

Brian Shawn Eblen MS, CP-FS, CFSSA
Principal Scientist
RD Food Safety Consulting LLC
6317 Saddle Drive, Columbia, MD 21045
443-430-5089
Bshawneblen@gmail.com

Professional Profile

I have 28 years of diverse food safety and quality experience to support my clients' scientific, technological, and regulatory needs. I utilize my expertise to assist clients with their safety and quality issues with ingredients and food additives, food products, dietary supplements, animal feed/food, and cosmetics. I have investigated and provided advice on many of the country's largest and most visible foodborne illness outbreaks and recalls, as well as supporting industry efforts to comply with or evaluate Food and Drug Administration's (FDA) and U.S. Department of Agriculture (USDA) food safety policies.

I have conducted food safety assessments on farms, processing, distribution, and retail establishments. I assessed domestic and international food and packaging facilities against federal Food Safety Modernization Act (FSMA) requirements and Global Food Safety Initiative (GFSI) standards. I have advised on the development of industry and commodity specific Good Manufacturing Practices (GMPs) and evaluated the effectiveness of various US and EU programs to reduce salmonellosis attributed to meat consumption. My broad problem-solving abilities address plant- and animal-based commodities across the entire food production system, through retail and the food service.

Prior to joining Exponent in 2006, I was a microbiologist at the FDA Center for Food Safety and Applied Nutrition (CFSAN). My work addressed food safety issues including conducting research that provided the scientific basis for FDA's Juice HACCP regulation and serving as a science consultant to the FDA team managing the U.S. Food Code and Pasteurized Milk Ordinance. While at FDA, I tested and evaluated bio-threat test kits for efficacy in foods, and participated with Centers for Disease Control in training on protocols to detect threat agents.

I started my career at the USDA Agricultural Research Service (ARS) at the Eastern Regional Research Center. There, I designed studies and managed projects that addressed food safety issues associated with the meat industry, conducting studies that served as the basis for USDA Food Safety & Inspection Service (FSIS) policies.

Academic Credentials & Professional Honors

M.S., Bioscience, Drexel University, 1997
B.S., Microbiology, Auburn University, 1991

Outstanding Support Scientist of the Year, CFSAN, 2005
Secretary's Award for Distinguished Service-Bioterrorism Preparedness, DHHS, Team Award- Food Code Writer's Team, CFSAN, 2005
Group Recognition Award- Conference for Food Protection Task Force Group, FDA, 2004

Licenses and Certifications

Certified Professional of Food Safety (CP-FS), National Environmental Health Association
Certified in Food Safety Supplier Audits (CFFSA)

Prior Experience

Managing Scientist, 2011-2019, Senior Scientist 2006-2010 Exponent Chemical Regulation and Food Safety
Microbiologist, U.S Food and Drug Administration, Center for Food Safety and Applied Nutrition, 1999-2006
Support Scientist, 1993-1999; Biological Laboratory Technician, 1991-1993, United States Department of Agriculture, Agricultural Research Service, Eastern Regional Research Center

Professional Affiliations

International Association of Food Protection
National Environmental Health Association

Consulting Experience

FSMA/GMP/GFSI Compliance

Advised a trade association of substrate manufacturers of food contact substances on development of industry wide GMPs.

Advised a cosmetics manufacturer on responses to a FDA 483. Developed a RACI chart and advised the company on progress towards improving their safety and quality systems.

Evaluated several airline food preparation facilities and advised on GMP compliance issues.

Evaluated several mushroom growing facilities for adherence to current and future requirements of cGMPs and FSMA as part of a due diligence audit for an acquisition.

Evaluated several snack food and frozen berry operations in the US to assess the current state of their food safety and quality systems for a venture capital firm. Advised client on prioritized areas for improvement.

Evaluated a soft cheese manufacturer against their GFSI requirements as part of a pre audit.

Performed surprise GMP inspections for a RTE food company at 4 different locations.

Root Cause Analysis

Performed a root cause analysis for an enzyme production facility in India that experienced a contamination event. Evaluated current ingredient procurement and handling practices and provided recommendations to prevent additional occurrences.

Performed a root cause analysis for a brewery, to determine likely cause of a beer spoilage event. Provided client with likely causes of the spoilage and recommendations to prevent another occurrence.

Performed a root cause analysis for an olive oil manufacturer to determine likely cause of the production of substandard oil. Provided client with likely causes of the spoilage and recommendations to prevent another occurrence.

Provided recall management support and performed a root cause analysis to determine the likely cause of a failure of acidified baby foods.

