

VII. Publications

Research Articles

Alagar, M., Sivakumar, V., Praneetha, S., Chinnadurai, S., Josephraj Kumar, A. and Maheswarappa, H.P. 2021. Eco-friendly management of rugose spiralling whitefly, *Aleurodicus rugioperculatus* Martin infesting coconut. *Indian Journal of Entomology*, DoI.: 10.5958/0974-8172.2021.00153.X (NAAS Score 5.08).

Anithakumari, P., Mahima Mohan and Muralidharan, K. 2021. Impact of training programs for women farmer groups under the Farmer FIRST Program. *Indian Research Journal of Extension Education* **21** (2&3): 8-15 (NAAS Score 5.22).

Anithakumari, P., Sit, A.K. and Mithun, B. 2021. Knowledge integration through e kalpa – a cloud based interactive mobile App for coconut farmers. *International Journal of Economic Plants* **8** (2): 109-112 (NAAS Score 4.37).

Antony, G., Arvind, K., Godwin, J., Sujithra, M., Josephraj Kumar, A. and Grace, T., 2021. Draft genome sequence, annotation and SSR mining data of *Oryctes rhinoceros* Linn. (Coleoptera: Scarabaeidae), the coconut rhinoceros beetle. *Data in Brief*, **38**, p. 107424 (NAAS Score --).

Aparna, V., Krishna Prakash, Neema, M., Muralikrishna, K.S., Samsudeen, K., Chandran, K.P., Rajesh, M.K. and Anitha Karun. 2021. Pollen storage of coconut dwarf accession Chowghat Orange Dwarf (COD) at low temperature. *Indian Journal of Agricultural Sciences*, **91** (2): 321-324(NAAS Score 6.21).

Aparna, V., Subramanian, P., Kanwar Pal Singh, Namita, Sapna Panwar, Selvamani, V., Vandita Kumari, Jayasekhar, S., Neema, M. and Ravi Bhat. 2021. Evaluation of indigenous rose varieties as intercrop under coconut plantation in India. *Indian Journal of Horticulture*, **78** (3): 273-279 (NAAS Score 6.16).

Bhalerao, P. P., Maheswarappa, H. P. and Sumitha, S. 2021. Effect of integrated nutrient management in coconut (*Cocos nucifera* L.) based cropping systems in South Gujarat condition. *Current Horticulture*, **9** (2): 52-55.(NAAS 4.53)

Bharath, B. G., Ananda, K. S., Nagaraja, N. R. and Rajesh,

M. K. 2021. Microsatellite markers-based assessment of genetic diversity and population structure in arecanut (*Areca catechu* L.). *Indian Journal of Genetics and Plant Breeding*. **81** (4): 601-604. DOI: 10.31742/ISGPB.81.4.16 (NAAS Score 6.55).

Daliyamol, Prathibha, V.H, Vinayaka Hegde and Panjavarnam, G. 2021. First report of *Curvularia eragrostidis* causing fruit rot in *Hylocereus undatus* in India. *Journal of Plant Pathology*, <https://doi.org/10.1007/s42161-021-00957-4> (NAAS Score 7.15).

Gangaraj, K.P., Muralikrishna, K.S., Antony, G., Binod, B.S., Hegde, V. and Rajesh, M.K. 2021. A rapid *in vitro* leaf inoculation assay to investigate *Phytophthora palmivora*–coconut interactions. *Journal of Phytopathology*, **169** (5): 316-328. (NAAS Score 7.18).

Hebbar, K.B., Arya Santhosh, Abhin Sukumar, P., Neethu, P., Ramesh, S.V., Selvamani, V. 2021. Effect of sea water substitution on growth, physiological and biochemical processes of coconut (*Cocos nucifera* L.) seedlings - A hydroponic study. *Scientia Horticulturae*, **280**: 109935. <https://doi.org/10.1016/j.scienta.2021.109935> (NAAS Score 8.77).

Hebbar, K.B., Neethu, P., Sukumar, P.A., Sujithra, M., Santhosh, A., 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 progamic phase of coconut (*Cocos nucifera* L.). *Plants* **9** (12), 1651.

