



Dr. Mariadoss A
Joint Director (Plant Protection)
National Institute of Plant Health Management
Ministry of Agriculture & Farmers Welfare, Govt. of India
Rajendranagar, Hyderabad- 500030, INDIA

I. About:

Dr. Mariadoss A is specialized in agricultural entomology, stored grain pest management, vertebrate and urban pest management. He has **20 years** of experience that include pesticide product development, banking, smart warehousing, quality control in food grain storage, ship fumigation, training, research, education and consultancy in the area of plant health management, plant biosecurity and vertebrate pest management. His areas of interest are fruit fly identification, surveillance and management, sterile insect technique, stored grain pest management, warehouse management, ship fumigation, rodent and other vertebrate pest management and urban pest management.

II. Educational Qualifications and Achievements:

Degree	Year of passing	University	Marks (%)	Class
B.Sc (Agri)	2000	Tamil Nadu Agricultural University	90.80	Distinction*
M.Sc (Agri) in Agril. Entomology	2002	Tamil Nadu Agricultural University	96.50	Distinction
Ph.D (Zoo- Ento)	2021	Bharathidasan University	93.53	Distinction
MBA (HR)	2016	Madras University	59.46	Second
PGDAEM	2021	MANAGE, Hyderabad	76.60	First
NET in Agril. Entomology	2004	ASRB – Indian Council of Agricultural Research	Pass	-
Certificate in Teaching Management	2019	ICAR - NAARM	Pass	-

*Received 6 Gold Medals in B.Sc (Agri); College topper in UG, PG and Ph.D degrees

III. Technical Skillset

1. Smart warehousing
2. Identification of stored grain pests
3. Identification of rodent species
4. Integrated pest management in stored grains
5. Fumigation (stack and ship fumigation) – Done 28 ship fumigations using pipe and air recirculation methods
6. Plant biosecurity
7. Vertebrate and Urban pest management
8. Lead Auditor for Occupational Health and Safety Management Systems (OHSAS 18001)

IV. Professional Experience

1. **Joint Director (PP)** – 28.06 2024 to till date - National Institute of Plant Health Management, Dept. of Agriculture & Farmers Welfare, Govt. of India, Rajendranagar, Hyderabad
2. **Asst. Director (RPM)** - 2016 to 2024- National Institute of Plant Health Management, Dept. of Agriculture & Farmers Welfare, Govt. of India, Rajendranagar, Hyderabad
3. **Sr. Asst. Manager (Tech)** – 2009 to 2016 - Central Warehousing Corporation, Govt. of India Undertaking.
4. **Senior Manager (R&D)** – 2007 to 2009 – Neophyll Agrisciences Pvt. Limited, Chennai.
5. **Rural Development Officer** -2005 to 2007- Syndicate Bank, Govt. of India Undertaking.
6. **Product Officer** – 2003 to 2005- Tagros Chemicals India Limited, Chennai

V. Research Initiatives

Research Projects Completed

S. No.	Title of the project	Funding Agency	Duration/Fund	PI/CoPI
1.	Effect different sealing in phosphine fumigation	CWC	2 years Rs. 5,00,000	Co-PI
2.	Alternative treatment to methyl bromide fumigation on wheat, pulse and wood	DAC & FW, Govt. of India	2 years Rs.49,00,000	Co-PI
3	Effect of phosphine fumigation on coffee berry borer	Coffee Board, Govt. of India	1 year Rs.10,00,000	Co-PI
4.	Development of Integrated Modules for Wild boar Management	NIPHM	2 year Rs. 3,50,000	PI
5	Development of computer assisted digital keys for storage pests and fruit flies	NIPHM	1 year	PI
6	Sterile Insect Technique for Mango Fruit Fly	BARC	2 year	PI

Research Projects in-progress

S. No.	Title of the project	Funding Agency	Duration/Fund	PI/CoPI
1.	Survey and field evaluation of sterile insect technique (SIT) for the management of Oriental fruit fly, <i>Bactrocera dorsalis</i> (Diptera:Tephritidae) infesting economically important fruit crops	BRNS	3 years Rs. 35,01,600	PI
2	Development of integrated stored grain pest management techniques for FCI godowns	FCI	2 years Rs.45,20,880	PI

