

Resume of Dr. Mani Chellappan

Designation and Address

**: Professor and Head, Department
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Academic and Professional Qualifications

Degree	Name of the University	Year of Passing	Class/ Grade	Equivalence (%)
B. Sc (Ag)	Tamil Nadu Agrl. University (TNAU)	1988	3.94/4.00	
M. Sc (Ag)	Tamil Nadu Agrl. University (TNAU)	1990	3.93/4.00	
Ph. D	Indian Agricultural Research Institute (IARI)	1994	3.75/4.00	

Research Experience (Station wise)

: a. 1993-1999 ICAR Research Complex, Goa
b. 1999- till date CoA, KAU, Thrissur

Present Employment status:

Name of present station and cadre and designation	Period of Employment in the present cadre
College of Horticulture, Professor Professor and Head, Department of Agricultural Entomology	May 5, 2011 June 1, 2017

Training, Courses, Conferences,

Workshops attended (during 2016 - 2020)

S. No.	Name of Training, Courses, Conferences, Workshops	Duration	Institute / Place
1	Indo –Australian Workshop 23 to 24 May, 2016 (R3/66882/14 Dt. 22-4-2016)	2 days	Hawkesbury Institute for the Environment, Western Sydney University and Hort- Innovation-Australia, Sydney, Australia and ICAR

			New Delhi
2	Pollinator Plus 4 th to 13 th Nov, 2016 (VC/2868/16 Dt. 03-11-2016)	10 days	Hawkesbury Institute for the Environment, Western Sydney University and Hort-Innovation-Australia, Sydney, Australia
3	International Conference on Barcode of Life 20 – 24 November 2017 (R3/66882/14 Dt. 21-6-2017)	5 days	Nombolo Mdhluli Conference Centre, Skukuza, Kruger National Park, South Africa
4	CALEM Training Programme on Academic Leadership 9 th to 12 th Apr 2018	3 days	Kerala University, Palayam Campus, Thiruvananthapuram
5	Orientation programme for Phytosanitary Issuing Authorities 8 th to 12 th , Oct. 2018 (R5/65172/18 Dt. 27-09-2018)	5 days	NIPHM, Hyderabad
6	Demonstration of bio acoustic unit developed by the AINPVPM Centre, PJTSAU in collaboration with DRDO to manage wild animal intrusion in cropped areas 11 th to 12 th , Dec. 2018 (R3/66882/14 Dt. 06-12-2018)	2 days	PJTSAU, Hyderabad
7	Empowering Agricultural Research through Meta genomics – the Gene School 25 th to 28 th , Jun. 2019 (GA/C2/8164/2019 O/o The Registrar, KAU Dt. 04-06-2019)	4 days	Kasertsart University, Bangkok, Thailand
8	6 th World Owl Conference 29-30 Nov and 1-2 Dec, 2019 (R3/65326/19 O/o The DoR, KAU Dt. 18-11-2019)	4 days	Savithribai Phule Pune University, Pune

Membership in Academic and Professional bodies (Past and Present)
Life member

: 1. Entomological Society of India –

2. Association for Advancement of Entomology – Life member

3. Society for Applied Ornithology – Life member

4. Society for Biocontrol Advancement – Life member

II. RESEARCH ACHIEVEMENTS

Research Schemes obtained:

	Title of the Scheme	Sponsors	Duration	Outlay (Rs. in lakhs)
1	ANP on Vertebrate Pest Management	ICAR-KAU	(2016-2020)5 years	216.90
2	Rodent control	ICAR-KAU	2013-2016	9.67
3	Severity of mealybug infestation studies in Kerala	GoK Plan	2013-18	55.00
4	Habitat manipulation to mitigate wildlife problem in Cochin International Airport	Cochin International Airport Ltd (CIAL)	2016	3.59
5	Validation of IPM technologies in protected cultivation	KSCSTE	2014-17	16.92
6	Management of cowpea pest complex by newer chemicals	RKVY	2013-2016	5.00
7	Management of depredatory birds in rice and vegetables, 2016-18	GoK- Department of Agriculture and Farmer's welfare, Kerala	2016-2018	10.00
8	Management of wild animal intrusion in crop fields	GoK- Department of Agriculture and Farmer's welfare, Kerala	2019-2020	10.00
9	Monitoring the susceptibility of insect pests to	GoK Plan	2018	2.00

