

BIO-DATA

Name : **Dr DHANYA M K**
Date of birth : 31-05-1976
Email : dhanya.mk@kau.in
Mobile : 9447388215

ACADEMIC HISTORY

- **Doctor of Philosophy (Ph.D)** in Plant Pathology from College of Agriculture, Vellayani, Thiruvananthapuram, Kerala Agricultural University. Thesis focused “Purification and immunodetection of banana bract mosaic virus” (2004)
- **M.Sc. (Agriculture)** Plant pathology, College of Agriculture, Vellayani (Kerala Agricultural University) (2000)
- **B.Sc. (Agriculture)** College of Agriculture, Vellayani (Kerala Agricultural University) (1998)

ACADEMIC EXCELLENCE AWARDS

2nd rank for post graduate studies in Plant pathology (Kerala Agricultural University).

EMPLOYMENT HISTORY

- **Assistant Professor (Plant Pathology)**, Krishi Vigyan Kendra, Kottayam from 28/07/2008 - 27/02/2010
- **Assistant Professor (Plant Pathology)**, Cardamom Research Station, Pampadumpura from 28/02/2010 to 18/02/2021
- **Associate Professor (Plant Pathology)**, RARS Kumarakom from 19/02/2021 to 2/07/2024
- **Associate Professor & Head**, Coconut Research Station, Balaramapuram from 3/07/2024 to 4/03/2025
- **Associate Professor (Plant Pathology)**, College of Agriculture, Vellayani from 05/03/2025 to till date.

MEMBER OF SCIENTIFIC SOCIETIES

- Life member of Indian Phytopathological Society

- Life member of Journal of Mycology and Plant Pathology
- Life member of Journal of Root Crops

RESEARCH EXPERIENCE : 17 Years

Research Projects completed as Principal Investigator

- State Plan projects : 16 Nos.
- Trials under AICRP on Spices: 9 Nos.
- Trials under AICRP on Biological Control of Crop Pests: 2 Nos.
- SHM projects : 2 Nos.
- Planning Board project : 1 No.
- RKVY project: 1 No.
- NABARD project : 1 No.
- Rallies India Ltd.: 1 No.

Research Projects completed as Co-Principal Investigator : 2 Nos.

Research Projects continuing as Principal Investigator : 2 Nos.

TEACHING EXPERIENCE : One and a half year

M.Sc/PhD Students guided as Major/Co-Guide

- As Major Guide : Completed: 4; Co-Guide: 8
- Now, as Major Guide: M.Sc (Ag):2 ; PhD: 2
- As Co-Guide: M.Sc (Ag): 2 ; PhD: 2.
- Guided student's project work from other institutes: 8 Nos.

RESEARCH PAPERS PUBLISHED (SINCE 2008)

Research papers include those published in International and National peer reviewed multi disciplinary journals.

Refereed Journals Published

1. K. D. Prathapan, K. N. Anith, M.H. Faizal, M. Lekha and **M. K. Dhanya** (2008). A report on *Sipylloidea stigmata* Redtenbacher (Diapheromeridae: Necrosciinae) as the first phasmid crop pest in India and its redescription. *Zootaxa* pp. 58-64. (NAAS score: **6.00**).
2. V.R Prakash, **M.K. Dhanya**, S.Venugopal, K. Sanjeevkumar and A. Eswaran. (2008).First report of southern blight disease caused by *Sclerotium rolfsii* on begonia in India. *Plant Archives*, Vol. 8 (1), p- 385-386.

