





NEWS BULLETIN 26 TO 30 NOVEMBER 2021







Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi



Dr. Atul Vaidya takes over as Director, CSIR-NEERI



30th November, 2021

Nagpur: Dr. Atul Vaidya has taken over as Director of the CSIR-National Environmental Engineering Research Institute (CSIR-NEERI). He has assumed charge on 29th November 2021. Before becoming Director, Dr. Vaidya was Chief Scientist and Head of Chemical and Hazardous Waste Management Division, CSIR-NEERI. He did B. Tech. in Chemical Engineering from Laxminarayan Institute of Technology (LIT), Nagpur and M.Tech. in Chemical Engineering from IIT-Bombay. He obtained Ph.D. in Chemical Engineering from RTM Nagpur University. He has a vast experience in all fields of environmental science and engineering, especially in solid and hazardous waste management. Dr. Vaidya had extensively been involved in quantification and characterization of solid and hazardous wastes; designing of secure landfills; eco-toxicological studies on landfill leachates; designing of municipal solid waste transportation system; recycling and reuse of municipal solid waste management; and monitoring of green house gas (GHG) emissions from landfills. He has implemented effective technological options for environmentally sound management of hazardous wastes at various industries in the country. He has published many research papers in national and international Journals.



Dr. Vaidya has taken charge from Dr. S. Chandrasekhar, who was earlier holding additional charge of Director, CSIR-NEERI.

Published in:

Nagpur Today





Pune: CSIR-NCL Wins CII Award For Best Patents Portfolio



30th November, 2021

Pune, 30th November 2021: CSIR-National Chemical Laboratory (CSIR-NCL), Pune has been announced as the inaugural winner of the Best Patents Portfolio Award in the Research & Development institutions category at the 7th CII Industrial Intellectual Property Awards 2021 instituted by the Confederation of Indian Industries. CII Industrial Intellectual Property Awards aim to recognize and celebrate organizations that have embraced IP generation and protection to fuel business and economic growth. The jury for these awards included eminent professionals from industry, academia, government including experts on intellectual property and innovation promotion. The selection process involved evaluating organizations rigorously against multiple parameters reflecting their inventive capacity, processes, and achievements

over the last several years. This was the first time that CII decided to announce an award in the category of Research & Development Institutions. Other winners for patent portfolios in other categories include TCS, IOCL, UPL, and IIT – Kharagpur.

Speaking on the occasion, Dr. Ashish Lele, Director, CSIR-NCL, congratulated the inventors and innovation managers at CSIR-NCL and said, "CSIR-National Chemical Laboratory is happy to be recognized in the CII Industrial IP Awards 2021. NCL has a long tradition of contributing to the development of Indian industry via knowledge exchange and innovative technology development. NCL has also contributed to leadership on IP matters in the country, both in terms of thought leadership and trendsetting inventions. We look forward to continuing to build an innovation economy for the Nation and path-breaking science-based solutions for the World." Previously in 2017, the inventive contributions of CSIR-NCL had helped Pune city secure a place in the top 100 inventive clusters of the world announced by the World IP Organization. The award was announced in a virtual program.

Published in:

Punekar News



There is a need to take lab discoveries to the public to make day-to-day life better for all, Jahnavi Phalke, Science Historian and Founder Director, Bengaluru Science Gallery, has said.

While addressing virtually the Student-Scientist Connect programme recently held at CSIR-CFTRI, Mysuru, under 'CSIR JIGYASA 2.0', she urged the students of Mysore Navodaya Vidyalaya who were attending the day-long programme to understand science in the institute for taking up need-oriented food and agriculture-related problems for empowering the public.

Various facets of the Science Gallery being established in Bengaluru under the purview of

Government of Karnataka was presented on the occasion.