	insecticides in different parts of Kerala			
10	Boosting crop yield through solitary pollen bees and improving their pollination service	GoK Plan	2018	2.00
11	Monitoring of pesticide residues in/on vegetables and fruits in the Central Districts of Kerala	Department of Agriculture and Farmer's welfare	2018-19	20.00
12	Establishment of Pesticide Residue Lab at College of Horticulture, Vellanikkara	RKVY	2014 - continuing	293.00
13	Multilocational trial of Avana	EID Parry	2017	2.00
14	Monitoring the susceptibility of insect pests to insecticides in different parts of Kerala	GoK Plan	2018	2.00
15	Network project on monitoring pesticide residues in/on vegetables/fruits in central and northern districts of Kerala and obtaining NABL accreditation (ISO 17025)	GoK Plan	2018	9.00
16	Capacity building on scientific beekeeping, hygienic honey harvest and value addition of bee hive product to small and marginal farmers of Kerala	NABARD	2020	4.00
17	Revolving fund scheme on Income generation through scientific bee keeping	KAU	Continuing	Income generated for the past 5 years – 29.22
18	Bio-Efficacy evaluation of herbal formulations developed by Grassroots Innovators against Red palm weevil, Rhyncophorus ferrugineus (Coleoptera:Curculionidae)	National Innovation Foundation	2020	1.00

19	Bio-Efficacy evaluation of herbal formulations developed by Grassroots Innovators against coconut mite, <i>Aceria guerreronis</i> (Eifer) (Acari: Eriophyidae)	National Innovation Foundation	2020	1.00
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Brief Description of contributions in research

- a. Technology Developments for Soil/ Crop /Forestry/ Livestock/Farming community/ Education /Extension / Environment / Energy / Other
 - Classical biological control of papaya mealybug
 - Nesting design for dammer bee
 - Bio bird repellent
 - Peafowl fence (recommended for the package of practice)
 - TNet (recommended for the package of practice)
 - Bird nesting designs (included in the package of practice, KAU)
 - DeeRep (recommended for the package of practice, KAU)
 - Nylon net based wild boar fencing (recommended for the package of practice, KAU)
 - BoRep (recommended for the package of practice, KAU)

- b. Development of Machineries, Instruments, Gadgets, etc.
 - Reflective ribbon cutter and metalized reflective ribbon (included in the package of practice)
 - Automatic cracker station
 - Rotary bird blind
 - LED light flash bird scarrer
 - Solar electric multi fencing system
 - Rodent cake applicator
 - Sensor based wild boar sonic repeller
 - Holographic reflective ribbon

Publications made during the year 2016 - 2020

(Titles of Books, Manuals and Scientific Papers published by the Candidate
Enclose three set of copies of Publications)

Book/Booklet

Anitha Sarala and **Mani Chellappan**. 2017 System of Rice Intensification in the high humid tropics of Kerala. LAP p 64

Mani Chellappan, Sreeja, P, Dini, M. K. Rajesh, M and Juvin Jose. 2016. Integrated Rodent Management (Malayalam) p 32

Mani Chellappan and Ranjith M T 2019 Barn owl: The Rodent Killer p 10

Book Chapter

Mani Chellappan 2017. Mealybugs of rubber In: Mealybugs and their Management in Agricultural and Horticultural crops (eds. M. Mani and C. Shivaraju) Springer pp557-560

Mani Chellappan and Ranjith, M. T. 2021. Termites. In: Omkar (eds) Polyphagous Pests of Crops. **Springer**, Singapore. https://doi.org/10.1007/978-981-15-8075-8_2.

