



AMRITA
VISHWA VIDYAPEETHAM
(Deemed-to-be University)

School of
Agricultural Sciences

J P Nagar, Arasampalayam, Coimbatore, Tamil Nadu – 642 109.

“When thoughts are reduced, power of the mind and its subtlety increases, tunes with the Universe. Then you can see the realms beyond the common understanding. When the mind is pure and quiet it becomes one with the universal mind. That mind is like a mirror. The secrets of the Universe will be revealed there”.

Amma, Sri Mata Amritanandamayi Devi
Chancellor, Amrita Vishwa Vidyapeetham

**ASA BIMONTHLY
E-NEWSLETTER**

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I. STUDENTS' ACTIVITIES

1. COLLECTION AND CONSERVATION OF CROP DISEASES

Obtaining from the land and nature is significant in instantaneous learning, and our students are consistently loud in refreshing themselves from their learning objectives during this pandemic situation. Mr. Sreeram Menon, Ms. Shreya Suresh, Ms. Kashmeera S Mujeeb and Ms. Navya V of the second year (2020 batch) participated in Crop Disease Scouting as part of the 19PAT111- Fundamentals of Plant Pathology course handled by Dr. Parthasarathy S, Assistant Professor (Plant Pathology). This pleasant field visit provided them with a better understanding and information of the crops and their pests and diseases.



Mr. Sreeram Menon, Ms. Shreya Suresh, Ms. Kashmeera S Mujeeb and Ms. Navya V from the second year (2020 batch)

Ms. Sristi Gupta and Mr. Sreeram Menon studied the time-lapse of a fungal pathogen's established order on inoculated fruits. This test provided a thorough understanding of pathogen infection and the disease cycle in host plants.



Ms. Sristi Gupta and Mr. Sreeram Menon from the second year (2020 batch)

2. CROPS MORPHOLOGICAL DESCRIPTORS

Students are assigned with cultivating in their home different varieties of *Kharif* crops such as cowpea, green gram, brinjal, groundnut, black gram, and so on as part of the 19 GPB 301-Crop Improvement I - *Kharif* crops course handled by Dr. Dhivyapriya D, Assistant Professor (Genetics and Plant Breeding). The primary goal of this activity was to make students acquainted with different morphological descriptors. Students have documented all stages of crop development, from seedlings to harvest.

Ms. Aparna S, a third-year student (2019 batch), cultivated groundnut with different varieties viz., G-10, Krishna, and Adhika varieties in a small piece of the land nearby her home. Seeds were treated with *Trichoderma viridae* to reduce the early fungal infestation in seeds. During ploughing, FYM and coir pith were incorporated into the land. Cultivation practices like irrigation, earthing up, manuring (nutrient mixture of bone meal and sweet potash; FYM; kitchen waste slurry) and weeding were all done on time. By mid-October, it had reached the flowering stage. The morphological descriptors of 3 different varieties of groundnut were collected from the beginning of the seedling stage.



Ms. Aparna S, from the third year (2019 batch)

Ms. Aswathy Prasad, a third-year student (2019 batch), grew Cowpea (Maxwell, Sheela, and Parvathi varieties) as a crop in polybags. For media preparation, FYM, Cocopeat, and Garden soil were mixed in various proportions. FYM was applied to the cowpea crop to promote healthy growth. The pandal system was then installed after certain days to facilitate its efficient climbing. Morphological descriptors were recorded from the beginning.



**Ms. Aswathy Prasad,
from the third year (2019 batch)**



Ms. Keerthana Vijayan, a third-year student (2019 batch), has chosen Cowpea to record morphological descriptors and grown seeds in polybags. *Pseudomonas fluorescence* was applied to the seeds to reduce fungal infection during early stage of crop. The potting mixture was made up of soil, lime, and coir pith in a 2:1:1 ratio. FYM was used for manuring. The crop was in its peak vegetative stage, and the descriptors were collected on a regular basis.

**Ms. Keerthana Vijayan,
from the third year (2019 batch)**

3. CROP SCOUTING

Crop scouting is the process of accurately assessing disease pressure and crop performance to estimate economic risk and implement appropriate disease control interventions. As part of the course 19PAT301 – Diseases of Field and Horticultural Crops, Ms. Manuvanthra A, a third-year student (2019 batch), used scientific crop scouting forms, applications, and aids to document the common crop diseases in banana and citrus field of Servakaranpalayam village, Kinathukadavu, Coimbatore district.



