



AMRITA
VISHWA VIDYAPEETHAM
(Deemed-to-be University)

School of
Agricultural Sciences

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

“

Learn to be thankful to everyone, to the entire creation, even to your enemy and also to those who insult, because they all help you to grow

”

Amma, Sri Mata Amritanandamayi Devi

Chancellor, Amrita Vishwa Vidyapeetham

ASA BIMONTHLY E-NEWSLETTER

Volume 4

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STUDENTS' ACTIVITIES

1. Exposure Visit to Horticultural Research Station, Ooty

Students of 2020 batch were taken to Horticultural Research Station (HRS), Ooty on 9th March 2023, as part of their course, 19AGM301- Bio-pesticides and Bio-fertilizers and 19PAT301- Pest and Disease of Horticulture crops, to expose them on bio-fertilizer and bio-pesticides mass production techniques. The course teachers Dr. Iniyakumar M, Assistant Professor (Agricultural Microbiology) and Dr. Kamesh Krishnamoorthy K, Assistant Professor (Plant Pathology), and Dr. Vanitha V, Assistant Professor (English) accompanied the students.

Students learned about list of bio-fertilizer producing agents and their mass production technology using a 100-litre fermenter, followed by a demonstration of automated mixing and packing unit of bio-fertilizer production system. Scientists of HRS, explained some of the bio-fertilizers producing organisms, such as *Azospirillum*, *Phosphobacteria*, *Azotobacter*, and *Rhizobium*, and their production technology. In addition, the production technology of bio-pesticides using *Trichoderma viridie*, *Paciliomyces lilacinous*, *Bacillus*

subtilis, *Beuveria basiana*, *Metarhizium anisopilae*, *Verticillium laccani* were explained.

Students were exposed to various disease symptoms of horticultural crops as part of the Plant Pathology course. For instance, students collected various disease samples of tea and other horticultural crops and also learned specific epidemiological requirements for disease occurrence in temperate crops.



2. Exposure Visit to ICAR - Central Institute for Cotton Research, Coimbatore

Second-year students (2021 batch) visited the ICAR - Central Institute for Cotton Research (CICR), Coimbatore, on 20th April 2023, as part of the course 19AGR201- Crop Production Technology – I (Kharif crop) handled by Dr.M.Yasodha, Assistant Professor (Agronomy). During the visit, students learned about the history and importance of cotton, plant breeding techniques, recent cotton varieties and their significance, high-density planting methods, farm mechanization in cotton cultivation, and fiber quality parameters. The visit was inaugurated by Dr.K.Rathinavel, Head, CICR, and all the sessions were handled by the senior scientists, namely Dr.K.Baghyalakshmi, Dr.A.Manivannan, and Dr.R.Raja. Students actively participated in all the sessions and interacted with the scientists.



3. Exposure visit to Malampuzha Dam, Palakkad

The 2020 batch students visited Malampuzha Dam garden on 22nd April 2023 as part of the course 19HOR301- Landscaping handled by Dr. S. Kumaresan, Assistant Professor (Horticulture), to explore the components of the garden, different styles, and decorative elements. Students were involved in identifying the plants.



4. Landscaping at ASA Campus by the Students

As part of the course 19HOR412- Floriculture and Landscaping, students from 2019 batch practiced garden maintenance activities like weeding and lawn mowing.



5. Crop Production Hands on Experience

19AGR301- Practical Crop Production course, students of the 2020 batch were engaged in cleaning, farm yard manure application, and land preparation in the Instructional Farm, Arasampalayam. This hands-on experience involved using a tractor-mounted cultivator under the guidance of the course teacher Dr. Janarthanan P, Assistant Professor (Agronomy). This fieldwork is an essential component of the course, providing students with valuable practical skills and knowledge to serve them well in their future careers.



6. Visit to Silent Valley National Park, Mukkuli, Kerala



Students of 2021 batch were taken to Silent Valley National Park, Mukkuli, Kerala, to study the ecology of plants, animals and also about the abiotic components like water, and temperature on 11th April 2023 for the course 19ENV201-

Environmental Studies and Disaster Management with course teachers Dr. Sivasabari K and Dr. Jidhu Vaishnavi S. Students learned the flora and faunal species in the Silent Valley ecosystem and taught on the biotic components present in the river ecosystem. The Assistant Warden of Silent Valley National Park, Ms. Nisha explained the history of the Silent Valley and the preservation of scarce species of floral and faunal species available in the national park and about the rivers, hills, and the type of ecosystem and the climatic conditions inside the park throughout the year.