Hebbar, K.B., Padmanabhan, S., Ramesh S.V., Keshav Bhat, S., Shameena Beegum, P.P., Pandiselvam R., Manikantan, M.R. and Mathew, A.C. 2021. Moisture content and water activity of arecanut samples: A need to revisit storage guidelines. *Journal of Plantation Crops*, **49** (2):136-141(NAAS Score 4.66).

Indhuja, S., Merin Babu, Alka Gupta, Murali Gopal, Jeena Mathew, Regi Jacob Thomas, Haris, A.A. and Krishnakumar, V. 2021. Screening and characterization of nutrient solubilizing phytobeneficial rhizobacteria from healthy coconut palms in root (wilt) diseased tract of Kerala, India. *Journal of Environmental Biology*, **42**: 625–635 (doi.org/10.22438/jeb/42/3/MRN-1489) (NAAS Score 6.78).



- Jilu, V. Sajan, Subramanian, S. and Sharma, K. 2021. Attractancy potential of bacterial volatiles from symbiotic bacteria of wild population of *Zeugodacus cucurbitae* Coquillett (Diptera:Tephritidae). *Phytoparasitica*. <https://doi.org/10.1007/s12600-021-00966-0>. (NAAS Rating: 7.14)
- Kambakam, S., Ngaki, M.N., Sahu, B.B., Kandel, D.R., Singh, P., Sumit, R., Swaminathan, S., Muliya-Krishna, R. and Bhattacharyya, M.K., 2021. Arabidopsis non-host resistance PSS30 gene enhances broad-spectrum disease resistance in the soybean cultivar Williams 82. *The Plant Journal*, **107** (5): 1432-1446 (NAAS Score --).
- Kiran Kumar, D. G., Lakshmana, D., Nagaraja, N.R., Sadashiv Nadukeri and Ganapathi, M. 2021. Genetic variability and correlation for nut and yield characters in arecanut (*Areca catechu* L.) germplasm. *Electronic Journal of Plant Breeding*, **12** (4): 1170-1177. DOI: 10.37992/2021.1204.161 (NAAS Score 5.14).
- Lekha, G. and Muralidharan, P. 2021. Matchwood (*Ailanthus exelsa*) sawdust as an alternate substrate for oyster mushroom (*Pleurotus florida*) cultivation. *Journal of Krishi Vigyan* **9** (2):134 – 137 (NAAS 4.55).
- Maheswarappa, H.P., Mathur, R.K., Sumitha, S., Kalpana, M., Gawankar, M.S. and Tamilselvan, M. 2021. New oil palm hybrids. *Current Horticulture*. **9** (2): 70 (NAAS 4.53).
- Mangrauthia, S.K., Ramesh, S.V., Sahana, N., Praveen, S. 2021. Rhythm of a life within life: role of viral suppressors in hijacking the host cell. *J. Plant Biochem. Biotechnol.* **30**: 636–639. <https://doi.org/10.1007/s13562-021-00731-8> (NAAS Score 6.77).
- Manikantan, M.R., Pandiselvam, R., Arumuganathan, T., Indurani, C., and Varadharaju, N. 2021. Low-density polyethylene based nanocomposite packaging films for the preservation of sugarcane juice. *Journal of Food Science and Technology*, <https://doi.org/10.1007/s13197-021-05174-6>. (NAAS Score: 7.95)
- Mathew, J., Haris, A.A., Bhat, R., Krishnakumar, V., Muralidharan, K. and Susan John, K. 2021. Comparative assessment of nutrient partitioning in healthy and root (wilt) disease affected coconut palms grown in an Entisol of humid tropical Kerala. *Trees* **35**, 621-635. (NAAS Score --).