Ms. Manuvanthra A, from the third year (2019 batch)

4. ONLINE REGISTRATION OF III SEMESTER

The online registration of the III semester by the students of the 2020 batch was done on 27th September 2021 through AUMS.

II. COLLEGE EVENTS

1. CELEBRATION OF OUR BELOVED AMMA'S BIRTHDAY

Planting and caring for trees are a holy act. Trees have long been regarded as powerful symbols of prosperity and birth, and are frequently depicted as 'trees of life' or 'gifts that keep on giving'. To commemorate this, Dr. Sudheesh Manalil, Principal, Head Research & PGP Chair, Dr. N. Udayashankar, Campus Director (ASA), Air Cmde Satish Menon, Campus Director (Ettimadai Campus), Dr. Mahadevan S, Deputy Dean of School of Engineering, Dr. K. Bagavinar, Chairman Council of Wardens, Amrita Vishwa Vidyapeetham, Br. Gangadharamrita Chaitanya and faculty members of ASA planted trees to celebrate the 68th birthday of our Chancellor Mata Amritanandamayi Devi on 27.10.2021.



2. SKILL DEVELOPMENT SESSION ON ENTREPRENEUR OPPORTUNITIES IN SERICULTURE

The third webinar on skill development series was organized by the Skill Development Committee on 09.10.2021 through online mode via MS Teams application. The welcome note was delivered by Dr. G. Boopathi, Assistant Professor (Agrl. Engg.), ASA. The introductory address was given by Dr. Sudheesh Manalil, Principal, Head Research & PGP Chair, ASA. Dr. N. Udayashankar, Campus Director, ASA, also addressed the gathering. Dr. R. Mahesh, Scientist – C, Central Sericultural Research and Training Institute, Mysore, delivered a session on “Entrepreneur opportunities in sericulture”.



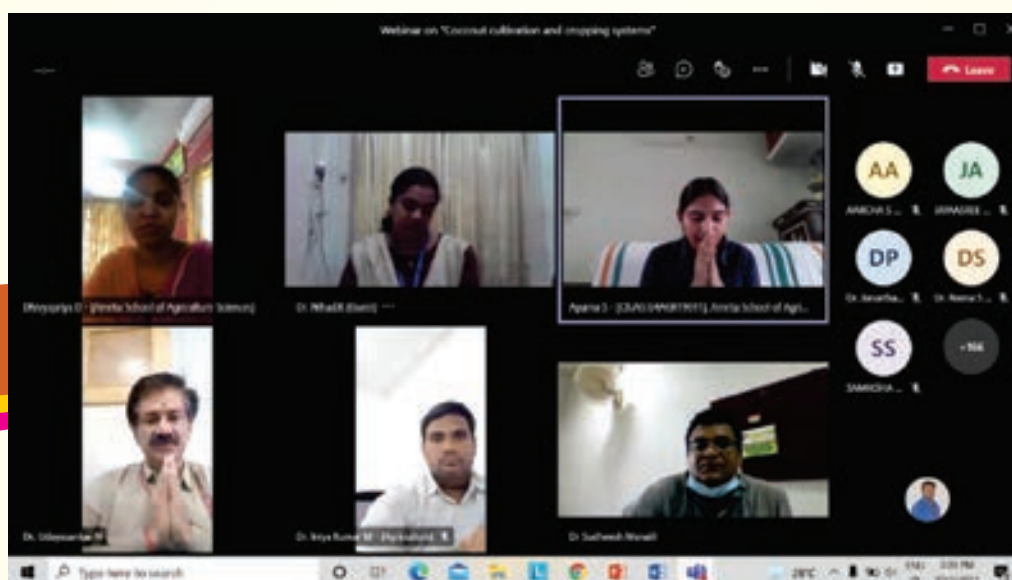
The Sericulture industry is an excellent avenue for employment with various entrepreneurial opportunities. The pursuit of sericulture offers gainful employment not only to the rural masses but also to the educated youth in semi-urban and urban areas. Growing silkworms is an income-generating entrepreneurial opportunity enabling poverty reduction and arresting rural to urban migration. Dr. R. Mahesh gave extensive emphasis upon the significance of the sericulture industry in providing

employment / entrepreneurial opportunities in the production process of silk and silk fabric.

At the end of the session, the students interacted with Dr. R. Mahesh and clarified their queries. Finally, Dr. R. Sureshkumar, Assistant professor (Agronomy), ASA thanked all the participants for their support and contribution to the successful conduct of the skill development programme.

