

Microbiological Safety of Leafy Green Vegetables: A Bibliography

Compiled by

Robert L. Buchanan, Ph.D.

Food and Drug Administration

Center for Food Safety and Applied Nutrition

College Park, Maryland, USA

March, 2008

Harber, A.H. and Luippold, H.J. Dormancy from gamma-irradiation of lettuce seeds. *International Journal of Radiation Biology* 1:317-327. 1959.

Shapiro, J.E. and Holder, I.A. Effect of antibiotic and chemical dips on the microflora of packaged salad mix. *Applied Microbiology* 8:341-345. 1960.

Lynt, R.K.Jr. Survival and recovery of enterovirus from foods. *Applied Microbiology* 14:218-222. 1966.

Kominos, S.D. et al. Introduction of *Pseudomonas aeruginosa* into a hospital via vegetables. *Applied Microbiology* 24:567-570. 1972.

Crisan, E.V. Effects of aflatoxin on germination and growth of lettuce. *Applied Microbiology* 25:342-345. 1973.

Konowalchu, J. et al. Concentration of enteric viruses from water with lettuce extract. *Applied Microbiology* 28:717-719. 1974.

Knowalchuk, J.K. and Speirs, J.I. Survival of enteric viruses on fresh vegetables. *Journal of Milk and Food Technology* 38:469-472. 1975.

Ercolani GL (1976). Bacteriological quality assessment of fresh marketed lettuce and fennel. *Applied and Environmental Microbiology* 31:847-852. 1976.

Wright, C. et al. Enterobacteriaceae and *Pseudomonas aeruginosa* recovered from vegetable salads. *Applied and Environmental Microbiology* 31:453-454. 1976.

Priepke, P.E. et al. Refrigerated storage of prepackaged salad vegetables. *Journal of Food Science* 41:379-385. 1976.

Bolin, H.R. et al. Factors affecting the storage stability of shredded lettuce. *Journal of Food Science* 42:1319-1331. 1977.

- Ward, B.K. et al. Recovery of viruses from vegetable surfaces. *Applied and Environmental Microbiology* 44:1389-1394. 1982.
- Rude, R.A. et al. Survey of fresh vegetables for nematodes, amoebae, and *Salmonella*. *Journal of the Association of Official Analytical Chemists* 67:(3) 613-615. 1984.
- Brocklehurst, T.F. et al. A note on the microbiology of retail packs of prepared salad vegetables. *Journal of Applied Bacteriology* 63:409-415. 1987.
- Callister, S.M. and Agger, W.A. Enumeration and characterization of *Aeromonas hydrophila* and *Aeromonas caviae* isolated from grocery store produce. *Applied and Environmental Microbiology* 53:249-253. 1987.
- Ruiz, B.G.-V. et al. Contamination of fresh vegetables during cultivation and marketing. *International Journal of Food Microbiology* 4:285-291.
- Steinbruegge, E.G. et al. Fate of *Listeria monocytogenes* on ready to serve lettuce. *Journal of Food Protection* 51:596-599. 1988.
- Berrang, M.E. et al. Growth of *Listeria monocytogenes* on fresh vegetables stored under controlled atmosphere. *Journal of Food Protection* 52:702-705. 1989.
- Heisick, J.E. et al. *Listeria* spp. found on fresh market produce. *Applied and Environmental Microbiology* 55:1925-1927. 1989.
- Beuchat, L.R. and Brackett, R.E. Survival and growth of *Listeria monocytogenes* on lettuce as influenced by shredding, chlorine treatment, modified atmosphere packaging and temperature. *Journal of Food Science* 55:755-870. 1990.
- Garg, N. et al. Effect of processing conditions on the microflora of fresh-cut vegetables. *Journal of Food Protection* 53:701-703. 1990.
- Magnuson, J.A. et al. Microflora of partially processed lettuce. *Applied and Environmental Microbiology* 56:3851-3854. 1990.
- Satchell F.B. et al. The survival of *Shigella sonnei* in shredded cabbage. *Journal of Food Protection* 53:558-562, 624. 1990.
- Solomon, H.M. et al. 1990. Outgrowth of *Clostridium botulinum* in shredded cabbage at room temperature under modified atmosphere. *Journal of Food Protection* 53:831-833. 1990.
- Beuchat, L.R. Surface disinfection of raw produce. *Dairy, Food and Environmental Sanitation* 12:6-9. 1990.

- Breer, C. and Baumgartner, A. (1992). Occurrence and behavior of *Listeria monocytogenes* in salads, vegetables and fresh vegetable juices. *Archiv fur Lebensmittelhygiene*, 43:108-110. 1992.
- Park, C.E. and Sanders, G.W. Occurrence of thermotolerant campylobacters in fresh vegetables sold at farmers' outdoor markets and supermarkets. *Canadian Journal of Microbiology* 38:313-316. 1992.
- Abdul-Raouf, U.M. et al. Survival and growth of *Escherichia coli* O157:H7 on salad vegetables. *Applied and Environmental Microbiology* 59:1999-2006. 1993.
- Carlin, F. and Nguyen-The, C. Fate of *Listeria monocytogenes* on four types of minimally processed green salads. *Letters in Applied Microbiology* 18:222-226. 1994.
- Albrecht, J.A. et al. Microbial evaluation of vegetable ingredients in salad bars. *Journal of Food Protection* 58:683-685. 1995.
- Bastos, R.K.X. and Mara, D.D. The bacterial quality of salad crops drip and furrow irrigated with waste stabilization pond effluent: An evaluation of the WHO guidelines. *Water Science and Technology* 31:425-430. 1995.
- Monge, R. and Chinchilla, M. Presence of *Cryptosporidium* oocysts in fresh vegetables. *Journal of Food Protection* 59:202-203. 1995.
- Ng, D.L.K and Seah, H.L. Isolation and identification of *Listeria monocytogenes* from a range of foods in Singapore. *Food Control* 6:171-173. 1995.
- Petran, R.L. et al. *Clostridium botulinum* toxin formation in romaine lettuce and shredded cabbage: Effect of storage and packaging conditions. *Journal of Food Protection* 58:624-627. 1995.
- Beuchat, L.R. Pathogenic microorganisms associated with fresh produce. *Journal of Food Protection* 59:204-216. 1996.
- Beuchat, L.R. *Listeria monocytogenes*: Incidence on vegetables. *Food Control* 7:223-228. 1996.
- Carlin, F. et al. Influence of background microflora on *Listeria monocytogenes* on minimally processed fresh broad-leaved endive (*Cichorium endivia* var. *latifolia*). *Journal of Food Protection* 59:698-703. 1996.
- Carlin, F. et al. Factors affecting the growth of *Listeria monocytogenes* on minimally processed fresh endive. *Journal of Applied Bacteriology* 78:636-646. 1995.
- Fain, A.R. A review of the microbiological safety of fresh salads. *Dairy, Food, and Environmental Sanitation* 16:146-149. 1996.

Garcia-Gimeno, R.M. et al. *Aeromonas hydrophila* in vegetable salads stored under modified atmosphere at 4 and 15°C. *Food Microbiology* 13:369-374. 1996.

Garcia-Gimeno, R.M. et al. Incidence, survival and growth of *Listeria monocytogenes* in ready-to-use mixed vegetables salads in Spain. *Journal of Food Safety* 16:75-86. 1996.

Lee, C.-M. et al. Occurrence of *Listeria monocytogenes*, *Salmonella* spp., *Escherichia coli*, and *E. coli* O157:H7 in vegetable salads. *Food Control* 7:135-140. 1996.

Mpuchane, S. and Gashe, B.A. Prevalence of coliforms in traditionally dried leafy vegetables sold in open markets and food stores in Gaborone, Botswana. *Journal of Food Protection* 59:28-30. 1996.

Vankerschaver, K. et al. The influence of temperature and gas mixtures on the growth of the intrinsic micro-organisms on cut endive: Predictive versus actual growth. *Food Microbiology* 13:427-440. 1996.

Wang, G. et al. Fate of enterohemorrhagic *Escherichia coli* O157:H7 in bovine feces. *Applied and Environmental Microbiology* 62:2567-2570. 1996.

Zhang, S. and Farber, J.M. The effects of various disinfectants against *Listeria monocytogenes* on fresh-cut vegetables. *Food Microbiology* 13:311-321. 1996.

Arroyo, G. et al. Effect of high pressure on the reduction of microbial populations in vegetables. *Journal of Applied Microbiology* 82:735-742. 1997.

Babic, I. et al. Growth of *Listeria monocytogenes* restricted by native microorganisms and other properties of fresh-cut spinach. *Journal of Food Protection* 60:912-917. 1997.

Bolin, H.R. et al. Factors affecting the storage stability of shredded lettuce. *Journal of Food Science* 42:1319-1331. 1997.

Finn, M.J. and Upton, M.E.. Survival of pathogens on modified-atmosphere-packaged shredded carrot and cabbage. *Journal of Food Protection* 60:1347-1350. 1997.

Francis, G.A. and O'Beirne, D. Effects of gas atmosphere, antimicrobial dip and temperature on the fate of *Listeria innocua* and *Listeria monocytogenes* on minimally processed lettuce. *International Journal of Food Science and Technology* 32:141-151. 1997.

Garcia-Gimeno, R.M. and Zurera-Cosano, G. Determination of ready-to-eat vegetable salad shelf-life. *International Journal of Food Microbiology* 36:31-38. 1997.

