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EDUCATION

- Ph.D. 1987** Agricultural and Environmental Chemistry, University of California, Davis.
- B.S. 1980** Environmental Toxicology, University of California, Davis (Highest Honors).

EXPERIENCE

- 1991-2019** **Extension Food Toxicologist**, Department of Food Science and Technology, University of California, Davis. Assistant 1991-93, Associate 1993-99, Full 1999-2019.
- 1987-1991** **Assistant Extension Toxicologist**, Department of Entomology, University of California, Riverside.
- 1985** **Science Writer**, *Richmond Times-Dispatch* newspaper, Richmond, VA.
- 1980-1984** **Environmental Hazards Specialist**, California Department of Food and Agriculture, Sacramento, CA.

HONORS AND AWARDS

Institute of Food Technologists Carl R. Fellers Award, 2020.
Institute of Food Technologists Bernard L. Oser Food Ingredient Safety Award, 2016.
3rd Annual Phillips and Hayes Lecturer, University of Minnesota, 2013.
CAST Borlaug Communication Award, 2012.
NSF International Food Safety Leadership Award for Education and Training, 2009.
Fellow, Institute of Food Technologists, elected 2008.
Keiser Distinguished Lecturer, Ohio Northern University, inaugural recipient of lectureship that brings a national prominent scholar in life sciences to the Ohio Northern campus for three days of classroom and public lectures, March 2008.
Hod Ogden Award, U.S. Centers for Disease Control and Prevention/Association of State and Territorial Directors of Health Promotion and Public Health Education, for “his innovative and creative musical approach to educate the public about food safety,” 2003.
American Association for the Advancement of Science Mass Media Science and Engineering Fellowship, 1985.

PROFESSIONAL ACTIVITY

Institute of Food Technologists
Chair, Food Science Communicators, 2001-02.
Food Science Communicator, 1993-present.
Distinguished Lecturer, 1999-2003.
Chair, Toxicology and Safety Evaluation Division, 1998-99.
Food and Agriculture Organization/World Health Organization (FAO/WHO) Joint Expert Committee on Food Additives, 2003-2008.
National Academy of Sciences/National Institute of Medicine
Consultant, Committee on the Framework for Evaluating the Safety of Dietary Supplements, 2002.
Associate Editor, *Journal of Food Science*, 2010-2015.
Editorial Board Member, *International Journal of Food Contamination*, 2013-present.
U.S. Food and Drug Administration Food Advisory Committee, 2010-2014.
Task Force Chair, Pesticides in Food, Council for Agricultural Science and Technology, 2016—19.

CONGRESSIONAL TESTIMONY

Food Quality Protection Act of 1995. HR1627, June 7, 1995. U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Health and the Environment.

Risks and Benefits of Pesticides. July 14, 1993. U.S. House of Representatives Committee on Agriculture, Subcommittee on Department Operations and Nutrition.

Safety of Pesticides in Foods Act of 1991. HR2342, June 19, 1991. U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Health and the Environment.

JOURNAL ARTICLES, BOOKS, and BOOK CHAPTERS (*peer reviewed)

1. Maddy, K.T., R.G. Wang, J.B. Knaak, C.L. Liao, S.C. Edmiston and **C.K. Winter**. 1984. Risk assessment of excess pesticide exposure to workers in California. p.445-465, IN: R.C. Honeycutt, G. Zweig and N.N. Ragsdale (eds.), **Dermal Exposure Related to Pesticide Use**, ACS Symposium Series No. 273, American Chemical Society, Washington, D.C.
2. * **Winter, C.K.**, and P.H. Kurtz. 1985. Factors influencing grape worker susceptibility to skin rashes. *Bulletin of Environmental Contamination and Toxicology* 35(3):418-426.
3. * **Winter, C.K.**, H.J. Segall and W.F. Haddon. 1986. Formation of cyclic adducts of deoxyguanosine with the aldehydes trans-4-hydroxy-2-hexenal and trans-4-hydroxy-2-nonenal *in vitro*. *Cancer Research* 46(11):5682-5686.
4. * **Winter, C.K.**, H.J. Segall and A.D. Jones. Oct. 1987. Distribution of trans-4-hydroxy-2-hexenal and tandem mass spectrometric detection of its urinary mercapturic acid in the rat. *Drug Metabolism and Disposition: The Biological Fate of Chemicals* 15(5):608-612.
5. * **Winter, C.K.**, H.J. Segall and A.D. Jones. March 1988. Determination of pyrrolizidine alkaloid metabolites from mouse liver microsomes using tandem mass spectrometry and gas chromatography/mass spectrometry. *Biomedical and Environmental Mass Spectrometry* 15(5):265-273.
6. * **Winter, C.K.**, H.J. Segall and A.D. Jones. 1988. Species differences in the hepatic microsomal metabolism of the pyrrolizidine alkaloid senecionine. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology* 90C(2):429-433.

