



# Professor Dato' Dr Azhar Mat Easa

At 52, I am doing well I guess, i.e. struggling....

## Professor Dato' Dr Azhar Mat Easa, the *nutrastrategist*.

Dr. Azhar was born on 13 April 1969 in Sg Bakap, Penang, Malaysia. Dr. Azhar obtained his first degree of BSc. (Hons) in Food Sciences, from The University of Nottingham, England, in July 1992. He then pursued his studies to a higher level and obtained his Ph. D (Food Sciences), from the same University in September 1996. His thesis title was "*Factors affecting Maillard induced gelation of protein-sugar system*".



### Career:

- From 18 October 1996 to 30 December 2003, Dr. Azhar served as a University lecturer before being promoted to Associate Professor on 31<sup>st</sup> December 2003, and to Professor on 30<sup>st</sup> September 2009.
- Administrative posts held include Program Chairman (Food Technology Program, 2001-2002), Deputy Dean (Academic and Student Development) 2003 to 2007, and briefly in 2009, Deputy Dean (Research and Postgraduates studies) 2010-2014, and briefly again in 2019. He served as Dean for the same school for five years (2014-2018).
- His current job functions include managing the research and postgraduates affair of the school, lecturing, supervising of students in research, conducting research (mainly in the production of functional food and protein function enhancement), consultants in functional food and protein functionalities, refereeing and publication of scientific papers and writing scientific reports and scientific articles.
- Other past activities include sitting in the Malaysian Ministry of Health committee for Functional Food (Codex Coordinating Committee on Functional Food Regulation for ASIA), sitting in Penang State Government committee for Science and Technology awareness program and promoting the understanding of integrated quality system development of ASEAN agro-based food industries.

Subjects taught by Dr. Azhar include Introduction to Food Science and Technology, Food Commodity, Food Processing and Preservation, Biochemistry, Nutrition, Functional Foods, Thinking Skills, Persuasive Oral Presentation, and Quality Management of Food.

# My original plan was to be a pharmacist...

Dr. Azhar is also involved actively in public services. Since 1997 he has been the consultant to various consultancy projects with Food and Nutrition companies dealing with food supplements and functional foods/beverages. He has been an International Speaker on various topics including Nutrition and Functional Food Science, Research needs of Small and Medium Enterprise of ASEAN, Halal Practice and many more. From the period of 1997 to 2010 he has delivered scientific/educational talks to more than 20,000 people on The Science of Functional Foods and subjects related to quality system in the ASEAN region (Malaysia, Thailand, Indonesia and Brunei). He has been active in helping government agencies with up to date knowledge of Food Science and continuing education; this agencies include The Ministry of Health and The Ministry of Defense. He had also been appointed as a Governing Board Member of an international certification body dealing with quality management system certification.

*Dr. Azhar's achievements in research have been featured in various publications and in the media, including TV3, Berita Harian, The Star, Classic National Radio and numerous others.*



Initially his research interest has been on protein functionality (enhancement of protein functions by the use of sugar-protein interactions and cross-linking agents) and then on development of functional foods or 'almost-illegal products'/ingredients (adding value to foods by converting them to functional or health enhancing products). With the emphasis of the University on sustainability, he has somewhat redirected his research theme towards " *Sustainability-Led-Innovative-Manufacturing*" or *SLIM*. This has led to a commercialization of the research product called "Slimmee" currently on sales in the market (Nutrisanne.com: [Slimmee manufacturer](http://Nutrisanne.com)). As of January 2020, he has supervised and graduated more than 10 PhD candidates.

# I believe, one day I will find my real talents if I keep doing things I never know I could or should do...

## Current and Past Researches

1. The Best Softening and Shelf Life Extension Solution for Dodol Making Technology. 2018-2019, PPRN, Principal Investigator.
2. Structural enhancement of gluten-free fresh rice flour noodles via cold-set glucono-delta-lactone gelation of selected plant proteins at low level of application. September 2019-September 2021. FRGS. Principal researcher.
3. Title: Influence of Polymer Phase-Structure Function Proteins Complex on Extraction Behavior of Biotechnological Products in Novel Tunable Aqueous Polymer-Phase Impregnated Resins Technology. Duration: November 2<sup>nd</sup>, 2015 – October 31<sup>st</sup>, 2017 (2 years). Type: FRGS, Role: Co-researcher
4. Title: A novel coconut water-based hydrogel hydration strategy for recovery and during prolonged exercise in the heat, Duration: January 1<sup>st</sup>, 2015 – December 31<sup>st</sup>, 2017 (3 years), Type: Sports grant, Role: Co-researcher



