

VIII. Publications

Research Articles

- Alagar, M., Rajamanikam, K., Chinnadurai, S., Yasmin, A. and Maheswarappa, H.P. 2020. Surveillance, assessment of infestation, biology, host range of an invasive rugose spiraling whitefly, *Aleurodicus rugioperculatus* Martin and status of its natural enemies in Tamil Nadu. *Journal of Entomology and Zoology Studies*, 8(3):2041-2047 (NAAS Score 5.53).
- Anes K.M., Babu, M., Sivadasan, J. and Josephraj Kumar A. 2020. Discovery of a new *Steinernema* sp. (Rhabditida: Steinernematidae) with higher shelf life and better efficacy against red palm weevil under laboratory conditions. *Journal of Plantation Crops*, 48(3): 184-191. (NAAS Score 5.54)
- Anithakumari, P. and Jayasekhar, S. 2019. Leadership and social intelligence of coconut farmer leaders and implications in extension services. *Journal of Plantation Crops*, 47(3): 158-166. (NAAS Score 5.54)
- Arvind, K., Rajesh, M.K., Josephraj Kumar, A. and Grace, T. 2020. Dataset of *de novo* assembly and functional annotation of the transcriptome of certain developmental stages of coconut rhinoceros beetle, *Oryctes rhinoceros* L. *Data in Brief*, 28, p.105036. (NAAS Score --)
- Babu, M., Thangeswari, S., Josephraj Kumar, A., Krishnakumar V., Selvamani V., Daliyamol, Hegde Vinayaka, Maheswarappa H.P. and Anitha Karun 2021. First report on the association of 'Candidatus Phytoplasma asteris' with lethal wilt disease of coconut (*Cocos nucifera* L.) in India. *Journal of General Plant Pathology*, 87, 16-23. <https://doi.org/10.1007/s10327-020-00970-y> (NAAS Score 6.89)
- Bandyopadhyay, A., Ghosh, D.K., Biswas, B., Parameswarappa, M.H. and Timsina, J., 2020. Fertigation effects on nutrient use efficiency, energy productivity, and economics of Coconut (*Cocos nucifera* L.) cultivation in the Eastern Indo-Gangetic Plains of South Asia. *International Journal of Fruit Science*, 20(sup3), S1483-S1494. <https://doi.org/10.10180/15538362.2020.1812016>. (NAAS Score --)
- Chaithra, M., Vanitha, S., Ramanathan, A., Jegadeeshwari, V., Rajesh, V., Hegde, V. and Apshara, E. 2020. Profiling secondary metabolites of cocoa (*Theobroma cacao* L.) endophytic fungi *Lasiodiplodia pseudotheobromae* PAK-7 and *Lasiodiplodia theobromae* TN-R-3 and their antimicrobial activities. *Current Journal of Applied Science and Technology*, 39(2): 47-56. (NAAS Score 5.32)
- Chaithra, M., Vanitha, S., Ramanathan, A., Jegadeeshwari, V., Rajesh, V., Hegde, V. and Apshara, E. 2019. Morphological and molecular characterization of endophytic fungi associated with cocoa (*Theobroma cacao* L.) in India. *Current Journal of Applied Science and Technology*, 38(6):1-8. (NAAS Score 5.32)
- Daliyamol, Merin Babu, Josephraj Kumar, A. and Vinayaka Hegde. 2020. Identification of *Leptoxyphium* sp. causing sooty mold on coconut. *Indian Phytopathology*. <https://doi.org/10.1007/s42360-020-00298-9> (NAAS Score 5.90).
- Deo, M.M., Mathew, A.C., Manikantan, M.R. and Hebbar, K.B. 2020. Performance evaluation of power operated coconut de-shelling machine for different varieties of coconut, *Journal of AgriSearch*, 7(3): 154-157 (NAAS Score 4.41).
- Deo, M.M., Mathew, A.C., Manikantan, M.R. and Hebbar, K.B. 2020. Performance evaluation of semi-automatic coconut de-husking machine for West Coast Tall variety of coconut, *International Journal of Current Microbiology and Applied Sciences*, 9(6): 3187-3194 (NAAS Score 7.60).
