

## CURRICULUM VITAE



**RAGESHWARI SELVARAJ**

[rageshwari.selvaraj@gmail.com](mailto:rageshwari.selvaraj@gmail.com)

### COMMUNICATION ADDRESS:

Dr. Rageshwari S  
Assistant Professor (Plant Pathology)  
J.K.K.Munirajah College of Agricultural Science  
T.N.Palayam, Gobi, Erode- 638 506  
Tamil Nadu, India

### PERMANENT ADDRESS:

D/o Mr. P.Selvaraj  
Sri Lalithambigai Bhavanam  
21 CTC Nagar, Aerodrome post  
SIHS colony, Singanallur  
Coimbatore- 641014  
Tamil Nadu, India

### ACADEMIC PERFORMANCE

Qualification	Year	Board/Institute	Marks%/ *OGPA
B.Sc (Horticulture)	2006-2010	Horticultural College and Research Institute, Periyakulam	8.85*
ODL Certificate course on Vermicomposting	2007	Horticultural College and Research Institute, Periyakulam.	90*
M.Sc (Agriculture) Specialization in Plant Pathology	2010-2012	Tamil Nadu Agricultural University, Coimbatore	8.91*
PhD (Agriculture) Specialization in Plant Pathology	2013-2017	Tamil Nadu Agricultural University, Coimbatore	9.20*

### RESEARCH EXPERIENCE

#### **M.Sc thesis title, Guide's Name, Institute/Organization/University, Year of Award**

Thesis title : Studies on interaction between Sri Lankan cassava mosaic virus and its vector whitefly [*Bemisia tabaci* (Gennadius)]

Guide's Name : Dr. R. Rabindran, Professor (Plant Pathology), TNAU, Coimbatore

University : Tamil Nadu Agricultural University, Coimbatore  
Year of award : 2012

**Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award**

Thesis title : Molecular characterization and management of tobacco streak virus in cotton (*Gossypium* spp)  
Guide's Name : Dr. S. Nakkeeran, Professor (Plant Pathology), TNAU, Coimbatore  
University : Tamil Nadu Agricultural University, Coimbatore  
Year of award : 2017

**WORKING EXPERIENCE**

Positions held	Name of the Institute	From	To
Junior Research Fellow	Department of Plant Pathology, CPPS, TNAU, Coimbatore- 641 003	23-Jul-2012	21-May-2013
Teaching Assistant (Plant Pathology)	Kerala Agriculture University, College of Agriculture, Padannakkad Po, Kasargod Dst. Kerala 671314	22-May-2013	17-Aug-2013
Assistant Professor (Plant Pathology)	J.K.K.Munirajah College of Agricultural Science, T.N.Palayam, Gobi, Erode 638 506	03-August-2017	Till date

**SCHOLARSHIPS AVAILED**

Rajiv Gandhi National Fellowship for the year 2013-2014- PhD research

**PROFESSIONAL TRAINING**

- ♦ Tea Cultivation and Processing at UPASI KVK, Conoor.
- ♦ Coffee Production Technology at HRS, Yercaud.
- ♦ Sub Tropical Fruits Cultivation at HRS, Thadiyankudisai.
- ♦ Temperate fruits cultivation, Kodaikanal.
- ♦ Earn While You Learn Program, Horticultural College And Research Institute, Periyakulam.

**IN PLANT TRAINING**

- ♦ Placement with Assistant Director of Horticulture, Theni.
- ♦ Placement with NGO DHAN Foundation, Madurai.
- ♦ Horticultural Industrial Tie-Up Programme, Pushpak Fragrance Pvt Ltd, Nilakottai.

