

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

- 502 5% New and Improved Food Products
- 503 5% Quality Maintenance in Storing and Marketing Food Products
- 504 5% Home and Commercial Food Service
- 701 5% Nutrient Composition of Food
- 703 50% Nutrition Education and Behavior
- 711 5% Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources.
- 712 5% Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 723 5% Hazards to Human Health and Safety
- 724 5% Healthy Lifestyle
- 806 10% Youth Development

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Food production and processing is a large business in Arkansas. Approximately 25% of all manufacturing in Arkansas is food processing, representing an \$11 billion per year business. There are 232 food processing establishments in Arkansas directly employing over 55,000 people. The Center for Disease Control has estimated that 76 million persons in the United States are affected by food borne illness. The costs for persons infected include those associated with health care for afflicted individuals, costs related to caring for those who are ill, absenteeism from work and school, as well as travel costs to seek medical care. Nationally, Arkansas ranks first in stroke mortality, eighth in mortality due to heart disease and ninth in overall cancer mortality. Sixty-one percent of adults are overweight or obese and 38 percent of children in grades K-12 are overweight or at risk for becoming overweight. Lifestyles are directly related to these diseases. Only about half of Arkansas adults and youth get the recommended amount of daily moderate physical activity and one-fourth of adults smoke. Unhealthy lifestyles, including poor diet, physical inactivity, smoking and substance abuse, cost Arkansas taxpayers hundreds of millions of dollars each year in health care costs and lost productivity. Lifestyle changes can prevent at least 20 percent of annual deaths from heart disease, cancer, stroke and diabetes while lowering lifetime medical costs. Almost fifteen percent of all Arkansas households are food insecure. Research has shown the importance of nutrition to the developing brain and learning capability of children. When food and nutrients are chronically inadequate, hunger leads to high medical, educational, psychological, economic, and social costs.

The Division of Agriculture research goals for the Food, Nutrition and Health program are achieved through discovery and developmental research in Food Science, Food Safety and human nutrition. The Division's extension goals for Food, Nutrition and Health are achieved through county and state educational programs such as demonstrations, applied research, education booths, presentations, publications, newsletters, web pages, in-service training of county faculty, and news releases. Through consumer education on nutrition and the preparation and selection of more nutritious foods, Cooperative Extension faculty and staff enable Arkansans to make health-promoting choices. The success of our food safety programs is due to our Extension/Research integration and proximity of Extension and Experiment Station faculty/staff who work on new processing ingredients and technologies which are disseminated in Extension workshops, newsletters, roundtables etc. The monthly HACCP Roundtable serves not only state companies but is regional in scope and serves as a model at the national level as an example of food companies cooperating along with USDA to address food safety issues.

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The majorities of the food safety programs are either nationally or state mandated programs such as the Better Process Control School and the ServSafe program, respectively or are at the request of food processing companies and entrepreneurs in Arkansas. Since the programs are driven by our clientele, it is believed that they represent the concerns and needs of food processing industry. It is assumed that since these programs are clientele-driven, they will continue to be important and this concern will be reflected in the attendance and participation of the food processing companies. It is also assumed that the Experiment Station scientists will continue to assist in the delivery of these programs. Finally, it is assumed that by working with agricultural economists and the State Department of Health, we will continue to identify entrepreneurs who will take advantage of our programs, ultimately resulting in the establishment of more food-processing businesses.

One in five Arkansans is without health insurance coverage. Lack of health care professionals and facilities in rural Arkansas limit access to quality health care.

We assume that Arkansans will choose to be active participants in the decisions that affect their health to remain active and healthy. It is assumed that evidence-based education can enable rural individuals and families to better maintain healthy lifestyles and manage physical health.

Nutrition education is based on the belief that:

« Participants have access to and consume specific foods.

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- « Targeted audiences are willing and able to participate in nutrition education programs.
 - « Knowledge change can lead to behavior change.
 - « People will be motivated to learn/change.

2. Ultimate goal(s) of this Program

- « Develop new and value added products utilizing Arkansas raw products
- « To provide needed research on food and food products in partnership with the food industry
- « Improve the efficiency and competitiveness of the Arkansas and U.S. food industry through improvements in processing systems, and increased understanding of food chemistry

Food Safety & Processing:

- « Reduce the incidences of food poisoning resulting from processing at both manufacturing and at the restaurant level
- « Improve the food processing/quality aspects of manufacturing to foster growth of food companies and entrepreneurs in Arkansas

Health:

- « Educate and empower individuals and families to adopt healthy behaviors and lifestyles to promote health and prevent disease
- « Educate Arkansans to make informed health and health care decisions to utilize the health care system effectively and reduce health care costs
- « Lower the incidence of chronic disease

Nutrition:

- « Reduce risk factors for diet-related chronic diseases

V(F). Planned Program (Activity)

1. Activity for the Program

Commercial Food Safety & Processing:

Improve food processing efficiency through an improved understanding of food chemistry
Determine the impact of food processing systems on product quality and food safety attributes
Develop new food products that utilize Arkansas raw products
Increase the research base on improved food processing systems to minimize food pathogens
Improve detection systems for Listeria, Salmonella and other major food pathogens
Identify health related nutritional factors that will improve human health
Develop new food products that have improved nutritional content
Conduct monthly HACCP Round Table meeting.
Conduct food safety workshops.
Conduct Better Process Control School
Conduct Labeling workshop.
Conduct the ServSafe workshop.
Provide online distance education in food safety and manufacturing
Conduct new product development workshop
Provide assistance to small food companies and entrepreneurs in the form of services, nutritional labeling, and consulting.
Conduct culinology workshop
Conduct research

Health: Division of Agriculture faculty will develop, evaluate, and disseminate education programs and curricula, incorporating new research and emphasizing healthy lifestyles. Programs Include:

Walk Across Arkansas (Adults and Youth)

Strong Women

Journey to Wellness

ServSafe

Nutrition:

Extension faculty will reach target audiences through the following nutrition education programs:

Food Stamp Nutrition Education

Expanded Food and Nutrition Education Program

Eating and Moving for Life

Reshape Yourself Healthy Weight Program

Right Bite Cooking School

Delta HOPE Initiative