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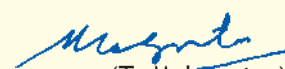
From the DG's Desk

Dear Readers,

The Indian agriculture is regarded as a gamble of monsoon since agricultural activities over almost all regions of India are dependent on the monsoon rain. In fact, monsoon is the pivot around which the Indian economy revolves. If figures are to be believed, 70% of the Indian population depends on farming, either directly or indirectly. Around 58% of the total employment in the country is through agriculture. The monsoon is the lifeblood for India's farm-dependent \$ 2 trillion economy, as at least half of the farmlands are rainfed. The agricultural sector in our country contributes to around 18% of the GDP.

Monsoon happens from May to September in India. Summer crops account for more than half of India's food output and a delayed or poor monsoon means supply issue and acceleration in food inflation, a key metrics which influences Reserve Bank of India's decision on interest rates. Most of the Indian agricultural land is irrigated by the southwest monsoon. Crops such as rice and pulses which are staple Indian diets need heavy rainfalls to grow. Rubber trees in the southern region require heavy and regular rain high temperatures. The plantation crops depend on the first shower of the season.

To ensure food and farmers' income security in case of weak monsoon requires comprehensive and broad approach as with climate change monsoon variability is bound to increase which need holistic transformation. Some initiatives like *Fasal Bima Yojana*, *Krishi Sinchai Yojana*, Promotion of micro/drip irrigation, organic farming, etc., need to be expedited especially to small and marginal farmers. Interlinking of rivers is a strong initiative with high potential to raise farm income but require time bound implementation. Making agriculture climate resilient which includes enhanced carbon sink in soils, precise weather forecasts, access to market intelligence for timely decision making by farming community and efficient water, energy and input use. Promotion of weather-resistant crop varieties like flood and salinity resistant rice and drought-resistant pulses should be promoted and further improved.


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WORK SHOP, MEETING, SEMINAR, CONFERENCE

Award ceremony for the student from Tamil Nadu and Puducherry

Somarasampettai, 6 April 2022. As part of the 75th India's Independence Celebration, ICAR-NRCB and Vidyarthi Vigyan Manthan jointly organized an award ceremony for the winners of the Science competition on at ICAR-NRCB. Vidyarthi Vigyan Manthan conducted State level online science talent search examination for school students of Tamil Nadu and Puducherry during the month of November and December 2021. A total number of 10,480 school students participated in the competition. Out of which, 55 school students got selected and declared as winners for receiving a cash prize, certificate and memento. While presiding over the prize distributing ceremony, Dr S Uma, Director, ICAR-NRCB congratulated and appeal to the prize winners to think of diverse opportunities available in the field of agriculture. Further, she stressed the significance of science as a carrier opportunity for young students. Inaugural address delivered by Dr P Sabanayaham, Tamil Nadu State Secretary, Vijnanabharati. He stressed that the exposure for the school students by way of visiting the research institutes like NRCB, Trichy, offers a long-lasting impression in their minds about the significance and effort taken by the Indian Government for research and development in our country. Prof. J Jeyakanthan, Head, Dept. of Bioinformatics, Alagappa University, Karaikudi delivered the thematic address. Dr C Karpagam, Principal Scientist, ICAR-NRCB and local coordinator of the event delivered the welcome address and Dr P Boomi, Assistant Professor, Dept. of Bioinformatics, Alagappa University, proposed a formal vote of thanks. Thiru. Gopal Parthasarathy, State Co-coordinator, Vijnanabharati, made all arrangements for the programme. Lab and field visits were coordinated by Dr P Ravichamy, STO and Dr P Durai, ACTO for the benefit of the students' community.



Source: Dr S Uma, Director, ICAR-NRCB, Tamil Nadu

Under Jal Shakti Abhiyan: Catch The Rain Campaign Farmers Awareness Program

Washim, 7 April 2022. Honorable President Shri Ramnath Kovind has launched *Jal Shakti Abhiyan: Catch the Rain* National Campaign and focused on need of rain water conservation for sustainable development. Ministry of Jal Shakti has taken a campaign focusing on saving and conserving the rain water with theme '*Catch the Rain, where it falls, when it falls*', from 29 March to 30 November 2022. To sensitize Agri Input Dealers and farmers about importance of saving and water conservation, KVK Washim organized the farmers awareness program.

Nodal officer NTI S K Deshmukh, after welcoming the guest, summarized the importance and need of soil and water conservation in the present scenario of climate vulnerability, mostly affecting small and marginal land holders.

After inaugural address, Water Pledge (Jal Shapath) was administered to participants with tips about efficient rain water management.

Chief Guest, Agriculture Officer, Sushri Manisha Langote presented overview about infrastructure, linkage support available and gaps in coverage of water resources to every farm. Information about flag ship schemes of agriculture department was also shared to the participants.

Source: Krishi Vigyan Kendra, Karda Tq. Risod, Dist. Washim (M.S.) 444506

Nodal Training <nti.kvkwashim@gmail.com>

National Workshop on Self-Sustainability in Edible Oils in India

Virtual, April 20, 2022, A one-day brainstorming workshop was organized by the ICAR-NAARM to identify the crucial issues and suggest measures and strategies for attaining self-sustainability in edible oils by the country. The workshop was attended by 69 Delegates from various sectors - research, extension and policy in addition to 15 faculty members from the Academy. 12 experts in different areas of the subject spoke on various topics pertaining to edible oil industry in India. Major recommendations are drawn at the end of the program such as Crop diversification to accommodate oil seed/ oil palm crops by reducing wheat and Paddy area, MSP to

oil seed crops to increase production, taking oilseed areas to irrigated cultivation, It was suggested that



contract farming of oilseed crops could be tried and Custom hire centers to be promoted to reach multiple farm machinery, especially small and marginal farmers. The recommendations from the workshop will be compiled in the form of policy document.

Source: ICAR-National Academy of Agricultural Research Management, Rajendranagar, Hyderabad, 500030, India Director NAARM <director.naarm@icar.gov.in>

Agri-Entrepreneurship Training Program Under Ac&Abc Scheme



Washim, 30 April 2022. The Ministry of Agriculture and Farmers Welfare in association with NABARD launched AC&ABC program which aims to tap the expertise in the large pull of agriculture graduates and offer professional extension services to innumerable farmers. MANAGE Hyderabad funded AC&ABC Training program. Inaugural program of 45 days residential training program under AC&ABC scheme was held at VIDATA training center KVK-Washim. In welcome address, Nodal officer NTI-KVK Washim Dr S K Deshmukh outlined aims, objectives and need of AC&ABC program and stressed that KVK are committed to provide all the necessary technical backstopping and handholding support for realizing the objectives of the AC&ABC program. He has also administered 'Water Pledge' under *Catch the Rain Campaign* of Jal Shakti Mission.

Chief guest DDM NABARD Shri S M Kokadwar focused on major programs and schemes promoting entrepreneurship and advised to enhance awareness and critical analytical thinking for opting venture during the training program. xxNeed for promoting entrepreneurship among rural youth for the overall development of the society was also stressed by Kokadwar. D V Ninavkar, while interacting with the trainees urged to improve their marketing and managerial skill and start enterprise with full confidence as per own choice and need. Dr B D Gite apprised the participants about the success

stories with low capital investment and suggested to start with hard work which can play key role for successful start of the enterprise. KVK expert Shri R S Daware briefed about technologies available in the curriculum for nurturing agri entrepreneurship and importance of preparing viable business plan. Agriculture department representative Vishwajit Patharkar encourage participants on the outreach and effective communication that can enhance farmers income. 35 youths from Washim, Buldhana, Akola, Yavatmal, Hingoli and Parbhani district participated the training program. Soil Technician Gangadhar Kale conducted the proceeding while Program Assistant Abhishek Deshmukh offered vote of thanks.

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Annadata Devo Bhava Campaign Awareness programme on Balanced Fertilization for Soil Health Maintenance and Productivity Enhancement

Mallampeta, 23 April 2022. As a part of “Annadata Devo Bhava” Campaign under AZADI KA AMRUT MAHOSTAV, celebrating 75 years of India’s Independence, an awareness programme on “Balanced Fertilization for Soil Health Maintenance and Productivity Enhancement” was organized at Mallampeta village of Kotapally mandal of Mancherial district, Telangana by ICAR- Central Research Institute for Dryland Agriculture (CRIDA) team of Dr K Srinivas, Principal Scientist (Soil Science), Dr T V Prasad, Principal Scientist (Agril. Entomology), Dr G Venkatesh, Principal Scientist (Forestry) and Dr A Gopala Krishna Reddy, Scientist (Horticulture). About 80 farmers of Mallampeta village attended the programme. Sarpanch of Mallampeta village Shri A Madhukar, MPTC Shri Shankaraiah, and AEO, Ms Vaishnavi graced the occasion. Dr T V Prasad gave an account of the various programmes being implemented in Kotapally mandal under SCSP programme of ICAR-CRIDA and explained the objective of the awareness programme.



Dr K Srinivas explained the farmers about the soil testing taken up in the village, its results and the recommendations provided through soil health cards. Farmers were explained about biofertilizers

and how they can be used to reduce the usage of mineral fertilizers, which are becoming increasingly expensive. The need for rational and balanced application of mineral fertilizers for enhancing productivity and reducing cost was explained. Sri Shankaraigh, MPTC urged the farmers to follow the suggestions of the CRIDA team.

Source : ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

A training-cum-demonstration organized on Processing and Value Addition of Millets for Farm Women



Hydrabad, 23 April 2022. ICAR-CRIDA has organized a series of events as a part of Campaign on *Annadata Devo Bhava* under *Azadi Ka Amruth Mahotsav*. On this occasion, a training-cum-demonstration was organized on the theme Processing and Value Addition of Millets for Farm Women by a team of scientists consisting Dr K Sreedevi Shankar, Principal Scientist (Food & Nutrition), Er. Ashish Satish Dhimate, Scientist (Farm Power & Machinery) and Dr Anshida Beevi CN, Scientist (Agricultural Extension) at Hayathnagar Research Farm of ICAR-CRIDA. Around 35 farm women participated in the campaign. Initially, Dr K Sreedevi Shankar, this programme coordinator interacted with the farm women on the importance of millets in food and nutritional security and explained about value-added products. Later, demonstration was carried on the preparation of millet-based products followed by the participant themselves prepared the same.

Source : ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

National Workshop on Natural Farming for Sustainable Agriculture and Environmenton

Bhopal, 24 April 2022. At the ICAR-IISS, Bhopal National workshop, in his inaugural address, Chief Guest Shri Vishnu Khatri, Hon'ble MLA emphasized on the importance of natural farming for sustainable agriculture with reduced input costs and higher premium price for the produce. Dr R Elanchezhian, PS & Organizing Secretary gave a brief introduction and importance of the workshop under current

perspectives. Dr Ashok K Patra, Director, ICAR-IISS addressed the dignitaries, farmers and online attendees on the significance of natural farming for soil health improvement under future climate change environment.

The technical session on Natural Farming chaired by Dr SK Sharma, Director Research, RVSKVV, Gwaliorand Co-Chaired by Dr SR Mohanty, with the keynote address by Dr N Ravisankar, ICAR-IIFSR Modipuram on the topic "*Natural Farming in India: An Overview*". Dr Baljeet Singh Saharan, HAU Hisar delivered the keynote address on "*Microbial activities in Natural Farming*" and elaborated the role of microbial community in nutrient transformation and release. A keynote address on "*Natural Farming for Soil Health: Prospects & Constraints*" was delivered by Dr Ashok K Patra, Director, ICAR-IISS.



A Panel discussion was chaired by Dr PP Shashtri, Ex-Dean, COA, RVSKVV, Khandwa, MP and Co-Chaired by Dr P Dey, ICAR IISS. The panel discussion comprised of eminent speakers viz. Dr S Bhaskar, ADG (AAFCC), ICAR New Delhi; Dr SR Mohanty, NC SBB, ICAR-IISS, Bhopal; Shri Rajesh Chaturvedi, DDA Agri, MP; Dr AB Singh, ICAR IISS, Bhopal; Shri. Padam Singh Thakur, IMC Member ICAR-IISS, Shri. Krishnapal Lodhi, Progressive Farmer, Narsinghpur and Shri Manohar Patidar, Progressive farmer from Bhopal. Thereafter, discussion was held among the participants on the prospects of Natural Farming and way forward for sustainable agriculture. Dr AK Vishwakarma, PS & Co-Organizing Secretary proposed vote of thanks at the end. The program was attended by 250 delegates including scientists & staff of the institute, students/ RAs/SRFs and progressive farmers (150 offline and 100 online).

Source: ICAR-IISS, Bhopal 462036, Modhya Pradesh

XXX RAC Meeting of ICAR-CRIDA

Hybrid, 25-27 April 2022. The XXX Research Advisory Committee Meeting (RAC) of ICAR-CRIDA was held in a hybrid mode under Chairmanship of Dr Gurbachan Singh, Former Chairman, ASRB. Dr M A Shankar, Former Director of Research, Dr H K Senapati, Former Dean and Dr M Maheswari, Former in-charge Director, ICAR-CRIDA participated in the RAC meeting in physical mode and the other members Dr V Geethalakshmi, Director (Crop Management), Dr K Vijaya Raghavan, Ex-Joint Director, IARI & JD Extension, Dr S Bhaskar, ADG (Agron. AF & CC), joined online and contributed to the proceedings.

Dr V K Singh, Director, ICAR-CRIDA, Dr M Srinivasa Rao, Member Secretary and Project Coordinators, AICRPDA and AICRPAM, Heads of Divisions /Sections, invited scientists participated in the XXX RAC meeting. On first day of meeting, Member Secretary presented the Action Taken Report (ATR) on the recommendations of previous meeting of XXIX RAC and the same was accepted by the Research Advisory Committee. Director, ICAR-CRIDA presented the contributions of CRIDA in Dryland agriculture and explained recent national outputs of the institute.

In the fore noon of the second day i.e., 26 April 2022, RAC members along with Director, Project Coordinators, Heads and scientists of CRIDA visited field experiments, Climate Change Research Complex, KVK and Farm Mechanization workshop at Hayathnagar Research Farm. In the afternoon session, the salient achievements of Divisions, Sections, AICRPDA, AICRPAM and NICRA were presented by the heads of Division of Resource Management, Crop Sciences and Sections of Transfer of Technology, Design and Analysis and PI and Co-PI of NICRA (Strategic Research and Technology Demonstration Component).

On 27 April 2022, entire team of RAC visited the Agri-horticultural block, farm ponds, fodder systems, Conservation Agriculture block of Gunegal Research farm and several scientists of CRIDA explained the details, findings and output of their experiments. In the afternoon, an open house interactive session of RAC with all scientists of CRIDA was conducted. Chairman and members of RAC interacted affirmatively on various research issues raised by the scientists.

The committee reviewed the progress of research at ICAR-CRIDA during the previous one year.

Source: ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad - 500 059
director.crida@icar.gov.in



Kisan Bhagidari, Prathmikta Hamari

Hyderabad, 26-28 April 2022. Krishi Vigyan Kendra-Ranga Reddy district, ICAR-CRIDA organized Farmer

Scientist interaction programme and also training cum awareness on agri and allied field related issues to celebrate the 75 years independence day as 'Azadi Ka Amrit Mahotsav' under the theme of 'Kisan Bhagidari, Prathmikta Hamari' on 26 April 2022, at KVK Training hall, Hayathnagar Research Farm (HRF). Scientists from ICAR-CRIDA (Dr K Sami Reddy, Head DRM, CRIDA, Dr I Srinivas Principal Scientist (FMP), Dr G Prathibha Principal Scientist (Agronomy)) and SMS from KVK (Dr S M Vidhyashekar and Er S Vijayakumar) participated in the Farmer Scientist interaction programme. Various issues like natural farming, organic farming, horticulture plantations, mechanization, micro-irrigation systems, etc., were discussed in depth and clarified the doubts expressed by the farmers. Farmers were exposed to the technologies, agricultural machinery and different micro-irrigation systems available at farm. About 212 farmers, agricultural final semester students and officials attended the programme.

Farmer Scientist interaction to celebrate the 75 years independence day as 'Azadi Ka Amrit Mahotsav' under the theme of KISAN BHAGIDARI-PRATHMIKTA HAMARI Campaign was organized by Krishi Vigyan Kendra-Ranga Reddy district, ICAR-CRIDA in collaboration with ATMA, Ranga Reddy district on 28.04.2022 at Medipalli village in Yacharam mandal, Rangareddy district. Officials from department of agriculture, horticulture and ATMA Ranga Reddy District, public representatives along with KVK SMS participated in the programme.

Source: ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

ICAR-AICRP on Arid Zone Fruits research worker's meet organized

Ayodhya, 28-30 April 2022. Annual Research Workers Group Meeting of ICAR-AICRP on Arid Zone Fruits was organized from at ANDUAT, Ayodhya (UP). Research workers from all the 18 centres, invited guests and distinguished dignitaries attended the meeting. In the meeting, the Chief Guest Dr Bijendra Singh, Hon'ble Vice Chancellor, ANDUAT, Ayodhya highlighted the potential of diverse germplasm recourses of fruit crops available in the country for increasing productivity, improving quality and imparting tolerance to biotic and abiotic stresses. During presidential remark, Dr B K Pandey, Assistant Director General (Hort. Science), ICAR, New Delhi, focused on crop diversification for livelihood security and recourses conservation for environment sustainability. Dr V Pandey, Assistant Director General (Hort. Science) emphasized on the new age technologies like gene editing and application of ITC in horticulture. Dr B D Sharma, Director and Project Coordinator highlighted significance of AICRP system in solving the region specific problems and germplasm utilization through multi-location testing. During the meeting, two bael varieties namely Narendera Bael-8 (NB-8) and Narendera Bael-11 (NB-11) of ANDUAT centre were

identified and recommended for arid and semi-arid regions of India. In this meeting ANDUAT, Ayodhya centre conferred “Best Centre Award-2021”.