Mani Chellappan and Ranjith, M. T. 2021. Metagenomics in insect symbiont In: Omkar (eds) Polyphagous Pests of Crops. **Springer**, Singapore. https://doi.org/10.1007/978-981-15-8075-8_2.

Practical manual

Berinth Pathrose, **Mani Chellappan**, Neenu Augustine, Safna M 2019 Storage Entomology p 34

Smitha M.S, Madhu Subramanian and **Mani Chellappan** 2018. Manual of techniques in biological control of crop pests and weeds p 71

Scientific papers

Anusree, R.P., Pathrose, B. and **Chellappan, M.** 2019. Malathion resistance in red flour beetle (*Tribolium castaneum*) (Herbst) (Coleoptera: Tenebrionidae) from FCI godowns of Kerala, India. *J. Trop. Agri.* 57(2)201-205

Anusree Padmanabhan P.S., **Mani Chellappan** and Henna Kadarkutty. 2019. Characterisation of endosymbionts of cotton mealybug (*Phenacoccus solenopsis* Tinsley) on Okra using metagenomics approach **International Journal of Chemical Studies**,7(1): 744-750

Elizabeth A Finch, Tim Beale, **Mani Chellappan**, Georg Goergen, Basana Gowda Gadratagi, Mohammed Abul Monjur Khan, Abdul Rehman, Ivan Rwomushana, Arup Kumar Sarma, Kris AG Wyckhuys, I and Darren J Kriticos 2020. The potential global distribution of the papaya mealybug, *Paracoccus marginatus*, a polyphagous pest. **Pest Management Science** (wileyonlinelibrary.com) DOI 10.1002/ps.6151)

Harish, E. R., **Mani Chellappan**, Girija, D., Makesh Kumar T., Deepu Mathew and Ranjith M. T. 2019. Next generation sequencing reveals endosymbiont variability in cassava whitefly, *Bemisia tabaci*, across the agro-ecological zones of Kerala, India. **Genome**. 62: 571-584.

Harish, E. R. **Mani Chellappan**, T. Mahesh Kumar, M. T. Ranjith and A.R. Ambavane. 2016 Morphometric variations in Cassava (*Manihot esculenta* Crantz) whitefly,

- Bemesiatabaci (Gennadius) (Hemiptera :Aleyrodidae) from different Agro-Ecological Zones of Kerala, India. *Journal of Root crops*. 42(2) 90-102
- Jancy Merlin Johnson, K.B. Deepthy and **Mani Chellappan**. 2020. Tolerance of *Metarhizium anisopliae* Sorokin isolates to selected insecticides and fungicides *Entomon*, 2020,45(2): 143-148
- Manichellappan**, Ambady P., Sujala, C., Henna, M.K. and Ranjith, M. T. 2017. Metagenomic analysis of cattle egret (*Bubulcus ibis* L.) specific gut microbiota. **Genome**. 60: 920.
- Manjusree, **Mani Chellappan** and Madhu Subramanian. 2019. Studies on natural enemies of pink pine apple mealybug, *Dysmicoccus brevipes* (Cockerell) (Hemiptera: Pseudococcidae) *Journal of Biological Control* 33(1): 53-56
- Manjusree, G. **Mani Chellappan** 2019. Evaluation of Entomopathogenic fungus for the management of pink mealybug, *Dysmicoccus brevipes* (Cockerell) (Hemiptera : Pseudococcidae) *Journal of Entomology and Zoology studies* 7(1) 1215-1222
- Nimisha T, Deepthy KB, Madhu Subramanian, **Mani Chellappan** and Smitha MS. 2019. Carboxyl esterase enzyme- biochemical armour in mediating host defence mechanism of tea mosquito bug (*Helopeltis antonii* Signoret Miridae: Hemiptera) *Journal of Entomology and Zoology Studies*, 7: 51-56
- Nimisha T, K.B. Deepthy, Madhu Subramanian, **Mani Chellappan** and Smitha M.S. 2019. Carboxyl esterase enzyme-biochemical armour in mediating host defense *Journal of Entomology and Zoology Studies* 2019, 7(4) 51-56
- Nimisha T, K.B. Deepthy, Madhu Subramanian, **Mani Chellappan**, Smitha M.S and Girija T. 2019. Modulation in certain biochemical constituents of cashew as influenced by tea mosquito bug- *Helopeltis antonii* *Indian Journal of Entomology* 2019, 81(3) 472-476
- Ranjith, M.T. **Mani Chellappan**, Harish, E.R., Grijia, D. Nazeem, P.A . 2016. Bacterial communities associated with the gut of tomato fruit borer, *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae) based on Illumina next generation sequencing. *Journal of Asia Pacific Entomology* 19(2) 333-340
- Shahanaz, M.R., Pathrose, B. and **Chellappan, M.** 2019. A phagostimulant based bait composition for tobacco caterpillar, *Spodoptera litura* (Fabricius) (Lepidoptera: Noctuidae). *J. Trop. Agri.* 57(1): 54-58
- Shahanaz, M.R., Pathrose, B. and **Chellappan, M.** 2019. Phagostimulant based insecticide bait for the management of *Spodoptera litura* (Fabricius) (Lepidoptera: Noctuidae). In: *International Conference on Plant Protection in Horticulture – 2019*. P. 190.
- Sreeja and **Mani Chellappan**. 2017. Evaluation of crop protection measures against wild boar (*Sus scrofa*) damage on Chinese potato [*Solanostemon rotundifolius* (Poir) Morton] in Kerala. *Pest Management in Horticultural Ecosystems*, 23(2): 133-137
- Sreeja P, **Mani Chellappan** and Anuja, R. 2018. Occurrence of polyhouse vegetable pests in Kerala. *Annals of Plant Protection Sciences*
- Sreeja, P and **Mani Chellappan**, 2017. Management of Indian peafowl, *Pavo cristatus* (L) on rice in Kerala. *Ann. Pl. Prot. Sci.* 25(2): 304-307
- Sreeja, P, Reji Rani O P and **Mani Chellappan**. 2020. Nematicidal metabolites of *Lecanicillium saksenae* (Kushwaha) Kurihara, Sukarno and bio efficacy against *Meloidogyne incognita*. *Annals of Plant Protection Sciences*
- Vidya C.V, R. Sundararaj , A.K. Dubey , Haseena Bhaskar, **Mani Chellappan** and M.K. Henna. 2019. Invasion and establishment of Bondar's nesting whitefly, *Paraleyrodes bondari* Peracchi (Hemiptera: Aleyrodidae) in Indian mainland and Andaman and Nicobar Islands. *ENTOMON* 44(2): 149-154

Conference papers

- Jancy Merlin Johnson , Deepthy, K.B, Reshmy Vijayaraghavan and **Mani Chellappan**. 2019. Abiotic stress tolerant isolates of *Metarhizium anisopliae* from Kerala soil. In: XIX International Plant Protection Congress- IPPC 201910-14 November, 2019, Hyderabad, Telangana
- Nimisha T, Deepthy. K.B, Madhu Subramanian, **Mani Chellappan**, Smitha, M.S. and Girija T. 2019. Biochemical response to tea mosquito bug to selected cashew varieties. In: XXIII PLACRO-SYM- IISR
- Pathrose, B., George, S.B., Varghese, V.C., Poduval, A.P. and **Chellappan, M.** Multiresidue method for the analysis of thirteen pesticides using GC-ECD. In: *International Conference on Plant Protection in Horticulture – 2019*. P 83.
- Vidya, C.V., Pathrose, B. and **Chellappan, M.** 2019. Post-flood outbreak of *Spodoptera litura* (Fabricius) in the Periyar belt of Kerala. In: *International Plant Protection Conference 2019*. P. 273.