3. M. Rajitha, J.Dhanya, **M.K. Dhanya**, T.Hegde, K.Makesh and M.L Jeeva. (2011). *In vitro* growth response of different varieties of greater yam (*Dioscorea alata* L.). **Journal of Root Crops**. 37(1):p. 54-59.
4. M. Rajitha , J, Dhanya, **M.K. Dhanya**, H.Vinayaka, and M.L Jeeva. (2011). Hot water treatment: An efficient method for elimination of yam mild mosaic virus in *Dioscorea alata*. **Journal of Root Crops**. 37(1): p. 60-64.
5. G. Sivakumar, A. Josephraj Kumar and **M.K. Dhanya** (2012). Evaluation of bacterial antagonists for the management of rhizome rot of cardamom (*Elettaria cardamomum* Maton). **Journal of Spices and Aromatic Crops**. 21 (1): 09-15.
6. G. Sivakumar, **M.K. Dhanya** and R. Narayana (2014). Validation of a technology for the management of *Phytophthora* foot rot disease in black pepper. **Journal of Mycology and Plant Pathology**. 44(3).
7. R. Narayana and **M.K. Dhanya** (2014). Infestation of *Quadrastichus erythrinaekim* (Eulopidae : Hymenoptera) an invasive pest on Erythina spp, a popular standard for black pepper (*Piper nigrum*) in idukki district in Kerala, India. **Entomon**. 39(3): 143-150 (NAAS:4.69)
8. G. Sivakumar, **M.K. Dhanya** & M. Murugan (2014). Induced defense response in small cardamom plants by *Bacillus subtilis* strain Bs against capsule rot pathogen, *Phytophthora meadii*. **Journal of Spices and Aromatic Crops**. 24(1): 12-17.
9. **M.K. Dhanya**, K.B. Anjumol, M. Murugan and Deepthy K.B. (2016). Compatibility of *Trichoderma viride* and *Pseudomonas fluorescens* with plant protection chemicals and fertilizers in cardamom. **Journal of Tropical Agriculture**. 54(2) p.129-135. (NAAS score: 4.85)
10. **M.K. Dhanya**, M. Murugan, K.B. Anjumol and K.S. Meena Kumari (2017) Efficacies of fungicides and biocontrol agents on the management of rot disease of small cardamom. **J Mycol Pl Pathol**. Vol. 47(3). p.346-354 9 (NAAS Score: 5.79)
11. M. Murugan, R. Ravi, A. Anandhi, Sajan Kurien and **M. K. Dhanya** (2017) Pesticide use in Indian cardamom needs change in cultivation practices. **CURRENT SCIENCE**. Vol. 113(6-25). p.1058-63 (ISI-JCR Impact Factor: 0.73)
12. K.B. Deepthy, Sunil Joshi, V.S. Manoj, **M.K. Dhanya**, T. Maya, K. P. Kuriakose and K.P. Krishnaprasad (2017). A new report of the myrmecophilous root mealy bug *Xenococcus annandalei* Silvestri (Rhizoecidae: Hemiptera) - a devastating pest. **ENTOMON**. 42(3): 185-192. (NAAS: 4.69)
13. T.T. Preethy, T.S. Aswathy, T. Sathyan, **M.K. Dhanya** and M. Murugan (2018) Performance, diversity analysis and character association of black pepper (*Piper nigrum* L.) accessions in the high altitude of Idukki district, Kerala. **Journal of Spices and Aromatic Crops**. Vol. 27(1): 17-21.
14. T.S. Aswathy, **M.K. Dhanya**, J. Jintu, T. Sathyan, T.T. Preethy and M. Murugan (2018). Effect of biofertilizers and organic supplements on the growth of black pepper rooted cuttings (*Piper nigrum* L.). **Journal of Spices and Aromatic Crops**. Vol. 27(1): 54-58.
15. **M.K. Dhanya**, M. Murugan, K. B. Deepthy, T.S. Aswathy and T. Sathyan. (2018). Management of *Fusarium* rot in small cardamom. **Indian journal of plant protection**. Vol. 46(1): 57-62.

