V. KARTHIK PANDI, B.Sc.(Agri), M.Sc. (Agri.Plant Pathology), Ph.D.,(Pursuing)

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Theni District and Taluk, Pin code: 625 531.

India.

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Academic Record

- **Ph.D** in **Agricultural Plant Pathology, 2014-2017**, Tamil Nadu Agricultural University, Coimbatore, India.
- **M.Sc** in **Agricultural Plant Pathology, 2011-2013**,Tamil Nadu Agricultural University, Coimbatore, India.
- **B.Sc** in **Agriculture, 2004-2008**, Agricultural College and Research Institute, Madurai, 625104, Tamil Nadu Agricultural University, Coimbatore, India.

Working experience

- **NOVEMBER 2013- Aug 2014**. **Senior Research Fellow** in the scheme TN-IAMWARM at Horticulture College And Research Institute, Periyakulam, Tamil Nadu Agricultural University, India. **Mentor: Dr.A.Rathinasamy, (Soil science).**
- **DECEMBER 2010-Mar 2011 Junior Research Fellow** in the scheme of Testing the Bio-efficacy of Ampligo 150 zc against Pest complex in okra and Brinjal and Chilli at Horticulture College And Research Institute, Periyakulam, Tamil Nadu Agricultural University, India.**Mentor: Dr.S.Suresh, (Agricultural Entomology).**
- **APRIL 2011-Aug 2011 Junior Research Fellow** in the scheme of IAMWARM at Horticulture College And Research Institute, Periyakulam, Tamil Nadu Agricultural University, India. **Mentor: Dr.A.Rathinasamy, (Soil science).**
- **FEBRUARY 2010-Nov 2010 Junior Research Fellow** in the scheme of IAMWARM at Horticulture College And Research Institute, Periyakulam, Tamil Nadu Agricultural University, India. **Mentor: Dr.A.Rathinasamy, (Soil science).**

Computer Literacy

- ➢ Working knowledge on MS Office (Word, Excel and PowerPoint)
- ➢ Good exposure to Internet Environment in retrieving scientific literatures and specific information
- ➢ Interpretation of data with various Statistical packages like MSTAT, AGDATA and AGRES

Additional responsibility

SEPTEMBER 2017: Orgainsed and contributed for successful conduct of Training on"Empowerment of Rural Youth to become the Agripreneur" AIASA,Tamil Nadu and ICAR Krishi Vigyan Kendra, CENDECT, Kamatchipuram,Theni - 2017.

JANUARY 2011: Orgainsed and contributed for successful conduct of training on "Precision FarmingTraining"TN-IAMWARM Project at Horticultural College and Research Institute, Periyakulam – 2011

JANUARY 2011: Orgainsed and contributed for successful conduct of training on "Vermicomposing using silpaulin vermi bags"TN-IAMWARM Project at Horticultural College and Research Institute, Periyakulam – 2011

DECEMBER 2010: Orgainsed and contributed for successful conduct of training on Control of Papaya Mealybugs Programmme at Aundipati, Theni-2010

Agricultual work experience

- I had working experience for 10 days Programmed at Rajshree Sugar chemical limited (RSCL) in Aundipatti. Theni (Dt).
- I had working experience for 15 days Programmed, Non governmental Organization (NGO) in Manamadurai. Sivagangai (Dt).

- I had working experience for 15 days, tie up Programmed with AO & ADO in ottanchathiram.

Rural Agricultual work experience

Underwent 1 months of intensive RAWE Programmed at Rajapalayam Virudhunagar, District. The learning process involved interaction with the farmers, studying the rural scenario, cropping pattern and the major constraints in the adoption of least technology, conducted various group discussion meetings with farmers.

