

# Safe Food and Human Nutrition

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

### 1. Name of the Planned Program

Safe Food and Human Nutrition

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

### 1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area  | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|---|-----------------|-----------------|----------------|----------------|
| 702     | Requirements and Function of Nutrients and Other Food Components  | 15%             |                 | 15%            |                |
| 703     | Nutrition Education and Behavior  | 30%             |                 | 20%            |                |
| 711     | Ensure Food Products Free of Harmful Chemicals, Including Residu  | 15%             |                 | 15%            |                |
| 712     | Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins | 30%             |                 | 30%            |                |
| 723     | Hazards to Human Health and Safety  | 0%              |                 | 10%            |                |
| 724     | Healthy Lifestyle   | 10%             |                 | 0%             |                |
| 802     | Human Development and Family Well-Being   | 0%              |                 | 10%            |                |
|         | <b>Total</b>  | 100%            |                 | 100%           |                |

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

### 1. Actual amount of professional FTE/SYs expended this Program

| Year: 2007    | Extension |      | Research |      |
|---------------|-----------|------|----------|------|
|               | 1862      | 1890 | 1862     | 1890 |
| <b>Plan</b>   | 7.4       | 0.0  | 19.7     | 0.0  |
| <b>Actual</b> | 1.2       | 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<br>268818 | 1890 Extension      | Hatch<br>254115          | Evans-Allen<br>0    |
| 1862 Matching<br>846248       | 1890 Matching<br>0  | 1862 Matching<br>2242065 | 1890 Matching<br>0  |
| 1862 All Other<br>8071130     | 1890 All Other<br>0 | 1862 All Other<br>70374  | 1890 All Other<br>0 |

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

### **1. Brief description of the Activity**

- Develop new rapid methods for the surveillance, detection, isolation, and quantification of microbes and chemical residues in animals, plants, and food products.
- Develop risk monitoring techniques to detect potential hazards in the distribution chain.
- Disseminate food safety and bio-security information through extension and research seminars, workshops, and resident and distance education programs, using a variety of media options and communication tools.
- Offer safe food production, handling, and sanitation education to groups involved in all levels of food production and service.
- Identify best management practices to prevent foodborne illness and to enhance the security of the food supply throughout the food chain.
- Increase understanding of the role of food and its components in improving human health and reducing the risk of nutrition related disorders.
- Develop technology to reduce the hazards and improve the quality of animal food products, which will complement the development of HACCP programs by USDA.
- Design systems to preserve, prepare, and store foods and agricultural products to enhance nutrients and bioactive compounds and educate consumers about these systems.
- Develop, complement, and maintain an aggressive technology transfer system that effectively communicates work about Safe Food and Human Nutrition to consumers, students, industry, government, and other scientific investigations.

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

- Growers and processors of agricultural commodities, commercial and non-commercial food service personnel, market and home gardeners, other food handlers, retail markets, consumers, and educators
- Families and individuals of all ages living in Kansas, including populations with limited resources; low literacy skills; varying ethnicities; disabilities, diseases, or impairments; and documented or identifiable health disparities
- Economic stakeholders, and policy and funding agencies
- Health care, education, and nutrition professionals
- K-State Research & Extension faculty and staff with responsibilities for food and/or nutrition
- Government
- Consumer groups (i.e., STOP)

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

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

|             | <b>Direct Contacts<br/>Adults</b> | <b>Indirect Contacts<br/>Adults</b> | <b>Direct Contacts<br/>Youth</b> | <b>Indirect Contacts<br/>Youth</b> |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| <b>Year</b> | <b>Target</b>                     | <b>Target</b>                       | <b>Target</b>                    | <b>Target</b>                      |
| <b>Plan</b> | 500                               | 5000                                | 500                              | 2000                               |
| 2007        | 120                               | 1500                                | 500                              | 0                                  |

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

**Patent Applications Submitted**

**Year Target**

**Plan: 0**

2007: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

|             | <b>Extension</b> | <b>Research</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| <b>Plan</b> |                  |                 |              |
| 2007        | 0                | 20              | 20           |

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

**Output Target**

**Output #1**

**Output Measure**

Number of rapid methods developed for the surveillance, detection, isolation, and quantification of microbes and chemical residues in animals, plants, and food products

| <b>Year</b> | <b>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2007        | 1             | 2             |

**Output #2**

**Output Measure**

Number of therapeutic, chemical, and physical treatments developed for animals and plants and their products to eliminate or reduce contamination with potential hazards

| <b>Year</b> | <b>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2007        | 1             | 2             |

**Output #3**

**Output Measure**

Number of extension and research seminars, workshops, and other educational programs presented using a variety of media options and communication tools

| <b>Year</b> | <b>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2007        | 100           | 15            |

**Output #4**

**Output Measure**

Number of attendees at educational programs (previous item) whether growers, processors, commercial and non-commercial food service personnel, market and home gardeners, retail markets, and consumers (including limited resource individuals, minorities, and other at risk populations)

| <b>Year</b> | <b>Target</b> | <b>Actual</b> |
|-------------|---------------|---------------|
| 2007        | 5000          | 1000          |

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

| O No. | Outcome Name   |
|-------|--|
| 1     | Percentage of individuals and families who have reduced anxiety related to food security   |
| 2     | Number of participants making healthier food choices   |
| 3     | Increase in knowledge level and attitude of clientele in safe food production, handling, and sanitation programs; best management practices to prevent foodborne illness; and social, economic, and communications issues related to food safety and agricultural bio-security |
| 4     | Number of persons demonstrating ability to choose or prepare foods with reduced fat and/or calories  |
| 5     | Number of persons demonstrating the ability to recognize USDA serving sizes  |
| 6     | Percent of participants increasing knowledge of storing foods properly   |
| 7     | Number of participants passing food handler certification  |
| 8     | Decreased incidence of food borne illness associated with unsafe food handling practice *Will not be measured in the near future   |
| 9     | Decreased risk factors for chronic disease   |
| 10    | Number of individuals and families who have adopted best management practices for food handling and agricultural biosecurity   |
| 11    | Number of participants with increased knowledge of compounds beneficial to human health that can be found in Kansas food products, in particular wheat   |

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

| <b>Year</b> | <b>Quantitative Target</b> | <b>Actual</b> |
|-------------|----------------------------|---------------|
|-------------|----------------------------|---------------|

**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> |
|----------------|-----------------------|
|----------------|-----------------------|

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

**External factors which affected outcomes**

Appropriations changes

Public Policy changes

Government Regulations

Competing Public priorities

Competing Programmatic Challenges

**Brief Explanation**

**V(I). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

**Evaluation Results**

**Key Items of Evaluation**