7. **Winter, C.K.**, and H.J. Segall. 1989. Metabolism of pyrrolizidine alkaloids. p.23-40, IN: P.R. Cheeke (ed.), **Toxicants of Plant Origin. Volume I: Alkaloids**. CRC Press, Boca Raton, Florida.
8. * Segall, H.J., D.W. Wilson, D.S. Griffin, **C.K. Winter**, D.M. Morin and M.W. Lamé. 1989. The identification, metabolism and toxicity associated with the macrocyclic pyrrolizidine alkaloids. p.30-40, IN: Charlotte L. Ownby and George V. Odell (eds.), **Natural Toxins: Characterization, Pharmacology and Therapeutics**, Pergamon Press, New York.
9. * Archibald, S.O., and **C.K. Winter**. Dec. 1989. Pesticide residues and cancer risks. California Agriculture 43(6):6-9.
10. * Dercks, W., J. Trumble and **C.K. Winter**. Feb. 1990. Impact of atmospheric pollution on linear furanocoumarin content in celery. Journal of Chemical Ecology 16(2):443-454.
11. **Winter, C.K.** 1990. Pesticide residues and cancer risks. Proceedings of the Western Society of Weed Science 43:8-13.
12. **Winter, C.K.**, J.N. Seiber and C.F. Nuckton (eds). 1990. **Chemicals in the Human Food Chain**, Van Nostrand Reinhold, New York. 276 pp. (BOOK)
13. * Archibald, S.O., and **C.K. Winter**. 1990. Pesticides in food: Assessing the risks. p.1-50, IN: Carl K. Winter, James N. Seiber and Carole F. Nuckton (eds.), **Chemicals in the Human Food Chain**, Van Nostrand Reinhold, New York. (Also published as Archibald, S.O., and C.K. Winter. 1990. Pesticides in Food: Assessing the Risks. Agricultural Issues Center, University of California, Davis. 48 pp.)
14. * **Winter, C.K.** 1990. Natural toxins in the human food chain: Toxins of plant origin. p.221-237, IN: Carl K. Winter, James N. Seiber and Carole F. Nuckton (eds.), **Chemicals in the Human Food Chain**, Van Nostrand Reinhold, New York.
15. * **Winter, C.K.**, and A.D. Jones. June 1991. Artifact formation in the GC/MS analysis of Zolone EC (phosalone) insecticide formulation. Journal of Agricultural and Food Chemistry 39(6):1113-1117.
16. * Beall, G.A., C.M. Bruhn, A.L. Craigmill and **C.K. Winter**. Aug. 1991. Pesticides and your food: How safe is "safe"? California Agriculture 45(4):4-11.
17. * Segall, H.J., D.W. Wilson, M.W. Lamé, D. Morin and **C.K. Winter**. 1991. Metabolism of pyrrolizidine alkaloids. p.3-26, IN: R.K. Keeler and A.T. Tu

(eds.), **Handbook of Natural Toxins, Vol. 6: Toxicology of Plant and Fungal Compounds**, Marcel Dekker, New York.

