

PERSONAL PARTICULARS

Name : Muhammad Najib bin Othman Ghani
Nationality : Malaysian
Email : najibo@mardi.gov.my
Mobile : +601128823103
Date of Birth : 23 December 1987
Gender : Male



WORK EXPERIENCE

Research Officer, Malaysian Agricultural Research and Development Institute (MARDI)

Agronomy and Production System Programme, Industrial Crop Research Centre (March 2019 – To date)

- Responsibilities:
 - ✓ Establishing efficient and cost effective crop production system for sorghum by optimizing input usage to increase productivity and quality
- Projects involved:
 - ✓ Effects of planting density on fodder yield and quality of different sorghum hybrids
 - ✓ Germination pattern of zygotic and nucellar seedlings in polyembryonic Harumanis mango
 - ✓ Slow release fertilizer for grain corn
 - ✓ Development of sustainable agriculture modelling for grain corn using crop modelling simulation and GIS.
 - ✓ Effects of different maturity stages and desiccation on enhancing seed quality of *Moringa oleifera*
 - ✓ Optimum cutting height and frequency for *Moringa oleifera* to increase biomass yield and quality
 - ✓ Study on effects of rise in temperature and haze on papaya, grain corn, pineapple and jackfruit.

Seed Production and Quality Validation Programme, Genebank and Seed Centre (June 2015 – March 2019)

- Responsibilities:
 - ✓ Planning, supervising and executing production of various fruit crops planting materials in several production sites in Malaysia, in accordance with MS ISO 9001:2015
- Projects involved:
 - ✓ Assessing Drought Stress and *P. palmivora* Tolerance Levels Among Selected Durian Clones for Production of Clonal Durian Rootstock
 - ✓ Effects of Nano Fertilizers on Growth and Physiological Responses of Papaya at Seedling Stage
 - ✓ Study on effective propagation methods for genus *Baccaurea*, *Mangifera* and *Garcinia*
 - ✓ Effects of desiccation on seed quality of *Baccaurea* species

Planting Materials, Seed and Livestock Breed Production Unit (Sept 2011 – June 2015)

- Responsibilities:
 - ✓ Planning, supervising and executing production of various fruit crops planting materials in several production sites in Malaysia, in accordance with MS ISO 9001:2015
- Projects involved:

- ✓ Manipulation of Plant Growth Regulators (PGR) and physical stress in enhancing durian scion production
- ✓ Short-term storage of mango budwood
- ✓ Elucidation of shoot growth subsequent to bud grafting in various durian varieties
- ✓ Organic seed production of long bean.

Tutor, Department of Crop Science, Faculty of Agriculture, UPM (April 2011 – August 2011)

- ✓ Responsibilities: Facilitating lecturers in teaching and practical in laboratory for undergraduate students.

EDUCATIONAL QUALIFICATIONS

Master of Science (Horticulture), Universiti Putra Malaysia (UPM), 2017 – CGPA : 4.00

- Thesis Title: Characteristics of NaCl-Salinized Cucurbits and Impact of Silicon in Alleviating Salt Stress
- Area of research : Plant stress physiology

Bachelor of Agricultural Science (First Class Honors) Universiti Putra Malaysia (UPM), 2010 – CGPA: 3.78

- Thesis Title: Seed Quality of Christmas Palm (*Veitchia merillii*) and King Palm (*Archontophoenix alexandrae*) as Affected by Maturity Stages and Desiccation
- Area of research : Seed Science and Technology

PRACTICAL AND LABORATORY EXPERTISE

- Proficient in experimental design (1, 2 and 3 factorial experiment) especially in the area of plant stress physiology, plant propagation and seed science.
- Capable of handling scientific instruments for data collection such as LI-6400 IRGA XT, Leaf area meter LI-300 and spectrophotometer SHIMADZU UV-1700
- Experienced in analyze and interpretation of scientific data using statistical software such as SAS 9.4, MINITAB, PRISM and MS Excel

COMPETENCIES

- Advanced user of Microsoft Office including Word, Excel, Power Point, Outlook
- Advanced user of SAS Statistical Software, Prism, and Minitab
- Proficiency in English and Bahasa Malaysia, written and spoken.