Sridevi Annapurna Singh, Director, CSIR-CFTRI, in her remarks, said that the Institute has been engaging students and teachers from Kendriya Vidyalaya Sangathan (KVS), Jawahar Navodaya Vidyalaya (JNV) and the government schools to inculcate scientific curiosity through lab experiments, Do it Yourself (DIY) kits, public lectures, science quiz etc., under JIGYASA programme.

Further, selected Atal Tinkering Labs (ATL), established by NITI Aayog, to encourage young

minds towards innovation in the State, will be mentored by scientists of the institute. Madhusoodanan, Principal, NVS, along with faculty members and CFTRI scientists were present on the occasion.

Published in:







HP: First pilot project for cinnamon cultivation



30th November, 2021

Shimla: In its first to grow high value herbs, HP has rolled out a pilot project for Cinnamon in state's Una district. The project is aimed to empower the farmers to cultivate herbs for the commercial use in the state's lower areas bordering Punjab. At present some species of Cinnamomum genus are naturally grown wild in forests. It thrives well as a forest tree at 300–350 meter.



First sapling of Cinnamomum Verum, which is also called sweet wood was successfully planted in Una by minister for agriculture and rural development Virender Kanwar last week. State's agriculture department has also been joined by the CSIR's institute of Himalayan Bioresource Technology (IHBT), Palampur to make the state a hub for cultivation of spices in different districts depending on climatic conditions.

"This project was conceived by CSIR-IHBT and executed with ICAR's Indian Institute of Spice Research, Calicut, Kerala and Department of Agriculture, Himachal Pradesh" the minister said. A CSIR-IHBT team trained farmers on cinnamon cultivation and established a cinnamon demonstration plot in Una.

A target has been fixed to train around 1000 farmers in cinnamon cultivation in the lower elevations of the state by organising training camps/ farm visits in their respective areas commercially cultivated high yielding varieties like Navashree, Konkan Tej, Yercaud 1, and Nithyashree, known for delicate aroma and spicy flavour. It is principally employed in cookery as a condiment and flavouring material. Cinnamon is a versatile spice which can be added to





any food item such as salads, confectionaries, beverages, soups, stews and sauces. Besides its culinary usage, it has important medicinal applications.

In the initial phase, as many as 600 to 700 plants of true dalchini have been planted and a

target has been fixed to distribute 40,000- 50,000 plants of cinnamon verum every year free of cost to the farmers to propagate the cinnamon cultivation in the region, said Kanwar. A total around 200 hectare area will be brought under cinnamon cultivation in the state in next five years and on an average 40 hectare area will be brought under the cinnamon cultivation each year in the five districts.

This sun loving plant can be successfully grown in Una, Hamirpur, Bilaspur, Kangra and Sirmour District having a hot and humid climate with moderate temperature and rainfall of 1,750-3,500 mm per annum. The harvesting starts from the 4th or 5th year after planting.







Union minister launches aerial delivery of Covid-19 vaccines using drones in Jammu



29th November, 2021

Union Minister for Science and Technology Jitendra Singh has launched a drone-driven aerial delivery facility to transport Covid-19 vaccines and emergency medicines to inaccessible and difficult areas in a short span of time in Jammu. Referring to the first consignment of 50 vials of Covid-19 vaccines which was dropped by a drone near the international border in Marh area,



Jitendra Singh said, "The Octacopter drone which was developed indigenously in Bengaluru on the initiative of the Council of Scientific and Industrial Research (CSIR) is truly a messenger of peace while Pakistan is using drones to disrupt peace. The Indian drone has carried to the international border the message of protecting lives from Covid and ensuring health and wellbeing for everybody."

CSIR-National Aerospace Laboratories (CSIR-NAL) and CSIR-IIIM have teamed up with the Department of Health and Family Welfare of the Government of Jammu for aerial delivery

of Covid-19 vaccines in remote areas.

'HAR GHAR DASTAK' VACCINATION CAMPAIGN

The Union minister added, "We, in the Ministry of Science and Technology, decided to join Prime Minister Modi's 'Har Ghar Dastak' Covid vaccination campaign by developing a drone which would reach households in far-flung and difficult areas that lack means of transport. Thus, the drone will perform the function of knocking at the door of every home to ensure that not a single person remains without vaccination."