- Devakumar, K., Thomas, R.J. and Karun, A. 2020. A durable pollination rain coat for coconut hybridization during monsoon. *Journal of Plantation Crops*, 48(3): 269-272 (NAAS Score 5.54).
- Gangaraj, K.P. and Rajesh, M.K. 2020. Dataset of dual RNA-sequencing of *Phytophthora palmivora* infecting coconut (*Cocos nucifera* L.). *Data in Brief*, p.105455. (NAAS Score --)
- Ghavale, S.L., Shinde, V.V., Wankhede, S.M., Maheswarappa, H.P. and Haldankar, P.M. 2020. Carbon sequestration and productivity potential of coconut (*Cocos nucifera* L.) hybrids and varieties under coastal eco-system of Maharashtra. *Current Journal of Applied Science and Technology*, 39(22): 30-37 (NAAS Score 5.32).
- Hebbar K.B., Apshara E., Chandran K.P. and Prasad P.V.V. 2020. Effect of elevated CO₂, high temperature, and water deficit on growth, photosynthesis, and whole

- plant water use efficiency of cocoa (*Theobromacacao* L.). *International Journal of Biometeorology*, **64**(1): 47-57. <https://doi.org/10.1007/s00484-019-01792-0> (NAAS Score 8.38).
- Hebbar K.B., Neethu P., Abhin Sukumar P., Sujithra M., Arya Santhosh, Ramesh S.V., Niral V., Hareesh G.S., Nameer P.O. and Prasad P.V.V. 2020. Understanding physiology and impacts of high temperature stress on the progametic phase of coconut (*Cocos nucifera* L.). *Plants*, **9**(12): 1651. <https://doi.org/10.3390/plants9121651> (NAAS Score: 8.76)
- Hebbar, K.B., Arivalagan, M., Pavithra, K.C., Roy T. K., Gopal, M., Shivashankara K. S., and Chowdappa, P.2020. Nutritional profiling of coconut (*Cocos nucifera* L.) inflorescence sap collected using novel coco-sap chiller method and its value added products. *Journal of Food Measurement and Characterization*, **14**: 2703–2712. <https://doi.org/10.1007/s11694-020-00516-y> (NAAS Score 7.42)
- Josephraj Kumar, A., Mohan, C., Babu, M., Prathibha, P.S., Hegde, V. and Krishnakumar, A. 2020. Diagnosis of invasive whitefly species co-occurring on coconut. *Current Science*, **119**(7): 1101-1105 (NAAS Score 6.76).
- Kalavathi, S., Jeena Mathew, Indhuja, S., Merin Babu and Muralidharan, K. 2020. Community-level management of bio-resources for augmenting income from coconut-based farming systems in Kerala State, India. *Journal of Plantation Crops*, **48**(3): 252-258 (NAAS Score 5.54).
- Murali Gopal, Alka Gupta, Shahul Hameed, K, Neenu Sathyan, Khadeejath Rajeeela, T.H. and George V. Thomas. 2020. Biochars produced from coconut palm biomass residues can aid regenerative agriculture by improving soil properties and plant yield in humid tropics. *Biochar*, **2**: 211–226. (doi. [org/10.1007/s42773-020-00043-5](https://doi.org/10.1007/s42773-020-00043-5)) (NAAS Score -).
- Pandiselvam, R., Hebbar, K.B., Manikantan, M.R., Prasanth, B.K., Shameena Beegum P.P., and Ramesh, S.V. 2020. Microwave treatment of coconut inflorescence sap (Kalparasa): A panacea to preserve quality attributes. *Sugar Tech*, **22** (4): 718-726. <https://doi.org/10.1007/s12355-020-00828-9> (NAAS Score 7.02).
- Pandiselvam, R., Manikantan, M.R., Balasubramanian, D., Shameena Beegum, P.P., Mathew, A.C., Ramesh, S.V., Hebbar, K.B. and Niral, V. 2020. Mechanical properties of tender coconut (*Cocos nucifera* L.): Implications for the design of processing machineries. *Journal of Food Process Engineering*, **43**(2): e13349. DOI: 10.1111/jfpe.13349. (NAAS Score 7.45)
- Pandiselvam, R., Manikantan, M.R., Kothakota, A., Rajesh, G.K., Beegum, S., Ramesh, S.V., Niral, V. and Hebbar, K.B. 2020. Engineering properties of five varieties of coconuts (*Cocos nucifera* L.) for efficient husk separation. *Journal of Natural Fibers*, **17**(4): 589-597. <https://doi.org/10.1080/15440478.2018.1507863> (NAAS Score 7.25).