5. Title: The use of various Hydrocolloids to enhance structural integrity, texture and sensory properties of yellow noodles. Duration: December 31<sup>st</sup>, 2014 – December 31<sup>st</sup>, 2017 (3 years)

Type: Research University Grant for Individual (RUI), Role: Principal researcher

6. Title: Studies on the physicochemical and microbiological properties of coconut water during storage, Duration: December 1<sup>st</sup>, 2014 – September 30- 2015 (10 months)

Type: Industrial External grant from Tetra Pak Singapore, Role: Principal researcher

7. Title: Investigation on the effect of tea polyphenol extracts to digestion properties



# My greatest fear is having to do the same thing over and over again...

Duration: December 1<sup>st</sup>, 2013 – November 30, 2015 (2 years), Type: FRGS, Role: Co-researcher

8. Title: Studies on the physicochemical changes of coconut water during pre-UHT treatment.

Duration: December 1<sup>st</sup>, 2013 – March 31<sup>st</sup>, 2014 (7 months), Type: Industrial External grant from Tetra Pak Singapore, Role: Principal researcher

9. Title: Feasibility of salt-coating on noodles using amylose starch technology: Salt-release profiles, physicochemical and sensory evaluation, Duration: July 1<sup>st</sup>, 2013 – June 30, 2016 (3 years), Type: ERGS, Role: Principal researcher



9. Title: Studies on the "fate" of sodium metabisulfite in UHT treated coconut water

Duration: July 1<sup>st</sup>, 2013 – March 31<sup>st</sup>, 2014 (9 months), Type: Industrial External grant from Tetra Pak Singapore, Role: Principal researcher

10. Title: Shelf Life and Vitamin C Evaluation of Coconut Water. Duration: November 1<sup>st</sup>, 2012 – May 31<sup>st</sup>, 2013 (7 months), Type: Industrial External grant from Tetra Pak Singapore, Role: Principal researcher

11. Title: The Science of Young (Tender) and Mature Coconut Water. Duration: Jan 1<sup>st</sup>, 2012 – August 31<sup>st</sup>, 2013 (8 months), Type: External grant from Tetra Pak Singapore, Role: Co-researcher

12. Title: Cultured haruan for functional food: from sustainable aquaculture practices to novel food processing. Duration: June 1<sup>st</sup>, 2011 – May 31<sup>st</sup>, 2013 (3 years), Type: Research University Grant for Team (RUT), Role: Principal researcher

# Grant application is exciting. Writing manuscripts, sucks!

13. Title: Development of *Cosmos caudatus* (ulam raja) enriched beef burger.

Duration: March 15 2011 – December 31<sup>st</sup>, 2012 (19 months), Type: Research University Grant for Individual (RUI), Role: Principal researcher

14. Title: Assessing the use of ribose-induced Maillard reaction as species identification and freshness indices of selected animal products., Duration: November 1<sup>st</sup>, 2008 – June 30, 2011 (32 months), Type: eSciencefund, Role: Principal researcher

15. Title: Release profiles of capsaicin from various edible film strips. Duration: October 15 2007 – November 30, 2010 (3 years), Type: FRGS, Role: Principal researcher

16. Title: Interactions of soya protein, transglutaminase (Tgase) and ribose in a composite model system. Duration: December 1<sup>st</sup>, 2006 – November 30, 2009 (3 years), Type: eSciencefund, Role: Principal researcher



## Publications

Lubowa Muhammad, Shin Yong Yeoh, Boshra Varastegani, Azhar Mat Easa\* (2020) Effect of pre-gelatinized high amylose maize starch combined with Ca<sup>2+</sup>-induced setting of alginate on the physicochemical and sensory properties of rice flour noodles, XX.

Lam Xue Mei, Abdoreza Mohammadi Nafchi, Farzaneh Ghasemipour, Azhar Mat Easa, Shima Jafarzadeh, A.A. Al-Hassan (2020), Characterization of pH sensitive sago starch films enriched with anthocyanin-rich torch ginger extract, [International Journal of Biological Macromolecules](#), XX

Hui-Ling Tan, Tan Thuan Chew, Azhar Mat Easa\* (2020) Effects of sodium chloride or salt substitute on rheological properties and water holding capacity of dough and hardness of noodles, Food structure, XX.

