



DR. S. EZIL VENDAN

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RESEARCH AREAS

- Food Protection & Safety
- Volatilomics & Chromatography
- Nanotechnology & Pesticide Toxicology
- Green Technology & Grain Storage Systems
- Fumigation Technology & Insect Toxicology

EDUCATION

2010	Ph.D. Integrated Biology -Entomology	Entomology Research Institute, Loyola College, Chennai, India.
2004	M.Sc. Integrated Biology	School of Biological Sciences, Madurai Kamaraj University, Madurai, India.
2001	B.Sc. Zoology	Department of Zoology, The Madura College, Madurai, India.

RESEARCH EXPERIENCE

2025 – till date	Scientist E , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India.
2021 – 2025	Scientist D , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India.
2017 – 2021	Scientist C , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India.

- 2015 – 2017 **Scientist Fellow** (CSIR-QHS), Food Protectants & Infestation Control, CSIR-Central Food Technological Research Institute, Mysore, India.
- 2013 – 2014 **Entomologist**, AL-Yamama Co., Post Box 3746, Dammam 31481, Saudi Arabia.
- 2010 – 2013 **Research Associate** (DST-RA), Research Centre, Mahavir Cancer Sansthan, Patna, Bihar, India.

TEACHING EXPERIENCE

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|------------------|---------------|---------------------|---------------------|
| 2017 – till date | AcSIR Faculty | Ph.D. Course Work | Biological Sciences |
| 2017 – till date | AcSIR Faculty | M.Sc. Degree Course | Food Technology |
| 2015 – till date | STC Faculty | Short Term Course | Entomology |

HONOURS, AWARDS & FELLOWSHIPS

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| 2026 | Editor of Distinction Award | Scientific Reports, Springer Nature. |
| 2025 | Senior Scientist Award | Indian Academy of Biopesticides (InABP), Kanyakumari, Tamil Nadu. |
| 2024 | AZRA Scientist Award | Applied Zoologists Research Association (AZRA), Bhubaneswar, Odisha. |
| 2023 | Fellow of Entomological Society of India | Entomological Society of India (ESI), ICAR-IARI, New Delhi. |
| 2022 | Green Technology Innovative Award | National Environmental Science Academy (NESA), New Delhi. |
| 2022 | Fellow of Royal Entomological Society | Royal Entomological Society (RES), St. Albans, Hertfordshire, AL2 3NS, United Kingdom. |
| 2021 | Innovative Design Thinking Award | Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, Tamil Nadu. |
| 2019 | Gold Medal & Young Scientist Award | Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh. |
| 2018 | Jagar Nath Raina Memorial All India Best Publication Award | Sadhna, Dr. Y. S. Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh. |

2018	Best Poster Award	8 th International Food Convention from Association of Food Scientists and Technologists, CSIR-CFTRI, Mysore, Karnataka.
2017	Har Gobind Khorana Memorial Best Young Scientist Award	Bose Science Society, Tamil Nadu Scientific Research Organization (TNSRO), Thiruchirapalli, Tamil Nadu.
2015	International Travel Fellowship	Centre for International Co-operation in Science (CICS), Chennai, Tamil Nadu.
2012	Reward of Honour	Institute for Educational Research & Innovative Action (IERIA), Bhopal, Madhya Pradesh.
2006	JRF Fellowship	UGC, Ministry of HRD, Govt. of India, New Delhi.
2003	GATE JRF Qualified	IIT, Ministry of HRD, Govt. of India, New Delhi.
2003	CSIR-UGC JRF/NET Qualified	CSIR-UGC, Ministry of HRD, Govt. of India, New Delhi.

KEYNOTE ADDRESS, INVITED & GUEST LECTURES

- **Green pesticides for grain storage management: Current scenario and future prospects**, *7th Biopesticides International Conference*, Indian Academy of Biopesticides, Kanyakumari, 27th September 2025.
- **Biorational approaches for eco-friendly management of stored-product insect pests**, *National Conference on Emerging Trends and Innovations in Biosciences*, J.J. College of Arts and Science, Pudukkottai, 22nd August 2025.
- **Fumigants for stored-product insect pest management: Challenges and future perspectives**, *International Conference on Agroecology and Pest Management: Balancing Environment and Human Health*, Lalit Narayan Mithila University, Darbhanga, Bihar, 18th - 19th July 2025.
- **Modern technologies for food protection: Disinfestation of insects in stored food grains**, *National Conference on Biotechnological Innovations for Sustainable Development*, Thiagarajar College, Madurai, 09th Jan. 2025.
- **Scope and opportunities in life sciences research**, *National Seminar on Research and Its Employability in Life Sciences*, K.M.G. College of Arts and Sciences, Gudiyattam. 09th Feb. 2024.
- **Fumigation and modern technologies for safe storage of food grains**, *National Seminar on Thrive for Safe Food: New and Novel Technologies*, D.D.G.D. Vaishnav College, Chennai, 06th Oct. 2023.
- **Warehouse designing and infestation control**, *17th Training Course on Advance Supply Chain Management and Food Technology*, Defence Food Research Laboratory (DFRL), Mysore, 19th July 2023.

- **Bio-fumigants from edible plant sources for the protection of stored food grains: current status and future prospects**, *2nd International Conference on Food, Bio and Nano Materials*, Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, 18th March 2023.
- **Prevention and management of household pests**, *Refresher Course for Cooks of JNVs of Karnataka, Kerala and Andhra Region*, Jawahar Navodaya Vidyalaya, Mysore, 16th January 2023.
- **Fumigation and infestation control for safe storage of spices**, *Hybrid Workshop on Entrepreneurship Development in Spice Processing*, CSIR-CFTRI, Mysore, 20th September 2022.
- **Prospects of phytochemicals for stored grain and seed protection**, *Stakeholders Workshop on Grain Storage and Pest Management*, CSIR-CFTRI, Mysore, 17th - 18th August 2022.
- **Biofumigants from plant volatiles**, *7th Meeting of Indian Grain Storage Working Group*, Indian Council of Agricultural Research (ICAR), New Delhi, 20th May 2022.
- **Phytochemical volatiles as food grain protectants: opportunities and challenges**, *National Conference on Emerging Trends in Plant Science for Sustainable Development*, Bharathidasan University, Tiruchirappalli, 30th March 2022.
- **Chemical versus natural: pesticides for safe storage of food grains from insect pests**, *Guest Lecture under Star College Scheme*, St. Mary's College, Thoothukudi, 28th Jan. 2022.
- **Advanced technologies for post-harvest grain storage and insect pest control**, *Farmers Training Programme on Food Protection and Management*, Karnataka Institute of Co-operative Management, Mysore, 23rd December 2021.
- **Current challenges and future prospects in food grain storage and protection**, *National Level Seminar Series on Opportunities and Challenges in Food Processing and Preservation*, Kalasalingam Academy of Higher Education (Deemed to be University), Krishnankoil, 25th October 2021.
- **Biochemical and physiological responses against toxicants in stored product insects**, *National Seminar Series on Career Opportunities for Food Technologists*, Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, 18th June 2021.
- **Post-harvest grain storage and food processing: a view**, *National Workshop on Chemistry in Everyday Life*, Vellore Institute of Technology (VIT-AP), Vijayawada, Andhra Pradesh, 17th Apr. 2021.
- **Impact of chemical pesticides in environment and status of eco-friendly pesticides use**, *2nd Virtual International Conference on Modern Biology and Environmental Management*, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, 29th Mar. 2021.
- **Bioweapons: a view on crop defense and food protection against insects**, *G. N. Ramachandran Science Club Webinar Series*, Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Kerala, 29th Sep. 2020.
- **Pesticide chemicals: present status and future challenges**, *National Conference on Environmental Sustainability Health and Pollution Abatement*, M.S.S. Wakf Board College, Madurai, 02nd Mar. 2020.
- **Insect-plant interactions and infestation tactics of insect pests**, *National Seminar on Recent Trends in Zoology*, S.B.K. College, Aruppukottai, 28th Feb. 2020.