7. Student READY RAWE Programme

a) KVK Attachment

As part of RAWE programme, from February 27th to March 12th, 2023, students were placed with the Krishi Vigyan Kendras (KVKs) in Ariyalur, Coimbatore, Karaikal, and Nagapattinam. Students learned about the KVK mandate activities, role, and extension mechanisms. Also, students engaged themselves in technology dissemination through farmers' training and technology assessment by field visits with the help of KVK Heads and Subject Matter Specialist (SMS) of KVKs. The course teachers, Dr. Sudheesh Manalil, Associate Dean, Dr. P. Sivaraj, and Dr. E. Sathyapriya, Assistant Professors (AEX), organized this attachment. Each of the KVK students was accompanied by faculty members Dr. Parthasarathy S, Dr. Kamesh Krishnamoorthy K, Dr. Thirukkumar S, Dr. Boopathi G, and Physical Educator Ms. Mahalakshmi D.



b) Unit Attachment – ICAR-IIHR, Bengaluru

Final year students (2019 Batch) were attached with ICAR- Indian Institute of Horticulture Research (IIHR) during March 14–17, 2023, as part of the RAWE programme. The four days training program was incredibly informative. The students got an excellent opportunity to learn about varieties and hybrids of IIHR, salient features and production technologies, pest, disease, and nematode management of different horticultural crops, value-added products, and post-harvest technologies of IIHR. Students got an opportunity to visit KVK, Hirehalli unit and various farms which immensely increased their knowledge. Also, during this attachment, students gained knowledge of the IIHR's role, responsibilities, training, and support for the farming community's business incubation. The Principal and Senior Scientists of IIHR handled the session. IIHR-KVK, Hirehalli visit was facilitated by Dr. N. Loganandhan, Principal Scientist and Head (Extension). The entire session was managed by Dr.V. Sankar and Dr.R.Senthil Kumar, Principal Scientist (Horticulture), Social Science and Training Division of IIHR. Course teachers Dr. Sudheesh Manalil, Associate Dean, Dr. P.Sivaraj, and Dr. E.Sathyapriya, Assistant Professors (AEX), organized the attachment.



Institutional Visit to Bengaluru, Karnataka

As part of the RAWE programme, final year students of ASA (2019 Batch) visited ICAR-National Bureau of Agricultural Insect Resources (NBAIR), Bengaluru, on March 18, 2023, and explored NBAIR – activities, infrastructure facilities, and protocols, and mass production of predators and parasitoids by unit visit.

As a continuation of the institutional visit, students visited GKV-K-University of Agricultural Sciences, Bengaluru, on 20.03.2023 and learned about the institute's history, facilities, research, and extension activities. Also, the students explored the Agricultural Museum, ATIC, Plant tissue culture lab, Insect Museum, and Nursery unit of GKV-K-UAS. Also, students visited Indo American Hybrid Seeds Pvt Ltd, Bengaluru, on 22.03.2023 and learned about breeding and seed production activities and propagation methods of ornamental plants. Course teachers Dr. Sudheesh Manalil, Associate Dean, Dr. P.Sivaraj, and Dr. E.Sathyapriya, Assistant Professors (AEX), organized the attachment. Along with the course teachers, Dr.J.Aravind, Mr. P. Vijayakumar, and Ms. Mahalakshmi D accompanied the students' institutional visit.



c) Unit Attachment – CICR, Coimbatore

Students from the 2019 batch were attached to ICAR- Central Institute of Cotton Research, Coimbatore, from March 27-31, 2023, as part of the RAWE unit attachment. The five days training program (21 sessions) was incredibly informative. The students got an excellent opportunity to learn about varieties, hybrids, ELS cotton, Bt cotton, production technology, pest, disease, nematode, and nutritional management techniques, digital technologies for knowledge augmentation and farm tools and machinery for cotton farming by farm exposure. The entire session was handled by CICR and TNAU scientists. Course teachers Dr. Sudheesh Manalil, Dr.P.Sivaraj, and Dr.E.Sathyapriya organized the visit and accompanied the students.



d) RAWE- Agro-Industrial Attachment

From April 3-22, 2023, students were placed with 26 different agriculture and related sector companies in Kerala, Maharashtra, and Tamil Nadu as part of their AIA training courses. During this attachment, the students learned about the industry's operations, including processing, manufacturing, the value chain, post-harvest technology, marketing, and visiting the industry farm, dairy unit, and outlet. They also participated in various activities of the industry/firm and gained practical knowledge in these activities. Course teachers Dr. Sudheesh Manalil, Dr. P.Sivaraj and Dr. E.Sathyapriya, Assistant Professors (AEX), organized and regularly monitored and evaluated the agro-industrial attachment.