# Sometimes, I just grab it and run before they realize their mistakes!

Moses Ojukwu, Joo Shun Tan, Azhar Mat Easa\* (2020) Cooking, textural and mechanical properties of rice flour-soy protein isolate noodles prepared using combined treatments of microbial transglutaminase and glucono-delta-lactone, *Journal of Food Science*, 85 (9), 2720-2727..



Eng Keng Seow, Tan Thuan Chew, Lubowa Muhammad, Azhar Mat Easa\* (2020) Effects of honey types and heating treatment on the textural, thermal, microstructural and chemical properties of glutinous rice flour gels, *Journal of Texture Studies*, 1-8.

Yeoh Shin Yong, Lubowa Muhammad, Tan Thuan Chew, Maizura Murad, Azhar Mat Easa\* (2020) The use of salt-coating to improve textural, mechanical, cooking and sensory properties of air-dried yellow alkaline noodles, *Food Chemistry*, 333.

Hui Ling Tan, Tan Thuan Chew, Azhar Mat Easa\* (2020) The use of selected hydrocolloids and salt substitute on structural integrity, texture, sensory properties, and shelf life of fresh no salt wheat noodles, *Food Hydrocolloids*, 108.

Boshra Varastegani, Muhammad Lubowa, JOSÉ ANTÓNIO TEIXEIRA and Azhar Mat Easa (2019) Storage Stability of Spray Dried Nigella Sativa (Ranunculaceae family) Instant Beverage Powder: Effect of Carrier Agents on the Physicochemical, Phenolic Compounds and Antioxidant Properties, *Current Research in Nutrition and Food Science*, Vol. 07, No. (3).

Wah-Kang Chong, Sook-Yun Mah, Azhar Mat Easa, Thuan-Chew Tan (2019) Thermal inactivation of lipoxygenase in soya bean using superheated steam to produce low beany flavour soya milk, *J Food Sci Technol* **56**, pages 4371–4379.

Eng-Keng Seow, Chee-Yuen Gan, Thuan-Chew Tan, Lai Kuan Lee, Azhar Mat Easa\* (2019) Influence of honey types and heating treatment on the rheological properties of glutinous rice flour gels, *J Food Sci Technol*, 56(4):2105–2114

A.K. Mohd Omar\*, T.L Tengku Norsalwani, M.S. Asmah, Z.Y. Badrulhisham, Azhar Mat Easa, Fatehah Mohd Omar, Md. Sohrab Hossain, M.H. Zuknik, N.A. Nik Norulaini (2018) Implementation of the supercritical carbon dioxide technology in oil palm fresh fruits bunch sterilization: A review, *Journal of CO2 Utilization* 25 (205-215)

# I am real. My name, titles are probably not!

Hui-Ling Tan, Thuan-Chew Tan & Azhar Mat Easa\* (2018) Comparative study of cooking quality, microstructure, and textural and sensory properties between fresh wheat noodles prepared using sodium chloride and salt substitutes, *LWT - Food Science and Technology*, 97 (396-403).

Hui-Ling Tan, Thuan-Chew Tan & Azhar Mat Easa\* (2018) The use of selected hydrocolloids to enhance cooking quality and hardness of zero-salt noodles *International Journal of Food Science and Technology*, 53, 1603-1610.



Muhammad Lubowa, Shin Y Yeoh and Azhar M Easa\* (2018) Textural and physical properties of retort processed rice noodles: Influence of chilling and partial substitution of rice flour with pregelatinized high-amylose maize starch, *Food Science and Technology International* 24(6) 476-486.

Liang, L. C., Zzaman\*, W., Yang, T. A. and Easa, A. M., (2018) Effect of conventional and superheated steam roasting on the total phenolic content, total flavonoid content and DPPH radical scavenging activities of black cumin seeds, *Pertanika J. Trop. Agric. Sci.* 41 (2): 663 – 676.

Khairy, H.L., Saadoon, A.F., Zzaman\*, W., Yang, T.A. and Easa, A.M. (2018) Identification of flavor compounds in rambutan seed fat and its mixture with cocoa butter determined by SPME-GCMS, *Journal of King Saud University-Science*, [Volume 30, Issue 3](#), 316-323.

