

Kadri Koppel, Ph.D

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Education

2008- 2011, Tallinn University of Technology, Ph.D. Faculty of Chemistry and Materials Technology, Department of Food Processing. Dissertation topic: "Food Category Appraisal Using Sensory Methods".

2003 - 2005 Tallinn University of Technology, M.Sc, Faculty of Chemistry and Materials Technology, Department of Food Processing. MSc thesis topic: "Structure and Melting Properties of Ice Cream".

1998 – 2003 Tallinn University of Technology, B.Sc, Faculty of Chemistry and Materials Technology, Department of Food Processing. BSc thesis topic: "Optimization of Selenium-Enriched Yeast Production Using Fed-Batch and D-stat Methods".

Research and Professional Experience

01/2014-present Kansas State University, College of Human Ecology, Dep of Human Nutrition, Assistant Professor.

04/2012 – 01/2014, Kansas State University, College of Human Ecology, Dep of Human Nutrition, Research Assistant Professor.

01/2008 – 03/2012, Competence Center of Food and Fermentation Technologies (Tallinn, Estonia), Sensory Analysis Projects Manager.

12/2007 – 02/2008, Rimi Eesti Food AS (Tallinn, Estonia), Quality Control Manager.

06/2004 – 11/2007, Premia Tallinna Külmoone AS (Ice cream factory, Tallinn, Estonia), Laboratory Manager.

07/2003 - 06/2004 Premia Tallinna Külmoone AS, Microbiologist.

Grants

Received

Kansas Center for Sustainable Agriculture and Alternative Crops. Effect of Roasting on Sensory Properties of Pecan (*Carya illinoensis*) Cultivars. December 2013. \$5,000.

Sorghum Checkoff. Introducing New Profit Streams for Grain Sorghum: Milling Characteristics and Inclusion Considerations for Use in Pet Foods. Investigator. \$119,700.

Kansas State University Small Research Grant. Sensory Properties and Aromatic Compounds in Dry Dog Foods. December 2012. \$1,000.

Kansas Center for Sustainable Agriculture and Alternative Crops. Black Walnut Sensory Properties and Acceptance. December 2012. \$5,000.

Service

Member of Graduate Council in Kansas State University since 2013.

Member of Academic Affairs committee in college of Human Ecology since 2013.

Member of Editorial Board in Journal of Sensory Studies.

Reviewer for USDA NIFA NNF panel 2013.

Reviewer in Journal of the Science of Food and Agriculture; Food Research International; Estonian Academy of Sciences Journal; International Journal of Food Science and Technology; British Journal of applied Science and Technology; Molecules.

Member of Society of Sensory Professionals since 2010.

Teaching

Graduate level class: Pet Food Sensory Analysis, 2CR, primary instructor.

Graduate level class Problems in Human Nutrition, 2CR, primary instructor.

Graduate level class Consumer Response Evaluation, 3CR, co-instructor
Undergraduate level class: Science of Food, 3CR, co-instructor.

Graduate Student Advising

MS students on-campus: 4.

MS students distance: 3.

PhD student (KSU): 1 (co-advisor).

PhD student (Tallinn University of Technology): 1 (co-advisor).

Master students committee member: 4.

PhD student committee member: 1.

Publications (Bold Indicates Primary or Corresponding Author)

Koppel, K. Sensory Analysis of Pet Foods. *Journal of the Science of Food and Agriculture*.
In Press.

Sun, C., **Koppel, K.**, Chambers, E.IV. An Initial Lexicon of Sensory Properties for Nail Polish.
International Journal of Cosmetic Science. Accepted 2-20-2014.

Koppel, K.; Suwonsichon, S.; Chitra, U.; Lee, J.; Chambers IV, E. Eggs and Poultry
Purchase, Storage, and Preparation Practices of Consumers in Selected Asian
Countries. *Foods*, 2014, 3, 110-127.

Koppel, K., Chambers, E.IV., Vázquez-Araújo, L., Timberg, L., Carbonell-Barrachina, A.,
Suwonsichon, S. 2014. Cross-Country Comparison of Pomegranate Juice Acceptance in
Estonia, Spain, Thailand, and United States. *Food Quality and Preference*, 31, 116-123.

Timberg, L., Koppel, K., Kuldjärv, R., Chambers IV, E., Soontrunnarudrungsri, A., Suwonsichon, S.,
Paalme, T. 2013. Seasoned Sprat Products Acceptance in Estonia and Thailand. *Jornal of
Aquatic Food Product Technology*, In Press.

