Name : Dr. A.BALAMURUGAN

Designation : Assistant Professor

Department :

Botany Date of Joining: 26-07-2019 Phone No : 9486128624



Email :

florabalan@gmail.com Educational

Qualification:

DEGREE	SUBJECT	COLLEGE / UNIVERSITY & PLACE	YEAR OF COMPLETED
B.Sc	Botany	The American College, Madurai (MKU)	1999
M.Sc	Botany	Saraswathy Narayanan college, Madurai (MKU)	2003*
Ph.D	Botany	UPASI Tea Research Institute, Valparai (Bharathiyar University)	2013

\* University first rank in M.Sc (MKU)

Specialization in Teaching: Plant Pathology, Ecology, Microbiology, Biotechnology

**Specialization in Research:**Ph.D – Plant Pathology and Microbiology

(Title: Integrated nutrient management in tea with special reference to biofertilizers)

Research Interests: Biocontrol, Biofertilizers, organic farming, IPDM

**Countries Visited:** Kenya, Cambodia, Myanmar, Malaysia, Nepal, Bhutan, Srilanka for Research and technical guidance, training given to organic farming community of various agricultural crops.

# Technical Experience:

S.	Name of the Post	Name of the	Peri	iod	<b>Total Periods</b>	
No		Institution	From To		Years	Months
1.	Assistant Professor	Botany Department, The American College, Madurai	July 2019	-		
2.	Manager (R & D Agri Research/ Field evaluation trials in multiple crops)	T. Stanes Company & Limited, Coimbatore	July 2014	June 2019	5	0
3.	Assistant Plant Pathologist	UPASI Tea Research Institute, Valparai	April 2009	June 2014	5	4
4.	SRF	UPASI Tea Research Institute, Valparai	March 2008	March 2009	1	0
5.	SRF	Sugarcane Breeding Institute, Coimbatore	August 2005	February 2008	2	7
6.	SRF	UPASI Tea Research Institute, Valparai	August 2003	August 2005	2	-
7.	Project Assistant	The American College, Madurai	April 1999	April 2001	2	-
		18 years	0 months			

Area of Specialization: Plant Science, Plant Pathology, Microbiology,

Biotechnology, organic farming, Integrated crop management (IPDM, INM,

organic/integrated crop health management).

**Organic Farming guidance experience:** Having 17 years of experience in Farm training, evaluation of various biological and chemical inputs in agriculture, research experience on biocontrol, IPDM in various crop in various countries. Giving guidance crop wise package for sustainable agriculture in various fruits, vegetable and cash crops crops in various countries.

### **Travel within India:**

Visited various agriculture farms (Polyhouse, green house, open field) for recommending biologicals and botanicals for pest, disease and nutrient management in Rajasthan, Karnataka, Kerala, Tamil Nadu, Maharashtra.

## **10. List of Publications:**

International Journal	:	18
National Journal	:	5
Abstracts	:	8
News Letter articles	:	4

## 11. (a) Publications - International (18)

S. No	Authors	Title of the Article	Name of the Journal	Volu me, Issue & Page No.	Year of publicat ion	ISSN. No. Impact Factor
1	Balasubramanian Bagyalakshmi1*, Sivamani Lalitha Priyadarshini1, Angusamy Balamurugan	Anticancer Activity of Bee Venom against Lung Cancer Cell Line (A549 Cells) Enhanced by Iron Oxide Nanoparticles Synthesized from Syzygium Aromaticum	Journal of Drug Delivery and Therapeutics	9(3-s):248- 254	2019	ISSN: 2250-1177
2	Bagyalakshmi,B., Niveditha, P and <b>Balamurugan, A</b>	Studies on Phytochemical analysis, antioxidant and antibacterial activity of <i>Ficus</i> <i>racemosa</i> L. leaf and fruit extracts against wound pathogens	Vegetos. (An International Journal of Plant Research)	23 (1): 58-63	2019	ISSN: 0970-4078 IF: 5.0 (NAAS)
3	Bagyalakshmi,B., and <b>Balamurugan,</b> <b>A</b>	Inhibitory Activity Of Fresh Green Tea And Black Tea Extracts (Camellia Sinensis) On Intestinal	International Research Journal of Pharmacy	8 (10),93- 98	2017	ISSN:2230-8407 IF:0.75

