

CSIR IN MEDIA



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Water-related innovations can facilitate their sustainable consumption: Experts

CSIR-NGRI, CSMCRI

09th September, 2022

Experts deliberated on innovations for producing potable drinking water, including application of technologies like desalination and Heli-borne methods, at the Center-State Science Conclave on September 11, 2022.



“Effective and pragmatic approach to map water availability, allocation and usage through technological interventions through coordinated and concerted approach involving all stakeholders, including academia and industry can help reducing consumption and sustainable usage of water,” said Director General CSIR Dr N Kalaiselvi.

“Technologies developed by Public R& D labs of CSIR, ICAR and DST are to be judicially adopted for such purpose, at state levels,” she added.

Dr S K Chaudhari, DDG, Natural Resource Management, ICAR, emphasized on the need for efficient use of water for agriculture using modern irrigation techniques and also on the use of desalination-related alternative technologies at the panel on water at the conclave. “Better groundwater mapping and utilisation is the need of the hour,” he added.

Dr Virendra Tiwari, Director, CSIR-NGRI, shared insights about better groundwater management and the application of data-driven models for water sourcing and storage models.

“Recent climatic changes such as an increase in the intensity of rainfall versus a decrease in the frequency of rainfall and decreasing per capita water availability need to be factored in for

planning of water storage and utilization,” Dr. K P Sudheer, Principal Secretary, Government of Kerala, advocated.

Dr. Puyam Sobhindro Singh, Senior Principal Scientist, CSIR-CSMCRI, discussed various strategies to address sustainable development goal 6 (SDG 6), like reuse of seawater and brackish water in various proportions for different purposes.

Dr Neelima Alam, Scientist, Department of Science and Technology, elaborated on DST’s collaboration with Science and Technology Councils of many States in promoting water technologies such as desalination as well as for water-related and their implementation.

The conclave organised by the Department of Science & Technology, Government of India, jointly with the Government of Gujarat at Science City, Ahmedabad, served as a platform for discussing ways to judiciously adopt available technologies for pragmatic and sustainable water consumption.

Hindi Fortnight Celebration In CSIR – INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY, Bhubaneswar

CSIR-IMMT

15th September, 2022

Like previous years this year also the Hindi Fortnight Celebration-2022 is being celebrated at (CSIR – IMMT), Bhubaneswar from 1st Sept to 14th September, 2022. Many competitions in Hindi have been organised amongst Employees, Students, Scholars and Project Staff during this celebration like Extempore, Debate, and Quiz. A large number of participants attended the above



competitions with much enthusiasm. During this Hindi Fortnight many competitions like Hindi poetry recitation, essay writing and Extempore were also organised for employees' children in various categories from Nursery till Class XII. The above competitions were organised on Sunday so that maximum Children can participate. Around 20 student recited poems on different subjects like Patriotism, Martyr, the right of women etc. which was really heart touching. The Closing Ceremony is being conducted on 14th Sept, 2022 in which Dr. Gourav Yadav, Scientist In-Charge and Head, Regional Museum of Natural History, Bhubaneshwar, Odishais our Chief Guest. The Director of CSIR- IMMT, Prof. Suddhasatwa Basu will preside over the function. The prize winners of different competitions will be awarded prizes in the closing ceremony. Sri Manoj Kumar, Scientist and Convener, Hindi Fortnight Celebration – 2022 and Dr. Sourav Ganguly Scientist and Co-Convener organised these events with the active support from Dr. Manish Kumar (Principal Scientist), Sanjeev Kumar Pandey (Principal Technical Officer), Dr. Muhammad Shahid Anwar (Senior Principal Scientist) and many other scientist who served as members of juries for various completions organised.

Published in:

[Orissa Diary](#)

CSIR set to launch technology to check milk for spoilage before purchase

CSIR-CFTRI

15th September, 2022

New Delhi: CSIR will soon unveil a technology to help consumers check the freshness of milk without opening the packet.