- Mishra, G., Karna, A.K., Sahoo, S. C., Pattanayak, S. K. and Maheswarappa, H. P. 2021. Effect of Integrated Nutrient Management and Plant Growth Regulator on Generation of Recyclable Biomass in Coconut (*Cocos nucifera* L.) Based Cropping System. *International Journal of Plant & Soil Science*, vol. **33** (17): 236-243. (NAAS Score: 5.07).
- Murali Gopal, Sandip Shil, Alka Gupta, Hebbar, K. B. and Arivalagan, M. 2021. Metagenomic investigation uncovers presence of probiotic-type microbiome in Kalparasa® (fresh unfermented coconut inflorescence sap). *Frontiers in Microbiology*. **12**: 662783. doi: 10.3389/fmicb.2021.662783 (NAAS Score: 10.23).
- Muralikrishna, K.S., Sajini, K.K., Kavya, P., Prakash, K., Sabana, A.A. and Rajesh, M.K. 2021. Cryopreservation of arecanut (*Areca catechu* L.) embryogenic calli by v cryo-plate method. *Current Journal of Applied Science and Technology*, **40**: 76-82. (NAAS Score: 4.71)
- Pandiselvam, R., Khanashyam, A.C., Manikantan, M.R., Balasubramanian, D., Shameena Beegum, P.P., Ramesh, S.V., Kothakota, A., Niral, V., Shil, S. 2021. Textural properties of coconut meat: implication on the design of fiber extraction and coconut processing equipment, *Journal of Natural Fibers*, DOI: 10.1080/15440478.2021.2009401 (NAAS Score 8.62).
- Pandiselvam, R., Mahanti, N.K., Manikantan, M.R., Kothakota, A., Chakraborty, S.K., Ramesh, S.V. and Beegum, P.S., 2021. Rapid detection of adulteration in desiccated coconut powder: vis-NIR spectroscopy and chemometric approach. *Food Control*, **133**: 108588. <https://doi.org/10.1016/j.foodcont.2021.108588> (NAAS Score 10.26).
- Pandiselvam, R., Manikantan, M. R., Mathew, A.C., Beegum, S., Hebbar, K.B. 2021. Design, development, and evaluation of minimal processing machine for tender coconut. *Agricultural Mechanization in Asia, Africa and Latin America*, **52** (1), 39-43 (NAAS Score 6.17).
- Pandiselvam R., Manikantan, M.R., Binu, S.M., Ramesh, S.V., Beegum, S., Gopal, M., Hebbar, K.B., Mathew, A.C., Kothakota, A., Kaavya, R., and Shil, S. 2021. Reaction kinetics of physico-chemical attributes in coconut inflorescence sap during fermentation. *Journal of Food Science and Technology* **58**: 3589-3597 (NAAS Score 7.95).
- Pandiselvam, R., Prithviraj, V., Manikantan, M.R., Beegum, P.S., Ramesh, S.V., Padmanabhan, S., and Khaneghah, A.M. 2021. Central composite design, pareto analysis, and artificial neural network for modeling of microwave processing parameters for tender coconut water. *Measurement: Food*, 100015. DOI: <https://doi.org/10.1016/j.meafoo.2021.100015> (NAAS Score --).