1. International Women's Day Celebration

Amrita School of Agricultural Sciences celebrated International Women's Day on 8th March 2023 at the ASA auditorium. The celebration started with a prayer followed by a video about our beloved Chancellor Amma Sri Mata Amritanadamayi Devi. Dr. Jidhu Vaishnavi S, Assistant Professor (Crop Physiology), delivered the welcome address. Felicitation was given by Associate Dean Dr. Sudheesh Manalil. In his speech, he stressed the role of women scientists in agriculture and portraying AMMA and her position as Chair in C20, which is a part of the G20 summit 2023. Events such as debate on women entrepreneurs, talk about Janaki Ammal, Kalpana Chawla, and Marie Curie, identifying renowned women all over the world, and identifying the colleagues on our campus were conducted to commemorate the social, economic, cultural and political achievements of women. Finally, the winners of the events were awarded with gifts by Dr. Sudheesh Manalil, Associate Dean, ASA. Students Ms. Abhirami V Nair, Ms. Vasuki, and Ms. Adhya compered the programme. Dr. Jidhu Vaishnavi S, delivered the vote of thanks. The programme ended with a National Anthem.



Arasampalayam, Tamil Nadu, India
V23M+CM8, Arasampalayam, Tamil Nadu 641032,
India

2. NSS Special Camp- Myleripalayam Village

DAY - 1

The inaugural program began with a prayer song by Ms. Poorna Somathmajan of the 2021 batch, and the program was convened by Ms. M.R. Anjali and Ms. Harsana of the 2021 batch. Dr. K. Murugasridevi, NSS Programme Officer, NSS Unit 6, welcomed the gathering and delivered the plan of work of the NSS special camp. After this, the inaugural address of the NSS special camp was delivered by Mrs. S. Umagowri, Headmistress, Government High School, Myleripalayam. Followed by Mrs. Uma, Assistant Headmistress, delivered the special address. Finally, Ms. S.M. Vasuki of the 2021 batch gave a vote of thanks. After the inaugural program, NSS student volunteers cleaned the classroom for painting. Then, they were also involved in collecting plastic garbage within the school premises. Following this, basics in spoken English and awareness on computer applications were taught to school students by NSS student volunteers. NSS student volunteers organized the running race competition for Sixth standard school students.

DAY - 2

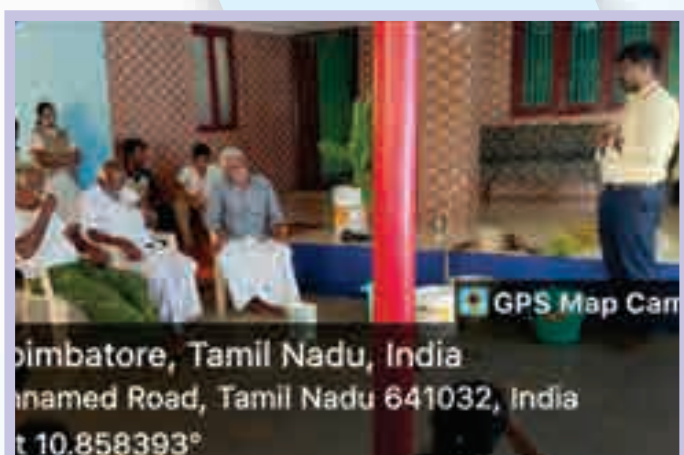
As a part of the camp, a Yoga session was conducted for school students by NSS student volunteers with the guidance of Mr. V. Karthik Raja, PED. A group of NSS student volunteers started painting the interior portion of the classroom, and others were involved in cleaning the exterior corridor wall. Another group of NSS student volunteers tirelessly gathered the plastic waste inside the school premise and made it clean. They were also engaged in eliminating the noxious parthenium weed found inside the campus. NSS student volunteers also distributed pamphlets to the farmers on "Demonstrations on plant protection measures among the farmers of Myleripalayam". Events such as Tamil speeches, quiz competitions, and creative art were conducted for the school students.

DAY - 3

A group of NSS student volunteers tirelessly completed painting the classroom and the corridor. Another group of NSS student volunteers gathered the plastic waste inside the school premise and made it clean. Simultaneously, NSS student volunteers delivered an awareness session on personal hygiene for the school students. Events such as Lemon in spoon, Balloon bursting, Musical chairs, and Drawing competitions were conducted for school students.

DAY - 4

Faculties of ASA offered training and agro-advisories on plant protection and agri-business, followed by the valedictory function of the NSS special camp was organized on 24.03.2022. The valedictory program commenced with a prayer song by Ms. Navya S Nair. Ms. D. Harshitha welcomed the gathering. Dr. Sudheesh Manalil, Associate Dean, ASA, delivered the valedictory address. He highlighted the RAWE of final-year students in Myleripalayam village and insisted that students should always be prepared to learn cultivation strategies from the growers. Following this, Mrs. Gomathi Thirumoorthy, President of Myleripalayam Panchayat, delivered a special address, followed by Mrs. S. Umagowri, Head Mistress. Remarks address was given by Mrs. Sumathi, Head Mistress, Panchayat Union Primary School, Myleripalayam. After this, prize distribution was done by the dignitaries for the winners of various events. Dr. K. Murugasridevi, NSS Programme Officer, delivered the vote of thanks. The program ended with a National Anthem.