Hernandez, F. et al. Rotavirus and hepatitis A virus in market lettuce (*Latuca sativa*) in Costa Rica. *International Journal of Food Microbiology* 37:221-223. 1997.

Kyung, K.H. and Fleming, H.P. Antimicrobial activity of sulfur compounds derived from cabbage. *Journal of Food Protection* 60 :67-71. 1997.

Larson, A.E. et al. Evaluation of the botulism hazard from vegetables in modified atmosphere packaging. *Journal of Food Protection* 60:1208-1214. 1997.

Loessner, M.J. et al. Evaluation of luciferase reporter bacteriophage A511::luxAB for detection of *Listeria monocytogenes* in contaminated foods. *Applied and Environmental Microbiology* 63:2961-2965. 1997.

Manderfeld, M.M. et al. Isolation and identification of antimicrobial furocoumarins from parsley. *Journal of Food Protection* 60:72-77. 1997.

Odumeru, J.A. et al. Assessment of the microbiological quality of ready-to-use vegetables for health-care food services. *Journal of Food Protection* 60:954-960. 1997.

Piagentini, A.M. et al. Survival and growth of *Salmonella* Hadar on minimally processed cabbage as influenced by storage abuse conditions. *Journal of Food Science* 62: 616-631. 1997.

Wallace, J.S. et al. Isolation of vero cytotoxin-producing *Escherichia coli* O157 from wild birds. *Journal of Applied Microbiology* 82:399-404. 1997.

Ackers, M.-L. et al. An outbreak of *Escherichia coli* O157:H7 infections associated with leaf lettuce consumption. *Journal of Infectious Diseases* 177: 1588-1593. 1998.

Austin, J.W. et al. Growth and toxin production by *Clostridium botulinum* on inoculated fresh-cut packaged vegetables. *Journal of Food Protection* 61:324-328. 1998.

Francis, G.A. and O'Beirne, D. Effects of storage atmosphere on *Listeria monocytogenes* and competing microflora using a surface model system. *International Journal of Food Science and Technology* 33:465-476. 1998.

Francis, G.A. and O'Beirne, D. Effects of the indigenous microflora of minimally processed lettuce on the survival and growth of *Listeria innocua*. *International Journal of Food Science and Technology* 33:477-488. 1998.

Hagenmaier, R.D. and Baker, R.A. A survey of the microbial population and ethanol content of bagged salad. *Journal of Food Protection* 61:357-359. 1998.

Hao, Y.-Y. et al. Microbiological quality and the inability of proteolytic *Clostridium botulinum* to produce toxin in film-packaged fresh-cut cabbage and lettuce. *Journal of Food Protection* 61:1148-1153. 1998.

Kakiomenou, K. et al. Survival of *Salmonella* Enteritidis and *Listeria monocytogenes* on salad vegetables. *World Journal of Microbiology and Biotechnology* 14:383-387. 1998.

Pirovani, M.E. et al. Quality of minimally processed lettuce as influenced by packaging and chemical treatment. *Journal of Food Quality* 22:475-484. 1998.

Shere, J.A. et al. Longitudinal study of *Escherichia coli* O157:H7 dissemination on four dairy farms in Wisconsin. *Applied and Environmental Microbiology* 64:1390-1399. 1998.

Amanatidou, A. et al. Effect of elevated oxygen and carbon dioxide on the surface growth of vegetable-associated micro-organisms. *Journal of Applied Microbiology* 86:429-438. 1999.

Beuchat, L.R. Survival of enterohemorrhagic *Escherichia coli* O157:H7 in bovine feces applied to lettuce and the effectiveness of chlorinated water as a disinfectant. *Journal of Food Protection* 62:845-849. 1999.

Brackett, R.E. Incidence, contributing factors, and control of bacterial pathogens in produce. *Postharvest Biology and Technology* 15:305-311. 1999.

Cherry, D.P. Improving the safety of fresh produce with antimicrobials. *Food Technology* 53(11):54-60. 1999.

Delaquis, P.J. et al. Effect of warm, chlorinated water on the microbial flora of shredded iceberg lettuce. *Food Research International* 32:7-14. 1999.

Escudero, M.E. et al. Effectiveness of various disinfectants in the elimination of *Yersinia enterocolitica* on fresh lettuce. *Journal of Food Protection* 62:665-669. 1999.

Francis, G.A. et al. The microbiological safety of minimally processed vegetables. *International Journal of Food Science and Technology* 34:1-22. 1999.

Fukushima, H. et al. Long-term survival of shiga toxin-producing *Escherichia coli* O26, O111, and O157 in bovine feces. *Applied and Environmental Microbiology* 65:5177-5181. 1999.

Hurme, E.U. et al. The storage life of packed shredded iceberg lettuce dipped in glycine betaine solutions. *Journal of Food Protection* 62:363-367. 1999.

Izumi, H. Electrolyzed water as a disinfectant for fresh-cut vegetables. *Journal of Food Science* 64:536-539. 1999.

Jacxsens, L. et al. Spoilage and safety of fresh-cut vegetables packaged under modified atmosphere: A case study of mixed lettuce followed through the distribution chain. In

“Food Microbiology and Food Safety into the Next Millenium, Tuijelaars, A.C.J. et al., ed. Ponsen & Looyen. Wageningen, The Netherlands. pp175-180. 1999.

Jacxsens, L. et al. Behavior of *Listeria monocytogenes* and *Aeromonas* spp. on fresh-cut produce package under equilibrium-modified atmosphere. *Journal of Food Protection* 62:1128-1135. 1999.

Kaneko, K.-I. et al. Bacterial contamination in the environment of food factories processing ready-to-eat fresh vegetables. *Journal of Food Protection* 62:800-804. 1999.

Kim, J.-G. et al. Use of ozone to inactivate microorganisms on lettuce. *Journal of Food Safety* 19:17-32. 1999.

Lindqvist, R. Detecton of *Shigella* spp. in food with a nested PCR method – sensitivity and performance compared with conventional culture method. *Journal of Applied Microbiology* 86:971-978. 1999.

Little, C. Microbiological quality of retail imported unprepared whole lettuces: A PHLS Food Working Group study. *Journal of Food Protection* 62:325-328. 1999.

Seo, K.H. and Frank, J.F. Attachment of *Escherichia coli* O157:H7 to lettuce leaf surface and bacterial viability in response to chlorine treatment as demonstrated by using confocal scanning laser microscopy. *Journal of Food Protection* 62:3-9. 1999.

Sinigaglia, M. et al. Influence of process operations on shelf-life and microbial population of fresh-cut vegetables. *Journal of Industrial Microbiology and Biotechnology* 23:484-488. 1999.

Thayer, D.W. and Rajokowski, K.T. Developments in irradiation of fresh fruits and vegetables. *Food Technology* 53(11):62-65. 1999.

Wasteson, Y. et al. Analysis of faecal samples from wild animals for verocytotoxin producing *Escherichia coli* and *E. coli* O157. *Veterinary Record* 144:646-647. 1999.

Xu, L. Use of ozone to improve the safety of fresh fruits and vegetables. *Food Technology* 53(10):58-62. 1999.

Behrsing, J. et al. Efficiency of chlorine for inactivation of *Escherichia coli* on vegetables. *Postharvest Biology and Technology* 19:187-192. 2000.

Bidawid, S. et al. Inactivation of hepatitis A virus (HAV) in fruits and vegetables by gamma irradiation. *International Journal of Food Microbiology* 57:91-97. 2000.

Bidawid, S. et al. Rapid concentration and detection of hepatitis type A virus from lettuce and strawberries. *Journal of Virological Methods* 88:175-185. 2000.

Bidawid, S. et al. Contamination of foods by food handlers: Experiments on hepatitis A virus transfer to food and its interpretation. *Applied and Environmental Microbiology* 66:2759-2763. 2000.

Burnett, S.L. and Beuchat, L.R. Human pathogens associated with raw produce and unpasteurized juices, and difficulties in decontamination. *Journal of Industrial Microbiology and Biotechnology* 25:281-287. 2000.

Cizek, A. et al. Survival of *Escherichia coli* O157 in faeces of experimentally infected rats and pigeons. *Letters in Applied Microbiology* 31:349-352. 2000.

Heard, G. Microbial safety of ready-to-eat salads and minimally processed vegetables and fruits. *Food Science and Technology Today* 14:15-21. 2000.

Leggitt, P.R. and Jaykus, L.-A. Detection methods for human enteric viruses in representative foods. *Journal of Food Protection* 63:1738-1744. 2000.

Lin, C.-M. et al. Bactericidal activity of isothiocyanate against pathogens on fresh produce. *Journal of Food Protection* 63:25-30. 2000.

Mahony, J.O' et al. Rotavirus survival and stability in foods as determined by an optimised plaque assay procedure. *International Journal of Food Microbiology* 61:177-185. 2000.

Prakash, A. et al. Effects of low-dose gamma irradiation on the shelf life and quality characteristics of cut Romaine lettuce packaged under modified atmosphere. *Journal of Food Science* 65:549-553. 2000.

Robertson, L.J. et al. Isolation of *Cyclospora* oocysts from fruits and vegetables using lectin-coated paramagnetic beads. *Journal of Food Protection* 63:1410-1414. 2000.

