

## PUBLICATIONS

The institute has accomplished excellent research outputs to its credit, as discernible from the high volume of top-quality research publications with a sizable number in national/international journals with high impact factor. During the period, 65 research papers in peer reviewed journals, one review article, 33 papers presented in national level seminars/ symposia/ conferences/ workshops, 66 papers in semi technical journals/ magazines, 8 books and 12 book chapters, have been published. Besides, a large number of extension publications with 12 technical bulletins, 34 extension pamphlets, two e-publications and 12 number of training manuals were also published from the institute.

### Research Articles

- Anitha Karun, Rajesh M.K. and Muralikrishna K.S. (2015) Somatic embryogenesis and bioreactors. *Current Science*, **108**(10): 1782-1783.
- Anithakumari P., Muralidharan K. and Kalavathi S. 2015. Community extension approach in biomanagement of rhinoceros beetle – The major pest of coconut. *Indian Research Journal of Extension Education*, **15**(1): 70-75.
- Babu M., Josephraj Kumar A., Rajumon M., Devika S., Rajeev G., Gangaraj K. P. and Hegde V. 2015. Molecular characterization of phytoplasma associated with phyllody of *Pedaliium murex* - a common weed in coconut plantations. *Phytoparasitica*, **43**(3): 365-368.
- Bharath B. G., Ananda K. S., Rijith J., Nagaraja N. R., Chandran K. P., Anitha Karun and Rajesh M. K.. 2015. Studies on genetic relationships and diversity in arecanut (*Areca catechu* L.) germplasm utilizing RAPD markers. *Journal of Plantation Crops*, **43**(2): 117-125.
- Bhavyashree U., Lakshmi Jayaraj K., Muralikrishna K. S., Sajini K. K., Rajesh M. K. and Anitha Karun. 2016. Initiation of coconut cell suspension culture from shoot meristem derived embryogenic calli: A preliminary study. *Journal of Phytochemistry*, **8**(1): 13-16.
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- Chalapathi Rao N. B. V., Sabana A. A., Rachana K. E. and Rajesh M. K. 2016. Genetic variation in coconut black headed caterpillar (*Opisina arenosella* Walker) population in India. *Research Journal of Biotechnology*, **11**(2): 53-58.
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- Chandran K. P., Jose C. T., Jayasekhar S., Jaganathan D., Muralidharan K. and Thamban C. 2015. Yield estimation in cocoa with partial harvest data. *Journal of Plantation Crops*, **43**(1) 23-28.
- Chethana C.S., Chowdappa P. and Pavani K.V. 2015. *Colletotrichum truncatum* and *C. fructicola* are responsible for the cause of anthracnose on chilli in Karnataka state of India. *Indian Phytopathology*, **68**: 2-12.
- Chethana C.S., Chowdappa P., Pavani K.V., Biju C.N., Praveena R. and Sujatha A.M. 2015. Morphological and multi-loci gene analysis of five species of *Colletotrichum* responsible for anthracnose on black pepper in South India. *International Journal of Advanced Biotechnology and Research*, **6**: 327-342.
- Chowdappa P., Chethana C.S. and Pavani K.V. 2015. *Colletotrichum siamense* and *C. truncatum* are responsible for severe outbreak of anthracnose on onion in South West India. *Journal of Plant Pathology*, **97**: 77-86.

