Microbiological Safety of Leafy Green Vegetables:
A Bibliography

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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.


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.


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.


Islam, M. et al. Persistence of *Salmonella enterica* serovar Typhimurium on lettuce and parsley and in soils on which they were grown in fields treated with contaminated manure composts or irrigation water. Foodborne Pathogens and Disease 1:27-35. 2004.


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.


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.

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.


Chua, T. and Bhagwat, A.A. A rapid and simple DNA extraction procedure to detect *Salmonella* spp. and *Listeria monocytogenes* from fresh produce using real-time PCR. Food Analytical Methods 2:96-101. 2009.


Kroupitski, Y. et al. Internalization of *Salmonella enterica* in leaves is induced by light and involves chemotaxis and penetration through open stromata. Applied and Environmental Microbiology 75:6076-6086. 2009.


Ganesh, V. et al. Electrostatic sprays of food-grade acids and plant extracts are more effective than conventional sprays in decontaminating Salmonella Typhimurium on spinach. Journal of Food Science 75:M574-M579. 2010.


Leach, K.M. et al. Same-day detection of Escherichia coli O157:H7 from spinach by using electrochemiluminescent and cytometric bead array biosensors. Applied and Environmental Microbiology 76:8044-8052. 2010


Olmez, H. and S.D. Temur. Effects of different sanitizing treatments on biofilms and attachment of *Escherichia coli* and *Listeria monocytogenes* on green leaf lettuce. LWT-Food Science and Technology 43:964-970. 2010.


Ravishankar, S. et al. Assessing the cross contamination and transfer rates of *Salmonella enterica* from chicken to lettuce under different food-handling scenarios. Food Microbiology 27:791-794.


Abadias, M. et al. Growth potential of *Escherichia coli* O157:H7 on fresh-cut fruits (melon and pineapple) and vegetables (carrot and escarole) stored under different conditions. *Food Control* 27:37-44. 2012.


Bae, Y.-M. et al. Growth and predictive model of *Bacillus cereus* on blanched spinach with or without seasoning at various temperatures. *Food Science and Biotechnology* 21:503-508. 2012.


Harris, L.J. et al. A framework for developing research protocols for evaluation of microbial hazards and controls during production that pertain to the quality of agricultural water contacting fresh produce that may be consumed raw. Journal of Food Protection 75:2251-2273. 2012.


Kisluk, G. et al. Quantification of low and high levels of Salmonella enterica serovar Typhimurium on leaves. LWT-Food Science and Technology 45:36-42. 2012.


Kruger, M.F. et al. Isolation of bacteriocinogenic strain of Lactococcus lactis subsp. lactis from rocket salad (Eruca sativa Mill) and evidences of production of a variant of nisin with modification of the leader-peptide. Food Control 33:467-476. 2013.


Erickson, M.C. et al. Biotic and abiotic variables affecting internalization and fate of 
*Escherichia coli* O157:H7 isolates in leafy green roots. *Journal of Food Protection* 
77:872-879. 2014.

coli* strains in fresh produce. *Journal of Food Protection* 77:820-823. 2014.

Feroz, F. et al. Determination of microbial growth and survival in salad vegetables 
through in vitro challenge test. *International Journal of Nutrition and Food Science* 

Flores-Urban, K.A. et al. Detection of toxigenic *Bacillus cereus* strains isolated from 

Ge, C. et al. Impact of phytopathogen infection and extreme weather stress on 
internalization of *Salmonella* typhimurium in lettuce. *International Journal of Food 

Gomez-Lopez, V.M. et al. Minimum free chlorine residual level required for the 
inactivation of *Escherichia coli* O157:H7 and trihalomethane generation during dynamic 

Hoelzer, K. et al. Reduction of *Listeria monocytogenes* contamination on produce – A 
quantitative analysis of common liquid fresh produce wash compounds. *Food Control* 

Hofmann, A. et al. Colonization of plants by human pathogenic bacteria in the course of 

Holmes, A. et al. An optimized method for the extraction of bacterial mRNA from plant 
2014.

Holvoet, K. et al. Quantitative study of cross-contamination with *Escherichia coli, E. coli* 
O157, MS2 phage and murine norovirus in a simulated fresh-cut lettuce wash process. 
*Food Control* 37:218-227. 2014.

Holvoet, K. et al. Relationships among hygiene indicators and enteric pathogens in 
irrigation water, soil and lettuce and the impact of climatic conditions on contamination 
2014.

Islam, M.T. et al. Combined effects of selected food additives on adhesion of various 
foodborne pathogens onto microtiter plate and cabbage leaves. *Food Control* 46:233-
241. 2014.


Lee, N.Y. et al. Decontamination efficacy of neutral electrolyzed water to eliminate indigenous flora on a large-scale of cabbage and carrot both in the laboratory and on a real processing line. Food Research International 64:234-240. 2014.


Srey, S. et al. Reduction effect of the selected chemical and physical treatments to reduce *L. monocytogenes* biofilms formed on lettuce and cabbage. Food Research International 62:484-491. 2014.


Giangaspero, A. et al., Molecular detection of Cyclospora in water, soil, vegetables and humans in southern Italy signals a need for improved monitoring by health authorities. International Journal of Food Microbiology 211:95-100. 2015.


Lee, C.-C. et al. Role of cellulose and colanic acid in attachment of Shiga toxin-producing *Escherichia coli* to lettuce and spinach in different water hardness environments. Journal of Food Protection 78:1461-1466. 2015.


Simko, I. et al. Downy mildew disease promotes the colonization of Romaine lettuce by Escherichia coli O157:H7 and Salmonella enterica. BMC Microbiology 15:19. 2015. (Online)


Van Haute, S. et al. Methodology for modeling the disinfection efficiency of fresh-cut leafy vegetable was water applied on peracetic acid combined with lactic acid. International Journal of Food Microbiology 208:102-113. 2015.


Hohweyer, J. et al. Simultaneous detection of the protozoan parasites Toxoplasma, Cryptosporidium and Giardia in food matrices and their persistence on basil leaves. Food Microbiology 57:36-44. 2016.