Jitendra Singh said, "India has administered over 120 crore doses of the Covid-19 vaccine so far, but there is need for adopting unconventional methods to vaccinate the 65 percent of the population which lives in rural and remote inaccessible hilly areas."

CUTTING TRAVEL TIME

The Octacopter drone can carry a payload of 10 kg with range of 20 kilometers and it can fly at an operational altitude of 500 meters AGL at a maximum flying speed of 36 kmph, as per the minister.

On the occasion of the launch, Union minister Jitendra Singh formally handed over a consignment of Covid vaccines to the drone operators, who then mounted the same on the drone which took off on its aerial journey. It covered a distance of 15 km in 15 minutes, thereby cutting travel time and making it easier to deliver medical supplies to remote places.

More such demonstrations will be carried out by CSIR in remote hilly areas like Kishtwar, Rajouri, Poonch and Bhadarwah in the near future, Jitendra Singh said.







CSIR-CMERI Durgapur develops world's largest solar tree



29th November, 2021

The Council of Scientific and Industrial Research (CSIR) – Central Mechanical Engineering Research Institute (CMERI) has developed the world's largest solar tree, which has been installed at the CSIR-CMERI Residential Colony, Durgapur. The tree has been designed to ensure each solar panel's maximum exposure to sunlight and also create the least shadow area beneath.



There are a total of 35 solar PV panels in each tree with a capacity of 330 wp each. The inclination of the arms holding the panels can be adjusted, a feature that is not available in roof-mounted solar facilities. The energy generation data can be monitored either real-time or on a daily basis.

"The installed capacity of the solar tree is above 11.5 kWp. It can generate 12,000-14,000 units of clean and green power annually," said Harish Hirani, director of CSIR-CMERI.

Hirani explained that the solar tree also has certain customisable features for application at diverse sites. They were designed in a manner to ensure minimum shadow area, thus potentially making them available for widespread usage in agricultural activities such as high capacity pumps, e-tractors and e-Power tillers.

The solar trees can be used to substitute price-volatile fossil fuels and even used for domestic purposes. Each solar tree has the potential to save 10-12 tonnes of CO2 emission being released into the atmosphere as greenhouse gases when compared with fossil fuel-fired energy



generation. Besides, the surplus generated power can be fed into an energy grid. "This agricultural model can provide a consistent economic return and help farmers counter the effects of the uncertain variations in agriculture-related activities, thus, making farming an economic and energy sustainable practice," Hirani said.

Each tree will cost Rs 7.5 lakh and interested MSMEs can align their business model with the Pradhan Mantri Kisan Urja Suraksha Utthan Mahabhiyan (PM KUSUM) Scheme for farmers, for developing a renewable energy-based energy grid.

The solar tree is capable of incorporating IOT-based features, i.e. round-the-clock CCTV surveillance in agricultural fields, real-time humidity, wind speed, rainfall prediction and soil analytics sensors.







CSIR-NML Jamshedpur organises IISF outreach program



29th November, 2021

Jamshedpur, Nov 29: India International Science Festival (IISF) is an annual event organized every year jointly by Government of India and Vijnana Bharati (VIBHA) to create a common virtual platform for students, researchers, innovators, entrepreneurs and artists for interaction. The organizers of IISF 2021 have development and economic agenda to create



CSIR-National Metallurgical Laboratory (NML), Jamshedpur organized an outreach program on virtual platform on November 29. The Chief Guest for the event was Prof. Rajesh Prasad, IIT Delhi. Sreepasad M Kuttan, Organizing Secretary at Vijnana Bharati and Dr. Sridevi Jade, Outstanding Scientist & Head of CSIR-Fourth Paradigm Institute (4PI) were invited as the Guests of Honour.