## PROFESSIONAL RECOGNITION/ AWARDS

No	Name of Award	Awarding agency	Year
1.	<b>Best poster award</b> in 2 <sup>nd</sup> Agricultural graduate's students conference in paper entitled " <b>Studies on endosymbiotic association of whitefly (<i>Bemisia tabaci</i>)</b> ".	Tamil Nadu Agricultural University	2014
2.	<b>Best poster award</b> in 36 <sup>th</sup> annual conference and national symposium on Challenges and management approaches for crop diseases of national importance- status and prospectus entitled " <b>Screening of cotton hybrids against tobacco streak virus and study of metabolite alteration in TSV infected cotton plants</b> ".	Jointly organized by Indian society of mycology and plant pathology, Udaipur, Rajasthan, India and Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.	2015
3.	<b>Smt Guman Devi Verma Memorial Best Woman Scientist Award</b> in 38 <sup>th</sup> national symposium "Molecular Horizons in Plant Pathology: Host Resistance, Pathogen Dynamics, Diagnostics and Management" on the poster entitled " <b>Serological and Molecular characterization of tobacco streak virus infecting cotton and exploring Bacillus species for the management of TSV</b> "	Jointly organized by Indian society of mycology and plant pathology, Udaipur, Rajasthan, India and Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal	2016
4.	<b>Carl Linnaeus Award</b> for the best paper in Ph.D Thesis in 10 <sup>th</sup> NABS National Conference on "Recent trends in Life Science: Research, Practices and Application for Sustainable Development" in the paper entitled " <b>DAC-ELISA and RT-PCR based confirmation of systemic and latent infection by tobacco streak virus in cotton and Parthenium</b> "	Organized by Departments of Botany and Zoology, Bharathiar University, Coimbatore in collaboration with National Academy of Biological Sciences	2017

## OTHER ACHIEVEMENTS

Cleared **NATIONAL ELIGIBILITY TEST (NET)** conducted by Agricultural Scientists recruitment Board (ASRB, ICAR), New Delhi in the year 2014.

## PUBLICATIONS

	Author (s)	Title	Name of Journal	Volume	Page	Year
1.	Rajamanickam , S. <b>Rageshwari, S.</b> Renukadevi, P.and S. Nakkeeran	Occurrence of Plantiagio asiatica mosaic virus infecting oriental lily in India S.	<i>Indian Journal of Horticulture</i>	74(7)	574-578	2017
2.	<b>Rageshwari, S.,</b> Renukadevi, P., Malathi, V.G., Amalabalu, P. and Nakkeeran, S.	DAC-ELISA and RT-PCR based confirmation of systemic and latent infection by tobacco streak virus in cotton and parthenium. (In press)	<i>Journal of Plant Pathology</i>	99(2)	469-475	2017
3.	<b>Rageshwari, S.,</b> Renukadevi, P., Malathi, V.G and Nakkeeran, S.	Occurrence, biological and serological assay of tobacco streak virus infecting cotton at Tamil Nadu.	<i>Journal of Mycology ad Plant Pathology,</i>	46(2)	159-168	2016
4.	Suganthi, M., <b>Rageshwari, S.,</b> Senthilraja, C., Nakkeeran, S., Malathi, V.G., Ramaraju, K. and Renukadevi, P.	New Record of Western Flower Thrips, <i>Frankliniella occidentalis</i> (Pergande) (Thysanoptera: Thripidae) in South India.	<i>International Journal of Environment, Agriculture and Biotechnolog y.</i>	1 (4)	857-867.	2016

## BOOK CHAPTERS

No	Title	Authors	Name of the Journal
1.	Kaigari payirgalil orunginandha nooi melanmai. 2013.	<b>Rageshwari, S.,</b> Rajalakshmi, R., Buvaneswari, S. and Deivamani, M.	Valartamilil ariviyal, Uzhavum unavum. ISBN number: 978-93-81102-60-2
2.	Kattralayum adhan payankalum.	Rajalakshmi, R., Buvaneswari, S., Deivamani, M. and <b>Rageshwari, S.</b>	Valartamilil ariviyal, Uzhavum unavum. ISBN number: 978-93-81102-60-2
3.	Muttaikosil ertpadum nooikalum melanmaiym.	Deivamani, M., <b>Rageshwari, S.,</b> Buvaneswari, S. and Rajalakshmi, R.	Valartamilil ariviyal, Thottakalaiyil. ISBN number: 978-93-87702-58-9
4.	Nachuyuri nooikal - Oru munnottam.	Buvaneswari, S., Deivamani, M., <b>Rageshwari, S.</b> and Rajalakshmi, R.	Valartamilil ariviyal, Velaanmaiyyal. ISBN number: 978-93-87702-57-9