18. **Winter, C.K.** 1991. Rigorous produce testing does not protect consumers from pesticides. p.86-91, IN: N. Bernards (ed.), **The Environmental Crisis: Opposing Viewpoints**, Greenhaven Press, San Diego, California.
19. **Winter, C.K.** Oct. 1991. A toxicological perspective on risk. p.143-150, IN: Protecting Drinking Water Quality at the Source: Proceedings of a Conference, California Water Resources Center Report No. 76, University of California, California Water Resources Center, Davis, California.
20. * **Winter, C.K.** April 1992. Pesticide tolerances and their relevance as safety standards. *Regulatory Toxicology and Pharmacology* 15(2):137-150.
21. * **Winter, C.K.** 1992. Dietary pesticide risk assessment. Reviews of Environmental Contamination and Toxicology 127:23-67.
22. * Dinoff, T.M., **C.K. Winter**, A.D. Jones and R. New. June 1992. An evaluation of sample preparation techniques for the GC/MS analysis of urinary mercapturic acid conjugates. *Journal of Analytical Toxicology* 16(3):147-151.
23. **Winter, C.K.** 1992. Pesticides and food safety: Emerging trends and their significance to human health. p.67-77, IN: Proceedings of the 44th Annual California Weed Conference, San Jose, California, January 20, 1992.
24. * Jones, A.D., **C.K. Winter**, M.H. Buonarati and H.J. Segall. Jan. 1993. Analysis of mercapturic acid conjugates of xenobiotic compounds using negative ionization and tandem mass spectrometry. *Biological Mass Spectrometry* 22(1):68-76.
25. * **Winter, C.K.** July 1993. Pesticide residues and the Delaney Clause. *Food Technology* 47(7):81-86.
26. * **Winter, C.K.** Feb. 1994. Lawmakers should recognize uncertainties in risk assessment. *California Agriculture* 48(1):21-29.
27. * Caldas, E.D., A.D. Jones, Barney Ward, **C.K. Winter** and D.G. Gilchrist. Feb. 1994. Structural characterization of three new AAL toxins produced by *Alternaria alternata* f. sp. *lycopersici*. *Journal of Agricultural and Food Chemistry* 42(2):327-333.
28. * Caldas, E., A.D. Jones, **C.K. Winter**, B. Ward and D.G. Gilchrist. Jan. 1995. Electrospray ionization mass spectrometry of sphinganine analog mycotoxins. *Analytical Chemistry* 67(1):196-207.

29. * **Winter, C.K.**, D.G. Gilchrist, M.B. Dickman and C. Jones. 1996. Chemistry and biological activity of AAL toxins. p.307-316, IN: L. Jackson, J. Devries and L. Bullerman (eds.), **Fumonisin in Food**, Plenum Press, New York.
30. * **Winter, C.K.** Dec. 1996. Pesticide residues in foods: Recent events and emerging issues. *Weed Technology* 10(4):959-963.
31. * **Winter, C.K.** and F.J. Francis. May 1997. Assessing, managing, and communicating chemical food risks. *Food Technology* 51(5):85-92.
32. * Pinot, F., E.D. Caldas, C. Schmidt, D.G. Gilchrist, A.D. Jones, **C.K. Winter** and B.D. Hammock. 1997. Characterization of epoxide hydrolase activity in *Alternaria alternata* f. sp. *lycopersici*. Possible involvement in toxin production - Epoxide hydrolase in *Alternaria alternata* f. sp. *lycopersici*. *Mycopathologia* 140(1):51-58.
33. Bruhn, C.M., **C.K. Winter**, G.A. Beall, S. Brown, J.O. Harwood, C.L. Lamp, G. Stanford, Y.J. Steinbring and B. Turner. May 1998. Consumer response to pesticide/food safety risk statements: Implications for consumer education. *Dairy, Food and Environmental Sanitation* 18(5):278-287.
34. * Caldas, E.D., K. Sadilkova, B.L. Ward, A.D. Jones, **C.K. Winter** and D.G. Gilchrist. Nov. 1998. Biosynthetic studies of fumonisin B1 and AAL toxins. *Journal of Agricultural and Food Chemistry* 46(11):4734-4743.
35. **Winter, C.K.** Nov. 1998. EPA's implementation of the Food Quality Protection Act. *Food Technology* 52(11):148.
36. * **Winter, C.K.** 1999. Pesticides and human health: The influence of pesticides on levels of naturally-occurring plant and fungal toxins. p.165-173, IN: Nancy N. Ragsdale and James N. Seiber (eds.), **Pesticides: Managing Risks and Optimizing Benefits**, ACS Symposium Series No. 734, American Chemical Society, Washington, D.C.
37. Garcia, E.L. and **C.K. Winter**. 2000. Food safety and risk communication. p.1009-1011. IN: F.J. Francis (ed.), **Wiley Encyclopedia of Food Science and Technology, 2nd Edition**, John Wiley & Sons, Inc., New York.
38. Garcia, E.L. and **C.K. Winter**. 2000. Food safety and risk management. p.1012-1014. IN: F.J. Francis (ed.), **Wiley Encyclopedia of Food Science and Technology, 2nd Edition**, John Wiley & Sons, Inc., New York.
39. Garcia, E.L. and **C.K. Winter**. 2000. Pesticide residues in food. p.1868-1871. IN: F.J. Francis (ed.), **Wiley Encyclopedia of Food Science and Technology, 2nd Edition**, John Wiley & Sons, Inc., New York.