The event started with a short video show followed by lighting lamp digitally. Dr. Indranil Chattoraj, Director, NML welcomed all dignitaries, guests and all participants attending this event virtually. In his welcome address he introduced the guests of program and talked about the significance of holding this program.

Kuttan, guest of honour, talked about past IISF programs and gave brief outline of the 7th IISF this year. As he mentioned, the main objective of IISF was to showcase how science touches each and every section of the society with festival mood. He informed the audience that this time the 7th IISF 2021 would be held on December 10-13 in hybrid mode. People





from Goa and Maharashtra can visit the venue which is Goa while others can attend online programs after registering for the event.

The topic of the lecture of Dr. Sridevi Jade, Guest of Honour, was "A Preview to the Festival of Games & Toys at IISF 2021". She and her associate Pavithra N R, Scientist at CSIR-4PI, delivered a very engaging speech. Pavithra gave a brief outline of the Games and Toys sessions of IISF 2021.

Prof. Rajesh Prasad, chief guest, spoke about "Learning Science with Fun". He explained various laws of science with simple examples from our everyday life and concluded his lecture with inspiring words for the young audience.

At the end of the event, Dr. Mita Tarafder, Chief Scientist and Head, KRIT Division of

CSIR-NML, made announcements about upcoming skill training and other programs of CSIR-NML and extended vote of thanks. She thanked the speakers for their lectures and the insights given to the audience. The program was attended by more than 125 people from all over India.

IISF is an endeavor to motivate young minds and create interest in science. The theme of this year's festival is – Celebrating Creativity in Science, Technology and Innovation for Prosperous India. CSIR is the nodal organization who organizes this festival and CSIR-National Metallurgical Laboratory, Jamshedpur is the coordinating institute for IISF 2021.

This includes a number of presentations on events to remember the role of scientific community in freedom movement, new science and technology ideas to create new India, showcasing the science and technology achievements of India in last 75 years, science and technology action plan for new India and resolves taken to make "Atmanirbhar" and prosperous India.

Published in:

Avenue Mail





Indian Bio-Jet Fuel Technology Receives Formal Military Certification



29th November, 2021

New Delhi: CSIR-IIP Dehradun's homegrown technology to produce bio-jet fuel has been formally approved for use on military aircraft of the Indian Air Force (IAF). The provisional clearance (PC) certificate was handed over by Shri R.Kamalakannan, Group Director (AT&FOL), Centre for Military Airworthiness and Certification (CEMILAC) to Mr Saleem Akhtar Farooqui, Principal



ScientistfromCSIR-IIP in the presence of Group Captain Asheesh Shrivastava and Wing Commander A Sachan of the IAF and Mr R Shanumgavel of CEMILAC. This certification represents India's growing confidence in aviation biofuel sector and another step towards 'Atmanirbhar Bharat'.

The technology, developed by the Indian Institute of Petroleum (CSIR-IIP), a constituent laboratory of the Council of Scientific and Industrial Research, has undergone evaluation tests and trials overthe last three years. The testing of airborne items is a complex and meticulous process involving intricate checks while ensuring the highest levels of flight safety. International aviation standards define the scope of these rigorous assessments. Fuel being the lifeline of aircraft requires thorough analysis before being filled into manned flying machines. The certification received by the lab today is an acknowledgment of the satisfactory results obtained from various ground and inflight tests performed on the indigenous bio-jet fuel by various test agencies supported by the IAF.

Earlier on 26 Jan 19, an AN-32 aircraft, filled with blended bio-jet fuel, had flown over Raj Path at New Delhi during the Republic Day celebrations. Thereafter, the performance and





reliability of the Indian technology were also tested when the Russian military aircraft safely landed and tookoff from Leh airport on 30 Jan 20 at high altitudes under severe winter conditions. The fuel was also used on a civil, commercial demonstration flight operated by SpiceJet on 27 Aug 18 from Dehradun to Delhi. These test flights with green fuel underscored the capabilities and commitment of Indian scientists and airmanship of IAF to serve a national cause.

