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GOAL TWO

THE SAFETY AND SECURITY OF
ARKANSAS FOOD AND FIBER



While the American food supply is among the safest in the world, each year millions of people are stricken by illness caused by the food they eat. The Centers for Disease Control and Prevention (CDC) estimates that foodborne diseases cause approximately 76 million illnesses, 325,000 hospitalizations and more than 5,000 deaths in the U.S. each year. The cost estimate of foodborne pathogens, including medical costs, productivity losses from missed work and an estimate of the value of premature death is \$6.9 billion.



Emerging pathogens and hazards in the food chain, a growing awareness and threat of agroterrorism and food contamination as a result of increased utilization of imported foods are public concerns that can be addressed by the University of Arkansas Division of Agriculture through continued research and outreach education.

To ensure that the food supply is safe and secure for Arkansans, research and education is critical at each step of the food chain from the farm to the table. Specifically, the Division will focus its efforts in the areas of production, post-harvest storage and handling, processing and consumption.

PRODUCTION, POST-HARVEST STORAGE AND HANDLING

The U of A Division of Agriculture will:

- Conduct research to control or eliminate risks from foodborne organisms at the producer, post-harvest and storage level.
- Serve as a vital link in disseminating information to enhance the security and safety of Arkansas agriculture.
- Identify strategies to reduce the risk of agroterrorism.
- Conduct research and identify strategies to manage plant and animal diseases during production, post-harvest storage and handling.
- Improve human nutrition as a result of increased product availability.
- Improve post-harvest storage time, product quality, vermin control of stored product, disease prevention, methods of shipment, methods to reduce handling and transport stress on livestock, etc.
- Provide Arkansas producers with knowledge and skills needed to produce, ship and store safe agriculture products to assure increases in production and exports.
- Continue to research genetic adaptations of pathogens that make them resistant to antibiotics.
- Develop technology for rapid identification of infectious agents and toxins.



Arkansas agricultural producers play a key role in supplying food for the state, nation and world. The largest segment of livestock produced in the state is poultry and eggs, contributing over \$674 million to the economy. Cattle production is the most widespread segment of livestock enterprises and contributes \$139 million. Field crop production is also a vital contributor to the state economy with Arkansas being the leading rice producing state. The total impact of agriculture on the gross state product is over \$13 billion and accounts for 15 percent of the state's total payroll. The livestock and crops produced in the state are stored, handled and further processed in-state or shipped out-of-state for storage and/or further utilization. Agricultural producers and allied agribusiness industries all have an economic interest in the proper storage, movement and handling of Arkansas commodities. A single plant or animal disease outbreak could drastically affect

our ability to keep animals and plants healthy and could undermine consumer confidence in the food supply leading to economic disaster for agricultural producers and the state's economy.

PROCESSING

The U of A Division of Agriculture will:

- Develop innovative methods and treatments to identify and eliminate pathogenic microorganisms in foods.
- Partner with industry to facilitate technology development and implementation.
- Provide entrepreneurs information on safe handling and processing of food.

Food processing plays an integral role in the Arkansas economy, but the incidents of foodborne diseases pose a major threat to food processors and the general public. The cost estimate of foodborne pathogens, including medical costs, productivity losses from missed work and an estimate of the value of premature death is \$6.9 billion. Food processing companies also share a cost burden for food safety due to a loss of markets as a result of contaminated products, lawsuits by consumers and government regulations. The future prosperity of the Arkansas food processing industry is contingent on delivering a safe and secure food supply.

CONSUMPTION

The U of A Division of Agriculture will:

- Provide food service establishments, hotels and resorts, bed and breakfasts and other hospitality businesses food safety education and training.
- Collaborate with national and state agencies and other organizations to provide food safety resources and education to the people of Arkansas.
- Conduct effective interventions to improve consumer understanding of food related risks.

As the dollar amount spent by Arkansas consumers on food eaten away from home has increased, so too has the extent to which restaurants and other food service establishments impact the health and well-being of our residents. The restaurant industry's share of the food dollar is currently 46.4 percent and is estimated to rise to 53 percent by 2010. The impact of foodborne diseases on health in the United States is considerable. According to the Centers for Disease Control, in industrialized countries, the percentage of people suffering from foodborne diseases each year has been reported to be up to 30 percent. Statistics show that foodborne diseases cause approximately 76 million illnesses, 325,000 hospitalizations and 5,000 deaths in the United States each year.

