

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

**Program # 8**

**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
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	55%			
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	35%			
806	Youth Development	10%			
	<b>Total</b>	100%			

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

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	3.6	0.0	0.0	0.0
Actual Paid Professional	0.7	0.0	0.0	0.0
Actual Volunteer	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
13476	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
35015	0	0	0

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

**1. Brief description of the Activity**

Conduct train the trainer workshops, clientele workshops/clinics aimed at food safety, food preservation and meeting beef quality assurance standards  
 Facilitate meetings with partners organizations and agencies (local and state)  
 Conduct interactive video conferences, web based deliveries etc.

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

Restaurant and other Food Service Managers/Employees; volunteers at food serving operations.  
 Home food preservers and people involved with food preparation  
 Livestock producers  
 Commodity Associations

**3. How was eXtension used?**

Extension professionals and clientele use eXtension as a resource for specific information and educational materials.

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

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	4106	34956	1021	5577

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	5	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- Food Safety: Provide 3 train the trainer sessions for County Extension Agents so they can conduct 25 food safety education classes for audiences such as county sanitarians, school food service personnel, volunteers, food banks etc. (Number of people attending) Make resources available for individual study - web, publications etc.. (Number distributed.)

<b>Year</b>	<b>Actual</b>
2012	3901

**Output #2**

**Output Measure**

- Food Preservation: Provide training and updates to County Extension Agents so they can conduct training/education on food preservation to home food preservers. (number of people attending) Prepare publications/MontGuides on Food Preservation practices and number distributed. People using canners will have the pressure gauges tested. (number being tested)

<b>Year</b>	<b>Actual</b>
2012	1226

**Output #3**

**Output Measure**

- Montana Beef Network - Beef Quality Assurance (BQA) Number of people attending beef quality assurance, production and marketing programs. Number of classes, demonstrations and tours provided related to BQA. Number of people participating on interactive video programs, hits on the web site, publications distributed etc.

<b>Year</b>	<b>Actual</b>
2012	0

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

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

O. No.	OUTCOME NAME
1	Food Safety People working in the food industry will use accepted food safety practices as they handle food, e.g., storing and thawing foods properly, hand washing, controlling time and temperature, ensuring proper personal hygiene, prevent cross-contamination, proper cleaning and sanitizing, etc. There will be a decline in the economic and health consequences of food borne illnesses
2	Food Preservation: Home food preservers will use accepted preservation practices in their home processes. There will be a decline in the economic and health consequences of food borne illnesses and spoilage.
3	Montana Beef Network-Beef Quality Assurance (BQA) Ranchers/producers will adhere to BQA protocols for raising beef. Ranchers/producers will become BQA certified. Consumers are assured of a readily available and wholesome supply of beef.

## **Outcome #1**

### **1. Outcome Measures**

Food Safety People working in the food industry will use accepted food safety practices as they handle food, e.g., storing and thawing foods properly, hand washing, controlling time and temperature, ensuring proper personal hygiene, prevent cross-contamination, proper cleaning and sanitizing, etc. There will be a decline in the economic and health consequences of food borne illnesses

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

- 1862 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2012	3901

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

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

Food safety is a growing concern for the food service industry and public and private agencies. Many of these groups are now requiring food safety training as they comply with the mandatory USDA policy to implement a School Food Safety Plan. The financial costs of food-borne illnesses for Montanans, nearly 1 in 65 Montanans each year, are tremendous as scarce public tax money covers lost wages, health care, and investigative costs. These losses have wide spread implications, especially for underserved populations and with changes in health care costs, productivity, and the health and economic well-being of children, families and communities.

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

Basic, 4-hour food safety classes, using the ServSafe Employee Guide or other suitable curriculum are taught statewide to cover the basics of safe food handling, focusing on the four key principles of controlling time and temperature when handling food, ensuring proper personal hygiene, preventing cross-contamination, and proper cleaning and sanitizing. In 2012, 2710 Montanans participated in one of these classes. In addition, 179 Montanans completed the Level 2: ServSafe Food Protection Manager Certification Course. This is a comprehensive, nationally recognized food safety course for food service managers designed to provide food-safe knowledge and skills to maintain a safe establishment.