Today's approval by CEMILAC is a culmination of many years of intensive research and active support of many agencies, including the test facilities of Indian Oil Corporation (IOCL) Panipat Refinery and Hindustan Aeronautics Ltd. (HAL). This clearance will enable Indian armed forces to use bio-jet fuel produced using indigenous technology across all its operational aircraft. This will also enable early commercialization of the technology and its mass production. Indian bio-jet fuel can be produced from used cooking oil, tree-borne oils,

short gestation oilseed crops grown off-season by farmers, and waste extracts from edible oil processing units. It will reduce air pollution by virtue of its ultralow sulphur content compared with conventional jet fuel and contribute to India's Net-Zero greenhouse gas emissions targets. It will also enhance the livelihoodsof farmers and tribals engaged in producing, collecting, and extracting non-edible oils.





Council of Scientific and Industrial Research (CSIR) director general Shekhar Mande said premier scientific institutions like the Centre for Cellular and Molecular Biology (CCMB) should tap big data analytics in life sciences to address fundamental questions like how genes are regulated as they define differences between different organisms.

"They are also extremely important for the pharma and life science industry," he said, while delivering the 34th foundation day address over the weekend. CCMB celebrated the day with multiple activities for students, staff and the public, and saw research scholars presenting their work.

Dr Mande, a biophysics expert, spoke about how scientists understand structures of protein complexes and their functions — a field where a large amount of biological data is generated. The same is through for those unravelling genomes of different living organisms. Therefore, the next big question lies in finding meaningful inferences from these large datasets, he said.

CCMB director Vinay Nandicoori said the institute is uniquely placed with its deep expertise in basic science as well as being in an ecosystem that facilitates translation of the findings. "We will take advantage of this position to make a stronger impact on society. Our

contributions during COVID-19 already have paved the way," he said and added that in the coming years, lot of rigorous fundamental science could be expected from the scientists.

The day ended with a flute recital by Pandit Ronu Majumdar, an exponent from Maihar Gharana of Hindustani classical music, said a press release.

Published in:

The Hindu

Hysteria must not overtake empathy and common sense: CSIR-IGIB **Director Anurag Agarwal on Omicron detection**

29th November, 2021

Hysteria must not overtake empathy and common sense, said CSIR-IGIB director Anurag Agarwal in an interview with The New Indian Express' Sumi Sukanya Dutta even as the detection of the Omicron variant of Covid-19 has sparked fears of a fresh wave of deadly infections globally.

CSIR Institute of Genomics and Integrative Biology is a key institute under INSACOG, a consortium of several institutions under the National Centre for Disease Control for carrying out extensive genomic and epidemiological surveillance of SARS CoV 2 virus in India. Excerpts from the interview

Q. In your view, why is there so much worry about the detection of the Omicron (B. 1.1.529) variant of SARS CoV 2 virus among scientists and administration around the world?

The Omicron variant is the most highly mutated version of the SARS-CoV virus to date, with 30 amino acid changes, three small deletions and one small insertion in the spike protein. Many of these mutations are at antibody binding sites and are expected to reduce the effectiveness of neutralizing antibodies. Some mutations have also been associated with increased transmissibility in previous variants.

Its rapid emergence and spread has occurred in a population expected to have a high natural immunity, due to a preceding large Delta wave. Also, we have seen examples of transmission between fully vaccinated international travellers. Thus, the limited clinical data so far is consistent with molecular predictions about immune escape potential being high.

I do note here that many calculations about transmissibility being six times higher than Delta have an underlying flaw. Growth advantage against Delta, measured during its falling

transmission, is not the correct way to estimate transmissibility because there is likely to be immunity to Delta but not Omicron in the population. Just immune escape can explain much of what we have seen so far. EXPLAINER | Is new Covid variant 'Omicron' more lethal than Delta? Here's all you need to know

Q. How prepared is our SARS CoV 2 genetic surveillance programme to detect the variant in India and how do you think it will help the containment measures? First, our colleagues in South Africa must be praised for rapidly finding and informing about Omicron. I believe there is much to learn from their excellent work, but we are well prepared. Timely sequencing will help in determining seeding of a community and guiding public health measures.

