

**Lisa Louise Dean**  
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**a. Professional Preparation**

Goucher College	Visual Arts with Conservation Emphasis	B.A., 1978
Towson State University	Chemistry	B.S., 1981
University of Delaware	Food Science and Human Nutrition	M.S., 1989
North Carolina State University	Food Science	Ph.D., 1999
North Carolina State University	Biological and Agricultural Engineering	Post Doc 2000

**b. Appointments**

2015-Interim Research Leader, Market Quality and Handling Research Unit, USDA, ARS.  
2012-Associate Professor, Food, Bioprocessing and Nutrition Sciences, North Carolina State University.  
2006-2015-Research Food Technologist, Market Quality and Handling Research Unit, USDA, ARS.  
2006-2012-Assistant Professor, Food, Bioprocessing and Nutrition Sciences, North Carolina State University.  
2000-2006-Support Scientist, Market Quality and Handling Research Unit, USDA, ARS.  
1990-1999-Senior Food Chemist, Southern Testing and Research Laboratories.  
1982-1988-Physical Science Technician, Laboratory of Cellular and Molecular Biology, NIA, NIH.  
1982-Spectroscopist, General Refractories Corporation.

**c. Professional Scholarly Activities**

2011-2012-Chair, Dogwood Section, IFT  
2008-2011-Member at Large, Dogwood Section, IFT  
2011-2015-Review coordinator, Graduate Women in Science Fellowships

**d. Honors and Awards**

2007-Co author, Cross Commodities Paper of the Year, American Society of Horticultural Science  
2002-Certificate of appreciation for method development, USDA, ARS  
1998-Election to Gamma Sigma Delta  
1997-Election to Phi Tau Sigma  
1989-Woman of Distinction Award, University of Delaware  
1988-Achievement award, NIA, NIH

### **e. Collaborators and Grants**

- 2014-2015, The Peanut Foundation, Uniform Peanut Performance Trials, \$17,000.
- 2014-2015, Lubbock Christian University, Determining the Free Amino Acid Composition of Peanut Relative to Processing, \$10,000.
- 2014-2019, The Karma Nut Company, Determination of the Chemical Composition of Wrapped Cashews, \$10,000.
- 2013-2014, The Peanut Foundation, Phenotyping the US Peanut Mini-core Collection to Identify Loci Contributing to Desirable Traits for Cultivar Development, \$47,000-**Dean allocation**, \$20,000.
- 2013-2014, The Peanut Foundation, Uniform Peanut Performance Trials, \$22,000.
- 2013-2014, Lubbock Christian University, Determining the Free Amino Acid Composition of Peanuts, \$8430.00
- 2013-2016, Kraft Foods, Proprietary Project, Co-PI, \$75,000.
- 2013-2105, General Mills, Proprietary Project, Co-PI, \$72,000.
- 2010-2012, American Peanut Council, Flavor and Quality of Peanuts from Different World Origins, \$50,000.
- 2010-2012, National Peanut Board, Nutritional Composition of US Peanuts, \$55,000.
- 2009-2013, National Science Foundation, Algal Oils for Drop In Fuels, \$1,999,172-**Dean allocation** \$20,000.
- 2008-2009, Almond Board of California, Quality of Pasteurized Almonds, Co-PI, \$225,000.

### **f. Publications**

- Dean, L.L., Constanza, K.E., Tallury, S.P., Whaley, J.D., Sanders, T.H. 2015. Essential oils from leaves of edible peanut (*Arachis hypogaea* L.) and perennial peanut (*Arachis glabrata* Benth. and *Arachis pintoii*) plants. Records of Natural Products, accepted, in press.
- Isleib, T.G., Milla-Lewis, S.R., Pattee, H.E., Copeland, S.C., Zuleta, M.C., Shew, B.B., Hollowell, J.E., Sanders, T.H., Dean, L.O., Hendrix, K.W., Balota, M., Chapin, J.W., Monfort, W.S. Registration of the Sugg peanut. Journal of Plant Registrations, accepted, in press.
- Yang, Z., Meng, X., Breidt Jr., F., Dean, L., Arritt, F. 2015. Effects of acetic acid and arginine on pH elevation and growth of *Bacillus licheniformis* in an acidified cucumber juice medium. Journal of Food Protection, accepted, in press.
- Massie, B.J., Sanders, T.H., Dean, L.L. 2015. Removal of heavy metal contamination from peanut skin extracts by waste biomass adsorption. Journal of Food Process Engineering, accepted, in press.
- Dean, L.L., Constanza, K.E., Davis, J.P., Sanders, T.H. 2015. Peanut fatty acids and their impact on human health. In Wright, G., Lee, A., and Rachaputi, R. (eds). Peanuts: Functional Bioactives and Allergens. (Book Chapter) to be published in spring 2015.
- Dean, L.L., Davis, J.P., Hendrix, K.W., DeBruce, M.T., Sanders, T.H. 2014. Microstructures of Oil Roasted Peanuts (*Arachis hypogaea* L. cv. VA 98R) as Affected by Initial Moisture Content. International Journal of Food and Nutritional Science, 1(1):1-5.