Timberg, L., Koppel, K., Kuldjärv, R., Paalme, T. Spice-cured sprats ripening and Sensory Properties
Development. *Journal of Aquatic Food Product Technology*, In Press.

Chambers, E. IV, Koppel, K. 2013. Associations of Volatile Compounds with Sensory Aroma and
Flavor: The Complex Nature of Flavor. *Molecules* 18, 4887-4905.

Koppel, K., Adhikari, K., Di Donfrancesco, B. 2013. Volatile Compounds in Dry Dog Foods and
Their Influence on Sensory Aromatic Profile. *Molecules* 18, 2646-2662.

Di Donfrancesco, B., **Koppel, K.**, Chambers, E.IV. 2012. An Initial Lexicon for Sensory Properties of
Dry Dog Food. *Journal of Sensory Studies*, 27, 498-510.

Koppel, K., Chambers, D.H. 2012. Flavor comparison of natural cheeses manufactured in different
countries. *Journal of Food Science* 77, S177-187.

Koppel, K., Chambers E.IV, Chambers, D.H. 2011. Flavour and acceptance of Estonian cheeses.
Agronomy Research, Special Issue 2, 409-414.

Timberg, L., Koppel, K., Kuldjärv, R., Paalme, T. 2011. Sensory and chemical properties of Baltic
sprat (*Sprattus sprattus balticus*) and Baltic herring (*Clupea harengus membras*) in different
catching seasons. *Agronomy Research, Special Issue 2*, 489-494.

Timberg, L., Kuldjärv, R., Koppel, K., Paalme, T. 2011. Rainbow trout composition and fatty acid
content in Estonia. *Agronomy Research Special Issue 2*, 495-500.

Koppel, K., Timberg, L., Salumets, A., Paalme, T. 2011. Possibility for a Strawberry Jam Sensory
Standard. *Journal of Sensory Studies* 26: 71-80.

Vázquez-Araújo, L., Koppel, K., Chambers, E.IV, Adhikari, K., Carbonell-Barrachina, A.A. 2011.
Instrumental and Sensory Aroma Profile of Pomegranate Juices from the US: Differences
between Fresh Juice and Commercial Juices. *Flavour and Fragrance* 26: 129–138.

Koppel, K., and Chambers, E.IV. 2010. Development and Application of a Lexicon to Describe the
Flavor of Pomegranate Juice. *Journal of Sensory Studies* 25: 819-837.

Workshops & Presentations

Koppel, K. August 2013. Pet Food Summit, Kansas State University, Department of Grain Science.
Pet Food Sensory Analysis.

Koppel, K. July 2013. Mars Petcare: training day. Pet Food Sensory Analysis issues.

Koppel, K., and Chambers, E.IV. June 2013. Society of Cosmetic Chemists Annual Scientific Seminar. Sensory application and removal properties of nail polish.

Koppel, K., and Chambers, D.H. May 2013. Beef Flavor Workshop. Training for industry and academia. Test considerations and controls.

Koppel, K. April 2013. Petfood Forum. Sensory approach to dry dog food.

Koppel, K. June 2012. AIB Seminar. Sensory evaluation. Training of industry representatives.

Koppel, K. December 2010. Training of panelists of „Tunnustatud Eesti Maitse“ (Approved Estonian Taste) quality labels for Estonian Chamber of Commerce. Training included PROP-testing, introduction to descriptive sensory analysis, taste threshold measurements, tongue fungiform papillae counting and a lecture on the use of reference materials.

Koppel, K. May 2009, project ProFit. Introducing sensory analysis and measuring taste threshold, training of industry representatives.

Conference presentations (Bold Indicates Presenter)

Anderson, E., **Koppel, K.**, Chambers, E.IV. Effects of Processing on Pomegranate Juice Flavour Using a Semi-Continuous Profile Method for Flavor Evaluation During Consumption. Pangborn Sensory Science Symposium 2013.

Koppel, K. Flavor, Aroma, and Acceptance of Dry Dog Food. Pangborn Sensory Science Symposium 2013.

Swaney-Stueve, M., Di Donfrancesco, B., McCoy, M., **Koppel, K.** Understanding What Drives Pet Owner's Liking of Dog Foods. Petfood Forum 2013.

Koppel, K., Timberg, L. Raspberry Jams: Flavor and Texture Variation in a Selection of European Samples. Society Of Sensory Professionals meeting October 2012.