40. Garcia, E.L. and **C.K. Winter**. 2000. Toxicology and risk assessment. p.2352-2356. IN: F.J. Francis (ed.), **Wiley Encyclopedia of Food Science and Technology, 2nd Edition**, John Wiley & Sons, Inc., New York.
41. * **Winter, C.K.** 2000. Pesticide residues in the food supply. p.163-185. IN: William Helferich and Carl K. Winter (eds.), **Food Toxicology**, CRC Press, Boca Raton, Florida.
42. * Ditschun, T.L. and **C.K. Winter**. 2000. Food additives. p.187-202. IN: William Helferich and Carl K. Winter (eds.), **Food Toxicology**, CRC Press, Boca Raton, Florida.
43. * Helferich, W. and **C.K. Winter** (eds.). 2000. **Food Toxicology**, CRC Press, Boca Raton, Florida. 225 pp. (BOOK).
44. * Browning, D.L. and **C.K. Winter**. 2000. Agricultural chemicals. p.537-556. IN: Hui, Kitts, and Stanfield (eds.), **Foodborne Disease Handbook, Volume 4: Environmental Toxins**, Marcel Dekker, New York.
45. * **Winter, C.K.** 2001. Contaminant regulation and management in the United States: The case of pesticides. p.295-13, IN: David H. Watson (ed.), **Food Chemical Safety, Volume 1**, Woodhead Publishing and CRC Press, Cambridge, England.
46. * Garcia, E. and **C.K. Winter**. 2002. Diet and cancer. p.317-328. IN: D.O. Cliver and H.P. Reimann (eds.), **Foodborne Diseases**, Second Edition, Academic Press, New York.
47. * Whitford, F., J. Kronenberg, C. Lunchick, R. Tomerlin, J. Wolt, J. Driver, K.S. Rao, G. Arce, H. Spencer, **C.K. Winter** and J. Klaunig. 2002. Human health risk assessment: Evaluating potential effects of pesticides on humans. p.8-115, IN: F. Whitford (ed.), **The Complete Book of Pesticide Management: Science, Regulation, Stewardship, and Communication**, Wiley-Interscience, New York.
48. * **Winter, C.K.** April 2002. Electronic information resources for food toxicology. *Toxicology* 173(1-2):89-96.
49. * **Winter, C.K.** 2003. Pesticides and herbicides. Toxicology. p.4494-4501, IN: B.L. Caballero, L. Trugo and P. Finglas (eds.), **Encyclopedia of Food Sciences and Nutrition, 2nd Edition**, Academic Press, San Diego, California.
50. * **Winter, C.K.** 2003. Exposure and dose-response modeling for food chemical risk assessment. p.73-87, IN: Ronald H. Schmidt and Gary E. Rodrick (eds.), **Food Safety Handbook**, Wiley-Interscience, Hoboken, New Jersey.