Source: Project Coordination Cell, AICRP on Arid Zone Fruits, Bikaner

KVK, Washim Organize Field Day on Summer Green Gram and Pre-Kharif Planning Meeting



Malegaon, 2 May 2022. Under NFSM program State Department of Agriculture, TAO Malegaon office distributed mini kit of Summer Green Gram Shika variety to 250 farmers in cluster approach. Technical backstopping to selected beneficiaries through training and field visit was provided by KVK Washim before sowing and spraying time. Field day on Summer Green Gram and pre- *kharif* planning meeting in the farmers field of Subhash Mapari from village Somthana of Malegaon Tahsil. Progressive farmer, Subhash Shyamrao Khandare, chaired the program while DSAO Washim S M Totawar inaugurated the event. The event was jointly organized by KVK Washim and TAO Malegaon office. Experts of Pulses Research Unit, KVK and staff of Agriculture Department also graced the occasion. After welcoming the dignitaries, SMS Agronomy Shri T S Deshmukh, apprised role of KVK and rationale of high yielding crop varieties and benefits of integrated crop management practices. Dr R L Kale, Head and Senior Scientist of KVK Washim, stressed that KVK are committed to realize the vision doubling farmers income and advised that self-sufficient farmers with technological knowledge. DSAO Washim, Shri S M Totawar urged to do commercial farming with support of agri allied enterprises to enhance farmers income. Senior Research Scientist Pulses, Dr E R Vaiday, stressed the need for value addition in pulses

and stated farmers friendly technologies about BBF method, seed treatment and seed germination test. Dr B D Gite, Incharge Agriculture Research Station Washim, given tips about *kharif* crop management practices and suggested farmers to do seed treatment before sowing. Plant Pathologist, Dr Manohar Ingole, interacted with farmers and explained about major disease sterility mosaic, wilt and downy mildew and management practices. While Pulses Breeder, Dr Suhas Lande, briefed about important pulses varieties and their varietal character.

During the program progressive farmers were honoured for their significant contribution and awareness followed by 'Water pledge' that was administered during the event. Rural youth, Datta Chande, expressed socio economic condition of farmers in the form of poetry. Progressive farmer, Vijay Khadse and Dattrao Ingole, shared their experiences about advance farming methods. Taluka Agriculture Officer, Shri L V Sawant emphasized role and importance of crop planning and elaborated seed treatment campaign and *kharif* crop production advisories. While resource person PMFME Archana Wad, highlighted about PMFME, scheme and other programs for promoting agriculture processing. At the end there was a field visits, in the presence of experts of Pulses Research unit and KVK expert Dr D N Ingole, Shri N B Patil, Mandal Agriculture Officer Shri V P Wagh and field staff was conducted and necessary advisory was provided. Farmers from Somthana, Taktoda, Tandali, Rithad, Shirsala, Dapuri Kalve, Muttha, Hiwara Rohila, Shelukhadse, Ghata and Shelgaon attended the program in large number.

Source: Krishi Vigyan Kendra, Karda
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XXV Annual Breeder Seed Review Meeting

Virtual, 12-13 May 2022. The XXV Annual Breeder Seed Review meeting was Chaired by Shri Ashwini Kumar, Joint Secretary (Seeds), DAC&FW, Gol, and Co-Chaired by Dr D K Yadava, Assistant Director General (Seed), ICAR and Dr Sanjay Kumar, Director, ICAR-IISS, Mau convened the meeting. The XXV ABSRM, 2022 was attended by Directors/PDs/PCs of Crop Science Division, ICAR, Nodal Officers of quality seed production centres and officials from ICAR headquarters, DAC & FW, National Seeds Corporation, State Seed Corporations, State Seed Certification Agencies and National Seed Association of India. 210 delegates attended the virtual meeting. At the outset, Shri Ashwini Kumar, Joint Secretary (Seeds), DAC&FW welcomed the delegates of XXV ABSRM, 2022. Dr D K Yadava, ADG (Seed), ICAR, New Delhi in his opening remarks, emphasized the importance of AICRP on Seed (Crops) as the largest AICRP network in the country, making significant contributions in ensuring seed and nutritional security. Dr Sanjay Kumar, Director, ICAR-IISS, Mau presented Action

Taken Report on recommendations of XXIV Annual Breeder Seed Review Meeting held on 21 April 2021, followed by presentation on status of breeder seed production during *Rabi* 2020-21 and *Kharif* 2021 and review of shortfalls in breeder seed production during *Rabi* 2020-21 and *Kharif* 2021. Prof. S K Rao, Vice-Chancellor, RVSKVV, Gwalior expressed the need for planning the nucleus seed production at national level. He requested DAC&FW to fund initiatives such as 'Establishment of centers of excellence in maintenance breeding' on priority basis. The Chairman of the ABSRM, 2022 Shri Ashwini Kumar, Joint Secretary (Seeds), DAC&FW, GOI, in his remarks asked all centres to prepare breeder seed production plan for the next 5 years based on the availability on nucleus seed giving due emphasis to new crop varieties. The meeting ended with a formal vote of thanks by Dr Sripathy K V, Scientist, ICAR-IISS, RS, Bengaluru.

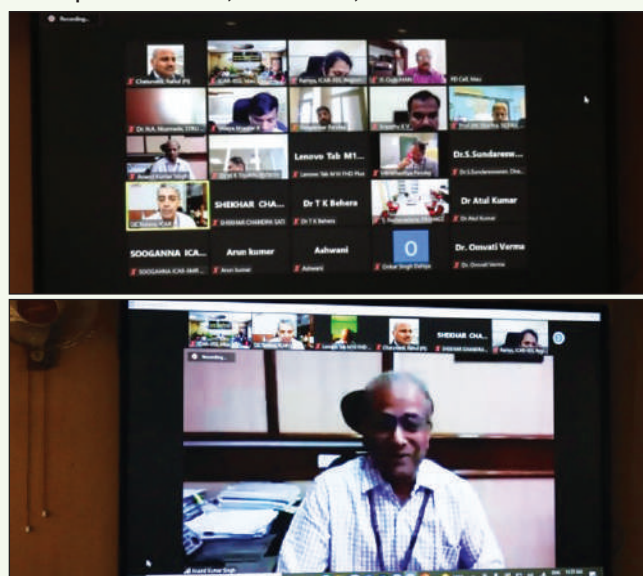


Source: ICAR-Indian Institute of Seed Science
Kushmaur, Mau, Uttar Pradesh 275103, INDIA
Director Seed <director.seed@icar.gov.in>

37th Annual Group Meeting of AICRP on Seed (Crops)

Virtual, 12-13 May 2022. ICAR-Indian Institute of Seed Science, Mau organized the 37th AGM of AICRP on Seed (Crops) through video conferencing mode. The Inaugural Session of the meet was Chaired by Dr T R Sharma, Deputy Director General (CS), ICAR, New Delhi and Co-Chaired by Dr D K Yadava, ADG (Seed), ICAR, New Delhi. The session was convened by Dr Sanjay Kumar, Director, ICAR-IISS, Mau. At the outset, Dr Sanjay Kumar, Director, ICAR-IISS, Mau welcomed the dignitaries. He briefed about merging of AICRP on NSP (Crops) and ICAR Seed Project into AICRP on Seed (Crops) and arrangements made in this regard for betterment of merged entity during 2021-22. Dr D K Yadava, ADG (Seed), ICAR, New Delhi in his introductory remarks highlighted the genesis of National Seed Project and the role of two components i.e. quality seed production and seed technology research under AICRP on Seed (Crops).

Dr Sanjay Kumar, Director, ICAR-IISS, Mau presented the progress report, 2021-22 as well as the action taken report (ATR) on recommendations of previous meeting. Shri Ashwini Kumar, Joint Secretary (Seeds), Department of Agriculture Cooperation and Farmer's welfare, GOI in his remarks lauded the efforts of ICAR in varietal development. The Deputy Director General (CS), ICAR, Dr T R Sharma announced the various awards as part of the annual meeting. The best quality seed production centre award SAU, category and ICAR Institute category for the year 2021-22 were bestowed upon ICAR-IIWBR, Karnal and MPKV, Rahuri, respectively whereas PAJANCOA&RI, Karaikal bagged the best STR center award for 2021-22. Similarly, Chairman of the session distributed technology development certificates to scientists of STR component who are engaged in multi-location and multiyear experimentation. Dr T R Sharma, in his Chairman's address congratulated the entire group for the fairly good job done during 2021-22. The session ended with vote of thanks by Dr Arvind Nath Singh, Principal Scientist, ICAR-IISS, Mau.



Source: ICAR-Indian Institute of Seed Science
Kushmaur, Mau, Uttar Pradesh 275103, INDIA
Director Seed <director.seed@icar.gov.in>

Climate Information For Disaster Resilient Agriculture

Bhopal, 18-20 May 2022. ICAR-IISS Bhopal in collaboration with the National Institute of Disaster Management, New Delhi and India Meteorological Department (IMD), Bhopal Centre organized a 3 days National Workshop on "*Climate Information for Disaster Resilient Agriculture*" on at the institute premises. Dr Somasundaram Jayaraman, Principal Scientist and Course Coordinator welcomed delegates and briefed participants about importance of this training programme *vis-à-vis* climate change scenario. In the inaugural address, Chief Guest Shri Kamal Patel Ji, Hon'ble Minister of Agriculture Madhya Pradesh joined the event online. In the inaugural address, Dr CR Mehta Director, CIAE, Bhopal highlighted the use of resource conservation technology to reduce

energy consumption in agriculture and advocated for use of renewable energy in agriculture. Dr Ashok K Patra, Director, IISS, Bhopal appraised the participants about the visible direct impact of rising greenhouse gas concentration in the atmosphere, its effects on climate change and agricultural production system in the form of abrupt weather events. Professor Anil K Gupta, Head ECDRM, National Institute of Disaster Management, New Delhi, briefed the participants about the objectives and outline of the workshop. He highlighted the importance of disaster risk minimization to reduce the losses in agriculture under unforeseen situations. Dr R Balasubramaniam, Director, IMD, Bhopal Centre, in his remarks, highlighted the importance of prediction of extreme weather phenomenon and forecasting to save life. The inaugural session ended with a formal vote of thanks by Dr Kopal Verma Saini, Junior Consultant & Course Coordinator, ECDRM, NIDM, New Delhi.



National Dialogue on “Extension Services for Efficient Delivery of Horticultural Technologies: A Way Forward”

Bengaluru, 20-21 May 2022. ICAR-IIHR organized a National Dialogue on “Extension Services for Efficient Delivery of Horticultural Technologies: A Way Forward”. In the inaugural session of the two-day national dialogue, Dr R Venkattakumar, Principal Scientist and I/c Head, Division of Social Sciences and Training and Organizing Secretary delivered the welcome address. Dr V V Sadamate, Former Advisor (Agriculture), Planning Commission (NITI Aayog) spoke about the context of the dialogue. Dr B N S Murthy, Director, ICAR-IIHR delivered the introductory remarks wherein he emphasized the need for dissemination of advanced horticultural production technologies through latest extension delivery services. Dr P Das, Former DDG (Agricultural Extension), ICAR, New Delhi and Dr K Narayana Gowda, President,

International Society of Extension Education (INSEE), Nagpur, Former Vice-Chancellor, UAS, Bengaluru delivered special address. Dr V K Pandey, ADG (Hort. Science-I) graced the programme through online mode and addressed the participants. Dr A K Singh, DDG (Horticulture), addressed the delegates and highlighted the importance of efficient extension services for promotion of horticultural technologies.



Source: Nodal Officer, PME Cell, ICAR-IIHR <pme.iihr@icar.gov.in>

National Convention on “Role of Artificial Intelligence and Internet of Things to Agricultural Engineering”

Bhopal, 26-27 May 2022. On the occasion of *Amrit Mahotsav* of 75th anniversary of Independence, ICAR - Central Institute of Agricultural Engineering, Bhopal organized a 2-day online National Convention on “Role of Artificial Intelligence and Internet of Things to Agricultural Engineering”.

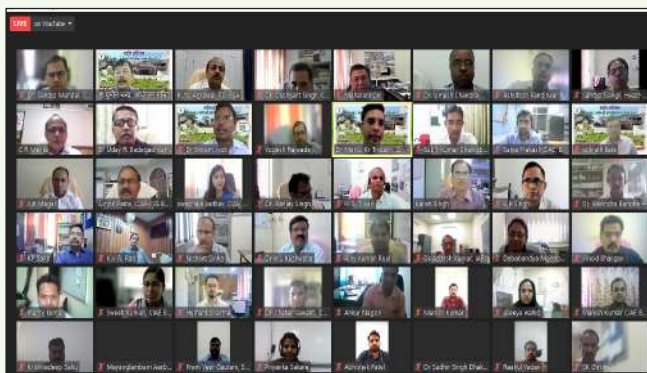
Dr CR Mehta, Director, ICAR-CIAE, while highlighting the main objective of organizing the national convention, said that in order to keep the agriculture sector self-reliant and to face the practical challenges, there is a need to develop the state-of-the-art technology in the area of AI and IoT.

Dr Trilochan Mohapatra, Secretary, Department of Agricultural Research and Education, Government of India and Director General, ICAR, New Delhi, indicated that because of the interventions in Agricultural Engineering, the country became self-reliant in food grains even in many critical situations.

Dr Kanchan Kumar Singh, Assistant Director General (Farm Engineering), ICAR highlighted the importance of agricultural engineering dimensions and the contribution of artificial intelligence and Internet of Things to agriculture for increasing resource use efficiency.

During the convention, 87 research papers were presented in 5 scientific sessions.

Dr AK Patra, Director, ICAR-Indian Institute of Soil Science, Bhopal, was the Chief Guest in the concluding session of this National Convention. Speaking on the occasion, Dr CR Mehta, Director of the Institute said that based on the research papers presented in the convention, it is well established that with the meticulous technological development and application of artificial intelligence and Internet of Things we can improve the agricultural growth of the country.



Source: PME Cell, ICAR-CIAE Bhopal, pmeciae@gmail.com

ICAR Fisheries Division and Directors of Fisheries Institutes Meet at CIFE, Mumbai

Mumbai, 28 May 2022. To encourage collaborative student research and enrich the overall learning experience the Directors of Fisheries meeting was held which was attended by Dr JK Jena, DDG (FS). Dr Pravin Puthra, ADG (FS), Dr Bimal Mohanty ADG (FS) and Directors of all the ICAR Fisheries Institutes, Dr A Gopalakrishnan, Director CMFRI, Kochi, Dr BK Das, Director CIFRI, Barrackpore, Dr Kuldeep K Lal, Director NBFGRI, Lucknow, Dr SK Swain, Director CIFA, Bhubaneswar, Dr Leela Edwin, Director CIFT, Kochi, Dr PK Pandey Director DCFR, Bhimtal, Dr KP Jeethendran, Director CIBA, Chennai, who interacted with scientists and students of CIFE and discussed various aspects and possibilities of increased collaboration. Dr Ravishankar CN, Director and Vice Chancellor, CIFE promised to take concrete steps to take the deliberations forward.



Source: ICAR-CIFE, Mumbai, Maharashtra, <director@cife.edu.in>

Central Institute of Agricultural Engineering, Bhopal gets second place in Soya Mahakumbh 2022 stall

29-31 May 2022. ICAR-Indian Soybean Research Institute, Indore organized a three-day Soya Mahakumbh 2022. Stalls were set up by various government and non-government organizations in the event. A stall was also set up by the ICAR-Central Institute of Agricultural Engineering, Bhopal in which information was given about making various soya products. Stall put up by Central Institute of Agricultural Engineering, Bhopal got second position in Soya Mahakumbh.

Union Minister of State for Agriculture, Hon'ble Kailash Choudhary, State Agriculture Minister Hon'ble Kamal Patel and Secretary, DARE & Director General of Indian Council of Agricultural Research, Dr Trilochan Mohapatra visited the stall of Central Institute of Agricultural Engineering, Bhopal and appreciated the information disseminated.



Source: PME Cell, ICAR-CIAE Bhopal, Email: director.ciae@icar.gov.in

Garib Kalyan Sammelan- Nationwide farmer Interaction programme by Hon'ble Prime Minister in a virtual mode

Hyderabad, 31 May 2022. "Garib Kalyan Sammelan" event and a nationwide farmer Interaction programme by the Hon'ble Prime Minister in a virtual mode was telecasted at Hayathnagar Research Farm, ICAR-CRIDA, Hyderabad, Telangana from 10.30 AM onwards. The event was presided over by Shri G Kishan Reddy Garu, Union Minister of Tourism, Culture and Development of North Eastern Region of India and also attended by dignitaries viz. Shri M P Rethees Kumar, ED, LPG, HPCL, Shri R Sravan Kumar, ED, IOCL, Shri Anita Mohan, ED, BPCL, and other political people. Dr V K Singh, Director of CRIDA welcomed the guests onto the dais. More than 4200 farmers and other Gol scheme beneficiaries participated in the programme at the HRF venue of ICAR-CRIDA, Hyderabad. All ICAR institutes located in Hyderabad participated in organizing the event which was sponsored by

HPCL. The State level event was linked with the National event at 11.00 AM where the Hon'ble Prime Minister was on live from Shimla, wherein the Hon'ble Prime Minister directly interacted with the beneficiaries. Hon'ble Prime Minister also released the 11th instalment of the *Kisan Samman Nidhi* amounting to about ₹21000 thousand crores to nearly 10 crore farmers ₹2000 thousand per farmer through the digital medium.

Prime Minister explained about various programmes being taken up from the past eight years of his rule for the well-being of the poor. He emphasized how the government is striving hard with an aim to empower the youth and women of the country by the time of completion of 100 years of Indian independence at *Azadi ke Amrit Mahotsav* through various schemes included in *Garib Kalyan*. He ended his speech by congratulating the people of the nation.

More than 4200 farmers from 11 districts of Telangana attended the event organized at Hayathnagar Research farm and watched the live telecast of Garib Kalyan Sammelan. The chief guest, Shri G Kishan Reddy Garu visited various facilities viz., NICRA Research Complex, Horticulture block, Seed processing unit, KVK located at Hayathnagar Research Farm along with Director Dr V K Singh, and appreciated the efforts of CRIDA and findings of scientists. Later the minister delivered his speech explaining various benefits provided by the central government to help the farmers of various states of the country including Telangana state.