- Paul, S.C., Acharya, G.C., Chakraborty, R., Maheswarappa, H.P., Hussain, M. and Ray, A.K. 2020. Sustainability of soil health and system productivity through arecanut based cropping system in the NE region of India. *Journal of Plantation Crops*, **48**(2): 111-119. (NAAS Score 5.54).
- Prathibha, V.H., Hegde, V., Monisha, M. and Vipin K. 2020. Management strategies for *Ganoderma* wilt disease of Coconut. *International Journal of Agriculture Sciences*, **12**(11): 9890-9893 (NAAS Score 4.82).
- Prathibha, V.H., Hegde Vinayaka and Gangaraj K.P. 2020. Morphological and molecular diversity among *Phytophthora* spp. infecting arecanut. *Research Journal of Biotechnology*, **15** (1): 25-34 (NAAS Score 5.00).
- Preethi, P., Rahman, S., Naganeeswaran, S., Sabana, A.A., Gangaraj, K.P., Jerard, B.A., Niral, V. and Rajesh, M.K. 2020. Development of EST-SSR markers for genetic diversity analysis in coconut (*Cocos nucifera* L.). *Molecular Biology Reports*, **47**(12): 9385-9397. (NAAS Score 8.11)
- Rajesh, M.K., Chowdappa, P., Behera, S.K., Kasaragod, S., Gangaraj, K.P., Kotimoole, C.N., Nekrakalaya, B., Mohanty, V., Sampgod, R.B., Banerjee, G. and Das, A.J. 2020. Assembly and annotation of the nuclear and organellar genomes of a dwarf coconut (Chowghat Green Dwarf) possessing enhanced disease resistance. *OMICS: A Journal of Integrative Biology*, **24**(12): 726-742. (NAAS Score 8.61).
- Rajesh, M.K., Gangaraj, K.P., Prabhudas, S.K. and Prasad, T.K. 2020. The complete chloroplast genome data of *Areca catechu* (Arecaceae). *Data in Brief*, **33**, p.106444. (NAAS Score --)
- Rajesh, M.K., Muralikrishna, K.S., Nair, S.S., Kumar, B.K., Subrahmanya, T.M., Sonu, K.P., Subaharan, K., Sweta, H., Prasad, T.K., Chandran, N. and Karunasagar, I. 2020. Facile coconut inflorescence sap mediated synthesis of silver nanoparticles and its diverse antimicrobial and cytotoxic properties. *Materials*

- Science and Engineering: C, p.110834. (NAAS Score 10.96)
- Rajkumar, Jagadeesh Patil, Pervez Rashid and Subhaharan Kesavan. 2019. Management of white grub (*Leucopholis burmesterie*) infesting arecanut through entomopathogenic nematodes under field conditions. *Annals of Plant Protection Sciences (An international Journal of Crop Protection)*, **27**(1):112-116. (NAAS Score 4.82)
- Rajkumar, Rashid Pervez, Surekha and Ravi Bhat. 2019. Weed as alternate host of root knot nematode, *Meloidogyne incognita* in coconut garden. *Annals of Plant Protection Sciences (An international Journal of Crop Protection)*, **27**(2):285-288. (NAAS Score 4.82)
- Ramesh S.V., Pandiselvam R, Hebbar K. B., Manikantan M.R., Shameena Beegum P.P., Shelly Praveen S., and Sruthi N.U. 2020. Antiviral potential of coconut (*Cocos nucifera* L.) oil and COVID-19. *Coronaviruses*. <https://doi.org/10.2174/2666796701999201> (NAAS Score--)
- Ramesh S.V., Yogindran S., Gnanasekaran P., Chakraborty S., Winter S. and Pappu H.R. 2020. Virus and viroid-derived small RNAs as modulators of host gene expression: molecular insights into pathogenesis. *Frontiers in Microbiology* .**11**:614231 <https://doi.org/10.3389/fmicb.2020.614231> (NAAS Score 10.26).
