

# Curriculum Vitae

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## **Education**

B.S. Food Science and Technology, Chiang Mai University, 1988.

M.S. Food Science and Technology, Chiang Mai University, 1996.

Ph.D. Food Science and Technology, Chiang Mai University, 2004.

## **Employment**

- 2016-present Associate Dean, Faculty of Agro-Industry, Chiang Mai University.
- 2010-2015 Head of Product Development Technology Division, Faculty of Agro-Industry, Chiang Mai University.
- 2006-2008 Assistant Professor of Food Science and Technology, Department of Product Development Technology, Faculty of Agro-Industry, Chiang Mai University.
- 2003-2006 Lecturer of Department of Product Development Technology, Faculty of Agro-Industry, Chiang Mai University.
- 2001-2002 Researcher, Analysis of flavour and aroma components in transgenic tomato fruits at Samworth Flavour Laboratory, Division of Food Science, The University of Nottingham, UK.
- 1997-2001 Lecturer of Department of Product Development Technology, Faculty of Agro-Industry, Chiang Mai University.
- 1989-1994 Quality Control Manager, Songkla Canning Co., Ltd. Songkla.
- 1988-1989 Production Supervisor, Royal Canning Co., Ltd. Songkla.

### **Area of Interests**

- Quality Assurance / Quality control in food industry
- Bioactive compounds in fruits and vegetables
- Flavor chemistry and Flavor volatile analysis
- Food Product Development

### **Training**

- Food Safety Modernization Act: FSMA and Preventive Control for Human Food (PCHF): CFR 117. By: National Bureau of Agricultural Commodity and Food Standards (ACFS) Thailand. (22 March. 2017)
- ISO/ FSSC 22000 Requirements and Documentation. By: National Food Institute (NFI) Thailand. (12-13 May 2016)
- Global Standards Food Safety – BRC (issue 7), Third Party Auditors’ Course. By: BSI Group (Thailand) Co., Ltd. (28 Sep.- 2 Oct. 2015)
- ISO 22000- Food Safety Management Systems Auditor/ Lead Auditor Training Course based on FSSC. By SGS (Thailand) Co., Ltd. (14-18 Sep. 2015)
- Workshop on Private Food Safety and Quality Standards for Enhancing Market Access. By: APO and CPC. Taipei,Taiwan, Rep. of China. (4-8 Nov., 2013)
- Ensuring Safe, High Quality, Ready to Eat Under Enhancing Food Safety Management Competence in the Thai “Ready to Eat” Food Sector Project. By: Camden BRI and National Food Institute Thailand (18-22 May, 2011)
- FSMS - ISO22000: Auditor conversion training course, A17238 (IQCS/MASCI) By: IRCA (8-10 April, 2009)
- FSMS ISO22000: 2005 Food Safety Management System, Documentation & Implementation By: NFI / QMC / AIAG (4-6 March, 2009)
- FSMS ISO / IEC 17025 By: NFI, Thailand. (23-24 November, 2006)
- FSMS ISO22000: 2005: Understanding and Requirements training Course By: BVQI (29-30 March, 2006)
- Training for GMP&HACCP. By: NFI, Thailand. (10-14, Nov., 2003)
- US/FDA Its QC Methodology and New Nutrition Labeling Law. (19-20 Oct., 1993)
- FAO/UNDP-DOF Workshop on Use of HACCP for Seafood By: FAO/UNDP-DOF. (1-8 Nov., 1991)

## Research Accomplishments

- Development of dried Longan fortified with probiotic by prebiotic edible coating techniques. (2016-2017)
- Development of Value Added Purple Rice Products for Commercial Applications
- Development of microencapsules of essential oil from *Trachyspermum roxburghianum* by complex coacervation technique
- Flavour encapsulation of *Thian-Ob* (Thai-dessert flavoring)
- Development of royal jelly by freeze drying process
- Process of ready-to-eat liquid food for aging population
- Comparison of the amount of antioxidant from various parts of fresh longan, mango and lychee as well as their processed sarcocarps
- Extraction and application in food products of essential oil from holy basil
- Essential oil: Application in air freshening scented paper