VI. Research / Paper publications

Research Papers Published: 16

Papers presented in international conferences: 7

Popular Articles: 3

Chapters for training manual: 11

Books published (with ISBN): 3

Books published (without ISBN): 2

Training Manual: 3

1. Mariadoss, A., and Umamaheswari, S. 2023. Varietal preference and development of red flour beetle, *Tribolium castaneum* (Herbst.) in different long stored rice grains. *Journal of Entomological Research*, 47(2) : 295-298
2. Mallareddy, M., Thirumalaikumar, R., Balasubramanian, P., Naseeruddin, R., Nithya, N., Mariadoss, A., Eazhilkrishna, N., Choudhary, A.K., Deiveegan, M., Subramanian, E., et al., 2023. Maximizing Water Use Efficiency in Rice Farming: A Comprehensive Review of Innovative Irrigation Management Technologies. *Water*, 15, 1802. <https://doi.org/10.3390/w15101802>
3. Mariadoss, A., and Umamaheswari, S. 2022. Efficacy of different insecticide formulations against red flour beetle, *Tribolium castaneum* (Herbst) in stored rice. *Journal of Entomological Research*, 46(3) : 584-587
4. Mariadoss, A., and Umamaheswari, S. 2022. Comparative efficacy of locally abundant botanicals against red flour beetle, *Tribolium castaneum* (Herbst.) in Stored rice. *Journal of Experimental Zoology, India*, 25 (2): 2025-2028
5. Mariadoss, A., Umamaheswari, S., 2020. Feeding preference and development of red flour beetle, *Tribolium castaneum* (Herbst.) in different rice varieties stored for public distribution in India. *Journal of Experimental Zoology, India*, 23(1): 265-268
6. Mariadoss, A., Umamaheswari, S., 2020. Seasonal abundance of Red Flour Beetle, *Tribolium castaneum* (Herbst.) (Coleoptera; Tenebrionidae) in food grains stored in a large warehouse. *Journal of Experimental Zoology, India*, 23(2): 1361-1367
7. Mariadoss, A., Alice, R.P.S., Pyla, J., Nikhileshwar, P., 2021. Species diversity and identification of important fruit flies damaging Guava (*Psidium guajava* L.) in Ranga Reddy district, Telangana, India. *Journal of Entomology and Zoology Studies*, 9(2): 385-389

8. Mariadoss, A., Samson, D., Alice, R.P.S., 2020. Species diversity of fruit flies in different varieties of mango in Ranga Reddy district of Telangana State, India. *Journal of Entomology and Zoology Studies*, 8(4): 184-187
9. Sankarganesh, E., Girish, A.G., Alice, R.P.S., Mariadoss, A., 2020. Influence of relative humidity on phosphine concentration during aluminium phosphide (ALP) fumigation in pigeon pea. *International Journal of Chemical studies*. 8(1): 2082-2084
10. Mariadoss, A., B. Naresh, P. Sakthivel and Alice R.P. Sujeetha. 2019. Damages by non-human primates and management strategies in agroecosystem. *Innovative Farming*, 4(1): 019-029
11. Mariadoss, A., Nadarajan, L., 2003. A rapid method to assess comparative susceptibility of cotton whitefly, *Bemisia tabaci* (Gennadius) to insecticides. *Pestology*, 27:22-24
12. Mariadoss, A., Nadarajan, L., 2003. Effect of fenprothrin in the management of bollworms in rice fallow cotton. *Pestology*, 27:37-40.
13. Mariadoss, A., 2002. Will e-journals serve the purpose of library journals?, *Current Science*, 83:6
14. Mariadoss, A., 2002. The hidden enemies of vegetable crops. 2002. *Agrigold Swarna Sedyam*
15. Mariadoss, A., Praveen, K., 2017. Abiotic factors affecting seed storage. Model Training Course on Seed Production in Castor, Sunflower, Safflower, Sesame and Niger, Indian Institute of Oilseeds Research, Hyderabad. pp163-168
16. Mariadoss, A., Sreenivasa, R., 2017. Management of rodents in seed production fields and storage. Model Training Course on Seed Production in Castor, Sunflower, Safflower, Sesame and Niger, Indian Institute of Oilseeds Research, Hyderabad. pp154-162
17. Mariadoss, A., Gupta, C.S., 2016. Sealing methods for effective fumigation. Poster presented at IICPT, Thanjavur on 4.11.2016
18. Mariadoss, A., Samson, D., Alice, R.P.S., Duraimurugan, P., 2019. Species diversity of fruit flies in different varieties of mango in Ranga Reddy district of Telangana State, India. In: *Proceedings of International Plant Protection Congress held at Hyderabad, India, 2019*
19. Mariadoss, A., Alice, J., Gupta, C.S., Jayalakshmi, G., 2019. Area wide management of fruit flies using para pheromone lures – Success stories in Asia and Africa. In *Proceedings of International Conference on Plant Protection in Horticulture: Advances and Challenges held at IIHR, Bengaluru, India*
20. Gupta, C.S., Alice R.P.S.J., Mariadoss, A., Jayalakshmi, G., 2019. Role of system approach in pest management and export of horticultural commodities. In: *Proceedings of International Conference on Plant Protection in Horticulture: Advances and Challenges held at IIHR, Bengaluru, India*
21. Mariadoss, A., 2018. Management of storage pests in oilseeds. In *compendium of papers presented at the ICAR short course on Recent advances in adaptation and management strategies for sustainable oilseeds production under climate change scenario held at ICAR-IIOR, Hyderabad during 3-12 Oct 2018*, pp 176 – 188
22. Mariadoss, A., 2019. Ethology of Rodents in Training Manual on Short Course on “Risk assessment and management of non-insect pests for sustainable agriculture conducted at Navsari Agricultural University from 07.01.19 to 16.01.19
23. Mariadoss, A., 2018. “Fruit Fly Surveillance” in Study material of FTF-ITT training programme on Plant Biosecurity and Food Safety, 35-38 pp
24. Mariadoss, A., Gupta, C.S., 2018. “Production of Low Cost Fruit Fly Pheromone Traps” in Study material of FTF-ITT training programme on Plant Biosecurity and Food Safety, 39-41 pp