ASSOCIATIONS/ORGANIZATIONS

- National Seed Association Malaysia (NSAM), Vice Secretary (2016 – To date)
- Malaysia Society of Plant Physiology , Member (2012 – To date)

PUBLICATIONS

1. **Muhammad Najib, O.G.**, Faizah Salvana, A.R., Noor Camellia, N.A., Khadijah, A. and Mohd Shukri, M.A. (2021). Classification of seed storage behaviour for indigenous fruit- rambai and jentik-jentik. In : *MARDI Science and Technology Exhibition (MSTE) 2020 Extended Abstract*. pp 349-351. Penerbit MARDI, Serdang Selangor.
2. **Muhammad Najib O.G.**, Nurhazwani, M., Faizah Salvana, A.R., Halimah, H., Hanim, A., Thiyagu, D., Azimah A.K., Razean Haireen, M.R., Nurul Ain, A., Mohd Fazly, M. and Mohd Syauqi, N. (2021). Forage sorghum production in mineral soils. *MARDI's Technology Bulletin*. (Accepted).
3. **Muhammad Najib O.G.**, Halimah, H., Nurhazwani, M., Faizah Salvana, A.R. and Mashitah, J. (2021). Calibration of SPAD value and leaf photosynthetic pigments concentration in grain corn variety P4546 at vegetative and reproductive stages using correlation and regression analysis. *MARDI's Technology Bulletin*. (Accepted).
4. **Muhammad Najib, O.G.**, Faizah Salvana, A.R., Halimah, H. and Nurhazwani, M. (2020). Viability and vigor of different sorghum hybrid seeds as affected by accelerated ageing test. *Industrial Crop Research Centre Scientific Report 2020*.
5. **Muhammad Najib, O.G.**, Faizah Salvana A.R., Noor Camellia N.A, Khadijah, A. and Mohd Shukri, M.A. (2020). Effects of desiccation on seed quality of two *Baccaurea* species. *Trans. Malaysian Soc. Plant Physiol.* 27, pp 192-197. eISSN 2600-9595.
6. **Muhammad Najib, O.G.**, Siti Zainab, J., Ahmad Hafiz, B., Zul Helmey, M.S. and Izyani, R. (2020). Growth and Physiological Responses of True-to-type Durian Seedlings from Two Species as Affected by Different Cyclic Water Stress. *Trans. Malaysian Soc. Plant Physiol.* 27, pp 70-74. eISSN 2600-9595.
7. **Muhammad Najib, O.G.**, Nurhazwani, M., Halimah, H., Faizah Salvana, A.R., Hanim, A. and Thiyagu, D. (2020). Performance of different forage sorghum varieties as affected by mechanised and semi-mechanised planting density and harvest cycle in mineral soil. In *Programme and Abstract Book 30th Malaysian Society of Plant Physiology (Webinar)*. 17-18 November 2020. pp. 58.
8. **Muhammad Najib, O.G.**, Faizah Salvana, A.R., Noor Camellia, N.A., Khadijah, A. and Mohd Shukri, M.A. (2020). Seed Quality of Two *Baccaurea* Species as Affected by Mucilagenous Seed Coat and Desiccation. *International Journal of Agriculture and Biology* 23 (2): 463-470.
9. **Muhammad Najib, O.G.**, Mohd Shaib, J., Faizah Salvana, A.R., Nur Asyira, A. and Noor Shahira, M.Y. (2019). Bud Initiation and Stem Diameter of *Durio zibethinus* var. D168 as Affected by Stem Bending and Different PGR Treatments. *Trans. Malaysian Soc. Plant Physiol.* 26, pp 246-249. eISSN 2600-9595.
10. **Muhammad Najib, O.G.** (2018). Characteristics of NaCl-Salinized Cucurbits and Impact of Silicon in Alleviating Salt Stress (Thesis Master of Science). Universiti Putra Malaysia, Selangor.
11. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2018). Effects of NaCl salinity on leaf water status, proline and mineral ion content of four *Cucurbitaceae* species. *Australian Journal of Crop Science*, 12(09):1434-1439.
12. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2018). Growth, Ion Contents and Photosynthesis of Salt-sensitive and Less Salt-sensitive Cucurbits Treated with Silicon. *Malays. Appl. Biol.* (2018) 47(2): 25-31.
13. **Muhammad Najib, O.G.** and Mohd Shaib, J. (2018). Viability and Vigour of Mango (*Mangifera indica* L.) var. Chokanan Scionwood as Affected by Different Storage Media and Temperature. *Malaysian Soc. Plant Physiol.* 25, pp 128-131. eISSN 2600-9595.

14. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2018). Assessing Salinity Tolerance Level of Four Cucurbitaceae Species using Growth and Mineral Ion Content (Na^+ and Cl^-) as Indicators. *Malaysian Soc. Plant Physiol.* 25, pp 128-131. eISSN 2600-9595.
15. **Muhammad Najib, O.G.** and Mohd Shaib, J. (2014). Preliminary study on shoot growth subsequent to bud grafting in D168 Durian. *Trans. Malaysian Soc. Plant Physiol.* 22 ISBN 978-967-10840-3-8, pp 190-193.
16. **Muhammad Najib, O.G.**, Uma Rani, S. and Mohd Shaib, J. (2013). Seed Quality of Christmas Palm (*Veitchia merrillii*) as Affected by Desiccation. *Trans. Malaysian Soc. Plant Physiol.* 21, ISBN 978-960-10840-2-4, pp 97-101.
17. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2019). Mineral ion contents of four different Cucurbitaceae species as affected by different levels of NaCl stress at vegetative stage. In Programme and Abstract Book Southeast Asia Vegetable Symposium 2019, Hatten Hotel Melaka, Malaysia. 9-11 July 2019. pp.134.
18. **Muhammad Najib, O.G.**, Faizah Salvana, A.R., Nur Asyira, A., Noor Camellia, N.A. and Khadijah, A. (2018). Preliminary Information on Seed Storage Behavior of *Baccaurea polyneura* (Jentik-jentik). International Scientific Conference on Indigenous Crops, 16-17 October 2018. Kuching, Sarawak, Poster Presentation.
19. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2017). Growth, Ion Contents and Photosynthesis of Salt-sensitive and Less Salt-sensitive Cucurbits Treated with Silicon. International Conference on Recent Advancements in Science and Technology (ICoRAST), 7-9 November 2017. Melaka Raya, Melaka. Oral Presentation.
20. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2017). Impact of Silicon in Alleviating Salinity Stress in *Cucurbitaceae* Species. MARDI Science and Technology Exhibition (MSTE), 18-19 September 2017. Serdang, Selangor.
21. **Muhammad Najib, O.G.**, Yahya, A. and Firdaus, I. (2016). Assessing four *Cucurbitaceae* species for salt-tolerant rootstock using plant growth parameters as indicators. National Seed Symposium, 23-24 August 2016, Sepang, Poster presentation.
22. **Muhammad Najib, O.G.** and Mohd Shaib, J. (2015). Teknologi Penyimpanan Kayu Mata Tunas Mangga Chokanan. Persidangan Kebangsaan Pemindahan Teknologi (CONFERTECH), 7-9 April 2015, Riverside Majestic Hotel, Kuching Sarawak.
23. **Muhammad Najib, O.G.** and Mohd Shaib, J. (2014). Shoot Growth Subsequent to Bud Grafting in Durian (*Durio zibethinus*) clone MasMuar (D168), Beserah (D145), MDUR88 (D190) & Musang King (D197). Seed to seeds : Proceeding of the 8th National Seed Symposium 2014. pp : 72-77.
24. **Muhammad Najib, O.G.** and Mohd Shaib, J. (2014). Improvement for short term storage of Chokanan mango scionwood. MARDI Science and Technology Exhibition MSTE, 3-5 November 2014, Hall D, MAEPS Serdang.
25. **Muhammad Najib, O.G.**, Nurul Atilia Shafienaz, H. and Mohd Shaib, J. (2014). Performance of MKP5 long bean (*Vigna unguiculata* ssp. *sesquipedalis*) grown under organic condition. Agrobiodiversity and Agroenvironment Symposium (ABES), 15-18 September 2014, Kuching Sarawak Malaysia, Poster presentation.
26. **Muhammad Najib, O.G.** and Uma Rani, S. (2012). Germination of Christmas Palm (*Veitchia merrillii*) and King Palm (*Archontophoenix alexandrae*) as affected by seed maturity stages. In Programme and Abstract Book 7th National Seed Symposium, 15-16 Mei 2012, Putrajaya. pp 26.
27. Zul Helmeiy, M. S., **Muhammad Najib, O. G.**, Shahril, A. R., Mashitah, J., Muhamad Hafiz, M. H. and Ahmad Hafiz, B. (2021). Identification of zygotic and nucellar seedling of Harumanis mango through molecular markers and morphological approach. *African Journal of Biotechnology.* 20(2):92-99.