- **Food production and protection: a view on insect pest management**, *National Conference on Wetland Biodiversity and its Conservation Strategy*, A.V.V.M. Sri Pushpam College, Thanjavur, 31st Jan. 2020.
- **Agrobiodiversity and its conservation measures**, *National Level Awareness Programme on Biodiversity and Biodiversity Act*, Arulmigu Palaniandavar Arts College, Palani, 25th Sep. 2019.
- **Current status and future perspectives in post-harvest insect pest management**, *National Seminar on Recent Development in Animal Sciences*, Aditanar College of Arts and Science, Tiruchendur, 22nd Aug. 2019.
- **Stored food protection and observation of insect pests under foldscope microscope**, *National Workshop on Foldscope & its Research Utilities*, Anandaram Dhekial Phookan College, Nagaon, Assam, 19th Aug. 2019.
- **Plant volatiles and non-volatiles: a view on food protection and biodiversity conservation**, *National Seminar on Science and Technology for Insect Diversity Conservation and Agricultural Progressive*, KAS College, Coimbatore, 29th July 2019.
- **Stored product insect pests and infestation control**, *Workshop on Integrated Pest Management Programme in Museums: A Modern Approach*, Regional Conservation Laboratory, Mysore, Karnataka 20th & 21st May 2019.
- **Foldscope microscopy and applications**, *Foldscope Workshop Programme*, GPWC, Imphal, Manipur, 22nd Sep. 2018.
- **Microscopic insights into the sensory systems and infestation tactics of seed borer beetles**, *Seminar cum Hands-on Training on Foldscope*, RIPANS, Ministry of Health & Family Welfare, Govt. of India, Aizawl, Mizoram, 18th Sep. 2018.
- **Insect and plant metabolites: role in defense system and applications**, *Faculty Development Programme on Techniques in Genomics, Proteomics and Bioinformatics*, Mepco Schlenk Engineering College, Virudhunagar, 16th Dec. 2017.
- **Pesticides for food protection: current status and future prospectives in india**, *International Conference on Food Microbiology & Food Safety*, D.D.G.D. Vaishnav College, Chennai, 11th Oct. 2017.
- **Natural pesticides in india in the context of intellectual property rights**, *National Conference IPRBB-2015*, A.V.V.M. Sri Pushpam College, Thanjavur, 16th Sep. 2015.
- **Assessment of carcinogenic pesticides by hplc and arsenic by arsenic-kit in biological samples**, *Contact and Motivational Programme*, Mahavir Cancer Sansthan, Patna, Bihar, 22nd Apr. 2012.
- **Environmental carcinogens and cancer risks**, Department of Zoology and Biotechnology, The Madura College, Madurai, 03rd Aug. 2011.
- **Phytochemicals in insect pest management**, P.G. and Research Department of Zoology, Ayya Nadar Janaki Ammal College, Sivakasi, 06th Sep 2010.

THESIS

Vendan, S. E. 2010. Biological effects and pest control properties of chosen botanicals against *Helicoverpa armigera* Hub. and *Spodoptera litura* Fab. (Lepidoptera: Noctuidae). *Ph.D. Thesis. University of Madras, Chennai.*

Vendan, S. E. 2003. Roost and diet selection in the Indian flying fox *Pteropus giganteus* (Megachiroptera). *M.Sc. Thesis. Madurai Kamaraj University, Madurai.*

MAJOR RESEARCH PROJECTS (Ongoing/Completed)

2026 - 2028	Principal Investigator	Scaling up the multi-fume technology integrated with a sequential fumigation process and eco-friendly fumigants for safe storage of food commodities against insect pest infestations	CSIR	FTT Theme CLP	FTT30602	₹152.80 Lakh
2026 - 2027	Team Member	Sustainable food processing for nutritional wellness, safety and food security: Development and validation of next-generation greener fumigants and fumigant formulations for protection of stored food commodities	CSIR	ULIP Scheme	MLP2608	₹19.00 Lakh
2026 - 2026	Co-Investigator	Assessment of Gumtree sticky trap solutions as a tool in integrated pest management for food security	Gumtree traps private Ltd., Goa	Consultancy	CNP578	-
2024 - 2026	Principal Investigator	Design and development of grain storage system with pushing force mechanism for the prevention of insect infestation in stored food products	CFTRI	In-House	MLP320-WP7	-
2024 - 2026	Co-Investigator	Exploring silica loaded biopolymers for insect-resistant packaging	CFTRI	RDSF Scheme	CSP24005	₹12.00 Lakh
2024 - 2026	Co-Investigator	Development of essential oil based prophylactic agents for prevention of stored grain insect pests	CSIR	CSIR-FTT Scheme	FTT20506	₹15.00 Lakh
2024	Team	Development of multi-optional	CFTRI	In-	MLP317-	-

- 2025	Member	sustainable sterilization processes for spices as an alternative to ethylene oxide and their risk assessment		House	WP2	
2023 - 2025	Co- Investigator	Shelf life enhancement of millets through non-hermetic, hermetic and advanced methods of storage system	CSIR	Millet Mission	HCP52	₹34.68 Lakh
2023 - 2024	Team Member	Development of export protocol for fresh okra, <i>Abelmoschus esculentus</i>	CFTRI	In- House	MLP307	-
2022 - 2024	Principal Investigator	Disinfestation and management of phosphine resistance insect pests: design and development of multi-fume grain storage system	CSIR	CSIR- FIRST Scheme	CSIR300	₹41.78 Lakh
2021 - 2024	Co- Investigator	Development of an industrial scale cold plasma unit for decontamination of fruits and vegetables	MoFPI	R & D Scheme	GAP615	₹21.29 Lakh
2021 - 2022	Team Member	An integrated program for value addition to the superfood – Chia (<i>Salvia hispanica</i>)	CFTRI	In- House	MLP296	-
2021 - 2022	Team Member	Ozone system development for iron removal from water and aflatoxin, bacterial mitigation in food grains	ORAIP L	R & D Applica tions	CLP21	-
2020 - 2024	Principal Investigator	Scaling up the bio-fumigation technology for protection of stored food commodities from insect pests	CSIR	CSIR- ATLAS Mission	HCP31- WP1.4	₹70.02 Lakh
2020 - 2024	Team Member	Development of a novel effective bioformulation against stored grain and vegetable pest	CSIR	Flori- culture Mission	HCP37	-
2019 -	Principal Investigator	Development of aromatic bio-fumigation process with air	CFTRI	In- House	MLP252	-

2020		pressure for safe storage of post-harvest pulses and grains in storage bags					
2019 - 2020	Team Member	Design and development of fruits and vegetable washer	CFTRI	In-House	MLP222		-
2018 - 2020	Principal Investigator	Development of bio-fumigation system for safe storage of food commodities against stored product insect pests	MoFPI	R & D Scheme	GAP533	₹16.46 Lakh	
2018 - 2019	Principal Investigator	Can visual sensation super impose olfactory sensation in the oviposition behavior of pulse beetle and rice weevil?	DBT	Foldscope Scheme	GAP527	₹8.00 Lakh	
2018 - 2018	Team Member	Study of ovicidal action of phosphine generated from quickphos aluminium phosphide tablets on selected stored grain insects	UPL	R & D Scheme	SSP247	₹11.80 Lakh	
2017 - 2019	Principal Investigator	Development of domestic scale storage bin for control of insect pests in stored food grains using plant based repellents	CFTRI	In-House	MLP210	₹28.25 Lakh	
2016 - 2017	Team Member	Multifaceted strategy for detection and control of insect infestation in rice	CFTRI	In-House	MLP196		-

TRAINING & CERTIFICATE COURSES

- 2025 **ISO/IEC 17025:2017 assessors training course** conducted by NABL at CSIR-CFTRI, Mysore.
- 2024 **ISO 9001:2015 audit training course** conducted by Lloyd's Register Quality Assurance (LRQA) and CSIR-CFTRI, Mysore.
- 2017 **Intellectual property rights and related issues**, workshop organized by CSIR-HRDC, Ghaziabad and CSIR-CFTRI, Mysore.

- 2007 **Post harvest entomological techniques for insect free grain storage to achieve nutritional security**, training programme sponsored by ICAR and organized by Tamil Nadu Agricultural University (TNAU), Coimbatore.
- 2001 **CCA (Certificate Course in Computer Application)** course conducted by TMC education, Madurai, India, recognized by New Delhi government.

SCIENTIFIC PROGRAMMES ORGANIZED

- Panel Discussion on **Academia – Industry** under CSIR-CFTRI One Week One Lab event, **Convener**, CSIR-CFTRI, Mysore, Karnataka, 06th July 2023.
- Industry Meet, **Bio-Fumigation Technology for Safe Storage of Food Grains, Programme Coordinator**, CSIR-CFTRI, Mysore, Karnataka, CSIR (ATLAS Mission) sponsored, 21st March 2023.
- Workshop Programme, **NER Twinning Programme cum Foldscope Seminar & Training, Organizing Secretary**, CSIR-CFTRI, Mysore, Karnataka, DBT sponsored, 19th Feb. 2019.
- Outreach Programme, **Observation of Stored Product Insect Pests under Foldscope, Programme Coordinator**, Soorahalli, Karnataka, DBT sponsored, 29th Nov 2018.
- Student Motivation Programme, **Contact Programme for Talented +2 Science Students 2010, Active Volunteer Organizer**, Mahavir Cancer Sansthan, Patna, Bihar, Prof. A. Nath, PI-DST & Head, 19th to 25th Sep. 2010.
- Farmers Awareness Programmes, **Promotion of Biopesticides, Biofertilizers and Biocontrol agents, Team Leader**, Dr. S. Ignacimuthu, PI-DST & Director, Entomology Research Institute, Chennai, 2006 – 2010.

COUNTRIES VISITED [Professional / Academic purpose]

- Saudi Arabia
- Egypt

SELECTED PUBLICATIONS [Total Citations – 1390; i10-index – 24; h-index - 18]

1. Varghese, J. A., **Vendan, S. E.**, Rajashekar, Y. and S. S. Mamatha. 2026. Sustainable insect pest management using bioactive compounds derived from marine macroalgae: A

comprehensive review. *Bioresource Technology*. 455: 134672 (<https://doi.org/10.1016/j.biortech.2026.134672>) (IF – 8.20)

2. Sreekrishnakumar, A. K., Ramachandra, A. B., Parthiban, P., Perumal, M. K. and **S. E. Vendan**. 2025. Biorational food protectants: Prediction of effective biofumigant against *Callosobruchus maculatus* adults with a comparison of residue persistence on beetle body surface. *Food Bioscience*. 74: 108022 (<https://doi.org/10.1016/j.fbio.2025.108022>) (IF – 6.20)
3. Sreekrishnakumar, A. K., Anand, A., Natesh, J., Meeran, S. M. and **S. E. Vendan**. 2025. Diallyl disulfide as potential fumigant: Prediction of target site and deciphering ovicidal action in *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) egg. *Environmental Science and Pollution Research*. (<https://doi.org/10.1007/s11356-025-37074-z>)
4. Ibrahim, S. S., Aswathi, K. S., Anand, A. and **S. E. Vendan**. 2025. PEGylation as a tool to improve the stability of garlic sulfides as nano-protectants from stored-product beetles infestation. *Journal of the Saudi Society of Agricultural Sciences*. 24:23 (<https://doi.org/10.1007/s44447-025-00030-x>)
5. Kanakhara, M., Arunkumar, P., Parthiban, P. and **S. E. Vendan**. 2025. Enhancing food safety and security through silicon-based approaches in pre-harvest and post-harvest pest management. *Pest Management Science*. (<https://doi.org/10.1002/ps.8876>) (IF - 4.850)
6. Lokesh, M., Amal, A., Sreekrishnakumar, A. K., and **S. E. Vendan**. 2025. Morphological characteristics of the antenna and its sensilla of three stored-product beetle species. *The Journal of Basic and Applied Zoology*. 86:36 (<https://doi.org/10.1186/s41936-025-00456-3>) (IF - 1.70)
7. Parthiban, P., Soren, B., Geetha, T., Babu, C. S. V. and **S. E. Vendan**. 2025. Effects of silica on stored product pest, *Sitophilus oryzae* L. (Coleoptera: Curculionidae) and its residual impact on *Triticum aestivum* L. grain. *Journal of Stored Product Research*. 112: 102664. (<https://doi.org/10.1016/j.jspr.2025.102664>) (IF – 3.40)
8. Sreekrishnakumar, A. K., Lokesh, M., Sahu, U. and **S. E. Vendan**. 2025. Can volatile sulfides act as fumigant or contact toxicant in cowpea weevil, *Callosobruchus maculatus* F.?: a comparative analysis. *Natural Product Research*. (<https://doi.org/10.1080/14786419.2025.2451220>) (IF – 2.465)
9. Sreelakshmi, V. P., **Vendan, S. E.** and P. S. Negi. 2025. Cold plasma treatment for decontamination of pesticide residues and preservation of spinach leaves. *Postharvest Biology and Technology*. 220: 113322. (<https://doi.org/10.1016/j.postharvbio.2024.113322>) (IF – 7.30)
10. Madhurya, L., Panneerselvam, A., Sreekrishnakumar, A. K., Anand, A., Gowda, T. S. and **S. E. Vendan**. 2024. Intensification of biofumigant stability: Preparation of peppermint-

piperitone nanoemulsion for effective fumigation against stored-product beetles. *Journal of Food Science and Technology*. (<https://doi.org/10.1007/s13197-024-06181-z>) (IF – 3.508)

11. Madhurya, L., Aswathi, K. S., Sahu, U., Gowda, T. S., Anand, A. and **S. E. Vendan**. 2024. Insight into the synergistic action of plant volatiles as biofumigants against *Sitophilus oryzae*, *Tribolium castaneum*, and *Callosobruchus maculatus* adults. *Journal of Biological Control*. 38(4): 438-452. (<https://doi.org/10.18311/jbc/2024/44278>) (IF – 0.316)
12. Murugesan, R., Rejoy, P. A. P., Aswathi, K. S. and **S. E. Vendan**. 2024. Foldscope coupled with smartphone view on antennal and wing morphometrics of the stored-product beetle pests. *Journal of Entomological Research*. 48(3): 384-386. (<https://doi.org/10.5958/0974-4576.2024.00075.8>) (IF – 0.248)
13. Lokesh, M., Aswathi, K. S., Sahu, U. and **S. E. Vendan**. 2024. Influence of molecular descriptors of plant volatiles on fumigant action against the three major stored-product beetle pests. *Environmental Science and Pollution Research*. 31: 35455-35469. (<https://doi.org/10.1007/s11356-024-33483-8>)
14. Sreelakshmi, V. P., **Vendan, S. E.** and P. S. Negi. 2024. The effect of cold plasma treatment on quality attributes and shelf life of apples. *Postharvest Biology and Technology*. 214: 112975. (<https://doi.org/10.1016/j.postharvbio.2024.112975>) (IF – 7.30)
15. Gawali, P. P., Toragall, V., Madhurya, L., Yannam, S. K. and **S. E. Vendan**. 2024. Physicochemical comparison of chitin characteristics in three major stored-product beetle pests: Implications for biofumigant toxicity. *International Journal of Biological Macromolecules*. 265: 130759. (<https://doi.org/10.1016/j.ijbiomac.2024.130759>) (IF – 8.70)
16. Lokesh, M., Panneerselvam, A., Gawali, P. P., Aswathi, K. S., Sahu, U. and **S. E. Vendan**. 2024. Profiling of semiochemicals of three stored product beetles by headspace solid-phase microextraction coupled with gas chromatography-mass spectrometry. *Natural Product Research*. 38(17): 3063-3069. (<https://doi.org/10.1080/14786419.2023.2200945>) (IF – 2.465)
17. Sahu, U., Theertha, D. P., Nazeer, M., Madhurya, L. and **S. E. Vendan**. 2023. Physicochemical stress alters cuticular semiochemical secretions in the red flour beetle, *Tribolium castaneum* adults. *Journal of Pest Science*. 97: 1259-1268. (<https://doi.org/10.1007/s10340-023-01692-8>) (IF – 5.974)
18. Madhurya, L., Nazeer, M., Sahu, U. and **S. E. Vendan**. 2023. Contamination risk of aluminium phosphide residues on the packed wheat grain sacs. *Journal of Entomological Research*. 47(2): 458-460. (<https://doi.org/10.5958/0974-4576.2023.00083.X>) (IF – 0.248)
19. Ibrahim, S. S., Sahu, U., Karthik, P. and **S. E. Vendan**. 2023. Eugenol nanoemulsion as biofumigant: enhanced insecticidal activity against the rice weevil, *Sitophilus oryzae* adults. *Journal of Food Science and Technology*. 60: 1435-1445. (<https://doi.org/10.1007/s13197-023-05690-7>) (IF – 3.508)

20. Madhurya, L., Sahu, U., **Vendan, S. E.**, Devi, S. S. and C. S. V. Babu. 2021. Scope of herbal disinfectants to fight against SARS-CoV2 virus. *Tropical Biomedicine*. 38(4): 605-612. (<https://doi.org/10.47665/tb.38.4.104>) (IF – 1.0)
21. Noore, S., Ramesh, G., **Vendan, S. E.** and V. D. Nagaraju. 2021. Persistence and diffusion behaviour of chlorpyrifos in five different species of vegetables: a comparative analysis. *Ecotoxicology and Environmental Safety*. 217: 112208. (<https://doi.org/10.1016/j.ecoenv.2021.112208>) (IF – 6.680)
22. Sahu, U., Ibrahim, S. S. and **S. E. Vendan**. 2021. Persistence and ingestion characteristics of phytochemical volatiles as bio-fumigants in *Sitophilus oryzae* adults. *Ecotoxicology and Environmental Safety*. 210: 111877. (<https://doi.org/10.1016/j.ecoenv.2020.111877>) (IF – 6.680)
23. **Vendan, S. E.**, Manivannan, S., Sunny, A. M. and P. Murugesan. 2017. Phytochemical residue profiles in rice grains fumigated with essential oils for the control of rice weevil. *PLoS ONE*. 12(10): 1-17 e0186020. (<https://doi.org/10.1371/journal.pone.0186020>) (IF – 3.582)
24. Manivannan, S. and **S. E. Vendan**. 2017. Insights into the functional potential of the rice weevil rostrum based on microstructure. *The Journal of Animal and Plant Sciences*. 27(2): 688-690. (IF – 0.606)
25. **Vendan, S. E.** 2017. Innovation in green-chemical technology for insect pest management: need for application oriented research and commercialization of products. *Trends in Biosciences*. 10(6): 1327-1329.
26. **Vendan, S. E.** 2016. Current scenario of biopesticides and eco-friendly insect pest management in India. *South Indian Journal of Biosciences*. 2(2): 268-271. (<https://doi.org/10.22205/sijbs/2016/v2/i2/100315>)
27. Balamurugan, R., **Vendan, S. E.**, Aravinthan A. and Jong-Hoon Kim. 2015. Isolation and structural characterization of 2R, 3R taxifolin 3-O-rhamnoside from ethyl acetate extract of *Hydnocarpus alpina* and its hypoglycemic effect by attenuating hepatic key enzymes of glucose metabolism in streptozotocin-induced diabetic rats. *Biochimie*. 111: 70-81. (<https://doi.org/10.1016/j.biochi.2015.02.003>) (IF – 4.273)
28. Nattudurai, G., **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2014. Vermicomposting of coirpith with cowdung by *Eudrilus eugeniae* Kinberg and its efficacy on the growth of *Cyamopsis tetragonaloba* (L) Taub. *Journal of The Saudi Society of Agricultural Sciences*. 13: 23-27. (<https://doi.org/10.1016/j.jssas.2012.12.003>)
29. Nath, A., **Vendan, S. E.**, Priyanka, Singh, J. K., Singh, C. K. and S. Kumar. 2013. Carcinogenic pesticides residue detection in cow milk and water samples from Patna, India. *Current Trends in Biotechnology & Chemical Research*. 3(1): 1-7.

30. Packiam, S. M., Anbalagan, V., Ignacimuthu, S. and **S. E. Vendan**. 2012. Formulation of a novel phytopesticide *PONNEEM* and its potentiality to control generalist herbivorous Lepidopteran insect pests, *Spodoptera litura* (Fabricius) and *Helicoverpa armigera* (Hubner) (Lipidoptera: Noctuidae). *Asian Pacific Journal of Tropical Disease*. S2: 720-723. ([https://doi.org/10.1016/S2222-1808\(12\)60251-5](https://doi.org/10.1016/S2222-1808(12)60251-5))
31. Nath, A., Singh, J. K., **Vendan, S. E.**, Priyanka, Anamika. and S. Sinha. 2012. High risk of oral cancer in North India. *Current Science*. 102 (4): 556. **(IF – 1.102)**
32. Nath, A., Singh, J. K., **Vendan, S. E.**, Priyanka. and S. Sinha. 2012. Elevated level of prostate specific antigen among prostate cancer patients and high prevalence in Gangetic zone of Bihar, India. *Asian Pacific Journal of Cancer Prevention*. 13 (1): 451-453. (<https://doi.org/10.7314/APJCP.2012.13.1.221>) **(IF – 1.892)**
33. Nath, A., Singh, J. K., **Vendan, S. E.** and Priyanka. 2011. Female reproductive cancers incidence in Bihar, India with the risk of xenoestrogenic arsenic in serum and in drinking water sources. In: Proceedings of the Second AACR International Conference on Frontiers in Basic Cancer Research; 2011 Sep 14-18; San Francisco, CA. Philadelphia (PA): AACR; *Cancer Research*. 2011; 71(18 Suppl): 29. (<https://doi.org/10.1158/1538-7445.FBCR11-B29>)
34. **Vendan, S. E.** 2011. Endosulfan ban in India: for good or not?. *Current Science*. 101 (11): 1398. **(IF – 1.102)**
35. Lingathurai, S., **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2011. Antifeedant and larvicidal activities of *Acalypha fruticosa* Forssk. (Euphorbiaceae) against *Plutella xylostella* L. (Lepidoptera: Yponomeutidae) larvae. *Journal of King Saud University (Science)*. 23: 11-16. (<https://doi.org/10.1016/j.jksus.2010.05.012>) **(IF – 3.972)**
36. **Vendan, S. E.** and A. A. P. Anand. 2010. Is Masters of Philosophy worth pursuing?. *Current Science*. 99 (8): 994. **(IF – 1.102)**
37. Valanarasu, M., Kannan, P., **Vendan, S. E.**, Ganesan, G., Ignacimuthu, S. and P. Agastian. 2010. Antifungal and antifeedant activities of extracellular product of *Streptomyces* spp. ERI-04 isolated from Western Ghats of Tamil Nadu. *Journal of Medical Mycology*. 20 (4): 290-297. (<https://doi.org/10.1016/j.mycmed.2010.09.001>) **(IF – 3.426)**
38. Anand, A. A. P., Vennison, S. J., Sankar, S. G., Prabhu, I. G., Vasan, P. T., Raghuraman, T., Geoffrey, C. J. and **S. E. Vendan**. 2010. Isolation and characterization of bacteria from the gut of *Bombyx mori* that degrade cellulose, xylan, pectin and starch and their impact on digestion. *Journal of Insect Science*. 10 (107): 1-20. (<https://doi.org/10.1673/031.010.10701>) **(IF – 2.30)**
39. **Vendan, S. E.**, Lingadurai, S., Paulraj, M. G. and S. Ignacimuthu. 2010. Bioefficacy of neem oil formulation with *Hydnocarpus alpina* Wt. leaf extract against *Spodoptera litura* Fab. *International Journal of Current Research*. 3: 78-82.

40. **Vendan, S. E.**, Lingadurai, S., Paulraj, M. G. and S. Ignacimuthu. 2010. Incidence of *Spodoptera litura* Fab. (Lepidoptera: Noctuidae) on *Argemone mexicana* Linn. (Papaveraceae). *Insect Environment*. 16 (1): 20-21.
41. Anand, A. A. P, **Vendan, S. E.** and B. Kaleeswaran. 2010. Your memory depends on your sleep. *Asian Journal of Science and Technology*. 1: 32-35.
42. Baskar, K., Kingsley, S., **Vendan, S. E.**, Paulraj, M. G., Duraipandiyar, V. and S. Ignacimuthu. 2009. Antifeedant, larvicidal and pupicidal activities of *Atlantia monophylla* (L) Correa against *Helicoverpa armigera* Hubner. (Lepidoptera: Noctuidae). *Chemosphere*. 75: 355-359. (<https://doi.org/10.1016/j.chemosphere.2008.12.034>) (IF – 8.125)
43. Lingathurai, S., Vellathurai, P., **Vendan, S. E.** and A. A. P. Anand. 2009. A comparative study on the microbiological and chemical composition of cow milk from different locations in Madurai, Tamil Nadu. *Indian Journal of Science and Technology*. 2 (2): 1-4. (<https://doi.org/10.17485/ijst/2009/v2i2/29394>)
44. Ignacimuthu, S. and **S. E. Vendan**. 2008. Botanical pesticides in insect pest management. *Uttar Pradesh Journal of Zoology*. 4 (1): 141-154.
45. Pavunraj, M., **Vendan, S. E.** and S. Ignacimuthu. 2006. Digestion of cellulose and starch by symbiotic bacteria in the gut of the giant tiger prawn *Penaeus monodon* (F.). *Journal of Advanced Zoology*. 27 (2): 56-60. (IF – 0.029)

BOOK CHAPTERS & PROCEEDINGS

1. Raveendran, A., **Vendan, S. E.**, Babu, C. S. V. and S. A. Singh. 2025. Mitigation of contaminants in foods: Pesticide residues, heavy metals, mycotoxins in various food commodities and strategies for their mitigation to ensure food safety. In *Food Toxicity and Safety*, D. Mondal and M. M. Rahman (Eds), Springer Nature Publishers, pp 3-36. (ISBN: 978-9819641277)
2. Sahu, U., Malik, T., Ibrahim, S. S., **Vendan, S. E.** and P. Karthik. 2022. Pest management with green nanoemulsions. In *Bio-based Nanoemulsions for Agri-Food Applications*, Kamel A. Abd-Elsalam and Kasi Murugan (Eds), Elsevier Publishers, pp 177-195. (ISBN: 978-0-323-89846-1)
3. Sahu, U., Sreevathsan, S., Mudliar, S. N. and **S. E. Vendan**. 2021. Fumigant toxicity of garlic essential oil with the combined effect of ozone gas and determination of phytochemical residues from the treated rice weevil *Sitophilus oryzae* and wheat grains. In: Jayas D.S. and F. Jian (eds), Proceedings of the 11th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2020), CAF Permanent Committee Secretariat, Winnipeg, Canada. Pp. 261 – 268. (ISBN: 978-0-323-89846-1)

4. **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2010. Glutathione S-transferase activity and larval mortality in taxifolin 3-O-rhamnoside treated *Helicoverpa armigera* Hub. and *Spodoptera litura* Fab. In *Non-chemical Insect Pest Management*, Ignacimuthu, S. and David, B.V. (Eds), Elite Publishers, New Delhi, pp 64-71. (ISBN-13: 978-8188901418)
5. **Vendan, S. E.**, Baskar, K., Paulraj, M. G. and S. Ignacimuthu. 2009. Antifeedant and larvicidal effects of *Hydnocarpus alpina* Wt. (Flacourtiaceae) extracts against the larvae of *Helicoverpa armigera* Hub. (Lepidoptera: Noctuidae). In *Ecofriendly Insect Pest Management*, Ignacimuthu, S. and David, B.V. (Eds), Elite Publishers, New Delhi, pp 210-216. (ISBN-13: 978-8188901371)
6. **Vendan, S. E.**, Kaleeswaran, B., Baskar, K. and A. A. P. Anand. 2008. Conservation Status of Indian flying fox, *Pteropus giganteus* in Tamil Nadu, South India. In *Wildlife Biodiversity Conservation*, Vikram Reddy, M. (Ed.), Daya Publishers, New Delhi, pp 81-91. (ISBN 13: 978-8170355298)
7. **Vendan, S. E.**, Baskar, K., Lingadurai, S., Ramar, M., Paulraj, M. G. and S. Ignacimuthu. 2008. Effect of plant extracts on larval development of *Helicoverpa armigera*. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 215-219. (ISBN 13: 978-8188901333)
8. Lingathurai, S., **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2008. Antifeedant and growth inhibiting effects of *Morinda tinctoria* Roxb. against *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 195-200. (ISBN 13: 978-8188901333)
9. Duraipandiyan, V., **Vendan, S. E.**, Khaleel, K. M. and S. Ignacimuthu. 2008. Antifeedant activity of golden leather fern, *Acrostichum aureum* L. against asian armyworm *Spodoptera litura* Fab. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 191-194. (ISBN 13: 978-8188901333)
10. Kaleeswaran, B., **Vendan, S. E.**, Ganesh, B. P. and S. Bhavatarini. 2008. Biodiversity and Niches of Ants in Alagar Hills, Tamil Nadu. In *Wildlife Biodiversity Conservation*, Vikram Reddy, M. (Ed.), Daya Publishers, New Delhi, pp 188-208. (ISBN 13: 978-8170355298)
11. Baskar, K., Kingsley, S., **Vendan, S. E.** and S. Ignacimuthu. 2008. Feeding deterency of some plant extracts against asian armyworm, *Spodoptera litura* Fab. (Lipidoptera: Noctuide). In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 225-227. (ISBN 13: 978-8188901333)
12. Ramar, M., Duraipandiyan, V., Paulraj, M. G., **Vendan, S. E.** and S. Ignacimuthu. 2008. Larvicidal and pupicidal properties of *Croton sparciflorus* Linn. (Euphorbiaceae) leaf extract against *Culex quinquefasciatus* Say. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 236-239. (ISBN 13: 978-8188901333)

BOOKLETS / BOOKS

1. Negi, P. S., Debnath, S., Kapoor, M., Thimmaiah, G. R., Patil, N., **Vendan, S. E***, Joshi, S., Kudre, T., Chaudhri, S. R., Gopinath, M., Sarma, M. V. R. K., Kumar, M. P., Reddy, J. P., Kusuma, K., Somashekar, K. S. and P. Tejas. 2026. 75 Years of R&D at CSIR-CFTRI. *Published by The Director, CSIR-CFTRI, Mysore.*
2. Hospet, R., **Vendan, S. E.#**, Babu, C. S. V. and P. M. Halami. 2022. Compendium on Biology of Stored Product Insects and their Management. *Published by The Director, CSIR-CFTRI, Mysore, V.1.0, pp 1-46.*

**Co-Editor, #Corresponding author*

PATENTS

1. **Vendan, S. E.**, Babu, C. S. V., Hospet, R and P. G. Pratiksha. 2024. Biofumigation system for food grain storage and process for food protection therefrom. (Filed reference no. 202411071606; dt 20.09.2024)
2. **Vendan, S. E.**, Babu, C. S. V., Hospet, R and P. G. Pratiksha. 2024. Synergistic biofumigant formulation for the control of stored product insect pests. (Filed reference no. 202411061532; dt 13.08.2024)

PRODUCTS / TECHNOLOGIES DEVELOPED

1. Biofumigation technology for stored pulse protection (CFTRI PDRU No. CMF 3760; 2025)*
2. Ready mixes: Dosa (CFTRI PDRU No. CCF 1303; 2025)#
3. Herbal bulk sanitizer product (CFTRI PDRU No. CMF 3680; 2021)*
4. Herbal fogging disinfectants for mist sanitizer system (CFTRI PDRU No. CMF 3660; 2021)#
5. Herbal potable spray sanitizer (CFTRI PDRU No. CMF 3670; 2021)#
6. Herbal hand sanitizer - Gel form (CFTRI PDRU No. CMF 3640; 2021)#
7. Herbal hand sanitizer - Liquid form (CFTRI PDRU No. CMF 3650; 2021)#

**Principal Inventor, #Co-Inventor*

RESEARCH PAPER PRESENTATIONS

- 2025 19th AZRA International Conference on Environmental Shift Impact on Animal Biota, Food, Feed and Nutritional Security and Human Health, Siksha-O-Anusandhan, Bhubaneswar, Odisha. *(Oral Presentation)*
- 2022 International Conference on Natural Science and Green Technologies for Sustainable Development, Goa University, Goa. *(Oral Presentation)*
- 2019 National Conference on Advances in Microscopy and Foldscope, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, Uttar Pradesh. *(Oral Presentation)*
- 2017 6th National Conference on Natural Science, Holy Cross College, Trichy, Tamil Nadu. *(Oral Presentation)*
- 2016 Institute Seminar Programme, CSIR-Central Food Technological Research Institute, Mysore, Karnataka. *(Oral Presentation)*
- 2016 International Conference on Climate Change and its Implications on Crop Production and Food Security, BHU, Varanasi, Uttar Pradesh. *(Oral Presentation)*
- 2015 4th International Conference of Eco-friendly Applied Biological Control of Agricultural Pests and Phytopathogens, Cairo, Egypt. *(Oral Presentation)*
- 2012 International Conference on Reproductive Health with Emphasis on Strategies for Family Planning, ICMR, New Delhi. *(Poster Presentation)*
- 2012 National Conference on Climate Change, Biodiversity and Conservation, St. Andrew College, Gorakhpur, Uttar Pradesh. *(Oral Presentation)*
- 2012 National Seminar on Frontiers in Environmental Pollutants, Health and Applied Genetics, Mahavir Cancer Sansthan, Bihar. *(Oral Presentation)*
- 2011 AACR International Conference on New Horizons in Cancer Research: Biology to Prevention to Therapy Conference, Delhi. *(Poster Presentation)*
- 2011 4th Bihar Science Conference 2011, L.S. College, Muzaffarpur, Bihar. *(Poster Presentation)*
- 2009 5th International Conference on Biopesticides: Stakeholders Perspectives, The Energy and Resources Institute (TERI), New Delhi, India. *(Poster Presentation)*
- 2009 National Conference on Biotechnological Approaches for Ecofriendly Insect Pest Management, University of Madras, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2009 National Symposium on Non-chemical Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2009 Seminar on Recent Trends in Biological Sciences, Post-Graduate and Research Pachaiyappa's College, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2008 National Symposium on Ecofriendly Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2007 National Symposium on Recent Trends in Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2006 National Seminar on Wildlife Biodiversity Conservation, School of Life Sciences, Pondicherry University, Pondicherry. *(Oral Presentation)*
- 2006 National Conference on Biodiversity, Dept. of Advanced Zoology and Biotechnology, Loyola College, Chennai, Tamil Nadu. *(Oral Presentation)*
- 2003 Science Day and Aqua-Terr Annual Symposium, School of Biological Sciences, Madurai Kamaraj University, Madurai, Tamil Nadu. *(Poster Presentation)*

RESEARCH GUIDANCE - PG / DOCTORAL / POST DOCTORAL (Ongoing/Completed)

Ms. Niveddhitha V S	UG Research Scholar	Internship Program	2026 – till date
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Dr. Aswathi K S ^{1@}	Ph.D. Research Scholar (JRF & SRF-UGC)	AcSIR Ph.D. Program	2020 – 2025
Dr. Gawali P P ²	Ph.D. Research Scholar (JRF & SRF-CSIR)	AcSIR Ph.D. Program	2020 – 2025
Dr. Madhurya L ^{1\$}	Ph.D. Research Scholar (JRF & SRF-UGC)	Mysore Univ. Program	2020 – 2024
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Dr. Sahu U ^{1*}	Ph.D. Research Scholar (JRF & SRF-CSIR)	AcSIR Ph.D. Program	2018 – 2023

¹Guide, ²Co-Guide, ³Mentor

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RESEARCH GUIDANCE - PROJECT FELLOWS / TRAINEE (Completed)

Mrs. Theertha D P* (JRF, GAP-527)	Mrs. George L (SRF, GAP-533)	Dr. Sowndhararajan K (Trainee, SRTP-2020)
Dr. Swamy A L V (Trainee, SRTP-2020)	Mr. Selvan V T T (Trainee, SRTP-2020)	Ms. Noore S (PA, MLP222)
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(PG Research)	(PA, GAP-615)	(PA, HCP-37)
Ms. Tanushree S (PA, HCP-37)	Ms. Devi M [#] (PG Research)	Mr. Nazeer M ^a (PA, HCP-31)
Ms. Yazhini V S (PA, MLP-300)	Mr. Macarius N M N ^b (PA, MLP-300)	Mr. Viji K (SA, HCP-31)
Ms. Sreelakshmi (PA, GAP-615)	Mrs. Venkatama S (SA, HCP-31)	Mr. Shivakumar A R [@] (PG Research)
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DOCTORAL RESEARCH GUIDANCE – Ph.D. Degree Awarded

¹Aswathi, K. S. 2026. Development of potential biofumigation process using phytochemical volatile for the control of *Sitophilus oryzae* and *Callosobruchus maculatus*. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

¹Madhurya, L. 2025. Insecticidal activity of phytochemical volatiles against insect pests in food grains. *Ph.D. Thesis. University of Mysore, Mysore*

²Gawali, P. P. 2025. Development of essential oil based bio-fumigant and its efficacy against major stored-product insect pests. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

¹Sahu, U. 2024. Physiological and toxicological effects of phytochemical volatiles on *Sitophilus oryzae* (Rice weevil): A comprehensive study. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

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POST-DOCTORAL RESEARCH GUIDANCE – Completed

Mohamed, S. S. I. 2021. Nanoencapsulation and bioformulation of essential oils to control the grain beetle *Sitophilus oryzae* and pulse beetle *Callosobruchus chinensis*. *Post-Doctoral Project Report, Council of Scientific and Industrial Research – The World Academy of Sciences (CSIR-TWAS)*.

DISSERTATION / SHORT-TERM RESEARCH GUIDANCE - Completed

Sathishkumar, T. 2026. Odour masking behaviour of spice derived flavours on the garlic essential oil for biofumigation against the pulse beetle pest. *Short-Term Work Report, Kongunadu Arts and Science College, Coimbatore, Tamil Nadu*.

Mahesha, M. N. 2026. Generation of volatile emission from the fresh food substances and evaluation of the fumigation efficacy against the pulse beetle. *M.Sc. Organic Chemistry, University of Mysore, Mysore, Karnataka*.

Chawla P. K. 2026. Biochemical and non-chemical approaches of disinfection and decontamination of beetles and fungi from stored food grains. *M.Sc. Life Sciences, Bharathidasan University, Trichy, Tamil Nadu*.

Samraj, J. M. 2026. Investigation of fumigant bioactivities against the stored-product insect pests using *in vivo* and *in silico* models. *PAT Project Report, Indian Council of Agricultural Research – National Institute of Seed Science and Technology (ICAR-NISST), Mau, Uttar Pradesh*.

Achar, S. 2026. Insights into the stability of spice derived phytochemicals under ozone, thermal and UV exposures and their fumigant action in red flour beetle. *M.Sc. Organic Chemistry, University of Mysore, Mysore, Karnataka*.

Manikannan, S. 2025. Characterization of benzoquinone secreted by red flour beetle and formulation of nanoemulsion using benzoquinones against grain storage fungi. *M.Sc. Biotechnology, VELS University, Chennai, Tamil Nadu*.

Ragul, A. 2025. Green chemical extraction efficiency: A comparative analysis of physicochemical characteristics of phytochemicals with particle size of green gram flour. *M.Sc. Biotechnology, VELS University, Chennai, Tamil Nadu*.

Mandhata, S. 2024. Determination of thermal stability of garlic sulphides by gas chromatography techniques and analysis of toxicities by insecticidal bioassays. *M.Tech. Internship Report, Biotechnology, KIIT University, Bhubaneswar, Odisha*.

Udhayashri, S. 2024. Influence of host plant volatiles in ovipositional preference behavior of female, *Callosobruchus chinensis*, L. (Coleoptera: Chrysomelidae). *M.Sc. Internship Report, Microbiology, Dr. N.G.P. Arts and Science College, Coimbatore, Tamil Nadu*.

