

NAME: NOOR HASLIZAWATI ABU BAKAR

PERSONAL DETAIL

Address : MCH 12, Kwarters MARDI Cameron Highlands,
39007 Tanah Rata, Cameron Highlands, Pahang
Mobile Number : +6012 5306847
Email Address : dnhabk@gmail.com
Date of Birth : 12 June 1983
Gender : Female
Nationality : Malaysian
Marital status : Single
Race : Malay
Languages : Malay, English (spoken)
Malay, English (written)

EDUCATION & QUALIFICATIONS

Highest Education

1. Level : **Master of Science**
Major : Natural Products Chemistry
University : Universiti Putra Malaysia
Period of study : Dec 2005-Aug 2009

Project Title : Chemical constituents, bioactivity and HPLC profiling of Microwave- assisted and Normal Extraction of *Murraya koenigii* (L.) Spreng. (Curry leaf tree).

Objective :

1. To extract and isolate the chemical constituents from *Murraya koenigii* (L.) Spreng by using normal and microwave-assisted extraction.
2. To assess the biological activity of crude extracts and isolated compounds through cytotoxicity, antimicrobial, antifungal and larvicidal activity.
3. To compare and develop preliminary profiling of the extracts of microwave-assisted extraction (MAE) and normal extraction (NE) method in terms of rapidity, yield, efficiency and chemical constituents from the crude extracts using High Performance Liquid Chromatography (HPLC).

2. Level : **Bachelor of Science (Hons.) Petroleum Chemistry**
Major : Petroleum Chemistry
University : Universiti Putra Malaysia
Period of study : June 2002-Aug 2005

Final Year Project : Chemical constituents and bioactivity *Zingiber officinale* (L.) (Ginger).

EMPLOYMENT BACKGROUND

1. Company Name : Malaysian Agricultural Research Development Institute (MARDI)
MARDI Cameron Highlands,
Peti Surat 19, Pejabat Pos Tanah Rata,
39007 Cameron Highlands, Pahang.
- Position Held : Research Officer
- Start-End date : 19 September 2011- Current

Job Summary

1. Proposed project R&D
2. Perform research and innovation
3. Manage knowledge resources
4. Manage financial and physical resources
5. Managing human resources
6. Promote, transfer and commercialization of technology

Lab/ Handling Instrument

- Ultra violet-visible spectrophotometer (UV-Vis)
- Atomic Absorbance Spectrometer
- Soil physic Testing
- Electrical Conductivity meter
- pH meter

Journal, Seminar Papers and Posters

1. **Noor Haslizawati A. B.**, Wan Abdullah W. Y., Intan Nadhirah M., Mustafa Kamal H., Abu Bakar O., and Azrizal A. R. (2019). The soil properties in lysimeter plot at MARDI Cameron Highlands. Proceeding of The Soil Science Conference of Malaysia (SOILS 2019), 16-18 April 2019, Equatorial Hotel, Melaka. Page 196-199. ISBN 978-967-16101-1-4
2. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Mohamed Hafeifi, B., Norziana, Z. Z., Illani Zuraihah, I., Mohamad Fakhri, M. and Azrizal A. R. (2019). Feeding preferences of african night crawler of common feed plants in producing vermicompost at integrated organic farm, MARDI Serdang. Proceeding of The Soil Science Conference of Malaysia (SOILS 2019), 16-18 April 2019, Equatorial Hotel, Melaka. Page 192-195. ISBN 978-967-16101-1-4.
3. **Noor Haslizawati Abu Bakar**, Illani Zuraihah Ibrahim, Theeba Manickam, Azrizal Ahmad Rashdi and Abu Bakar Othman (2019). The changes in soil chemical properties under grain corn cultivation using rare earth by-product as soil conditioner for sandy spodosol. Abstract of Regional Corn Conference 2019 (RCC 2019), 26-29 February 2019, Ixoral Hotel, Penang. Page 79.
4. **Noor Haslizawati A. B.**, Mohd Shahid S., Intan Nadhirah, M., Mohamad Fakhri M., Mustafa Kamal H., Azrizal A. R. and Nor Azhar A. (2018). Assessment of agricultural land-use on water quality at Berembun Valley, Cameron Highlands. Proceeding of the 10th International Sysposium on Plant-Soil Interaction at low pH (10th PSILPH 2018),

25-18 June 2018, Palm Garden Hote IOI Resort, Putrajaya. Page 270-273. ISBN 978-978-967-16101.