Tentatively called 'Time Temperature based Spoilage Indicator Testing', the per packet cost of the technology will be 20-25 paise. CSIR believes this will help in implementing the technology at mass scale.



Speaking at the ongoing IDF World Dairy Summit 2022, Rajeshwar S. Matche, Chief Scientist and Head, Food Packaging and Technology, CSIR-CFTRI said that ordinary people face this basic issue of buying a packet of milk but cannot identify if it is spoilt at the outlet itself.

A significant issue for the organized dairy industry as well, CFTRI division of CSIR started working on this specific issue based on market feedback and has so far tested this label based easy to use technology on milk, meat and idli & dosa batter.

The team has been closely working with Nandini Dairy for experiments with near to 100% success rate.

"We are sensitive to both the issues of our Indian people and affordability of that solution. The food items that have been tested so far are used at mass scale, so we were sure about one thing from the beginning that the technology has to be affordable," said Sridevi Annapurna Singh, Director, CSIR-Central Food Technological Research Institute, Mysuru.

CSIR is working with a technology company to automate the process, as manual sticking of label on milk or other food item is a slow process.

Once the automation is on board, CSIR will be able to launch this technology in India and overseas.

Over 350 gather at CCMB meet to discuss cutting-edge development

CSIR-CCMB

15th September, 2022

HYDERABAD: A three-day international conference being organised by the CSIR-Centre for Cellular and Molecular Biology (CCMB) and the University of Hyderabad (UoH) began here on Wednesday. Around 350 scientists have come together for the conference to discuss cutting-edge developments in reproductive biology, endocrinology, and the development of organisms.

This will span the fundamental understanding of living cells and tools to address diseases and other challenges. The conference delegates include a large number of Ph.D. students and young researchers from across India. The conference is being organised as the 39th annual meeting of the Society for Reproductive Biology and Comparative Endocrinology. The conference started with CCMB Director Dr Vinay Nandicoori welcoming the delegates.

He said, “The conference covers a wide range of talks by excellent scientists and presents a tremendous opportunity for all students to learn.” Prof BJ Rao, Vice-Chancellor, UoH, was the chief guest and delivered the keynote address. Dr Umapathy, senior principal scientist at CCMB, said, “This is the first in-person conference happening on this topic in India after the COVID-19 pandemic outbreak. The excitement among the participants is palpable. We really hope this conference will offer a platform for many scientists to discuss their work, and find mentors and collaborators.”

Published in:

[New Indian Express](#)

Webinar on Breast Cancer: Self Examination and Early Detection

CSIR-NML

14th September, 2022

A webinar Breast Cancer was organised by Staff-Club, CSIR-National Metallurgical Laboratory, Jamshedpur for the awareness of staff members and their families about the disease “Breast Cancer”. Especially the female members of the staff and their families benefited from the lecture.

Natasha Das, cofounder and director of Hazlo Consultancy Pvt. Ltd., having over 20 years of experience in conducting such awareness programs elaborated on the need and process of self-examination and early detection of the disease Breast Cancer. The speaker explained that self-examination can timely detect the disease and can save 92% of lives up to stage 3. She also explained the importance of yearly clinical examinations of females over 40 years and for females below 40 the examination should be done after every three years. She also discussed the risk factors of the disease, apart from having a family history, unhealthy diet, alcohol, smoking and obesity, and late motherhood i.e. after 30 years of age, and least or no breastfeeding can increase the chances of the disease in females. She also highlighted that males can also have this disease and usually are diagnosed at a later stage.

In the second part of the program, Dr. Priyanka Singh, Medical Officer, CSIR-NML explained the disease “Cervical Cancer” & the vaccine to prevent the disease in girls and boys from 9 to 15 years of age, which is up to 25 years of age (unmarried children) in Indian Context. She also discussed the Flu vaccines that are good for children and elderly people. The Flu vaccines can also help in fighting Covid-19 vaccines. The aforementioned vaccines are available in Red Cross Society, Jamshedpur.