3. WEBINAR ON COCONUT CULTIVATION AND CROPPING SYSTEMS

As part of the Webinar series, the “Coconut cultivation and cropping systems” webinar was organized by the Webinar Committee of Amrita School of Agricultural Sciences on 01.10.2021. The speaker of the webinar was Dr. Nihad K, Senior Scientist (Horticulture), ICAR- Central Plantation Crops Research Institute (CPCRI), Kayamkulam, Kerala.



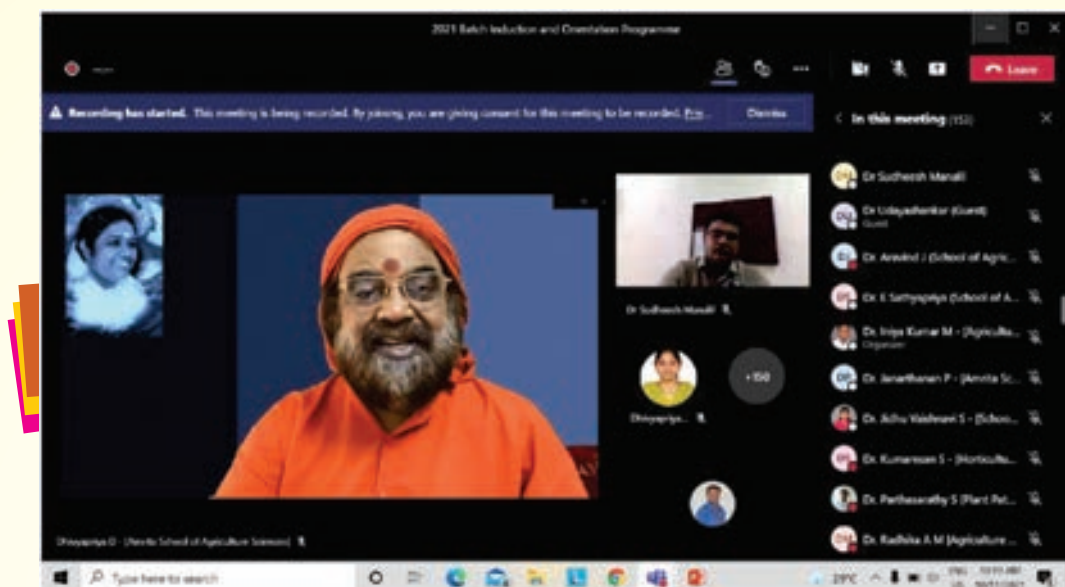
The webinar began with a prayer song by Ms. Aparna S, of the third year. The welcome speech was addressed by Dr. Dhivyapriya D, Assistant Professor, Webinar Committee Co-ordinator, ASA. Campus Director, Dr. N. Udayashankar, officially inaugurated the webinar session and the keynote address was given by Dr. Sudheesh Manalil, Principal, Head Research & PGP chair, ASA. Dr. Iniyakumar M, Assistant Professor, Webinar Committee Co-ordinator, invited the speaker to offer her research experience. Dr. Nihad K gave an excellent overview of the botany of coconut, ongoing practices and technologies about coconut cultivation and various intercropping methods applicable in coconut cultivation. The talk covered the climatic conditions, selection of site, selection of appropriate

cultivars, cultivation of hybrid varieties, selection of seedling, time of planting, control measures for diseases and pests, different types of water management techniques and the important nutrients and minerals required for the proper growth of the trees.