51. * **Winter, C.K.** 2004. Surveillance for pesticide residues. p.277-293, IN: Watson, D. H. (ed.), **Pesticide, veterinary and other residue in food**. Wolfhead Publishing Ltd., Cambridge, UK.
52. * **Winter, C.K.** 2005. Pesticides in Food. IN: Dabrowski, Waldemar M. and Sikorski, Zdzislaw E. (eds.), **Toxins in Food**, CRC Press LLC, Boca Raton, FL.
53. * Jeffery, E., C.K. Aron, M. Barrett, and **C.K. Winter**. p.385-449, IN: Prototype Focused Monograph: Review of Liver-Related Risks for Chaparral. In: **Dietary Supplements: A Framework for Evaluating Safety**. Institute of Medicine and Natural Research Council, National Academies Press, Washington, DC. (Derived from Category II publication #39)
54. * **Winter, C.K.** 2005. Pesticide residues in fruit and vegetables. p.135-155, IN: W. Jongen (ed.) **Improving the Safety of Fresh Fruits and Vegetables**, Woodhead Publishing and CRC Press, Cambridge, England.
55. * **Winter, C.K.** 2005. Food safety – other contaminants. p.340-344, IN: B.L. Caballero, L. Allen and A. Prentice (eds.), **Encyclopedia of Human Nutrition**, Elsevier, Amsterdam.
56. * **Winter, C.K.** 2006. Organic growing pains, *Food Technology* 60(1):84.
57. * **Winter, C.K.** and S.F. Davis 2006. Institute of Food Technologists Scientific Status Summary on Organic Foods. *Journal of Food Science* 71(9): R117-R124.
58. * **Winter, C.K.** 2006. Organic foods. *Food Technology* 60(10): 44-48.
59. * **Winter, C.K.** 2007. Food safety, chemical contaminants and toxins. **Kirk-Othmer Encyclopedia of Chemical Technology**, John Wiley & Sons, Inc., New York.
60. * McCurdy, S.M., C. Schmiede, and **C.K. Winter**. 2008. Incorporation of music in a food service food safety curriculum for high school students. *Food Protection Trends* 28(2): 107-114.
61. * **Winter, C.K.** 2008. Singing the songs of science: Using musical parodies for microbiology education. *Focus on Microbiology Education* 15(1): 10-11.
62. * **Winter, C.K.** 2009. Organic food production and its influence on naturally occurring toxins. p. 231-239. In: Kirchmann, H. and L. Bergstrom, eds. **Organic Crop Production: Ambitions and Limitations**, Springer, New York.