Szabo, E.A. et al. Survey for psychrotrophic bacterial pathogens in minimally processed lettuce. *Letters in Applied Microbiology* 30:456-460. 2000.

Takeuchi, K. et al. Comparison of the attachment of *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella* Typhimurium, and *Pseudomonas fluorescens* to lettuce leaves. *Journal of Food Protection* 63:1433-1437. 2000.

Takeuchi, K. and Frank, J.F. Penetration of *Escherichia coli* O157:H7 into lettuce tissue as affected by inoculum size and temperature and the effect of chlorine treatment on cell viability. *Journal of Food Protection* 63:434-440. 2000.

Thomas, C. and O'Beirne, D. Evaluation of the impact of short-term temperature abuse on the microbiology and shelf-life of a model ready-to-eat vegetable combination product. *International Journal of Food Microbiology* 59:47-57. 2000.

Villari, P. et al. Prevalence and molecular characterization of *Aeromonas* spp. in ready-to-eat foods in Italy. *Journal of Food Protection* 63:1754-1757. 2000.

Weissinger, W.R. et al. Survival and growth of *Salmonella* Baildon in shredded lettuce and diced tomatoes, and effectiveness of chlorinated water as a sanitizer. *International Journal of Food Microbiology* 62:123-131. 2000.

Wu, F.M. et al. Fate of *Shigella sonnei* on parsley and methods of disinfection. *Journal of Food Protection* 63:568-572. 2000.

Beuchat, L.R. et al. Development of a proposed standard method for assessing the efficacy of fresh produce sanitizers. *Journal of Food Protection* 64:1103-1109. 2001.

Bidawid, S. et al. Survival of hepatitis A virus on modified atmosphere-packaged (MAP) lettuce. *Food Microbiology* 18:95-102. 2001.

Campbell, J.V. et al. An outbreak of *Salmonella* serotype Thompson associated with fresh cilantro. *Journal of Infectious Diseases* 183:984-987. 2001.

Cao, H. et al. Common mechanisms for pathogens of plants and animals. *Annual Reviews of Phytopathology* 39:259-284. 2001.

Edgar, R. and Aidoo, K.E. Microflora of blanched minimally processed fresh vegetables as components of commercial chilled ready-to-use meals. *International Journal of Food Science and Technology* 36:107-110. 2001.

Francis, G.A. and O'Beirne, D. Effects of acid adaptation on the survival of *Listeria monocytogenes* on modified atmosphere packaged vegetables. *International Journal of Food Science and Technology* 36:477-487. 2001.

Guan, T.Y. et al. Fate of foodborne bacterial pathogens in pesticide products. *Journal of the Science of Food and Agriculture* 81:503-512. 2001.

Gulati, B.R. et al. Efficacy of commonly used disinfectants for the inactivation of calicivirus on strawberry, lettuce, and a food-contact surface. *Journal of Food Protection* 64:1430-1434. 2001.

Koseki, S. and Itoh, K. Prediction of microbial growth in fresh-cut vegetables treated with electrolyzed water during storage under various temperature conditions. *Journal of Food Protection* 64:1935-1941. 2001.

Koseki, S. et al. Decontamination of lettuce using acidic electrolyzed water. *Journal of Food Protection* 64:652-658. 2001

Kurdziel, A.S. et al. Survival of poliovirus on soft fruit and salad vegetables. *Journal of Food Protection* 64:706-709. 2001.

Li, Y. et al. Survival and growth of *Escherichia coli* O157:H7 inoculated onto cut lettuce before or after heating in chlorinated water, followed by storage at 5 or 15°C. *Journal of Food Protection* 64:305-309. 2001.

Li, Y. et al. Changes in appearance and natural microflora on iceberg lettuce treated in warm, chlorinated water and then stored at refrigeration temperature. *Food Microbiology* 18:299-308. 2001.

Liao, C.-H. and Fett, W.F. Analysis of native microflora and selection of strains antagonistic to human pathogens on fresh produce. *Journal of Food Protection* 64:1110-1115. 2001.

McMahon, M.A.S. and Wilson, I.G. The occurrence of enteric pathogens and *Aeromonas* species in organic vegetables. *International Journal of Food Microbiology* 70:155-162. 2001.

Melloul, A. et al. *Salmonella* contamination of vegetables irrigated with untreated wastewater. *World Journal of Microbiology and Biotechnology* 17:207-209. 2001.

Park, C.-M. et al. Pathogen reduction and quality of lettuce treated with electrolyzed oxidizing and acidified chlorinated water. *Journal of Food Science* 66:1368-1372. 2001.

Petterson, S.R. et al. Modeling virus inactivation on salad crops using microbial count data. *Risk Analysis* 21:1097-1108. 2001.

Pirovani, M.E. et al. Predictive models for available chlorine depletion and total microbial count reduction during washing of fresh-cut spinach. *Journal of Food Science* 66:860-864. 2001.

Poms, R.E. and Tatini, S.R. Survival of *Helicobacter pylori* in ready-to-eat foods at 4°C. *International Journal of Food Microbiology* 63:281-286. 2001.

Prakash, A. et al. Effects of low-dose gamma irradiation on the shelf life and quality characteristics of cut romaine lettuce packaged under modified atmosphere. *Journal of Food Science* 65:549-553. 2000.

Robertson, L.J. and Gjerde, B. Occurrence of parasites on fruits and vegetables in Norway. *Journal of Food Protection* 64:1793-1798. 2001.

Robertson, L.J. and Gjerde, B. Factors affecting recovery efficiency in isolation of *Cryptosporidium* oocysts and *Giardia* cysts from vegetables for standard method development. *Journal of Food Protection* 64:1799-1805. 2001.

Safarikova, M. and Safarik, I. Immunomagnetic separation of *Escherichia coli* O26, O111 and O157 from vegetables. *Letters in Applied Microbiology* 33:36-39. 2001.

Sawal, J. et al. Heated scallop-shell powder slurry treatment of shredded cabbage. *Journal of Food Protection* 64:1579-1582. 2001.

Seymour, I.J. and Appleton, H. Foodborne viruses and fresh produce. *Journal of Applied Microbiology* 91:759-773. 2001.

Shearer, A.E.H. et al. Evaluation of a polymerase chain reaction-based system for detection of *Salmonella* Enteritidis, *Escherichia coli* O157:H7, *Listeria* spp., and *Listeria monocytogenes* on fresh fruits and vegetables. *Journal of Food Protection* 64:788-795. 2001.

Sewell, A.M. and Farber, J.M. Foodborne outbreaks in Canada linked to produce. *Journal of Food Protection* 64:1863-1877. 2001.

Soriano, J.M. et al. Incidence of microbial flora in lettuce, meat and Spanish potato omelette from restaurants. *Food Microbiology* 18:159-163. 2001.

Soriano, J.M. et al. *Listeria* spp. in raw and ready-to-eat foods from restaurants. *Journal of Food Protection* 64:551-553. 2001.

Takeuchi, K. and Frank, J.F. Expression of red-shifted green fluorescent protein by *Escherichia coli* O157:H7 as a marker for the detection of cells on fresh produce. *Journal of Food Protection* 64:298-304. 2001.

Takeuchi, K. and Frank, J.F. Direct microscopic observation of lettuce leaf decontamination with a prototype fruit and vegetable washing solution and 1% NaCl-NaHCO₃. *Journal of Food Protection* 64:1235-1239. 2001.

Takeuchi, K. and Frank, J.F. Quantitative determination of the role of lettuce leaf structures in protecting *Escherichia coli* O157:H7 from chlorine disinfection. *Journal of Food Protection* 64:147-151. 2001.

Takeuchi, K. et al. Penetration of *Escherichia coli* O157:H7 into lettuce as influence by modified atmosphere and temperature. *Journal of Food Protection* 64:(11) 1820-1823. 2001.

Wang, H. et al. Efficacy of cetylpyridinium chloride immersion treatment for reducing populations of pathogenic bacteria on fresh-cut vegetables. *Journal of Food Protection* 64:2071-2074. 2001.

Allende, A. et al. Effect of superatmospheric oxygen packaging on sensorial quality, spoilage, and *Listeria monocytogenes* and *Aeromonas caviae* growth in fresh processed mixed salads. *Journal of Food Protection* 65:1565-1573. 2002.

Bagamboula, C.F. et al. Growth and survival of *Shigella sonnei* and *S. flexneri* in minimal processed vegetables packed under equilibrium modified atmosphere and stored at 7°C and 12°C. *Food Microbiology* 19:529-536. 2002.

Brandl, M.T. and Mandrell, R.E. Fitness of *Salmonella enterica* serovar Thompson in the cilantro phyllosphere. *Applied and Environmental Microbiology* 68:3614-3621. 2002.

Croci, L. et al. The survival of hepatitis A virus in fresh produce. *International Journal of Food Microbiology* 73:29-34. 2002.

Delaquis, P. et al. Survival and growth of *Listeria monocytogenes* and *Escherichia coli* O157:H7 in ready-to-eat iceberg lettuce washed in warm chlorinated water. *Journal of Food Protection* 65:459-464. 2002.

Doller, P.C. et al. Cyclosporiasis outbreak in Germany associated with the consumption of salad. *Emerging Infectious Diseases* 8:992-994. 2002.

Dubois, E. et al. Modified concentration method for the detection of enteric viruses on fruits and vegetables by reverse transcriptase polymerase chain reaction or cell culture. *Journal of Food Protection* 65:1962-1969. 2002.