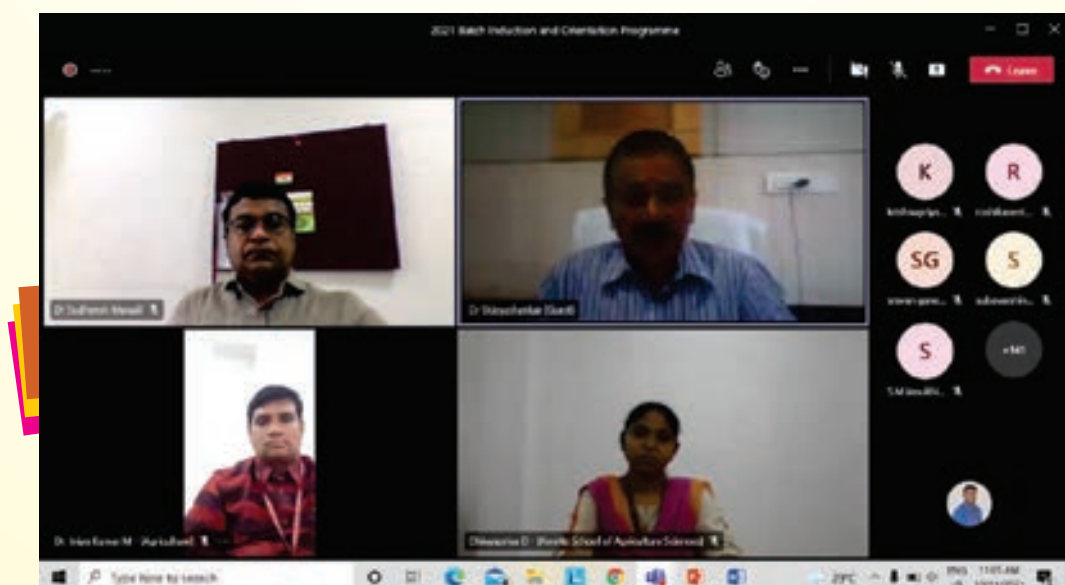
The next part of the session dealt with the scopes and opportunities of intercropping where Dr. Nihad K discussed the criteria for selecting intercrops, types of intercropping and various crops suitable and not suitable for intercropping, etc. The webinar was a great opportunity for faculty and students to gain more knowledge on the prescribed topic. The webinar was concluded with a vote of thanks by Dr. Iniyakumar M, Assistant Professor, and Webinar Committee Coordinator, ASA.

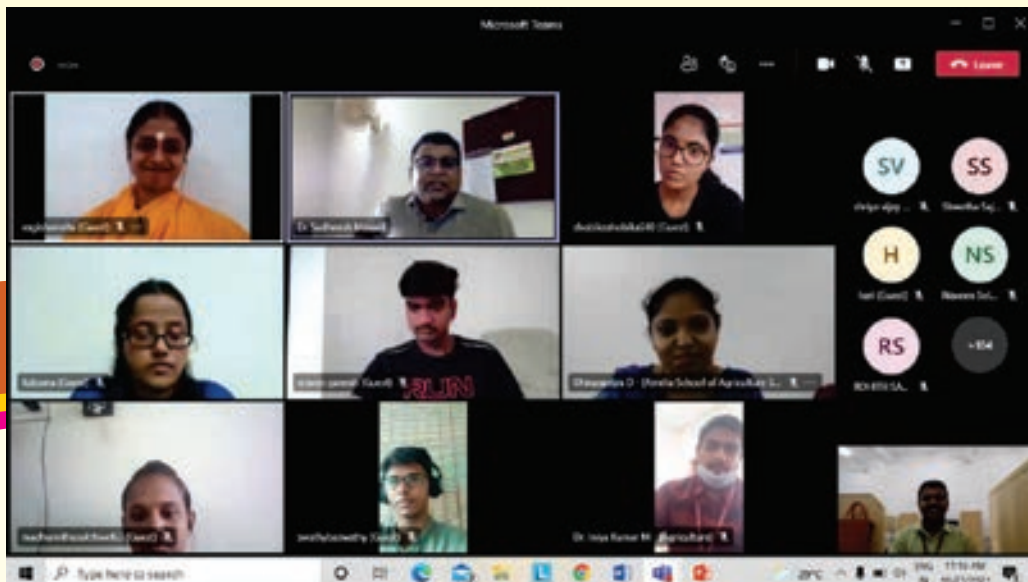
4. INDUCTION AND ORIENTATION OF 2021 BATCH

With the auspicious blessings of AMMA and Sampujya Swami Purnamritananda Puri, Amrita School of Agricultural Sciences inducted its third batch (2021 batch) of B.Sc. (Hons.) Agriculture, through Microsoft Teams App on 10.11.2021. Dr. Iniyakumar M, Assistant Professor (Agri. Microbiology) and Faculty advisor of the 2021 batch welcomed the gathering. The ceremony was revitalized by the benedictory address of Sampujya Swami Purnamritananda Puri. Swamiji, in his address, stressed the importance of spiritual knowledge, value-based education and how mantras (such as Gayathri Mantra) could help aspiring students to do their best.



Dr. Sudheesh Manalil, Principal, Head Research & PGP Chair, ASA, delivered the keynote address. In his address, he explained the importance of Agriculture in feeding the global population amidst limited natural resources and emphasized the importance of multidisciplinary research happening at AMRITA School of Agricultural Sciences aligning with global research initiatives. Dr. N. Udayashankar, Campus Director, ASA, delivered the presidential address. He congratulated the students for opting for Agriculture at AMRITA and affirmed that the compassion-driven research facilities of AMRITA would make the students competent in the field of Agriculture. Finally, Dr. A.M. Radhika, Academic Coordinator, ASA, delivered the vote of thanks.





7. TRADITIONAL RICE VARIETIES SEEDS FOR ASA

Sampoojya Tapasyamritananda Puri Swamiji and Brahmachari Matrukripamritha Chaithanya Swamiji handing over indigenous rice varieties to Dr. Sudheesh Manalil, Principal, Head Research & PGP Chair, ASA for displaying in ASA Agricultural Museum.



III. PUBLICATIONS

1. **Dr. Sudheesh Manalil**, Principal, Head Research & PGP Chair has published a research article entitled “Seedbank persistence and emergence pattern of *Argemone mexicana*, *Rapistrum rugosum* and *Sonchus oleraceus* in the eastern grain region of Australia”. 2021, Nature-Scientific Reports, 2021, 11:18095. <https://doi.org/10.1038/s41598-021-97614-8>



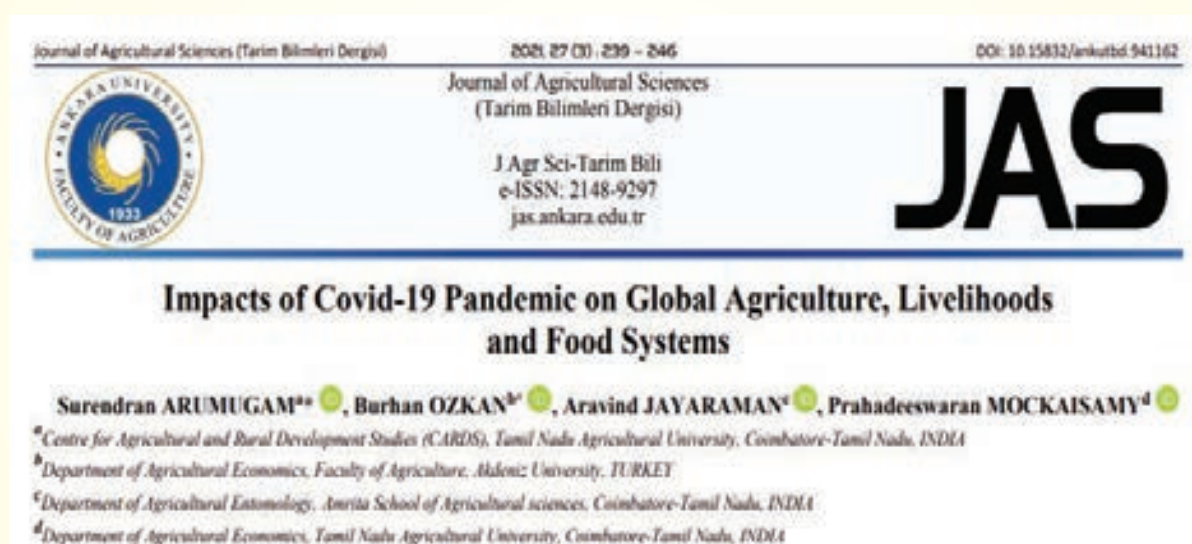
2. **Dr. Iniyakumar M**, Assistant Professor (Agricultural Microbiology) has published a research article entitled “Highly crystalline cotton spinning wastes utilization: Pretreatment, optimized hydrolysis and fermentation using *Pleurotus florida* for bioethanol production”. *Fuel*, 2021, 308 (2022) 122052. <https://doi.org/10.1016/j.fuel.2021.122052>



3. **Dr. Naveen Kumar P**, Assistant Professor (Agricultural Economics) has published a research article entitled “Technical-and-allocative inefficiency index of Indian sugarcane farms- A primal system approach”. *Environmental and Sustainability Indicators*, 2021, 11 (2021) 100133. <https://doi.org/10.1016/j.indic.2021.100133>



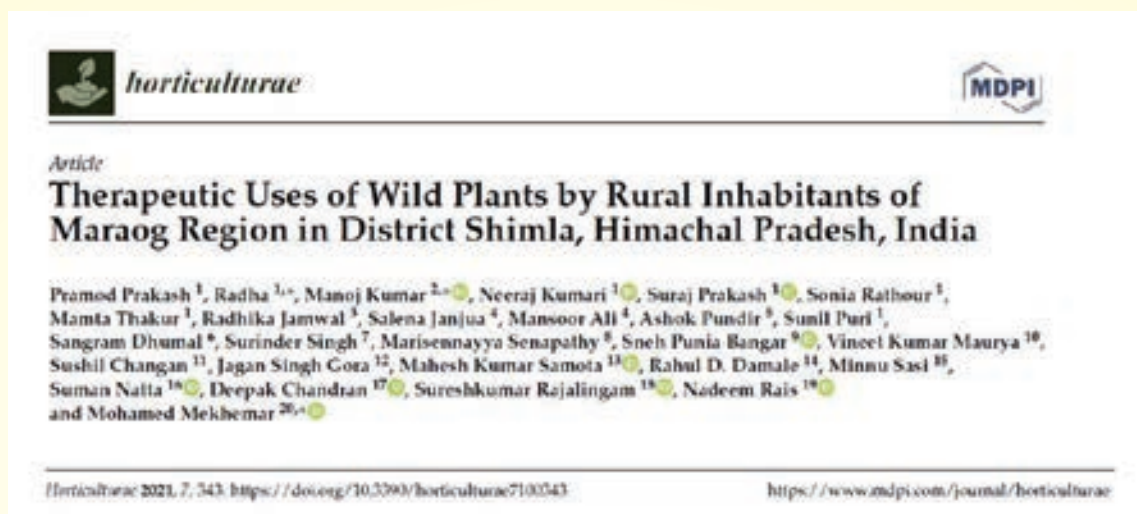
4. **Dr. Aravind J**, Assistant Professor (Agricultural Entomology) has published a review article entitled “Impacts of Covid-19 Pandemic on Global Agriculture, Livelihoods and Food Systems”. *Journal of Agricultural Sciences (Tarim Bilimleri Dergisi)*, 2021, 27 (3), 239–246. <https://doi.org/10.15832/ankutbd.941162>



5. **Dr. G. Boopathi**, Assistant Professor (Agriculture Engineering) has published a research article entitled “Kinetic and thermodynamic study of finger millet straw pyrolysis through thermogravimetric analysis”. *Bioresource Technology*, 342 (2021) 125992. <https://doi.org/10.1016/j.biortech.2021.125992>



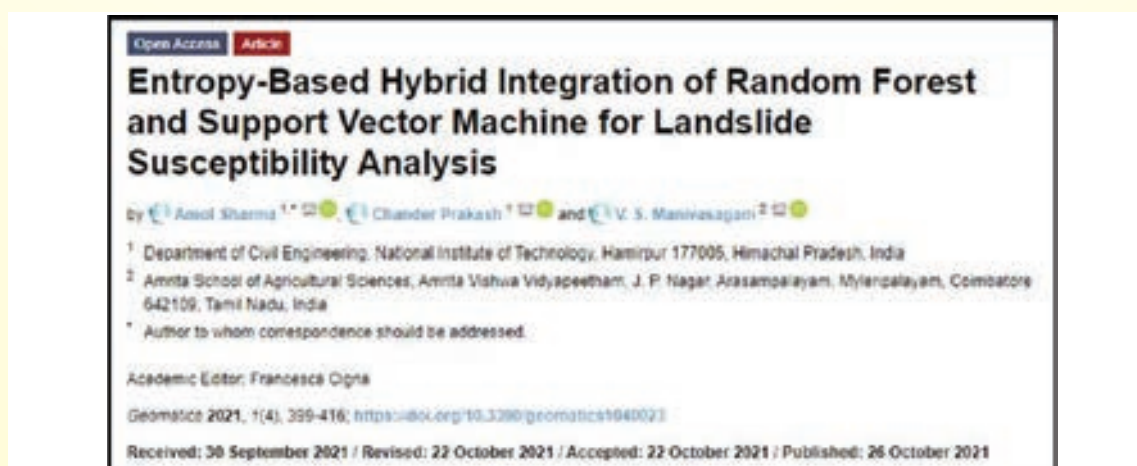
6. **Dr. Sureshkumar R**, Assistant Professor (Agronomy), and **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry) have published a research article entitled “Therapeutic uses of wild plants by rural inhabitants of Maraog region in district Shimla, Himachal Pradesh, India”. *Horticulturae*, 2021, 7 (10), 343. <https://doi.org/10.3390/horticulturae7100351>



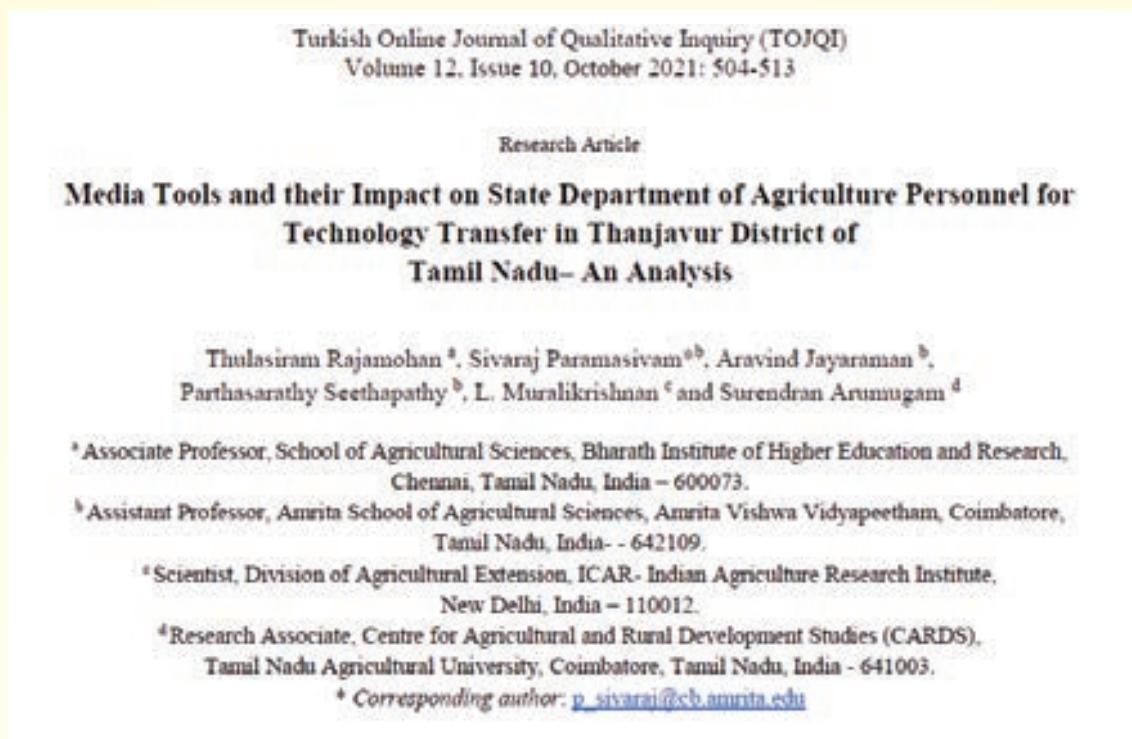
7. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), and **Dr. Sureshkumar R**, Assistant Professor (Agronomy) have published a research article entitled “Documentation of commonly used ethnoveterinary medicines from wild plants of the high mountains in Shimla district of Himachal Pradesh, India”. *Horticulturae*, 2021, 7 (10), 351. <https://doi.org/10.3390/horticulturae7100343>



8. **Dr. Manivasagam V S**, Assistant Professor (Agriculture Informatics) has published a research article entitled “Entropy-Based Hybrid Integration of Random Forest and Support Vector Machine for Landslide Susceptibility Analysis” *Geomatics*, 2021, 1 (4), 399–416. <https://www.mdpi.com/2673-7418/1/4/23>