Ph.D. Research

DEVELOPMENT OF ECO FRIENDLY MANAEMENT STRATEGIES TO CONTROL CHILLI ANTHRACNOSE DISEASE

P.G. Research:

EPIDEMIOLOGY AND MANAGEMENT OF STEM ROT DISEASE IN SUNFLOWER CAUSED BY *SCLEROTIUM ROLFSII*

The stem rot caused by *Sclerotium rolfsii* is one of the major soil borne diseases of sunflower causing heavy losses. The disease was observed at grain filling stage in all the region during the survey. The maximum incidence of Stem rot (5.5%) was recorded in Dindugal district followed by Erode district (5%). Eight isolates of *S. rolfsii* were isolated from sunflower.

The results of morphological and cultural studies of eight isolates indicated that there was considerable variation among isolates. The colony types are fluffy and compact. The sclerotial diameter varied from 1002 to 1224 µm. Isolate $SFSR_1$ recorded significantly the maximum mycelial growth perday (31.45 mm). All the eight isolates produced sclerotial bodies and its colour varied in three categories *viz.,* light brown, dark brown and reddish brown. Number of sclerotia varied from 274 to 360 / plate.

In Morden and KBSH-44 variety, eighty per cent inoculum level was required

to cause 100 per cent infection. The maximum per cent germination of sclerotium (86.02%) was noticed at 1 cm soil depth, which gradually reduced with increase in depth. The germination of sclerotium was 100 per cent up to one month after storage and decreased gradually with increase in storage duration. The rate of movement of mycelia at low inoculum level (one sclerotium) took six days to cover 4.16 cm distance, but higher inoculum (five sclerotia) took 6 days to reach 6.29 cm distance. Colonization of sorghum seeds and germination of sclerotia were drastically reduced with increase in EC levels. Growth of the pathogen was maximum at the temperature of 30-40^{0}C, soil moisture of 30 per cent and pH of 6.0 to 9.0.Application of biocontrol agents twice i.e. basal and 30 days after sowing was found to be effective in controlling stem rot incidence in pot culture studies.

Research Publications

1. **Karthik Pandi V**,Gopalakrishnan C, Janahiraman V. Cultural and Morphological Variability in *Sclerotium rolfsii* Causing Stemrot Disease ***Int.J.Curr.Microbiol.App.Sci*** (2017).

2. **Karthik Pandi V**, Janahiraman V, Karthick M, Gopalakrishnan C Mycelial combatability in *Sclerotium rolfsii* causing Stem rot Disease ***J.Pharm.Phyo.Chemistry*** (2017).

3. Veeranan Janahiraman, Rangasamy Anandham, Soon Wo Kwon,Subbiah sundaram, **Veeranan karthikpandi**, Rangasamy Krishnamoorthy, kiyoon kim, sandipan samaddar and tongmin sa. 2016. Control of Wilt and Rot Pathogens of Tomato by Antagonistic Pink Pigmented Facultative Methylotrophic *Delftia lacustris* and *Bacillus* spp. **Front. PlantSci.7:1626. doi: 10.3389/fpls.2016.01626.**

4. Karthick M, Gopalakrishnan C, Rajeswari E, **Karthik Pandi V**. *In vitro* efficacy of *Bacillus* spp. against *Fusarium oxysporum* f.sp. *ciceri,* the causal agent of Fusarium wilt ofchickpea ***Int.J.Curr.Microbiol.App.Sci*** (2017).

Presentations in Conferences

- ✓ C. Gopalakrishnan, **V.Karthik Pandi**, L.Gnanasing Jesumaharaja and D.Alice 2013. Variability in *Sclerotium rolfsii*, the incitant of stem rot of sunflower National Symposium on Pathogenomics for Diagnosis and Management of Plant Diseases-18 Indian Phyto.Society,Central Tuber Crops Research Institute, Thiruvanathapuram.

- ✓ C. Gopalakrishnan, **V.Karthik Pandi,** A. Kamalakannan and K.Ganeshmurthy 2013. Epidemiological studies on sunflower stem rot pathogen *Sclerotium rolfsii* National Symposium on Pathogenomics for Diagnosis and Management of Plant Diseases-18 Indian Phyto.Society, Central Tuber Crops Research Institute, Thiruvanathapuram.