- Paulraj, S., Bhat, R., Rajesh, M.K., Ramesh, S.V., Priya, U.K., Pandian, R.T.P., Hegde, V. and Chowdappa, P., 2021. Data of 16S rRNA gene amplicon-based metagenomic signatures of arecanut rhizosphere soils in Yellow Leaf Disease (YLD) endemic region of India. *Data in Brief*, **38**, p.107443. (NAAS Score --)
- Phukon, R. M., Nath, J.C., Sumitha, S., Maheswarappa, H. P. and Elain Apshara. 2021. Early evaluation of cocoa (*Theobroma cacao* L.) clones as intercrop in coconut gardens under red river region of Assam state, India. *Journal of Plantation Crops*, **49** (2): 77-82 (NAAS 4.66).
- Pravitha, M., Manikantan, M. R., Kumar, V. A., Beegum, S., & Pandiselvam, R. 2021. Optimization of process parameters for the production of jaggery infused osmo-dehydrated coconut chips. *LWT*, **146**, <https://doi.org/10.1016/j.lwt.2021.111441>. (NAAS Score: 10.006).
- Preetha, P., Pandiselvam, R., Varadharaju, N., Kennedy, Z. J., Balakrishnan, M. and Kothakota, A. 2021. Effect of pulsed light treatment on inactivation kinetics of *Escherichia coli* (MTCC 433) in fruit juices. *Food Control*, **121**: 107547 (NAAS Rating: 10.26).
- Preethi, P., Mangalassery, S., Shradha, K., Pandiselvam, R., Manikantan, M. R., Reddy, S. V. R., Ramyashree Devi, S., and Nayak, M.G. 2021. Cashew apple pomace powder enriched the proximate, mineral, functional and structural properties of cereal based extrudates. *LWT*, **139**, <https://doi.org/10.1016/j.lwt.2020.110539> (NAAS Score 10.006).
- Preethi, P., Shafeeq Rahman, Naganeeswaran, S., Sabana, A.A., Gangaraj, K.P., Jerard, B.A., Niral, V. and Rajesh, M.K. 2021. Development of EST-SSR markers for genetic diversity analysis in coconut (*Cocos nucifera* L.) *Molecular Biology Reports* **47**: 9385–9397 (NAAS Score 7.40).
- Rajeev, M.S. and Muralidharan, P. 2021. Evaluation of high yielding turmeric varieties for Alappuzha district. *Journal of Krishi Vigyan*, **9** (2): 53 – 56 (NAAS 4.55).
- Rajesh, M.K., Antony, G., Arvind Kumar, Jeffrey Godwin, Gangaraj, K.P., Sujithra, M, Josephraj Kumar, A. and Tony Grace. 2021. Draft genome sequence, annotation and SSR mining data of *Oryctes rhinoceros* Linn. (Coleoptera: Scarabaeidae), the coconut rhinoceros beetle. *Data in Brief* **38**. 2021. 107424 <https://doi.org/10.1016/j.dib.2021.107424> (NAAS Score--).
- 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., Das, A.J., Niral, V., Karun, A., Gaikwad, K., Singh, N.K., Prasad, T.S.K. 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 8.51).
- Rajesh, M.K., Gangurde, S.S., Pandey, M.K., Niral, V., Sudha, R., Jerard, B.A., Ganesh Navanath Kadke, Sabana, A.A., Muralikrishna, K.S., Samsudeen, K., Anitha Karun, and Keshava Prasad, T.S. 2021. Insights on genetic diversity, population structure and linkage disequilibrium in globally diverse coconut accessions using genotyping-by-sequencing. *OMICS: A Journal of Integrative Biology*, **25** (12):1-12 (NAAS Score 8.51).
- Rajkumar, Pervez Rashid, Maheswarappa H. P. and Santosh 2020. Occurrence of plant parasitic nematodes associated with Noni (*Morinda citrifolia* L.) intercrop with coconut. *Annals of Plant Protection Sciences* **28** (1):101-102. Article DOI: 10.5958/0974-0163.2020.00055.5 (NAAS score 5.03)
- Ramesh S.V., Hebbar K.B., Rajesh M.K., Abhin S.P., Gangaraj K.P., Athul Bobby 2021. Transcriptome analysis of *Cocos nucifera* L., seedlings having contrasting water use efficiency (WUE) under water-deficit stress: molecular insights and genetic markers for drought tolerance. *Biology and Life Sciences Forum*, **4**: 73 DOI: 10.3390/IECPS2020-08853 (NAAS Score --).
- Rani, S., Maheswarappa, H.P. and Sudhalakshmi, C. 2021. Impact of temperature and rainfall on production and productivity of coconut. *Indian Journal of Horticulture*. **78** (3): 287 - 291 (NAAS Score 6.16).
- Sahoo, S.C., Sumitha, S., Karna, A.K., Mishra, G. and Maheswarappa, H.P. 2021. Performance of coconut (*Cocos nucifera* L.) hybrids for yield and quality in the Utkal plain region of Odisha state, India. *Journal of Plantation Crops*, 2021, **49** (2): 121-127 (NAAS 4.66).
- Santhi, C.K.V., Rajesh, M.K., Ramesh, S.V., Muralikrishna, K.S., Gangaraj, K.P. and Payal, G., 2021. Genome-wide exploration of auxin response factors (ARFs) and their expression dynamics in response to abiotic stresses and growth regulators in coconut (*Cocos nucifera* L.). *Plant Gene*, **28**, p.100344 (NAAS Score--).
- Shameena Beegum, P.P., Nair, J. P., Manikantan, M. R., Pandiselvam, R., Shill, S., Neenu, S., Hebbar, K. B. 2021. Effect of coconut milk, tender coconut and coconut sugar on the physico-chemical and sensory attributes in ice cream. *Journal of Food Science and Technology*, <https://doi.org/10.1007/s13197-021-05279-y> (NAAS Score 7.95).
- Shameena Beegum, P.P., Sharma, M., Manikantan, M. R., Pandiselvam, R., & Gupta, R. K. 2021. Incorporation



