

## **FRI Food Safety Reviews**

Until 1996, a printed FRI Annual Report contained an extensive annual summary of all the previous year's published research papers in peer-reviewed journals, as well as the summaries of on-going research by FRI faculty. With the advent of rapid and widespread internet direct access to journals, abstracting services, and database search engines specializing in scientific journals, the comprehensive literature survey was discontinued. The "**FRI Briefs**," re-named "FRI Food Safety Reviews" in 2010, appear periodically and continue the literature survey effort, now focusing on special topics.

<b>FRI Food Safety Literature Reviews</b>	
<p><a href="#"><u>Helicobacter spp. — Food- or Waterborne Pathogens?</u></a> Although <i>H. pylori</i> is a known cause of ulcers and gastric cancer, it resides in the gastro-intestinal tract of about half the world's population who are usually asymptomatic. Some other <i>Helicobacter</i> species infect mammals, birds and reptiles. Transmission of <i>H. pylori</i> is not well understood because these bacteria enter a viable but nonculturable state when exposed to stressful conditions outside the body. <i>Appendix: earlier review on Helicobacter pylori (1997).</i></p>	February 2012
<p><a href="#"><u>Toxins from Cyanobacteria</u></a> Human exposure to cyanobacterial toxins primarily occurs through ingestion of contaminated water or shellfish, with some additional exposure through dietary supplements, other foods, and aerosols from lakes with cyanobacterial blooms. This review addresses recent information on microcystins, <math>\beta</math>-methylamino-L-alanine, paralytic shellfish toxins, and anatoxin-a. <i>Appendix: earlier review on alga Pfiesteria (1998).</i></p>	August 2011
<p><a href="#"><u>Understanding Sodium Replacements from a Food Safety and Health Risk Perspective</u></a> Sodium affects the taste, texture, and safety of foods; therefore the consequences of reducing sodium levels in various foods must be evaluated carefully. This report reviews health concerns associated with high intakes of sodium, important functions of salt in foods, and potential safety considerations associated with food components that may substitute for some functions of salt in foods.</p>	March 2011
<p><a href="#"><u>White Paper on Sources of Methicillin-Resistant Staphylococcus aureus (MRSA) and Other Methicillin-Resistant Staphylococci: Implications for Our Food Supply?</u></a> Infections in animals and humans, presence in food, and potential food safety implications</p>	February 2011
<p><a href="#"><u>Water Safety and Quality</u></a> Waterborne disease agents; surveillance and outbreaks.</p>	November 2010
<p><a href="#"><u>White Paper on Effectiveness of Existing Interventions on Virus Inactivation in Meat and Poultry Products</u></a> Human enteric viruses and animal viruses potentially present in foods; outbreaks and effective control methods <i>Appendix, review on Hepatitis A: Outbreaks associated with produce and shellfish (1997).</i></p>	June 2010
<p><a href="#"><u>White Paper on Human Non-O157:H7 Shiga Toxin-Producing E. coli from Meat and Non-Meat Sources</u></a> Epidemiology, detection, outbreaks, infection routes, and interventions.</p>	April 2010
<p><a href="#"><u>White Paper on Human Illness Caused by Salmonella from all Food and Non-Food Vectors</u></a> Food and non-food vehicles of infection for human outbreaks of salmonellosis, surveillance strategies, and industry initiatives to control <i>Salmonella</i> spp.</p>	February 2009
<p><a href="#"><u>Sodium Reduction and Its Effects on Food Safety, Food Quality, and Human Health</u></a> Adverse health effects of high dietary levels of sodium chloride, important functions of sodium chloride for the flavor, structure, and preservation of foods.</p>	November 2008
<p><a href="#"><u>Destruction of H5N1 Avian Influenza Virus in Meat and Poultry Products</u></a> Effects of heat, irradiation, and high pressure on avian influenza viruses present in meat and eggs, sanitation methods for environmental decontamination.</p>	August 2007
<p><a href="#"><u>Microbial Food Spoilage: Losses and Control Strategies</u></a> Bacteria, yeasts, and molds causing food spoilage, factors affecting shelf-life of meats, dairy products, fish, cereals, vegetables, fruits, and juices.</p>	December 2006
<p><a href="#"><u>Natural and Organic Foods: Safety Considerations</u></a> Food safety issues related to organic and natural foods, approved additives and processes.</p>	December 2006
<p><a href="#"><u>Human Illness and E. coli O157:H7</u></a> Epidemiology, outbreaks, infection routes, surveillance, regulations, interventions.</p>	November 2006
<p><a href="#"><u>Nanotechnology</u></a> Technology; applications; toxicology and safety issues.</p>	June 2006