Books Published

1. Mariadoss, A., Alice, R.P.S., 2018. Standard Operating Procedure for Stored Grain Pest Management in Food Grain Storage Depots. Published by NIPHM, Government of India, Rajendranagar, Hyderabad. 42 pp. (ISBN: 978-93-5300-893-2)
2. Girish, A.G., Sankarganesh, E., Mariadoss, A., Alice, R.P.S., 2019. Procedure for Methyl Bromide and Aluminium Phosphide Fumigation in coffee berries and beans. Published by NIPHM, Government of India, Rajendranagar, Hyderabad. 44 pp. (ISBN: 978-93-5361-107-1).
3. Jayalakshmi, G., Alice, R.P.S., Girish, A. G., Mariadoss, A., Sankarganesh, E, Raghuramulu, Y., Dhanam, M., Seetharama, Kurian, R., Uma, M.S., Roobak, K., Krishna, R., 2019. Fumigation of Coffee beans with aluminium phosphide. 2019. Published by: National Institute of Plant Health Management, Dept. of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India, Rajendranagar, Hyderabad and Central coffee research Institute Balehonnur, Chikmagalur district of Karnataka. 42 pp.
4. Sakthivel, P., Mariadoss, A., Alice R.P.Sujeetha and Sundar, B. 2023. A practitioner's guide for urban pest management. Published by NIPHM, Government of India, Rajendranagar, Hyderabad. 118 pp. (ISBN: 978-93-5768-628-0)

VII. Professional Membership

1. Life Member in Bioinformatics Institute of India, New Delhi
2. Life Member in Society for Advancement of Agriculture Innovations, Tripura
3. Life Member in Society of Agricultural Research and Social Development, New Delhi
4. Life Member in Society for Biotic and Environmental Research, Tripura
5. Annual Member in Entomological Society of India

VIII. Awards and Honours Received:

1. Ravi Memorial Award for **Best Student** during B.Sc.(Agri.)
2. Thiru. Ramasamy Memorial Award for first rank holder in **Agricultural Botany**
3. State Bank of India Award for first rank holder in **Agricultural Economics**
4. Haji. S. M. Abdul Razak Memorial Award for first rank holder in **Agronomy**
5. Smt. Djeabarathy Award for first rank holder in **Horticulture**
6. Thiru. A. M. Kasim Award for first rank holder in **Soil Science & Agricultural Chemistry**
7. **Junior Research Fellowship** from M/s. Sumitomo Chemicals, Mumbai
8. **Senior Research Fellowship** from ASRB, ICAR, New Delhi and All India topper
9. **Best Trainer Award - 2019** by Society for Environmental and Biotic Research, India
10. **Best PhD Thesis Award** by Society for Environmental and Biotic Research, India

IX. Notable Contribution

1. Published book on Standard Operating Procedure for Stored Grain Pest Management in Food Grain Storage Depots (ISBN: 978-93-5300-893-2)
2. Established fruit fly laboratory at NIPHM
3. Conducted 28 ship fumigations for grain exports

4. Collaboration with state agricultural universities for fruit fly identification
5. Developed digital keys for economically important fruit flies
6. Developed integrated modules for wild boar management
7. Conducted several farmers' trainings in rodent endemic areas including north eastern states of India on IPM for rodents.
8. Done fruit fly surveillance in mango and guava crops in Ranga Reddy district of Telangana state and identified the dominant species.