#### **Results**

Youth were surprised to learn how ineffective their current hand-washing practices were. Many returned to the sinks and rewashed their hands after seeing all the germs revealed by Glo-Germ solution. As a result of the hand-washing exercise all youth indicated they better understood how their personal hygiene and touching other surfaces while preparing food was related to the

transfer of germs. Over 90 percent of the evaluations from ServSafe trainings indicated participants learned controlling time and temperature when handling food, ensuring proper personal hygiene, preventing cross-contamination and proper cleaning and sanitizing. The same percentage indicated that they would use their new knowledge to improve their safety practices.

#### 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

#### Outcome #2

##### 1. Outcome Measures

Food Preservation: Home food preservers will use accepted preservation practices in their home processes. There will be a decline in the economic and health consequences of food borne illnesses and spoilage.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	1226

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

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

Montana has an abundance of nutritious seasonal, wild and homegrown foods. Sustainable food trends and the current economic downfall have increased interest in home food preservation as an important and popular cultural activity. Recent national surveys reveal a high percentage of home food processors are using practices that put them at high risk for food-borne illness and economic losses due to food spoilage. As a result, a renewed effort to provide enhanced programming for home food preservers is necessary to insure they have access to the most reliable information available concerning food safety and food quality.

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

MSU Extension provides extensive resources for canning and food preservation including a series of nine popular MontGuides which are widely distributed through one-on-one consultations, county fairs, food safety classes, K-12 partnerships, adult education programs, youth cooking projects and more. Extension agents regularly test canner pressure gauges and advise on

equipment and supplies. Food preservation classes in counties and reservations include current, latest research-based procedures for dehydrating, freezing, water bathing and jelly and jam making. One-on-one conversations with the general public to answer specific questions occur on a nearly daily basis.

### Results

Awareness of Extension programming in food preservation is catching on. County and reservation offices report that walk-ins and calls come in nearly every day related to food preservation. MontGuides in this area are among the most requested. Every year more residents bring in their dial gauge canners to their local office to check for accuracy. More and more retailers refer their customers to Extension to assist with canning product selection and to answer questions about repair and quality. Families report that learning how to preserve food that they have learned to grow in their own gardens is a huge benefit to helping them prepare healthy meals and save grocery money.

## 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

### Outcome #3

#### 1. Outcome Measures

Montana Beef Network-Beef Quality Assurance (BQA) Ranchers/producers will adhere to BQA protocols for raising beef. Ranchers/producers will become BQA certified. Consumers are assured of a readily available and wholesome supply of beef.

Not Reporting on this Outcome Measure

### 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 Programmatic Challenges

#### Brief Explanation

{No Data Entered}

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

#### Evaluation Results

In addition to offering classes and teaching lessons in schools, Extension agents regularly answer calls and receive drop-ins who have questions in these topic areas. In many counties, Extension is the place to go for questions related to canning, equipment and supplies needed in food preservation and food safety. The success of this program area is most apparent in the fact that Montanans look to Extension for the latest and most up-to-date scientific information related to food safety and preservation.

### **Key Items of Evaluation**

Pre and post survey data was used to evaluate this program. In addition, anecdotal evidence was used since much of the Extension work around preservation is based on drop-in/call-in experiences with individual clients.

Results as follows:

#### **FOOD SAFETY**

100% of youth indicated they understood, post-training, how their personal hygiene and touching surfaces while preparing food was related to transfer of germs

90% of adults in ServSafe trainings learned the importance of controlling time and temperature when handling food, ensuring proper personal hygiene, preventing cross-contamination and proper cleaning and sanitizing

90% indicated that they would use their new knowledge to improve their safety practices

#### **FOOD PRESERVATION**

MontGuides related to food preservation are among the most requested.

Agents reported having calls or drop-ins with questions about food preservation on a nearly daily basis.