Analyzed production records for a flavor manufacturer to determine quantities of products made with an ingredient contaminated with *Salmonella*, and determined that further processing eliminated the pathogen, which resulted in FDA not requesting to recall the final product.

Evaluation and Development of Food Safety Systems

Developed incident response plans, including recall action plans, for a cheese manufacturer and a bottle water manufacturer.

Evaluated food safety systems and GMP compliance for a European bottled water manufacturer.

Evaluated several dairy operations in Europe to assess the current state of their food safety and quality systems for a major beverage producer. Advised client on prioritized areas for improvement.

Assessed and recommended improvements of food safety systems of a major dried fruit processor, including growing, field drying, harvesting and manufacturing operations. Also assessed the inherent food safety properties of the client's products.

Evaluated the food safety systems employed at a smoked fish manufacturing facility and advised on improvements to several aspects of their food safety plan.

Evaluated a tuna canning operation to determine time/ temperatures of product exposure. Made recommendations to client to strengthen food safety systems.

Incident Response/Product Disposition

Designed and implemented numerous sample retention plans, including identifying appropriate laboratories, to determine the extent of biological or chemical contamination.

Demonstrated that packaged frozen food exposed to a warehouse fire was safe for human consumption. Conducted the on-site investigations, identified potential hazards, developed a laboratory analytical protocol, evaluated the results, and conducted a risk assessment. Based on my report, the regulatory agency allowed the food to be released into commerce.

Evaluated frozen food for food safety and quality issues after a freezer failure. Developed a sampling plan to determine the extent of damage and potential food safety issues. Provided client with disposition options for the food in question.

Inspected a frozen vegetable facility and determined the extent of *Listeria* contamination within the facility and in finished product.

Performed several on-site investigations to determine if food exposed to an ammonia leak from a refrigerated warehouse was safe for human consumption. Advised the client of the potential human health risks and options to assess safety of the products.

Legal Defense

Evaluated food safety systems and related data and provided support for litigation regarding several issues including:

- *Salmonella* contamination of pet food
- Foodborne illness from the consumption of pomegranate arils
- *E. coli* O157:H7 contamination in a prepared salad
- *E. coli* O157:H7 contamination of food from a Mexican restaurant
- Glass contamination of an alcoholic beverage; physical contamination of an airline meal
- Chemical contamination of frozen corn.

Publications

Sharma SK, Ferreria JL, Eblen BS, Whiting, RC. Detection of type A, B, E, and F *Clostridium botulinum* neurotoxins in foods by using an amplified enzyme-linked immunosorbent assay with digoxigeninO labeled antibodies. Applied and Environ Microbiology 2006; 72:1231-1238.

Sharma SK, Eblen BS, Bull RL, Burr DH, Whiting RC. Evaluation of lateral-flow *Clostridium botulinum* neurotoxin detection kits for food analysis. Applied and Environ Microbiology 2006; 71:3935-3941.

Penteado AL, Eblen BS, Miller AJ. Evidence of *Salmonella* internalization into fresh mangoes during simulated post harvest processing procedures. Journal of Food Protection 2004; 67:181-184.

Eblen BS, Walderhaug MO, Edelson-Mammel SG, Chirtel SJ, De Jesus A, Merker RI, Buchanan RL, Miller AJ. Potential for internalization, growth and survival of *Salmonella* and *Escherchia coli* O157:H7 in oranges. Journal of Food Protection 2003; 77:1578-1587.

Juneja VK, Novak JS, Eblen BS, McClane BA. Heat resistance of *Clostridium perfringens* vegetative cells as affected by prior heat shock. Journal of Food Safety 2001; 21:127-139.

Juneja VK, Eblen BS, Marks HM. Modeling non-linear survival curves to calculate thermal inactivation of *Salmonella* in poultry of different fat levels. International Journal of Food Microbiology 2001; 22(70):37-51.

Miller AJ, Bayles DO, Eblen BS. Cold shock induction of thermal sensitivity in *Listeria monocytogenes*. Applied Environmental Microbiology 2000; 66:4345-4350.

Juneja VK, Eblen BS. Heat inactivation of *Salmonella typhimurium* DT104 in beef as affected by fat content. Letters in Applied Microbiology 2000; 30:461-467.

Juneja VK, Eblen BS. Predictive thermal inactivation model for *Listeria monocytogenes* with temperature, pH, NaCl, and sodium pyrophosphate as controlling factors. Journal of Food Protection 1999; 62:986- 993.