Source: ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

ICAR-CRIDA organised XXVII Biennial Workshop of AICRPDA, IX Annual Review Workshop of NICRA-AICRPDA and X Annual Review Workshop of NICRA-AICRPAM

Hyderabad, 2 June 2022. The function was graced by guest of honors Dr YG Prasad, Director, ICAR-CICR, Nagpur, Dr CR Mehta, Director, ICAR-CIAE, Bhopal, Dr AS Panwar, Director, ICAR-IIFSR, Modipuram, Dr S Bhaskar, ADG (A AF& CC), ICAR, New Delhi; Chief guest Dr V Praveen Rao, Hon'ble VC, PJTSAU; Special Chief guest Dr Arvind Kumar, Hon'ble VC, RLBCAU, Jhansi, Chief Scientists and Scientists of AICRPDA, AICRPAM and ICAR-CRIDA.

Dr VK Singh Director ICAR-CRIDA elaborated the mandate, significant accomplishments of AICRPDA and AICRPAM and the outcome of the projects. Dr G Ravindra Chary, PC, AICRPDA presented the research progress, achievements and contribution of AICRPDA to policy. Dr YG Prasad, Director ICAR-CICR in his address stressed the need to manage the excess and deficit rainfall in black soil areas and the need to test high density planting system (HDPS) in holistic manner.

Dr CR Mehta, Director ICAR-CIAE in his address stressed upon to carry out collaborative research in farm mechanization in view of resource constraints. Dr AS Panwar, Director, ICAR-IIFSR appreciated the significant achievements made by AICRPDA and AICRPAM and also assured to work in tandem with the projects. Dr S Bhaskar, ADG (A AF &CC), ICAR suggested to focus on developing agro ecology specific farming systems technologies instead of productivity gains per unit area.

Dr V Praveen Rao, Hon'ble VC, PJTSAU special Chief Guest, advocated the scientists to plan for models for entire agri food chains. Dr Rao opined that the NRM technologies should be evaluated in diverse agroecologies through AICRP system before recommending to the farmers' field.

Dr Arvind Kumar, Hon'ble VC, RLBCAU, Jhansi, Chief Guest appreciated the significant contributions made by AICRPDA and AICRPAM. On this occasion the best dryland farmers from different parts of the country and the best researchers were given awards for their outstanding contribution in the field of dryland agriculture Directors and Project Coordinators from various ICAR institutes, experts in thematic areas, scientists from CRIDA, AICRPDA and AICRPAM and farmers participated.





Source: ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

Brainstorming session on Water Policy for Rainfed Agriculture

Hybrid mode, 3-4 June 2022. The session was chaired by Dr SK Chaudhari, DDG (NRM), ICAR. Dr B Rath Technical Expert, NRAA (National Rainfed Area Authority) and Member for Water policy Development, Dr VK Singh Director, ICAR-CRIDA, and scientists from ICAR-CRIDA, AICRPDA, AICRPAM centres and other ICAR institutes, officials from NABARD, NGO's and other organisations participated. Dr KV Rao, Secretary ISDA welcomed the participants. Dr VK Singh, briefed about the objectives of the session and suggested a separate water policy frame work for rainfed agriculture and need for regionally differentiated water policy with a view to utilise available resources in an optimal manner. Dr SK Chaudhari, DDG (NRM) in his opening remarks mentioned about the need of prioritization of rainfed areas, high variability of rainfall in rainfed areas and also stressed that the ground water management cannot be dealt in isolation without energy management.



Dr SK Chaudhari DDG (NRM) in his final remarks stressed upon the need of nation-wide data requirement and integration of several regional policies and further need to have a dialogue with other ministries.

Source: ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

27th Biennial Workshop of AICRPDA, 9th Annual Review Workshop of NICRA-AICRPDA and 10th Annual Review Workshop of NICRA-AICRPAM

Hybrid, 3 June 2022. AICRP on Agrometeorology (AICRPAM) organized a brainstorming meeting on “Agroclimatic atlas of India: A revisit” at ICAR-CRIDA. Dr V K Singh, Director, ICAR-CRIDA was the guest of honor and Dr BV Ramana Rao, former PC (AICRPAM) acted as the chairman and Dr YS Ramakrishna, former Director, ICAR-CRIDA and Dr VUM Rao, former PC (AICRPAM) as Co-chairmen. Scientists from ICAR, SAUs, IMD, IIT and ISRO gave valuable suggestions. About 80 participants including scientists from CRIDA and AICRPAM centres participated.

Dr VK Singh highlighted the importance of bringing out the agroclimatic atlas at the national level. Dr Santanu Kumar Bal, PC (AICRPAM) briefed about the history of development of agroclimatic atlases in India, a critical analysis of various parameters included in the previously published atlases and a draft of the work plan for the proposed atlas. The major suggestions included to develop a printed atlas with emphasis on regional/ sub-regional planning, explore possible collaboration with ICAR-NBSS&LUP for soil related information, inclusion of crop suitability zones, drought indices, crop weather calendars and extreme weather events in the proposed atlas, information on efficient cropping zones, all aspects related to weather hazards, areas prone to climate variability and change etc.



Source: ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

Rural India Business Conclave by the Kalpa Agri-Business Incubator

Kasaragod, 9-13 June 2022. With the perspective to transfer rural areas to more developed environment and favourable for livelihood and entrepreneurship, the formal inauguration of RIBC was held on 11 June 2022 at ICAR-CPCRI Kasaragod jointly with Kerala Startup Mission. Shri Rajmohan Unnithan, Hon'ble MP, Kasaragod was the chief guest to inaugurate the conclave. The session was chaired by Shri NA Nellikunnu, Hon'ble MLA, Kasaragod. Prof. H Venkateshwarulu, Vice Chancellor, Central University of Kerala was the guest of honour. Dr Anitha Karun, Director, ICAR-CPCRI welcomed the gathering. Shri Mohammed Riyas, Project Director, Kerala Startup Mission; Smt Deepti Nair, Deputy Director, Coconut Development Board, Kochi and Shri Ashok Kurien, Kerala Startup Mission offered felicitations. Dr K Muralidharan, Head (Acting), Div. Social Science, presented a brief account of RIBC 2.0.



Shri Rajmohan Unnithan, Hon'ble MP, Kasaragod inaugurating the Conclave

The prime event of RIBC 2.0 was the Rural-Agri Tech Hackathon in which 19 teams participated. The 30 hour hackathon was supported by 15 mentors, 12 startup founders and 10 scientists from ICAR-CPCRI. The team from Christ College of Engineering, Thrissur was adjudged as the winners to receive a cash prize of ₹ 50,000 given by the Kerala Startup Mission.



Participants on the process of 30 hour hacking

There were 3 panel discussions: i) Social Alpha for Social Impact Startups: Shri Ishan Muhammed, Founder & CEO, Katha moderated. Shri Harshan Vazhakunnu, Shri Jacob Poullose, and Shri Kishore Athota, from Social Alpha participated. ii) Startups to leverage rural economy: Shri P K Gopalakrishnan,

MD, Mizone, Kannur moderated and Shri Mohammed Hisamudheen, Co-Founder & CEO, Entri App and Shri Manoj, Co-Founder, St. Judes Herbal Pvt. Ltd. were the panelists. iii) Startup financing: Shri Ajayan Kavungal former banker, moderated and Sajithkumar, GM, DIC, Kasaragod, Smt. Deepti Nair, Joint Director, CDB, Kochi and Shri Arun, Arun, Kerala Startup Mission were the panelists.

The 2022 edition of Dream Big Kalpa signified by the presentations on ICAR technologies from 7 ICAR institutes (CTCRI, CIFT, IISR, SBI, DCR, IIHR and CPCRI) on 12 June 2022. It was inaugurated by Dr K Sreenivas, ADG (IPTM), ICAR, New Delhi. Dr Anitha Karun, Director (Acting), ICAR-CPCRI presided over the function and Dr Sudha Mysore, CEO, Agrinnovate India was the moderator. Er. Abhishek Burman, Founder & CEO, General, Aeronautics, Bangalore was felicitated in the function for the success of the company in entering to defence applications as part of Adani Defence.

Two MoUs were exchanged during the inaugural programme: One with Arable Labs India (P) Ltd, Bangalore for incubation at CPCRI for developing sensor applications. The other was with Amitav Rural Empowerment Charitable Agricultural and Religious Trust, Punalur for jointly conducting activities under SCSP in Thiruvananthapuram district.

Source: PME Cell, ICAR-CPCRI

Launch and review workshop of NICRA KVKs in zone VIII, ICAR-ATARI Pune

Jalna, 8-9 June 2022. The launch workshop of new KVKs and annual review of existing KVKs of Technology Demonstration Component of NICRA of ATARI Pune was held at KVK Jalna. Dr VK Singh, Director-ICAR-CRIDA is the chief guest. Dr SV Sonune, Senior Scientist and Head, KVK, Jalna briefed about the NICRA programme. Dr VK Singh, Director-ICAR-CRIDA in his opening remarks stressed upon the new approach to be adopted by considering various typologies, constraints, resources available in the village, possible technologies for minimising the impact of climatic variability.

During the first day, all the participants visited the NICRA village of Kadegaon and Varudi and also the Farmer FIRST village and witnessed the impact of interventions and also interacted with communities. During the workshop, 11 KVKs presented the action plans for the year 2022-23.



Launch and review workshop of NICRA KVKs in ZONE XI, ICAR-ATARI, Bengaluru

Bengaluru, 13-14 June. The launch workshop of new KVKs and annual review of existing KVKs of Technology Demonstration Component of NICRA of ICAR-ATARI (Zone XI), Bengaluru. The workshop was chaired by Dr VK Singh, Director, ICAR-CRIDA, Hyderabad and co-chaired by Dr V Venkatasubramanian, Director, ICAR-ATARI, Bengaluru. Dr DV Srinivasa Reddy, Principal Scientist and nodal officer of NICRA, ATARI, Bengaluru, welcomed the chief guest and all participants. The TDC programme is currently operational in 5 KVKs and 8 new KVKs are added. Dr V K Singh in his introductory remarks highlighted the need for adopting a comprehensive approach to minimise the impact of climatic stresses. He emphasized the need to promote carbon sequestration, biomass recycling, reduce the application of nitrogen and improve crop productivity and soil health in a holistic way. On the second day of the workshop, 13 KVKs presented their annual work done for the year 2021-22 and work plan for 2022.



Brainstorming Workshop on Organic Farming in India

Hyderabad, 10 June 2022. ICAR-National Academy of Agricultural Research Management hosted a Brainstorming Workshop on Organic Farming in India. The event was jointly organized in collaboration with Indian Institute of Farming Systems Research (ICAR-IIFSR), Modipuram and Central Research Institute for Dryland Agriculture (ICAR-CRIDA).

The workshop was organized with the major objective of assessing the feasibility and identifying the niche areas and commodities for organic farming and to identify critical researchable issues and gaps in organic farming besides understanding the current government policies to suggest areas for future developments. The workshop saw thematic presentations by domain experts followed by dedicated panel discussions one each on 'Opportunities and Challenges in Organic Farming' and 'Policy Interventions for Promoting Organic Farming'. A total of 35 experts and official from Indian Council of Agricultural Research, State Agriculture Universities, NABARD, APEDA, National Centre for Organic Farming, National Rainfed Area Authority, Telangana State Organic Certification Authority, progressive farmers and NGOs participated

and contributed for the success of the workshop. The recommendations from the workshop will be compiled in the form of policy document for organic farming in India.

Source: ICAR-NAARM, Hyderabad, Telangana



Awareness Campaign on Efficient and Balanced Use of Fertilizers including Nano-Fertilizers

Rangareddy, 21 June 2022. KVK Rangareddy, ICAR-CRIDA organized an awareness programme and National campaign on the 'Efficient and balanced use of fertilizers' as a part of Azadi ka Amrit Mahostav at Rythu Vedika, Akuthotapally Village, Amangal Mandal of RR District. Dr DBV Ramana, OIC, KVK welcomed farmers and explained about the objectives of the programme. Dr K Sammireddy, Head (i/c), DRM highlighted about challenges in agriculture pertaining to major, secondary and micronutrients and their importance in improving crop yield in different agro climatic conditions. Soil test based use of fertilizers can save soil fertility and holds the good yields. Site specific balanced use of fertilizers through integrating both inorganic and organic fertilizers, applying the right amount of fertilizer in the right time, with right method of application gives higher yields with improved fertilizer use efficiency. Shri Chandranna, District Manager, IFFCO Rangareddy, briefed about the advantages of use of Nano Liquid Urea over solid organic Fertilizers. On farm method demonstration on soil test sampling, collection and analysis was organized on the farmers' fields and collected samples for analysis. 123 progressive farmers participated in this programme.



Source: ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

National Campaign on Efficient and Balanced Use of Fertilizer including nano-fertilizers

Bhopal, 21 June 2022. A National Campaign on Efficient and Balanced Use of Fertilizer (including nano-fertilizers) was organized by ICAR-Indian Institute of Soil Science. The program was attended by about 100 farmers from Khajuri, Shahpura, Begonia, Jhapdiya, Bharopura, Charpahadi, Pipliya, Kanera, Raipur, Kuthar and Karond Khurd villages from nearby villages around Bhopal physically and 100 farmers in virtual mode. Dr AK Biswas, HoD (SCF) & organizing secretary welcomed the all the participants and briefed about the objective to organize the National Campaign on Efficient and Balanced Fertilizer use. On this occasion, Dr SK Chaudhari, DDG NRM, ICAR New Delhi, graced the occasion as Chief Guest. He appealed the farmers to apply fertilizers and manures in a balanced manner to get the maximum benefits and to keep the environment cleaner. Dr AK Patra, Director ICAR-IISS Bhopal emphasized on the use of balanced fertilizer for sustaining soil health and crop productivity. Dr Rajesh Kumar, In-charge Director, ATARI, Guwahati, Assam also discussed with farmers about use of balanced fertilizer and increasing interest of farmers towards nano-urea. Dr PK Singh, Principal Scientist, Directorate of Weed Management, talked in detail on the importance of balanced use of fertilisers along with conservation agriculture practices to stop residue burning and use the nutrient in the residues for improving soil health. Dr Rajrshi Roy Burman, Principal Scientist ICAR-IARI, New Delhi, expressed about the use of different macro and micro nutrient elements. On this occasion 7 pamphlets were also released on various aspects of efficient and balanced fertilizer use along with a Video film on this issue (<https://youtube.com/watch?v=oJQH5kfKmgc&feature=share>). The program was co-ordinated by Dr Brij Lal Lakaria, Principal Scientist. Dr AK Vishwakarma, Principal Scientist proposed formal vote of thanks.

Besides, the National Campaign was simultaneously organized and attended by AICRPs and CRP on CA centres throughout the country. Also some of the NGOs like BIAF and Solidaridad also took initiative to be a part of this National Campaign. In all there were about 3500 participants including farmers, students and other stake holders.



Source: ICAR-IISS, Bhopal, Madhya Pradesh

ICAR - CIAE Celebrated International Yoga Day- 2022

Bhopal, 21 June 2022. The 8th International Yoga Day was celebrated at ICAR-Central Institute of Agricultural Engineering, Bhopal. The theme of this year's International Day of Yoga was "Yoga for Humanity". Dr Manoj Kumar Tripathi, the Nodal Officer of International Yoga Day of the institute, welcomed everyone present in the programme and gave detailed information of various programs to be organized during the day. The program was inaugurated with great enthusiasm and joy under the Chairmanship of Institute Director, Dr C R Mehta. In the event, Yoga Guru Shri Mahesh Agarwal ji threw special light on the practice of Yoga and its importance in day to day life. In the event, the officers, employees and students of the institute participated and practiced yoga during the session. On the occasion, Shri Mahesh Agarwal ji also administered a pledge for regular yoga practice. On the occasion, a quiz competition was also organized which was conducted by scientists Ajay Yadav and Harsha Wakudkar. The employees and students of the institute participated in this quiz competition, in which the winning participants were also awarded.

Source: ICAR-CIAE, Bhopal 462038, Madhya Pradesh



ICAR-NBAIR celebrated International Yoga Day celebrations YOGA FOR HUMANITY

Begaluru, 21 June 2022. Smt Rajalakshmi Sampath kumar, Yoga Instructor, Art of Living, Bengaluru, Karnataka was the Chief Guest. She was assisted by a Yoga volunteer, Smt Mamatha from Art of Living,

Bengaluru. The programme started with welcome address by Dr M Nagesh, Acting Director, ICAR-NBAIR, Bengaluru followed by lighting of the lamp by dignitaries. The inaugural session was facilitated by Dr K Sreedevi, Shri Mathew, Smt Naziya Anjum, Shri Maruthi Mahanth, members of the IYD 2022 Committee. The Yoga Instructor and the Chief Guest, Smt Rajalakshmi later briefed the benefits of Yoga in the context of this years' theme 'Yoga for Humanity'. Thereafter the Yoga asanas were performed by the Staff of NBAIR as instructed and guided by Smt Rajalakshmi and the volunteer, Smt Mamatha. The Yoga session was ended by prayer followed by vote of thanks by Dr Richa Varshney, Scientist, ICAR-NBAIR.



Source: ICAR-NBAIR, Bengaluru, 560024, Karnataka

International Day of Yoga organized at ICAR-CRIDA

Hyderabad, 21 June 2022. On the occasion, about 50 staff members (scientists, technical, administrative and supporting staff, senior research fellows, young professionals and contractual staff) participated in the event. Dr S S Balloli, Principal Scientist welcomed Dr V K Singh, Director, ICAR-CRIDA and the other participants to the International Yoga Day celebrations and apprised about the yoga theme of this year - Yoga for humanity. Dr V K Singh, Director, ICAR-CRIDA in his address asked the participants to make yoga their daily part of the life for leading healthy and stress-free life the participants performed yoga *asanas* (e.g. Yoga Nidra, Pranayama, Dhyana, etc) as demonstrated in the Common Yoga Protocol video developed by Ministry of Ayush, Government of India.



Source: ICAR-Central Research Institute for Dryland Agriculture Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

Celebration of International Day of Yoga as Festival of Yoga and Wellbeing

Dehradun, 21 June 2022. The eighth International Yoga Day was celebrated at ICAR-Indian Institute of Soil and Water Conservation, Dehradun and its eight Research centres located at Agra (Uttar Pradesh), Bellary (Karnataka), Chandigarh, Datia (Madhya Pradesh) Koraput (Odisha), Kota (Rajasthan), Udhagamandalam (Tamilnadu) and Vasad (Gujarat). The practice sessions of Yoga were held under the guidance of yoga trainers or local experts. Participants at headquarter as well as Research centres includes staffs, their family members, regular officer trainees, project staffs and student trainees. A total 446 participants attended daily yoga session for 5 days, yoga and motivational speech.