of coconut milk residue in pasta: Influence on cooking quality, sensory and physical properties. *Journal of Plantation Crops*, **49** (2), 128-135. (NAAS Score 4.66).

Shetty, S.S., Roopashree, P.G., Ramesh, S.V., Ajeet Singh, Arivalagan, M., Manikantan, M.R., Devi, U.H., Sharmila, K.P., Hebbar, K.B. and Suchetha Kumari, N. 2021. Virgin coconut oil (VCO) ameliorates high fat diet (HFD)- induced obesity, dyslipidemia and bestows cardiovascular protection in rats. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, <https://doi.org/10.1007/s40011-021-01318-y>. (NAAS Score--).

Shinde, V.V., Sumitha, S. and Maheswarappa. H.P. 2021. Soil fertility properties, leaf nutrient status and yield of coconut and intercrops as influenced by integrated nutrient management (INM) and coconut based cropping system in coastal plain of western India. *Bangladesh Journal of Botany*, **50** (4): 1067-1075, 2021 DOI: <https://doi.org/10.3329/bjb.v50i4.57074> (NAAS Score 6.21).

Singh, L.S., Alpana Das, Niral, V. and Acharya, G.C. 2020. Study on flowering behavior of some local coconut (*Cocos nucifera* L.) genotypes under Assam condition. *Indian Journal Plant Genetic Resources*, **33** (2): 217-223 (NAAS Score 5.54).

Singh, L.S., Anok, U., Acharya, G.C., Elain Apshara and Alpana Das. 2021. Early performance of cocoa genotypes in arecanut under Assam condition of North East Region of India. *Journal of Plantation Crops*, **49** (1): 7-13 (NAAS Score 4.66).

Sudha R., Niral, V. Samsudeen, K. and Hebbar, K.B. 2021. An Investigation of Yield and Quality of Coconut Inflorescence Sap in Different Coconut (*Cocos nucifera* L.) Genotypes under West Coast of India. *International Journal of Current Microbiology and Applied Science* **10** (2): 3030-3041. (NAAS Score--).

Sudha, R., Niral, V., Diwakar, Y. and Samsudeen, K. 2021. Variability and principal component analysis for yield and yield contributing traits in West Coast Tall coconut (*Cocos nucifera* L.) palms. *Indian Journal Genetics*, **81** (3): 469-473 (NAAS Score 6.55).

Sujithra, M.; Prathibha, H.V.; Rajkumar, M.; Guru-Pirasanna-Pandi, G.; Senthil-Nathan, S.; Hegde, V. 2021. Entomopathogenic Potential of *Simplicillium lanosoniveum* Native Strain in Suppressing Invasive Whitefly, *Aleurodicus rugioperculatus* Martin (Hemiptera: Aleyrodidae), Infesting Coconut. *Journal of Fungi* **7** : 964. <https://doi.org/10.3390/jof7110964> (NAAS Score 10.62).