3. Anokha Workshop on the importance of Organic Manures on Soil Nutrition for Crop Production

Anokha'2023, the annual event of Amrita School of Engineering, Coimbatore, provides a unique opportunity for students to participate in fun-filled and challenging events and workshops. The fest orchestrates a plethora of workshops, innovation showcases, and a tech fair aligning with the various working groups of C20, which Amrita Vishwa Vidhapeetham (AVVP) hosts under the guidance of our beloved AMMA, the world-renowned humanitarian leader, Sri Mata Amritanandamayi Devi. On 29 April 2023, ASA organized a workshop on the importance of organic manures on soil nutrition for crop production. The guest speaker Mr.S.R. Sundararaman Iyer is an experienced 80-year-old farmer from Tamil Nadu with expertise in organic farming. He provides guidance to farmers, utilizes on-farm growth promoters and herbal pest repellents to reduce external inputs, and has received multiple awards for his contribution to organic farming. Dr. K.Sivasabari, Anokha Workshop Co-ordinator, gave the welcome speech. Dr.Sudheesh Manalil, Associate Dean, ASA, officially inaugurated the workshop session. The guest speaker Mr.S.R.Sundararaman Iyer explained and gave hands-on training on preparing all the important nutrient solutions such as EM, Buttermilk, Panchagavya, Archae bacterial solutions, etc. Student participants said this workshop provided opportunities to gain practical experience and become aware of the preparation of organic nutrient solutions for soil fertility and crop protection. The speaker allowed students to apply their working knowledge in an environment encouraging enthusiasm and love for science and technology.



1. Agro Advisory by ASA Team

Dr. Sudheesh Manalil, Associate Dean, **Dr. Parthasarathy S**, and **Dr. Mageshen VR**, Assistant Professors, visited coconut and sapota farms at Deepalapatti Village in Tirupur District to facilitate agro-advisory activities focusing on micro irrigation management, soil testing, and crop health testing.

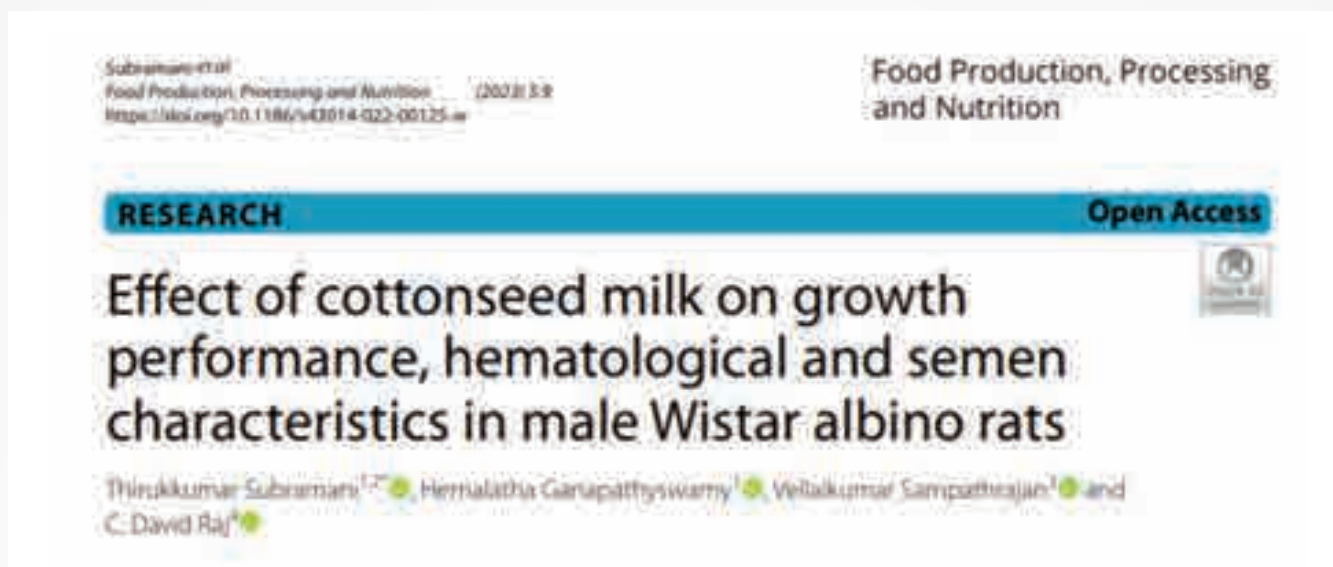


2. Counseling for Admissions, Exams, and Careers in Agricultural Sciences

Dr. Parthasarathy S has been facilitated as a resource person and presented the international career counseling virtual event on "Ace the Agriculture Entrance Exams, Opportunities and Careers in India" organized by CIALFO Edu-tech Company, Singapore on 7th April 2023.