## Publications

- Laokuldilok T, Potivas T, Kanha N, **Surawang S**, Seesuriyachan P, Wangtueai S, Phimolsiripol Y, and Regenstein JM. 2017. Physicochemical, antioxidant, and antimicrobial properties of chitooligosaccharides produced using three different enzyme treatments. *Food Bioscience*, 18: 28-33.
- Phimolsiripol Y, Siripatrawan U, Teekachunhatean S, Wangtueai S, Seesuriyachan P, **Surawang S**, Laokuldilok T, and Regenstein JM, and Henry CJ. 2017. Technological properties, in vitro starch digestibility and in vivo glycaemic index of bread containing crude malva nut gum. *International Journal of Food Science and Technology*, 52(4): 1035–1041.
- Sriwattana S, Phimolsiripol Y, Pongsirikul I, Utama-ang N, **Surawang S**, Decharatanangkoon S, Chindaluang Y, Senapa J, Wattanachariya W, Angeli S, and Thakeow P. 2015. Development of a concentrated strawberry beverage fortified with longan seed extract. *Chiang Mai University Journal of Natural Sciences*, 14(2): 175-188.
- Prommajak, T., Sang Moo Kim, Cheol-Ho Pan, Sang Min Kim, **Surawang, S.** and Rattanapanone, N. (2016). Identification of Antioxidants in Lamiaceae Vegetables by HPLC-ABTS and HPLC-MS. *Chiang Mai University Journal of Natural Sciences*, 15(1): 21-38.
- Prommajak, T., Sang Moo Kim, Cheol-Ho Pan, Sang Min Kim, **Surawang, S.** and Rattanapanone, N. (2015). Prediction of Antioxidant Capacity of Thai Vegetable Extracts by Infrared Spectroscopy. *Chiang Mai Journal of Sciences*. 42(3): 657-668.
- Sriwattana, S., Phimolsiripol, Y., Pongsirikul, I., Utama-ang, N., **Surawang, S.** Suwanna Decharatanangkoon, S., Chindaluang, Y., Senapa, J., Wattanachariya, W.,

- Angeli, S. and Thakeow, P. (2015). Development of a Concentrated Strawberry Beverage Fortified with Longan Seed Extract. *Chiang Mai University Journal of Natural Sciences*, 14(2): 175-188.
- Prommajak, T., Sang Moo Kim, Cheol-Ho Pan, Sang Min Kim, **Surawang, S.** and Rattanapanone, N. (2014). Prediction of antioxidant capacity of Thai indigenous vegetable extracts by <sup>1</sup>H nuclear magnetic resonance spectroscopy. *Chiang Mai University Journal of Natural Sciences*. 14(2): 207-222.
  - Prommajak, T., Sang Moo Kim, Cheol-Ho Pan, Sang Min Kim, **Surawang, S.** and Rattanapanone, N. (2014). Identification of Antioxidants in young mango leaves by LC-ABTS and LC-MS. *Chiang Mai University Journal of Natural Science*. 13(3): 317-330.
  - Prommajak, T., **Surawang, S.**, Leksawasdi, N., Sang Moo Kim, Cheol-Ho Pan, Sang Min Kim and Rattanapanone, N. (2014). Identification and ultrasonic-assisted extraction of antioxidants from *Ficus lacor* Buch. young leaves. Proceedings 1st Joint ACS AGFD - ACS ICSCT Symposium on Agricultural and Food Chemistry, Thailand, March 4-5, 2014. 76-81.
  - Prommajak, T., **Surawang, S.** and Rattanapanone, N. (2014). Ultrasonic-assisted extraction of phenolic and antioxidative compounds from lizard tail (*Houttuynia cordata* Thunb.). *Songklanakarin Journal of Science and Technology*. 36(1); 65-72.
  - Laokudilok, T., **Surawang, S.** and Klinhom, J. (2013). Effect of milling on the color, nutritional properties and antioxidant contents of glutinous black rice. *Cereal Chemistry*. 90(6): 552-557.
  - Laokudilok, T., **Surawang, S.** and Klinhom, J. (2013). Influence of Milling Time on the Nutritional Composition and Antioxidant Content of Thai Rice Bran. *Food and Applied Bioscience Journal*. 1(3): 112-130.
  - **Surawang, S.**, Rattanapanone, N. and Taylor, A. J. (2012). Quantitative Analysis of Flavor Volatile Compounds in Two Transgenic Tomato Fruits using APCI-MS Technique. *Chiang Mai University Journal of Natural Sciences*. 11(2): 169-176.
  - Novichai, J., Thakeow, P. and **Surawang, S.** (2012). The Optimum Drying Conditions of Phakchee-rai (*Trachyspermum roxburghianum*) using Microwave-Vacuum Dryer. International Conference on Food and Applied Bioscience. 6-7 Febuary, 2012
  - Sriwattana, S., Utama-ang, N., Thakeow, P., Senapa, J., Phimolsiripol, Y., **Surawang, S.**, Pongsirikul, I. & Angeli, S. (2012). Physical, chemical and sensory characterization of the Thai-crispy pork rind 'Kaeb Moo'. *Chiang Mai University Journal of Natural Sciences*, 11, 181-191.
  - Phimolsiripol, Y., **Surawang, S.** and Siripatrawan, U. (2010). Pasting behavior and freeze-thaw stability of wheat, rice and glutinous rice flours mixed with malva nut gum systems. The 3<sup>rd</sup> Joint Symposium between Chiang Mai University and Kagawa University. 24-26 August, 2010. Chiang Mai University, Chiang Mai.
  - Chailangka, A. and **Surawang, S.** (2009). Effect of Pasteurization on Antioxidant Contents of Mulberry Vinegar Drinks. The 11<sup>st</sup> Agro-Industrial Conference: Food Innovation Asia Conference 2009. 18-19 June, 2009. G4. Bitec Bangna, Bangkok.