Tabassum, A., Ramesh, S.V., Zhai, Y., Iftikhar, R., Olaya, C., and Pappu, H. R. 2021. Viruses without borders: Global analysis of the population structure, haplotype distribution, and evolutionary pattern of iris yellow spot orthotospovirus (Family *Tospoviridae*, Genus *Orthotospovirus*). *Frontiers in Microbiology*, **12**: 633710. <https://doi.org/10.3389/fmicb.2021.633710> (NAAS Score 10.23).

Thava Prakasa Pandian, R., Shivaji Hausrao Thube, Bhavishya, Merin Babu, Chaithra, M., Santhoshkumar, P., Nirmalkumar, B.J. and Vinayaka Hegde. 2021. First report of *Phytophthora palmivora* (E. J. Butler) E. J. Butler, 1919 causing fruit rot disease in *Areca triandra* Roxb. ex Buch.-Ham. from India. *Australasian Plant Pathology*. <https://doi.org/10.1007/s13313-021-00802-3> (NAAS Score 7.42).

Thomas, R.J., Shareefa, M., Harsha, H. and Anitha Karun. 2021. Biochemical characterization of pink husked coconut types. *Journal of Plantation Crops* **49** (1): 23-27 (NAAS Score 4.66).

Review Articles

Ramesh, S.V., Krishnan, V., Praveen, S. and Hebbar, K.B. 2021. Dietary prospects of coconut oil for the prevention and treatment of Alzheimer's disease (AD): A review of recent evidences. *Trends in Food Science & Technology* **112**:201-211 <https://doi.org/10.1016/j.tifs.2021.03.046> (NAAS Score 17.08).

Ramesh, S.V., Pandiselvam, R., Shameena Beegum, P.P., Saravana Kumar R. M., Manikantan M. R., K. B Hebbar. 2021. Review of *Cocos nucifera* L. testa-derived phytonutrients with special reference to phenolics and its potential for encapsulation. *Journal of Food Science and Technology*, <https://doi.org/10.1007/s13197-021-05310-2> (NAAS Score 7.95).

Papers presented in Seminars/Symposia/Workshops/Webinars

Amala Mohan, Anes, K.M., Merin Babu and Josephraj Kumar, A. 2021. Isolation and characterization of entomopathogenic nematodes from coconut intercrops. In: Proceedings of National Seminar on Advances in Biological Suppression of Pests, Eds Anes *et al.* September 22, 2021, ICAR-CPCRI, Regional Station, Kayamkulam, 16 p.

Amritha, K.T.K, Muralikrishna, K.S., Anitha Karun and Rajesh, M.K. 2021. 5 Azacytidine (5 azaC) treatment enhances the formation of embryogenic calli and somatic embryos from transverse thin layer cultures



derived from mature coconut zygotic embryos. *In*: Dhanapal, K., Pradip Kumar, K., Shadanaika., Ansar Ali, M.A., John Jo Varghese., Saju, K.A., Manooj Oommen., Thiyagarajan, P. (Eds.). Book of Abstracts, 24th Plantation Crops Symposium, 14-16 December 2021. p. 68.

Aparna Veluru, Subramanian, P., Kanwar Pal Singh, Namita, Sapna Panwar, Selvamani, V., Vandita Kumari and Ravi Bhat. 2021. Transforming coastal zone for sustainable food and income security. *In*: International Symposium on Coastal Agriculture (ISCA Webinar), organized in virtual mode during 16th- 19th March 2021, 80p.

Apshara, S.E. and Subramanian, P. 2020. Performance of selected genotypes of cocoa as clones and seedlings under coconut in Kasaragod condition. *In*: International e-conference 'Advances and future outlook in biotechnology and crop improvement for sustainable productivity'. 24-27 November 2020, UHS, Bagalkot. Fig. 24. OrNV infected grubs of rhinoceros beetle a) OrNV-infected and healthy grubs b) White and translucent gut contents of OrNV-infected grub c) Extroversion of gut d) Disintegration of fat body e) Different stages of OrNV-infected grubs.

Arsha G.M., Anes K.M., Babu, B., Indhuja S., Vidya J. and Josephraj Kumar A. 2021. Antagonistic interaction of bacterial symbionts of entomopathogenic nematodes against fungal pathogen associated with coconut leaf rot disease. *In*: Proc. National Seminar on Advances in Biological Suppression of Pests, Eds Anes *et al.* September 22, 2021, ICAR-CPCRI, Regional Station, Kayamkulam 7p.