## TAMIL NEWSPAPER / NEWSLETTERS

- ♦ Rageshwari, S., Renukadevi, P. and Nakkeeran, S. 2017. Paruthiyai thaakum pugaiyilai keetru nachuyiri noiy (Tobacco streak virus infecting cotton) *Seithi solai*, 10/17.
- ♦ Farmer training under ADA Modakurichi block “Vivasayikalukku pannai payirchi”, conducted by ADA Thottipalayam, Modakurichi, Erode. Dinamani, Erode, 25.01.2018, p 03.

## ABSTRACTS

S. NO	Authors	Title	Society	Year
1.	<b>Rageshwari, S.</b> , Buvaneswari, S., Vezhalahan, R., Chandrasekar, G., Dasgupta, I and Rabindran, R.	Quantitative and qualitative yield loss of cassava tubers infected with Sri Lankan cassava mosaic virus	Indian Virological Society	2012
2.	<b>Rageshwari, S.</b> , Buvaneswari, S., Vezhalahan, R., Dasgupta, I and Rabindran, R.	Study on the host range of Sri Lankan cassava mosaic virus using SLCMV infectious clone.	Indian Virological Society	2012
3.	Deivamani, M., Rabindran, R., Buvaneswari, S., <b>Rageshwari, S.</b> , Valarmathi, P., Nagarajan, P., Pugalendhi, L. and Ganapathy, T.	Molecular studies of tomato leaf curl disease in tomato genotypes of Tamil Nadu	Agriculture graduate students conference	2013
4.	Deivamani, M., Rabindran, R., Buvaneswari, S., <b>Rageshwari, S.</b> , Valarmathi, P., Nagarajan, P., Pugalendhi, L. and Ganapathy, T.	Molecular studies of tomato leaf curl disease in tomato	Agriculture graduate students conference	2013
5.	<b>Rageshwari, S.</b> , Velazhahan, R and Rabindran R.	Studies on endosymbionts associated with whitefly ( <i>Bemisia tabaci</i> )	Indian Virological Society	2014
6.	Renukadevi, P., Nagendran, K., Nakkeeran, S., <b>Rageshwari, S.</b> , Karthikeyan, G., Malathi V G and Alice D.	Emergence of tobacco streak virus- A devastating virus causing necrosis disease of cotton in Tamil Nadu	Indian Virological Society	2014
7.	<b>Rageshwari, S.</b> , Buvaneswari, S., Deivamani, M and Rabindran R.	Transmission study on SriLankan cassava mosaic virus in cassava by whitefly ( <i>Bemisia tabaci</i> ) and SLCMV	Indian Phytopathological Society	2015

		infectious clones		
8.	<b>Rageshwari S.,</b> Nakkeeran, S and Renukadevi, P.	Screening of cotton hybrids against tobacco streak virus and study of metabolite alteration in TSV infected cotton plants	Indian Society of mycology and Plant Pathology	2015
9.	<b>Rageshwari S.,</b> Vinod Kumar S., Renukadevi, P., V.G.Malathi and Nakkeeran, S.	Tobacco streak virus-mechanical transmission and PCR detection of cotton isolates	North eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong.	2015
10.	<b>Rageshwari S.,</b> Vinod Kumar S., Renukadevi, P., V.G.Malathi and Nakkeeran, S.	Bioassay of Tobacco streak virus infecting cotton	4 <sup>th</sup> Agricultural graduate students conference- TNAU	2016
11.	Vinod Kumar S., <b>Rageshwari S.,</b> Renukadevi, P and Nakkeeran, S.	Occurrence of Tobacco streak virus infecting cotton in Tamil Nadu, Telangana, Andhra Pradesh and Maharashtra	4 <sup>th</sup> Agricultural graduate students conference- TNAU	2016
12.	<b>Rageshwari S.,</b> Vinod Kumar S., Renukadevi, P., V.G.Malathi and Nakkeeran, S.	Systemic infection of Tobacco streak virus in cotton	International conference on Global perspectives in virus Disease management	2016
13.	Vinodkumar, S., <b>Rageshwari, S.,</b> Nakkeeran, S., Malathi, V.G. and Renukadevi, P.	Detection and diagnosis of Tobacco streak virus across major cotton growing states in India.	International conference of Indian Virological Society on “Global perspectives in virus disease management- IHR (Bangalore)	2016
14.	Vinodkumar, S., <b>Rageshwari, S.,</b> Nakkeeran, S., Malathi, V.G. and *Renukadevi, P.	Occurrence, distribution, characterization, bioassay and management studies on Tobacco streak virus (TSV) inciting cotton necrosis in major cotton growing states of India	Annual conference and National Symposium of Indian Society of Mycology and Plant Pathology	2016