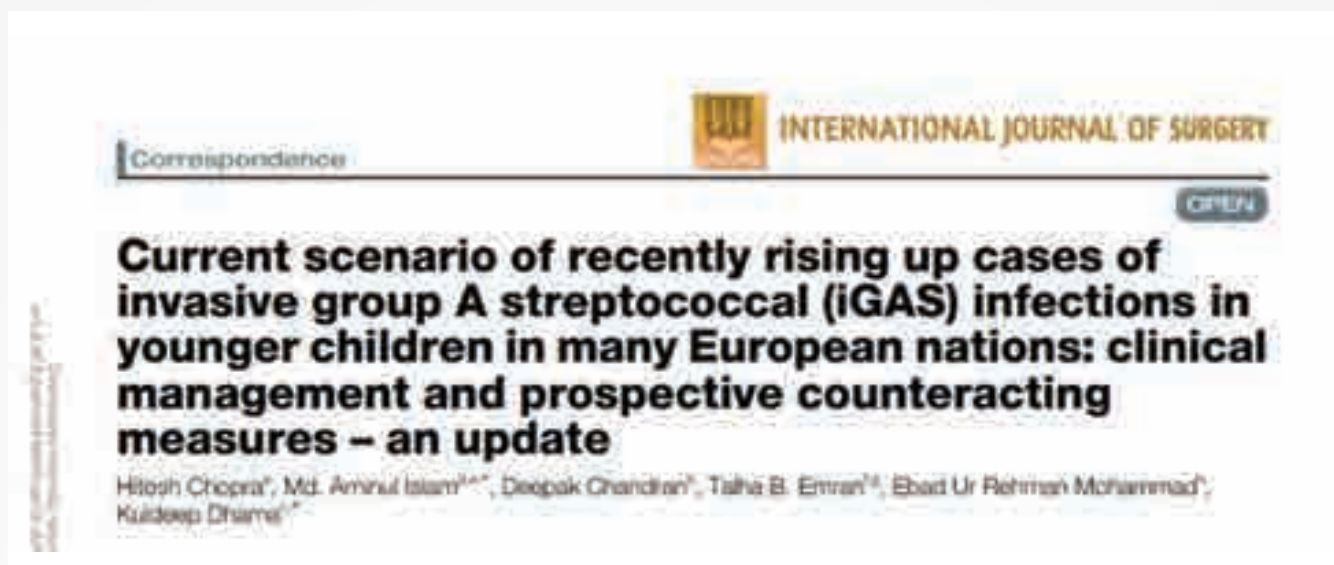
1. **Dr. Thirukkumar S**, Assistant Professor (Food Science), has published a research article entitled "Effect of cottonseed milk on growth performance, hematological and semen characteristics in male Wistar albino rats." Food Production, Processing, and Nutrition, 5(1), Pp 1-10. <https://doi.org/10.1186/s43014-022-00125-w>



2. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a correspondence article entitled "Current scenario of Q fever outbreaks in Australia and counteracting strategies". International Journal of Surgery Open. <https://doi.org/10.1016/j.ijso.2023.100600>



3. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a correspondence article entitled "Current scenario of recently rising up cases of invasive group A streptococcal (iGAS) infections in younger children in many European nations: clinical management and prospective counteracting measures – an update." International Journal of Surgery. <http://dx.doi.org/10.1097/JS9.000000000000156>



4. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a correspondence article entitled "Emerging and re-emerging viral diseases, predisposing risk factors, and implications of international travel: a call for action for increasing vigilance and imposing restrictions under the current threats of recently emerging multiple Omicron subvariants." International Journal of Surgery. <http://dx.doi.org/10.1097/JS9.000000000000176>



5. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a review article entitled "Monkeypox (mpox) in immunosuppressed patients". F1000Research.