However, I would recommend that we try to screen for Omicron in the initial diagnostic test

itself. S-gene target failure of RT-PCR has been used by South Africa to detect its spread, without waiting for sequencing. While those types of three gene kits, containing S-gene, are not readily available to us, we are fully capable of producing them.

Alternate CRISPR based methods are also possible. We should explore all options. I would add here that while there is a need to more strictly follow existing protocols for travellers from higher risk regions, we should not overreact by banning all flights or creating undue hardship beyond what is necessary.

We too have been through the spread of a new VOC and the old proverb of "do unto others as you would that they do unto you' is a good one to remember. We are all in this together as a global community. Very bad variants cannot be stopped long-term by simply shutting flights to the few countries that report its presence. Hysteria must not overtake empathy and common sense.

Q. Given the information on the variant we have so far, does a third COVID-19 wave in India look imminent?

If you are asking whether I see something like the second wave happening again, with surges in hospitalization and deaths - no, I don't see any firm data yet that leads to that conclusion, especially since there is no sign yet of higher severity.

If you are asking whether we will see an increase in new cases in coming months, yes that does seem likely. How much, how fast, how bad will depend upon our choices and willingness to follow reasonable precautions.

Overall, it is a time to be cautious and prepared. We don't need to panic. This is however a good time to consider boosters for people like health care workers and elderly. In my opinion, if we prepare well, we will be fine, with an increase in cases, but not what most people have in mind when they think of the third wave

Q. Can you please explain why the mutation in the virus--which in its earlier forms has already infected a substantial chunk of the global population--still continuing and what does it mean for the course of the pandemic? RNA viruses do mutate. The large reservoir of infected hosts has allowed SARS CoV2 to evolve further, becoming more infectious. Some of it is a matter of chance but truthfully, the global action to reduce infections in a concerted manner everywhere has been inadequate. Unfortunately, while the global production of vaccines is enough to vaccinate everyone in the world, a large fraction remains unvaccinated.

Published in:

New Indian Express

Recent cancer therapies and traditional medicine

29th November, 2021

The advancements in molecular marker discovery, genomics, transcriptomics and proteomics in recent years have enabled researchers to develop targeted therapies against cancers. Cancer research and management is multi-disciplinary and multimodal. In addition to conventional chemotherapy and radiotherapy, targeted immunotherapy has also provided considerable success in the clinic. There is also scientific evidence on the impact of alternative therapies on cancer patients. Modern Cancer Therapies and Traditional Medicine: An Integrative Approach to Combat Cancers summarizes the general aspects of cancer therapy and management. Chapters cover cancer medicine in two broad sections, the book presents comprehensive information on a diverse range of cancer treatments. The first section covers

conventional molecular oncology and therapy including targeted therapies, immunotherapies, cancer signaling pathways and the use of computational techniques. The second section focuses on traditional methods of treatment including the role of nutrition, traditional medicine, Yoga and Ayurveda in cancer prevention and management.

Audience:

Students and academicians in medicine, life sciences and pharmacology. About the editors:

Dr. Shashank K. Singh is the Principal Scientist at the Pharmacology Division at the prestigious Indian Institute of Integrative Medicine (CSIR-IIIM) and an associate professor at the academy of scientific and innovative research (AcSIR). He has been actively engaged in anti-cancer drug discovery from natural, synthetic and semi-synthetic sources since December 2003. He has also been involved in various CSIR (India) network programs of anti-cancer drug discovery and development, from hit to lead identification to preclinical development of Leads from Natural products. Dr. Shashank specializes in performing in vitro and in vivo anti-cancer Mechanistic studies apoptosis (Programmed cell death) using various techniques, drug

Combination studies & formulation development of active molecules into novel drug delivery systems to improve PK PD profile or to enhance their bio-efficacy or Bioavailability. He has authored more than 60 high-impact publications and over 10 granted patents. Dr. Shashank is a member of several leading organizations and scientific bodies, including the International Pharmaceter for the Pharmaceter of Pharmaceter for the Pharmaceter of Ph

Pharmaceutical Federation, American Association of Pharmaceutical Scientists and American Association for Cancer Research.

