

Curriculum Vitae

RAJA ARIEF DELI BIN RAJA NASHARUDDIN

Food Science & Technology Research Centre
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Education

- 2011 - 2013 **Universiti Sains Malaysia**
Minden, Penang
Master of Science in Food Technology
- 2002 – 2005 **Universiti Malaysia Sabah**
Kota Kinabalu, Sabah
Bachelor of Science (Hons) in Food Science
- 2001 – 2002 **Negeri Sembilan Matriculation College**
Kuala Pilah, Negeri Sembilan
- 1999 – 2000 **Malay College Kuala Kangsar**
Kuala Kangsar, Perak
- 1996 – 1998 **Sekolah Menengah Agama Kuala Lumpur**
Kepong, Kuala Lumpur

Work Experience

- 2014 - 2020 **Malaysian Agricultural Research and Development Institute (MARDI)** Serdang, Selangor
* Senior Research Officer in Nutrition & Food Safety Programme, Food Science & Technology Research Centre, MARDI
- 2006 – 2013 * Research Officer in Food Microbiology Analysis Laboratory, Technical Services Centre, MARDI
- 2005 – 2006 **DUMEX (Malaysia) Sdn. Bhd.**
Nilai, Negeri Sembilan
* Lab Analyst in Quality Control Department, DUMEX Plant

Relevant Experience

DUMEX

- Quality control testing (physical, chemical and microbiology) for milk raw materials, packaging items, in-process samples (production line for can and pouch line), finished product samples including customer complaint investigation, sensory and shelf study for DUMEX R&D
- Plant and environmental swabbing including *Salmonella* monitoring

MARDI

- Conduct food safety research on key areas in development of new methods for food analysis and authentication. Including, food microbiology risk assessment, toxicology, predictive microbiology, emerging food pathogens, pathogen inactivation.
- Coordinated MS ISO/IEC 17025 accredited food microbiology analysis laboratory. Scope of test on processed-food samples includes Total Plate Counts, Yeast & Mould Counts, Water Activity, pH, Sporeformers (mesophilic and thermophilic), *Coliforms*, *E. coli* (3-MPN & 5-MPN), *Staphylococcus aureus* Counts, *Salmonella*, *Bacillus cereus* Counts, Incubation Test, Commercial Sterility Test. Participated in interlaboratory Proficiency Testing (organized by Jabatan Kimia Malaysia) and involved in culture maintenance, purity checks, equipment calibrations and technical writing of Standard Operating Procedure, Working Instruction including Bench Manual
- MS ISO 9001: 2015 and MS ISO/IEC 17025: 2015 Technical Auditors
- GMP and HACCP Lecturer for MARDI-MOH Technical Courses

Professional Affiliations

2018 – 2020 Vice President, Malaysian Institute of Food Technology (MIFT)

2016 – 2018 Honorary Secretary, Malaysian Institute of Food Technology (MIFT)

Lifetime Member, Malay College Old Boys Association (MCOBA)

Lifetime Member, Malaysian Society For Microbiology (MSM)

Member, Persatuan Kakitangan Kanan MARDI (MASSA)

Member, Persatuan Islam MARDI (IMAN)

Official and Technical Achievement

2019-2020 Assistant Officer for Deputy Director General (Development & Operational)
Director General Office of MARDI

2020 Head Organising Committee for MIFT Factory Visit to Kawan Food Berhad

2019 Malaysia Representative for Federation of Institutes of Food Science and
Technology of ASEAN (FIFSTA) at Bangkok, Thailand

2019 Development of Malaysian Standards MS 1480: 2019 Food Safety
According to HACCP (Second Revision) with Department of Standards