<https://doi.org/10.12688/f1000research.130272.1>

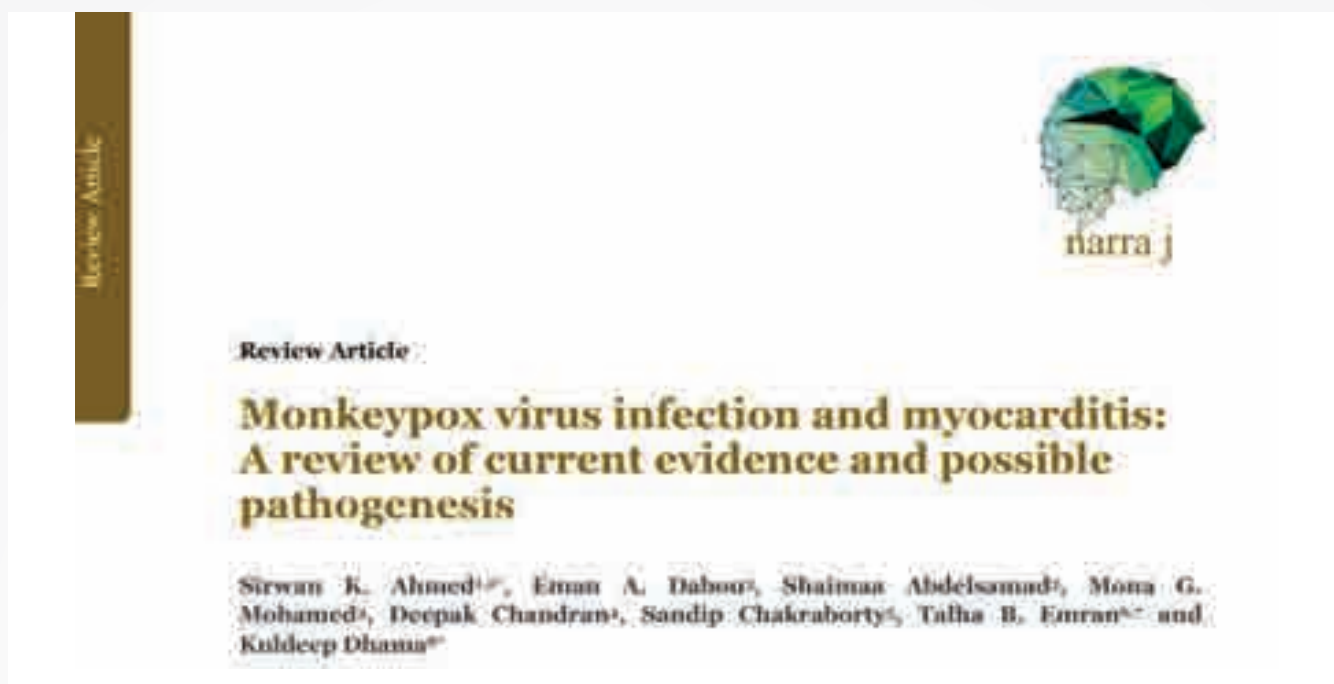


6. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published an opinion article entitled "XBB.1.5: A new threatening SARS-CoV-2 Omicron subvariant". Frontiers in Microbiology.

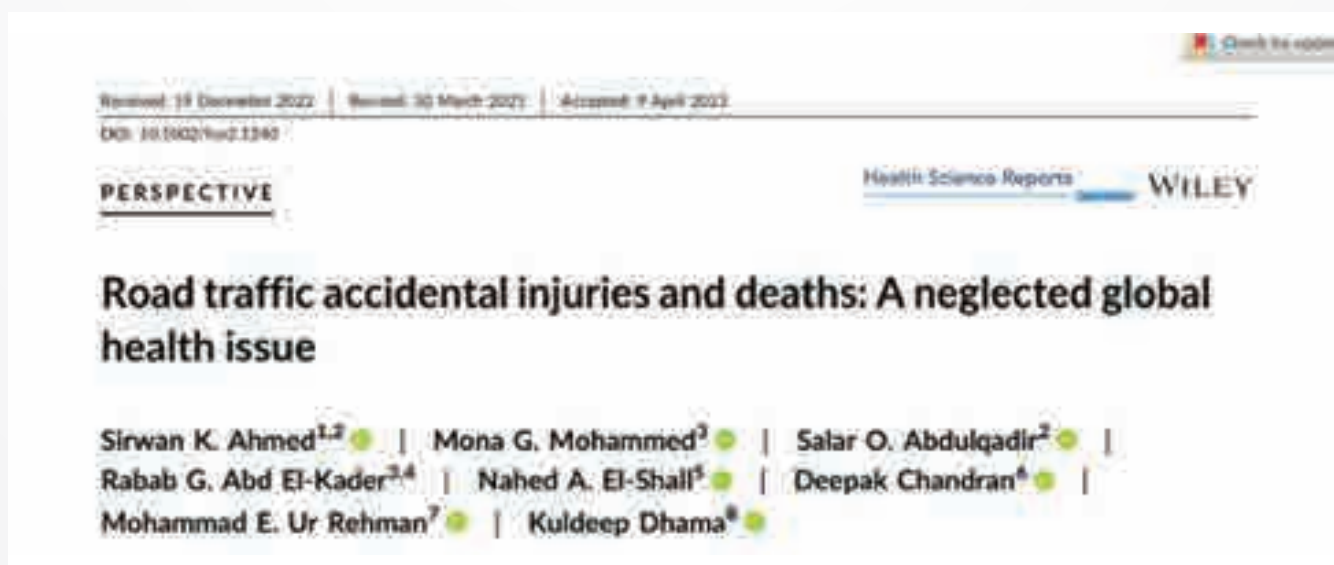
<http://dx.doi.org/10.3389/fmicb.2023.1154296>



7. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a review article entitled "Monkeypox virus infection and myocarditis: A review of current evidence and possible pathogenesis." Narra J. <http://dx.doi.org/10.52225/narra.v3i1.104>