Dr. Debarati Chatteraj, the Chief Guest of the program reemphasized the need for clinical examination at a regular interval. Over 70 participants attended the lecture including the ladies from the Janitorial staff, project staff, casual staff, staff families, and permanent staff.

The lectures were delivered in “Hindi” for the benefit of the majority of the attendees. The program was conducted in both online and offline modes.

The people involved in the organisation of the event were Dr. Indranil Chatteraj, Director-NML, Dr. Arvind Sinha, Advisor Management, Dr. MM. Humane, Vice-President Staff Club, Dr. Beena Kumari, Lalit Meena, Krishna Kumar, Suman Parmarth, Nayeem Ansari, Pankaj, Subhojeet Banerjee, Dr. Sarmistha Sagar, K Sudhakar Rao, Pawan, Ms. Priya Nag and heads of all R&D divisions and Support divisions and others.

CSIR-CFTRI reaches out to micro entrepreneurs, start-ups

CSIR-CFTRI

14th September, 2022

Plans skill initiatives on spice processing and post-harvest technologies for horticultural crops this month under CSIR Integrated Skill program

CSIR-Central Food Technological Research Institute (CFTRI) is organising two Skill Development initiatives in Spice Processing on September 20 and Post-Harvest Technologies for Horticultural Crops on September 30 under CSIR Integrated Skill Initiative for the benefit of the budding entrepreneurs, micro-entrepreneurs, startups, SHGs and entrepreneurial aspirants. The registration fee for the programs is nominal, it said.

Founded in 1950, CSIR-CFTRI, Mysuru, a constituent laboratory of Council of Scientific and Industrial Research (CSIR) under the Department of Science and Technology, Government of India, is a well-regarded research and development institution in the field of food science and technology which is actively engaged in the creation of novel and sustainable solutions for national development. The institute has expert faculties who have considerable years of experience in the area of food science and technology, a release said.

India is the world's largest producer, consumer and exporter of spices — the country produces about 75 of the 109 varieties listed by the International Organisation for Standardization (ISO) and accounts for half of the global trading in spices. Indian spices are the most sought-after globally, given their exquisite aroma, texture, taste and medicinal value. India has the largest domestic market for spices in the world.

According to the CFTRI, the workshop on Spice Processing will be conducted in a hybrid mode — both offline and online mode. As many as 30 participants can visit the Institute for offline participation on a first-come-first-serve basis. The workshop will cover in detail about the current status and opportunities in spice processing, spice nutraceuticals and trends

towards their value addition, analytical methods in spice processing, encapsulation of flavours and colorants, fumigation and infestation control for safe storage of spices, food safety standards and regulation in spice processing etc., the release said.

According to APEDA records, India is the world's top producer of vegetables like ginger, okra and the leading producer of fruits including bananas, papayas, and mangoes. Utilising India's capacity for processing fruits and vegetables into frozen (IQF), canned, pulp, puree, paste, sauces, dressings, flakes, dices, dehydration, pickles, juices, slices, chips, jams, and jellies etc. presents a significant opportunity.

The key topics in the one-day workshop on "Post-Harvest Technologies for Horticultural Crops" covers role of pack house in post-harvest handling of horticultural products, technologies for estimation of shelf life and pack house operations of fruits and vegetables, packaging requirements for fresh fruits and vegetables, equipment for fruits and vegetables processing, dehydration and canning of fruits and vegetables, fruit juices and beverage manufacture, cold storage for fruit and vegetable products.

The last date to apply for the workshops is September 18 (for spice processing) and September 26 (post-harvest technologies).

Those interested to attend these workshops may go through the details available online at <https://www.cftri.res.in/sdp>

CCMB study demonstrates Delta variant of corona could evade immune system better

CSIR-CCMB

13th September, 2022

Hyderabad: A group of researchers from the Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) in a study have found that human immunity could not produce the necessary defence molecules against the Delta variants of SARs-CoV-2, as effectively as they did with other variants. A release said the study, which was published recently in the Microbiology Spectrum journal, demonstrated how the Delta variant could evade the human immune system effectively when compared to other variants of SARs-CoV-2.