A talk on Art of Divine balance for happy family life was delivered by Er Rajesh Dave, Co-founder of Team FARM Bridge Foundation for CSR in Farmers & Rural Women empowerment. The talk session was conducted and coordinated by Er SS Shrimali, Dr D Mandal with technical/virtual support of Shri Amit Kumar. The various events at the Institute level in the Festival of Yoga and Wellbeing were coordinated by the nodal officer Dr Gopal Kumar under the guidance of the director of the Institute. In the closing ceremony Dr PR Ojasvi credited daily yoga practice since childhood for his nil medical bills till date. Shri SK Gajmoti appreciated the approach of explaining yoga benefits by Swami Prem Tirth and mentioned the need of greater resolve for adoption of Yoga Practice in daily life. Dr M Madhu appreciated the scientific explanation of impact of yoga and with reference of various experiments worldwide presented by the Swami Prem Tirth.



Source: ICAR-IISWC, Dehradun-248195 (Uttarakhand)
Amit Chauhan <amit.cswcrti@gmail.com>

Celebration of International Yoga Day and Kisan Goshthi Program Held



Washim, 21 June 2022. On the occasion of Amrut Mahotsava of Independence, Krishi Vigyan Kendra Washim, NABARD, Fisheries Department and New Delhi based Fish Federation jointly organized Kisan Goshti and Krishi Janajagruti program on the occasion of 8th International Yoga Day at VIDATA Training Center Washim. The program was presided over by Dr R L Kale, Senior Scientist and Head Krishi Vigyan Kendra and Shankar Kokadwar, Assistant General Manager, NABARD was present as the inaugural speaker. On this occasion Assistant Commissioner of Fisheries Shri M V Jayaswal Washim District Fisheries Association President Wamanrao Ambhore, District Campaign Manager of UMED Sudhir Khuje, Manager of Fish Federation Daulatram Chaudhary, Satish Kumar, Amita Jain of Fisheries Department, Ashutosh Jadhav, Yoga Instructor Nandkishor Kamble were mainly present. The event was attended by a large number of fishermen as well as members of women's self-help groups, groups in the UMED project, and members of the FPO. The program was moderated by Amita Jain, Assistant Fisheries Officer and thanked by Ashutosh Jadhav.

*Krishi Vigyan Kendra, Karda
Tq. Risod, Dist. Washim (M.S.) 444506*

Celebration of 8th International Yoga Day at ICAR-Indian Institute of Horticultural Research Hesaraghatta

Bengaluru 21 June 2022. This year, the Ministry of AYUSH has coined the theme “Yoga for Humanity” and to celebrate IYD at heritage, historical places

or near water bodies, ICAR-Indian Institute of Horticultural Research, Hesaraghatta, Bengaluru in collaboration with AYUSH Department, Bengaluru Urban District and Gram Panchayat, Hesaraghatta celebrated the International Yoga Day at the premises of Hesaraghatta Lake, Bengaluru. After welcome address, IYD protocol was demonstrated by Dr Niranjana, Yoga instructor and students from AYUSH Department, Bengaluru Urban District. Dr Debi Sharma, Director (I/c.), ICAR-IIHR, explained the theme of Yoga day-2022 and why Hesaraghatta lake was chosen. More than 500 participants including scientists and staff from ICAR-IIHR, staff and students from Adichunchanagiri Ayurveda College, Sanatana Ayurveda College, Hesaraghatta High School, Gram Panchayat President and Members, nearby villagers participated in this historic event.

Sensitization workshop on Incubation and Business Development for Ayurveda Students organized

Anand, Gujarat, 28 June 2022. ICAR-Directorate of Medicinal and Aromatic Plants Research (ICAR-DMAPR), Anand, Gujarat with its Medi-Hub, Technology Business Incubator (Medi-Hub, TBI) organized a sensitization workshop on Incubation and Business Development for the students of Ayurveda here today.

Dr Satyanshu Kumar, Director (Acting), ICAR-DMAPR, Anand presided over the function. Dr R Nagaraja Reddy, Sr. Scientist, ICAR-DMAPR and Dr Kishana Kishore, Professor, Department of Dravyaguna, JS Ayurveda College, Nadiad were present.

Dr Kumar, in his address highlighted need of incubation and business development in the medicinal and aromatic plants. Dr Kishore, in his address highlighted the scope of business development in Ayurveda. Dr Reddy, presented on overview of Medi-Hub, TBI and its services to bring in start-ups in agriculture in general and herbal sector in particular. A video film on Medi-Hub TBI was showcased to the students. Over 100 students pursuing Ayurveda at J.S. Ayurveda Mahavidyalaya, Nadiad, Gujarat along with their faculties participated in the event.

Source: ICAR-DMAPR, Anand, Gujarat



International Linkages

International Workshop on “Climate Proofing of Watershed Development Projects with special reference to Soil and Water Conservation Technologies in context of Climate Smart Agriculture”

Ooty, Hybrid, 2-3 May 2022. ICAR-Indian Institute of Soil and Water Conservation, Research Centre,



Udhagamandalam has organized a NABARD funded International Workshop in collaboration with KSCSTE-Centre for Water Resources Development and Management (CWRDM), Calicut, Kerala at Ooty in a hybrid mode. The workshop was attended by about 480 participants involving world leading climatologists from India, USA, Germany, Egypt, Lebanon, etc. Shri A Annadurai, IAS, Director of Agriculture, Government of Tamil Nadu, Prof P V Vara Prasad, Director, Sustainable Intensification Innovation Lab., Kansas State University (USA), Shri T Venkatakrishna, CGM, NABARD Chennai Region joined as special guests through virtual platform. Dr K Kannan, Head, ICAR-IISWC, Research Centre, Udhagamandalam welcomed all the delegates attended.

The workshop started with a special guest address by Prof P V Varaprasad, who outlined the importance of various sustainable developmental approaches under climate change scenario to ensure food and nutritional security at global level. In his welcome address, Shri T Venkatakrishna, discussed about the NABARD initiatives both at regional level and national level to address the issues related to climate change.

Shri A Annadurai, IAS, discussed about the need for multi institutional approach for climate proofing the watershed projects in Tamil Nadu state for doubling the farmers' income. The Guest of Honour, Dr Monika Rana, IAS, Project Director, Special Area Development Program, urged for harnessing the research advances made in soil and water conservation technologies to provide farmer centric solutions to the lingering agricultural problems in the Nilgiris region through SADP programme. Dr Pradip Dey, Project Coordinator, All India Co-ordinated Project (STCR) stressed the need for proper nutrient management in different production systems under changing climate scenario to achieve the sustainability. Dr M Madhu, Director, ICAR-IISWC, Dehradun and Convenor of the workshop in his presidential address accentuated the need for development of location specific mitigation and adaptation strategies to conserve the natural resources and to ensure the food and nutritional security to the future generations.

Chief guest Dr A K Sikka, Former DDG (NRM), ICAR and India representative IWMI, New Delhi., emphasized the need to mitigate the impacts of climate change

through Greenhouse Gas (GHG) mitigation, nutrient cycling and by promoting carbon credit policy. Keynote addresses were delivered by Prof V Geetha Lakshmi, Vice-Chancellor, TNAU, Coimbatore; Dr J S Samra, Former DDG (NRM), ICAR & Sr. Consultant, CRRID, Chandigarh; Prof. Dirk Hölscher, Tropical Silviculture and Forest Ecology, Faculty of Forest Sciences and Forest Ecology, Georg-August-Universität, Göttingen, Germany; Dr Ajit Govind, Climatologist, ICARDA, Lebanon; Dr Karam A Elzopy, Professor, Alexandria University, EGYPT; Prof R Srinivasan Director, State Spatial Laboratory, USA, Er. Rathakrishnan, Executive engineer from Agricultural engineering department, Dr Chitra Devi, Joint Director (Agri.) and Dr Sibhila Mary, Joint Director of Horticulture and Dr U Surendran and Dr Arun from CWRDM and many other scientists participated in the farmers-scientists interaction and answered the queries from the states of Tamilnadu, Kerala and Karnataka. The workshop was continued by means of field visit in the next day. The workshop ended with a plenary session and concluding remarks by the Convenor Dr M Madhu and vote of thanks by the Dr P Raja, Principal Scientist and Organizing Secretary.

Source: ICAR-IISWC, Dehradun-248195 (Uttarakhand)
Amit Chauhan <amit.cswrcrti@gmail.com>

ICAR-NBAIR exhibited at International Agriculture and Horti Expo

Pragati Maidan, New Delhi, 17-19 June 2022. ICAR-NBAIR accordingly facilitated an exhibition stall at the International Agriculture & Horti Expo, held during 17 - 19 June 2022 at Pragathi Maidan, New Delhi. A supporting Tribal sub plan hand holding and empowerment of Tribals of Araku, Andhra Pradesh and Idukki, Kerala, four FPCs viz., Lambasingi Tribal Products, Lambasingi, Visakhapatnam, Andhra Pradesh; Susag Millets Producer company Ltd. Anakapalle, Visakhapatnam, Andhra Pradesh; Sarada Valley Development Samithi, Araku, Visakhapatnam, Andhra Pradesh; Chinnakanal Tribal Society, Idukki, Kerala and Krishi Vigyan Kendra, Kondempudi, ANGRAU, Visakhapatnam, A. P., RARS, Anakapalle, ANGRAU, Visakhapatnam, A. P., Krishi Vigyan Kendra, Idukki, Kerala have been promoted to display their products. ICAR-NBAIR utilized TSP fund to hire a stall and provided space to exhibit their organic products

of Millets, Honey, Cardamom, Clove, Black Pepper, Turmeric, Jackfruit powder, Coffee etc. Driving the exhibited as a part of the programme on empowering Tribal Farming community through ICAR-Tribal Sub Plan Programme in Araku valley, a technology on Jackfruit seed powder was transferred and licensed to the FPO in the Araku valley in collaboration with ANGRAU-KVK, Kondempudi and ICAR-Indian Institute of Horticultural Research, Bengaluru (2021-22). Further a website was launched from KVK, Kondempudi, Andhra Pradesh to showcase the products developed by the tribals. A similar TSP programme was carried out in the Iddukki, Kerala with the support of KVK, Idukki. There was an opportunity to provide a platform for showcasing the developments achieved under TSP at International Agriculture & Horti Expo.

Dr Kolla Sreedevi, Principal Scientist and Shri R Maruthi Mehanth, Technical Assistant from ICAR-NBAIR, Bengaluru; Dr S Sudhakar, Scientist, KVK, Idukki; Mr. Golla Sunil Kumar, CEO, Lambasingi Tribal Products, Visakhapatnam; Sushri S Chinnatalli and Sushri Ulli Jyothi, Susag millets producer company Ltd, Anakapalle have actively represented in the

The stall of ICAR-NBAIR bagged the first prize award for Best Display in the International Agriculture & Horti Expo.



Stall of ICAR-NBAIR bagged the first prize award for Best Display



Various dignitaries visiting the stall of ICAR-NBAIR at Expo

Source: ICAR-NBAIR, Bengaluru 560024, Karnataka

MoU Signed Between ICAR-IISWC and CCSU University and 5 other Institutes

The Indian Institute of Soil and Water Conservation (ICAR-IISWC), Dehradun and Chaudhary Charan Singh University (CCSU) Meerut signed an MoU to promote an inter-institutional collaborative research, and academic engagements in areas of common causes.

Dr M Madhu, Director in presence of Dr M Muruganandam, Principal Scientist and OIC (PME Cell), Dr Raman Jeet Singh and Dr Sadikul Islam, Scientists on behalf of the IISWC, Dehradun and Prof. Sangeeta Shukla, Vice Chancellor in presence of Prof. Y Vimala, Pro-VC and Chairperson, IQAC, Sh Dharendra Kumar, Registrar, Prof. Beer Pal Singh, Proctor, Prof. Bindu Sharma, Prof. SS Lal, Prof. Neelu Jain Gupta, Prof. Sanjay Bharadwaj, Prof. Ashok Kumar Chaubey, Prof. Dushyant Kumar Chauhan of the CCSU signed the MoU.

Dr Madhu emphasized that the MoU is aimed to stimulate and facilitate collaboration and promote mutually interested common programs that help advance the interests of the scientific studies and societal development.

Dr Sangeeta Shukla called for the active collaborations in diverse fields of science and technologies, especially between the Faculty of Science and Faculty of Agriculture of the CCSU and the IISWC. Dr Muruganandam informed that the MoU is in line with the growing need for improving collaborations and linkages between research organizations and academia in order to strengthen quality education, research and production of quality human resource pool in various spheres of science and technology. As a mark of the beginning of the MoU, he presented a invited seminar on the “science of rivers and their management”.

Dr Vimala shared the views on the needs of the collaborations in current scenarios of education especially in light of new education polices and growing perspectives of the knowledge spectrum.

Dr Bindu Sharma facilitated the discussions during the MoU at the CCSU. Dr Shailendra S Gaurav, Dean Agriculture Sciences and M K Gupta, Dean Faculty of Sciences of the CCSU deliberated in the discussions during the MoU signing.



The ICAR-IISWC also Inked MoUs with 5 Other Institutions

i. With Indian Institute of Remote Sensing (IIRS, ISRO), Dehradun, Uttarakhand

Dr M Madhu, Director, IISWC and Dr Prakash Chauhan, Director, IIRS in presence of Dr Suresh Kumar, Group Head, Agriculture & Soils Department of the IIRS and Dr NK Sharma, Head, SS&A, and Dr M Sankar, Scientist of the IISWC signed the MoU.

ii. With the KPR Institute of Engineering and Technology (KPRIET), Coimbatore, TN

Dr K Kannan, Principal Scientist and Head, Regional Center, IISWC Udhagamandalam, Tamilnadu on behalf of the Director, IISWC in presence of Dr P Raja, Principal Scientist and Dr Sudheer Kumar Annepu, Scientist of the IISWC signed the MoU. Dr M Akila, Principal in presence of Dr AK Priya, Professor of the KPRIET signed the MoU.

iii. With Banaras Hindu University (BHU), Varanasi, UP

Dr M Madhu, Director in presence of Dr M Muruganandam, Principal Scientist and OIC (PME Cell) and Dr U Mandal, Scientist of the IISWC and Dr Neeraj Tripathi, Registrar in presence of Dr Ramesh Chand, Director and Head, Dept of Farm Engineering of the BHU signed the MoU.

iv. With Lovely Professional University (LPU), Jalandhar, Punjab

Dr M Madhu, Director in presence of Dr M Muruganandam, Principal Scientist and OIC (PME Cell) and Dr Raman Jeet Singh, Scientist of the IISWC and Dr Monica Gulati, Registrar in presence of Dr Ramesh Kumar Dean, HoS, and Dr Gurpreet Singh, Associate Professor, School of Agriculture of the LPU signed the MoU.

v. With the Shivalik College of Engineering (SCE), Dehradun, Uttarakhand

Dr M Madhu, Director in presence of Dr D V Singh, Principal Scientist and Head, HRD&SS, Dr M Muruganandam, Principal Scientist and OIC (PME Cell) and Dr M Sankar Scientist of the IISWC and Prof. (Dr) Prahlad Singh, Director in presence Dr Mohd Danish, Dean, Research and Monitoring and Dr UC Gupta, Dept of Applied Science of the of SCE signed the MoU.

The MoUs are aimed at bringing wide spectrum of collaborations and would benefit the whole range of colleges and the Institutions functioning under the partner Institutions, especially the students, scholars and faculty members Also, would add value to the courses that require excellent learning, requisite expertise, rewarding qualification, and practical exposure, hands-on-learning and desired skills for a successful career.

The potential areas of collaboration discussed included are research, training, capacity building, experience sharing and knowledge management in

the diverse domain of natural resource management, soil-water conservation, wetland management, water quality assessment and management, and assessment and promotion of indigenous and traditional crops towards sustainable environment, livelihoods and economy.

All the Institutions associated with the MoUs are ought to benefit from the long-standing experience of the IISWC and multifarious potentials of the partners.

Source: ICAR- Indian Institute of Soil & Water Conservation
218-Kaulagarh Road,
Dehradun, Uttarakhand, India -248 195

ICAR-NAARM inked MoU with University of Hyderabad and ICAR Institutes

Hyderabad, 8 April 2022. The ICAR-National Academy of Agricultural Research Management, Hyderabad signed the Memorandum of Understanding (MoU) with the University of Hyderabad. Shri B D Phansal, Joint Director (Administration) & Registrar, ICAR-NAARM and Dr Devesh Nigam, Registrar, University of Hyderabad signed the MoU on the behalf of their respective Organizations. This is the 4th time renewal of the MoU since 2010 in implementing the Academic Programmes on Education Technology Management and Technology Management in Agriculture.



ICAR-NAARM Signs MOA with ICAR Institutes

ICAR-NAARM signed Memorandum of Agreement with 10 ICAR Institutes viz., ATARI, Bengaluru; NINFET, Kolkata; NIPB, New Delhi; DWR, Jabalpur; NCIPM, New Delhi; NRC on Camel, Bikaner; DCFR, Bhimtal on 14 May 2022. Uttarakhand; ICAR RC for ER, Umiam, Meghalaya; CRIDA, Hyderabad and CIAE, Bhopal at the Academy in presence of Dr Trilochan Mohapatra, Secretary, DARE & DG, ICAR. The MoA has been signed with the aim to support start-ups in agriculture and allied sector for organizing co-events, co-incubation, value-added services, extending lab facilities, co-networking etc.



Source: ICAR-NAARM, Rajendranagar, Hyderabad-500030

Asian Solanaceous Round Table (ASRT) - 2022 begins at ICAR-IIHR and ICAR inks MOU with Asia and Pacific Seed Alliance Ltd., Singapore

Bengaluru, 11-13 May 2022. Asian Solanaceous Round Table (ASRT) - 2022 was inaugurated at ICAR-Indian Institute of Horticultural Research, Bengaluru on 11 May 2022. ASRT-2022 was jointly organized by Society for Promotion of Horticulture, ICAR-IIHR, Bengaluru and Asia Pacific Seed Association (APSA), Bangkok, Thailand at ICAR-IIHR, Bengaluru.