		Pathogens Isolated From Diarrheal Sample				
4	Bagyalakshmi,B., Ponmurugan,P. and <b>Balamurugan, A</b>	Potassium solubilization, plant growth promoting substances by potassium solubilizing bacteria (KSB) from southern Indian Tea plantation soil	Biocatalysis and Agricultural Biotechnology	12, 116– 124	2017	ISSN: 1878-8181 IF:0.4
5	T.Princy, J.Mareeswaran, P.Nepolean, R.Jayanthi, B.Radhakrishnan, R.Rajkumar, A.Balamurugan	Studies on potassium solubilizing bacteria in tea ecosystem	An international journal of agricultural & biological research	32 (2): 222 - 229	2016	
6	T. Princy, <b>A.</b> <b>Balamurugan</b> , R. Jayanthi R. Nepolean, J. Mareeswaran, T. Kuberan and R. Premkumar	Studies on Mass Multiplication and Shelf Life of Biofertilizers Formulations Used in Tea	American- Eurasian J. Agric. & Environ. Sci.	14 (6): 580-583.	2014	1818-6769
7	Thangaraj Kuberan, Angusamy Balamurugan, Ramanan Jayanthi,Thomas Princy, Jeyaraman Mareeswaran and Robert Premkumar	Microorganism as Biocontrol Agent Against Glomerella cingulata Affecting Tea (Camellia sinensis (L) O. Kuntze) in South India	World Journal of Agricultural Sciences	10 (4): 194-199,	2014	1817-3047
8	Balamurugan,A., Jayanthi RMuthukannan, p. R.Sanmugapriyan Kubera,T Premkumar,R	Integrated nutrient management by using bioinoculants in seedlings of tea ( <i>Camellia sinensis</i> ) under nursery	International journal of Achievements in Research & Technology	2(12): 245-256	2013	ISSN:2278-7763
9	Bagyalakshmi,B., Balamurugan,A., Ponmurugan,P. and Premkumar,R	Compatibility study of Indigenous Plant Growth Promoting Rhizobacteria with Inorganic and Organic Fertilizers used in Tea ( <i>Camellia sinensis</i> ).	International journal of Agricultural Research.	7 (3): 144 - 151.	2012	1816 4897
10	Bagyalakshmi,B., Ponmurugan,P. and	Impact of different temperature, carbon	J. B io s c i. Re s .	3(2):136- 142.	2012	0976 2272

	Bolomumaon A	and nitrogan				
11	Balamurugan, A. Kuberan, T.,	and nitrogen sources on solubilization efficiency of native potassium solubilizing bacteria from tea ( <i>Camellia sinensis</i> ) Isolation and	Journal of	8(3):	2012	1686-9141
	Vidhyapallavi, R., <b>Balamurugan, A</b> ., Nepolean, P., Jayanthi, R and R. Premkumar.	biocontrol potential of phylloplane <i>Trichoderma</i> against <i>Glomerella</i> <i>cingulata</i> in tea	Agricultural Technology	1039- 1050		IF-0.046
12	<b>Balamurugan, A.,</b> Jayanthi, R., Vidhya Pallavi, R., Nepolean, P., and Premkumar, R.	Studies on cellulose degrading bacteria in tea garden soils.	African Journal of Plant Sciences	Vol.5 (1), pp. 22-27.	2011	0976-2272
13	Govindaraj, P., Sindhu , R., <b>Balamurugan,A.,</b> and Appunu.C	Molecular diversity in sugarcane hybrids ( <i>Saccharum</i> spp. complex) grown in Peninsular and east coast zones of tropical India	Sugar Tech.	Vol.13 (3), pp. 206-213.	2011	0972-1525 0974-0740 IF-0.621
14	Sindhu, R., Govindaraj,P., <b>Balamurugan,A.,</b> and Appunu.C.	Genetic diversity in sugarcane hybrids ( <i>Saccharum</i> spp. complex) grown in tropical India based on STMS markers	J. Plant Biochem. Biotechnol.	20(1), pp. 118–124.	2011	0971-7811 0974-1275
15	Soumik Sarkar, Pradeepa, N., Ajay, D., <b>Balamurugan.</b> <b>A.</b> and Premkumar, R.	The <i>in vitro</i> effect of certain fungicides, insecticides, and biopesticides on mycelial growth in the biocontrol fungus <i>Trichoderma</i> <i>harzianum</i> "	Turkiyan J. of Biol	Vol.34, pp. 399- 403.	2010	E- <b>ISSN</b> : 1303- 6092. <b>ISSN</b> : 1300-0152
16	<b>Balamurugan, A.,</b> Princy, T. N., Vidhya Pallavi, R., Nepolean,P., Jayanthi, R. and Premkumar, R.	Isolation and characterization of phosphate solubilizing bacteria in tea ( <i>Camellia sinensis</i> )	J. Bio sci. Res.	Vol. 14, pp. 285- 293	2010	0976-2272
17	Ajay. D., <b>Balamurugan. A.</b>	Survival of <i>Exobasidium</i>	Int. J. of Applied Agricultural Res.	Vol.4 (2), pp. 115–	2009	0973-2683

