

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

**Program # 7**

**1. Name of the Planned Program**

Food Safety

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>
501	New and Improved Food Processing Technologies	10%	0%	49%	0%
703	Nutrition Education and Behavior	78%	50%	0%	0%
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	0%	50%	2%	36%
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	12%	0%	49%	64%
	<b>Total</b>	100%	100%	100%	100%

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

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

<b>Year: 2014</b>	<b>Extension</b>		<b>Research</b>	
	<b>1862</b>	<b>1890</b>	<b>1862</b>	<b>1890</b>
<b>Plan</b>	12.0	0.5	2.0	1.0
<b>Actual Paid</b>	12.0	0.2	7.1	5.9
<b>Actual Volunteer</b>	3922.0	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
168643	1003	432063	232626
1862 Matching	1890 Matching	1862 Matching	1890 Matching
186612	1892	864933	109274
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	503593	3771

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

**1. Brief description of the Activity**

- Training and certification workshops will be conducted for home-based microprocessors
- Research was conducted on the identification of best practices to reduce contamination of food pathogens and toxins in pre- and post- harvest environments
- Research programs also included better detection methods for monitoring food risks and analysis of the impacts of food safety incidences on the food supply chain
- Educational programs will be targeted toward parents and others who prepare food in the home
- Educational programs will be directed toward young children and teens on basic cleanliness such as hand washing

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

- extension agents
- food producers
- food processors
- parents
- volunteer leaders
- youth and children
- consumers

**3. How was eXtension used?**

Print materials, ask an expert

**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>	111356	1043213	28273	259801

## 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	5	12	17

## V(F). State Defined Outputs

### Output Target

#### Output #1

##### Output Measure

- Published research journal articles

Year	Actual
2014	8

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

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

O. No.	OUTCOME NAME
1	Number of individuals who experienced a change in knowledge, opinions, skills or aspirations regarding the safe storage, handling, or preparation of food (safe preservation techniques, hand washing, following time and temperature guidelines)
2	Number of individuals who implemented recommended practices for the safe storage, handling or preparation of food (safe preservation techniques, hand washing, following time and temperature guidelines)
3	Total number of individuals reached through Extension programming related to health and safety

## **Outcome #1**

### **1. Outcome Measures**

Number of individuals who experienced a change in knowledge, opinions, skills or aspirations regarding the safe storage, handling, or preparation of food (safe preservation techniques, hand washing, following time and temperature guidelines)

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

- 1862 Extension
- 1890 Extension
- 1862 Research

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	57497

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

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

The CDC estimates 1 in 6 Americans, or roughly 48 million people, get sick from food borne illnesses each year. The Home-based Processor and Microprocessor program began as a way to increase farm profits by allowing Kentucky farmers to use their home kitchens to produce certain value-added products for sale at farmers markets, roadside stands, or their farms. However, many have limited knowledge of the difference between low-risk and higher risk products and the safety requirement of each.

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

Kentucky Extension offers an average of 6 home-based microprocessor workshops each year.

Clinton County Cooperative Extension Service taught food safety information including sanitation, ways to prepare food, and proper food storage to individuals and groups throughout the community. A total of 127 individuals have participated in lessons involving food safety.

#### **Results**

Of the 399 producers who attended an HBM workshop, 62 have had their recipes approved and have been certified to process and sell over 350 value-added home-canned products.

### **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 #2**

### **1. Outcome Measures**

Number of individuals who implemented recommended practices for the safe storage, handling or preparation of food (safe preservation techniques, hand washing, following time and temperature guidelines)

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

- 1862 Extension
- 1890 Extension
- 1862 Research

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	29187

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

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

The CDC estimates 1 in 6 Americans, or roughly 48 million people, get sick from food borne illnesses each year. Many residents operative businesses involving food preparation are not aware of the requirements to operate these types of businesses.

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

Kentucky Extension offers home-based microprocessor workshops each year (both face-to-face and virtually).

Clinton County Cooperative Extension Service taught food safety information including sanitation, ways to prepare food, and proper food storage to individuals and groups throughout the community. A total of 127 individuals have participated in lessons involving food safety.

### **Results**

All participants were given the opportunity to practice using a meat thermometer to check proper internal temperatures of cooked meat products. Furthermore, each participant was given a meat thermometer to take home to ensure that they continue to exercise the food safety precautions discussed during the lesson. Follow-up evaluation measures indicated that 112 participants were continuing to use their meat thermometers at home, and continued to practice other safety techniques discussed.

Building on the success of the Home-based Processor and Microprocessor program, some farmers have expanded the sale of their value-added products to the commercial market. One of these is a Kenton County farmer who started selling her pepper jellies at her local farmers market in the fall of 2012, and whose products are now offered for sale online and at nine retail stores across Kentucky.

#### 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

Total number of individuals reached through Extension programming related to health and safety

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	165496

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

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

Economic stressors on family budgets have resulted in an increase in home gardening and food preservation. The local food movement has gained interest and popularity in Central Kentucky in

recent years, and as more families plant vegetable gardens or make large purchases at local Farmers Markets, the need for information about food preservation skills has also increased.

**What has been done**

Extension has arranged a series of Canning 101 classes as well as a hands-on Canning Camp series across the state.

**Results**

Written surveys completed at the end of sessions and workshops indicated that participants felt that they had received enough information to feel confident to can high acid foods on their own. Many believed that they were ready to try pressure canning and most felt confident that they could save \$20 to \$30 a month on their food budgets by canning or freezing the food they grow themselves.

**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

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

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges

**Brief Explanation**

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

**Evaluation Results**

Raised awareness, increase in knowledge, healthy practices (in preparing/storing/preserving foods)

**Key Items of Evaluation**

Survey, follow up interviews, focus group discussions