

## FOOD SAFETY RESEARCH INITIATIVES IN THE UNITED STATES

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The CSREES supports food safety research and education through funds appropriated under several legislative authorities. The *National Research Initiative* (NRI) is the major peer-reviewed competitive grants program in support of agricultural research. Within the NRI, the "Ensuring Food Safety Program" supports research to increase understanding of disease-causing microorganisms and their products, naturally occurring toxicants, and drug residues which contaminate foods. The "Food Characterization, Process, and Product Research Program" supports research to increase the quality, utility, convenience, nutrient value, and safety of food products through innovative processing methods. The "Markets and Trade Program" has a component which supports research on the economics of food safety factors that affect competitiveness of U.S. agricultural products (the benefits and costs of regulations, including Hazard Analysis Critical Control Points). The "Sustaining Animal Health and Well-Being Program" supports research on organisms such as *E. coli* and *Salmonella* spp.

*Regional Research* includes projects addressing preharvest food safety in animals, control of foodborne disease agents, and epidemiology and costs associated with foodborne disease. The agency administers *Special Research Grants*, including a Food Safety Consortium to address issues of critical interest to meat and poultry inspection services. The majority of the research efforts are aimed at improved prevention, identification and control of foodborne disease and contamination. The national *Food Safety and Quality Initiative* supports education to reduce the incidence of foodborne disease and to increase understanding of food-related risks.

The purpose of the *Fund for Rural America* is to: 1) increase international competitiveness, efficiency, and farm profitability; 2) reduce economic and health risks; 3) conserve and enhance natural resources; 4) develop new crops, new crop uses, and new agricultural applications of biotechnology; 5) enhance animal agriculture resources; 6) preserve plant and animal germplasm; 7) increase economic opportunities in farming and rural communities; and 8) expand locally-owned, value-added processing.

The Fund for Rural America complements the United States Department of Agriculture's (USDA) existing portfolio of fundamental and applied research, extension, and higher education programs. The aim of the Fund is to advance the findings of research into practical applications to address current and emerging problems through collaboration among educators, research scientist and extension personnel. Proposals will be assessed according to approach priorities that are systems-based, inter- or multidisciplinary, and that leveraged prior investments in research and technology development. Additionally, innovative collaborations and partnerships are encouraged.

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The Fund for Rural America has two initiatives: the Core Initiative, which addresses and links international competitiveness, profitability, and efficiency; environmental stewardship; and rural community enhancement; and, the Secretary's Initiative to Ensure a Safe, Competitive, Nutritional and Accessible Food System. Specifically, the Secretary's Initiative supports research, education and extension activities in the following four areas: 1) HACCP implementation for small meat and poultry processors; 2) Competitiveness of small, independent livestock producers; 3) Identification and utilization of phytonutrients in the design of functional foods for disease prevention; and 4) Increased gleaning and food recovery. US \$33,000,000.00 is expected to be awarded for the Core Initiative and US \$13,000,000.00 for the Secretary's Initiative.

Approximately 500 proposals have been received for planning grants. The grants will be used to develop proposals for Fund for Rural America Centers. Proposals for the Centers will be due from each planning grant awardee in January 1998. Approximately 1,100 proposals for standard grants have been received and are undergoing review.

The purpose of the *Food Safety Initiative* is to: 1) Improve inspections and expand preventive safety measures; 2) Increase research to develop new tests to detect foodborne pathogens and to assess risks in the food supply; 3) Build a national Early Warning System to detect and respond to outbreaks of foodborne illness earlier, and to give us the data we need to prevent future outbreaks; 4) Establish a national education campaign that will improve food handling in homes and retail outlets; and 5) Strengthen coordination and improve efficiency to improve federal, state and local responses to outbreaks of foodborne illnesses.

Foodborne illness is a significant public health problem and the goal of the Food Safety Initiative is to reduce the incidence of foodborne illness. The initiative is also designed to promote collaboration between the public and private sectors and to improve coordination within the government. Food safety research to identify and rapidly and accurately characterize foodborne hazards and to develop effective interventions is critical throughout the continuum of food safety.

The Food Safety Initiative seeks to enhance food safety programs through the adoption of preventive controls, especially Hazard Analysis and Critical Control Point (HACCP) systems. Additionally, increased surveillance will assist in the early detection and response to outbreaks of foodborne illness. Approximately US\$43,000,000.00 has been requested to strengthen food safety in the upcoming fiscal year. The research elements of the Food Safety Initiative will focus on: 1) improved detection methods for *Salmonella spp* and other pathogenic microorganisms; 2) understanding resistance to traditional preservation technologies; 3) understanding antibiotic drug resistance; prevention techniques; and food handling, distribution, and storage.

Funding for the Food Safety Initiative is targeted for the fiscal year that begins October 1, 1997, and efforts to identify pathogens in food or animal feed have already begun. The establishment of a long range planning process to address critical issues is part of the Food Safety Initiative. Through collaboration and consultation with public and private stakeholders, the process will help clarify how to leverage the investments that have been made in food safety and how to make the best use of limited resources.