Seminars/Workshops/Conferences attended

1. Attended National workshop on "Functional genomics in Plant Pathogens"at Tamil Nadu Agricultural University, Horticulture College and Research Institute,Coimbatore -2017.
2. Attended National workshop on "Real-Time PCR Analysis "at Tamil Nadu Agricultural University, Horticulture College and Research Institute,Coimbatore -2017.
3. Attended National workshop and Conference on "Leveraging Herbal Research for Bio-Entrepreneurship" at Tamil Nadu Agricultural University, Coimbatore -2017.
4. Attended National Seminar on "Nanotechnology for Evergreen Revolution" at Tamil Nadu Agricultural University, Coimbatore -2017.
5. Attended workshop Culture and Multiplication of Trichoderma viride from Organic wastes at Institute of Forest Genetics and Tree Breeding, Coimbatore- 2017
6. National Seminar on " Enterprising Mushroom Biotechnology" at Tamil Nadu Agricultural University, Coimbatore -2017.
7. Attended workshop Functional Molecule Identification in Agriculture & Food Industry: HPLC/UPLC organised by Centre of Innovation, Department of Biotechnology, Agricultural College and Research Institute, Madurai-2017.
8. Attended workshop GC-MS Analytical Platforms for Metabolomics: A way to Understand Complex Biological Pathways, organised by Centre of Innovation,

Department of Biotechnology, Agricultural College and Research Institute, Madurai-2017

9. Attended National Sympossium on "Challenges and Management Approaches for the Crop Diseases of National Importance- Status and Prospects at Agricultural College and Research Institute, Madurai-2015
10. Attended National Conference on Emerging Challenges and Opportunities in Biotic and Abiotic Stress Management at Society for Advancement of Rice Research, Hyderabad-2014
11. Attended Training Programme Processing and Value Addition in Food Crops conducted by the Food Processsing usiness Incubation Centre, Indian Institute of Crop Processing Technology (IICPT), Thanjavur-2014
12. Attended First Agricultural Graduate Student Conference on Food Safety an Food Security organized by Tamil Nadu Agricultural University, Coimbatore-2013.
13. Attended GOI-PPV&FRA sponsored awareness programme on Protection of Plant Varieties and Farmers Rights at Horticultural College and Research Institute, Periyakulam-2011

Book chapter

1. Karthick M, Gopalakrishnan C, **Karthik Pandi V**, Rajeswari E Studies on *Fusarium oxysporum* f.sp. *ciceri,* the incitant of chickpea wilt and identification of wilt resistant chickpea genotypes
2. JanahiramanV.,**Karthik Pandi V**.,Chevli Ramesh., Development of New Microbial Consortia for Enhancing the yield and quality of Medicinal Coleus.
3. Janahiraman V., **Karthik Pandi V**., Chevli Ramesh., Bio control of Pink Pigmented Facultative Methylotrophic Bacteria against Plant Pathogens of Bhendi, Onion.

English popular article

1. Raja,M., Thava Prakasa Pandian, R. and **Karthik Pandi, V** Plant Disease Diagnostics-75 Vol XIV, Issue No 01, June 2015