- Malaysia (Published)
- 2019 Development of Malaysian Standards MS 1500: 2019 Halal Food: General Requirements (Third Revision) with Department of Standards Malaysia (Published)
- 2019 Head Organizing Committee for MIFT Product Innovation Award (PIA) 2019 (National Level)
- 2019 Signatory (Microbiologist) for MARDIPack (MARDI One Stop Centre for Food Packaging and Design Programme)
- 2019 Lead Auditor for MS ISO 9001: 2015, Proses Penyelenggaraan Jentera & Peralatan Ladang (AM/P02) at MARDI Serdang
- 2019 Technical Auditors for MS ISO/IEC 17025: 2015 for Food Microbiology Analysis Laboratory MARDI at MARDI Serdang
- 2019 Organizing Committee for MIFT Factory Visits to F&N Dairies Berhad and Bangi Golf Resorts Central Kitchen
- 2019 Rapporteur for Bengkel Penetapan Menu Malaysia (MOA) at Bangi Resorts
- 2018 Malaysia Representative for Federation of Institutes of Food Science and Technology of ASEAN (FIFSTA) at Bangkok, Thailand
- 2018 Emcee and MARDI Technical Committee for 3rd ASEAN Microbial Biotechnology Conference at Pullman Hotel, Kuching, Sarawak
- 2018 Lecturer for Slot Teknikal Agropreneur Muda MARDI (AGORA) Zon Tengah Serdang (Usahawan Industri Kecil Sederhana under Geran Agropreneur Muda - GAM)
- 2018 Liaison Officer (LO) for International Workshop on Fostering Increased Engagement and Capacitating The Youth on Agri-Entrepreneurship (FFTC-PCAARRD-MARDI)
- 2018 Rapporteur for The 49th Meeting Of The ASEAN Sub-Committee On Food Science And Technology (SCFST-49)
- 2018 Development of Malaysian Standards MS 1125: 2018 Meat Frankfurters – Specification (Second Revision) with SIRIM STS Sdn. Bhd. (Published)
- 2018 Development of Malaysian Standards MS 1126: 2018 Meat Burgers – Specification (Second Revision) with SIRIM STS Sdn. Bhd. (Published)
- 2018 Lead Auditor for MS ISO 9001: 2015, Proses Pelesenan Teknologi MARDI (TS/P06) at MARDI Serdang
- 2017–2018 Technical Auditor for MS ISO/IEC 17025: 2005 for Food Microbiology Analysis Laboratory in UNIPEQ Universiti Kebangsaan Malaysia (UKM)
- 2017-2018 Lecturer for Food Microbiology Analysis at Inkubator Teknologi Makanan MARA (INTEM-MARA) Kepong, Kuala Lumpur under MARDI Holdings
- 2017 Lecturer for Kursus Pemprosesan dan Pembungkusan Makanan bagi Industri Kecil dan Sederhana (IKS) Selangor under MARDI Selangor and NBOS
- 2016–2018 Organizing Committee for MIFT Factory Visits to Secret Recipe, Chocolate Museum, Food Aid Foundation Central Kitchen, Malaysian Palm Oil Berhad (MPOB), Dewina Food Industries and Interflour Sdn. Bhd.
- 2016 Poster Award (Consolation) for The 14th Symposium of Malaysian Society of Applied Biology (MSAB)
- 2016 Lecturer for Good Manufacturing Practices (GMP) and Halal in Food Processing & Food Law and Regulations: Philippines and Regional,

- Technical Training on Food Processing for Southern Philippines, Davao City, Philippines in collaboration with MARDI Holdings, Malaysian Technical Cooperation Programme (MTCP) and Consulate General of Malaysia
- 2016 Liaison Officer (LO) for Malaysian Agriculture, Horticulture and Agrotourism (MAHA) 101: Intro into Asia Leading Agri Expo MAEPS
- 2016 Liaison Officer (LO) for The 33rd Food And Agriculture Organization Of The United Nations Regional Conference For Asia And The Pacific at Putrajaya International Convention Centre (PICC)
- 2016-2018 NKEA Project EPP1: Evaluation Of Post Harvest Quality And Safety Of Misai Kucing (*Orthosiphon staminues*) Towards Development Of Standard Operating Procedures (SOP)
- 2015 Anugerah Perkhidmatan Cemerlang (APC) MARDI-MOA
- 2015 Sub-Project Leader for MARDI Projects, Centre Of Excellence For Aquaculture And Food Products Processing: The Potential Of High Pressure Processing For Fruit Puree (P21003001590001-2015-C)
- 2014 Gold Medal in Malaysian Agricultural Innovation Challenge (MAGIC) 2014
- 2014 Gold Medal (Knowledge Category): MSTE 2014 (*Salmonella* Traceability: A Proactive Approach) Poster Presentation
- 2014 Winner for MIFT-Mead Johnson Nutrition Postgraduate Food Safety Research Competition (*Salmonella* Superbugs: The Silent Invaders)
- 2014 Lecturer for Kursus Jaminan Kualiti dan Keselamatan Jaminan Makanan (Jabatan Penjara) organized by MARDI
- 2014 Project Leader for MARDI Short Term Grant (JP-RF-0476) Potential Of *Bdellovibrio* As Biocontrol Bacteria Against Pathogenic *Salmonella* Species
- 2013 Gold Medal (Knowledge Category): MSTE 2013 (*Salmonella* Superbugs The Silent Invaders)
- 2010 Lecturer on Good Manufacturing Practices (GMP) Untuk Industri Pemprosesan Makanan (ANGKASA, LPP, RISDA) organized by MARDI
- 2010 Lecturer on Pre-Requisite to HACCP Implementation (LKIM, ANGKASA) organized by MARDI
- 2010 Qualified as MS ISO/IEC 17025 Signatory for Food Microbiology Analysis Laboratory Test Report by Department of Standards Malaysia
- 2010 Project Leader for MARDI Short Term Grant (JP-RT-0300): Method Validation For Hydroxyproline Determination For Halal Compliance
- 2009 Project Leader for MARDI Short Term Grant (JP-RT-0179): Halal Determination Of Sausage Casings Sold In Malaysia. Status: Completed
- 2009 Attended and passed in written examination: Course On HACCP – Verification And Auditing (MARDI-MOH)
- 2009 Attended and passed in written examination: Course on HACCP and Its Implementation (MARDI-MOH)
- 2008 Received MS ISO/IEC 17025: 2005 Extension of Certificate for MARDI Laboratories until 29 January 2012
- 2008 Participated in National Proficiency Testing (*Salmonella*) organized by Jabatan Kimia Malaysia (Satisfactory Results Representing MARDI)