- Chowdappa P., Nirmal Kumar B.J., Madhura S., Mohan Kumar S.P., Myers K. L., Fry W.E and Cooke D.E.L. 2015. Severe outbreaks of late blight on potato and tomato in South India caused by recent changes in the *Phytophthora infestans* population. *Plant Pathology*, **64**: 191–199.
- Elain Apshara S. 2015. Growth and yield performance of Trinidad cocoa collections in Karnataka. *Journal of Plantation Crops*, **43**(3): 237-240.
- Hebbar K. B., Arivalagan M., Manikantan M. R., Mathew A. C., Thamban C., Thomas G.V. and Chowdappa P. 2015. Coconut inflorescence sap and its value addition as sugar – collection techniques, yield, properties and market perspective. *Current Science*, **109**(8): 1411-1417.
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- Jaganathan D., Thamban C., Jose C.T., Jayasekhar S., Chandran K.P. and Muralidharan K. 2015. Analysis of organic farming practices in cocoa in India. *Journal of Plantation Crops*, **43**(2): 131 -138.
- Jamshinath T.P., Naganeeswaran S., Jomon K. Jose and Rajesh M.K. 2015. MAPS: A web-based tool for detection of microsatellites in whole genome sequences. *Journal of Plantation Crops*, **43**(1): 62-66.
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- Nath V.S., Hegde V., Jeeva M.L. Misra R.S., Veena S.S. and Darveekaran S.S 2015. Morphological, pathological and molecular characterization of *Phytophthora colocasiae* responsible for taro leaf blight disease in India. *Phytoparasitica*, **43**(1): 21-35.
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- Prathibha V.H, Sharadraj K.M., Nidhina K. and Hegde V. 2015. Evaluation of locally available substrates for mass production of *Trichoderma*. *Journal of Plantation Crops*, **43**(2): 168-170.
- Rachana K.E., Naganeeswaran S., Fayas T.P., Thomas R. J. and Rajesh M.K. 2016. Cloning, characterization and expression analysis of NBS-LRR-type resistance gene analogues (RGAs) in coconut. *Acta Botanica Croatica*, **75**(1): 1-10.
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- Rajesh M. K., Fayas T. P., Naganeeswaran S., Rachana K. E., Bhavyasree U., Sajini K. K. and Anitha Karun. 2015. *De novo* assembly and characterization of global transcriptome of coconut palm (*Cocos nucifera* L.) embryogenic calli using Illumina paired-end sequencing. *Protoplasma*, **253**(3):913-28
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- Rajesh M.K., Sabana A.A., Rachana K.E., Shafeeq Rahman, Jerard B.A. and Anitha Karun. 2015. Genetic relationship and diversity among coconut (*Cocos nucifera* L.) accessions revealed through SCoT analysis. *3 Biotech*, **5**(6): 999-1006.
- Rajeshkumar P. P., George V. Thomas, Alka Gupta and Murali Gopal. 2015. Diversity, richness and degree of colonization of arbuscular mycorrhizal fungi in coconut cultivated along with intercrops in high productive zone of Kerala, India. *Symbiosis*, **65** (3): 125-141.
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- Shafeeq Rahman, Gangaraj K.P., Amal Vasu, Anitha Karun and Rajesh M.K. 2016. Characterization of gibberellin 2-oxidase isoforms in coconut (*Cocos nucifera* L.). *Journal of Plantation Crops*, **43**(3): 178-186.
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- Thomas R. J., Rajesh M. K., Jacob P. M., Jose M. and Nair R. V. 2015. Studies on genetic uniformity studies of Chowghat Green Dwarf and Malayan Green Dwarf varieties of coconut using molecular and morphometric methods. *Journal of Plantation Crops*, **43** (2): 89-96.
- Vedasree S., Sateesh M.K., Chowdappa P. and Nirmal Kumar B.J. 2015. Species-specific PCR based assay for identification and detection of *Phomopsis azadirachtae* causing die-back in *Azadirachta indica*. *Journal of Phytopathology*, **163**: 818-828.
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### Review Articles

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### Papers presented in Seminars/Symposia/ conferences/ workshops