Bhalerao P. P., Maheswarappa H. P. and S. Sumitha 2021. Impact of integrated nutrient management in coconut based cropping systems under South Gujarat condition. *In*: National Seminar on Horticulture for Next Generation in Eastern India Organized by Bihar Agricultural University, Sabour, Bhagalpur (Bihar) held on 05-06 August, 2021.

Bhavishya, Priya, U.K., Najeeb, N., Thube, S.H., Pandian, R.T.P., Jose, C.T. and Ravi Bhat. 2021. Effect of plastic mulching on disease index and yield of yellow leaf disease affected arecanut (*Areca catechu*). *In*: National seminar on Sustainable plant health management amidst pandemic challenges and strategies, held at ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala, Indiaduring 1-3 December 2021. p55.

Chandrikamohan. 2021. Advances in bio-suppression of coconut pests (1st K.K. Memorial Lecture-2021). *In*: Proceedings of National Seminar on Advances in

Biological Suppression of Pests, Eds Anes *et al.* September 22, 2021, ICAR-CPCRI, Regional Station, Kayamkulam, 3-4p.

Elain Apshara, S. and Senthil Amudhan, M. 2021. Response of cocoa beans to different small scale fermentation methods. *In*: 9th Indian Horticulture Congress from November 18-21, 2021. Chandra Shekhar Azad University of Agriculture and Technology Kanpur, Uttar Pradesh organized by Indian Academy of Horticultural Sciences (IAHS)

Geethu Venugopal, Muralikrishna K.S., Anitha Karun and Rajesh M.K. 2021. Effect of different coloured LED's on cell growth and biochemical parameters of coconut endosperm cultures. *In*: International Symposium on "Advances In Plant Biotechnology And Genome Editing and 42nd Meeting Of Plant Tissue Culture Association (India) held virtually by ICAR-Indian Institute of Agricultural Biotechnology, Ranchi, India during April 8-10, 2021.

Geethu Venugopal, Muralikrishna K.S., Gangaraj K.P., Sugatha P., Anitha Karun and Rajesh M.K. 2021. Transcriptome and biochemical profiling reveal genes involved in oil biosynthesis in endosperm callus of coconut (*Cocos nucifera* L.). *In*: Dhanapal, K., Pradip Kumar, K., Shadanaika., Ansar Ali, M.A., John Jo Varghese., Saju, K.A., Manooj Oommen., Thiyagarajan, P. (Eds.). Book of Abstracts, 24th Plantation Crops Symposium, 14-16 December 2021. p. 70.

Jeena Mathew, Haris, A.A., Anitha Kumari, P. and Ravi Bhat. 2021. Nutrient mixtures – 'Kalpa Poshak' and 'Kalpa Vardhini' for enhancing the productivity of coconut palms. Proc. International Virtual Conference on 'Challenges, Opportunities and Innovations in Agriculture, Plantations and Allied domains posed by the Pandemic', 21.10.2021, Indian Institute of Plantation Management, Bengaluru. p. 7-8.

Josephraj Kumar, A. 2021. Advances in pest management in coconut system. *In*: Abstract of the Technical Paper presented during the Technical Session held on September 02, 2021. *Indian Cocon. J.* **64** (3): 7.

Maheswarappa, H.P. and Sumitha, S. 2021. Coconut Based Farming/ Cropping Systems: Recent Developments In System Productivity And Carbon Sequestration. *In*: 9th Indian Horticulture Congress- Horticulture for Health, Livelihoods and Economy, (Eds; Singh, S.K., Singh D.R. and Patel, V.B. *Souvenir cum Lead & Oral Paper Abstracts Book*) held at Chandra Shekhar Azad University of Agriculture and Technology, Kanpur,



Uttar Pradesh, India from 18-21, November, 2021, organized by the Indian Academy of Horticultural Sciences, 314 p.

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