8. **Dr. Deepak Chandran**, Assistant Professor (Veterinary Sciences and Animal Husbandry), has published a perspective article entitled "Road traffic accidental injuries and deaths: A neglected global health issue." Wiley – Health Science Reports. <http://dx.doi.org/10.1002/hsr2.1240>



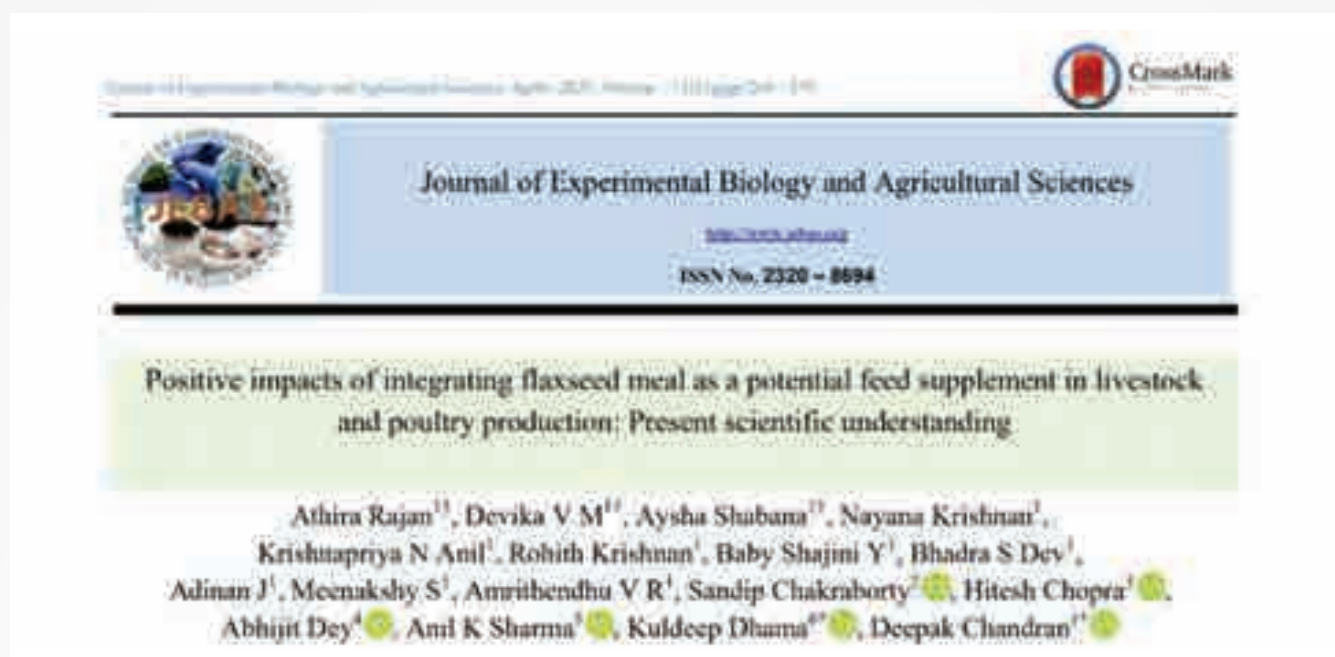
9. Saibhavana S, Vasukhi S M, Shreya Ramesh, Rajakumari R, Abhijith A S, Adithya Krishna S, Gautam Prakash, Raida, Abhirami V Nair, Aishwarya Prashanth, Students, and Dr. Deepak Chandran have published a review article entitled "Prospective nutritional, therapeutic, and dietary benefits of camel milk making it a viable option for human consumption: Current state of scientific knowledge." Journal of Experimental Biology and Agricultural Sciences. [http://dx.doi.org/10.18006/2023.11\(2\).236.250](http://dx.doi.org/10.18006/2023.11(2).236.250)