16. **M.K. Dhanya**, T. Sathyan, M. Murugan, K. Ashokkumar, and R. Surya. (2019). *In-vitro* compatibility of Entomopathogenic fungi with synthetic insecticides and neem oil. **Pesticide Research Journal**, 31(2): 275-281.(NAAS: **5.49**)
17. M. Murugan., **M.K. Dhanya**, K. Ashokkumar, T. Sathyan and R. Surya. (2019). Changes of enzyme activities and phytochemical constituents in small cardamom capsules caused by the infestation of thrips, *Sciothrips cardamomi* (Ramk.). **Research Journal of Biotechnology**, 14(10):113-116. (NAAS rating: **4.00**).
18. K.Ashokkumar, M. Murugan, **M.K. Dhanya**, R. Surya. and D. Kamaraj (2019). Phytochemical variations among four distinct varieties of Indian cardamom *Elettaria cardamomum* (L.) Maton. **Natural Products Research**. DOI: 10.1080/14786419.2018.1561687. (Impact Factor: 2.48)
19. K.Ashokkumar, A. Pandiyan, M. Murugan, **M.K. Dhanya**, T. Sathyan, P. Sivakumar, and R. Surya, (2018). Simple and rapid extraction method for determination of carotenoids in the edible parts of *Vitis vinifera*, *Vaccinium* sect. *cyanococcus*, *Ipomoea batatas* and *Capsicum annum*. **Advances in Research**. 17 (4): 1-8. <https://doi.org/10.9734/air/2018/45132>.(NAAS:4.80).
20. K.Ashokkumar, M. Murugan, **M.K. Dhanya**, and D. Thomas, (2020). Botany, traditional uses, phytochemistry and biological activities of cardamom [*Elettaria cardamomum* (L.) Maton]- A critical review. **Journal of ethnopharmacology**. 246:112244. (ISI-JCR Impact Factor: **5.19**).
21. K.Ashokkumar, A. Pandiyan, M. Murugan, **M.K. Dhanya**, T. Sathyan, P. Sivakumar, and R. Surya, T.D. Warkentin, (2020). Profiling bioactive flavonoids and carotenoids in select south Indian spices and nuts. **Natural Products Research**. 34(9): 1306-1310. <https://doi.org/10.1080/14786419.2018.1557179>.(Impact Factor: **2.48**)
22. K.Ashokkumar, **M.K.Dhanya**, and R. Surya,(2020). Simple and efficient DNA isolation protocol for small cardamom [*Elettariacardamomum* (L.) Maton].**Research Journal of Biotechnology**,15(7): 21-25(NAAS:4.00).
23. K.Ashokkumar,S. Vellaikumar,M. Murugan, **M.K. Dhanya**,S. Aiswarya (2020) Compositional variation in the leaf, mace, kernel, and seed essential oil of nutmeg (*Myristicafragrans*Houtt.) from the Western Ghats,India.**Natural Product Research**.36(1),432-435: <https://doi.org/10.1080/14786419.2020.1771713>**Impact Factor: 2.48**).
24. K.Ashokkumar, **M. K. Dhanya**, and S. Aiswarya,(2020)Assessment of variation in volatile oil content in cardamom [*Elettariacardamomum* (L.) Maton]. **Electronic Journal of Plant Breeding**,11(4):1007-1014.(NAAS score: **5.14**)
25. K. Ashokkumar, Sampathrajan,V., M. Murugan, **M.K. Dhanya**, Manoharan.k., Gunasekeran, A., Aiswarya, S., Warkentin, T.,Adhimoolar, K., (2021). Essential oil profile diversity in cardamom accessions from Southern India, **Frontiers in sustainable food systems**, <http://journal.frontiersin.org/article/10.3389/fsufs.2021.639619> **Impact Factor: 5.00**
26. K. Ashokkumar, M. Murugan, **M.K. Dhanya**, Arjun Pandian, Warkentin, T.(2021).Phytochemistry and therapeutic potential of black pepper(*Piper nigrum*

- (L.)essential oil and piperine:a review.*Clinical Phytoscience*,<https://doi.org/10.1186/s40816-021-00292-2>. Springer publication. 7:52
27. **M.K. Dhanya**, M. Murugan, and M. Nimisha (2021) .*In vitro* study on the effectiveness of fungicides and bioagents against three new fungal pathogens in small cardamom [*Ellettaria cardamomum* (L.) Maton]. *Journal of Tropical Agriculture*, 59 (1): 86-94(**NAAS score: 4.85**)
 28. M.C. Veni Krishna, **M.K. Dhanya**, M. Joy, N.S. Radhika, B.Aparna.2021.Interactive effect of biocontrol agents in the management of Fusarium rot in cardamom and its impacts on plant defence mechanism.*Journal of Spices and Aromatic Crops*,30(1):50-57.
 29. **M.K. Dhanya**, M. Murugan, and. Nimisha (2021). First report of *Phoma* sp.in small cardamom,*Indian Phytopathology*,<https://doi.org/10.1007/s42360-021-00401-8>(**NAAS score: 5.95**)
 30. K.Ashokkumar,S. Vellaikumar, M. Murugan, **M.K. Dhanya**, and S.Aiswarya (2021). GC/MS analysis of essential oil composition from selected seed spices, *The National Academy of Science Letter*, <https://doi.org/10.1007/s4009-021-01066-7>(**Impact Factor : 0.65**)
 31. K. Ashokkumar,S. Vellaikumar, M. Murugan, **M.K. Dhanya**, A.Karthikeyan, S. Aiswarya, M.Nimisha.2021.Assessment of phytochemical diversity in essential oil composition of eighteen *Piper nigrum* (L.) accessions from southern India.*Journal of essential oil research* , 33(6),549-558 (**Impact factor:2.53**)
 32. A.Sajeena ,G. P Rao, M Deepu , J. Jacob ,**MK Dhanya**,R Ayisha,and MG Reddy.2021.First report of *Candidatus Phytoplasma cynodontis* (16S rXIV-A sub group) associated with cauliflower phyllody and flat stem in India,*Plant Disease* (**Impact factor: 4.438**)
 33. T. Sathyan,**M. K. Dhanya**,.... and K.B Deepthy. 2021. Evaluation of bioagents, synthetic insecticides and organic amendment against the rootknot nematode *Meloidogyne* spp. in cardamom (*Ellettaria cardamomum* (L.) Maton. *Journal of Biological Control* 35 (2)
 34. **M.K. Dhanya**, M. Murugan,.....and R. Surya (2022). First report of tiller rot of small cardamom(*Ellettaria cardamomum*(l) Maton) caused by *Marasmiellus* sp.in India, *Journal of Plant Pathology*.**DOI 10.1007/s42161-022-01067-5**,(**Impact Factor: 2.64**)
 35. M. Murugan, **M.K. Dhanya** and T. Sathyan. 2022. Understanding the effects of cardamom cultivation on its local environment using novel systems thinking approach-the case of Indian cardamom hills. *Frontiers sustainable food systems*. **DOI:10.3389/fsufs.2022.728651**,Impact factor: 5.00
 36. K.Ashokkumar, Gandara J.S. M.Murugan, **M.K.Dhanya** and Pandian A.,2022.Nutmeg(*Myristica fragrans* Houtt.) essential oil: A review on its composition ,biological and pharmacological activities,*Phytotherapy Research*, 36(7): 2839-2851 Wiley,**DOI:10.1002/ptr.7491**,**Impact factor: 6.38**
 37. A. Sajeena, M.Deepu, J.Jacob,**M.K.Dhanya**, Sushitha,K.and N.P. Ruby (2022). First report of jack fruit caused by *Athelia rolfsii* in India, *Journal of Plant Pathology*,Springer,**DOI 10.1007/s42161-022-01145-8**,(**Impact Factor: 2.64**)