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- Arivalagan M., Rakesh Bhardwaj., Sugatha P., Poonam Suneja, Hebbar K.B., and Santosh R. Kanade. 2015. Biochemical and nutritional characterization of coconut (*Cocos nucifera* L.) haustorium. In: Proc. 11<sup>th</sup> International Food Data Conference Food Composition and Public Health Nutrition, held during 3<sup>rd</sup>-5<sup>th</sup> November 2015 at NIN, Hyderabad. p. 84.
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- Chandran K.P. 2015. Coconut farming in Kerala: Growth or Stagnancy (Keralathile thengu krishi: Valarchayo thalarchayo) In: 4<sup>th</sup> International Congress on Kerala Studies), Vikasana Meghala Seminar, Samyojitha Krishi Vikasanam. p. 47.
- Chandrika Mohan, Josephraj Kumar A., Krishnakumar V. and Chowdappa P. 2015. Current status of red palm weevil management in India. In: Book of Abstracts. 'International workshop on control and management of red palm weevil', Riyad, May 10-12, 2015. p. 4.
- Hebbar K.B., Ravi Bhat and Chowdappa P. 2015. Implications of climate change on plantation sector with special reference to coconut. In: Proc. 3<sup>rd</sup> International Plant Physiology Conference, 11<sup>th</sup> -14<sup>th</sup> December 2015, JNU, New Delhi. p. 100.
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- Jissy George and Muralidharan P. 2016. Maximizing income through value addition of oriental pickling melon. *In: 1<sup>st</sup> KVK Symposium Zone VIII- Technology Delivery mechanisms of KVKs for higher Productivity and Profitability in Agriculture*, 21-22 January 2016, UAS, Dharwad. p. 76-77.
- Lekha G. and Muralidharan P. 2016. Match wood (*Ailanthus exelsa*) saw dust as an alternative substrate for oyster mushroom (*Pleurotus florida*) cultivation. *In: 1<sup>st</sup> KVK Symposium Zone VIII- Technology Delivery mechanisms of KVKs for higher Productivity and Profitability in Agriculture*, 21-22 January 2016, UAS, Dharwad. p. 97-98.
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- Muralidharan P. 2015. Organic Farming in coconut – Scope, Constraints and Strategies. *In: Abstracts: 4<sup>th</sup> International Congress on Kerala Studies – Regional Seminar (5 “Integrated Farming”, 28<sup>th</sup> April, Palakkad. p. 35 (in Malayalam).*
- Rajeev M.S., Muralidharan P., Reema Anand and Anjali R. Nathan 2016. Climate resilient practices for banana cultivation in water logged areas. *In: 1<sup>st</sup> KVK Symposium Zone VIII- Technology Delivery mechanisms of KVKs for higher Productivity and Profitability in Agriculture*, 21-22 January 2016, UAS, Dharwad. p. 27.
- Rajeev M.S., Muralidharan P. and Bijila P.V. 2016. Performance of turmeric varieties as intercrop in coconut garden. *In: 1<sup>st</sup> KVK Symposium Zone VIII- Technology Delivery mechanisms of KVKs for higher Productivity and Profitability in Agriculture*, 21-22 January 2016, UAS, Dharwad. p. 87.
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**Chowdappa P., Hegde V. and Muralikrishna H. 2015. Abstracts - 3<sup>rd</sup> International Symposium on Phytophthora: Taxonomy, Genomics, Pathogenicity, Resistance and Disease Management, ICAR-IIHR, Bengaluru, 9-12, September 2015 p. 75.**

Chowdappa P. *Phytophthora* diseases of vegetable crops. p. 65.

Chowdappa P. Severe outbreaks of foliar blights and fruit rots on vegetable crops in India caused by invasive and emerging *Phytophthora* populations. p. 12.

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Mohan Kumar S.P. and Chowdappa P. Development of bio-control formulations for management of late blight of tomato. p. 46.

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Prathibha V.H., Hegde V., Sharadraj K.M., Nidhina K., Nagaraja N.R. and Chaithra M. Identification of sources of resistance against *Phytophthora* in arecanut. p. 40.

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Sridhar V., Vinesh L.S. Mohan Kumar S. P., Chowdappa P. and Saxena A. K. Global potential distribution of *Phytophthora infestans* under current and climate change situations. p. 34.

Vinayaka Hegde and Chowdappa P. *Phytophthora* diseases of palms. p. 66.

**Popular Articles**

Ananda K. S. and Nagaraja N. R. 2015. Adikeyalli Sudhaarita Kubja Sankarana Taligalu (Kannada). *Negila Miditha*, **1**(4): 21.

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### Varieties notified

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- '*Kalpa Samrudhi*' coconut hybrid notified in the gazette of India by Ministry of Agriculture (Department of Agriculture and Cooperation) vide S.O. No. 2277 (E) dated 17<sup>th</sup> August 2015 (No.1775, The Gazette of India, August 20, 2015) in exercise of powers conferred by section 5 of the Seeds Act, 1966 (54 of 1966).