Technical bulletin, Leaflets and Brouchers

- Mani Chellappan 2019** Handbook of vertebrate pest in Indian agrl. Landscape Eds. Vasudeva Rao and Tripathi, R. S. Technical bulletin
- Mani Chellappan**, 2019. Rodent management–video documentary (Malayalam)
- Mani Chellappan** and C. V. Vidya. 2017. Borep – for the management of wild boar problem in cropped fields (Malayalam)
- Mani Chellappan** and C. V. Vidya. 2017. Integrated management of depredatory birds in cropped fields (Malayalam)
- Mani Chellappan** and Henna, M. K 2019. Molecular characterization of four *Rattus* species using mitochondrial cytochrome oxidase I (mtCOI) region. Presented in the *International Gene School – Empowering Agricultural Research through Meta Genomics*, Kasertsart University, Bangkok, Thailand
- Mani Chellappan** and Ranjith, M. T. 2019. Purple moorhen management – leaflet in Malayalam
- Mani Chellappan** and Ranjith, M. T. 2019 Barn owl: the rodent killer. Booklet
- Mani Chellappan** and Ranjith, M. T. 2019 BoRep – against wild pig (English) Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019 BoRep – against wild pig (Malayalam). Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019 DeeRep against deer (English). Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019 Purple moorhen- an emerging threat to rice cultivation (English). Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019 Purple moorhen- an emerging threat to rice cultivation (Malayalam). Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019. DeeRep against deer (English). Leaflet
- Mani Chellappan** and Ranjith, M. T. 2019. DeeRep against deer (Malayalam). Leaflet
- Mani Chellappan** and Sreeja, P. 2017Kattupanni – nyanthirana markangal (Malayalam)
- Mani Chellappan** and Vidya C V. 2017 Samyojitha pakshi nyanthranam – karshika vilakalil. Leaflet
- Mani Chellappan** and Vidya C V. 2017. Kaatu pannikkethire borep LeafletBooklet
- Mani Chellappan** and Vidya C V. 2018. Giant Malabar squirrel- an emerging problem in coconut anc cocoa plantation in Kerala. Rodent Newsletter 42 (1-4): 3
- Mani Chellappan**, 2019. Rodent management– Malayalam video documentary

Mani Chellappan, Ranjith, M. T., Mohanan, S. and Bajith, K. B. 2019 Barn owl – a major component in the integrated rodent pest management in field and plantation crops. In: World owl conference. p41

National recommendation

a. Wild boar fence:

Erecting HDPE nylon net (2"mesh) fence (4' upright and 3' trailing on ground) around the cropped field reduces wild boar damage.

b. BoRep: Use of BoRep @ 2kg/ac by any one of the following methods to keep wild boar away from the cropped fields; (i) sprinkle around the cropped field OR Put BoRep cloth pouches on wooden poles or hung from a rope at 10cm above the ground level (at 1.5 to 2m intervals) around cropped area OR broadcast on paths frequented by wild boar

c. DeeRep:

Sambhar Deer Management in rubber tree plantations in Kerala: Cotton cloth ribbon (2" width and 2-3 feet length) dipped in DeeRep solution (@50ml per liter of water) tied around the rubber tree at a height (2 feet above ground level) to all trees had effectively deters the sambar deer away from the vulnerable stage of the rubber plants. OR Spray DeeRep (@50ml per liter of water) up to 6 feet height to all trees for effectively deterring the sambar deer away from the vulnerable stage of the rubber plants

Any other information related to the Award

a. Recipient of **Best Innovative showcasing of Ecofriendly Technology Award from Agri-Fiesta**,

b. Guided farmers of **Poriyani Padasekharam to receive 'NEL KATHIR' Award** from the Government of Kerala in 2015