Benarji, N. 2024. Self-life enhancement of biofumigants using nanoemulsions for the protection of stored food grains from insect pests. *M.Sc. Thesis, Biotechnology, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu*.

Aravind, S. 2024. Diffusion and toxicological characteristics of phytochemical volatile against stored grain insect pests. *M.Sc. Thesis, Biotechnology, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu*.

- Shivakumar, A. R. 2023. Contamination risk of carcinogenic benzoquinones in flour beetle infested grain flours. *M.Sc. Thesis, Food Technology, CSIR-CFTRI, Mysore, Karnataka.*
- Abinaya, V., Kesavapriya, S., Mahalakshmi, R. and R. Ramyapriya. 2023. Investigation of fumigant toxicity of selected gases and phytochemicals against *Sitophilus oryzae*. *B.Tech. Thesis, Biotechnology, Dhanalakshmi Srinivasan Engineering College, Perambalur, Tamil Nadu.*
- Kumari, S. 2022. Preparation of essential oil and phytochemical volatiles based nanoemulsion formulations and evaluation of fumigant toxicity against pulse and grain beetle pests. *M.Sc. Thesis, Biotechnology, Vinoba Bhave University, Hazaribag, Jharkhand.*
- Nihal, M. C. 2022. Comparative analysis of fumigant toxicity of phytochemical extracts of spice wastes with spice essential oils: An approach for ecofriendly insect pest management and waste management. *M.Sc. Thesis, Food Technology & Quality Assurance, Mount Royal College, Munnar, Kerala.*
- Thomas, A. V. 2022. Fumigant toxicity of selected three essential oils against *Sitophilus oryzae* and *Callosobruchus maculatus* and diffusional characteristics of bioactives on the stored food grains. *M.Sc. Thesis, Food Technology & Quality Assurance, Mount Royal College, Munnar, Kerala.*
- Thampikutty, S. 2022. Estimation of dust, heavy metals and pesticide residue contaminants on the fresh food market samples collected at Mysuru, Karnataka, India. *M.Sc. Thesis, Food Science and Technology, St. Joseph's College, Bangalore, Karnataka.*
- Devi, M. 2022. Impact of phytochemical fumigants on the cuticular surface chemical secretion of three major stored product beetle pests. *M.Sc. Thesis, Botany, Bharathidasan University, Trichy, Tamil Nadu.*
- Mathews, A. S. 2020. Investigation of structure-activity relationship of selected phytochemicals against *Callosobruchus maculatus* Fab. *B.Tech. Thesis, Biotechnology, Vellore Institute of Technology, Vellore, Tamil Nadu.*
- Harshini, A. V. S. G. 2020. Investigation of quinone secretion variations in flour beetle at different stress exposures. *M.Sc. Thesis, Biotechnology, GITAM Institute of Science, Visakhapatnam, Andhra Pradesh.*
- Nehaa, K. 2019. Optimization of biofumigation process for the control of stored product insect pests. *B.Tech. Thesis, Biotechnology, Rajalakshmi Engineering College, Chennai, Tamil Nadu.*
- Srimathi, J. 2019. Generation of plant volatiles and evaluation of toxicity against stored product insect pests. *B.Tech. Thesis, Biotechnology, Rajalakshmi Engineering College, Chennai, Tamil Nadu.*
- Swathi, R. 2019. Fumigation effect of selected phytochemicals and cuticular surface chemical profile analysis in stored product insect pests. *B.Tech. Thesis, Biotechnology, Jeppiaar Engineering College, Chennai, Tamil Nadu.*
- Das, A. 2018. Determination of topical sedimentation and uptake of phytochemicals through cuticular surface in fumigated stored product insect pests. *M.Sc. Thesis, Biotechnology, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha.*
- Dayi, A. S. 2018. Phytochemical residue determination and development of residue removal process from fumigated grains. *M.Sc. Thesis, Food Technology and Quality Assurance, St. Mary's College for Women, Paliakara, Kerala.*

Prince, A. 2018. Investigating the bio-fumigant properties of garlic and ginger essential oils for stored product insect control. *M.Sc. Thesis, Food Technology and Quality Assurance, St. Mary's College for Women, Paliakara, Kerala.*

Srivastav. S. 2016. Responses of rice weevil (*Sitophilus oryzae*) to volatiles of grains and essential oils. *M.Tech. Thesis, Food Technology, Gautam Budha University, Lucknow, Uttar Pradesh.*

EDITOR IN JOURNALS

- Guest Editor - Scientific Reports, *Nature* (2026 – till date)
- Editorial Board Member - Archives of Phytopathology and Plant Protection, *Taylor & Francis* (2026 – till date)
- Editorial Board Member - Scientific Reports, *Nature* (2025 – till date)
- Academic Editor - PLOS ONE Journal (2024 – till date)
- Editorial Board Member - Discover Agriculture, *Springer* (2024 – till date)

REVIEWER IN JOURNALS

- Ecotoxicology and Environmental Safety, *Elsevier* (2025-2026)
- Cogent Food and Agriculture, *Taylor & Francis* (2026)
- Discover Chemistry, *Springer* (2026)
- Journal of Stored Product Research, *Elsevier* (2024 - 2026)
- Applied Food Research, *Elsevier* (2026)
- Journal of Agriculture and Food Research, *Elsevier* (2026)
- PLOS ONE Journal (2021 - 2026)
- International Journal of Tropical Insect Science, *Springer* (2019-2021, 2025-2026)
- Environmental Sustainability, *Springer* (2018 & 2026)
- RSC Advances, *Royal Society of Chemistry* (2025 - 2026)
- Journal of Food Science, *Wiley* (2025)
- Plasma Processes and Polymers, *Wiley* (2025)
- Crop Protection, *Elsevier* (2025)
- Biological Control, *Elsevier* (2025)
- Journal of Pest Science, *Springer* (2025)
- LWT-Food Science and Technology, *Elsevier* (2025)
- Food and Humanity, *Elsevier* (2025)
- Journal of Applied Entomology, *Wiley* (2025)
- Scientific Reports, *Nature* (2024 - 2025)
- Forests, *MDPI* (2024 - 2025)
- Biomimetics, *MDPI* (2025)
- Entomological News, *BioOne* (2025)
- Chemistry and Biodiversity, *Wiley* (2025)
- Circular Agricultural Systems (2025)
- Biology, *MDPI* (2024-2025)
- Journal of Food Processing and Preservation, *Wiley* (2022 & 2025)
- Metabolites, *MDPI* (2025)
- Journal of Nanotechnology, *Wiley* (2024 - 2025)
- The Journal of Basic and Applied Zoology, *Springer* (2025)
- Processes, *MDPI* (2024 - 2025)
- Agriculture, *MDPI* (2024 - 2025)
- Psyche: A Journal of Entomology, *Wiley* (2020, 2022 - 2025)

- Insects, *MDPI* (2025)
- Agronomy, *MDPI* (2025)
- Journal of Environmental Biology (2023 - 2025)
- Pharmaceuticals, *MDPI* (2025)
- Food and Bioprocess Technology, *Springer* (2024)
- Chemical and Biological Technologies in Agriculture, *Springer* (2024)
- Journal of Food Science and Technology, *Springer* (2024)
- Biology, *MDPI* (2024)
- Journal of Invertebrate Pathology, *Elsevier* (2024)
- Pest Management Science, *Elsevier* (2021 & 2024)
- Sustainable Food Technology, *Royal Society of Chemistry* (2023)
- Discover Environment, *Springer* (2023)
- Natural Product Research, *Taylor & Francis* (2023)
- Journal of King Saud University – Science, *Elsevier* (2023)
- Indoor and Built Environment, *SAGE* (2023)
- Current Science (2021 - 2023)
- International Journal of Food Science, *Hindawi* (2021 & 2023)
- Indian Food Industry Magazine (2022)
- Journal of Food Process Engineering, *Wiley-Blackwell* (2022)
- Journal of Environmental Biology (2022)
- International Journal of Agricultural Science and Food Technology (2022)
- Journal of Environmental Biotechnology (2021)
- Journal of Asia-Pacific Entomology, *Elsevier* (2020)
- Proceedings of the Zoological Society, *Springer* (2020)
- Food Hydrocolloids, *Elsevier* (2019)
- Journal of Herbal Medicine, *Elsevier* (2019)
- Ethnobotany Research & Applications, *Georgia* (2019)
- European Journal of Integrative Medicine, *Elsevier* (2017)
- Journal of Food: Microbiology, Safety & Hygiene (2016 - 2017)
- International Journal of Insect Sciences, *Libertas Academica* (2015 - 2017)
- Entomology, Ornithology & Herpetology: Current Research Journal (2015 - 2017)

