



The Agricultural Research Service's national research program on Food Safety (#108) seeks ways to control or eliminate potentially harmful food contaminants at every step of the food production and processing continuum. Food contaminants include both introduced and naturally occurring pathogenic bacteria, viruses, and parasites; toxins and nonbiological-based chemical contaminants; and mycotoxins and plant toxins.

The food safety program's aim is to provide scientific solutions to problems, leading to enhanced technology for producers and manufacturers, and to provide scientific information for development of regulations or guidelines by regulatory agencies so that consumers will have a secure, affordable, and safe food supply.

The overall vision of the program is to support public health. Since food safety and food security are global issues, ARS's research program involves both national and international collaborations through formal and informal partnerships.

The 2011-2015 ARS Strategic Action Plan for Food Safety emphasizes the following six major interrelated research areas:

- Population studies, which identify and characterize the movement, structure, and dynamics of populations throughout the entire food safety continuum.
- Systems biology, which involves a unique integrative approach to understanding the basic genetic components of pathogens and their expression and directly relates this information to the microorganism's biology.
- Technology development to detect and characterize contaminants entering food through raw materials or during processing, with the aim of avoiding or preventing the need for processing interventions or recall.

- Technology development for reduction and control of foodborne pathogens or other zoonotic organisms and chemical contaminants.

- Predictive microbiology, which describes the behavior of microorganisms in the food environment, an integral part of microbial risk assessment used to support food safety measures.

- Technology development and scientific data for regulation and control of veterinary drugs, residues, heavy metals, persistent organic pollutants, and biological toxins derived from bacteria, fungi, and plants.

More information on national program #108 can be found at www.nps.ars.usda.gov.*

Food Safety Research Information Office fsrio.nal.usda.gov

The Food Safety Research Information Office (FSRIO) at the National Agricultural Library was established by congressional mandate as a comprehensive source of food safety research information. Among the most important features of FSRIO is a unique database of more than 5,100 research activities, including ongoing projects funded by U.S. and international government agencies as well as private organizations. For researchers, FSRIO's Research Projects Database offers an efficient insight into research that is currently under way but does not yet have published results. It serves as a valuable adjunct to literature searches.

Other features of the FSRIO website include regularly updated technical reviews on food pathogens and other hot topics, such as food biotechnology, and a database of food safety training materials for consumers and professionals. There are also links to resources on sanitation and safety standards, emergency preparedness, and other topics as well as the latest news stories on food recalls and disease outbreaks.