- Ramesh, S.V., Pandiselvam, R., Thushara, R., Manikantan, M.R., Hebbar, K.B., Beegum, S., Mathew, A.C., Neenu, S. and Shil, S. 2020. Engineering intervention for production of virgin coconut oil by hot process and multivariate analysis of quality attributes of virgin coconut oil extracted by various methods. *Journal of Food Process Engineering*, **43**(6): p.e13395. DOI: <https://doi.org/10.1111/jfpe.13395>. (NAAS Score 7.45)
- Sabana, A.A., Rajesh, M.K. and Antony, G. 2020. Dynamic changes in the expression pattern of miRNAs and associated target genes during coconut somatic embryogenesis. *Planta*, **251**(4), pp.1-18 (NAAS Score 9.06).
- Shinde, V.V., Maheswarappa, H.P., Ghavale, S.L., Sumitha, S., Wankhede, S.M. and Haldankar, P.M. 2020. Productivity and carbon sequestration potential of coconut-based cropping system as influenced by integrated nutrient management practices. *Journal of Plantation Crops*, **48**(2): 103-110 (NAAS Score 5.54).
- Singh, L.S., AnokUchoi, Rizal, S.K., Alpana Das and Ganesh Das. 2020. Evaluation of training with reference to socio personal attributes affecting knowledge and skills of cocoa farmers of North East region. *Journal of Agri Search*, **7**(3): 163-167. (NAAS Score 4.41)
- Sivakumar, V., Subramanian, A., Geethanjali, S., Praneetha, S. and Maheswarappa, H.P. 2020. Assessment of genetic variability for growth, floral, yield and its component traits in coconut (*Cocos nucifera* L.). *Electronic Journal of Plant Breeding*, **11**(3):809-813. (NAAS Score 4.97).
- Srikanth, V., Rajesh, G.K., Kothakota, A., Pandiselvam, R., Sagarika, N., Manikantan, M.R., and Sudheer, K.P. 2020. Modeling and optimization of developed cocoa beans extractor parameters using box behnken design and artificial neural network. *Computers and Electronics in Agriculture*, **177**: 105715. (NAAS Score 9.17)
- Sujithra, M, Rajkumar, Prathibha, V.H., Vinayaka Hegde and Poorani, J. 2019. Occurrence of nesting whitefly *Paraleyrodessminei* accarino (Hemiptera: Aleyrodidae) in India. *Indian Journal of Entomology*, **81**(3): 507-510. (NAAS Score 5.89)
- Sumitha, S., Maheswarappa, H.P., Basavaraju, T.B., Prashanth, M. and Swetha. 2020. Potential coconut (*Cocos nucifera*) hybrids developed using Gangabondam (GBGD) as maternal parent for yield and quality for southern dry tract of Karnataka (India). *Indian Journal of Agricultural Sciences*, **90**(8): 1467-73 (NAAS Score 6.25).
- Sunilkumar, K., Murugesan, P., Mathur, R.K. and Rajesh, M.K. 2020. Genetic diversity in oil palm (*Elaeis guineensis* and *Elaeis oleifera*) germplasm as revealed by microsatellite (SSR) markers. *Indian Journal of Agricultural Sciences*, **90**(4): 741-745 (NAAS Score 6.25).
- Thamban, C., Jayasekhar, S., Chandran, K.P. and Rajesh, M.K. 2020. Sustainability of Farmer Producer Organisations - The case of producer organisations involved in the production and marketing of 'neera' in the coconut sector in Kerala, India. *Journal of Plantation Crops*. **48**(2): 150-159 (NAAS Score 5.54).
- Wankhede, S.M., Shinde, V.V., Maheswarappa, H.P. and Ghavale, S.L. 2020. Impact of integrated management package on eriophyid mite, *Aceria guerreronis* (Keifer) and yield of Coconut. *Journal of Entomology and Zoology Studies*, **8**(5): 1967-1971 (NAAS Score 5.53).