Rasha Musa Osman Elawad, Tajul\* A Yang, Azhar Mat Easa (2017) Chemical composition, volume and specific volume of superheated steam and conventional oven baked bread, *International Journal of Food Science and Nutrition*, vol 2 (6), pp91-94.

Seow Eng Keng, Azhar Mat Easa, Ahmad Munir Che Muhamed, Cheong-Hwa Ooi and Tan\* Thuan Chew (2017) Composition and physicochemical properties of fresh and freeze-concentrated coconut (*Cocos nucifera*) water, *J.Agrobiotech.*, Vol 8(1), pp 13-24.

Abbas\* F.M. Alkarkhi, Nik Aisyah Nik Muhammad, Wasin A. A. Alqaraghuli, Yusri Yusup, Azhar Mat Easa, Nurul Huda (2017) An investigation of food quality and oil stability indices of muruku by cluster analysis and discriminant analysis, *International Journal on Advanced Science Engineering Information Technology*, vol 7, No 6, p 2279-2285.



# The secret to success is thinking and acting out of the box, or simply thinking and acting dangerously!

Abdul Khalil\*, H.P.S., Chaturbhuj K., S., Tye, Y.Y., Lai, T.K., Easa, A.M., Rosamah, E., Fazita, M.R.N., Syakir, M.I., Adnan, A.S., Fizree, H.M., Aprilia, N.A.S., and Banerjee, A. (2017) Seaweed based sustainable films and composites for food and pharmaceutical applications: A review, *Renewable and Sustainable Energy Reviews*, 77, 353-362.

Zzaman\*, W., Bhat, R. Yang, T.A. and Easa, A.M. (2017) Influences of superheated steam roasting on changes in sugar, amino acid and flavor active components of cocoa bean (*Theobroma cacao*), *Journal of the Science of Food and Agriculture*, 97(13), 4429-4437.

Varastegani, B., Zzaman\*, W., Harivaindaran, K.V., Yang, T.A., Lee, L.K., Abdullah W.N.W. and Easa, A.M. (2017) Effect of carrier agents on chemical properties and sensory evaluation of spray dried *Nigella sativa*, *Cyta Journal of Food*, 15:3, 448-456.

Liew, C.Y., Zzaman\*, W., Akanda, M.J.H., Yang, T.A. and Easa, A.M. (2017) Influence of superheated steam cooking on proximate, fatty acid profile and amino acid composition of catfish (*Clarias batrachus*) fillets, *Turkish Journal of Fisheries and Aquatic Sciences*, 17: 935-943.

Zzaman\*, W., Issara, U., Easa, A.M. and Yang, T.A. (2017) Exploration on the thermal behavior, solid fat content and hardness of rambutan fat extracted from rambutan seeds as cocoa butter replacer, *International Food Research Journal*. 4(6): 2408-2413.

Affandi, N., Zzaman\*, W., Yang, T.A., and Easa, A.M. (2017) Production of *Nigella sativa* beverage powder under foam mat drying using egg albumen as a foaming agent. *Beverages*, 3(1), 9.

Tan, T.C., Ho, S.C., Chong, S.M., & Easa\*, A.M. (2017). Salt release from yellow alkaline noodles. *International Food Research Journal*, 24(1): 318-326.

Reihani, S.F.S., Tan, T.C., Alkarkhi, A.F.M., & Easa\*, A.M. (2017). Total phenolic content and antioxidant activity of *Ulam Raja* (*Cosmos caudatus*) and quantification of its selected marker compounds: Effect of extraction. *International Journal of Food Properties*, VOL. 20, NO. 2, 260-270.

Tan, T.C., Phatthanawiboon, T., & Easa\*, A.M. (2016). Quality, textural, and sensory properties of yellow alkaline noodles formulated with salted duck egg white. *Journal of Food Quality*, 39 (2016) 342-350.

Reihani, S.F.S., Tan, T.C., & Easa\*, A.M. (2016). Utilization of lyophilized *Cosmos caudatus* extract as additive in green tea bag to improve its total phenolic contents, antioxidant capacity, physicochemical and sensory properties, 3(4): 1485-1491.