- Laokuldilok, N., Chansakaow, S. and **Surawang, S.** (2009). Assessment Aroma Characteristic of Thian-Ob by Descriptive Sensory Analysis and Gas Chromatography. TRF-Master Research Congress III. 1-3 April, 2009. p.320. Jomtien Beach Resort Hotel, Pataya, Chonburi.
- **Surawang, S.** (2008). Health Foods from Agricultural Products in Thailand. The International Health Food Symposium. 19-20 September 2008, Kangnuang National University, Gangneung, South Korea.
- **Surawang, S.,** Leksawasdi, N. and H. Charern, M. (2008). Total Antioxidant Activity and Phenolic Contents in Longan (*Euphoria longana* Lam.) Fruit. The International Health Food Symposium. 19-20 September 2008, p.135-144. Kangnuang National University, Gangneung, South Korea.
- Asasuppakit, T., Mutamon, N. and **Surawang, S.** (2007). Development of dried strawberry using pulsed vacuum osmotic dehydration. *Agricultural Science Journal*. 38(5): 317-320. (in Thai)
- Kitpot, T., Intawong, S. and **Surawang, S.** (2006). The development of longan syrup concentrate. Proceeding of Agro-Industrial (Food innovation). Bangkok.(in Thai)
- **Surawang, S.** and Jarinya, P. (2006). Effect of varieties and extraction methods on antioxidant capacity of holy basil essential oil. *Agricultural Science Journal*. 37(5): (in Thai)
- **Surawang, S.** Laokuldilok, N. and Kanjanatarakul, A. (2005). Extraction and application of essential oil from holy basil in food product. *Agricultural Science Journal*. 36(5): 1241-1243. (in Thai)
- **Surawang, S.,** Rattanapanone, N., Linforth, R.S.T. and Taylor, A.J. (2005). Effect of oxygen and free fatty acids on cucumber flavour generation. *Acta Hort*. 682: 549-555.
- **Surawang, S.,** Rattanapanone, N., Linforth, R.S.T. and Taylor, A.J. (2004). Effect of oxygen and free fatty acids on cucumber flavour generation. The 5<sup>th</sup> International Postharvest Symposium. S9-33. Verona, Italy. 6-11 June 2004.
- **Surawang, S.** Rattanapanone, N., Linforth, R.S.T. and Taylor, A.J. (2003). Real time monitoring and analysis of volatile flavour release in cucumber and tomato using APCI-MS. *Kasetsart Journal*. 37 (4): 468-476.
- **Surawang, S.,** and Rattanapanone, N. (2003). Real time monitoring and analysis of volatile Flavour release from tomato and cucumber using APCI-MS. *Third National Horticultural Congress*. OV-07: Session II. 22-25 April 2003, Bangkok.
- Taylor, A. J., Sivasundaram, L., Linforth, R. S. T. and **Surawang, S.** (2003). Identification of volatile compounds using combined gas chromatography atmospheric pressure ionization Mass spectrometry. In *Handbook of flavor characterization: Sensory analysis, chemistry and physiology*. Kathyryn, D.Deibler and Jeannine Delwiche. (eds). pp 411-422. Marcel Dekker, Inc. New York.
- **Surawang, S.,** Rattanapanone, N., Linforth, R.S.T. and Taylor, A.J. (2002). Real time monitoring of volatile release from cucumber using APCI-MS. *Meeting for Postgraduate Research Students in Food Science*. University of Lincoln, Royal Society of Chemistry Food Groups, 2-3 July 2002. Lincoln.

- Taylor, A. J., Sivasundaram, L., Linforth, R. S. T. and **Surawang, S.** (2002). Identification of volatile compounds using combined API/EI-MS. *Abstracts of Papers of the American Chemical Society*. 224: 033-AGFD. Washington.
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