While infection due to the other four variants alerted the immune system quickly, the Delta variant could silently replicate in the host cells. Dr. Krishnan Harshan's group led the study in collaboration with Dr. Divya Tej Sowpati's group at CSIR-CCMB.

"We navigated through hundreds of immune pathways known to us using high throughput sequencing and analysis," said Dr Nitesh Kumar Singh, who worked on the project with Dr Sowpati. "We have identified the molecular mechanisms regulating the host immune response have not been as potent against the Delta variant of SARS-CoV-2. This also includes the production of interferons, immune molecules often used for antiviral therapies.

The study hints at why the Delta variant could spread more easily. The study also helps us understand how viruses evolve with changing effects on human hosts," said Dr. Harshan.

चिकित्सा व पारंपरिक उपचारों का हो उपयोग : डा. सतीगेरी

लखनऊ (एसएनबी)। केन्द्रीय औषधि अनुसंधान संस्थान (सीडीआरआई) 12 से 17 सितंबर 2022 तक आयुष शोधकर्ताओं और वैज्ञानिकों के लिए दक्षता विकास एवं सतत चिकित्सा शिक्षा प्रशिक्षण कार्यक्रम की मेजवानी कर रहा है। डा. रितु त्रिवेदी (वैज्ञानिक समन्वयक) और डा. आनंद कुलकर्णी (कार्यकारी समन्वयक) ने पूरे भारत से आए 28 प्रतिभागियों का स्वागत किया जो पारंपरिक औषधीय के विशेषज्ञ हैं। सीडीआरआई की निदेशक डा. राधा रंगराजन ने पारंपरिक चिकित्सा और आधुनिक अनुसंधान के विशेषज्ञों को एक छत के नीचे लाने के लिए कार्यक्रम की सराहना की।

कार्यक्रम की मुख्य अतिथि पारंपरिक ज्ञान डिजिटल लाइब्रेरी (टीकेडीएल) यूनिट की प्रमुख डा. विश्वजननी सतीगेरी ने बताया कि स्वास्थ्य और कल्याण के क्षेत्र में हजारों वर्षों से तथा अनेक पीढ़ियों से चली आ रही बहुमूल्य परम्पराएँ एवं संस्कृति भारत की समृद्ध विरासत का हिस्सा हैं। वर्तमान में हमारे पारंपरिक हर्बल तथा हर्व एवं खनिज फॉर्मूलेशन का एक बड़ा हिस्सा भोजन या आहार पूरक के रूप में चिह्नित किया जा रहा है, और उनमें से अधिकतर ओवर-द-काउंटर (ओटीसी) उत्पाद हैं। बदलते समय और उन्नत प्रौद्योगिकियों के साथ तारतम्य मिलते हुए,



सीडीआरआई में आयुष चिकित्सकों एवं शोधकर्ताओं के लिए दक्षता विकास एवं सतत चिकित्सा शिक्षा प्रशिक्षण के लिए कार्यक्रम शुरू

हम अब काफी हद तक साक्ष्य-आधारित चिकित्सा और पारंपरिक उपचारों के तर्कसंगत उपयोग पर निर्भर हो चुके हैं। न केवल भारत में बल्कि विदेशों में भी व्यापक स्वीकृति प्रदान करने के लिए आधुनिक विज्ञान और आधुनिक चिकित्सा आधारित पारंपरिक दवाओं के अनुसंधान एवं विकास की परिकल्पना की गई है।