Papers presented in seminar/ symposia/ conference/ workshops

- Alka Gupta, MuraliGopal, Priya George and George V. Thomas. 2020. KeraProbio™: a bioinoculant developed specifically for coconut seedlings. **In:** 29th Swadeshi Science Congress: National Conference on 'Science and Technology for Sustainable Development'. CPCRI, Kasaragod, Feb. 27-29, 2020. Abstract Book pp. 25 -26.
- Aparna, V., Bhat, K.V., Janakiram, T., Prasad, K.V., Raju, D.V.S., Namita and Panwar, S. 2020. Assessment of genetic diversity and population structure of fragrant rose genotypes using microsatellite markers. **In:** Proceedings of National conference on Science and Technology for sustainable development (29th Swadeshi Science Congress). 27th-29th February, 2020 at ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. p. 19-20.
- Aparna, V., Bhat, K.V., Janakiram, T., Prasad, K.V., Raju, D.V.S., Amitha Mithra, S.V., Bharadwaj, C., Namita, Panwar, S. and Singh, K.P. 2020. Studying population structure, diversity and genetic relationship of 21 wild rose species grown in India based on SSRs and morphological markers. **In:** Proceedings of a conference on Advances and Future Outlook in Biotechnology and Crop Improvement for Sustainable Productivity, 24-27th November 2020 at Bengaluru, India. P. 9-10.
- Bhat Ravi, Bhavishya and Sujatha, S. 2020. Spices in arecanut based cropping systems. Lead talk delivered in National Seminar on Spices: Emerging Trends in Production, Processing and Marketing held at ICAR-CCARI, Goa from 21-01-2020 to 22-01-2020.
- Chandrika Mohan, Josephraj Kumar, A. and Anes, K.M. 2020. Advances in red palm weevil IPM in coconut **In:** Proc. International webinar 'Advances in Red palm weevil Research and Management' (Eds: Rajan Shelke and J.R. Faleiro), Don Bosco College of Agriculture, Goa, India. 8th September 2020, pp 14-27.
- Daliyamol, Merin Babu, A Josephraj Kumar and Vinayaka Hegde. 2020. First report on the association of *Leptoxyphium* sp. with Rugose Spiraling Whitefly infesting Coconut. **In:** 29th Swadeshi Science Congress on 27- 29 February 2020, ICAR-CPCRI, Kasaragod. pp 32.
- Daliyamol, Prathibha, V.H., Panchavarnam, G. and Vinayaka Hegde. 2020. First report of *Curvularia eragrostidis* causing flower and fruit rot of dragon fruit in India. **In:** 7th International conference- Phytopathology in achieving UN sustainable development goals 16-20 January 2020 at ICAR-IARI, New Delhi. pp 45.
- Daliyamol, Prathibha V.H., Mahendran, B. and Vinayaka Hegde. 2020. Evaluations of fungicides on *Colletotrichum gloeosporioides*, *Fusarium solani* as incitant of leaf rot disease in coconut under in vitro. **In:** International E-Conference on "Multidisciplinary approaches for plant disease management in achieving sustainability in agriculture" organised by Department of Plant Pathology, College of Horticulture, Bengaluru, University of Horticultural Sciences, Bagalkot, India 6-9th October, 2020, pp 104.
- Elain Apsara, S. and Subramanian, P. 2020. Performance of selected genotypes of cocoa as clones and seedlings under coconut in Kasaragod condition. **In:** International E-Conference on "Advances and Future Outlook in Biotechnology and Crop Improvement for Sustainable Productivity" University of Horticultural Sciences, Bagalkot, 24-27 Nov 2020, pp.34.
- Elain Apsara, S., Chaithra, M., Senthil Amudhan, M., Suchithra, M., Rajesh, M.K. and Murali Gopal. 2019. Cocoa improvement programs and achievements of CPCRI. **In:** Proceedings of International Meeting on Asia Pacific Cocoa Breeders Working Group (APCBWG). (Eds.) Elain Apsara, S., Sudha, R., Anitha Karun and Muralidharan, K. pp. 4.
- Gangaraj, K.P., Santhi, C.K.V., Ginny Antony and Rajesh, M.K. 2020. Temporal gene expression patterns of coconut upon challenge by the oomycete pathogen *Phytophthora palmivora*: **In:** Book of Abstracts-29th Swadeshi Science Congress, Ramanan, R., Prasad, E., et al. (Eds.). ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. B17, p. 40.
- Geethu Venugopal., Muralikrishna, K.S. and Rajesh, M.K. 2020. Callus initiation and basic biochemical analysis of coconut endosperm: **In:** Book of Abstracts-29th Swadeshi Science Congress, Ramanan, R., Prasad, E., et al. (Eds.). ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. B33, p. 49.
- Jayasekhar, S., Thamban, C. and Chandran, K.P. 2020. Whether a revamped value chain is inevitable? The case of producer organizations involved in the production and marketing of 'neera' in the coconut sector Agricultural Economics Research Review 2020, 33 (Conference Number), 147.

- Josephraj Kumar, A., Chandrika Mohan, MerinBabu, Anes, K.M., Regi J. Thomas and VinayakaHegde. 2020. Strengthening quarantine and incursion management of invasive pests on coconut. **In:** International Seminar on Transboundary Pest Management, Souvenir cum Abstracts, 4-5 March, 2020, pp 137-138.
- Kavyashree, Sowmyashree Sharma, Nagaraja, N.R., Ranjini, T.N., Niral, V. and Rajesh, B. 2020. Estimation of genome size in arecanut (*Areca catechu* L.) varieties using flow cytometry. **In:** Abstracts- 29thSwadeshi Science Congress- National Conference on Science and Technology for Sustainable Development, Ramanan, R., Prasad, E., Aneesh., Jasmine, M.S. et. al. (Eds.). ICAR-CPCRI, Kasaragod, Kerala, India, 27th to 29th February 2020. pp.44 45.
- Kiran Kumar, D.G., Lakshmana, D., Nagaraja, N.R., SadashivNadukeri and Ganapathi, M. 2020. Molecular diversity analysis in arecanut (*Areca catechu* L.) germplasm by employing SSR markers. **In:** 29thSwadeshi Science Congress- National Conference on Science and Technology for Sustainable Development, Ramanan, R., Prasad, E., Aneesh., Jasmine, M.S. et. al. (Eds.). ICAR-CPCRI, Kasaragod, Kerala, India, 27th to 29th February 2020. Pp.43.
- Krishna Prakash, Namitha, M.S., Muralikrishna, K.S., Rajesh, M.K. and Anitha Karun. 2020. Exploring novel plant growth regulators as callogenetic agents in coconut. **In:** Book of Abstracts-29th Swadeshi Science Congress, Ramanan, R., Prasad, E., et al. (Eds.). ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. B32, p. 49.
- Kumar Arvind, Rajesh, M.K., Josephraj Kumar, A. and Tony Grace.2020. Differential gene expression analysis (DGE) of certain developmental stages of *Oryctes rhinoceros*'s transcriptome reveals candidate genes for pest management. **In:** Book of Abstracts-29thSwadeshi Science Congress, Ramanan, R., Prasad, E., et al. (Eds.). ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. B18, p. 41.
- Maheswarappa, H.P., Sumitha, S. and Elain Apshara, S. 2019. Performance of cocoa varieties/ hybrids as intercrop in coconut/ oil palm gardens in different regions of India. **In:** Proceedings of International Meeting on Asia Pacific Cocoa Breeders Working Group (APCBWG). (Eds.) Elain Apshara, S., Sudha, R., Anitha Karun and Muralidharan, K. pp. 24.
- Manikantan, M.R., Pandiselvam, R., Arumuganathan, T., Indurani, S. and Krishnakumar. 2020. Investigation on the production of osmo dehydrated coconut chips. **In:** 5th Online National conference on Agricultural Scientific Tamil organized by TNAU and Agricultural Scientific Tamil Society, New Delhi during 9-10 October 2020.
- Manikantan, M.R., Pandiselvam, R., Ramesh, S.V. and Krishnakumar. 2020. Investigation on the production and nutritional evaluation of hot and fermentation process virgin coconut oil. **In:** 5th Online National conference on Agricultural Scientific Tamil organized by TNAU and Agricultural Scientific Tamil Society, New Delhi during 9-10 October 2020.