2. Raja, M., Thava Prakasa Pandian, R. and **Karthik Pandi, V**. Antisense Technology -7 Vol XIII, Issue No 05, Oct 2014.
3. Thava prakasa pandian, R., **Karthik Pandi, V.,** Guru Prasana Pandian, G., Soumia, P.S and Abhishek Kumar Dubey. Tilling A reverse Genetic Strategy for crop Improvement. Vol XII Issue No 11, April 2014.
4. Thava prakasa pandian, R., Raghavendra, B.T., **Karthik Pandi, V**., Abhishek Kumar Dubey, Guru Prasana Pandian, and G. Soumia, P.S. Cryptic Viruses Vol XIII Issue No 03, August 2014.
5. Raghavendra, B.T., Thava Prakasa Pandian, R. and **Karthik Pandi, V** Plant Pattern Recognition Receptors Vol XIII, Issue No.01,June,2014.
6. Thava prakasa pandian, R., Raghavendra, B.T., **Karthik Pandi, V**., Guru Prasana Pandian, G. and Soumia, P.S. Non- Host Resistance in Plants Vol XIII, Issue No.01,June,2014.
7. Raghavendra, B.T., Thava Prakasa Pandian, R. and **Karthik Pandi, V** Proteomic Profiling of Host-Pathogen Interaction Vol XIII, Issue No.01,June,2014.
8. Raghavendra, B.T., Thava Prakasa Pandian, R. and **Karthik Pandi, V** Biopesticides – A Safer Alternative to Chemical Pesticides – 52 Vol XIII, Issue No 06, Nov 2014.
9. Thava Prakasa Pandian, R., **Karthik Pandi, V.,**Nitika Gupta and Manoj Kumar Yadav. Plant Viruses as Enzyme Carriers VolXIII Issue No.8., January 2014
10. **Karthik Pandi, V**., Thava prakasa Pandian, R., Manoj Kumar Yadav, Abhishek Kumar, Dubey, Soumia, P.S. and Guru Prasanna Pandian, G. Agrobacterium-Mediated Transformation in Rice Vol XII, Issue No. 10, March 2014.
11. **Karthik Pandi, V**., Thava prakasa Pandian, R., Manoj Kumar Yadav, Abhishek Kumar, Dubey and Nitika Gupta Horizontal Gene Transfer in Fungi Vol XII, Issue No. 10, March 2014.
12. Abhishek Kumar, Dubey, Thava prakasa Pandian, R., Manoj Kumar Yadav and **Karthik Pandi, V** DNA Barcoding in Species Identification Vol XII, Issue No. 10, March 2014.
13. Thava Prakasa Pandian,R., **Karthik Pandi, V**., Guru Prasanna pandian, G and Soumia, P.S Sustainable Sugarcane Initiative (SSI) Vol 2, Issue 2, April-June 2014.
14. **Karthik Pandi,V**., Thava Prakasa Pandian, R. and Nitika Gupta Talens and their Applications in Plant Sciences Volume XII Issue No.7,December 2013.

15. Thava Prakasa Pandian,R., **Karthik Pandi,V**. and Nitika Gupta Viriods: Biology and Mangement Vol XII Issue No.7 , December 2013.

Book published with ISBN

Kidth; tP. $hdfpuhkd; kw;Wk; tP. fhh;j;jpf; ghz;o - kz;zpy; njhd;wpa khzpf;fk; (fhshd; tsh;g;g[)- ISBN-978-93-85109-35-5 – nth;fs; gjpg;gfk;-$dthp 2016.

Research area/ specialization and techniques:

- Plant-microbe interactions
- Biological control of plant diseases
- Basic Plant pathology techniques
- Molecular techniques includes electrophoresis
- PCR
- Protein Characterization and Purification
- SDS-Page
- Analytical Works Includes – TLC, GC

Awards and Achievement

1. The best poster presentation award from National Seminar on **"**Enterprising Mushroom Biotechnology**"** at Tamil Nadu Agricultural University, Coimbatore -2017.

2. National Conference on Emerging Challenges and opportunities in Biotic and Abiotic Stress Management : Scientist Associate Award –at Directorate of Rice Research, Rajendranagar, Hyderbad- 2014.

Society Membership

- ✓ Agricultural Scientific Tamil Society, New Delhi - **LIFE MEMBER.**
- ✓ Annual membership in The Madras Agricultural Journal, TNAU, Coimbatore, Tamil Nadu

REFERENCES

Dr. C. GOPALAKRISHNAN, Ph.D. Professor Department of Agricultural Plant pathology Agricultural College and Research Institute Gudumiyanmalai	**Dr. A. KAMALAKANNAN, Ph.D.** Professor Department of Agricultural Plant pathology Tamil Nadu Agriculural University Coimbatore – 3

Declaration:

Hereby, I declare that the information furnished above is true. If I get an opportunity to work in your concern, I assure that I shall discharge my duties to the fullest satisfaction of my Employer and to the best of my ability.

Place : Coimbatore

Date : 09.01.2018

Signature

(V.KARTHIK PANDI)