Koppel, K., Timberg, L. Preliminary Vocabulary Development and Application on Dark Chocolate. Society Of Sensory Professionals meeting October 2012.

Koppel, K., Timberg, L. Locally Manufactured Milk Chocolate Flavor Profiles: a Comparison of Estonian, Finnish, and Latvian Products. 5th European Conference on Sensory and Consumer Research, September 2012.

Koppel, K., Kuldjärv, R., Nommann, S. Sensory and Chemical Properties of Selected Apple Cultivars from Estonia and Finland for Cider Production. Institute of Food Technologists annual meeting, July 2012.

Kuldjärv, R., **Koppel, K.**, Nommann, S. Analysis of Perceived Product Inter-Distances Using Multiple Factor Analysis: A Study of 4 Test Hard Cider Samples and 13 Commercial Hard Cider Samples. Institute of Food Technologists annual meeting, July 2012.

Koppel, K., Chambers, E. IV, Timberg, L., Vazquez-Araujo, L., Jenkins, A., Soontrunnarudrungsri, A., Suwonsichon, S., Carbonell-Barrachina, A.A. Pomegranate juice acceptance in Estonia, Spain, Thailand, and United States. Pangborn Sensory Science Symposium 2011, poster presentation.

Timberg, L., **Koppel, K.**, Kuldjärv, R., Soontrunnarudrungsri, A., Chambers, E. IV, Suwonsichon, S., Paalme, T. Sensory properties and acceptance of spice-cured fish products in Thailand and Estonia. Pangborn Sensory Science Symposium 2011.

Timberg, L., **Koppel, K.**, Kuldjärv, R., Paalme, T. Aquaculture technology effect on salmon and Rainbow Trout quality, sensory properties and acceptance. Pangborn Sensory Science Symposium 2011.

Timberg, L., **Koppel, K.**, Sarand, I., Paalme, T. Fishing season, raw material treatment and package influence on spice cured Baltic sprat quality properties. West European Fish Technologists Association 2010.

Koppel, K., Chambers, E. IV, Chambers, D.H. Developing a Universal Reference System and Sensory Evaluation of Estonian Cheese. Society of Sensory Professionals conference, Napa, US, October 2010.

Koppel, K., Chambers, E. IV. Lexicon To Describe The Flavor Of Pomegranate Juice. Institute of Food Technologists annual meeting, July 2010.

Vázquez-Araújo, L., **Koppel, K.**, Chambers, E. IV, Chambers, D.H., Adhikari, K., Carbonell-Barrachina, A.A. Aromatic Profile and Descriptive Sensory Analysis of 9 Commercial Pomegranate Juices Manufactured in the US. Eurosense, September 2010.

Timberg, L., **Koppel, K.**, Špilev, H., Kuldjärv, R., Jakimčuk, A., Paalme, T. Sensory and chemical –

biological properties of Baltic sprat (*Sprattus sprattus balticus*) and Baltic herring (*Clupea harengus membras*) in different catching seasons. Pangborn Sensory Sciences Symposium, July 2009.

Scholarships and Other Training

Foundation Archimedes scholarship for conducting research at Kansas State University during 06.2010-07.2010.

Travel scholarship to Pangborn meeting in Firenze, Italy, July 2009.

Foundation Archimedes scholarship for conducting research at Kansas State University during 03.2009-05.2009.

2012 October, Dr. Herbert Meiselman short course: "Psychographics –Alternate Approaches to consumer Segmentation".

2012 October, Dr. Herbert Meiselman short course: "Measuring Emotions in a Product Development Setting".

2011 July, short course in University of Dresden Medical School: "Summerschool on Human Olfaction V".

2011 May, short course in Wageningen University: „Sensory Perception and Food Preference” organised by VLAG Graduate School.

2010 March, Dr. Hal Macfie course „Hands on Preference Mapping and Consumer Trials Statistics Course“.

2009 October, Short course in Helsinki University: „New Directions of Sensory Food Research“ organised by prof Hely Tuorila.

2008 October, Camo Software 3-day course: Multivariate Data Analysis.

2006. Metrocert 1-day course: ISO 22000.

2006. Estonian Standardisation Agency 1-day course: Quality Management Systems.

2005. Tallinn Technical University 3-day course: Food Hygiene, HACCP.

2005. Estonian Standardisation Agency 1-day course: Customer Complaints Based on the ISO 10002.