- Manikantan, M.R., Pandiselvam, R., Shameena Beegum, P.P. and Sreejith, S. 2020. Selected engineering properties of ready-to-eat extrudates from the blends of coconut milk residue-corn-rice flour. **In:** 54th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium on Artificial Intelligence Based Future Technologies in Agriculture: organized by Indian Society of Agricultural Engineers during 7-9, January, 2020 at Hotel Hyatt Regency, Vimannagar, Pune.
- Murali Gopal, Nihad, K., Alka Gupta, Krishnakumar, V. and Narayanan, S. 2020. Microbial differences in coconut leaf vermicompost produced from palms growing in healthy and root (wilt) diseased tracts. **In:** 29thSwadeshi Science Congress: National Conference on 'Science and Technology for Sustainable Development'. CPCRI, Kasaragod, Feb. 27-29, 2020. Abstract Book pp.23-24.
- Muralikrishna, K.S., Sajini, K.K. and Anitha Karun.2020. Cryopreservation of coconut (*Cocos nucifera* L.) zygotic embryo by air desiccation method **In:** Book of Abstracts-29th Swadeshi Science Congress, Ramanan, R., Prasad, E., et al. (Eds.). ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala. B36, p. 51.
- Nagaraja, N.R., Dhanyashree, Shaili, M.S. and ElainApshara, S. 2020. Compatibility reactions of cocoa germplasm. **In:** 29thSwadeshi Science Congress- National Conference on Science and Technology for Sustainable Development, Ramanan, R., Prasad, E., Aneesh., Jasmine, M.S. et. al. (Eds.). ICAR-CPCRI, Kasaragod, Kerala, India, 27th to 29th February 2020. pp.20.
- Nagaraja, N.R., Ranjini, T.N., Neenu, S., Niral, V. and Ravi Bhat. 2020. Occurrence and frequency of chlorophyll deficient seedlings in arecanut. **In:** International

- E-Conference on Advances and Future Outlook in Biotechnology and Crop Improvement for Sustainable Productivity organized by College of Horticulture, Bengaluru, University of Horticultural Sciences, Bagalkot, India during 24th to 27th November 2020.
- Neema, M., Alka Gupta, MuraliGopal and Anitha Karun. 2020. Preliminary report of basidiomycete *Pseudolagarobasidium acaciicola* contamination in *in vitro* culture of coconut plumule. **In:** 29thSwadeshi Science Congress: National Conference on 'Science and Technology for Sustainable Development'. CPCRI, Kasaragod, Feb. 27-29, 2020. Abstract Book pp. 48-49.
- Pandiselvam, R., Manikantan, M.R., Mathew, A.C. and Krishnakumar. 2020. Tender coconut trimming machine. **In:** 5th Online National conference on Agricultural Scientific Tamil organized by TNAU and Agricultural Scientific Tamil Society, New Delhi during 9-10 October 2020, Page 11-14.
- Pandiselvam, R., Manikantan, M.R., Shameena Beegum and Krishnakumar. 2020. Kalpa krunch – An extrudate product from coconut milk residue. **In:** 5th Online National conference on Agricultural Scientific Tamil organized by TNAU and Agricultural Scientific Tamil Society, New Delhi during 9-10 October 2020, Page 15-18.
- Pandiselvam, R., Manikantan, M.R., Mathew, A.C. and Krishnakumar. 2020. Tender coconut trimming machine. **In:** 5th Online National conference on Agricultural Scientific Tamil organized by TNAU and Agricultural Scientific Tamil Society, New Delhi during 9-10 October 2020.
- Praveen S., Vinutha T. and Ramesh S.V. 2020. Prospects of oilseeds in secondary agriculture. **In:** Proceedings of National Oilseed Brainstorming Meet, Sep, 24th, 2020, ICAR-Indian Institute of Soybean Research (ICAR-IISR), Indore.(page number not mentioned??)
- Rajkumar, Nihad K., Krishnakumar V., Ravi Bhat and Vinayaka Hegde 2020. Influence of combined use of organic and inorganic nutrients on *Meloidogyne incognita* disease incidence in papaya intercropped in coconut based cropping system. **In:** 29thSwadeshi Science Congress, National Symposium on Science and Technology for Sustainable Development held at ICAR-CPCRI, Kasaragod, and Kerala. p74.
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