The inaugural session was graced by Dr A K Singh, Deputy Director General, (Hort. Sci.), ICAR, New Delhi, Dr Ramakrishnan M Nair (Regional Director - South and Central Asia) Dr Vikramaditya Pandey, ADG (HS), Dr B N S Murthy (Director, ICAR-IIHR & President, SPH) Dr Manish Patel (Vice President, APSA), Dr Conrado Balatero, Chair ASRT-4, Organizing Committee and Member of R and D AG, APSA/ Group Head Breeding, East-West Seeds Pvt. Ltd., Dr Seetharam Annadana, Chair, APSA R&D. In his presidential opening remarks, Dr A K Singh, DDG (Hort.) shared his vision and highlighted the need for development of varieties/ hybrids in solanaceous vegetable crops for changing climatic scenario and he emphasized the need for strengthening public private partnership in achieving the breeding goals in these crops. Dr B N S Murthy (Director, ICAR-IIHR & President, SPH) introduced the delegates to ongoing research and development activities at ICAR-IIHR. Later Dr C Aswath, Vice-President, SPH, highlighted the role of SPH in promoting horticulture. Dr Vikramaditya Pandey, ADG (HS), ICAR briefed about MoU and roles and responsibilities of partners (ICAR and Asia and Pacific Seed Alliance Ltd., Singapore) for cooperation of agricultural research and education. More than 200 delegates from 52 countries working on Solanaceous vegetable crops (Tomato, Hot pepper, Sweet pepper and Eggplant) are participating in the three days event. In an Historical Step, ICAR, New Delhi signed Memorandum of Understanding (MoU) with Asia and Pacific Seed Alliance Ltd., Singapore for public private partnership in research and development.

Nodal Officer, PME Cell, ICAR-IIHR <pme.iihr@icar.gov.in>

ICAR- CCRI, Nagpur Signs MoU for Production of Disease-free Citrus Plants

Nagpur, 23 May 2022. ICAR-CCRI has standardized the protocol for containerized nursery production system for citrus. Considering the demand of about 20 million plants of various commercial citrus cultivars in India for new plantation as well as for replanting of gaps within an existing orchard, ICAR-CCRI is promoting the nursery production through PPP mode as it is very difficult to meet this demand by the Institute alone. In this direction ICAR-CCRI, Nagpur signed MoU for Containerized Nursery Propagation Technique to Produce Disease-Free Citrus Planting Material with M/S Jai Hind Nursery, Bhiwadi, Dist. Alwar, Rajasthan.

Dr Dilip Ghosh, Director, ICAR-CCRI, Nagpur and Shri Anil Kumar, Managing Director, M/s. Jai Hind Nursery signed the MoU on the behalf of their respective organization. Also, present were Dr Ashutosh Murkute, Principal Scientist (Horticulture) & Nodal Officer and

Dr G T Behere, Pr. Scientist (Entomology). Dr Dilip Ghosh, Director stated that this partnership is aimed to facilitate a close cooperation between both the parties and would be a mile stone in the area of production of disease-free quality planting material Citrus in India.



Source: ICAR-CCRI Kachinmet, Nagpur, Maharashtra 440033

Capacity Building

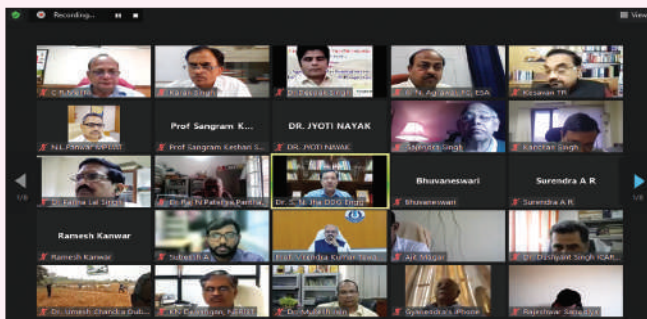
National Campaign on Farm Mechanization by ICAR-Central Institute of Agricultural Engineering

Bhopal, 28 March 2022. Under the National Campaign on Farm Mechanization, ICAR-Central Institute of Agricultural Engineering, Bhopal organized **Training Cum Technology Demonstration Meet on Agricultural Machinery** on 28 March 2022 to highlight the importance and utilization of agricultural tools, equipment and machinery. During the day, the modern technology and machinery were live demonstrated to the farmers on fields. More than 450 farmers, women, scientists and officers participated in the programme. The latest Drone technology suitable for agricultural work was also demonstrated, besides creating awareness among the farmers about agricultural machinery suitable for crop residue management.



In the inaugural session, Dr CR Mehta, Director, ICAR-CIAE, Bhopal highlighted the importance of newly developed agricultural machinery and technology to enhance the production and productivity, and also emphasized the benefits of natural farming and agricultural entrepreneurship. Shri Vishnu Khatri, Hon'ble MLA, Berasia constituency, grace the occasion as a Special Guest. He distributed agricultural tools to trainee farmers under Schedule Caste Sub Plan (SCSP Scheme). Dr S Mangraj, Principal Scientist shared the details of SCSP scheme for the notice of honorable MLA and others.

On 4 April, 2022, a Webinar on **Agricultural Mechanization in India - Challenges and Perspective** was organized as one of the event of **National Campaign on Farm Mechanization**. The webinar was chaired by Dr SN Jha, DDG (Agril. Engg), ICAR, New Delhi and co-chaired by Dr Kanchan K Singh, Assistant Director General (Farm Engg), ICAR. Prof. V K Tewari, Director, Indian Institute of Technology, Kharagpur and Shri TR Kesavan, Group President (Corporate Relations and Alliance), TAFE Limited, Chennai were the speakers. The webinar was attended by scientists of ICAR-CIAE, Bhopal, ICAR-CIPHET, Ludhiana, NRFMTTI, Hisar, different centres of AICRPs and CRPs and other ICAR institutes, eminent scientists from different parts of the country and abroad, manufacturers and PG students. Total 230 participants attended the programme.



Dr V K Tewari, Director, IIT, Kharagpur and Chief Guest at this occasion delivered a talk on **Challenges and Opportunities of Smart Farm Mechanization in India**. Shri TR Kesavan, Group President (CR), TAFE Limited, Chennai and Guest of Honour delivered a talk on **Tractor and Agricultural Machinery Industry - Status and Way Forward**. Dr Gajendra Singh, Former DDG (Engg) and Dr Gyanendra Singh, Former Director, ICAR-CIAE, Bhopal also shared their views on future approach towards mechanization in India. Dr UR Badegaonkar, Head TTD proposed vote of thanks to all the participants and speakers.

Source: PME Cell, ICAR-CIAE Bhopal

ICAR-Indian Institute of Soil Science, organized National Campaign on Farm Mechanisation

Bhopal, 28 March to 4 April 2022. On this occasion, various activities were organized posters on crop residue management were displayed at main gate and office premises. Farmers from various villages who visited institute during this period were introduced with modern farm implements i.e. happy seeders, grass cutter, different types of seed drills etc. On 4 April 2022 training-cum-interactive meet was organised at ICAR-IISS, Bhopal. In this meet, 53 farmers participated and were enriched with the knowledge of modern farm implements, modern techniques/practices for crop residue management. The event was presided by Dr Ashok K Patra, Director ICAR- IISS, Bhopal, highlighted the importance and role of farm mechanisation in farming particularly conservation agriculture. Dr M Din (Principal Scientist CIAE) discussed in detail about farm implements and farm mechanisation. Institute scientists interacted with the farmers on crops, soil and weed related issues. On this occasion agricultural inputs were also distributed by SCSP project.



ICAR- Indian Institute of Soil Science, Bhopal, Madhya Pradesh 462038

Summer Groundnut Field Day and Jal Shakti Awareness Program



Khadki Sadar, Washim, 11 April 2022. The awareness programme was chaired by Sarpanch Shri Vitthal Kondji Sadar in chief presence of progressive farmer Shri D K Sadar, Subhash Sadar, Police Patil Prakash Dhande, Manik Sadar and Lodji Sadar. Shri T S Deshmukh Agronomist, Shri S K Deshmukh Nodal Officer NTI KVK Washim and Shri D D Idhole Agriculture Assistant were present as speakers for the program.

After welcoming the guest Shri S K Deshmukh Nodal officer NTI KVK Washim elaborated the importance of FLD approach and discussed the need of soil testing and use of balanced fertilizers use. Further he added importance of water conservation practices and administered water pledge under Jal Shakti Abhiyan for all the participating farmers. KVK expert Shri T S Deshmukh Agronomist emphasized the recommended package of practices for summer green gram and groundnut crop. He has also replied queries raised by farmers. Shri D D Idhole, Agriculture Assistant Representative of the Department of Agriculture, highlighted the various schemes of the Department of Agriculture and gave method demonstration for seed germination test to the farmers.

The Sarpanch of the village and the Chairman of the program Vitthal Sadar expressed satisfaction over the organization of the program and requested farmers to cultivate crops in a scientific manner.

The program received a huge response from the progressive farmers and young farmers of the village. The program was moderated by T.S Deshmukh and thanked by G S Kale.

Krishi Vigyan Kendra, Karda
Tq. Risod, Dist. Washim (M.S.) 444506

Celebration of National campaign on Farm Mechanization

Ranga Reddy, 4 April 2022. ICAR-Central Research Institute for Dryland Agriculture (ICAR-CRIDA) organized a Field day on **"Mechanization practices for crop residue management"** at Chaudharpally, KVK-CRIDA adopted village, Ranga Reddy District, Telangana State in connection with National Campaign of Farm Mechanization to celebrate Azadi ka Amrit Mahotsav, 28 March to 4 April 2022.



Introduction of Crop Residue Management and Available

The programme was attended by more than 50 farmers of nearby villages. It was conducted at Rytuvédika of the village. Dr I Srinivas, Principal Scientist, Farm Machinery, explained about importance of Mechanization of crop residue management to the farmers and utilization of different crop residues available in the rainfed ecosystem like redgram, cotton, maize etc. Dr G Pratibha, Principal Scientist, Agronomy, focused on importance of available nutrients in crop residues and different agricultural practices for crop residue management. Er. Ashish Dhimate, Scientist, explained about machinery available for utilization of farm yard manure (FYM) and its advantages in the fields. Er. Vijaykumar briefed about the programme and benefits of mechanization at on farm level.



During the Campaign posters of Mechanization practices for crop residue management were displayed at Haythanagar and Gunegal Research Farm of ICAR-CRIDA to give wide publicity among the farmers and stakeholder who are visiting to farm. After the meeting, on farm demonstrations of tractor operated shredder, Round baler and brush cutter were conducted in field. Many farmers expressed their willingness to adopt the residue management techniques.

ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

ICAR-NAARM Organized Startups and FPOs/FPCs Immersion Program in Collaboration with NABARD

Warangal, 4 May 2022. ICAR-NAARM, Hyderabad organized “Farmers, FPO’s/FPC, Startups Immersion Program” at Warangal in collaboration with NABARD. The objective is to connect the start-ups associated with a-IDEA Technology Business Incubator with FPO’s of Warangal District.

Shri Sushil Kumar, GM, APGVB, Shri Sathyam DGM, Union Bank of India, Shri Chandra Shekar, DDM, NABARD and Shri Ravi, DDM, NABARD and Dr V V Sumanth Kumar, Principal Scientist, ICAR-NAARM addressed the gathering about the importance of startups and support from various funding agencies to FPOs and Startups.

Dr B Gopi, IAS, District Collector, Warangal highlighted the problems faced by small & marginal farmers and the lack of required MSP for their produce and the role of FPO’s in this agricultural ecosystem. He also mentioned the capital requirement and the need of board of director’s intervention in making decisions in FPO’s activities. He also interacted with startups and FPO’s by stressing the importance of capacity building programs to the FPO’s for bringing more awareness among the farmers.



ICAR-NAARM, Hyderabad, Telangana 500030

ICAR-NAARM organized Demo Day for Startups and Investors under AGRI UDAAN 4.0

Hyderabad 21 May 2022. The TBI of ICAR-NAARM, organized Demo Day under Agri Udaan 4.0. This is the fourth food and agribusiness accelerator program initiated by a-IDEA supported by NABARD. The objective of this program was to catalyze food and agribusiness startups and provide them a unique platform to pitch their ideas before investors for scaling up to the next level by raising funds.

The event was attended by 10 startups selected out of 200 applications under Agri Udaan 4.0 and 25 Investors from different parts of the country. This program has helped the startups to network with investors to raise the funds and cross learn. There was a pre-demo day during 19-20 May, 2022 where these startups were groomed to effectively present their ideas/ products.

While delivering presidential address, Dr Ch Srinivasa Rao, Director, ICAR-NAARM appreciated the activities of a-IDEA and highlighted the different policy papers published by ICAR-NAARM for the benefit of FPOs, entrepreneurs, etc.

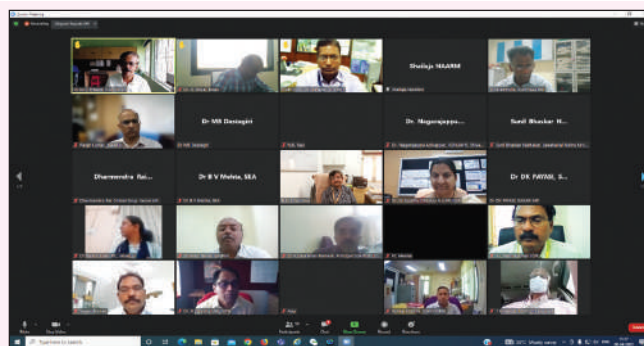
Dr G Venkateshwarlu, Joint Director, ICAR-NAARM highlighted the activities of aIDEA in promoting startups in rural sector and enhancing the competency of startups through effective technical and business mentoring. In his special address, Shri S Somasundaram, DGM, NABARD, appraised about the support provided by NABARD to a-IDEA in strengthening startups through accelerator program and seed fund support.



ICAR-NAARM, Hyderabad Telangana 500030

National Workshop on Self-Sustainability in Edible Oils in India

Online mode 20 April 2022. A one-day brainstorming workshop on the subject was organized by the Academy to identify the crucial issues and suggest measures and strategies for attaining self-sustainability in edible oils by the country. The workshop was attended online by 69 Delegates from various sectors - research, extension and policy in addition to 15 faculty members from the Academy. 12 experts in different areas of the subject spoke on various topics pertaining to edible oil industry in India. Major recommendations are drawn at the end of the program such as Crop diversification to accommodate oil seed/ oil palm crops by reducing wheat and Paddy area, MSP to oil seed crops to increase production, taking oilseed areas to irrigated cultivation, Contract farming of oilseed crops may also be tried and Custom hire centers to be promoted to benefit reach of multiple farm machinery especially to small/ marginal farmers. The recommendations from the workshop will be compiled in the form of policy document.



Krishi Vigyan Kendra, Karda

Certificate Course (123rd batch) on “Soil and Water Conservation and Watershed Management”



Dehradun, 22 April 2022. The inaugural function of the 4 months Certificate course on ‘**Soil & Water Conservation and Watershed Management**’ was held at ICAR- Indian Institute of Soil & Water Conservation. A total of 26 trainees represented 7 different states (Nagaland-2, Chhattisgarh- 4, Punjab-9, Kerala-1, Madhya Pradesh-4, Uttarakhand-2, and Meghalaya-4) attending the four month course. In the inaugural address, Dr N K Sharma, I/C Director of the institute emphasized on the importance of conservation of natural resources and how this training program helps to percolate knowledge to different stake holders through the officer trainees to all parts of the country. Dr D V Singh, Head I/C, HRD & SS division presented the formal welcome address and briefed about the training program and he emphasized how the training program equally focuses on theory and practical modules to teach the **know-how** and **do-how** to the officer trainees and is a unique program on the aspect of **Natural Resource Management**. The inaugural function was attended by Dr Charan Singh, I/C Head, Plant Science Division, Dr Lekh Chand, Dr Trisha Roy, Mr Akshay Dheeraj and Sh. Suresh Kumar. At the end Dr Indu Rawat, Scientist and Course Coordinator proposed a formal vote of thanks. Shri K R Joshi, Smt Lata Bhanwar, Shri Kamal Kishore, Shri Rajesh Sharma and Shri Karan Chhetri were actively involved in the successful completion of the inaugural session.

ICAR-IISWC, Dehradun 248195, Uttarakhand

District Level Kisan Mela on Natural Farming and Farmers Scientist Interface Meet Held

Washim, 26 April 2022. Krishi Vigyan Kendra Washim, in collaboration with ATMA organized a one-day District level Kisan Mela on Natural Farming at VIDATA Washim. The program was inaugurated by Shri Narendra Singh Tomar by Hon'ble Minister of Agriculture and Farmers Welfare in virtual mode and Physically it was inaugurated by Deputy PD ATMA Washim Nilesh Thomabare while Dr R L Kale Head & Sr. Scientist chaired the programme. Programme started with ICAR song and by administering the Water pledge under *Jal-Shakti* Mission. Progressive farmers practicing the natural farming, Ravindra Gaikwad and Govind Deshmukh were honored by the dignitaries. Both the farmers shared their practices on natural farming and replied to the queries raised.

Addressing the inaugural session, Shri Thombare briefed about the campaign and suggested measures about micro irrigation system, importance orchard plantation and appeal to adopt organic farming practices. Dr Kale, in his presidential address, highlighted the role of KVK in promoting natural farming methods and capacity building of farmers for organic input production. KVK expert, Shri R S Daware guided on organic input production while Shri T S Deshmukh suggested 4 pillars like jivamrut, beejamrut, wapasa and mulching. Information about oilseed processing and bio-fortified crops was also shared during the interaction by Shubhangi Watane. KVK experts Shri D N Ingole shared his view about integrated farming system and contact farming, while Sunil Patil chair person Agro input association talked about biomass mulching, use of cow dung urine formulations, plant based preparation and time to time working of soil for aeration. District Manager MSRLM Sudhir Khuje, Assistant Director Skill and Self Employment Sunanda Bajaj and Madam Ashalata of Jagruti Seva Kendra also shared their views in line of the workshop. Agriculture exhibition was also arranged at mela site. Farmers, farm women, field workers of UMED project, FPO members, Pani Foundation volunteers and SHGs attended the program in large number. SMS Extension Education Shri S K Deshmukh conducted the proceeding and offered vote of thanks.