### POPULAR ARTICLES

1.	Thrips, the largest vector population of Indian sub-continent	<b>Rageshwari, S.,</b> Buvaneshwari, Deivamani, M.	<b>S.,</b> and	<i>Agrobios Newsletter</i> , 11(3): 59	2012
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2.	Coat protein- Mediated transgenic resistance to viruses in crops	Buvaneswari, S., <b>Rageshwari, S</b> and Deivamani, M.	<i>Agrobios Newsletter</i> , 11(3): 51-52	2012
3.	Molecular basis of Bacterial resistance.	Deivamani, M., <b>Rageshwari, S.</b> and Buvaneswari. S.	<i>Agrobios News letter</i> . XI. 52-53.	2012
4.	The genetic code an introduction to Plant Pathology	<b>Rageshwari, S.,</b> Buvaneswari, S and Deivamani, M.	<i>Agrobios Newsletter</i> , 11(11): 73-74	2013
5.	Proteomics in Plant Pathology.	Rageshwari, S., Buvaneswari. S. and Deivamani, M.	<i>Agrobios News letter</i> . XI. 9.	2013
6.	DNA as a data storage medium	<b>Rageshwari, S.,</b> Buvaneswari, S and Deivamani, M.	<i>Agrobios Newsletter</i> , 11(10): 17-18	2013
7.	Cloning vectors for yeast and fungi	Buvaneswari, S., Deivamani, M and <b>Rageshwari S.</b>	<i>Agrobios Newsletter</i> , 11(10): 16-17	2013
8.	Detection of plant viruses by surface plasmon resonance	Deivamani, M., Buvaneswari, S., <b>Rageshwari, S</b> and Sathya V K.	<i>Agrobios Newsletter</i> , 11(10): 20-21	2013
9.	Atomic force microscopy in biological sciences	Deivamani, M., Buvaneswari, S., and <b>Rageshwari, S</b>	<i>Agrobios Newsletter</i> . 11(10): 87-88	2013
10.	Genome editing in plant disease management	<b>Rageshwari. S</b> and Subramanian. R	<i>Agrobios Newsletter</i> . 16(4): 107	2017
11.	<i>Pleurotus ostreatus</i> - Forthcoming earth saver	Subramanian. R and <b>Rageshwari. S</b>	<i>Agrobios Newsletter</i> . 16(4): 106	2017
12.	Paruthiyai thaakum pugaiyilai keetru nachuyiri noi	Rageshwari, S., Renukadevi, P. and Nakkeeran, S.	<i>Seithi solai</i> , 10/17	2017

## PROFESSIONAL SUMMARY

- ◆ Independent researcher with broad understanding in Plant Pathology
- ◆ Expertise in molecular techniques, bioinformatics tools and basic plant pathological techniques
- ◆ Scientific publication (3), book chapters (4), seminar/symposium/conference abstracts (14) at national and international level

## RESEARCH SKILLS/TECHNICAL EXPERTISE

### Diagnostic tools:

- Plant disease identification based on symptom and spore characters
- Immunodiagnosis: Enzyme Linked Immunosorbent Assay (ELISA): - DAC-ELISA, DAS-ELISA, TAS-ELISA; Western blot, DIBA, TIBA

- Molecular diagnosis: Polymerase Chain Reaction (PCR): - Normal PCR, Colony PCR, RT-PCR, qRT-PCR, Multiplex PCR, Gradient PCR, RAPD, Nested PCR