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<u><a href="#">Veterinary Drug Residues in Processed Meats — Potential Health Risk</a></u> Penicillin, tetracyclines, sulfonamides, neomycin, gentamicin, flunixin, streptomycin, arsenicals; withdrawal periods.	March 2006
<u><a href="#">Food Antimicrobials, Cleaners, and Sanitizers</a></u> Cleaning compounds for food contact surfaces, fresh produce, animal carcasses; antimicrobials used in foods.	September 2005
<u><a href="#">Safety of Processed Cheese: A Review of the Scientific Literature</a></u> Bacteria of concern ( <i>C. botulinum</i> , <i>B. cereus</i> , <i>Listeria</i> , <i>Salmonella</i> , <i>S. aureus</i> , <i>E. coli</i> O157:H7); importance of salt, emulsifiers, fat, bacteriocins, pH, enzyme-modified cheese.	July 2005
<u><a href="#">Bovine Spongiform Encephalopathy: An Updated Scientific Literature Review</a></u> Update of previous review; prion structure, analytical methods; CWD, BSE, and other transmissible spongiform encephalopathies. <i>Appendix, earlier BSE briefs</i> : historical review, current issues and strategies for control of transmission spongiform encephalopathies (1996–2002).	November 2004
<u><a href="#">Saturated Fat and Beef Fat as Related to Human Health</a></u> Cardiovascular disease, cancer, different fatty acids.	February 2004
<u><a href="#">Foodborne Parasites</a></u> Protozoa, Tapeworms, <i>Anisakis</i> , <i>Trichinella</i> , lung and liver flukes, <i>Ascaris</i> . <i>Appendix, Cryptosporidium and Cyclospora</i> : Protozoan parasites, waterborne outbreaks, contamination of fresh produce (1996).	October 2003
<u><a href="#">Survival and Growth of <i>Clostridium perfringens</i> during the Cooling Step of Thermal Processing of Meat Products</a></u> Heat resistance in uncured and cured meats; efficiency of different cooling processes; growth inhibitors.	March 2002
<u><a href="#">Virulence Characteristics of <i>Listeria monocytogenes</i></a></u> Strain variation; invasion and spread; host defenses; virulence factors.	October 2001
<u><a href="#">Alternatives to Antibiotic Use for Growth Promotion in Animal Husbandry</a></u> Antibiotic resistance; probiotics and competitive exclusion; enzymes; immune modulators; organic acids; other feed supplements; alternative husbandry practices.	April 2001
<u><a href="#">Listeria Heat Resistance</a></u> Data from experiments with laboratory media and foods and importance of <i>Listeria</i> serotype and culture conditions and food composition. <a href="#">J. Food Protection 64:410–429 (2001)</a> .	March 2001
<u><a href="#">Hormone Implants</a></u> Safety of growth hormone implants in livestock.	July 2000
<u><a href="#">Salmonella Thermal Resistance</a></u> Data from experiments with laboratory media and foods and importance of <i>Salmonella</i> serotype and culture conditions and food composition. <a href="#">J. Food Protection 63:779–795 (2000)</a> .	June 2000
<u><a href="#">Listeria Intervention</a></u> RTE products; organic acids, bacteriocins, thermal processes, irradiation, modified atmosphere packaging, high pressure, UV light, ultrasound.	November 1999
<u><a href="#">Food Irradiation</a></u> Destruction of microbes; issues of concern; current and proposed applications.	March 1999
<u><a href="#">Non-Cholera Vibrios</a></u> <i>V. vulnificus</i> , <i>V. parahaemolyticus</i> ; shellfish; wound infections.	November 1998
<u><a href="#">Campylobacter — Chronic Effects</a></u> Food vectors; Guillain-Barré syndrome.	July 1998
<u><a href="#">Fusarium Mycotoxins</a></u> Pre- and post-harvest approaches to control DON and fumonisins.	December 1997
<u><a href="#">Mycobacterium paratuberculosis</a></u> Presence in milk; possible link to Crohn's disease.	April 1997
<u><a href="#">Salmonella typhimurium DT104</a></u> Multiple antibiotic resistance.	January 1997