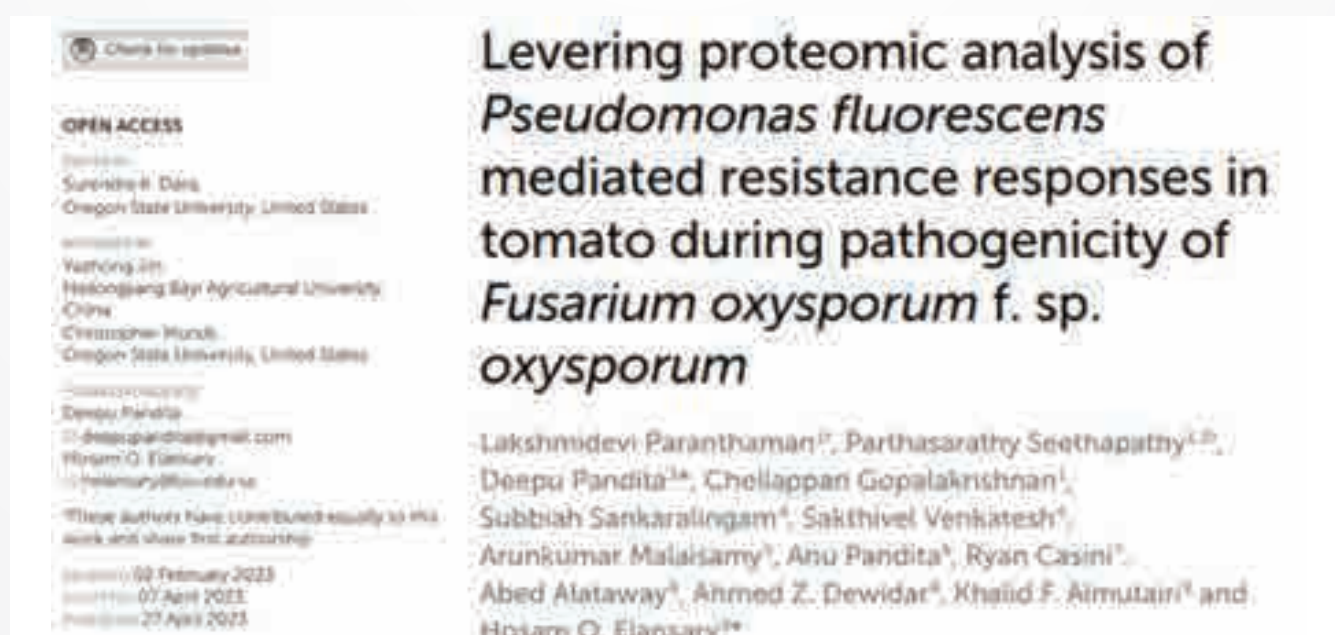
10. Deepa P R, Divya Dharshini C S, Bhadra S Dev, Jyotika Jayan, Harisankaran P S, Nithin S Rajan, Karthik S, Nandhana J P, Athulya K G, Students, and Dr. Deepak Chandran have published a review article entitled "Donkey milk: chemical make-up, biochemical features, nutritional worth, and possible human health benefits - Current state of scientific knowledge." Journal of Experimental Biology and Agricultural Sciences. [http://dx.doi.org/10.18006/2023.11\(2\).251.263](http://dx.doi.org/10.18006/2023.11(2).251.263)



11. Athira Rajan, Devika V M, Aysha Shabana, Nayana Krishnan, Krishnapriya N Anil, Rohith Krishnan, Baby Shajini Y, Bhadra S Dev, Adinan J, Meenakshy S, Amrithendhu V R, Students, and Dr. Deepak Chandran, have published a review article entitled "Positive impacts of integrating flaxseed meal as a potential feed supplement in livestock and poultry production: Present scientific understanding." Journal of Experimental Biology and Agricultural Sciences. [http://dx.doi.org/10.18006/2023.11\(2\).264.279](http://dx.doi.org/10.18006/2023.11(2).264.279)



12. Dr. Parthasarathy S has published a book chapter, "Levering proteomic analysis of *Pseudomonas fluorescens* mediated resistance responses in tomato during pathogenicity of *Fusarium oxysporum* f. sp. *Oxysporum*." Frontiers in Sustainable Food Systems, 7, 251. <https://doi.org/10.3389/fsufs.2023.1157575>



13. **Dr. Parthasarathy S**, and **Dr. D. Dhivyapriya**, have published a book chapter Genome Diversity in Maize. In Maize Improvement: Current Advances in Yield, Quality, and Stress Tolerance under Changing Climatic Scenarios (pp. 1-24). Cham: Springer International Publishing, Singapore. https://link.springer.com/chapter/10.1007/978-3-031-21640-4_1



14. **Dr. Parthasarathy S** has published a book chapter entitled “ God's Mushroom (Agaricus subrufescens).” Mushrooms: Nutraceuticals and Functional Foods. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003322238-3>



15. **Dr. Parthasarathy S** has published a book chapter entitled "Oyster Mushroom (*Pleurotus ostreatus*).” Mushrooms: Nutraceuticals and Functional Foods. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003322238-17>



16. **Dr. Parthasarathy S** has published a book chapter entitled "Cordyceps (*Ophiocordyceps sinensis*).” Mushrooms: Nutraceuticals and Functional Foods. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003322238-18>



AWARDS AND ACHIEVEMENTS

1. **Dr. Janarthanan P**, Assistant Professor (Agronomy), attended a workshop at Rathinam College for Arts and Science as a distinguished resource person. The workshop focused on the crucial topic of "Nutrition and Health Benefits of Millets for Humanity and Nutritional Security." During the workshop, he provided valuable insights into the nutritional benefits of millets and their role in promoting human health and well-being. Also, offered radio talk on the same at Rathinavani Community Radio Station.



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