Dr. Reena Singh is an Assistant Professor at the School of Bioengineering and Biosciences, Lovely Professional University. She holds a Ph.D. from Shri Mata Vaishno Devi University, India. She has received IARDO and RACE-Bangkok Awards for Best Teacher (University Level). Her research focuses on metagenomics, microbial diversity, directed evolution, and mutagenesis for improving the catalytic activity of microbial enzymes. She is currently exploring metagenomics for novel hydrolases and the production of bioactive molecules from

myxobacteria. She has published twenty papers and book chapters and is on the editorial boards of six journals. She is a member of the Indian Science Congress Association and a founding member of The Society of Biologists, Jammu and Kashmir, India.

Chirag Chopra is an Assistant Professor at the School of Bioengineering and Biosciences, Lovely Professional University. He holds a Bachelor of Technology in Industrial Biotechnology from Shri Mata Vaishno Devi University and an M.S. (Research) from the Indian Institute of Technology Madras. He has published fifteen papers in journals including Oncogene, Science Bulletin, f1000Research, Nutrition, Foods, International Journal of

Molecular Sciences and three book chapters. He is on the editorial board of five journals. He has received IARDO and RACE Bangkok Young Scientist Awards. His research focusses on targeting key oncogenic signaling proteins and T-cell checkpoint in cancer through plant-based natural compounds. He is also working on repurposing of drugs for cancer therapy. Er. Chirag is a member of the Indian Science Congress Association and a founding member of The Society of Biologists.

Published in:

Eurekalert

NAMSAI, 26 Nov: More than 450 participants, including women from SHGs, individuals from Namsai district and successful beekeepers from other districts of the state attended a training programme on 'Pilot initiative for honey cluster for beekeeper of Namsai district' here on Friday.

The programme was jointly organized by the horticulture, agriculture, textile & handicrafts and the State Rural Livelihoods Mission departments in collaboration with the National Bee Board (NBB), supported by the Namsai district administration.

In his keynote address, Chief Secretary Naresh Kumar informed that the pilot project is the first of its kind in the state and will be replicated in other districts also by involving SHGs and interested beekeepers.

NBB Executive Director NK Patle presented the guidelines of the National Beekeeping and Honey Mission, and promised to give all possible help and guidance to the state government in implementing the Honey Mission in the state.

Ramnagar (Haryana)-based Horticulture Deputy Director Billu Yadav informed about the

establishment of the Integrated Beekeeping Development Centre and production and collection of various beehive products.

Namsai KVK scientist Dr Madhumita Sonowal Bora and Jorhat (Assam)-based CSIR-NEIST senior scientist Dr Mantu Bhuyan apprised the participants of the different aspects of beekeeping. Agriculture Deputy Director Techi Taura spoke on the "honeybee resource" potential in Arunachal Pradesh" and the initiatives under the Honey Mission, while ArSLM COO Rakesh Srivastav dwelt on the role of SHGs under the ArSLM, and on the support

mechanism for pilot development of honey cluster in Arunachal. Agriculture Secretary Bidol Tayeng, Namsai DC RK Sharma, Horticulture Director Tage Tatung, Agriculture Director Anong Lego, panchayat leaders and officers of the agriculture and allied departments also participated in the programme.

CSIR-IHBT

26th November, 2021

Published in:

Divya Himachal, Dainik Jagran, Dainik Savera, Himachal Dastak, Punjab Kesari

Please Follow/Subscribe CSIR Social Media Handles

Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi