quality assurance practices.

**2. Associated Institution Types**

- 1862 Extension

**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)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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315	Animal Welfare/Well-Being and Protection
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

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

##### **External factors which affected outcomes**

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

##### **Brief Explanation**

County regulations about small-scale agriculture and locally produced foods vary significantly, especially with respect to food safety. There is a major local need for guidance about navigating local and state codes related to small-scale agricultural enterprises that use direct sales for distribution. As real estate values and new home starts increase, vacant urban land is withdrawn from community gardens and small-scale urban farms.

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

##### **Evaluation Results**

Participant post-then-pre evaluation indicated a statistically significant improvement ( $p < 0.05$ ) in knowledge of all topics taught at the Reno training. The overall quality of the training had a mean ranking of 6.46/7. The vast majority of participants indicated that they would use the technical skills learned during the training in their line of work. Participant post-then-pre evaluation indicated a statistically significant improvement ( $p < 0.05$ ) in knowledge of topics presented at the workshop. The overall quality of the training had a mean ranking of 6.33/7. The majority of participants indicated that they would use the technical skills learned during the training in their line of work. This training brought in expertise from the Southern Nevada Health District, who presented a public health agency's perspective on farmers' markets, farm-to-fork events and the cottage food industry in Nevada. Other speakers discussed food safety in school gardens, GAP audits and resources at the Nevada Department of Agriculture. Most importantly, both trainings showed statistically significant improvement in understanding of GAPs, GHPs, food safety regulatory aspects as it relates to produce, risk management and the relationship between produce quality and food safety; and most participants indicated that they were likely to use their improved skill sets in their line of work. Long term impacts to participants would include risk reduction and mitigation, improved market access and understanding of aspects of food safety regulations at the federal level.

### **Key Items of Evaluation**

Nevada is experiencing a surge of first-time urban farmers interested in specialty crop production, for supplemental or primary income. Much of the information and materials and supplies available to support technical aspects of these start-ups is generally available through seed companies, lawn and garden shops, hardware stores and the internet. However, many of the critical business decisions made by beginning small urban farmers are missing key factors needed to succeed. These include local zoning and business regulations, health codes, soil conditions, costs of inputs, availability of markets and food safety. While producers have tremendous enthusiasm for beginning these agricultural enterprises, local market and regulatory constraints can present overwhelming challenges.