Fan, X. and Sokorai, K.J.B. Sensorial and chemical quality of gamma-irradiated fresh-cut iceberg lettuce in modified atmosphere packages. *Journal of Food Protection* 65:1760-1765. 2002.

Francis, G.A. and O'Beirne, D. Effects of vegetable type and antimicrobial dipping on survival and growth of *Listeria innocua* and *E. coli*. *International Journal of Food Science and Technology* 37:711-718. 2002.

Hirotsu, H. et al. Demonstration of indicator microorganisms on surface of vegetables on the market in the United States and Mexico. *Journal of Food Science* 67:1847-1850. 2002.

Hough, A. J. et al. Rapid enumeration of *Listeria monocytogenes* in artificially contaminated cabbage using real-time polymerase chain reaction. *Journal of Food Protection* 65:1329-1332. 2002.

Johannessen, G.S. et al. Bacteriological analysis of fresh produce in Norway. *International Journal of Food Microbiology* 77:199-204. 2002.

Koseki, S. and Itoh, K. Effect of nitrogen gas packaging on the quality and microbial growth of fresh-cut vegetables under low temperature. *Journal of Food Protection* 65:326-332. 2002.

- Koseki, S. et al. Decontaminative effect of frozen acidic electrolyzed water on lettuce. *Journal of Food Protection* 65:411-414. 2002.
- Li, Y. et al. Mild heat treatment of lettuce leaves enhances growth of *Listeria monocytogenes* during subsequent storage at 5°C or 15°C. *Journal of Applied Microbiology* 92:269-275. 2002.
- Li-Cohen, A.E. and Bruhn, C.M. Safety of consumer handling of fresh produce from the time of purchase to the plate: A comprehensive consumer survey. *Journal of Food Protection* 65:1287-1296. 2002.
- Lin, C.-M. et al. Inactivation of *Escherichia coli* O157:H7, *Salmonella enterica* serotype Enteritidis, and *Listeria monocytogenes* on lettuce by hydrogen peroxide and lactic acid and by hydrogen peroxide with mild heat. *Journal of Food Protection* 65:1215-1220. 2002.
- Loncarevic, S. et al. Bacteriological quality of organically grown leaf lettuce in Norway. *Letters in Applied Microbiology* 41:186-189. 2002.
- McWatters, K.H. et al. Consumer acceptance of fresh-cut iceberg lettuce treated with 2% hydrogen peroxide and mild heat. *Journal of Food Protection* 65:1221-1226. 2002.
- Natvig, E.E. et al. *Salmonella enterica* serovar Typhimurium and *Escherichia coli* contamination of root and leaf vegetables grown in soils with incorporated bovine manure. *Applied and Environmental Microbiology* 68:2737-2744. 2002.
- Niemira, B.A. et al. Suspending lettuce type influences recoverability and radiation sensitivity of *Escherichia coli* O157:H7. *Journal of Food Protection* 65:1388-1393. 2002.
- Piagentini, A.M. and Guemes, D.R. Shelf-life of fresh-cut spinach as affected by chemical treatment and type of packaging film. *Brazilian Journal of Chemical Engineering* 19:383-389. 2002.
- Prazak, A.M. et al. Prevalence of *Listeria monocytogenes* during production and postharvest processing of cabbage. *Journal of Food Protection* 65:1728-1734. 2002.
- Prazak, A.M. et al. Antimicrobial resistance of *Listeria monocytogenes* isolated from various cabbage farms and packing sheds in Texas. *Journal of Food Protection* 65:1796-1799. 2002.
- Sair, A.I. et al. Improved detection of human enteric viruses in foods by RT-PCR. *Journal of Virological Methods* 100:57-69. 2002.
- Schuenzel, K.M. and Harrision, M.A. Microbial antagonists of foodborne pathogens on fresh, minimally processed vegetables. *Journal of Food Protection*. 65:1909-1915. 2002.

- Seymour, I.J. et al. Ultrasound decontamination of minimally processed fruits and vegetables. *International Journal of Food Science and Technology* 37:547-557. 2002.
- Singh, N. et al. Effect of inoculation and washing methods on the efficacy of different sanitizers against *Escherichia coli* O157:H7 on lettuce. *Food Microbiology* 19:183-193. 2002.
- Solomon, E.B. et al. Effect of irrigation method on transmission to and persistence of *Escherichia coli* O157:H7 on lettuce. *Journal of Food Protection* 65:673-676. 2002.
- Solomon, E.B. et al. Transmission of *Escherichia coli* O157:H7 from contaminated manure and irrigation water to lettuce plant tissue and its subsequent internalization. *Applied and Environmental Microbiology* 68:397-400. 2002.
- Stafford, R.J. et al. A statewide outbreak of *Salmonella* Bovismorbificans phage type 32 infection in Queensland. *Communicable Disease Intelligence* 26:568-573. 2002.
- Thunberg, R.L. et al. Microbial evaluation of selected fresh produce obtained at retail markets. *Journal of Food Protection* 65:677-682. 2002.
- Valero, M. et al. Characterization of *Bacillus cereus* isolates from fresh vegetables and refrigerated minimally processed foods by biochemical and physiological tests. *Food Microbiology* 19:491-499. 2002.
- Vijayakumar, C. and Wolf-Hall, C.E. Evaluation of household sanitizers for reducing levels of *Escherichia coli* on iceberg lettuce. *Journal of Food Protection* 65:1646-1650. 2002.
- Wachtel, M.R. and Charkowski, A.O. Cross-contamination of lettuce with *Escherichia coli* O157:H7. *Journal of Food Protection* 65(3) 465-470. 2002.
- Wachtel, M.R. et al. Association of *Escherichia coli* O157:H7 with preharvest leaf lettuce upon exposure to contaminated irrigation water. *Journal of Food Protection* 65:18-25. 2002.
- Wachtel, M.R. et al. Prevalence of *Escherichia coli* associated with a cabbage crop inadvertently irrigated with partially treated sewage wastewater. *Journal of Food Protection* 65:471-475. 2002.
- Allende, A. and Artes, F. UV-C radiation as a novel technique for keeping quality of fresh processed 'Lollo Rosso' lettuce. *Food Research International* 36:739-746. 2003.
- Caldwell, K.N. et al. Ingestion of *Salmonella enterica* serotype Poona by a free-living nematode, *Caenorhabditis elegans*, and protection against inactivation by produce sanitizers. *Applied and Environmental Microbiology* 69:4103-4110. 2003.

Cooley, M.B. et al. Colonization of *Arabidopsis thaliana* with *Salmonella enterica* and enterohemorrhagic *Escherichia coli* O157:H7 and competition by *Enterobacter asburiae*. *Applied and Environmental Microbiology* 69:4915-4926. 2003.

Dontorou, C. et al. Isolation of *Escherichia coli* O157:H7 from foods in Greece. *International Journal of Food Microbiology* 82:273-279. 2003.

Harp, E. and Gilliland, S.E. Evaluation of a select strain of *Lactobacillus delbrueckii* subsp. *lactis* as a biological control agent for pathogens on fresh-cut vegetables stored at 7°C. *Journal of Food Protection* 66:1013-1018. 2003.

Hassan, A.N. and Frank, J.F. Influence of surfactant hydrophobicity on the detachment of *Escherichia coli* O157:H7 from lettuce. *International Journal of Food Microbiology* 87:145-152. 2003.

Koseki, S. et al. Influence of inoculation method, spot inoculation site, and inoculation size of the efficacy of acidic electrolyzed water against pathogens on lettuce. *Journal of Food Protection* 66:2010-2016. 2003.

Leverentz, B. et al. Biological control of minimally processed fruits and vegetables. "Microbial Safety of Minimally Processed Food." (CRC PRESS) 15:319-332. 2003.

Liu, Y. et al. Rapid detection of *Escherichia coli* O157:H7 inoculated in ground beef, chicken carcass, and lettuce samples with an immunomagnetic chemiluminescence fiber-optic biosensor. *Journal of Food Protection* 66:512-517. 2003.

Moore, C.M. et al. Transfer of *Salmonella* and *Campylobacter* from stainless steel to romaine lettuce. *Journal of Food Protection* 66:2231-2236. 2003.

Nascimento, M.S. et al. Effects of different disinfection treatments on the natural microbiota of lettuce. *Journal of Food Protection* 66:1697-1700. 2003.

Niemira, B.A. et al. Ionizing radiation sensitivity of *Listeria monocytogenes* ATCC 49594 and *Listeria innocua* ATCC 51742 inoculated on endive (*Cichorium endiva*). *Journal of Food Protection* 66:993-998. 2003.

Niemira, B.A. Radiation sensitivity and recoverability of *Listeria monocytogenes* and *Salmonella* on 4 lettuce types. *Journal of Food Science* 68:2784-2787. 2003.

Nutt, J.D. et al. Growth kinetics response of a *Salmonella* Typhimurium poultry marker strain to fresh produce extracts. *Bioresource Technology* 89:313-316. 2003.

Ozaras, R. et al. Hepatopulmonary masses after eating romaine lettuce. *Scandinavian Journal of Infectious Disease* 35:914-915. 2003.