- 2008 Achieved Overall Band Score 7.0 in International English Language Testing System organized by British Council IDP IELTS Australia, University of Cambridge (ESOL Examinations)
- 2005 Best Student Award - Successfully followed Quality Development Modul Programme for 1 year on part-time basis (University Putra Malaysia jointly organized with DUMEX (Malaysia) Sdn. Bhd.)

Publication

1. Raja Arief Deli, R.N., Siah, W.M., Aida, M., Ashahida, A. (2019) Penilaian Mikrobiologi Daging Salai Bersalut Salutan Antimikrob. Buletin Teknologi MARDI, Bil.17 (2019): 67-74. Buletin Teknologi
2. Raja Arief Deli, R.N., Siah, W.M., Aida, M., Ashahida, A. (2019) Microbiological Quality of Smoked Fish Coated with Antimicrobial Coating. 2nd International Food Research Conference, 27-29 August 2019, The Everly Hotel, Putrajaya (IFRC 2019:127-075). Kertas Seminar Teknikal (Poster Presenter)
3. Raja Arief Deli, R.N., (2019) Pengurusan Sisa Makanan (GMP). Kursus Dalam Pengukuhan Ilmu Pegawai & Kakitangan Pusat FT, MARDI Serdang. Nota Kursus (Lecturer)
4. Raja Arief Deli, R.N., (2019) Kawalan Makhluk Perosak (GMP). Kursus Dalam Pengukuhan Ilmu Pegawai & Kakitangan Pusat FT, MARDI Serdang, Nota Kursus (Lecturer)
5. Raja Arief Deli, R.N., Noor Ismawaty, N. (2018) Evaluation of Antibacterial Property of Misai Kucing (*Orthosiphon stamineus*) at Different Plant Parts and Maturity Stages in Serdang. 3rd ASEAN Microbial Biotechnology Conference 2018, 24-26 April 2018, Kuching, Sarawak. Artikel Dalam Prosiding (Poster Presenter)
6. Raja Arief Deli, R.N., Noor Ismawaty, N., Aida, M. (2018) Penilaian mikrobiologi bagi kualiti lepas tuai misai kucing. Buletin Teknologi MARDI Bil. 14 (2018): 39-44. Buletin Teknologi
7. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Autoclave. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Autoclave, page 1-7. Laboratory Equipment Operation Instruction
8. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Biological Safety Cabinet. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Biological Safety Cabinet, page 1-4. Laboratory Equipment Operation Instruction
9. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Drying Oven. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Autoclave, page 1-9. Laboratory Equipment Operation Instruction
10. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Electric Burner. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Electric Burner, page 1-3. Laboratory Equipment Operation Instruction
11. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Heater & Stirrer. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Heater & Stirrer, page 1-3. Laboratory Equipment Operation Instruction

12. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Incubator. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Incubator, page 1-5. Laboratory Equipment Operation Instruction
13. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Microscope. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Microscope, page 1-5. Laboratory Equipment Operation Instruction
14. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Vertical Laminar Flow. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Vertical Laminar Flow, page 1-4. Laboratory Equipment Operation Instruction
15. Raja Arief Deli, R.N. (2018) Lab Manual Instruction Water Bath. Kerjasama MARDI Holdings dan Inkubator Teknologi Makanan (INTEM) MARA, LMI Water Bath, page 1-4. Laboratory Equipment Operation Instruction
16. Raja Arief Deli, R.N., Frederick, A., Syahrin, S. (2017) Keberkesanan beberapa kaldu pengkayaan dan media selektif dalam pemencilan *Salmonella* daripada ayam tua dan persekitarannya. Buletin Teknologi MARDI Bil. 11 (2017): 1-8. Buletin Teknologi
17. Raja Arief Deli, R.N., Frederick, A. (2017) Prevalence and antibiotic resistance of *Salmonella* serovars isolated from spent hens and it environmental samples in Penang and Kedah, Malaysia. *J. Trop. Agric. and Fd. Sc*, 45(1)(2017): 37-50. JTAFS (berwasit)
18. Raja Arief Deli, R.N., Hasimah, H.A. (2017) New Technology For Enhancing Food Safety: High Pressure Processing. MARDI Science & Technology Exhibition (MSTE) 2017, 18-19 September 2017, MAEPS, Serdang. Kertas Seminar Teknikal (Poster Presenter)
19. Raja Arief Deli, R.N., Hasimah, H.A. (2016). Efficiency of High Pressure Processing for Inactivation of *Escherichia coli* and *Staphylococcus aureus* in Pineapple Puree. The 14th Symposium of Malaysian Society of Applied Biology (MSAB), 29-31 May 2016, Melaka. Artikel Dalam Prosiding (Poster Presenter) (Won Consolation Prize)
20. Raja Arief Deli, R.N. (2016) Basic in Good Manufacturing Practices (GMP) and Halal in Food Processing. Technical Training on Food Processing for Southern Philippines, 28 August 2016 – 7 September 2016, Davao City, Philippines. Kertas Seminar Teknikal (Lecturer)
21. Raja Arief Deli, R.N. (2016) Food Law and Regulations: Philippines and Regional. Technical Training on Food Processing for Southern Philippines, 28 August 2016 – 7 September 2016, Davao City, Philippines. Kertas Seminar Teknikal (Lecturer)
22. Raja Arief Deli, R.N. (2016) Preservation of Microorganisms and Quality Management. Kursus ‘Hands On Training on Microbial Preservation Techniques’, 24-26 May 2016, MARDI Serdang. Kertas Seminar Teknikal (Lecturer)
23. Raja Arief Deli, R.N. (2016) Seminar on Food Safety. Seminar on Food Safety 2016, 18-19 May 2016, Kuala Lumpur. Kertas Seminar Teknikal (Oral Presenter).
24. Adzitey, F., Rusul, G., Raja Arief Deli, R.N. (2015) Characterization of *Salmonella* Typhimuriun, *Salmonella* Enteritidis and *Salmonella* Albany Isolated from Chickens and Ducks using Random Amplified Polymorphic DNA (RAPD)-