5. **Noor Haslizawati A. B.**, Mohd Shahid S., Intan Nadhirah, M., Mohamad Fakhri M., Mustafa Kamal H., Azrizal A. R. and Nor Azhar A. (2018). Physiochemical level of water quality in highland agriculture farm at Cameron Highlands. Technical Report 2017: Crop & Soil Science Research Centre, MARDI. Page 218-225.
6. **Noor Haslizawati, A. B.**, Intan Nadhirah M., Nur Liyana I. & Mohamad Fakhri M. (2017). Soil sampling at Racehorse Spelling Station Sdn. Bhd. (RHSS), Ringlet, Cameron Highlands. Proceedings of the International Conference on Sustainable Soil Management (SOILS 2017), 4-7 April 2017, Bintulu, Sarawak. Page 288-292. ISBN 978-967-9945-39-3.
7. **Noor Haslizawati, A. B.**, Intan Nadhirah M., Muhammad Zamir R., Mohamad Fakhri M. & Mustafa Kamal H. (2017). Water quality level in the highland agriculture farm: The concept. Technical Report 2016: Crop & Soil Science Research Centre, MARDI. Page 188-192.
8. **Noor Haslizawati, A. B.** (2017). Tasik Habu: Bencana Kerakusan Manusia!. Newsletter Pusat SS, Ogos 2017, Edisi 3/2017. Muka surat 8.
9. **Noor Haslizawati, A. B.** (2017). Pengalaman menyertai Kursus Latihan Pengurusan Tanah dan Air di Dokki, Mesir. Newsletter Pusat SS, Ogos 2017, Edisi 3/2017. Muka surat 4.
10. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.**, Muhammad Zamir, A. R., Wan Abdullah, W. Y., Mustafa Kamal, H., Mohamad Fakhri, M. (2017). Live staking technique using chinese boxthorn for slope stabilizer in agriculture farm: the concept. Proceedings of the International Conference on Sustainable Soil Management (SOILS 2017), 4-7 April 2017, Bintulu, Sarawak. ISBN 978-967-9945-39-3. pp 111-113.
11. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.**, Muhammad Zamir, A. R., Wan Abdullah, W. Y. Status Of Soil Loss And Surface Runoff From Berembun Valley, Mardi Cameron Highlands From July Until December 2016 (2017). Technical Report 2016: Crop & Soil Science Research Centre MARDI. p 181-187
12. **Noor Haslizawati, A. B.**, Dayang Safinah N., Intan Nadhirah M., Mohamad Fakhri M., Wan Abdullah W. Y. & Abdul Razak H. (2016). Fertilizer management on yacon plant. Proceeding of Soil Science Conference of Malaysia (SOILS 2016), 5-7 April 2016, Kuala Terengganu, Terengganu, Malaysia. Page 237-241.
13. **Noor Haslizawati, A. B.**, Intan Nadhirah, M. & Wan Abdullah, W. Y. (2016). Sedimentation and Water Quality in Tasik Habu, Cameron Highlands. ScientiaMARDI, September 2016, Vol 008. Page 3.
14. **Noor Haslizawati A.B.**, Dayang Safinah, N., Intan Nadhirah M., Ganisan K., Theeba M., and Mohamad Fakhri M. (2016). Evaluation of crop-site specific fertilizer recommendation for various selected crops and locations. Technical Report 2015: Crop & Soil Science research Centre, MARDI. Page 173-179.

15. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.**, Wan Abdullah, W. Y., Mohamad Zabawi, A. G., Mustafa Kamal, H., Mohamad Fakhri, M. How Rainfall Amount and Intensity Affect Erosion in Cameron Highlands Vegetable Plot (2016). Proceeding of the Soil Science Conference of Malaysia 2016, 5-7 April 2016, Kuala Terengganu, Terengganu, Malaysia. p.242-246
16. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.** dan Wan Abdullah, W. Y. Penghasilan Vermikompos Menggunakan Bahan Sisa Buangan Pertanian. Buletin Teknologi MARDI Bil. 10 (2016). p.29-35
17. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Wan Abdullah, W. Y. Plants as Erosion Control Mechanism (2016). ScientiaMARDI, September 2016, Vol: 008. p.3
18. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.**, Mohamad Zabawi, A. G. Study of the effects of rainfall on soil erosion and its adaptation methods in Cameron Highlands (2016). Technical Report 2015: Crop & Soil Science Research Centre MARDI. p.149-153
19. Dayang Safinah, N., **Noor Haslizawati A.B.**, Intan Nadhirah M., Abdul Razak, H. (2016). Precision nutrient management for export quality chrysanthemum: Soil nutrient status in relation to plant uptake. Journal of Tropical Agriculture and Food Science 44(1): 39 – 48
20. Dayang Safinah, N., **Noor Haslizawati A.B.**, Intan Nadhirah M., Abdul Razak, H. Precision Nutrient Management for Export Quality Chrysanthemum: Fertilizer Recommendation Method Based On Crop Nutrients Requirement, Journal of Tropical Agriculture and Food Science (JTAFS)
21. Ganisan K., **Noor Haslizawati A.B.**, Dayang Safinah N., Mohamad Fakhri M. and Hafilah B. (2016). Development and testing of bio-mineral fertiliser for highland cabbage. Abstract of Southeast Asian Vegetable Symposium (SEAVEG) 2016, 2016, 6-8 September 2016, Marriott Hotel Putrajaya, Malaysia, page 74.
22. Ganisan K., **Noor Haslizawati A.B.**, Dayang Safinah N., Mohamad Fakhri M. and Hafilah B. (2016). Development and Testing of Bio-Mineral Fertiliser for Highland Cabbage Production. Technical Report SS 2015, page 294-296.
23. Dayang Safinah N., **Noor Haslizawati A.B.** and Ganisan K. (2016). Effects of various bio mineral fertilizer formulations on nutrients uptake of cabbage, Technical Report SS 2015, page 323-327.

24. Dayang Safinah N., **Noor Haslizawati A.B.** and Theeba M. (2016). Effect of organo-mineral fertilizer on nutrients uptake of cabbage. Abstract of Southeast Asian Vegetable Symposium (SEAVEG) 2016, 6-8 September 2016, Marriott Hotel Putrajaya, Malaysia, page 75.
25. Erny Sabrina M.N., Dayang Safinah, N. and **Noor Haslizawati A. B.** (2016). Nutritional value, chemical composition and antioxidant activity of *Smallanthus sonchifolia* cultivated in Malaysia. Southeast Asian Vegetables Symposium, 6-8 September 2016, Putrajaya, Malaysia, Southeast Asian Vegetables Symposium, 6-8 September 2016, Putrajaya, Malaysia, page 21-22.
26. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.**, Wan Abdullah, W. Y., Mohamad Zabawi, A. G., Mustafa Kamal, H., Mohamad Fakhri, M. How Rainfall Amount and Intensity Affect Erosion in Cameron Highlands Vegetable Plot (2016). Proceeding of the Soil Science Conference of Malaysia 2016, 5-7 April 2016, Kuala Terengganu, Terengganu, Malaysia. p.242-246
27. Intan Nadhirah, M., Mohamed Hafeifi, B., **Noor Haslizawati, A. B.** dan Wan Abdullah, W. Y. Penghasilan Vermikompos Menggunakan Bahan Sisa Buangan Pertanian. Buletin Teknologi MARDI Bil. 10 (2016). p.29-35
28. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Mohamed Hafeifi, B., Wan Abdullah, W. Y., Mat Ti, O., Mohamad Fakhri, M., Jamaludin, I., Mohd. Isa, A. Vermikompos di Taman Agroteknologi MARDI Cameron Highlands (2015). Buku Abstrak Seminar Kebangsaan Pertanian Organik, 2-3 Jun 2015, Alor Setar, Kedah, Malaysia. p.35-36
29. Dayang Safinah, N., **Noor Haslizawati A.B.**, Intan Nadhirah M., Abdul Razak, H. (2015). Biomass, tuberous yield, and nutrient uptake of yacon (*Smallanthus sonchifolius*) as influenced by soil types. Proceedings of The Soil Science Conference of Malaysia 2015, 7-9 April 2015, Putrajaya, page 235-239.
30. **Noor Haslizawati Abu Bakar** dan Intan Nadhirah Masri (2015). HABU SEDI-GROW: Potensi sedimen sebagai alternatif media tanaman. Malaysian Agriculture Invention Show (MAgIS) 2015, 20-21 Oktober 2015, Hall D, MAEPS. Kerjasama dengan Sekolah Kebangsaan Tanah Rata, Cameron Highlands.
31. **Noor Haslizawati, A. B.**, Dayang Safinah N., Intan Nadhirah M., Mohamad Fakhri M., Mat Ti O. & Abdul Razak H. (2014). Evaluation of physiological and morphological of chrysanthemum plants towards fertilizer management. The 13th Symposium Malaysian Society of Applied Biology (MSAB) 2014, 8-10 Jun 2014, Cherating, Pahang. Article ID 2014030
32. **Noor Haslizawati A. B.**, Intan Nadhirah M., Mohamad Fakhri M., Mat Ti O., Wan Abdullah W. Y., Asmadi B., Muhammad Syahren A., and Abdul Razak H. (2014). Evaluation of soil sediment and water quality at Tasik Habu, Cameron Highlands. Proceeding of The Soil Science Conference of Malaysia 2014, 8 - 10 April 2014 at Putra Palace, Kangar, Perlis. pg 19-22.

33. Intan Nadhirah M., **Noor Haslizawati A. B.**, Mat Ti O., Mohamad Fakhri M., Wan Abdullah W. Y., and Abdul Razak H. (2014). Soil loss and surface runoff under different potential plants to minimize erosion in Cameron Highlands. Proceeding of The Soil Science Conference of Malaysia 2014, 8 - 10 April 2014 at Putra Palace, Kangar, Perlis. pg 192-196.
34. **Noor Haslizawati Abu Bakar** (2014). FERTILIZATION TECHNIQUE FOR EXPORT-QUALITY CHRYSANTHEMUM (Nutrient Management for Export-Quality Chrysanthemum). Hari Inovasi MARDI 2014, MARDI Science and Technology Exhibition (MSTE 2014), 3-5 November 2014, Hall D, MAEPS and Malaysian Agricultural innovation Challenge (MAGIC) 2014, 6-8 November 2014, Hall A MAEPS, Serdang.
35. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Mat Ti, O., Mohamad Fakhri, Wan Abdullah, W. Y., and Abdul Razak H. (2014). Soil loss and surface runoff under different potential plants to minimize erosion in Cameron Highlands. Soil Science Conference of Malaysia 2014, 8-10 April 2014, Kangar, Perlis, Page 192-196.
36. Dayang Safinah N., **Noor Haslizawati A.B.** and Intan Nadhirah M. (2016). Nutrients Uptake of Chrysanthemum under Varying Fertilization Programme, Proceeding of the Soil Science Conference of Malaysia 2016, 5-7 April 2016, Kuala Terengganu, Terengganu, Malaysia. Page 301-304.
37. **Noor Haslizawati, A. B.**, Intan Nadhirah M., Dayang Safinah N., Mohamad Fakhri M., Mat Ti O., Wan Abdullah W. Y. & Abdul Razak H. (2015). Cultivation of yacon in BRIS and peat soil at highlands. Proceeding of Soil Science Conference of Malaysia (SOILS 2015), 7-9 April 2015, The Everly Hotel, Putrajaya. Page 240-243.
38. **Noor Haslizawati, A. B.**, Intan Nadhirah M., Wan Mahfuzah W. I., Mohamad Fakhri M., Mat Ti O., Wan Abdullah W. Y., Dayang Safinah N. & Abdul Razak H. (2015). Ubi yacon organik di Taman Agroteknologi MARDI Cameron Highlands Buku Abstrak Seminar Kebangsaan Pertanian Organik (SKOr 2015), 2-3 Jun 2015, Grand Alora Hotel, Alor Setar, Kedah. Poster dan Abstrak, Page 36.
39. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Wan Abdullah, W. Y., Haryati, M., Mohd Yusri, Z., Hairazi, R., Mat Ti, O., Mohamad Fakhri, M., Jamaludin, I., Khasifah, M., Abdul Razak, H. Soil Conservation Using Edible Vegetation (Chinese Boxthorn) on Slope Land Farm in Cameron Highlands (2015). Proceedings of Soil Science Conference of Malaysia, 7-9 April 2015, Putrajaya, Malaysia, p.117-120.
40. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Wan Abdullah, W. Y., Mat Ti, O., Mohamad Fakhri, M., Jamaludin, I., Mohd. Isa, A (2013). Yacon: Potential Crop for Future The 13th Malaysian Symposium of Applied Biology (MSAB) 2014, 8-10 Jun 2014, Cherating, Pahang, Malaysia. Article ID 2014037.

41. Abdul Razak, H., Ganisan, K., Theeba, M., Dayang Safinah, N., and **Noor Haslizawati, A. B.** (2013). Blue Print Research and Development: Fertilizer management technology and nutrient management MARDI 2013, p 71 Buku Panduan Penyelidikan Projek Mega Baja RMK-10
42. Intan Nadhirah, M., **Noor Haslizawati, A. B.**, Abdul Razak, H. (2013). Kaukei: herba berkhasiat Agromedia, Bilangan 40, muka surat 60-61
43. Abdul Razak, H. **Noor Haslizawati, A. B.**, Yacon: Ubi ajaib mula bertapak di Malaysia, Agromedia, Bil. 39 3/2012, pg 46

2. Company Name : Pharmaniaga Research Centre
7, Lorong Keluli 1B,
Kawasan Perindustrian Bukit Raja Selatan,
Seksyen 7,
40000 Shah Alam, Selangor.

Position Held : Executive Analytical Development
Start-End date : 15 July 2010-9 September 2011

Job Summary

Executive Analytical Development in charge for Analytical Method Development, Analytical Method Validation, Stability Studies, Dissolution Profiles, Product Technology Transfer, Finished Product and Raw Material testing for new products. To provide technical support to Quality Assurance (QA), Quality Control (QC), Clinical Affair (CA) and Regulatory Affair (RA) departments as required. To ensure all the activities are conducted in accordance to international standard and requirements as per GMP, Quality, GDP, EHS and ISO 17025.

Lab/ Handling Instrument

- High Performance Liquid Chromatography (HPLC)
- Ultra violet-visible equipment (UV-Vis)
- Thin Layer Chromatography (TLC)
- Autotitrator- Karl Fisher
- Balance
- Dissolution Tester

3. Company Name : Ranbaxy (M) Sdn. Bhd.
Lot 23, Bakar Arang Industrial Estate,
08000 Sungai Petani,
Kedah.

Position Held : QC Chemist
Start-End date : 4 Aug 2008-7 July 2010

Job Summary

Conduct analysis of raw material, in-process, blend, finished product, stability studies samples, trial batches, market surveillance and market complaint samples. Generate Record of Analysis, Certificate of Analysis, Approved and Reject Sticker.

Lab/ Handling Instrument

- High Performance Liquid Chromatography (HPLC)
- Gas Chromatography (GC)
- Fourier Transform Infrared (FT-IR)
- Ultra-violet visible spectrophotometer (UV-Vis)
- Thin Layer Chromatography (TLC)
- Autotitrator- Karl Fisher
- Balance
- pH meter
- Dissolution Tester
- Disintegration Tester
- Malvern Mastersizer 2000

4. Company Name : Chemistry Department, Faculty of Sciences,
Universiti Putra Malaysia,
43400 UPM, Serdang, Selangor.
Position Held : Research Assistant/Demonstrator
Start-End date : Dec 2005- July 2008

Job Summary

Carried out research project by extracting and isolate chemical constituents of *Murraya koenigii* (L.) Spreng. Worked in laboratory to run analyses. Involved teaching / demonstrator in handling lab class for degree students:

Organic Chemistry 4 (CHM3204) 2005 – Dept. Chemistry, UPM

Organic Chemistry (CHM2200) 2005 – Dept. Chemistry, UPM

Polymer chemistry (CHM3102) 2006, 2007 and 2008 – Dept. Chemistry, UPM

Organic Chemistry 1 (CHM3201) 2006 and 2007 – Dept. Chemistry, UPM

Lab/ Handling Instrument

- High Performance Liquid Chromatography (HPLC)
- Fourier Transform Infrared (FT-IR)
- Ultra violet-visible spectrophotometer (UV-Vis)
- Column Chromatography (CC)
- Thin Layer Chromatography (TLC)
- Preparative Thin Layer Chromatography (PTLC)

Publication:**Journals**

1. M.A. Sukari, H.S. Mohd Noor, **N.H. Abu Bakar**, G.C.L. Ee, I.S. Ismail, M. Rahmani and A.B. Abdul (2013). Larvicidal Carbazole Alkaloids from *Murraya koenigii* Against Dengue Fever Mosquito *Aedes aegypti* Linnaeus. *Asian Journal of Chemistry*, Vol. 25, No. 14 (2013), 7719-7721
2. M.A. Sukari, N.Y. Rashid, B.K. Neoh, **N.H. Abu Bakar**, S. Riyanto and G.C.L. Ee (2010). Larvicidal activity of some *Curcuma* and *Kaempferia* rhizome extracts against *Aedes aegypti* Linnaeus (Diptera: Culicidae). *Asian Journal of Chemistry*, (22)10: 7915-7919.

3. M.A. Sukari, **N.H. Abu Bakar**, G.C.L. Ee, M. Rahmani, A.M Sharif and K. Khalid (2007). Chemical constituents of *Murraya koenigii* and its larvicidal activity against *Aedes aegypti*. *Ultra Science*, 19(1): 139-146.
4. **Noor Haslizawati Abu Bakar**, Mohd Aspollah Sukari, Mawardi Rahmani, Atan Md. Sharif, Kaida Khalid and Umi Kalsom Yusuf (2006). Chemical constituents from stem barks and roots of *Murraya koenigii* (Rutaceae). *Malaysian Journal of Analytical Sciences*, 11(1): 173-176.

5. Company Name : Program Latihan Khidmat Negara (PLKN),
Kementerian Pertahanan Malaysia.
Position Held : Invited Speaker
Start-End date : 28 Jan-01 Feb 2008 and 21-25 Apr 2008

Job Summary

Teaching / demonstrator in handling class for PLKN under Integration Program.

REFEREE(S)

1. PROF. DR. MOHD. ASPOLLAH BIN HJ. SUKARI

Lecturer and my supervisor,
Chemistry Department, Faculty of Science,
Universiti Putra Malaysia,
43400 UPM, Serdang, Selangor Darul Ehsan.
Email: aspollah@scienc.upm.edu.my
Tel: +603-89466797
Fax: 603-89435380

2. MR. AZHAR JAMALUDDIN

QC Manager
Ranbaxy (M) Sdn Bhd,
Lot 23, Bakar Arang Industrial Estate.
08000 Sungai Petani, Kedah.
E-mail: Azhar.Jamaluddin@ranbaxy.com
Tel: +604-4220660
Fax: 604-4221267

3. MR. GANESH SUBRAMANIAN

Manager of Product Department,
Pharmaniaga Research Centre,
7, Lorong Keluli 1B,
Kawasan Perindustrian Bukit Raja Selatan,
Seksyen 7, 40000 Shah Alam, Selangor.
E-mail: ganesh.subramaniam@pharmaniaga.com
Tel: +603-3002 0000
Fax: 603-3344 5632

4. PN NORZIANA ZIN ZAWAWI

Deputy Director

Soil Science and Water Program (SF1)

Soil Science, Water and Fertilizer Research Centre (SF)

Malaysian Agriculture Research and Development Institute (MARDI)

P. O. Box 12301, General Post Office

50774 Kuala Lumpur

Phone : +603-8953 6703

Fax : 603-8953 6738