- Quinero-Betancourt, W. et al. Assessment of methods for detection of infectious *Cryptosporidium* oocysts and *Giardia* cysts in reclaimed water. *Applied and Environmental Microbiology* 60:5380-5388. 2003.
- Raiden, R.M. et al. Efficacy of detergents in removing *Salmonella* and *Shigella* spp. from the surface of fresh produce. *Journal of Food Protection* 66:2210-2215. 2003.
- Rice, D.H. et al. Faecal culture of wild animals for *Escherichia coli* O157:H7. *Veterinary Record* 152:82-83. 2003.
- Solomon, E.B. et al. Persistence of *Escherichia coli* O157:H7 on lettuce plants following spray irrigation with contaminated water. *Journal of Food Protection* 66:2198-2202. 2003.
- Steele, M. et al. Sensitivity of PCR detection of *Cyclospora cayetanensis* in raspberries, basil, and mesclun lettuce. *Journal of Microbiological Methods* 54:277-280. 2003.
- Suslow, T.V. et al. Production practices as risk factors in microbial food safety of fresh and fresh-cut produce. *Comprehensive Reviews in Food Science and Food Safety* 2(supplement):38-77. 2003.
- Szabo, E.A. et al. Assessment of control measures to achieve a food safety objective of less than 100 cfu of *Listeria monocytogenes* per gram at the point of consumption for fresh precut iceberg lettuce. *Journal of Food Protection* 66:256-264. 2003.
- Wachtel, M.R. et al. Cross-contamination of lettuce (*Lactuca sativa* L.) with *Escherichia coli* O157:H7 via contaminated ground beef. *Journal of Food Protection* 66:1176-1183. 2003.
- Wahlstrom, H. et al. Survey of *Campylobacter* species, VTET O157 and *Salmonella* species in Swedish wildlife. *Veterinary Record* 153:74-80. 2003.
- Warriner, K. et al. Interaction of *Escherichia coli* with growing salad spinach plants. *Journal of Food Protection* 66:1790-1797. 2003.
- Yang, H. et al. Efficacy of cetylpyridinium chlorine on *Salmonella* Typhimurium and *Escherichia coli* O157:H7 in immersion spray treatment of fresh-cut lettuce. *Journal of Food Science* 68:1008-1012. 2003.
- Yang, H. et al. The effect of pH on inactivation of pathogenic bacteria on fresh-cut lettuce by dipping treatment with electrolyzed water. *Journal of Food Science* 68:1013-1017. 2003.
- Allende, A. et al. Microbial and sensory quality of commercial fresh processed red lettuce throughout the production chain and shelf life. *International Journal of Food Microbiology* 91:109-117. 2004.

Allwood, P.B. et al. Occurrence of *Escherichia coli*, noroviruses, and F-specific coliphages in fresh market-ready produce. *Journal of Food Protection* 67:2387-2390. 2004.

Allwood, P.B. et al. Effect of temperature and sanitizers on the survival of feline calicivirus, *Escherichia coli*, and F-specific coliphage MS2 on leafy salad vegetables. *Journal of Food Protection* 67:1451-1456. 2004.

Brandl, M.T. et al. Comparison of the survival of *Campylobacter jejuni* in the phyllosphere with that in the rhizosphere of spinach and radish plants. *Applied and Environmental Microbiology* 70:1182-1189. 2004.

Foley, D. et al. Irradiation and chlorination effectively reduces *Escherichia coli* O157:H7 inoculated on cilantro (*Coriandrum sativum*) without negatively affecting quality. *Journal of Food Protection* 67:2092-2098. 2004.

Hassan, A.N. and Frank, J.F. Attachment of *Escherichia coli* O157:H7 grown in tryptic soy broth and nutrient broth to apple and lettuce surfaces as related to cell hydrophobicity, surface charge, and capsule production. *International Journal of Food Microbiology* 96:103-109. 2004.

Honag, L.M.N. et al. Outbreaks of cyclosporiasis in British Columbia associated with imported Thai basil. *Epidemiology and Infection* 133:23-27. 2004.

Islam, M. et al. Persistence of enterohemorrhagic *Escherichia coli* O157:H7 in soil and on leaf lettuce and parsley grown in fields treated with contaminated manure composts or irrigation water. *Journal of Food Protection* 67:1365-1370. 2004.

Johannessen, G.S. et al. Influence of bovine manure as a fertilizer on the bacteriological quality of organic iceberg lettuce. *Journal of Applied Microbiology* 96:787-794. 2004.

Karenlampi, R. and Hanninen, M.-L. Survival of *Campylobacter jejuni* on various fresh produce. *International Journal of Food Microbiology* 97:187-195. 2004.

Koseki, S. et al. Effect of mild heat pre-treatment with alkaline electrolyzed water on the efficacy of acidic electrolyzed water against *Escherichia coli* O157:H7 and *Salmonella* on lettuce. *Food Microbiology* 21:559-566. 2004.

Koseki, S. et al. Efficacy of acidic electrolyzed ice for pathogen control of lettuce. *Journal of Food Protection* 67:2544-2549. 2004.

Le Guyader, F.S. et al. Round-robin comparison of methods for the detection of human enteric viruses in lettuce. *Journal of Food Protection* 67:2315-2319. 2004.

Li, Y. and Mustapha, A. Simultaneous detection of *Escherichia coli* O157:H7, *Salmonella*, and *Shigella* in apple cider and produce by a multiplex PCR. *Journal of Food Protection* 67:27-33. 2004.

Islam, M. et al. Persistence of enterohemorrhagic *Escherichia coli* O157:H7 in soil and on leaf lettuce and parsley grown in fields treated with contaminated manure composts or irrigation water. *Journal of Food Protection* 67:1365-1370. 2004.

Lee, S.-Y. et al. Efficacy of chlorine dioxide gas as a sanitizer of lettuce leaves. *Journal of Food Protection* 67:1371-1376. 2004.

McKellar, R.C. et al. Influence of a commercial warm chlorinated water treatment and packaging on the shelf-life of ready-to-use lettuce. *Food Research International* 7:343-354. 2004.

Nicholl, P. et al. Growth dynamics of indigenous microbial populations on vegetables after decontamination and during refrigerated storage. *Journal of Food Processing and Preservation* 28:442-459. 2004.

Niemira, B.A. et al. Irradiation and modified atmosphere packaging of endive influences survival and regrowth of *Listeria monocytogenes* and product sensory qualities. *Radiation Physics and Chemistry* 72:41-48. 2004.

Nightingale, K.K. et al. Ecology and transmission of *Listeria monocytogenes* infecting ruminants and in the farm environment. *Applied and Environmental Microbiology* 70:4458-4467. 2004.

Pirovani, M. et al. Reduction of chlorine concentration and microbial load during washing-disinfection of shredded lettuce. *International Journal of Food Science and Technology* 39:341-347. 2004.

Steel, M. and Odumeru, J. Irrigation water as a source of foodborne pathogens on fruit and vegetables. *Journal of Food Protection* 67:2839-2849. 2004.

Wang, H. et al. Microbial reduction and storage quality of fresh-cut cilantro washed with acidic electrolyzed water and aqueous ozone. *Food Research International* 37:949-956. 2004.

Brandl, M.T. et al. Production of autoinducer 2 in *Salmonella enterica* serovar Thompson contributes to its fitness in chickens but not on cilantro leaf surfaces. *Applied and Environmental Microbiology* 71:2653-2662. 2005.

Bari, M.L. et al. Effectiveness of irradiation treatments in inactivating *Listeria monocytogenes* on fresh vegetables at refrigeration temperature. *Journal of Food Protection* 68:318-323. 2005.

Bari, M.L. et al. Combined efficacy of nisin and pediocin with sodium lactate, citric acid, phytic acid, and potassium sorbate and EDTA in reducing the *Listeria monocytogenes* population of inoculated fresh-cut produce. *Journal of Food Protection* 68:1381-1387. 2005.

Charles, F. et al. Influence of packaging conditions on natural microbial population growth on endive. *Journal of Food Protection* 68:1020-1025. 2005.

Dawson, D.J. et al. Survival of viruses on fresh produce, using MS2 as a surrogate for norovirus. *Journal of Applied Microbiology* 98:203-209. 2005.

Duffy, E.A. et al. Concentrations of *Escherichia coli* and genetic diversity and antibiotic resistance profiling of *Salmonella* isolated from irrigation water, packaging shed equipment, and fresh produce in Texas. *Journal of Food Protection* 68:70-79. 2005.

Duffy, E.A. et al. Survival of *Salmonella* transformed to express green fluorescent protein on Italian parsley as affected by processing and storage. *Journal of Food Protection* 68:687-695. 2005.

Erdogrul, O. and Sener, H. The contamination of various fruit and vegetable with *Enterobius vermicularis*, *Ascaris* eggs, and *Entamoeba histolyca* cysts and *Giardia* cysts. *Food Control* 16:559-562. 2005.

Francis, G.A. and O'Beirne, D. Variation among strains of *Listeria monocytogenes*: Differences in survival on packaged vegetables and in response to heat and acid conditions. *Food Control* 16:687-694. 2005.

Franz, E. et al. Effects of cattle feeding regimen and soil management type on the fate of *Escherichia coli* O157:H7 and *Salmonella enterica* serovar Typhimurium in manure, manure-amended soil, and lettuce. *Applied and Environmental Microbiology* 71:6165-6174. 2005.

Gale, P. Land application of treated sewage sludge: Quantifying pathogen risks from consumption of crops. *Journal of Applied Microbiology* 98:380-396. 2005.