Tan, T.C., Cheng, L.H., Bhat, R., Rusul, G., & Easa, A.M. (2015). Effectiveness of ascorbic acid and sodium metabisulfite as anti-browning agent and antioxidant on green coconut water (*Cocos nucifera*) subjected to elevated thermal processing. *International Food Research Journal*, 22: 631-637.

# I don't know, but I think I know. I think.



Tan, T.C., Foo, W.T., Liong, M.T., & Easa, A.M. (2015). Comparative assessment of dynamic oscillatory measurements on network development and mechanical spectra of gelatine or gellan in maize starch-egg white composite gels. *Food Hydrocolloids*, **45**:93-101.

Tan, T.C., Foo, W.T., Liong, M.T., & Easa, A.M. (2015). Comparative assessment of textural properties and microstructure of composite gels prepared from gelatine or gellan with maize starch or/and egg white. *International Journal of Food Science and Technology*, **50**: 592-604.

Li, L.Y., Tan, T.C., Liong, M.T., & Easa, A.M. (2014). Preparation and evaluation of chili powder-enriched layered noodles. *LWT - Food Science and Technology*, **59**: 566-571.

Ng, K.F., Abbas, F.M.A., Tan, T.C., & Easa, A.M. (2014). Physicochemical, pasting and gel textural properties of wheat-ripe Cavendish banana composite flours. *International Food Research Journal*, **21**: 655-662.

Reihani, S.F.S., Tan, T.C., Huda, N., & Easa, A.M. (2014). Frozen storage stability of beef patties incorporated with extracts from ulam raja leaves (*Cosmos caudatus*). *Food Chemistry*, **155**: 17-23.

Samira, S., Tan, T.C., & Easa, A.M. (2014). Effect of ribose-induced Maillard reaction on physical and mechanical properties of bovine gelatin films prepared by oven drying. *International Food Research Journal*, **21**: 269-276.

Tan, B.H., & Easa, A.M. (2014). Physicochemical properties and composition of Snakehead fish (*Channa striatus*) whole fillet powder prepared with pre-filleting freezing treatments. *International Food Research Journal*, **21**: 1255-1260.

Tan, T.C., Cheng, L.H., Bhat, R., Rusul, G., & Easa, A.M. (2014). Composition, physicochemical properties and thermal inactivation kinetics of polyphenol oxidase and peroxidase from coconut (*Cocos nucifera*) water obtained from immature, mature and overly-mature coconut. *Food Chemistry*, **142**: 121-128.

Tan, T.C., Foo, W.T., Liong, M.T., & Easa, A.M. (2014). Comparative assessment of rheological properties of gelatin or gellan in maize starch - egg white composite gels. *Journal of King Saud University - Science*, **26**: 311-322.

Al-Saadi, J.M., Easa, A.M., & Deeth, H.C. (2013). Effect of lactose on cross-linking of milk proteins during heat treatments. *International Journal of Dairy Technology*, **66**(1): 1-6.

Foo, W.T., Liong, M.T., & Easa, A.M. (2013). Textural and structural breakdown properties of selected hydrocolloid gels, *Food Research International*, **52**: 401-408.

# If everybody avoids it, I will rush in...



Jawad, A.H., Alkarkhi, A.F.M., Jason, O.C., Easa, A.M., & Nik Norulaini, N.A. (2013). Production of the lactic acid from mango peel waste – Factorial experiment. *Journal of King Saud University – Science*, **25**(1): 39-45.

Huda, N., Seow, E.K., Normawati, M.N., Nik Aisyah, N.M., Fazilah, A., & Easa, A.M. (2013). Effect of duck feet collagen addition on physiochemical properties of surimi. *International Food Research Journal*, **20**: 537-544.

Li, L.Y., Easa, A.M., Liong, M.T., Tan, T.C., & Foo, W.T. (2013). The use of microbial transglutaminase and soy protein isolate to enhance retention of capsaicin in capsaicin-enriched layered noodles. *Food Hydrocolloids*, **30**(2): 495-503.

Tan, T.C., Alkarkhi, A.F.M., & Easa, A.M. (2013). Ribose-induced Maillard reaction as a quality index in frozen minced chicken and pork meats. *Journal of Food Quality*, **36**: 351-360.