	and Baby, U.I.	<i>Vexans</i> , the Incitant of Blister Blight Disease of Tea, During Off season.		123.		
18	Premkumar, R. Baby, U.I. and <b>Balamurugan, A</b>	Potential of phylloplane bacteria in the biological control of grey blight disease of tea ( <i>Camellia sinensis</i> ).	The BCPC International Congress - Crop Science & Technology,	pp.109- 114.	2005	

# **11. (b) Publications - National (5)**

S. No	Authors	Title of the Article	Name of the Journal	Volume, Issue & Page No.	Year of publica tion	ISSN. No. Impact Factor
1	Nepolean, P. Radha Krishnan, B., Premkumar R., and Balamurugan, A.	Bioefficacy of Tebuconazole 50% + Trifloxystrobin25% WG for the management of Blister blight disease in tea	Pestology	XLIII.4 April. 23 – 27	2019	
2 3	A. Balamurugan, B.Bagyalakshmi, P.Nepolean, T. Kuberan, J.Mareeswaran, R.Jayanthi, T.Princy. Nepolean,P., Balamurugan, A., R.Jayanthi, Mareeswaran. J and R. Premkumar.	Exploitation of <i>Pseudomonas</i> spp. for disease control and productivity in tea. Bioefficacy of certain chemical and biofungicides against wood rot pathogen in tea.	Int. J. of Multi disciplinary Res. and Development Journal of Plantation crops.	2(2): 227-235. <b>42</b> (3):341- 347.	2015 2014	E-ISSN: 2349- 4182 P-ISSN: 2349-5979 <b>RJIF-5.72</b> 0304-5242
4	Pradeepa, N., Balamurugan, A., Ajay, D., Soumik Sarkar and Premkumar, R.	Biocontrol strategies against Grey and Brown blight tea pathogens.	Journal of Plantation Crops,	Vol. 36 (3), pp. 454-456.	2008	0304-5242
5	Baby, U.I., <b>Balamurugan, A.,</b> Jayaprakashvel, M. and Premkumar, R.	Screening of Phylloplane bacteria as biocontrol agents against Blister Blight disease of tea	Journal of Plantation Crops	Vol. 32 (Suppl. pp. 361- 364.	2004	0304-5242