- PCR. *Journal of Microbiology, Immunology and Biotechnology*, 2015 (Vol. 2): Pages 15-21, Jakraya Publications (P) Ltd. Jurnal Antarabangsa
25. Raja Arief Deli, R.N. (2015) Food Safety and Quality Standards for Market Access. Majlis Syarahan Perdana Kolokium MARDI. Kertas Seminar Teknikal (Oral Presenter)
 26. Raja Arief Deli, R.N. (2015) Malaysia: A Case Study on Food Safety and Quality Standards. International Training Course On Food Safety And Quality Standards for Market Access, 12-17 January 2015, Islamabad, Pakistan. Kertas Seminar Teknikal (Oral Presenter)
 27. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A., Adzitey, F. (2015) Risk of *Salmonella* Serovars In Eggs and Culled Layers. The International Congress of The Malaysian Society For Microbiology 2015 (ICMSM). Artikel Dalam Prosiding (Poster Presenter)
 28. Adzitey, F., Raja Arief Deli, R.N., Saba, C.S.K. (2014) Characterization of *S. Typhimurium*, *S. Enteritidis* and *S. Albany* Isolated from Chickens and Ducks using Repetitive Extragenic Palindromic (REP)-PCR. *Ghana Journal of Science, Technology and Development*, Vol. 1, Issue 1, October 2014. Jurnal Antarabangsa
 29. Adzitey, F., Rusul, G., Huda, N., Raja Arief Deli, R.N. (2014) Microbiological Quality of Culled Chicken Layers in Penang, Malaysia. *Veterinary World*, EISSN: 2231-0916, Vol. 7, July 2014. Jurnal Antarabangsa
 30. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A. (2014) Prevalence, Antibiotic Resistance and Relative Risk of *Salmonella* Serovars in Eggs and Culled Layers. MSc. Thesis. Universiti Sains Malaysia. April 2014, Penang. Tesis
 31. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A. (2014) *Salmonella* Superbugs: The Silent Invaders. Malaysian Institute of Food Technology – Mead Johnson Nutrition Post Graduate Food Safety Research Award Competition. June 2014, Subang Jaya, Selangor. Food Safety Research Competition (Won Best Student Award)
 32. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A., Adzitey, F. (2014) *Salmonella* Traceability: A Proactive Approach. MARDI Science and Technology Exhibition (MSTE), 4-5 November 2014, MAEPS Serdang, Selangor. Kertas Seminar Teknikal (Won Gold Medal)
 33. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A., Adzitey, F. (2014) *Salmonella* Traceability: A Proactive Approach. Malaysian Agricultural Innovation Challenge (MAGIC), 6-8 November 2014, MAEPS Serdang, Selangor. Kertas Seminar Teknikal (Won Gold Medal)
 34. Raja Arief Deli, R.N., Rusul, G. (2014) Tracing Possible Cross Contamination of *Salmonella* Serovars in Culled Layers and Eggs Using RAPD-PCR. 26th VAM Congress, 20-22 June 2014, Putrajaya. Artikel Dalam Prosiding (Poster Presenter)
 35. Raja Arief Deli, R.N., Rusul, G. (2014) Tracing Possible Cross Contamination of *Salmonella* Serovars in Culled Layers and Eggs Using RAPD-PCR. *Malaysian Journal of Veterinary Research*, 2014 (Vol. 5, Suppl. 1), ISSN: 2180-3897. Jurnal Tempatan
 36. Raja Arief Deli, R.N., Rusul, G. (2013) *Salmonella* Superbugs: The Silent Invaders. MARDI Science and Technology Exhibition (MSTE), 1-2 October 2013, MAEPS, Serdang, Selangor. Kertas Seminar Teknikal (Won Gold Medal)

37. Raja Arief Deli, R.N., Noor Shaeda, I. (2013) Analisis Makanan dan Pertanian – Panduan untuk Juruteknik Makmal: Bab Analisis Mikrobiologi Makanan untuk Rujukan Kenaikan Pangkat Secara Lantikan (KPSL) MARDI. Bab dalm Buku
38. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A. (2013). Prevalence and Antibiotic Resistance Among *Salmonella* Serovars Isolated From Culled Layers And Eggs In Malaysia. The 8th Food Science and Technology Seminar at Universiti Sultan Zainal Abidin, 15-16 March 2013, Terengganu. Artikel Dalam Prosiding (Poster Presenter)
39. Raja Arief Deli, R.N., Rusul, G., Abbas, F.M.A. (2012). Prevalence Of *Salmonella* Serovars In Culled Layers And Eggs In Penang And Kedah, Malaysia. The 5th International Seminar Of Indonesian Society For Microbiology (ISISM) at Manado, Indonesia. Artikel Dalam Prosiding (Oral Presenter)
40. Raja Arief Deli, R.N., Noor Shaeda, I. (2010). Animal-based Products: Incubating Food Safety Issues. The 4th International Conference On Animal Nutrition (ICAN), 21-23 September 2010, PERSADA Johor International Convention Centre. Artikel Dalam Prosiding (Poster Presenter)
41. Raja Arief Deli, R.N. (2010) Eksesais Kualiti Makmal: MS ISO/IEC 17025: 2005 Surveillance Audit. Berita Korporat MARDI
42. Raja Arief Deli, R.N. (2009) Lawatan Kerja Delegasi MARDI ke Halal Industry Development Corporation (HDC). Berita Korporat MARDI
43. Raja Arief Deli, R.N. (2009) Lawatan Kerja Delegasi MARDI ke Institut Penyelidikan Veterinar, Ipoh. Berita Korporat MARDI
44. Raja Arief Deli, R.N. (2009) Lawatan Pegawai Kementerian Kesihatan Malaysia (MOH) Dan UNIPEQ Ke Makmal Analisis Mikrobiologi Makanan MARDI. Berita Korporat MARDI
45. Raja Arief Deli, R.N. (2009) Keperluan Perkhidmatan Analisis Makanan dan Pertanian bagi Usahawan Industri Kecil dan Sederhana (IKS) Negeri Sabah. Berita Korporat MARDI
46. Raja Arief Deli, R.N. (2008) Latihan Sangkut Di Makmal TS: Satu Tanggungjawab Sosial. Agromedia MARDI