ICAR KUK, Washim, Maharashtra, 444506

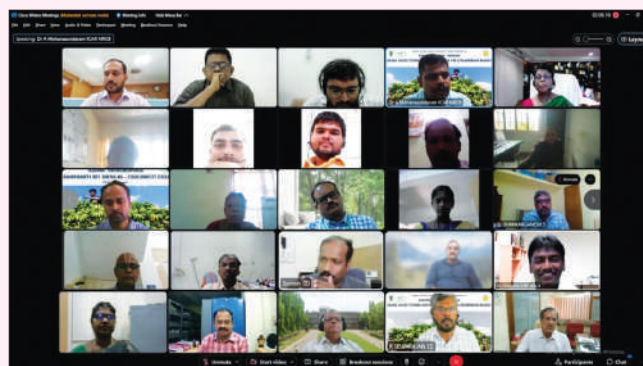
ICAR-NRCB & MANAGE nurtures Agripreneurs from different states for banana start-ups

Virtual, 15-17 June 2022. ICAR-National Research Centre for Banana (NRCB), Tiruchirappalli joined hands with the National Institute of Agricultural Extension Management (MANAGE), Hyderabad, and organized an online 3 days Capacity Development Programme was organized.

Chief Guest of the session, Dr S Uma, Director, ICAR-NRCB, Tiruchirappalli mentioned various technologies developed and entrepreneurial opportunities available with NRCB. She urged the trainees to start their own business venture using the expertise available with NRCB and MANAGE.

The Course Director, Dr C Karpagam, Principal Scientist (Agricultural Extension), NRCB, Tiruchirappalli underlined that horticultural crop, especially banana requires a different extension approach. Dr Sagar Surendra Deshmukh, Training Associate, MANAGE pointed out the role of MANAGE in facilitating business start-ups. The training program covered interactive lectures from expert scientists of ICAR-NRCB, Tiruchirappalli, ICAR-ATARI, Bengaluru, ICAR-IIHR, Bengaluru, MANAGE, Hyderabad, and VIT, Vellore. Further, NRCB technologies, start-up ecosystem in India and Ethiopia, Govt. schemes, and support available for agripreneurship were discussed in detail. Apart, licensing procedure for establishing agribusiness ventures was also deliberated.

More than 100 participants from different states have participated in the programme. Dr A Mohanasundaram, Senior Scientist, NRCB welcome the participants, and a Vote of thanks was delivered by Dr P Giribabu Senior Scientist, NRCB. The coordination assistance was provided by Dr P Ravichamy, Asst. Chief Technical Officer, NRCB, Tiruchirappalli.



MANAGE & ICAR-NRCB ONLINE COLLABORATIVE TRAINING PROGRAMME ON
AGRIPRENEURSHIP THROUGH
BANANA-BASED TECHNOLOGIES – AN AVENUE FOR ATMANIRBHAR BHARAT
(June 15-17, 2022)



MAJOR TOPICS TO BE COVERED

- Business opportunities available with banana improvement, production, protection, and value-added technologies
- Agripreneurship – KVK, ICAR - ATARI, SAUs experiences
- Licensing procedure for establishing agribusiness ventures
- Startups – dynamics and Government support
- Success stories of farmers turned entrepreneurs

WHO CAN PARTICIPATE?

Different stakeholders in banana cultivation viz., central and state government officials from the line departments, students, research scholars, scientists, KVK officials entrepreneurs, faculty from SAUs and ICAR research institutes and progressive farmers.

HOW TO REGISTER

Interested participants may apply their participation through the MANAGE - ICAR - NRCB link.

COURSE DIRECTORS
Dr. S. Uma
Director, ICAR - NRCB
Dr. C. Karpagam
Principal Scientist (Agri. Extension), ICAR-NRCB
Dr. Sagar Surendra Deshmukh
Training Associate, MANAGE

COURSE COORDINATORS
Dr. P. Giribabu
Senior Scientist, ICAR-NRCB
Dr. A. Mohanasundaram
Scientist, ICAR-NRCB

COURSE ASSOCIATE
Dr. P. Ravichamy
Asst. Chief Technical Officer, ICAR-NRCB

Registration link



National Institute of Agricultural Extension Management
(MANAGE), Hyderabad - 500 002, Telangana
ICAR - National Research Centre for Banana
Tiruchirappalli - 620 002, Tamil Nadu

ICAR-NRCB, Somarasempettai, Thayanur, Tamil Nadu 620102

Farmers Awareness Programme on Balanced use of fertilizers and region specific agroforestry

Bengaluru, 21 June 2022. The farmers awareness programme was organised at ICAR-National Bureau of Agricultural Insect Resources. Dr Rajendra Hegde, Principal Scientist & Regional Head, ICAR-National Bureau of Soil Survey and Land use Planning (NBSSLUP) was the Chief Guest of the programme who delivered a talk on 'Balanced use of fertilizers and region specific agroforestry'. The Acting Director of the Institute, ICAR-NBAIR, Dr M Nagesh has given brief introduction of the topic and welcomed the guests and farmers. Around 20 farmers from villages, Konasandra, Gabbadi, Hale Gabbadi, Thoka timmanadoddi, Chikkasadenahalli of Harohalli Block, Kanakapura Taluk, Ramanagara district of Karnataka have attended the programme. After the introduction of farmers, the talk was delivered by Dr Hegde, which was followed by Farmer-Scientist interaction. Dr Hegde explained about the benefits of balanced use of fertilizers and also the soil fertility issues coupled with judicious use of fertilizers in accordance with the requirement of crops. Also the importance and need of agroforestry was highlighted and stressed upon. Dr Nagesh gave an overview of the benefits of slow release neem coated fertilizers, plant/tree species utilized for agroforestry, etc. And assured the farmers with the supply of plant saplings towards promotion of agroforestry in their village through FPOs and KVK, Ramanagara. Later farmers expressed their problems in farming and clarified with the subject experts, Dr Hegde and Dr Nagesh of both the institutes, ICAR-NBSSLUP and ICAR-NBAIR. The programme ended with a vote of thanks by Dr Jagadeesh Patil, Senior Scientist, ICAR-NBAIR. The entire programme was compered by Ms Anitha, P Member of the IYD 2022 committee. Thanks are due to KVK, Ramanagara for supporting the programme through farmers and thanks are also due to Shri Jayaram, Shri Narayanappa and Shri Suresh for all the arrangement of transport and audiovisual system.



ICAR-National Bureau of Agricultural Insect Resources
Bengaluru-560024, Karnataka

Farmer's Online Training on "Improved soybean production technology" organized by ICAR-IISR in association with ITC Ltd.

Virtual, 28 June 2022. In the series of programs being organized under "Azadi Ka Amrit Mahotsav", an online training programme on "Improved soybean production technology" was organized jointly by ICAR-Indian Institute of Soybean Research, Indore and ITC Ltd with the involvement of more than 1000 progressive soya farmers from Madhya Pradesh, Maharashtra and Rajasthan, major soybean growing states of India. The online training programme was webcasted using Zoom platform as well as YouTube Channel of the institute.

At the outset, Institute's acting director Dr Nita khandekar, in her brief welcome, informed about various issues related to the soybean cultivation and the efforts of ICAR-IISR in promoting the agronomic package of practices for its dissemination among the soybean growers. She highlighted the ICT initiative "ICAR-Madhya Bharat Samachar" a weekly programme broadcasted through the institute's YouTube channel covering, news headlines, expert videos and weekly advisories.

During the training programme, Dr S D Billore (Principal Scientist Agronomy) appealed the farmers to adopt the novel methods and agronomic practices especially recommended in view of changed climatic scenario. He said that, farmers are advised to grow 2-3 different varieties of varying maturity duration to averse the risk of damages caused by adverse weather conditions. In another session, Dr Laxman Singh Rajput, Scientist (Plant Pathology) told discussed about the correct sequence of seed treatment, a method involving application of recommended fungicide, insecticide and Bradyrhizobium/PSM culture essentially required to protect the soybean crop different diseases and insects. Another technical session on weed control was discussed by Dr Rakesh Kumar Verma, Scientist (Agronomy) who informed the farmers about methods and approaches including use of recommended herbicide for control of weeds in soybean crop. During the interactive session, Dr B U Dupare, Principal Scientist (Agriculture Extension) highlighted the ICT tools and media being developed and used by ICAR-IISR for taking the technologies and technical know-how useful for soy farmers to increase the productivity levels with minimum cost. He discussed about the YouTube channel, Facebook Page, Farmers group on Telegram as well as WhatsApp, Instagram and Twitter account whereby the institute is disseminating the scientific information on soybean.

During programme, Shri Rakesh Mohan Rawat, Associate Manager (Agriculture Services) ITC Limiteds appreciated efforts of ICAR-IISR for promotion of

technologies and called for strengthening institute's association with ITC in the coming days.

The training programme was concluded with the vote of thank proposed by the Coordinator Dr Savita Kolhe, Principal Scientist.



ICAR-Indian Institute of Soybean Research, Khandwa Road, Indore-452001

ICAR-NRRI, Cuttack joins hands with ICAR-CIFT, Cochin in launching a collaborative nutritional campaign on 'Inclusion of fish in daily diet' under World Fish Project

Cuttack, Odisha, 29 June 2022. As part of the collaborative programme of ICAR-CIFT, Cochin and ICAR-NRRI, Cuttack under WFC-ICAR W3 (CGIAR) project, Krishi Vigan Kendra, ICAR-NRRI, Cuttack organised an Awareness -cum-Demonstration Programme on "Inclusion of Fish in Daily Diet for Health Promotion".

Chairing over the programme, Dr Padmini Swain, Director, ICAR-NRRI, Cuttack lauded the efforts of ICAR-CIFT to bring such a novel idea of inclusion of fish in our daily diet in the form of dried fish powder prepared from locally available small indigenous fishes.

On this occasion, Dr A K Mohanty, Head, Division of Extension, Information and Statistics, ICAR-CIFT, Kerala in his deliberation highlighted the dominance of Indian fisheries in the global scenario.

Dr Jogeswar Pani, Medical Officer of NRRI Dispensary also discussed about the prevailing nutritional status of women and adolescent girls and made the participants understand how this project will be helpful in improving their health and nutritional status. Dr G A K Kumar, Head, Social Science Division, ICAR-NRRI, stressed upon the market linkage establishment and policy implication to make the practice of *dry fish inclusion for human nutrition* more sustainable. Dr Sujata Sethy, OIC, KVK Cuttack proposed the vote of thanks.

The meeting was followed by an interaction with participants. A demonstration was also conducted

on 'Preparation dry fish powder incorporated food products' in the form of various types of local recipes namely. More than 100 participants including school girls and teachers from CRRH High School along with adolescent girls, pregnant and lactating women from different villages of the district, medical practitioners from Odisha state Health Department, state functionaries from Mission Shakti, Govt. of Odisha, officials from NRRI and KVK Cuttack and Food processing start-ups.



ICAR-NRRI, Cuttack, Odisha 753006

Awareness Program on "Protection of Plant Varieties, Farmers Rights and other IPR issues"

Nimpith Ashram, Sundarbans, 18 June 2022. ICAR-Central Inland Fisheries Research Institute, Barrackpore in collaboration with Ramkrishna Ashram Krishi Vigyan Kendra organised a one day awareness programme on "Protection of Plant Varieties, Farmers Rights and other IPR issues". Revered Swami Sadanand Ji Maharaj, Secretary, Ram Krishna Ashram, Nimpith graced as Chief Guest and Dr B K Das, Director, ICAR-CIFRI as Guest of honour

Swami Sadanand ji Maharaj, Chief Guest in his address said that his ashram is working for development of the poor and marginalised section of Sundarban region through one KVK, one institute of Biotechnology and eleven schools. He stressed that agriculture technology played an important role in improving the livelihood of those who are at the bottom of the society and bring them to middle level.

Dr B K Das, Director, ICAR-CIFRI in his address stressed that the awareness programme is about farmers rights, protection of plant varieties and other IPR issues. He delivered a lecture on the biodiversity act and conservation of biodiversity.

Dr Ganesh Chandra, In-charge, Institute Technology Management Unit, ICAR-CIFRI elaborated in detail on protection of plant varieties and farmers right act 2001. Dr Nitish Ranjan Prakash, Scientist (Plant Breeding), ICAR-CSSRI regional centre, Canning Town shared his views on protection of plant varieties and farmers right. Dr Chandan Kumar Mondal, Head, KVK Nimpith discussed the role of Krishi Vigyan Kendra in helping farmers in registration of farmers variety.

Shri Sukhdeo, progressive farmer of Ganga Sagar who registered a local rice variety wit PPV & FR

authorities shared his experience of registration of plant varieties, DUS testing with fellow farmers.

More than 100 participants including 70 farmers from different parts of Sundarban, Scientists of ICAR-CIFRI, Scientists and staff members of RA KVK, Nimpith, Scientists of AICRP on sunflower, Nimpith participated in the awareness programme. On this occasion seeds and planting materials were distributed to the farmers by distinguished guests.

ICAR-Central Inland Fisheries Research Institute, Barrackpore, Kolkata, West Bengal 7000120.

Celebration

Foundation Day Celebrated at ICAR-IISWC



Dehradun, 7 April 2022. On the Foundation Day of ICAR-IISWC. Shri Ganesh Joshi, Agriculture Minister, Govt of Uttarakhand, the Chief Guest., empathized that water is the prime competitive natural resource which needs to be conserved and protected to avert major catastrophes. He appreciated the institute on its 69th foundation day for its relentless contribution to soil and water conservation research and training.

Dr Suresh Kumar Chaudhari, Deputy Director General (NRM, ICAR) in his online video message remarked that this Institute is unique in itself in the country that it has been developing innovative technologies and human resource capacities.

Dr A K Karnatak, Vice-Chancellor, V.C.S.G. Uttarakhand University, Bharsar, the Guest of Honor, appreciated the scientists and staff of the Institute for bringing out time-tested technologies for soil conservation, water harvesting, watershed management, and enhanced agriculture production.

Dr M Madhu, Director, ICAR-IISWC, Dehradun spoke on the progress of the Institute specifying the reports of 60 years of research and development made in

soil and water conservation besides the ecosystem services assessment protocol and methodologies, Decision Support Systems (DSS) and water harvesting potential, soil loss tolerance limits, and vulnerability assessment methodologies brought out by the Institute in the recent past.

Dr PR Ojasvi, Head, H&E Division highlighted the changing paradigm in the research of soil and water conservation with reference to ongoing climate change, rain water harvesting, and the farming scenarios.

Dr N K Sharma, Head, SS&A briefed about the history and the periodic progress of the Institute on research and training. Best scientists, Best technical officers, Best workers, Best Divisions and Best Regional Centers were awarded with medals and recognition certificates by the Dignitaries during the program. The winners of various sport events were also awarded. Dr Charan Singh, Head, Plant Science coordinated the award program. While Dr D Mandal, coordinated the cultural evening and Dr Gopal Kumar, Principal Scientist (Soil Science) the sport awards.

The inaugural program was attended by 250 scientists and staff of the Institute and the invited guests from various organizations, NGOs and academia besides 70 online participants. Staff and children of the Institute actively participated in various cultural and sport events. The program ended by the concluding remarks of Dr D V Singh, Head, HRD&SS.

AKMU Cell, ICAR-IISWC, Dehradun-248195 (Uttarakhand)

The valedictory function of ICAR-CRIDA 38th Foundation Day

Hybrid, Hyderabad 12 April 2022. On the 38th Foundation Day of ICAR-CRIDA, Dr Gurbachan Singh, Former Chairman, ASRB graced the occasion as the Chief Guest. RAC members Dr Hrushikesh Senapati, Dr M A Shankar,

Dr M Maheshwari Former Directors of CRIDA, Dr Y S RamaKrishna., Dr B Venkateswarlu and Dr Ch Srinivasa Rao graced the occasion. Apart from the employees, former Directors of CRIDA and former Project Coordinators, AICRPAM also participated in the programme in on line and offline mode.

Dr V K Singh, Director, CRIDA in his welcome address highlighted the achievements of the Institute and appreciated the contributions of the predecessors as well as current employees in the growth of the Institute while presenting the activities planned for the future and the action plan to implement the same. Dr S K Chaudhari, DDG NRM graced the function in online mode and appreciated the performance of CRIDA on various front.

Dr Gurbachan Singh in his foundation day address highlighted the importance of research, extension and participatory approaches for enhancing food security and farm level profitability in rainfed drylands.

On this occasion, 29 best innovative farmers from 12 states (West Bengal, Himachal Pradesh Maharashtra, Madhya Pradesh, Tamil Nadu, Telangana, Chhatisgarh, Karnataka, Andhra Pradesh, etc.,) were felicitated for their innovative farming practices for enhancing productivity and climate resilience. The CRIDA employee wards are given merit certificates and super achievers awards. Best staff awardees and publication/patent awardees were also felicitated. The staff in administrative and accounts, technical and supporting categories were recognized for their significant contributions to the organization and felicitated. Two publications were released on this occasion. Prizes are distributed for Sports events and quiz events winners and runners.



ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Saidabad Post, Hyderabad, 500 059
director.crida@icar.gov.in

ICAR-IISS celebrates its 35th Foundation Day



Hybrid, Bhopal, 16 April 2022. On the Occasion of ICAR-ISS 35th Foundation Day, the Chief Guest, Dr Suresh Kumar Chaudhari, Deputy Director General (Natural resource Management) ICAR, New Delhi urged the Institute to play a leading role in conducting research in un-touched areas of soil science and chalk out plans for conducting research for next 15-20 years to make 50 years of glorious existence in fulfilling farming community vis-à-vis safeguarding soil resource.

The Guest of Honour, Prof. V S Tomar, Former Vice-Chancellor, JNKVV, Jabalpur emphasized on the need for maintaining soil physical properties for better soil chemical and biological environment. Former Directors of the Institute namely Dr P N Takkar, and Dr C L Acharya graced the occasion virtually and compliments the Institute for its achievements and service to the farming community. Dr Takkar urged the scientists of the institute to conduct innovative and cutting-edge basic and strategic research for enhancing nutrient use efficiency and soil health management. Dr Acharya highlighted the need for working in the area of restoration of soil health, enriching soil with nutrients for quality agricultural produce and improved human health and precision input management strategies for higher nutrient and water use efficiency.