Gibbs, D.S. et al. Potential role of *Diploscapter* sp. Strain LKC25, a bacterivorous nematode from soil, as a vector of food-borne pathogenic bacteria to preharvest fruits and vegetables. *Applied and Environmental Microbiology* 71:2433-2437. 2005.

Gleeson, E. and O'Beirne, D. Effect of process severity on survival and growth of *Escherichia coli* and *Listeria innocua* on minimally processed vegetables. *Food Control* 16:677-685. 2005.

Gomez-Lopez, V.M. et al. Intense light pulses decontamination of minimally processed vegetables and their shelf-life. *International Journal of Food Microbiology* 103:79-89. 2005.

Hora, R. et al. Internalization of *Escherichia coli* O157:H7 following biological and mechanical disruption of growing spinach plants. *Journal of Food Protection* 68:2506-2509. 2005.

Hutchison, M.L. et al. Analyses of livestock production, waste storage, and pathogen levels and prevalences in farm manures. *Applied and Environmental Microbiology* 71:1231-1236. 2005.

Inatsu, Y. et al. Efficacy of acidified sodium chlorite treatments in reducing *Escherichia coli* O157:H7 on Chinese cabbage. *Journal of Food Protection* 68:251-255. 2005.

Ingham, S.C. et al. Evaluation of fertilization-to-planting and fertilization-to-harvest intervals for safe use of noncomposted bovine manure in Wisconsin vegetable production. *Journal of Food Protection* 68:1134-1142. 2005.

Jablasone, J. et al. Interactions of *Escherichia coli* O157:H7, *Salmonella* Typhimurium and *Listeria monocytogenes* plants cultivated in a gnotobiotic system. *International Journal of Food Microbiology* 99:7-18. 2005.

Johannessen, G.S. et al. Potential uptake of *Escherichia coli* O157:H7 from organic manure into crisphead lettuce. *Applied and Environmental Microbiology* 71:2221-2225. 2005.

Johnston, L.M. et al. A field study of the microbiological quality of fresh produce. *Journal of Food Protection* 69:1840-1847. 2005.

Khattak, A.B. et al. Shelf life extension of minimally processed cabbage and cucumber through gamma irradiation. *Journal of Food Protection* 68:105-110. 2005.

Kim, H. and Beuchat, L.R. Survival and growth of *Enterobacter sakazakii* on fresh-cut fruits and vegetables and in unpasteurized juices as affected by storage temperature. *Journal of Food Protection* 68:2541-2552. 2005.

Kniel, K.E. and JENKINS, M.C. Detection of *Cryptosporidium parvum* oocysts on fresh vegetables and herbs using antibodies specific for a *Cryptosporidiumn parvum* viral antigen. *Journal of Food Protection* 68:1093-1096. 2005.

Koseki, S. and Isobe, S. Growth of *Listeria monocytogenes* on iceberg lettuce and solid media. *International Journal of Food Microbiology* 101:217-225. 2005.

Kozan, E. et al. Prevalence of helminth eggs on raw vegetables used for salads. *Food Control* 16:239-242. 2005.

Lemunier, M. et al. Long-term survival of pathogenic and sanitation indicator bacteria in experimental biowaste composts. *Applied and Environmental Microbiology* 71:5779-5786. 2005.

Loncarevic, S. et al. Bacteriological quality of organically grown leaf lettuce in Norway. *Letters in Applied Microbiology* 41:186-189. 2005.

Martin-Diana, A.B. et al. Calcium lactate washing treatments for salad-cut Iceberg lettuce: Effect of temperature and concentration on quality retention parameters. *Food Research International* 38:729-740. 2005.

Martin-Diana, A.B. et al. Comparison of calcium lactate with chlorine as a washing treatment for fresh-cut lettuce and carrots: Quality and nutritional parameters. *Journal of the Science of Food and Agriculture* 85:2260-2268. 2005.

Niemira, B.A. Nalidixic acid resistance increases sensitivity of *Escherichia coli* O157:H7 to ionizing radiation in solution and on green leaf lettuce. *Journal of Food Science* 70:M121-M124. 2005.

Nguz, K. et al. Microbiological evaluation of fresh-cut organic vegetables produced in Zambia. *Food Control* 16:623-628. 2005.

Oh, S.-W. et al. Efficacy of aerosolized peroxyacetic acid as a sanitizer of lettuce leaves. *Journal of Food Protection* 68:1743-1747. 2005.

Palumbo, J.D. et al. Identification of genes induced in *Listeria monocytogenes* during growth and attachment to cut cabbage, using differential display. *Applied and Environmental Microbiology* 71:5236-5243. 2005.

Phillips, C.A. and Harrison, M.A. Comparison of the microflora of organically and conventionally grown spring mix from a California processor. *Journal of Food Protection* 68:1143-1146. 2005.

Pivarnik, L.R. et al. New England consumers' willingness to pay for fresh fruits and vegetables grown on GAP-certified farms. *Food Protection Trends* 25:256-266. 2005

Rhee, L. et al. Growth inhibitors of lettuce seedlings from *Bacillus cereus* EJ-121. *Plant Growth Regulation* 47:149-154. 2005.

Sela, S. et al. Mediterranean fruit fly as a potential vector of bacterial pathogens. *Applied and Environmental Microbiology* 71:4052-4056. 2005.

Song, I. et al. Application of microbial risk assessment to the development of standards for enteric pathogens in water used to irrigate fresh produce. *Journal of Food Protection* 68:913-918. 2005.

Soriano, J.M. et al. A review of the application of the hazard analysis and critical control point systems to salads served in the restaurant of Valencia University. *International Journal of Food Science and Technology* 40:333-336. 2005.

Steele, M. et al. Microbial assessment of irrigation water used for production of fruit and vegetables in Ontario, Canada. *Journal of Food Protection* 68:1388-1392. 2005.

Stine, S.W. et al. Effect of relative humidity on preharvest survival of bacterial and viral pathogens on the surface of cantaloupe, lettuce, and bell peppers. *Journal of Food Protection* 68:1352-1358. 2005.

Sy, K.V. et al. Evaluation of gaseous chlorine dioxide as a sanitizer for killing *Salmonella*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, and yeasts and molds on fresh and fresh-cut produce. *Journal of Food Protection* 68:1176-1187. 2005.

Tournas, V.H. Mould and yeasts in fresh and minimally processed vegetables and sprouts. *International Journal of Food Microbiology* 99:71-77. 2005.

Wang, H. and Slavik, M.F. A multiplex polymerase chain reaction assay for rapid detection of *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella* Typhimurium and *Campylobacter jejuni* in artificially contaminated food samples. *Journal of Rapid Methods and Automation in Microbiology* 13:213-223. 2005.

Warriner, K. et al. Seed decontamination as an intervention step for eliminating *Escherichia coli* on salad vegetables and herbs. *Journal of the Science of Food and Agriculture* 85:2307-2313. 2005.

Wasteson, Y. et al. Fluctuations in the occurrence of *Escherichia coli* O157:H7 on a Norwegian farm. *Letters in Applied Microbiology* 40:373-377. 2005.

Wei, H. et al. Combination of warm water and hydrogen peroxide to reduce the numbers of *Salmonella* Typhimurium and *Listeria innocua* on field salad (*Valerianella locusta*). *European Food Research and Technology* 221:180-186. 2005.

Ajlouni, S. et al. Ultrasonication and fresh produce (Cos lettuce) preservation. *Journal of Food Science* 71:M62-M68. 2006.

Allende, A. et al. Effectiveness of two-sided UV-C treatments in inhibiting natural microflora and extending the shelf-life of minimally processed 'red oak leaf' lettuce. *Food Microbiology* 23:241-249. 2006.

Aruscavage D. et al. Interactions affecting the proliferation and control of human pathogens on edible plants. *Journal of Food Science* 71:R89-R99. 2006.

Brandl, M.T. Fitness of enteric human pathogens on plants and implications for food safety. *Annual Review of Phytopathology* 44:367-392. 2006.

Cook, N. et al. Towards standard methods for the detection of *Cryptosporidium parvum* on lettuce and raspberries. Part 1: Development and optimization of methods. International Journal of Food Microbiology 109:215-221. 2006.

Cook, N. et al. Towards standard methods for the detection of *Cryptosporidium parvum* on lettuce and raspberries. Part 2: Validation. International Journal of Food Microbiology 109:222-228. 2006.

Cooley, M.B. et al. *Escherichia coli* O157:H7 survival and growth on lettuce is altered by the presence of epiphytic bacteria. Journal of Food Protection 69:2329-2335. 2006.

Corbo, M.R. et al. A novel approach for calculating shelf life of minimally processed vegetables. International Journal of Food Microbiology 106:69-73. 2006.

Dallaire, R. et al. A methodological approach for assessing the microbial contamination of fresh produce from harvest to retail. Food Protection Trends 26:218-225. 2006.

Delaquis, P.J. et al. Evidence of an antilisterial factor induced by wounding of iceberg lettuce tissue. Letters in Applied Microbiology 42:289-295.

Dubois, E. et al. Intra-laboratory validation of a concentration method adapted for the enumeration of infectious F-specific RNA coliphage, enteroviruses, and hepatitis A virus from inoculated leaves of salad vegetables. International Journal of Food Microbiology 108:164-171. 2006.