Yeoh, S.Y., Alkarkhi, A.F.M., & Easa, A.M. (2013). Effect of cross-linking agents on physicochemical, textural properties and microstructure of canned soy protein isolate-yellow alkaline noodles prepared by retort processing. *Journal of Food Processing and Preservation*. [DOI: 10.1111/jfpp.12079]

Reihani, S.F.S., & Azhar, M.E. (2012). Antioxidant activity and total phenolic content in aqueous extracts of selected traditional Malay salads (*Ulam*). *International Food Research Journal*, **19**(4): 1439-1444.

Tan, T.C., Abbas, F.M.A., & Easa, M.E. (2012). Characterization of the ribose-induced Maillard reaction in minced chicken and minced pork: A potential means of species differentiation. *International Food Research Journal*, **19**(2): 481-489.

Tan, T.C., Alkarkhi, A.F.M., & Easa, A.M. (2012). Assessment of the ribose-induced Maillard reaction as a means of gelatine powder identification and quality control. *Food Chemistry*, **134**(4): 2430-2436.

Tan, T.C., Kanyarat, K., & Azhar, M.E. (2012). Evaluation of functional properties of egg white obtained from pasteurized shell egg as ingredient in angel food cake. *International Food Research Journal*, **19**(1): 303-308.

Voon, H.C, Bhat, R., Easa, A.M., Liong, M.T., & Karim, A.A. (2012). Effect of addition of halloysite nanoclay and SiO<sub>2</sub> nanoparticles on barrier and mechanical properties of bovine gelatin films. *Food and Bioprocess Technology*, **5**(5): 1766-1774.

Alkarkhi, A.F.M., Ramli, S.B., Yeoh, S.Y., & Easa, A.M. (2011). Comparing physicochemical properties of banana pulp and peel flours prepared from green and ripe fruits. *Food Chemistry*, **129**(2): 312-318.

# Why noodles? Because I hate noodles!

Foo, W.T., Yew, H.S., Liong, M.T., & Azhar, M.E. (2011). Influence of formulations on textural, mechanical and structural breakdown properties of cooked yellow alkaline noodles. *International Food Research Journal*, **18**(4): 1295-1301.

Lew, L.C., Bhat, R., Easa, A.M., & Liong M.T. (2011). Development of probiotic carriers using microbial transglutaminase-crosslinked soy protein isolate incorporated with agrowastes. *Journal of the Science of Food and Agriculture*, **91**(8): 1406-1415.

Lim, T.J., Easa, A.M., Karim, A.A., Bhat, R., & Liong, M.T. (2011). Development of soy-based cream cheese via the addition of microbial transglutaminase, soy protein isolate and maltodextrin. *British Food Journal*, **113**(9): 1147-1172.

Nopianti, R., Huda, N., Fazilah, A., Ismail, N., & Easa, A.M. (2011). Effect of different types of low sweetness sugar on physicochemical properties of threadfin bream surimi (*Nemipterus* spp.) during frozen storage. *International Food Research Journal*, **19**(3): 1011-1021.

Nopianti, R., Huda, N., Ismail, N., Ariffin, F., & Easa, A.M. (2011). Effect of polydextrose on physicochemical properties of threadfin bream (*Nemipterus* spp) surimi during frozen storage. *Journal of Food Science and Technology*. [DOI: 10.1007/s13197-011-0394-0]

Yeoh, S.Y., Alkarkhi, A.F.M., Ramli, S.B., & Easa, A.M. (2011). Effect of cooking on physical and sensory properties of fresh yellow alkaline noodles prepared by partial substitution of wheat flour with soy protein isolate and treated with cross-linking agents. *International Journal of Food Sciences and Nutrition*, **62**(4): 410-417.

Yew, S.E., Lim, T.J., Lew, L.C., Bhat, R., Mat-Easa, A., & Liong, M.T. (2011). Development of a probiotic delivery system from agrowastes, soy protein isolate, and microbial transglutaminase. *Journal of Food Science*, **76**(3): H108-H115.

Ramli, S., Ismail, N., Alkarkhi, A.F.M., & Easa, A.M. (2010). The use of principal component and cluster analysis to differentiate banana peel flours based on their starch and dietary fibre components. *Tropical Life Science Research*, **21**(1): 91-100.

Wai, W.W., Alkarkhi, A.F.M., & Easa, A.M. (2010). Comparing biosorbent ability of modified citrus and durian rind pectin. *Carbohydrate Polymers*, **79**(3): 584-589.