38. M. Aishwarya, **M.K. Dhanya**, and Ambily Paul, 2022, Individual and combined effects of beneficial fungal root endophytes *Piriformospora indica* and *Glomus fasciculatum* on growth, nutrient uptake and IAA production in small cardamom, *Journal of Plantation Crops*, 50(1): 35-41, [Doi:10.25081/jpc.2022.v50.i1.7786](https://doi.org/10.25081/jpc.2022.v50.i1.7786)
39. TT Preethy, **MK Dhanya**, and M Murugan, 2022, Assessment of Genetic Diversity of Small Cardamom (*Elettaria cardamomum* M.) in India, *Indian J. Plant Genet. Resour.* 35(2): 169–177, DOI 10.5958/0976-1926.2022.00017.1
40. M. Murugan, **M.K. Dhanya**, K.S. Krishnamurthy, 2022, Climate change scenarios, Their impacts and implications on Indian cardamom-coffee hot spots, One of the Two in the world. *Frontiers in Sustainable Food Systems, section Climate-Smart Food Systems*. (Impact factor : 5.005)
41. Sajeena, A., Deepu, M., **Dhanya, M.K.**, and Peter, T.S. 2022. First report of leaf blight of Indian spinach caused by *Colletotrichum siamense* in India, *Journal of Plant Pathology*, Springer, [Doi.org/10.1007/s42161-022-01198-9](https://doi.org/10.1007/s42161-022-01198-9), (Impact Factor: 2.64)
42. M Murugan, **M. K. Dhanya**, and N. Sritharan. 2023. Cardamom agro-environmental interrelationships analysis in Indian cardamom hills, *Front. Clim.*, 5; <https://doi.org/10.3389/fclim.2023.1107804>
43. **Dhanya MK.**, Murugan M., and Amitha P. 2023. First report of capsule rot of small cardamom [*Elettaria cardamomum* (L.) Maton] by *Fusarium oxysporum* in India, *Journal of Plant Pathology*, Springer, [Doi.org/10.1007/s42161-023-01498-8](https://doi.org/10.1007/s42161-023-01498-8), (Impact Factor: 2.64)
44. K. Ashokkumar, M. Murugan, **M. K. Dhanya**, and T. Sathyan, 2023. Identification and quantification of new bioactive compounds from unique black pepper genetic materials. The Patent Office Journal No. 52: 94873.
45. K. Ashokkumar, M. Murugan, **M. K. Dhanya**, and P. Arjun, 2023. Identification and quantification of key bioactive chemicals from elite cardamom genetic resources. The Patent Office Journal No. 52: 94874.
46. **M. K. Dhanya**, and L. R. A. Krishnan. 2024. Effect of arbuscular mycorrhizal fungi and pink pigmented facultative methylotrophs for mitigating water stress in black Pepper. *Proc. Nati. Acad. Sci., India, Sect. B Biol. Sci.* <https://doi.org/10.1007/s 40011-024-01559-7>, Springer
47. A. Sajeena, S. Gupta, **M. K. Dhanya** and R. Ayisha. 2025. First report of 'Candidatus Phytoplasma trifolii'-related strain association with little leaf and declining disease of pulasan (*Nephelium mutabile* Blume) in Kerala, India, *Plant Disease*, <https://doi.org/10.1094/PDIS-04-25-0714-PDN> (Impact factor: 4.438)
48. A. Sajeena, S. Gupta, **M. K. Dhanya** and G. Pratap. 2025, Identification of 'Candidatus Phytoplasma trifolii' associated with mango phyllody in Kerala, India, *Phytopathogenic Mollicutes*. 15 (1): 101-102 [10.5958/2249-4677.2025.00055.4](https://doi.org/10.5958/2249-4677.2025.00055.4)

OTHER PUBLICATIONS

- **Popular Articles** : 6 Nos.
- **Leaflets** : 8 Nos.
- **Scientific papers in Conference/Workshops**: 10 Nos.

BOOK CHAPTERS

- **National Publishers** : 5 Nos.
- **International Publishers** : 8 Nos.

RESEARCH EXCELLENCE MADE BASED ON THE RESEARCH WORKS

- **POP Recommendations as PI**
 - Package of Practices Recommendations Crops 2016, Kerala Agricultural University : 2 nos.
 - Package of Practices Recommendations Crops 2021, Kerala Agricultural University : 3 nos.
- **POP Recommendations as Co-PI**
 - Package of Practices Recommendations Crops 2021, Kerala Agricultural University : 3 nos.
- Identified 4 new pathogens of Cardamom.
- Editor of the book “Cardamom [*Elettaria cardamomum* (L.)MATON] Production, Breeding, Management, Phytochemistry And Health Benefits” published by Nova scientific publishers, New York.
- Involved in the development of KAU cardamom varieties PV 3 & PV 5 approved by the state seed committee

AWARDS OR PRIZES RECEIVED

- Co author of the research papers received the **best poster award** in National conferences : 4 Nos.

National/ International/ State Level Seminars/ Symposia/ Workshops/ Trainings Attended : 22 Nos.

DECLARATION

I hereby declare that the above information furnished by me is true to the best of my knowledge and belief.

Sd/-

Place: Vellayani, TVPM

Date: 8/08/2025

Dr. DHANYA M K

Associate Professor (Plant Pathology)
College of Agriculture, Vellayani