#### **Plant Pathology techniques:**

- ♦ All basic plant pathological techniques
- ♦ (Fungi and bacteria) isolation and pure culture
- ♦ Gram staining techniques
- ♦ Dual culture plate, poison food technique, Induced systemic resistance
- ♦ Biochemical tests (peroxidase, polyphenol oxidase, phenol estimation, phenylalanine ammonia lyase, superoxide dismutase, etc)
- ♦ Pot culture and field lay out and field experiment

#### **Genomics**

- ♦ Expert in cloning and understanding the genome organization of begomoviruses, geminivirus, ilarvirus, potyviruses and tospoviruses
- ♦ Isolation of plasmid DNA, genomic DNA, total RNA from plant and whitefly
- ♦ Agarose gel electrophoresis, Gel extraction and PCR purification of DNA
- ♦ Rolling circle amplification (RCA) and RCA-RFLP
- ♦ Efficient in various screening techniques (sap inoculation, grafting transmission, agroinoculation and whitefly transmission)
- ♦ Experienced in using bioanalyser for checking the integrity of nucleic acid

#### **Proteomics**

- ♦ Protein extraction and purification, SDS-PAGE, Native PAGE, Western blotting

#### **Bioinformatics skills**

- ♦ Experience in handling all bioinformatics tools.

### **MEMBERSHIP**

<b>Name of the Society</b>	<b>Type of Membership</b>
Agricultural Scientific Tamil Society (SciTSA)-	Life member
Uzhavarin Valarum Velanmai	Life member
Association Of Microbiologists In India	Life member
Environment Protection Movement Coimbatore Chapter	Life member
AGROBIOS (India) Newsletter, Jodhpur.	Annual Membership



## EXTRA CURRICULAR ACTIVITIES

- ♦ Special Camping Programme on the theme Healthy Youth for Healthy Nation, Thamaraiikulam.
- ♦ Served as editor cum convener in 3<sup>rd</sup> Agricultural graduate students conference on “Impact of climate risks on Agricultural and Horticultural productivity”.
- ♦ Served as a member in various committees in national conference conducted by Indian Virological Society 2014.
- ♦ Served as a member in Editorial committee in national conference conducted by Indian Society of Mycology and Plant Pathology 2014.
- ♦ Expertise in handling molecular techniques
- ♦ Handled and assisted pathology theory and practicals for B.Sc students (KAU), virology practicals for Ph.D and M.Sc students (TNAU)
- ♦ Framers training regarding disease and pest management of pulses held by Modakurichi ADA, Erode.

## PERSONAL PROFILE

Nationality	:	INDIAN
Date of Birth	:	12 <sup>th</sup> OCTOBER 1988
Gender	:	FEMALE
Language Skills	:	<b>Read:</b> TAMIL, ENGLISH AND MALAYALAM <b>Write:</b> TAMIL AND ENGLISH <b>Speak:</b> TAMIL, ENGLISH AND MALAYALAM
Blood Group	:	B+ <sup>ve</sup>
Contact number	:	9500565283

## REFERENCES

<p><b>Dr. S. Nakkeeran</b> Professor, Department of Plant Pathology Tamil Nadu Agricultural University Coimbatore-641003 Mobile: +91 75984 89226 e-mail: nakkeeranayya@gmail.com</p>	<p><b>Dr. V.G. Malathi</b> Adjunct Professor Department of Plant Pathology Tamil Nadu Agricultural University Coimbatore-641003 Mobile: +91 8110996093 e-mail: vgmalathi@rediffmail.com</p>	<p><b>Dr. A.S.Krishnamoorthy</b> Professor and Head Department of Plant Pathology Tamil Nadu Agricultural University Coimbatore-641003 Mobile: +91 9790499006 e-mail: <a href="mailto:milkmushapk2@gmail.com">milkmushapk2@gmail.com</a></p>
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## DECLARATION

I **RAGESHWARI.S** hereby declare that, all the above information and particulars are true and complete to best of my knowledge.



**RAGESHWARI SELVARAJ**