Ells, T.C. and Hansen, L.T. Strain and growth temperature influence *Listeria* spp. attachment to intact and cut cabbage. International Journal of Food Microbiology 111:34-42. 2006.

Fonseca, J.M. Postharvest quality and microbial population of head lettuce as affected by moisture at harvest. Journal of Food Science 71:M45-M49. 2006.

Foster, G. et al. Analysis of feces samples collected from a wild-bird garden feeding station in Scotland for the presence of verocytotoxin-producing *Escherichia coli* O157. Applied and Environmental Microbiology 72:2265-2267. 2006.

Francis, G.A. and O'Beirne, D. Isolation and pulsed-field gel electrophoresis typing of *Listeria monocytogenes* from modified atmosphere packaged fresh-cut vegetables collected in Ireland. Journal of Food Protection 69:2524-2528. 2006.

Geysen, S. et al. Validation of predictive growth models describing superatmospheric oxygen effects on *Pseudomonas fluorescens* and *Listeria monocytogenes* on fresh-cut lettuce. International Journal of Food Microbiology 111:48-58. 2006.

Hamilton, A.J. et al. Quantitative microbial risk assessment models for consumption of raw vegetables irrigated with reclaimed water. *Applied and Environmental Microbiology* 72:3284-3290. 2006.

Hellstrom, S. et al. Efficacy of disinfectants to reduce *Listeria monocytogenes* on precut iceberg lettuce. *Journal of Food Protection* 69:1565-1570. 2006.

Huang, T.-S. et al. Decontamination efficacy of combined chlorine dioxide with ultrasonication on apples and lettuce. *Journal of Food Science* 71:M134-M139. 2006.

Johnston, L.M. et al. A field study of the microbiological quality of fresh produce of domestic and Mexican origin. *International Journal of Food Microbiology* 112:83-95. 2006.

Kenney, S.J. et al. Migration of *Caenorhabditis elegans* to manure and manure compost and potential transport of *Salmonella* Newport to fruits and vegetables. *International Journal of Food Microbiology* 106:61-68. 2006.

Kilonzo-Nthenge, A. et al. Efficacy of home washing methods in controlling surface microbial contamination on fresh produce. *Journal of Food Protection* 69:330-334. 2006.

Kim, J.-H. et al. Effect of gamma irradiation on *Listeria ivanovii* inoculated to iceberg lettuce stored at cold temperature. *Food Control* 17:397-401. 2006.

Kondo, N. et al. Efficiency of sodium hypochlorite, fumaric acid, and mild heat in killing native microflora and *Escherichia coli* O157:H7, *Salmonella* Typhimurium DT104, and *Staphylococcus aureus* attached to fresh-cut lettuce. *Journal of Food Protection* 69:323-329. 2006.

Koseki, S. and Isobe, S. Effect of ozonated water treatment on microbial control and on browning of iceberg lettuce (*Lactuca sativa* L.). *Journal of Food Protection* 69:154-160. 2006.

Lapidot, A. et al. Biofilm formation and the survival of *Salmonella* Typhimurium on parsley. *International Journal of Food Microbiology* 109:229-233. 2006.

Lee, N.Y. et al. Effect of gamma-irradiation on pathogens inoculated into ready-to-use vegetables. *Food Microbiology* 23:649-656. 2006.

Lonigro, A. et al. *Giardia* cysts and *Cryptosporidium* oocysts in membrane-filtered municipal wastewater used for irrigation. *Applied and Environmental Microbiology* 72:7916-7918. 2006.

Mintier, A.M. and Foley, D.M. Electron beam and gamma irradiation effectively reduce *Listeria monocytogenes* populations on chopped romaine lettuce. *Journal of Food Protection* 69:570-574. 2006.

Moreira, M. del R. et al. Ascorbic acid retention, microbial growth, and sensory acceptability of lettuce leaves subjected to mild heat shocks. *Journal of Food Science* 71:S188-S192. 2006.

Mukherjee, A. et al. Longitudinal microbiological survey of fresh produce grown by farmers in the upper midwest. *Journal of Food Protection* 69:1928-1936. 2006.

Ongeng, D. et al. The efficacy of eletrolysed oxidising water for inactivating spoilage microorganisms in process water and on minimally processed vegetables. *International Journal of Food Microbiology* 109:187-197. 2006.

Osman, M. et al. Differential killing activity of cetylpyridinium chloride with or without Bacto neutralizing buffer quench against firmly adhered *Salmonella* Gaminara and *Shigella sonnei* on cut lettuce stored at 4°C. *Journal of Food Protection* 69:1286-1291. 2006.

Rutjes, S.A. et al. Detection of noroviruses in foods: A study on virus extraction procedures in foods implicated in outbreaks of human gastroenteritis. *Journal of Food Protection* 69:1949-1956. 2006.

Simmons, J.L. et al. Comparision of treatment of fresh-cut lettuce and diced tomatoes with sodium hypochlorite and calcium hypochlorite for effects on microbiological and sensory qualities. *Food Protection Trends* 26:662-667. 2006.

Solomon, E.B. and Matthews, K.R. Interaction of live and dead *Escherichia coli* O157:H7 and fluorescent microspheres with lettuce tissue suggest bacterial processes do not mediate adherence. *Letters in Applied Microbiology* 42:88-93. 2006.

Sproston, E.L. et al. Slugs: Potential novel vectors of *Escherichia coli* O157. *Applied and Environmental Microbiology* 72:144-149. 2006.

Tyrrel, S.F. et al. Microbiological water quality requirements for salad irrigation in the United Kingdom. *Journal of Food Protection* 69:2029-2035. 2006.

Vega, E. et al. Variability of virus attachment patterns to butterhead lettuce. *Journal of Food Protection* 69:2112-2117. 2006.

You, Y. et al. Survival of *Salmonella enterica* serovar Newport in manure and manure-amended soils. *Applied and Environmental Microbiology* 72:5777-5783. 2006.

- Yuk, H.-G. et al. Effect of combined ozone and organic acid treatment for control of *Escherichia coli* O157:H7 and *Listeria monocytogenes* on lettuce. *Journal of Food Science* 71:M83-M87. 2006.
- Zhang, L. et al. Effect of gamma irradiation on microbial growth and sensory quality of fresh-cut lettuce. *International Journal of Food Microbiology* 106:348-351. 2006.
- Zhang, L. et al. Effect of γ irradiation on quality-maintaining of fresh-cut lettuce. *Food Control* 17:225-228. 2006.
- Akbas, M.Y. and Olmez, H. Inactivation of *Escherichia coli* and *Listeria monocytogenes* on iceberg lettuce by dip treatments with organic acids. *Letters in Applied Microbiology* 44:619-624. 2007.
- Allende, A. et al. Growth and bacteriocin production by lactic acid bacteria in vegetable broth and their effectiveness at reducing *Listeria monocytogenes* in vitro and in fresh-cut lettuce. *Food Microbiology* 24:759-766. 2007.
- Badosa, E. et al. Microbiological quality of fresh fruit and vegetable products in Catalonia (Spain) using normalized plate-counting methods and real time polymerase chain reaction (QPCR). *Journal of the Science of Food and Agriculture* 2007.
- Bernstein, N. et al. Assessment of contamination potential of lettuce by *Salmonella enterica* serovar Newport added to the plant growing medium. *Journal of Food Protection* 70:1717-1722. 2007.
- Boyer, R.R. et al. Influence of curli expression by *Escherichia coli* O157:H7 on the cell's overall hydrophobicity, charge, and ability to attach to lettuce. *Journal of Food Protection* 70:1339-1345. 2007.
- Butot, S. et al. Procedure for rapid concentration and detection of enteric viruses from berries and vegetables. *Applied and Environmental Microbiology* 73:186-192. 2007.
- Carrasco, E. et al. Survey of temperature and consumption patterns of fresh-cut leafy green salads: Risk factors for listeriosis. *Journal of Food Protection* 70:2407-2412. 2007.
- Chang, J.-M. and Fang, T.J. Survival of *Escherichia coli* O157:H7 and *Salmonella enterica* serovar Typhimurium in iceberg lettuce and the antimicrobial effect of rice vinegar against *E. coli* O157:H7. *Food Microbiology* 24:745-751. 2007.
- Chai, L.C. et al. Thermophilic *Campylobacter* spp. in salad vegetables in Malaysia. *International Journal of Food Microbiology* 117:106-111. 2007.
- Cook, N. et al. Development of a method for detection of *Giardia duodenalis* cysts on lettuce and for simultaneous analysis of salad products for the presence of *Giardia* cysts

and *Cryptosporidium* oocysts. *Applied and Environmental Microbiology* 73:7388-7391. 2007.

Crepet, A. et al. Estimation of microbial contamination of food from prevalence and concentration data: Application to *Listeria monocytogenes* in fresh vegetables. *Applied and Environmental Microbiology* 73:250-258. 2007.

Critzer, F.J. et al. Atmospheric plasma inactivation of foodborne pathogens on fresh produce surfaces. *Journal of Food Protection* 70:2290-2296. 2007.

Delaquis, P. et al. Behavior of *Escherichia coli* O157:H7 in leafy vegetables. *Journal of Food Protection* 70:1966-1974. 2007.

Dreux, N. et al. Viable but non-culturable *Listeria monocytogenes* on parsley leaves and absence of recovery to a culturable state. *Journal of Applied Microbiology* 103:1272-1281. 2007.