- Iasmin, M., Dean, L.O., Lappi, S.E., Ducoste, J.J. 2014. Factors that influence properties of FOG deposits and their formation in sewer collection systems. *Water Research*, 49:92-102.
- Wang, W-C., Allen, E., Campos, A.A., Killens-Cade, R., Dean, L., Immer, J.G., Mixson, S., Srirangan, S., Sauer, M-L., Schreck, E., Sun, K., Thapaliya, N., Wilson, C., Burkholder, J.A., Grunden, A.M., Lamb, H.H., Sederoff, H., Stikeleather, L.F., Roberts, W.L. 2013. ASI: *Dunaliella* marine microalgae to drop-in replacement liquid transportation fuel. *Environmental Progress in Sustainable Energy*, 32 (4):916-925.
- Dominic, C.C.S., Szakasits, M., Dean, L.O., Ducoste, J.J. 2013. Understanding the spatial formation and accumulation of fats, oils & grease deposits in the sewer collection system. *Water Science and Technology*, 68 (8):1830-1836.
- Lewis, W.E., Harris, G.K., Sanders, T.H., White, B.L., Dean, L.L. 2013. Antioxidant and anti-inflammatory effects of peanut skins. *Food and Nutrition Sciences*, 4:22-32.
- He, X., de los Reyes, F.L., Leming, M.P., Dean, L.O., Lappi, S.E., Ducoste, J.J. 2013. Mechanisms of fat, oil and grease (FOG) deposit formation in sewer lines. *Water Research*, 47:4451-4459.
- Davis, J.P., Sweigart, D., Price, K.M., Dean, L., Sanders, T.H. 2013. Refractive index and density measurements of peanut oil for determining oleic and linoleic acid contents. *Journal of the American Oil Chemists Society*, 90:199-206.
- Harris, G.K., Cvitkusic, S., Draut, A.S., Hathorn, C.S., Stephens, A.M., Constanza, K.E., Leonardelli, M.J., Watkins, R.H., Dean, L.O., Hentz, N.G. 2012. Positive effects of converting a food and bioprocessing analysis course to an inquiry-guided approach. *Journal of Food Science Education*, 11:23-27.
- McDaniel, K.A., White, B.J., Dean, L.L., Sanders, T.H., and Davis, J.P. 2012. Compositional and mechanical properties of peanuts roasted to equivalent colors using different time/temperature combinations. *Journal of Food Science*, 77:C1292-C1298.
- Constanza, K.E., White, B.J., Davis, J.P., Sanders, T.H., Dean, L.L. 2012. Value-added processing of peanut skins: antioxidant capacity, total phenolics, and procyanidin content of spray dried extracts. *Journal of Agricultural and Food Chemistry*, 60:10776-10783.
- Kane, L.S., Davis, J.P., Oakes, A.J., Dean, L.L., Sanders, T. H. 2012. Value-added processing of peanut meal: Enzymatic hydrolysis to improve functional and nutritional properties of water soluble extracts. *Journal of Food Biochemistry*, 36:520-531.
- Dean, L.L., Davis, J.P., Sanders, T.H. 2011. Groundnut (peanut) oil. In Gunstone, F. D. (ed). *Vegetable Oils in Food Technology*, Blackwell Publishing Ltd., Ames, IA., pp. 225-242. (Book Chapter).
- Listiyani, M.A.D., Campbell, R.E., Miracle, R.E., Dean, L.O., Drake, M.A. 2011. Influence of bleaching on flavor of 34% whey protein concentrate and residual benzoic acid concentration in dried whey proteins. *Journal of Dairy Science*, 94:4347-4359.
- Dean, L.L., Whitley, M.E., Hendrix, K.W., Isleib, T.G., Sanders, T.H. 2011. Environmental and varietal effects on the niacin content of raw and roasted peanuts. *Peanut Science*, 38:20-25.