इस छह दिवसीय प्रशिक्षण कार्यक्रम पारंपरिक चिकित्सा चिकित्सकों को आधुनिक औषधि अनुसंधान एवं विकास के बारे में जागरूक करने के लिए बनाया गया है। दवाओं की खोज के विभिन्न पहलुओं के अनुसार सत्रों को विभाजित किया गया है, उदाहरण के लिए, प्राकृतिक उत्पाद रसायन विज्ञान, धातु और कीटनाशक विषाक्तता, फाइटोकेमिकल विश्लेषण, फार्मास्यूटिक्स और फार्माकोकाइनेटिक्स, नियामक विषय विज्ञान अध्ययन आदि। कार्यक्रम में सीडीआरआई में हर्वेरियम, जीएलपी प्रयोगशालाओं के साथ-साथ एनवीआरआई और सीआईएमपी का दौरा भी शामिल है।

CSIR-IHBT Palampur, HP conducted Capacity building program for the agriculture officers

CSIR-IHBT

11th September, 2022



CSIR-IHBT Palampur, HP conducted Capacity building program for the agriculture officers on production technology of saffron and heeng.

CSIR-IHBT Palampur conducted a five-day capacity building program for the agriculture officers of the Department of Agriculture, Himachal Pradesh, on the production technology of saffron and heeng from September 06-10, 2022. Thirteen Agriculture Development Officers and Agriculture Extension Officers from six districts, viz., Chamba, Kangra, Kinnaur, Kullu, Lahaul & Spiti, and Mandi, participated in the program. While speaking on the occasion, Dr Sanjay Kumar, Director, CSIR-IHBT, said that CSIR-IHBT Palampur is implementing the projects funded by the state government on saffron and heeng in association with State Agriculture Department under the 'Krishi se sampanta Yojna'. Agricultural staff and farmers need to be trained to ensure the success of the project. Therefore, from time to time, training at farmers' fields and at CSIR-IHBT Palampur is being organized for the successful cultivation of saffron and heeng in non-traditional areas of Himachal Pradesh. He said that it is crucial that crop and seed production should take place in Himachal in order to fulfil the vision of making Himachal Pradesh a dominant producer of saffron and heeng. He

assured the officers of the help from his team in each and every step of the cultivation process of saffron and heeng. Dr Rakesh Kumar, Senior Principal Scientist cum Principal Investigator of the project and Program Coordinator of the capacity building program, told about the importance of the production of spice crops, saffron and heeng for the country's economy. He asserted that IHBT faculty members emphasized on agro techniques throughout this programme, including soil sampling, site selection, plantation techniques, nutrient management, weed control, insect pest control, harvesting, storage, packaging, and post-harvest management of saffron and heeng, as well as tissue culture techniques. He stated that around 100 tonnes of saffron are required in India each year. In comparison, only 9-13 tons are produced in Jammu & Kashmir, which is not sufficient to meet the country's demand, and therefore it is imported from countries like Iran and Afghanistan. Therefore, it is important to search alternate sites for cultivation and train the agriculture extension officers and farmers to reduce the import of these crops. Currently, saffron is being grown in the Pampore and Kishtwar region of J&K. Dr Ashok Kumar, PI of the heeng project told that the country spends approximately 942 crores annually to import 1540 tons heeng from Afghanistan, Iran & Uzbekistan. To make India self-reliant, production of these spice crops must be initiated in areas suitable for their cultivation. During the five-day program the agriculture officers were educated about the improved Agrotechnology, quality analysis, biotic and abiotic stress and their management and tissue culture techniques of saffron and heeng. An on-field practical demonstration for saffron and heeng cultivation was also conducted. The officers also visited various facilities at CSIR-IHBT. Dr. Sanjay Kumar, Director, CSIR-IHBT believed that the participants acquired the knowledge related to the technologies required for the successful cultivation of these crops. The important elements in the project's success are the officials who have regular interactions with the farmers who cultivate saffron and heeng. He further said that it is important to maintain both the quality and quantity of the spice crops to badge the title of self-reliant Himachal, thus in the making of 'Aatmanirbhar Bharat'. Further elaborating dream of self-reliant Himachal, he said that it is important that seed production, as well as crop production of these spice crops occurs in Himachal Pradesh.

Published in:

[Himachal Head Lines](#)



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