# 12. Participation in Seminar/Conferences/Project

# International & National Conferences Attended:

- Paper presentation on Efficacy of NPK biofertilizer consortium on productivity of Tomato. National conference on Empowerment of rural communities through innovations in science and technology jointly organized by Indian science congress association and Kongunadu Arts and Science College, Coimbatore, Balamurugan. A. 21<sup>st</sup> and 22<sup>nd</sup> February 2020.
- Participated in UGC sponsored State level Seminar on Emerging Trends in Biotechnology organized by The Department of Botany, The Madura College, Madurai on 22<sup>nd</sup> Janurary 2020.
- Beulah Isabel, P.Renuka Devi, A. Balamurugan, E.Hemananthan, S.Vignesh Kumar, and S.B.Suriya. 2019. Encapsulation of *Pseudomonas fluorescens* for a slow release biofertilizer. International conference on Advances in Medical and Industrial Biotechnology (ICAMIB 2019) organized by Centre for Nanoscience and Nano Technology, Sathyabama Institute of Science and Technology (Deemed to be University), Chennai. Tamilnadu 20<sup>th</sup> to 22<sup>nd</sup> March 2019. ISBN: 978-93-83409-50-1. Page 29.
- 4. Premkumar, R. Nepolean, P.,Vidhya Pallavi, R., **Balamurugan, A.,** 2011. Jayanthi, R., Kuberan, T., Beulah, T. "Integrated disease management of grey blight in tea", World Tea Science Congress, Tocklai Tea Research Association, Jorhat, pp. 43.
- 5. Jayaprakashvel, M., **Balamurugan**, A and Baby, U.I. 2005. *In vitro* Screening of Tea Phylloplane bacteria against Grey blight pathogen *Pestalotiopsis theae*. In: International symposium on "Integrated Management of Fungal Diseases by CAS in Botany, Banaras Hindu University, Varanasi, pp. 24-27.
- 6. **Balamurugan, A.,** Kuneran, T. Jayanthi,R. and Premkumar, R. 2010. Effect of inorganic nutrients on survival of rhizosphere and non-rhizosphere microflora in tea (*Camellia sinensis*). National conference on Advances in Plant Pathology in Centre for Advanced studies in Botany, University of Madras, Chennai. Pp: 33.
- Govindaraj, P., Natarajan, U.S. and Balamurugan, A. 2007. Identification of intergeneric hybrids between *Erianthus arundinaceus* and *Saccharum spontaneum* through newly developed STMS (sequence Tagged Microsatellite sites) markers. Abst.OGP 1, National symposium on Frontiers in Biotechnology (NSFB) at Bharathiar University, Coimabtore. Pp: 117.
- 8. Swapna Simon, Leena lavanya, D and **Balamurugan, A.** 2007.Evaluation of genetic polymorphism by using candidate gene for drought stress in Sugarcane. Abst.GPXI, National symposium on Frontiers in Biotechnology (NSFB) at Bharathiar University, Coimbatore. Pp : 128.

#### National Seminar

1. **Balamurugan**, A., Leena lavanya, D andSwapna Simon. 2007.Molecular marker assisted selection (MAS) for sugarcane improvement" and in the abstract of National level seminar on

Current Trends in Advanced Biological Research conducted in Biotechnology division, Nehru Arts & Science college, Coimbatore PBT - O - 1.

2. Jayakumar, J. Suresh Ramraj, S., Karthik Prabhu, T and **Balamurugan**, A. 2007. Transgenic plants. National level seminar on Current Trends in Advanced Biological Research conducted in Biotechnology division at Nehru Arts & Science college, Coimbatore. PBT - O - 3.

### **UPASI News Letter (4)**

- 1. Balamurugan, A., Pradeepa, N., Vidhya Pallavi, R., Jayanthi, R. and Premkumar, R. 2010. "Impact of INM on nursery grown tea plants", Newsletter of UPASI Tea Research Foundation., Vol. 20(1), pp.3.
- **2.** Balamurugan, A., Soumik Sarkar, Pradeepa, N., Jayanthi, R. and Premkumar, R. 2009. "Compatibility between neemcake extract and bioinoculants", Newsletter of UPASI Tea Research Foundation, Vol. 19(1), pp. 2.
- **3.** Balamurugan, A., Pradeepa, N. and Premkumar, R. 2009. "Bioefficacy of zineb hexaconazole against blister blight disease of tea", Newsletter of UPASI Tea Research Foundation, Vol. 19 (2), pp. 3.
- **4.** Sarvottam D.Joshi, **Balamurugan**,A., Jibu Thomas and Rahul, P.R. 2005. "Extraction of Genomic DNA from the Blister blight fungus", In Newsletter, UPASI Tea Research Foundation, Vol.15 (1), 3.

### FDP:

- 1. Two weeks Faculty Development Programme on "Managing online classes and Cocreating MOOCS:2.0" Sponsored by Ministry of Human Resource Development (MHRD) Pandit Madan Mohan Malaviya National mission on teachers and teaching conducted by Ramanujan College, University of Delhi from May 18 to June 03, 2020.
- 2. Participated in the "Moodle Learning Management System" training at Sree Narayana College, Chengannur in offered by Spoken Tutorial Project, IIT Bombay funded by National Mission on Education through ICT, MHRD, Govt of India during March 20, 2020.