- He, X., Iasmin, M., Dean, L., Lappi, S., Ducoste, J., de los Reyes III, F. 2011. Evidence for fat, oil and grease (FOG) deposit formation mechanisms in sewer lines. *Environmental Science and Technology*, 45:4385-4391.
- Isleib, T.G., Milla-Lewis, S., Pattee, H.E., Copeland, S.C., Zuleta, M., Shew, B., Hollowell, J., Sanders, T., Dean, L., Hendrix, K., Balota, M., Chapin, J. 2011. Registration of the 'Bailey' Peanut. *Journal of Plant Registrations*, 5:29-39.
- Israel, D., Talliercio, E., Kwanyuen, P., Burton, J.W., Dean, L. 2011. Inositol metabolism and phytase activity in normal and low phytic acid soybean seed. *Crop Science*, 51:282-289.
- Dean, L.L., Leavens, J., Boyd, L.C. 2010. Processing effects on the flavor and quality of blueberries. In Dacosta, N.C. and Cannon, R.J. (eds). *Flavors in Noncarbonated Beverages*, ACS Symposium Series No. 1036, Washington, DC., pp. 129-141. (Book Chapter).
- Davis, J.P., Dean, L.L., Price, K.P., Sanders, T.H. 2010. Roast effects on the hydrophilic and lipophilic antioxidant capacities of peanut flour, blanched peanut seed and peanut skins. *Food Chemistry*, 119:539-547.
- Stephens, A.M., Dean, L.L., Davis, J.P., Osborne, J.A., Sanders, T.H. 2010. Peanuts, peanut oil, and fat free peanut flour reduced cardiovascular disease risk factors and the development of atherosclerosis in Syrian golden hamsters. *Journal of Food Science*, 75:H116-122.
- Truong, V.D., Deighton, N., Thompson, R.T., McFeeters, R.F., Dean, L.O., Pecota, K.V., Yencho, G.C. 2010. Characterization of anthocyanins and anthocyanidins in purple-fleshed sweetpotatoes by HPLC-DAD/ESI-MS/MS. *Journal of Agricultural and Food Chemistry*, 58:404-410.
- Dean, L.L., Fenner, G.P., Boyd, L.C. 2009. Characterization of sterol oxidation products in two breaded shrimp products. *Open Journal of Food Science*, 3:35-41.
- Dean, L.L., Hendrix, K.W., Holbrook, C.C., Sanders, T.H. 2009. Content of some nutrients in the core of the core of the peanut germplasm collection. *Peanut Science*, 36:104-120.
- Burke, J., Chen, J., Roland, D.L., Sanders, T.H., Dean, L.L. 2009. Temperature effects on carbohydrates of hydroponically-grown peanuts. *Peanut Science*, 36:150-156.
- Dean, L.L., Sanders, T.H. 2009. Hexacosanoic acid and other very long chain fatty acids in peanut seed oil. *Plant Genetics Resources*, 7:252-256.
- Davis, J.P., Dean, L. L., Faircloth, W. H., Sanders, T. H. 2008. Physical and chemical characteristics of normal and high-oleic oils from nine commercial cultivars of peanut. *Journal of the American Oil Chemists Society*, 85: 235-243.
- Kraus, A., Miracle, R. E., Sanders, T. H., Dean, L. L., Drake, M. A. 2008. The effect of refrigerated and frozen storage on butter flavor and texture. *Journal of Dairy Science*, 91:455-465.
- Dean, L. L., Davis, J.P., Shofran, B. G., Sanders, T. H. 2008. Phenolic profiles and antioxidant activity of extracts from peanut plant parts. *Open Journal of Natural Products*, 1:1-6.

Isleib, T.G., Tilman, B.L., Pattee, H.E., Sanders, T.H., Hendrix, K.W., Dean, L.O. 2008. Genotype-by-environment interactions for flavor attributes of breeding lines in the Uniform Peanut Performance Test. *Peanut Science*, 35:54-59.

Isleib, T.G., Tilman, B.L., Pattee, H.E., Sanders, T.H., Hendrix, K.W., Dean, L.O. 2008. Genotype-by-environment interactions for seed composition traits of breeding lines in the Uniform Peanut Performance Test. *Peanut Science*, 35:130-138.

Truong, V. D., Dean, L. L., Shofran, B., McFeeters, R.F., Thompson, R. T. 2007. Phenolic acid content and composition in leaves and roots of common commercial sweetpotato (*Ipomea batatas* L.) cultivars in the United States. *Journal of Food Science*, 72:c343-c349.

Leatherwood, W. R., Pharr, D. M., Dean, L. O., Williamson, J. D. 2007. Carbohydrate content and root growth in seeds germinated under salt stress: Implications for seed conditioning. *Journal of the American Society for Horticultural Science*, 132:876-882.

Croissant, A. E., Washburn, S. P., Dean, L. L., Drake, M.A. 2007. Chemical properties and consumer perception in fluid milk from conventional and pasture-based production systems. *Journal of Dairy Science*, 90:4942-4953.