While congratulating the staffs of the institute, Dr C R Mehta, Director, ICAR-CIAE, Bhopal indicated on more research for improving soil health and collaboration between ICAR-IISS and ICAR-CIAE for efficient soil management.

Dr Ashok K Patra Director, ICAR-IISS, Bhopal presented about the achievements of the institute including several national and international awards in last 2 years. Dr Patra highlighted various achievements/ technologies of the institute.

The event registered 200 scientists and staff members of the institute, progressive farmers, invited guests from the various organizations, and academia besides, 50 virtual participants. Different new laboratories, experimental facilities and solar energy panel were inaugurated. During the event some progressive farmers were also felicitated on that occasion.

ICAR-Indian Institute of Soil Science, Bhopal, Madhya Pradesh 462038

ICAR-CIFE, Mumbai's XV Convocation and Fish Food Festival

Mumbai, 23 April 2022. ICAR-Central Institute of Fisheries Education (Deemed University) celebrated its XV Convocation. The Chief Guest Shri Parshottam Rupala ji Hon'ble Minister of Fisheries, Animal Husbandry and Dairying, Gol, awarded 230 MF.Sc and 91 Ph.D degrees to the successful students in the presence of Dr Trilochan Mohapatra, Secretary, DARE, Gol & DG, ICAR (President of the function), Guests of Honour Hon'ble MP Shri Gopala Shetty ji and Hon'ble MLA Dr Bharati Lavekar ji, Dr JK Jena DDG (Fisheries Science), ICAR and Dr Ravishankar CN, Director and Vice-Chancellor, CIFE. Dr Dilip Kumar, Former Director, CIFE, was awarded the degree of D.Sc Honoris Causa for a lifetime of exemplary contribution to the fisheries sector. In his presidential address, Dr Mohapatra emphasized the importance of education in creating a sustainable blue economy to meet nutritional demand on a continued basis. He said that ICAR is in the process of adopting the New Education Policy 2020, and enhancing the use of digital platforms and artificial intelligence. The Chief Guest lauded the growth rate of the Indian fisheries sector in his Convocation Address, and highlighted Gol's initiatives like PMMSY for promoting entrepreneurship in fisheries.

Fish Food Festival - "FISHSWAD - 2022" : As part of the Convocation celebrations, CIFE organized a fish food festival in collaboration of the National Fisheries Development Board (NFDB), Hyderabad, where students and staff set up 14 stalls of fish preparations and delicacies from the various States of India. The local fishing community also set up their stall. The attractive stalls were decorated in traditional styles and serviced hygienically by students and faculty. Shri JN Swain, Secretary (Fisheries), Ministry of Fisheries, Animal Husbandry & Dairying, Gol was the Chief Guest. While inaugurating the event, Shri Swain congratulated Dr Ravishankar CN, Director & VC, ICAR-CIFE, on taking this unique initiative and complimented staff and students. He spoke about making fresh and frozen fish available in every nook and corner of the country, just like milk. The Guest of Honour Dr C Suvarna, CEO, NFDB stressed the need to enhance domestic fish consumption, especially, in the states like Gujarat and Haryana. The Guest of Honour,

Dr JK Jena, DDG (Fisheries Science), ICAR said that mass campaigns on the nutritional profiles of various fish shall popularize their consumption. An interactive session with Koli fishing community, representatives of Fisheries Cooperative and start-ups was also held along with a gala cultural programme 'Swar Tarang'.



PME Cell I/C
Fish Genetics and Biotechnology Division
ICAR-CIFE, Versova, Mumbai - 400 061
Director CIFE Mumbai <director@cife.edu.in>

4th Graduation Ceremony of PGDM-ABM

Hyderabad, 14 May 2022. ICAR-National Academy of Agricultural Research Management, Hyderabad has organized 4th Graduation Ceremony for its Post-Graduate Diploma in Management-Agri Business Management (PGDM-ABM) programme.

As Chief Guest of the Ceremony, Hon'ble Vice President Shri M Venkaiah Naidu awarded degree to 144 students from 4 batches. One student from each batch was also awarded with Director's Medal for their outstanding overall performances and Gold Medal for their best academic performances. In his Graduation Ceremony address, the Vice President advised the students to work on the problems faced



by the farming community not just to increase their productivity but also to enhance overall welfare.

On this occasion, Dr Trilochan Mohapatra, Secretary DARE and DG, ICAR in his Guest of Honour remarks commended the PGDM-ABM programme of the Academy, which not only achieved 100% placement but also provided quality manpower to agribusiness industry and start-ups.

Dr Ch Srinivasa Rao, Director, ICAR-NAARM while presiding the Ceremony, presented overall achievements of skill development, education programmes, placement activities, international trainings and policy development covering all subsectors of agriculture. Dr. G.Venkateshwarlu, Joint Director welcomed the distinguished guests and the degree recipients and anchored the proceedings.

ICAR-NAARM, Rajendranagar Mandal, Hyderabad, Telangana 500030

World Bee day Celebrated by Organizing Farmers Scientist Interaction MEET



Washim, 20 May 2022. World Bee Day is observed annually on 20 May across the globe. The day is marked to raise awareness about the essential roles bees play in supporting people and the environment. KVK Washim in collaboration with KVK Yavatmal-1 on 20 May 2022 celebrated World Bee Day under the theme “Bee Engaged: Celebrating the diversity of bees and beekeeping systems.”

Dr R L Kale Head and Senior Scientist KVK Washim chaired the program while Dr S U Nemade Head and Senior Scientist KVK Yavatmal-1 inaugurated the program. After welcoming guest Shri S K Deshmukh SMS Extension Education is stressed about need and importance of bee keeping. He has also administered Water Pledge under Catch the Rain Campaign of Jal Shakti Mission. Dr Pramod Magar Entomologist in his address draw attention towards the various threats and challenges faced by pollinators, while focusing

on their contribution to livelihood and food chain system. Speaking on the occasion Dr R L Kale Head and Senior Scientist KVK Washim stressed that such event will raise awareness on the importance of wide variety of bees and sustainable beekeeping system. In inaugural speech Dr S U Nemade Head and Senior Scientist KVK Yavatmal-1 told that in order to be able to feed the worlds growing population we need ever more food, which must be diverse, balanced, and of good quality to ensure the progress and well-being of mankind. In this program farmers and rural youth attended the program in large number. Shri S K Deshmukh conducted the proceeding while Program Assistant Abhishek Deshmukh offered vote of thanks.

Krishi Vigyan Kendra, Karda
Tq. Risod, Dist. Washim (M.S.) 444506

Central Institute of Agricultural Engineering, Bhopal gets second place in Soya Mahakumbh 2022 stall

Indore, 29 to 31 May 2022. ICAR-Indian Soybean Research Institute, Indore organized a 3-day Soya Mahakumbh 2022. Stalls were set up by various government and non-government organizations in the event. A stall was also set up by the ICAR-Central Institute of Agricultural Engineering, Bhopal in which information was given about making various soya products. Stall put up by Central Institute of Agricultural Engineering, Bhopal got second position in Soya Mahakumbh.

Union Minister of State for Agriculture, Hon^{ble} Kailash Choudhary, State Agriculture Minister Hon^{ble} Kamal Patel and Secretary, DARE & Director General of Indian Council of Agricultural Research, Dr. Trilochan Mohapatra visited the stall of Central Institute of Agricultural Engineering, Bhopal and appreciated the information disseminated. The process of making soya flour, soya milk, tofu, soya nuts, soya chaap etc., were explained at the stall and people were, encouraged to set up soya based enterprises. At this stall, information was also given about the valuable substances made from many fermented and modern processing methods and by-products developed by the institute.

PME Cell
ICAR-CIAE Bhopal
Email: director.ciae@icar.gov.in



Interaction meeting of IINRG, Ranchi with Chairman NABARD

Ranchi, 03 March 2022. Dr GR Chintala, Chairman, NABARD, visited ICAR-Indian Institute of Natural Resins and Gums. He was accompanied by Smt. Sushila Chintala, MD and CEO of NABKISAN; Dr GK Nair, CGM, NABARD; Shree SK Nanda, GM, NABARD; Shree Jay Nigam, DGM, NABARD; and other officials from Regional Office of NABARD, Jharkhand.

During the interaction meeting with the scientists of IINRG, Dr KK Sharma, Director, welcomed the guests and briefed them about the status, role and potential of lac cultivation in the livelihood support of the resource constrained farmers and emphasized on on-farm primary processing of lac before it is exported to other countries.

Dr Chintala, appreciated the efforts of IINRG in developing various technologies for scientific cultivation, processing of lac and taking them to the field through trainings and exhibition. Dr Chintala assured that the NABARD will collaborate with IINRG in a big way for bringing lac cultivation in its *Wadi* programmes and for other activities related to natural resins and gums. During the event, Chairman, NABARD handed over the sanction letter of a project on '*Development of portable equipment for quality testing of lac*' funded by the NABARD to the Director, IINRG.

During the visit, Dr Chintala and the NABARD team were shown around the Institute Research Farm and Natural Resins and Gum Museum of IINRG where the visitors had an exposure to the scientific practices for lac cultivation on various host trees and machineries involved in the processing of lac.



ICAR-IINRG, Nam Kum, Ranchi, Jharkhand 834010

Hon'ble Secretary (DARE) & Director General (ICAR) visited (ICAR-IIHR)

Bengaluru 21 May 2022. Dr Triolochan Mohapatra, Hon'ble Secretary (DARE) & Director General (ICAR) visited Central Horticultural Experiment Station (ICAR-Indian Institute of Horticultural Research), Bhubaneswar and reviewed various research and development programme of the Station. At the outset, Dr G C Acharya, Head, CHES (ICAR-IIHR), Bhubaneswar welcomed Hon'ble DG and other dignitaries to the occasion. Dr Debi Sharma, representing Director, ICAR-IIHR apprised of the research and development activities of the Institute in the region.



During the inauguration and visit to the post-harvest facility unit, Dr Kundan Kishore, Principal Scientist and PI, RKVY-Post harvest project, explained the virtues of washing and grading unit, hot water treatment unit, ethylene ripening chamber, cold storage and packing facilities to the Hon'ble DG and all dignitaries.

During the inauguration and visit to the Seed Processing Facility and Seed Testing Laboratory, Hon'ble DG emphasized on the expansion of the seed processing facility and stressed on importance of seed health. He witnessed the seed processing activity for French bean variety *Arka Arjun* in the newly inaugurated seed processing facility. Hon'ble DG appealed the farmers to avail the newly inaugurated facilities for better income realization. The Post-harvest unit and Seed processing and Testing Unit are established under RKVY, Govt. of Odisha and MIDH, Govt. of Odisha, respectively.

ICAR-IIHR, Bengaluru, Karnataka 560089

Shri Kailash Choudhary, Minister of State (Agriculture & Farmers Welfare) visited Rani Pokhari, Dehradun on the occasion of World Environment Day

Rani Pokhari, Dehradun, 5 June 2022. On the occasion of World Environment Day Union Minister of State

for Agriculture and Farmers Welfare, Shri Kailash Choudhary visited Rani Pokhari, Dehradun. Hon'ble minister of state (agriculture and farmers welfare) inaugurated the programme of World Environment Day 2022 with planting of different trees like *Kalpavriksh*, *Muolshree*, *Amaltas* and *Gulmohar* on community land in Rani Pokhari village. Dr M Madhu, Director, ICAR-IISWC, Dehradun advised farmers to adopt Integrated Farming System for higher profitability and restoration of proper ecosystem services. He also advocated adoption of cow in the agriculture production system for better crops, soil fertility and family health. Farmers of Thano, Bhogpur, Rani Pokhari and Doiwala villages of Dehradun district have attended the function. Hon'ble minister of state (agriculture and farmers welfare) had fruitful interaction with the farmers on vital issues and their day to day problems in farming and advised them for betterment of the agriculture and livelihood. Farmers shared problems related to scarcity of irrigation water, crop damage by wild animals & stray cattle. Some Farmers also expressed their views on need of technology backstopping on the issue of uses of insecticide, pesticides and other agrochemicals in agriculture. Hon'ble minister carefully listen all issues and gave assurance to farmers to communicate their issues with state government for possible solutions. In his address on world environment day, he advised to restrict the use of single use plastic, adoption of solar energy, scientific composting and management of crop residues and crop diversification. He made the farmers aware about threats to ecosystem, disturbed water cycle, reduced rainy days, uneven and uncertain weather conditions resulting into reduction of agriculture production and degrading health of soils and ecosystem. He informed the farmers regarding Agricultural infrastructure fund, the new initiative of the government. Farmers or group of farmers (self help group) both are eligible to get loan on projects

e.g. poly-house, green house, mushroom units, cold storage, ware house, sorting grading or any agro processing unit. In any such projects, 20% farmer's share and 80% government funding (with 3% interest subsidy). Hon'ble union minister also told that current central government is going to establish FPOs in every block of the country for better access to market by the farmers for higher income. He elaborated the government efforts and initiatives for agricultural development in terms of improving farmers income and nutritional security, *ujjwala yojana*, complete electrification of railways, production of biodiesel, establishing renewable energy systems and reduction in crop residue burning. Dr Charan Singh Head, Division of plant Science, Dr D.V. Singh, Head Division of HRD&SS and Dr Lekh Chand, Principal Scientist, Agronomy also interacted with farmers and discussed about climate resilient agriculture and environmental protection. Sri K.R Joshi and Sri Sonu, technical staff of the Institute have contributed to organize the function successfully. The programme was successfully coordinated by Dr D.V. Singh and he proposed vote of thanks to everyone at the end.

*AKMU Cell
ICAR-IISWC, Dehradun-248195, (Uttarakhand)*

Shri L Murugan, Hon'ble Minister of State for Fisheries, Animal Husbandry and Dairying visits India's first private hatchery M/s. MSR Aqua Private Limited

Konapapapeta, Kakinada, 14 June 2022. Shri L Murugan, Hon'ble Minister of State for Fisheries, Animal Husbandry and Dairying, and Information and Broadcasting, visited the M/s MSR Aqua Private Limited, a Multispecies marine fish hatchery at Konapapapeta,



Kakinada. Originally a shrimp hatchery, the MSR hatchery is the first private hatchery in India which was suitably modified with the technical guidance of the Mandapam Regional Centre of the ICAR-Central Marine Fisheries Research Institute (CMFRI) to suit the marine finfish seed production, under the NFDB supported project entitled “Enhancing Production of Farmed Cobia (*Rachycentron canadum*) through the Establishment of Broodbank and supply of larvae to States for Seed Production”. Member of Parliament, Smt. Vanga Geetha of Kakinada constituency and Chief Executive of NFDB, Smt C Suvarna, IFS also accompanied the Minister.

Following the visit of the hatchery, a farmers’ meet was conducted and seeds of seabass and silver pompano were distributed to the selected farmers.



Reception for Hon’ble Minister



Inspection of RAS facility

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Union Minister of Agriculture and Farmers’ Welfare, GOI, Shri Narendra Singh Tomar Ji Visits ICAR Research Complex for NEH Region, Nagaland Centre

Nagaland, 26 June 2022. The Union Minister of Agriculture and Farmers’ Welfare, GOI, Shri Narendra Singh Tomar, visited ICAR Research Complex for NEH Region, Nagaland Centre and laid the foundation stone of the administrative building of Krishi Vigyan Kendra, Dimapur and released 3 publications (1 edited book and 2 technical bulletins) and the mushroom soup formulation of the Centre. He had an interactive session with the farmers, scientists and staff of ICAR Nagaland centre and NRCM, faculty members and

students of COVSc&AH, Jalukie and officials from various line departments of Govt. of Nagaland. He appreciated the contribution by ICAR Nagaland centre for the sustainable development of the agriculture scenario in Nagaland. He also distributed inputs to the farmers such as power tiller, fish fingerlings, fish feed, chicks and various agricultural tools and implements to the farmers.

Hon’ble Agricultural Minister, Govt. of Nagaland, Shri Kaito Aye, Agricultural Production Commissioner, Govt. of Nagaland; Shri Y Kikheto Sema, Agricultural Production Commissioner, Govt. of Nagaland; Dr Prabhat Kumar, horticulture commissioner; and Shri Mhathung Yanthan, Advisor, Horticulture & Border Affairs, Govt. of Nagaland, were also present.

The Joint Director, ICAR Nagaland Centre Dr D J Rajkhowa while welcoming the Union Minister of Agriculture and Farmers’ Welfare and other dignitaries briefed about various research & extension activities, and achievements of the centre for the overall development of agricultural scenario in the state. Dr V K Mishra, Director, ICAR Research Complex for NEH Region, Umiam addressed that the North Eastern Region has achieved self-sufficiency in food grain production however, there is a need for improving the productivity of horticulture crops as well as livestock. Dr Anupam Mishra, hon’ble Vice-Chancellor, Central Agricultural University, Imphal briefed about the agricultural scenario of the north-eastern region and emphasized on improvement of transportation facilities, storage and food processing in the region. He also stressed the importance of natural farming for the sustainable development of the hill ecosystem.

ICAR RC-NEH, Umiam (Barapani),
Meghalaya - 793103.

Union Minister of State Shri Kailash Choudhary interacts with FPO and CBBO Representatives

Tripura, 28 June 2022. An agri-interaction meet was organized at ICAR Research Complex for NEH Region, Tripura Centre on the occasion of visit of Hon’ble Union Minister of State (Agriculture & Farmer’s Welfare), Shri Kailash Choudhary. Shri Saradindu Das, Director, Department of Agriculture and Farmers’ Welfare, Tripura, Dr Phani Bushan Jamatia, Director, Directorate of Horticulture, Tripura, Dr R K Saha, Dean, College of Fisheries, and Dr TK Maiti, Principal, College of Agriculture developed by the centre. The Hon’ble Minister advised the scientists to generate technologies which will be beneficial for the farmers of the state.