Dreux, N. et al. Fate of *Listeria* spp. on parsley leaves grown in laboratory and field cultures. *Journal of Applied Microbiology* 103:1821-1827. 2007.

Dubois, E. et al. Detection and quantitation by real-time RT-PCR of hepatitis A virus from inoculated tap waters, salad vegetables, and soft fruits: Characterization of the method performances. *International Journal of Food Microbiology* 117:141-149. 2007.

Franz, E. et al. Quantification of contamination of lettuce by GFP-expressing *Escherichia coli* O157:H7 and *Salmonella enterica* serovar Typhimurium. *Food Microbiology* 24:106-112. 2007.

Froder, H. et al. Minimally processed vegetable salads: Microbial quality evaluation. *Journal of Food Protection* 70:1277-1280. 2007.

Geysen, S. et al. Modelling the effect of super-atmospheric oxygen and carbon dioxide concentrations on the respiration of fresh-cut butterhead lettuce. *Journal of the Science of Food and Agriculture* 87:218-226. 2007.

Gomez-Lopez, V.M. et al. Shelf-life of minimally processed cabbage treated with neutral electrolysed oxidizing water and stored under equilibrium modified atmosphere. *International Journal of Food Microbiology* 117:91-98. 2007.

Groth, E. Food irradiation for fresh produce. The Organic Center Critical Issue Report (April). 2007.

Hassenberg, K. et al. Use of ozone in a lettuce-washing process: An industrial trial. *Journal of the Science of Food and Agriculture* 87:914-919. 2007.

- Himathongkham, S. et al. Recirculating immunomagnetic separation and optimal enrichment conditions for enhanced detection and recovery of low levels of *Escherichia coli* O157:H7 from fresh leafy produce and surface water. *Journal of Food Protection* 70:2717-2724. 2007.
- Ibekwe, A.M. et al. Survival of *Escherichia coli* O157:H7 in soil and on lettuce after soil fumigation. *Canadian Journal of Microbiology* 53:623-635. 2007.
- Ingram, D.T. and Millner, P.D. Factors affecting compost tea as a potential source of *Escherichia coli* and *Salmonella* on fresh produce. *Journal of Food Protection* 70:828-834. 2007.
- Jay, M.T. et al. *Escherichia coli* O157:H7 in feral swine near spinach fields and cattle, central California coast. *Emerging Infectious Diseases* 13:1908-1911. 2007.
- Jedrzejewski, S. et al. Quantitative assessment of contamination of fresh food produce of various retail types by human-virulent Microsporidian spores. *Applied and Environmental Microbiology* 73:4071-4073. 2007.
- Karapinar, M. and Sengun, I.Y. Antimicrobial effect of koruk (unripe grape – *Vitis vinifera*) juice against *Salmonella* Typhimurium on salad vegetables. *Food Control* 18:702-706. 2007.
- Klerks, M.M. et al. Physiological and molecular responses of *Lactuca sativa* to colonization by *Salmonella enterica* serovar Dublin. *Applied and Environmental Microbiology* 73:4905-4914. 2007.
- Little, C.L. et al. Prevalence and level of *Listeria monocytogenes* and other *Listeria* species in retail pre-packaged mixed vegetable salads in the UK. *Food Microbiology* 24:711-717. 2007.
- Lu, F.-X. et al. Predictive modeling and growth models on aerobic mesophilic bacteria on fresh-cut lettuce by hypochlorite-washing. *Journal of Food Safety* 27:157-168. 2007.
- Lu, Z. et al. Model of microbial growth on fresh-cut lettuce treated with chlorinated water during storage under different temperatures. *Journal of Food Process Engineering* 30:106-108. 2007.
- Luo, Y. Fresh-cut produce wash water reuse affects water quality and packaged product quality and microbial growth in Romaine lettuce. *HortScience* 42:1413-1419. 2007.
- Maraldo, D. and Mutharasan, R. Preparation-free method for detecting *Escherichia coli* O157:H7 in the presence of spinach, spring lettuce mix, and ground beef particulates. *Journal of Food Protection* 70:2651-2655. 2007.

Mattison, K. et al. Survival of calicivirus in foods and on surfaces: Experiments with feline calicivirus as a surrogate for norovirus. *Journal of Food Protection* 70:500-503. 2007.

Moore, J.E. et al. Detection of *Cryptosporidium parvum* in lettuce. *International Journal of Food Science and Technology* 42:385-393. 2007.

Mukherjee, A. et al. Association of farm management practices with risk of *Escherichia coli* contamination in pre-harvest produce grown in Minnesota and Wisconsin. *International Journal of Food Microbiology* 120:296-302. 2007.

Niemira, B.A. Relative efficacy of sodium hypochlorite wash versus irradiation to inactivate *Escherichia coli* O157:H7 internalized in leaves of Romaine lettuce and baby spinach. *Journal of Food Protection* 2526-2532. 2007.

Nthenge, A.K. et al. Efficacy of gamma radiation and aqueous chlorine on *Escherichia coli* O157:H7 in hydroponically grown lettuce plants. *Journal of Food Protection* 70:748-752. 2007.

Ongeng, D. et al. The effect of micro-architectural structure of cabbage substratum and or background bacterial flora on the growth of *Listeria monocytogenes*. *International Journal of Food Microbiology* 119:291-299. 2007.

Palumbo, M.S. et al. Recommendations for handling fresh-cut leafy green salads by consumers and retail foodservice operators. *Food Protection Trends* 27:892-898. 2007.

Selma, M.V. et al. Elimination by ozone of *Shigella sonnei* in shredded lettuce and water. *Food Microbiology* 24:492-499. 2007.

Valero, M. et al. Survival, isolation and characterization of a psychrotrophic *Bacillus cereus* strain from a mayonnaise-based ready-to-eat vegetable salad. *Food Microbiology* 24:671-677. 2007.

Abadias, M. et al. Microbiological quality of fresh, minimally-processed fruit and vegetables, and sprouts from retail establishments. *International Journal of Food Microbiology* 123:121-129. 2008.

Abadias, M. et al. Efficacy of neutral electrolyzed water (NEW) for reducing microbial contamination on minimally-processed vegetables. *International Journal of Food Microbiology* 123:151-158. 2008.

Abriouel, H. et al. Comparative analysis of genetic diversity and incidence of virulence factors and antibiotic resistance among enterococcal populations from raw fruit and vegetable foods, water and soil, and clinical samples. *International Journal of Food Microbiology* 123:38-49. 2008.

Chua, D. et al. Fresh-cut lettuce in modified atmosphere packages stored at improper temperatures supports enterohemorrhagic *E. coli* isolates to survive gastric acid challenge. *Journal of Food Science* (Early on-line release). 2008.

Grant, M.A. Comparison of *Escherichia coli* O157:H7 enrichment in spiked produce samples. *Journal of Food Protection* 71:139-145. 2008.

Gomes, C. et al. E-beam irradiation of bagged, ready-to-eat spinach leaves (*Spinacea oleracea*): An engineering approach. *Journal of Food Science* 73:E95-E102. 2008.

Gomez-Lopez, V.M. et al. Shelf-life of minimally processed lettuce and cabbage treated with gaseous chlorine dioxide and cysteine. *International Journal of Food Microbiology* 121:74-83. 2008.

Guentzel, J.L. et al. Reduction of bacteria on spinach, lettuce, and surfaces in food service areas using neutral electrolyzed water. *Food Microbiology* 25:36-41. 2008.

Kim, J.K. and Harrison, M.A. Transfer of *Escherichia coli* O157:H7 to Romaine lettuce due to contact water from melting ice. *Journal of Food Protection* 71:252-256. 2008.

Mahmoud, B.S.M. and Linton, R. H. Inactivation kinetics of inoculated *Escherichia coli* O157:H7 and *Salmonella enterica* on lettuce by chlorine dioxide gas. *Food Microbiology* 25:244-252. 2008.

Selma, M.V. et al. Heterogeneous photocatalytic disinfection of wash waters from the fresh-cut vegetable industry. *Journal of Food Protection* 71:286-292. 2008.

Stopforth, J.D. et al. Effect of acidified sodium chlorite, chlorine, and acidic electrolyzed water on *Escherichia coli* O157:H7, *Salmonella*, and *Listeria monocytogenes* inoculated onto leafy greens. *Journal of Food Protection* 71:625-628. 2008.

Suthiluk, P. et al. Possibility of using near infrared spectroscopy for evaluation of bacterial contamination in shredded cabbage. *International Journal of Food Science and Technology* 43:160-165. 2008.

Trias, R. et al. Bioprotection of Golden Delicious apples and Iceberg lettuce against foodborne bacterial pathogens by lactic acid bacteria. *International Journal of Food Microbiology* 123:50-60. 2008.

Uhlich, G.A. et al. Characterization of shiga toxin-producing *Escherichia coli* isolates associated with two multistate food-borne outbreaks that occurred in 2006. *Applied and Environmental Microbiology* 74:1268-1272. 2008.

Vega, E. et al. Electrostatic forces control nonspecific virus attachment to lettuce. *Journal of Food Protection* 71:522-529. 2008.

Valentin-Bon, I. et al. Microbiological quality of bagged cut spinach and lettuce mixes. *Applied and Environmental Microbiology* 74:1240-1242. 2008.