Juneja VK, Marmer BS, Eblen BS. Predictive model for the combined effect of temperature, pH, sodium chloride, and sodium pyrophosphate on the heat resistance of *Escherichia coli* O157:H7. Journal of Food Safety 1999; 19:147-160.

Duffy G, Riordan DCR, Sheridan JJ, Eblen BS, Whiting RC, Blair IS, McDowell DA. Differences in thermotolerance of various *Escherichia coli* O157:H7 strains in a salami matrix. Food Microbiology 1999; 16:83-91.

Palumbo SA, Klein P, Capra J, Eblen BS, Miller AJ. Comparison of excision and swabbing sampling methods to determine the microbiological quality of swine carcass surfaces. Food Microbiology 1999; 16:459-464.

Miller AJ, Eblen BS, Oser A, Burkhardt W. Application and evaluation of mole-specific bacteriophage as a process integrity or fecal contamination indicator in a pork slaughterhouse environment. Journal of Applied Microbiology 1998; 85:898-904.

Riordan DC, Duffy G, Sheridan J, Eblen BS, Whiting RC, Blair IS, McDowell DA. Survival of *Escherichia coli* O157:H7 during the manufacture of pepperoni. Journal of Food Protection 1998; 61:146-151.

Rajkowski KT, Eblen BS, Laubach C. Efficacy of washing and sanitizing trailers used for swine transport in reduction of *Salmonella* and *Escherichia coli*. Journal of Food Protection 1998; 61:31-35.

Miller AJ, Call JE, Eblen BS. Growth, Injury and Survival potential of *Yersinia enterocolitica*, *Listeria monocytogenes*, and *Staphylococcus aureus* in brine chiller conditions. Journal of Food Protection 1998; 60:1334-1340.

Juneja VK, Eblen BS, Marmer BS, Williams AC, Palumbo SA, Miller AJ. Thermal resistance of nonproteolytic type B and type E *Clostridium botulinum* spores in phosphate buffer and turkey slurry. Journal of Food Protection 1995; 58:758-763.

Juneja VK, Eblen BS. Influence of sodium chloride on thermal inactivation and recovery of nonproteolytic *Clostridium botulinum* type B KAP B5 spores. Journal of Food Protection 1995; 58:813-816.

Presentations and Published Abstracts

Centrella W, Eblen BS, Maduff W, Miller AJ, Larsen S, Warren-Serna W. Prevalence and level distribution of *Salmonella* spp. from retail pork cuts from four United States cities. Poster presented at the Annual Meeting of International Association of Food Protection, Columbus, OH, August 2008.

Eblen BS. Current issues in food safety. National Science Teachers Association Annual Meeting, Boston MA, March 2008. Eblen BS. Current issues in food safety. FDA/NSTA Professional Development Program in Food Science, Washington DC, July 2006.

Eblen BS, Whiting RA. *Listeria monocytogenes* in ready-to-eat foods and interventions that affect the relative risk. FDA Regional Science Forum, Denver CO, May 2005.

Eblen BS, Ottenson A and Miller AJ. The effects of agricultural pesticide and antibiotic applications on apples and apple juice microflora. Presented poster presentation at the Annual meeting of FDA Science Forum, Washington DC, April 2005.

Eblen BS. Food safety concerns. FDA New Inspectors Training Course, Annapolis, MD, March 2004. Eblen BS. Reducing foodborne illness resulting from hand contact of ready-to-eat foods.

Ohio State Health Department Annual Meeting, Columbus, OH, March 2003.

Eblen BS. Current *Listeria* research in ready to eat foods. Pittsburgh Regional AFDO Annual Meeting, December 2002.

Eblen BS, Penteado AL and Miller AJ. Evidence of *Salmonella* internalization into fresh mangoes during simulated post harvesting procedures. Presented poster presentation at Annual meeting of International Association of Food Protection, San Diego, CA, June 2002.

Eblen BS, Whiting RC, Miller AJ. Growth potential of *Listeria monocytogenes* in commercially prepared ready-to-eat deli salads stored at refrigeration temperatures. Presented poster presentation at Annual Meeting of International Association of Food Protection, San Diego, CA, June 2002.

Eblen BS. Food microbiology review. FDA Regional Train the Trainer Course, Alameda and Modesto, CA, September 2001. Food microbiology in Chapter 3 of the US Food Code. FDA Regional Train the Trainer Course, Houston, TX, September 2000.

Eblen BS, Walderhaug, M, Miller AJ. Routes of infiltration, survival, and growth of *Salmonella enterica* Seroovar Hartford and *Escherichia coli* O157:H7 in Oranges. IAFP Annual Meeting, Atlanta, GA, August 2000.