### Webinars:

- 3. Participated in the National online conference on "Environmental Conservation" organized by Department of Environmental Science, School of Earth Sciences, Punyashlok Ahilyadevi HolkarSolapur University, Solapur (MS), India held on June 5, 2020.
- 4. Participated in the one day e conference on "**Covid-19: Recent updates and current advances**" organized by Department of Microbiology, The American College, Madurai, India held on June 3 &4, 2020.

- 5. Participated in the international virtual conference on "**Covid-19: Views and challenges** of global disease" organized by Research Department of Zoology, Government Arts college for Men, Krishnagiri, India held on May 22, 2020.
- 6. Participated in the webinar on "**Insights into Emerging Diseases Diagnosis and Therapeutics**" organized by PG and Research Department of Zoology, Lady Doak College, Madurai, TN held during May 18 June 1, 2020.
- 7. Participated in the webinar on "**Trends in Plant Biology**" organized by Department of Botany, The American College, Madurai, TN held on June 1, 2020.
- 8. Participated in the webinar on "Web series programme on COVID 19 Virus" organized by Nature Science Foundation (NSF), Coimbatore, TN held on May 17, 2020.
- 9. Participated in the webinar on "**Tuberclosis an update**" organized by Chennai Science Colloquium (CSC), Chennai, TN held on May 16, 2020.
- 10. Participated in the webinar on "**Insights on infectious and rare diseases**" organized by Department of Zoology, G.T.N. Arts College, Dindigul, TN held on May 15, 2020.
- 11. Participated in the webinar on "**Biologically active mudflats**" organized by Chennai Science Colloquium (CSC), Chennai, TN held at June 13, 2020.
- 12. Participated in International Webinar on "**True facts about viruses and Pandemic Spread**" organized by the Department of Botany, Bishop Heber College, Tiruchirappalli on June 8, 10, 2020.
- 13. Participated in International Webinar on "**Plant Molecular Biology in Space**" organized by the Department of Botany and Bio-informatics, Nirmala College for Women, Coimbatore held on May 14, 2020.
- 14. Participated in Webinar on "**Drug discovery from Medicinal plants: An integrative approach**" organized by the Department of Botany, K.J.Somaiya College of Science and Commerce, Mumbai held on May 16, 2020.
- 15. Participated in the webinar on "Issues and challenges of climate change on Biodiversity" organized by Department of Botany, Kandaswami Kandar's Colleg, Namakkal, held on June11, 2020.
- 16. Participated in the webinar on "E-Learning program on Bioinformatics as Cartographic Tool in Drug Discovery" organized by Department of Bioinformatics, Alagappa University, Karaikudi held on May 19 to 30, 2020.
- 17. Participated in Webinar on "Additive Manufacturing For Bioimplant Manufacturing and its Challenges" organized by Department of Mechanical Engineering & Research Committee, Arasu Engineering College, Kumbakonam, TN held on June 13, 2020.
- 18. Participated in National Webinar on "Ayush for Covid -19: Boosting Immunity with home interventions" organized by Department of M.Sc. Bioanalytical Sciences under teh Aegis of RUSA, Guru Nanak Khalsa College of Arts, Science & Commerce, Mumbai held on May20, 2020.
- 19. Participated in Webinar on "Vistas in the fields of Research and innovations session entitled on Current scenario on big data" organized by Department of Botany, Kongunadu Arts and Science College, Coimbatore, TN held on May 20, 2020.
- 20. Participated in Webinar on "Vistas in the fields of Research and innovations session entitled on Foods, Genes and Diseases" organized by Department of Botany, Kongunadu Arts and Science College, Coimbatore, TN held on May 18, 2020.

### Workshops:

- 21. Participated in the two days virtual workshop on "**Biotechniques for extraction of metabolites from plant and algal sources**" organized by Department of Biotechnology, Kalasalingam Academy of Research and Education, Virudhunagar, TN on May 11 12, 2020.
- 22. Participated in the two days workshop on "SPARC INDO US Immunology workshop" organized by IIT Ropar, India & The George Washington University, USA held on June 12 & 13, 2020.