X. Other information

Trainings undergone

S. No.	Name of training	Date(s) of training	Place
1	All India Warehousing Training	01 – 12.02.2010 (12 days)	CWC, New Delhi
2	Administrative Vigilance	02 – 04.02.11 (3 days)	CWC, New Delhi
3	Warehouse Inspection and Performance Appraisal Techniques	08 – 10.02.12 (3 days)	CWC, New Delhi
4	Auditor/Lead Auditor Training Course on Occupational Health and Safety Management Systems	11 – 15.02.13 (5 days)	Intertek, Chennai
5	Contracts Management	29 – 31.10.13 (3 days)	ICWAI, New Delhi
6	MDP on Agribusiness and Supply Chain Management	20 – 24.01.14 (5days)	IIM, Indore
7	Indian National Grain Protection Alliance Meet	21.02.14 (1 day)	IICPT, Thanjavur
8	Phytosanitary Treatments (Methyl Bromide & Phosphine Fumigation)	31.7.16 – 14.08.16 (15 days)	NIPHM, Hyderabad
9	Risk Assessment and Management of Vertebrate Pests in Agriculture	06.01.19 – 15.01.19 (10 days)	NAU, Gujarat
10	Agriculture for Economic Development: Policy Planning, Policy Analysis and Techniques of Economic Analysis	24.02.21 – 10.03.21 (15 days)	MANAGE, Hyderabad

Trainings given to stakeholders

1. Conducted 36 farmers training on Post-Harvest Technology including Rodent Management at field and storage/godowns from the year 2010 to 2014
2. Conducted 11 farmers training on Warehousing Development & Regulatory Act 2007 from the year 2012 to 2014.
3. Trained 46 Govt. Officials on Food Storage Management and 25 Govt. Officials on WDR Act 2007.
4. Regularly conducting different capacity building programmes to Agricultural, Horticultural Officers and farmers as Course Director / Course Coordinator / Assistant Course Coordinator. Total trainings conducted are 142 numbers (2016 – 2021).

Invited Lectures / Guest Lectures

Presented invited / guest lectures (31 nos.) in following national level organizations

1. CCS National Institute of Agricultural Marketing (NIAM), Jaipur
2. Navsari Agricultural University, Gujarat
3. Central Warehousing Corporation, New Delhi
4. Food Corporation of India, Regional Office, Hyderabad
5. Dept. of Marketing and Inspection, Govt. of India
6. Tamil Nadu Agricultural University, Coimbatore
7. Tamil Nadu University of Veterinary and Animal Sciences, Chennai
8. Indian Institute of Oilseeds Research, Hyderabad
9. Directorate of Poultry Research, Hyderabad
10. National Cooperative Development Corporation
11. Institute of Cooperative Management, Madurai
12. Natesan Institute of Cooperative Management, Chennai
13. NABARD, Tiruchirapalli
14. WDRA, New Delhi

Conferences /workshops attended

1. Participated as a delegate in 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products held from 6-11 Nov 2016 at New Delhi
2. Participated in the Workshop on 'Advances in Urban Pest Management" organised jointly by NIPHM and IPCA on 29.07.16 at NIPHM, Hyderabad.
3. Participated in International training on “Managing biosecurity systems” on 07 – 09.08.2017 conducted by Department of Agriculture and Water Resources, Govt. of Australia.
4. Participated in international workshop on “Protecting Food Security in SE Asian countries by developing early warning and ready response systems for invasive weeds” on 09 & 10, April 2019 conducted by University of Stirling, United Kingdom.
5. Participated as a delegate in International Plant Protection Congress 10 – 14.11.2019 at Hyderabad
6. Participated as a delegate in the International Conference on Plant Protection in Horticulture (ICPPH-2019) - Advances and Challenges held at IIHR, Bangalore from 24th to 27th July, 2019
7. Participated as a delegate and evaluator in International conference on Sustainable Management and Conservation of Natural Resources held at Periyar E.V.R. College, Tiruchirapalli on 15.02.2020.
8. Participated as a delegate in 7th Annual meeting of Indian Grain Storage Consultative Group at NASC, ICAR, New Delhi on 20.05.2022.

Webinars attended: 8 national and 2 international webinars

Countries visited: Bhutan, Saudi Arabia and Thailand

Languages known: English, Hindi, Tamil and Telugu.

XI. Contact details

Dr. Mariadoss. A.

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