28. Nurhazwani, M., **Muhammad Najib O. G.**, Halimah H., Faizah Salvana A. R., Ahmad Arif L. H., Mohamad Nasrol R., Muhammad Firdaus M. Z., Ahmad Firdaus M., Afiqah A., Nur Alia Maisarah F. (2021). Penilaian Varieti Dan Prestasi Pertumbuhan Sorgum di Tanah Mineral. Kolokium MARDI Pembaikbakaan Tanaman, pp 101.
29. Zul Helmey, M. S., **Muhammad Najib, O. G.**, Shahril, A. R., Mashitah, J., Muhamad Hafiz, M. H. and Ahmad Hafiz, B. (2021). Identification of zygotic and nucellar seedling of Harumanis mango through molecular markers and morphological approach. *In : MARDI Science and Technology Exhibition (MSTE) 2020 Extended Abstract.* pp 302-306. Penerbit MARDI, Serdang Selangor.
30. Faizah Salvana A.R., **Muhammad Najib O.G.**, Halimah, H., Nurhazwani, M., Zaitialia, M., Amyita, W.U., Ahmad Firdaus, M. (2021). Tetrazolium test as a rapid alternative option in determining sorghum seed viability. *MARDI Technology Bulletin (Accepted).*
31. Faizah Salvana A.R., Hanim, A., **Muhammad Najib O.G.**, Halimah, H., Nurhazwani, M., Zaitialia, M., Amyita, W.U., Ahmad Firdaus, M. (2021). Rapid method to determine viability of sorghum seeds. *In : MARDI Science and Technology Exhibition (MSTE) 2020 Extended Abstract.* pp 340-343. Penerbit MARDI, Serdang Selangor.
32. Muhammad Haniff, A., Rohazrin, A.R., Halimah, H., **Muhammad Najib, O.G.**, Mohd Khusairy, K., Mohamad Bahagia, A.G., Adli Fikri, A.S., Saifulizan, M.N. and Muhammad Azamuddin. (2021). *In : MARDI Science and Technology Exhibition (MSTE) 2020 Extended Abstract.* pp 553-556. Penerbit MARDI, Serdang Selangor.
33. Halimah, H., Hanim, A., **Muhammad Najib, O.G.**, Faziah Salvana, A.R., Nurhazwani, M., Noor Halizwati. A.B., Muhammad Syahren. A., Nor Amna A. M., (2020). Amalan Agronomi Jagung Bijian. Kertas Pembentangan. Seminar MARDI-DOA- Memperkasakan Industri Jagung Bijian Negara melalui R&D.
34. Mohd Hairy Azwan, M.B., Norazlina, A.S., **Muhammad Najib, O.G.**, Khairol, I. and Adzmi, Y. (2020). The effect of activated EFB biochar amendment on selected soil chemical properties, arsenic and cadmium concentration. *Proceedings SOILS 2020, Soil Science Conference of Malaysia, October 6-8, 2020, Holiday Villa Johor Bahru.*
35. Faizah Salvana A.R., **Muhammad Najib O.G.**, Halimah, H., Nurhazwani, M., Hanim, A., Zaitialia, M., Amyita, W.U. and Ahmad Firdaus, M. (2020). Evaluation of Sorghum Seed Viability using Tetrazolium Test. *In : Programme and Abstract Book 30th Malaysian Society of Plant Physiology (Webinar).* 17-18 November 2020. pp. 65.
36. Khalisanni, K, **Muhammad Najib, O.G.** and Hartinee, A. (2020). Nanofertilizer-Nitrogen, Phosphorus, and Potassium (NPK) Uptake by Carica papaya var. Sekaki Seedlings. *In : Programme and Abstract Book 30th Malaysian Society of Plant Physiology (Webinar).* 17-18 November 2020. pp. 52.
37. Nurul Atilia Shafienaz, H., **Muhammad Najib, O.G.**, Omar, H. and Amat Jupri, A. (2019). Tuber Yields of Three MARDI Purple Flesh Sweet Potatoes (*Ipomoea batatas* [L.] Lam). Varieties as Affected by Different Age of Planting Material. *Trans. Malaysian Soc. Plant Physiol.* 26, pp 255-257. eISSN 2600-9595.
38. Halimah, H., Uma Rani, S., Rogayah, S., Mohd Hakiman, M., Mohd Norfaizal, G. and **Muhammad Najib, O.G.** (2019). Effects of Rooting Substrate on Root Development of Hermaphrodite *Carica papaya* L. cv. Eksotika Produced Through in vitro Mass Propagation. *Trans. Malaysian Soc. Plant Physiol.* 26, pp 300-304. eISSN 2600-9595.
39. Farah Farhanah, H., **Muhammad Najib, O.G.** and Siti Zainab, J. (2019). Evaluation of *Phytophthora palmivora* Tolerance on Selected Durian Clones for Rootstocks Production. *In Programme and Abstract Book International Congress of The Malaysian Society for Microbiology, Seremban Negeri Sembilan, 11 – 14 September 2019.* pp 62.
40. Faizah Salvana A. R., Mohd Shukri M. A., **Muhammad Najib O. G.**, Khadijah A. and Ariff M. (2019). Effect of Growth Media on Seed Germination and Seedling Growth in Rambai

(*Baccaurea motleyana*). Trans. Malaysian Soc. Plant Physiol. 27, pp 182-185. eISSN 2600-9595.

41. Ahmad Hafiz, B., **Muhammad Najib, O.G.**, Zul Helmey, M.S. and Mohd Asrul, S. (2019). Impact of Water Availability on Growth and Relative Water Content of Selected Open Pollinated Durian Rootstocks. Trans. Malaysian Soc. Plant Physiol. 27, pp 50-54. eISSN 2600-9595.
42. Zul Helmey, M.S., **Muhammad Najib, O.G.**, Muhamad Hafiz, M.H. and Mohd Shahril Firdaus, A.R. (2019). Study on Interactions Between Growth Parameters of Harumanis Seedlings at Nursery Stage. Trans. Malaysian Soc. Plant Physiol. 27, pp 178-181. eISSN 2600-9595.
43. Faizah Salvana, A.R., **Muhammad Najib, O.G.**, Muhamad Arizal, B., Nur Asyira, A., Ariff Merican, D.M., Noor Camellia, N.A. and Khadijah, A. (2018). *Baccaurea motleyana* Seed Germination as Affected by Desiccation International Scientific Conference on Indigenous Crops, 16-17 October 2018. Kuching, Sarawak, Poster Presentation.
44. Zul Helmey, M.S., Mohamad Azlan, M., **Muhammad Najib, O.G.** and Faizah Salvana, A.R. (2018). Effects of Number of Scion Buds on Success and Growth of Softwood Grafting for MDUR88 (D190) Durian Clone. 28th Malaysian Society of Plant Physiology Conference, 27-29 August 2018. Kota Bharu, Kelantan, Poster Presentation.
45. Mohd Shaib, J., **Muhammad Najib, O.G.**, Zul Helmey, S., Mohd Nizam, Z. and Sarip, J. (2016). Production of Quality Planting Materials for Fruit Crops. National Seed Symposium, 23-24 August 2016, Sepang, Oral presentation.
46. Zul Helmey, M.S., Ahmad Hafiz, B., Mohamad Azlan, M., Mohd Shaib, J. and **Muhammad Najib, O.G.** (2016). Effect of Rootstocks Age on Success and Growth of Softwood Grafting for Harumanis Mango. MARDI Science and Technology Exhibition (MSTE) 2015, 11-13 Oktober 2016, MAEPS Serdang, Selangor.
47. Mohd Shaib, J., Amyita, W.U., **Muhammad Najib, O.G.** and Wan Abdullah, W.Y. (2015). Benih Organik. Seminar Kebangsaan Pertanian Organik, 2-3 Jun, 2015. Alor Setar Kedah.
48. Mohd Shaib, J., Ahmad Hafiz, B. Faizah Salvana, A.R., **Muhammad Najib, O.G.** and Shahadan, M. (2012). Production of durian scions under protected agriculture system. In Programme and Abstract Book 7th National Seed Symposium, 15-16 Mei 2012, Putrajaya. pp 26.
49. Mohd Shaib, J., **Muhammad Najib, O.G.**, Faizah Salvana, A.R., Ariff Merican, D.M., Halimah, H., Mohd Azzami Adam, M.M. and Mohammed Selamat, M. (2012). Integrated Pest Management in Seed Production at MARDI. 5th International Integrated Pest Management Seminar, 18-20 Dec. 2012, Kota Kinabalu, Malaysia

AWARDS

1. Excellence Service Award, MARDI (2020)
2. Silver award – MARDI Science & Technology Exhibition, MSTE (2020) – Classification of seed storage behaviour for indigenous fruit- rambai and jentik-jentik
3. Silver award – MARDI Science & Technology Exhibition, MSTE (2020) – Rapid method to determine viability of sorghum seeds
4. Bronze award – MARDI Science & Technology Exhibition, MSTE (2020) – Identification of zygotic and nucellar seedling of Harumanis mango through molecular markers and morphological approach
5. Bronze award – MARDI Science & Technology Exhibition, MSTE (2019) – Seedling establishment of Rambai (*Baccaurea motleyana*) for rootstock

6. Excellence Service Award, MARDI (2014)
7. Bronze award – MARDI Science & Technology Exhibition, MSTE (2014) – Improvement for short term storage of Chokanan mango scionwood
8. Bronze award – Malaysian Agriculture Invention Show MAgIS (2014) – Improvement for short term storage of Chokanan mango scionwood

REFERENCES

Dr. Hanim bin Ahmad

Deputy Director
Agronomy and Production System,
Industrial Crop Research Centre
MARDI Headquarters
43400 Persiaran MARDI-UPM Serdang
Selangor, MALAYSIA
Email : hanim@mardi.gov.my
Tel : +60389536230

Prof. Dr. Uma Rani Sinniah

Professor
Department Of Crop Science
Faculty of Agriculture,
Universiti Putra Malaysia (UPM)
43400 UPM Serdang, Selangor
MALAYSIA
Email : umarani@agri.upm.edu.my
Tel : +60397694839