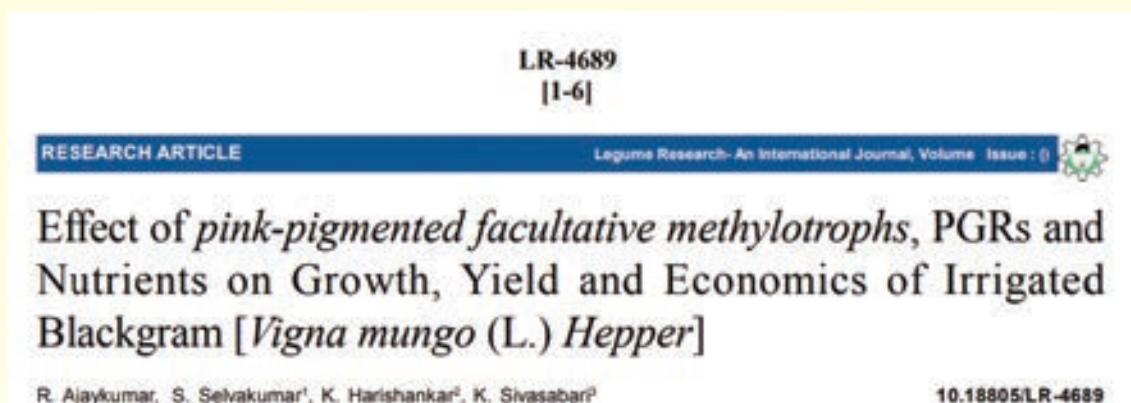
9. **Dr. Sivaraj P**, Assistant Professor (Agricultural Extension), **Dr. Aravind J**, Assistant Professor (Agricultural Entomology) and **Dr. Parthasarathy S**, Assistant Professor (Plant Pathology) have published a research article entitled “Media Tools and their Impact on State Department of Agriculture Personnel for Technology Transfer in Thanjavur District of Tamil Nadu– An Analysis”. *Turkish Online Journal of Qualitative Inquiry (TOJQI)*, 2021, 12 (10), 504-513. Available at: <https://www.tojq.net/index.php/journal/article/view/7302>



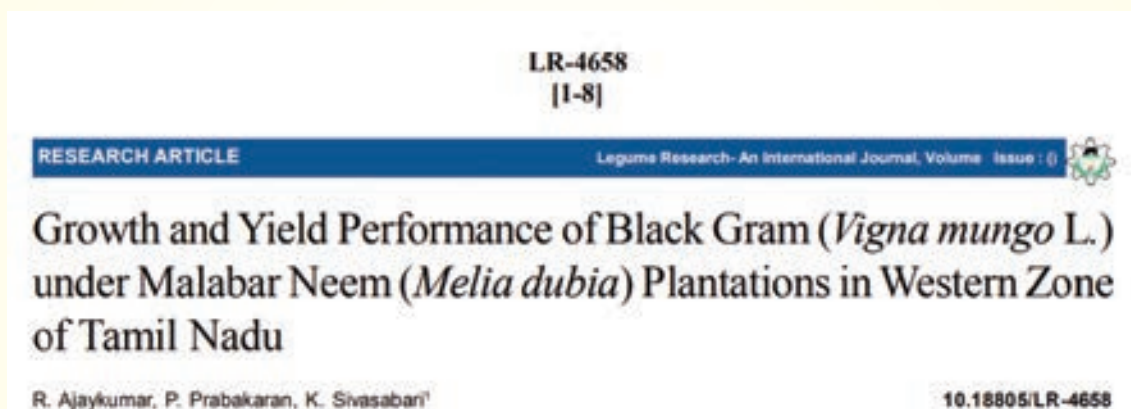
10. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry) has published a review article entitled “Plant-based proteins and their multifaceted industrial applications. *LWT - Food Science and Technology*, 2021, 154 (15), 2022, 112620. <https://doi.org/10.1016/j.lwt.2021.112620>



11. **Dr. Sivasabari K**, Assistant Professor (Soil Science and Agricultural Chemistry) has published a research article entitled "Effect of pink-pigmented facultative methylotrophs, PGRs and Nutrients on Growth, Yield and Economics of Irrigated Blackgram [*Vigna mungo* (L.) Hepper], *Legume Research*, 2021. <https://doi.org/10.18805/LR-4689>



12. **Dr. Sivasabari K**, Assistant Professor (Soil Science and Agricultural Chemistry) has published a research article entitled "Growth and Yield Performance of Black Gram (*Vigna mungo* L.) under Malabar Neem (*Melia dubia*) Plantations in Western Zone of Tamil Nadu, *Legume Research*, 2021. <https://doi.org/10.18805/LR-4658>



IV. AWARDS & ACHIEVEMENTS

1. **Dr. Sureshkumar R**, Assistant Professor (Agronomy) has received the “**Young Agronomist Award- 2021**” at 3rd International Conference on “Global Initiative in Agricultural, Forestry and Applied Sciences for Food Security, Environmental Safety and Sustainable Development (GIAFAS-2021)”, Dehradun, Uttarakhand, India on October 17- 18, 2021.



2. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry) has received the “**Young Scientist Award – 2021**” at the 3rd International Conference on “Global Initiative in Agricultural, Forestry and Applied Sciences for Food Security, Environmental Safety and Sustainable Development (GIAFAS-2021)”, Dehradun, Uttarakhand, India on October 17- 18, 2021.

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