SCIENTIFIC/OUTREACH ACTIVITIES CITED IN SOCIAL MEDIA

Biofumigation Technology	The Hindu	9 th Dec. 2023
Herbal disinfectant and sanitizer products	FoodPro Newsletter	April 2021
Fumigation services during COVID-19 lockdown	FoodPro Newsletter	June 2020
New products display at the exhibition	Star of Mysore	16 th June 2019
Biopesticides	Deccan Chronicle	16 th May 2008
Kadavulin Thoodhuvargal	Kalki Magazine	08 th June 2008

PROFESSIONAL RECOGNITIONS & CONTRIBUTIONS

External Expert	Research Advisory Committee, Thiagarajar College, Madurai.	2025 – till date
Member	Board of Studies (BoS), Food Technology, Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, TN	2022 – till date
Research Guide in Biotechnology	University of Mysore, Mysore	2020 – till date
Assistant Professor in Biological Sciences	Academy of Scientific and Innovative Research (AcSIR)	2015 – till date
Examiner	Ph.D. Thesis Evaluation, Anna University	2026 March
Examiner	Ph.D. Thesis Evaluation, Bharathidasan University (13 Ph.D. thesis evaluated)	2019 - 2026
Chief Guest	National Seminar on ETIB -2025, J.J. College of Arts and Sciences, Pudukkottai.	2025 Aug.
Examiner	Ph.D. Thesis Evaluation, Manonmaniam Sundaranar University (2 Ph.D. thesis evaluated)	2017 & 2025
Alternative Member	Bureau of Indian Standards (BIS) - Pesticide Residue Analysis Sectional Committee – FAD 27	2021 – 2025
Chief Guest	National Seminar on RELS-2024, K.M.G. College of Arts and Sciences, Gudiyattam.	2024 Feb.
Member, CSIR Exhibitor	World Food India, Ministry of Food Processing Industries (MoFPI), Pragati Maidan, New Delhi	2023 Nov.

Examiner	Ph.D. Thesis Evaluation, Mother Teresa Women's University (1 Ph.D. thesis evaluated)	2023 Aug.
Chairperson	International Conference ICFBN-2023, Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, TN	2023 Mar.
Guest of Honour	Organic Farming Technology & Development, FDP-STP Programme, UGC-HRDC & Mahakaushal University	2022 Mar.
Paper Setter / Examiner	University of Calicut, Kerala	2022 Feb.
Paper Setter / Examiner	Kerala Agricultural University, Kerala	2021 Oct.
Chief Guest	2 nd International Conference MBEM-2021, Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	2021 Mar.
Chief Guest	National Conference ESHPA-2020, M.S.S. Wakf Board College, Madurai.	2020 Mar.
Reviewer – Project Report	Gandhian Young Technological Innovation (GYTI) Awards, SRISTI, Ahmedabad, Gujarat.	2020 Feb.
Chief Guest	National Seminar RDAS-2019, ACAS College, Thiruchendur.	2019 Aug.
Reviewer – Project Proposal	NECBH-DBT, IIT Guwahati, Assam.	2019 Feb.
Paper Setter / Examiner	B.Tech. Food Engineering, Kerala Agricultural University, Kerala	2017 Nov.
Chairperson	International Conference ICCB-2016, S.B.K. College, Aruppukottai	2016 Sep.
Advisory Committee Member	National Conference IPRBB-2015, A.V.V.M. Sri Pushpam College, Thanjavur	2015 Sep.

ADMINISTRATIVE RESPONSIBILITIES / ACTIVITIES @ CFTRI

Chairperson	School Management Committee, CFTRI School, Mysore	2026 – till date
Resource Person	Orientation Programme for the Ph.D. Research Scholars	2023 – till date
Co-Coordinator	M.Sc. Food Technology (FSS & TIC-C)	2022 – till date
Internal Auditor	ISO Standard: Environmental Management System & Quality Management System	2021 – till date
Member	Library Committee	2021 – till date
Secretary	Pesticide Science Study Group	2020 – till date
Member	Doctoral Advisory Committee	2019 – till date
Member	Project Fellow Selection Committee	2019 – till date
Member	QMS & EMS Documentation Committee	2017 – till date
Member	75 Years Journey of CFTRI Main Highlights	2024 – 2026
Member	Organizing Committee – National Symposium on Plant Proteins	2025 July
Member	Jigyasa Team - One Day as a Scientist programme	2025 July
Coordinator	Physical Verification Committee – PMC and ITS&CS	2025 May

Member	Organizing Committee – One Day Industry Meet for Floriculture Mission	2025 Mar.
Member	Special Campaign 4.0 Team for improving Swachhata and Disposal of Pending References	2024 Oct.
Coordinator	Committee - Venue & Hall Arrangement, National Quiz Contest on Food Security Mission	2023 Oct.
Paper Setter	Committee - Question Paper Setting for Regional Level Contest on Food Security Mission	2023 July
Member	Organizing Committee - Panel Discussion on Supplementary Foods for Women & Child Development -OWOL event	2023 July
Member	Organizing Committee - CSIR-CFTRI Licensee Meet Academia-Industry Interactions - OWOL event	2023 July
Member	Committee - Question Paper Setting for M.Sc. Food Technology	2023 & 2024
Member	Organizing Committee - Monitoring Committee meet of ATLAS Mission	2022 Dec.
Moderator	GSPM Workshop 2022	2022 Aug.
Co-Chairman	Technical Session - National Webinar FASST2022	2022 May
Mentor	AcSIR CSIR800 Programme	2022 Mar.
Expert Member	Panel Discussion - Workshop on 3Ps of Food Industry: Processing, Preservation & Packaging	2022 Mar.
Member	Organizing Committee – Azadi Ka Amrit Mahotsav Webinar IAFPGS	2022 Jan.
Member	Evaluation Committee – Probation Period of CFTRI	2021

School Teachers and Staffs

Member	CSIR JIGYASA Scientist-Student Contact Program	2021 Nov.
Chairman	Financial Committee - International Conference ET-FPIC 2021, 24th & 25th Feb. 2021.	2021 Feb.
Member	Scientist Selection Committee	2020 Sep.
Member	Organizing Committee – ICP Virtual Colloquium	2020 Dec.
Rapporteur	VAIBHAV Summit: Horizontal – Food Safety & Nutritional Security, Sub-Horizontal - Storage & Handling Strategy	2020 Oct.
Member	Swachada Pakhwada	2018 May
Member	Exhibition - Adanya Chetana Seva Utsav	2017 Dec.
Member	Project Work Evaluation Committee - PG Nutri. Bio.	2017 Jun.
Member	Physical Verification Committee	2017 – 2024
Convener	Departmental Seminar Programme	2015 – 2016

MEMBERSHIP IN ACADEMIC SOCIETIES

Member	Indian Grain Storage Working Group (IGSWG)	2024 – till date
Life Member	Entomological Society of India (ESI)	2023 – till date
Life Member	National Environmental Science Academy (NESA)	2022 – till date
Life Member	Association of Food Scientists & Technologists (AFSTI)	2021 – till date

Life Member	Applied Zoologists Research Association (AZRA)	2021 – till date
Life Member	National Academy of Biological Sciences (NABS)	2017 – till date
Member	CFTRI Education Society	2017 – till date
Life Member	The Indian Science Congress Association (ISCA)	2012 – till date

ACKNOWLEDGEMENTS



☆ Thank You ☆