Wai, W.W., Alkarkhi, A.F.M., & Easa, A.M. (2010). Effect of extraction conditions on yield and degree of esterification of durian rind pectin: An experimental design. *Food and Bioproducts Processing*, **88**(2-3): 209-214.



# Anyway, it was never about me in the first place!

Abbas, F.M.A., Saifullah, R. & Azhar, M.E. (2009). Assessment of physical properties of ripe banana flour prepared from two varieties: Cavendish and Dream banana. *International Food Research Journal*, **16**: 183-189.

Abbas, F.M.A., Saifullah, R., & Azhar, M.E. (2009). Differentiation of ripe banana flour using mineral composition and logistic regression model. *International Food Research Journal*, **16**: 83-87.

Alkarkhi, A.F.M., Ahmad, A., & Easa, A.M. (2009). Assessment of surface water quality of selected estuaries of Malaysia: Multivariate statistical techniques. *Environmentalist*, **29**(3): 255-262.

Alkarkhi, A.F.M., Ismail, N., Ahmed, A., & Easa, A.M. (2009). Analysis of heavy metal concentrations in sediments of selected estuaries of Malaysia - A statistical assessment. *Environmental Monitoring and Assessment*, **153**(1-4): 179-185.

Alkarkhi, A.F.M., Ramli, S.B., & Easa, A.M. (2009). Application of multivariate statistical techniques for differentiation of ripe banana flour based on the composition of elements. *International Journal of Food Sciences and Nutrition*, **60**(4): 116-125.

Biglari, F., Alkarkhi, A.F.M., & Easa, A.M. (2009). Cluster analysis of antioxidant compounds in dates (*Phoenix dactylifera*): Effect of long-term cold storage. *Food Chemistry*, **112**(4): 998-1001.

Fung, W.Y., Woo, Y.P., Wan-Abdullah, W.N., Ahmad, R., Easa, A.M., & Liong, M.T. (2009). Benefits of probiotics: Beyond gastrointestinal health. *Milchwissenschaft*, **64**(1): 17-21.



Gan, C.Y., Alkarkhi, A.F.M., & Easa, A.M. (2009). Using response surface methodology to optimize process parameters and cross-linking agents for production of combined-cross-linked bovine serum albumin gels. *Journal of Bioscience and Bioengineering*, **107**(4): 366-372.

Gan, C.Y., Cheng, L.H., Azahari, B., & Easa, A.M. (2009). In-vitro digestibility and amino acid composition of soy protein isolate cross-linked with microbial transglutaminase followed by heating with ribose. *International Journal of Food Sciences and Nutrition*, **60**(7): 99-108.

Gan, C.Y., Cheng, L.H., & Easa, A.M. (2009). Assessment of cross-linking in combined cross-linked soy protein isolate gels by microbial transglutaminase and Maillard reaction. *Journal of Food Science*, **74**(2): C141-C146.

Gan, C.Y., Cheng, L.H., Phuah, E.T., Chin P.N., Alkarkhi, A.F.M., & Easa, A.M. (2009). Combined cross-linking treatments of bovine serum albumin gel beadlets for controlled-delivery of caffeine. *Food Hydrocolloids*, **23**(5): 1398-1405.

# The most challenging task was to put a product on the shelves, to commercialize, to create jobs...

Gan, C.Y., Latiff, A.A., Cheng, L.H., & Easa, A.M. (2009). Gelling of microbial transglutaminase cross-linked soy protein in the presence of ribose and sucrose. *Food Research International*, **42**(10), 1373-1380.

Gan, C.Y., Ong, W.H., Wong, L.M., & Easa, A.M. (2009). Effects of ribose, microbial transglutaminase and soy protein isolate on physical properties and in-vitro starch digestibility of yellow noodles. *LWT - Food Science and Technology*, **42**(1): 174-179.

Goh, T.B., Liong, M.T., & Easa, A.M. (2009). Using soy protein isolate/glucose edible films to protect fish oil from lipid oxidation. *Asian Journal of Food Agro-Industry*, **2**(3): 342-350.

Liong, M.T., Easa, A.M., Lim, P.T., & Kang, J.Y. (2009). Survival, growth characteristics and bioactive potential of *Lactobacillus acidophilus* in a soy-based cream cheese. *Journal of the Science of Food and Agriculture*, **89**(8): 1382-1391.

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