- 63 * Katz, J.M. and **C.K. Winter**. 2009. Comparison of pesticide exposure from consumption of domestic and imported fruits and vegetables. *Food and Chemical Toxicology* 47: 335-338.
- 64 * **Winter, C.K.**, A.M. Fraser, J.B. Gleason, S.K. Hovey, S.M. McCurdy, and O.S. Snider. 2009. Food safety education using music parodies. *Journal of Food Science Education* 8: 62-67.
- 65 * Heidinger, J.C., **C.K. Winter**, and J.S. Cullor. 2009. Quantitative microbial risk assessment for *Staphylococcus aureus* and Staphylococcus Enterotoxin A in raw milk. *J. of Food Protection* 72(8): 1641-53.
- 66 * **Winter, C.K.** and J.M. Katz. 2011. Dietary exposure to pesticide residues from commodities alleged to contain the highest contamination levels. *Journal of Toxicology*. doi: 10.1155/2011/589674.
- 67 * **Winter, C.K.** 2011. Filling My Plate with fear. *Food Technology*. November, p. 92.
- 68 **Winter, C.K.** 2011. Food safety – other contaminants. IN: B.L. Caballero, L. Allen and A. Prentice (eds.), **Encyclopedia of Human Nutrition 2nd Ed.**, Elsevier, Amsterdam.
- 69 * Lambertini, E., M.D. Danyluk, D.W. Schaffner, **C.K. Winter**, and L.J. Harris. 2012. Risk of salmonellosis from consumption of almonds in the North American market. *Food Research International* 45: 1166-1174.
- 70 **Winter, C.K.** 2012. Pesticides in food. IN: Schrenk, D., ed. **Chemical Contaminants and Residues in Foods**. Woodhead Publishing Ltd., Cambridge, England.
- 71 * Katz, J.M., **C.K. Winter**, S. Buttrey, and J.G. Fadel. 2012. Comparison of acrylamide intake from Western and guideline based diets using probabilistic techniques and linear programming. *Food and Chemical Toxicology* 50: 877-883.
- 72 * **Winter, C.K.** 2012. Pesticide residues in imported, organic, and “suspect” fruits and vegetables. *J. Agric. Food Chem.* 60: 4425-4429.
- 73 * Katz, J.M., M.R. LaFrano., Winter, C.K., and B.J. Burri. 2013. Modelling potential B-Carotene intake and cyanide exposure from consumption of biofortified cassava. *J. Nutritional Science* 2:1-8.
- 74 * **Winter, C.K.** 2013. Pesticide biomonitoring: Applications and limitations for food safety risk assessment. *New Food* 16: 42-46.

- 75 * Jara, E.A. and **C.K. Winter**. 2014. Dietary exposure to total and inorganic arsenic in the United States, 2006-2008. *Int. J. Food Contam* doi:10.1186/s40550-014-0003-x.
- 76 * **Winter**, C.K., Jara, E.A., Coughlin, J.R. 2015. Assessing and Understanding Arsenic Exposure. *Food Technology*, 69: 44-48.
- 77 * Clark, S. and **Winter**, **C.K.** 2015. Diacetyl in Foods: A Review of Safety and Sensory Characteristics. *Comprehensive Reviews in Food Science and Food Safety*, 14: 634-643.
- 78 * **Winter**, **C.K.** 2015. Chronic dietary exposure to pesticide residues in the United States. *International Journal of Food Contamination*, doi: 10.1186/s40550-015-0018-y.
- 79 * **Winter**, **C.K.** and Jara, E.A. 2015. Pesticide food safety standards as companions to tolerances and maximum residue limits. *Journal of Integrative Agriculture*, 14(11): 2358-2364.
- 80 * **Winter**, C.K. Presenting Food Science Effectively. 2016. *Journal of Food Science Education*, 15: 34-41.
- 81 * Everstine, K., Abt, E., McColl, D., Popping, B., Morrison-Rowe, S., Lane, R., Scimeca, J., **Winter**, **C.K.**, Ebert, A., Moore, J. and Chin, H. 2018. Development of a Hazard Classification Scheme for Substances Used in the Fraudulent Adulteration of Foods. *Journal of Food Protection*: 81(1): 31-36.
- 82 * Jara, E.A. and **Winter**, **C.K.** 2019. Safety levels for organophosphate pesticide residues on fruits, vegetables, and nuts. *International Journal of Food Contamination* 6:6. <https://doi.org/10.1186/s-40550-019-0076.7>
- 83 * **Winter**, **C.K.**, Burns C. and Savage, S. 2019. Interpreting Pesticide Residues in Food. CAST (Council for Agricultural Science and Technology) Issue Paper 66, 16 pp. CAST, Ames, IA.
- 84 * Pedersen, T., Smilowitz, J., **Winter**, **C.**, Emami, S., Schmidt, R., Bennett, D., Hertz-Picciotto, I. and Taha, A., 2021. Quantification of nonpersistent pesticides in small volumes of human breast milk with ultrahigh performance liquid chromatography coupled to tandem mass spectrometry. *J. Agric. Food Chem.* 10.1021/acs.jafc.0c05950.