Chairpersons and CEOs of all the FPOs/FPCs, and officials of Cluster Based Business Organization (CBBO) of the state attended the interaction meeting. The Hon’ble Minister also visited experimental fields and appreciated the demonstration of pineapple

and Kamalam production technologies developed at this ICAR centre. All the delegates thank the Hon'ble Minister of State, Shri Kailash Choudhary for his valuable suggestions and directions. All the stakeholders of FPOs assured the Minister that they

will work dedicatedly for agricultural development of the state by strengthening the FPOs.

ICAR RC-NEH, Umiam (Barapani),
Meghalaya - 793103.



Training

27 April 2022. Training Programme on Advance Technique for Mass Multiplication of Banana Cv. *Elakki* Bale under RKVY Project (both Virtual and offline): No. of participants 53.

9-10 May 2022. ICAR IIHR, Bengaluru conduct WVC Tomato and Pepper Field day on World Veg Vegetable Consortium Annual Workshop.

11-13 May 2022. Asian Solanaceous Round Table 2022 (ASRT-2022) meeting held at ICAR IIHR, Bengaluru.

28-31 May 2022. Dr Laxman R.H. attended the "National Conference on Climate Resilient and Sustainable Development of Horticulture held at CSAUA&T, Kanpur, Uttar Pradesh.

08 June 2022. AICRPDA centre, Ananthapuramu, Andhra Pradesh organized Field day on importance of sub soiling with chisel plough for *in-situ* moisture conservation at Bhachepalli, NICRA village, Ananthapuramu district, Andhra Pradesh. 35 farmers and scientists from the centre participated. director.crida@icar.gov.in



09 June 2022. AICRPDA centre, Parbhani organized Field day and *kharif* pre planning meeting at Adgaon, OFR village, Parbhani District, Maharashtra. 25 farmers and scientists from the centre participated. director.crida@icar.gov.in



09 June 2022. AICRPDA centre, Indore, organized Pre-*kharif* season training programme at Damali, OFR village, Indore district, Madhya Pradesh. Scientists from the centre and 40 farmers participated. director.crida@icar.gov.in

10 June 2022. Pre-*kharif* planning programme and Farmers meet was organized at Sonna, Ujalamba and Bhabulgaon OFR villages, Parbhani district, Maharashtra by AICRPDA centre, Parbhani. Scientists from the centre and 32 farmers participated. director.crida@icar.gov.in

15 June 2022. Scientist-farmers interaction meeting on the importance of rainfed integrated farming systems was organized at Aalanda, OFR village, Akola district, Maharashtra by AICRPDA centre, Akola, Maharashtra. Scientists from the centre and 45 farmers participated. director.crida@icar.gov.in



15 June 2022. Pre *kharif* planning meeting was organized at Hegadhial, OFR village, Vijayapura District, Karnataka by AICRPDA centre, Vijayapura at RIFS village, Hegadihal. Scientists from the centre and 40 farmers participated. director.crida@icar.gov.in

16 June 2022. AICRPDA centre Anathapuramu, organized awareness programme and animal health camp at OFR village, Niluvurayi, District Ananthapuramu, Andhra Pradesh. Asst. Director of Animal Husbandry briefed farmers about management of seasonal diseases in cattle and sheep. Scientists from the centre and 30 farmers participated. director.crida@icar.gov.in



June 2022. Pre-*Kharif* season planning interaction meeting was organized at Honnutagi and Kavalagi NICRA villages, Vijayapura. Scientists from the Centre and 50 farmers participated. director.crida@icar.gov.in

17 June 2022. Organized Pre- *kharif* season training programme at Narotewadi, NICRA village, Solapur district, Maharashtra. Scientists explained about farm mechanization, improved *in situ* moisture conservation practices, crop management technologies, demonstrated seed treatment. director.crida@icar.gov.in



16 June 2022. Organized Pre- *kharif* season training programme at Kanbas, OFR village, Solapur district, Maharashtra. Farmers were apprised about the latest *kharif* crop production technologies, demonstrated seed pre treatment with biofertilizers and explained in brief about the *in situ* moisture conservation practices and availability of improved seed drills. director.crida@icar.gov.in



June 2022. AICRPDA, Parbhani centre, demonstrated bore well recharge technology on 4 farmers fields at Ujalamba, NICRA village, Parbhani district Maharashtra.



18 June 2022. A group discussion on Pre-*kharif* planning was organized at Moral Gaon, OFR village, Biswanath Chariali district, Assam by AICRPDA centre, Biswantah Chariali. Scientists from the Centre and 25 farmers participated. director.crida@icar.gov.in



27 June 2022. Training on pest and disease management of potato was organized in Kumolia and Morolgaon, OFR village by AICRPDA centre, Biswanta Chariali, Assam. Scientists of the centre briefly explained about the crop and rainwater management for *khari* crops and planning for *Sali* rice cultivation. director.crida@icar.gov.in



27 June 2022. Pre-*khari* campaign was organized under SCSP programme at Heggavadi village Chamarajnagar district, Karnataka by AICRPDA centre, Bengaluru. Scientists from the centre and 40 farmers participated.

29 June 2022. Pre-*khari* season awareness campaign was organized under SCSP programme at village Kangad and Lalwan, Mahilpur block, Hoshiarpur District programme at by AICRPDA centre, Ballawal Saunkri. Scientists from the centre and 40 farmers participated. director.crida@icar.gov.in



4 March 2022. ICAR-IIHR organized four training programmes on “Advances in Production Technologies and Seed Production in Papaya” under the RKVY Project on (22.02.2022, 23.02.2022, 03.03.2022 & 04.03.2022) Trainees were distributed reading materials and relevant inputs. There were 120 trainees from different Districts of Karnataka.



7 - 8 April, 2022. Training programme on Holistic Approach to Human-Wildlife Conflict Management conducted at KVK, Kodagu. A two day training programme on Holistic Approach to Wildlife Conflict Mitigation India was conducted at ICAR-KVK,

Gonikoppal, Kodagu. In total 40 trainees participated in the training programme.



28 April 2022. Training programme on integrated crop management practices in Coffee and Black pepper and awareness on weather based advisories on 28th April, 2022-ICAR-KVK Gonikoppal, Kodagu conducted a one-day training program for farmers of the western hills eco-friendly band organisation at Suntikoppa, Somwarpet Taluk Seventy-two farmers from various villages of Kodagu district participated in the training program.



2 May 2022. Training cum input distribution programme for Tribal farmers at Bommadi Haadi, Ponnampet Taluk ICAR-Krishi Vigyan Kendra, Gonikoppal in collaboration with Green Earth NGO organized training cum input distribution programme at Bommadi Haadi, Ponnampet Taluk, Karnataka.



18 June 2022. Training on Existing Transformative Agri Technology, Mobile-based applications, Innovations & Smart Farming, ICAR-KVK Gonikoppal, Kodagu in association with Public Affairs Foundation and NABARD.

Success Story

Rural participatory nurseries secures sustainable income and land degradation neutrality

The total number of operational land holdings in Rajasthan is 7.7 million. The net irrigated area has increased by 140% in last 3 decades. Increase in irrigation facilities has led to development of new agroforestry and horticulture systems which includes cultivation of trees with vegetable crops. This has fuelled the demand of quality planting material (QPM) among farmers. In addition, several vegetables and orchard trees in kitchen gardens are some well proven methodologies where quality planting materials (QPM) has been in demand. Availability of genuine and disease free planting material at a local level is of great concern and farmers have to travel long distances to get quality planting materials. At present only 1/3rd demand for planting material is being met by the existing registered nurseries; the rest is met from the unorganized sectors, implying the need for establishing more nurseries in the organized sector. Thus, ICAR-Central Arid Zone Research Institute Jodhpur, Rajasthan with financial assistance of NABARD developed a model nursery in an area of 0.02 ha at village Paldi Ranawatan, Bhopalgarh tehsil, 80 kms away from the main city. A group consisting of ten farm men/women was formed and skill trained on commercial nursery management like development of root stock and scion, cutting, budding and grafting techniques, pest and disease management, media preparation, etc., by CAZRI scientists. The group was also facilitated in record keeping, marketing etc. All the needed infrastructure viz. fencing, shade house, mother plants, watering facilities and other inputs like nursery tools, seeds, nursery media, fertilizers, polybags, protrays and their stands were also provided to the group and the progress was regularly monitored.

Based on the demand nursery started producing seedlings of fruits, vegetable and agro-forestry species. Consequently, the income of group members increased to more than double within a period of two years. Overall, group members had 870 man days of employment, produced 77,055 number of seedlings and earned ₹6,83,750 through sale of various seedlings with a B:C ratio of 2.98. Smt. Babu Devi one of the group member before initiation of the project had an annual income of rupees twenty thousand. Working in nursery helped her to earn rupees forty thousand (now 77% of her total income) in 120 man days per year.

Presently, individual group members are earning ₹30000-40000 and are getting an employment for 100-150 man days in a year. The income of 10 members of group is ranging from 18-77% of their total agricultural income. Nursery provided an additional advantage of employment generation since its activities coincides with the lean farming season from January to June months. Upon the success of present nursery, the members are motivated greatly and planning to expand it further. Members are trained to use social media and other extension platform in selling of seedlings and getting very good response not only from nearby villages and cities but also from neighbouring districts.

The nursery has now become a model for nearby villagers. Developing such nurseries especially in rural areas could address the challenges of unemployment, labour migration, retaining youth in agriculture and many others. Additionally, by sale of 72,917 quality seedlings the area under the improved agroforestry systems has been extended to approximately 365 hectares of land in Rajasthan which will help in achieving land degradation neutrality as visualised by Prime Minister of India at a United Nations High-Level Dialogue on Desertification, Land Degradation and Drought.



ICAR-CAZRI, Jodhpur, Rajasthan 342003

Boosting the Pig Production in Nagaland with Rani Pig

Per capita consumption of pork is highest in Nagaland in India. In Nagaland, tribals' prefer to consume home grown fresh pork. Also, there is cultural preference to black pigs. The pig farming is intermingled with socio-cultural practices of Nagas'. There is annual demand of almost sixty thousand metric tonnes of pork. But the state's own production is around thirty thousand tonnes. Therefore, the state is deficit by almost 50%. This demand and supply gap is further increasing owing to increase in human population and decrease in pig population of Nagaland. It imports live pigs as far as from Punjab, Haryana and southern states to meet its demand.

To address the problem of low productivity of pig production system in Nagaland, Indian Council of Agricultural Research New Delhi has implemented ICAR-Mega Seed Project on Pig at ICAR Nagaland Centre, Medziphema since the year 2009. In this project, technology of Pig production with Rani pig was standardized and developed at ICAR Nagaland Centre. Rani pig is a cross of Hampshire and Gunghroo pig developed at ICAR-NRC-Pig. In Nagaland condition, Rani pig has average daily body weight gain of 280 to 350 gram. The sexual maturity age is 7 - 10 months. The average litter size at birth is 8 - 12 piglets. In a well managed farm, the Rani pig farrow 2 times in a year. Therefore, it produces 16 - 24 piglets in one year. The lifetime productivity (in 5 year) is 80 - 120 piglets.

ICAR Nagaland Centre is continuously striving to increase the pig production system in Nagaland on sustainable basis. Under Mega Seed Project on Pig, the Centre has provided 6500 numbers of improved germplasm of pigs to different stakeholders. Besides, ICAR Nagaland Centre has trained around 1000 persons in modern pig production technologies. Because of consistent efforts of ICAR Nagaland Centre, there has been increase in pig breeder farms over the year. ICAR Nagaland Centre has given hand holding to young entrepreneurs in pig farming to promote pig

breeding. One such young educated pig entrepreneur is Shri Seve Vadeo.

Shri Seve Vadeo, a young entrepreneur is from Chakesang tribe in Seithekema A village, Dimapur district, Nagaland. He approached ICAR Nagaland Centre in 2017 with his plan of setting a pig fattener unit. ICAR Nagaland Centre has provided him training on scientific modern pig farming with emphasis on pig breeding. Scientist from ICAR Nagaland Centre visited his farm and advised him in making modern pig house. After the training with ICAR, Shri Seve realized the benefits of rearing pigs for breeding. ICAR Nagaland Centre has also provided him the Rani female piglets. Shri Seve has capacity to house 50 pigs in his farm. Later on he also got training on artificial insemination (AI) in pig at ICAR Nagaland Centre. He also keeps male piglets for fattening. He breeds all his animals by AI. He stocks the farm with piglets selected from his own farm and also sells off the other piglets. He is now making profit from piglet sales, culling of sows and sale of fattened hogs. Because of the cheap pricing of AI, he is spending negligible amount on the breeding expenses which otherwise would require him to keep at least 4 boars of varying ages and sizes. Also he is able to serve all his animals without missing because of the convenient availability of AI. He sells 250 to 300 piglets in one year. He also supply piglets to Phek district which is about 7 hours away from Dimapur at the rate of ₹7000 to ₹8000. From 2017 till now he has sold approximately 1000 piglets and 250 piglets were reared in his farm for sows or fattening. He earns ₹3.5 - 4.0 lakhs per annum from his pig farm. The Seve says that there are very good opportunities available in pig farming for educated youth in Nagaland. He is happy and satisfied with the support he gets from ICAR in scripting his success story in piggery entrepreneurship and is confident about his future progress in piggery.

PME, ICARNEH-NL, ICAR Research Complex for NEH Region, Nagaland Centre, Jharnapani, Medziphema, Nagaland



ICAR-CMFRI helps women farmers reap bumper harvest of green mussels and Harvest of IMTA cages at Harwada,

Cochin, 1 May 2022. The ICAR-Central Marine Fisheries Research Institute (CMFRI) helped women farmers from Moothakunnam and Chettuva villages in Kerala to reap a bumper harvest of green mussels. The *Kudumbashree* units of the women groups reaped a total yield of 1.5 tonnes of mussels from Moothakunnam and 350 kg from Chettuva. They started farming in December 2021 in mussel farms (racks) made of bamboo poles. After the harvest, the produce underwent depuration, a scientific process of expelling contaminants from gills and guts of mussels by providing them with good purified seawater before they are used for consumption which was also developed by the ICAR-CMFRI.



Harwada, 13 May 2022. In an event much to the jubilation of the fishermen community in Uttara Kannada, a harvest festival was held at Harwada. A total of 300 kg of seabass, 100 kg of pompano and 150 kg of green mussels were harvested from Integrated Multitrophic Aquaculture (IMTA) demonstration cages under the All India Network Project- AINP(M) at Harwada, Uttara Kannada. Dr A Gopalakrishnan, Director, ICAR-Central Marine Fisheries Research Institute (CMFRI) inaugurated the harvest after 135 days of culture.

Shri Vigneswara Prasanna, a self-help group of fishermen, carried out the IMTA in two 6 m diameter galvanised iron marine cages at Harwada, Uttara Kannada under the technical guidance of Karwar Regional Station of ICAR-CMFRI. These cages were stocked with seabass (*Lates calcarifer*) and silver pompano (*Trachinotus blochii*) for farming. Seeded ropes of green mussels were also tied on the outer frame of these two marine cages for IMTA demonstration. Due to unfavourable weather forecast the farmers were forced to go for an early harvest of fishes.



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Apiculture: A Successful Venture in Enhancing the Farmer's Income in Hamirpur District of Bundelkhand Region

Situation analysis: Bundelkhand is a semi-arid region in central India characterized by poor human development indicators and degraded status of natural resources. Agriculture is the mainstay of the Bundelkhand economy with 90% of the population being depends on agriculture that is under about 75% rainfed. About 67% of the farmers in the region are small and marginal having less than 2.0 ha. land. Hamirpur district is a part of Chitrakoot Dham division of Uttar Pradesh state of India. The climate of the district is characterized by an intensely hot summer and a pleasant cold season. During summer, the maximum and minimum temperatures are about 43°C and 28°C respectively, however, during winter sometimes it drops down to about 02°C or 03°C.

The team of Krishi Vigyan Kendra, Hamirpur and Banda University of Agriculture and Technology, banda Uttar Pradesh has conducted a baseline survey in district and was found that field crops such as Sesame, Sorghum, Perlmillet, Toria, Mustard, Barseem, Sunflower, Caster, etc., horticultural crops such as Sweet lime, Lemon, Guava, Anola, Papaya, Cucurbits, etc., forest crops such as Babool, Sisso, Karanj, Arjuna, Neem, Acacia, Palas, Eucalyptus, Moringa, etc., spices such as Coriander, Fennel/Anise, Onion, Fenugreek, etc., are successfully grown in hamirpur district. Several beekeepers came to this region during flowering period of mustard and harvest huge quantity of honey. Then after, they moved to Bihar or Madhya Pradesh to harvest litchi and other crops prevailed there. It has been recorded that some species of honeybees as *Apis dorsata*, *Apis florea*, *Apis cerena*, etc., also exist not only in hamirpur

district but also in whole bundelkhand region. One climatic aspect was observed that more numbers of sunny days were recorded during winter, when maximum parts of north India are under severe cold waves and fog. As beekeeping is quite profitable in areas where good floral pasturage is available, the possibility for development of beekeeping in Hamirpur district of Bundelkhand region is tremendous due to its existing environmental conditions and existing cropping patterns. Keeping the above points in mind Hamirpur KUK and BUAT team prepared a project proposal entitle - Entrepreneurial Start-up of Apiculture: A Vital Input for Doubling Farmers' Income in Bundelkhand (U.P.) and submitted to Rashtriya Krishi Vikas Yojana- RKVY (Remunerative Approaches for Agriculture and Allied Sector Rejuvenation-RAFTAAR), Uttar Pradesh.

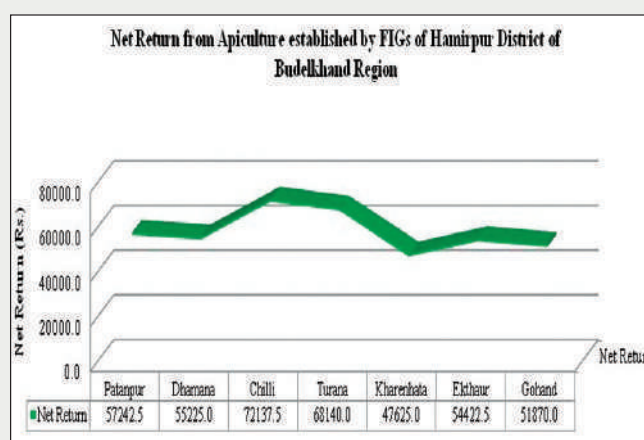
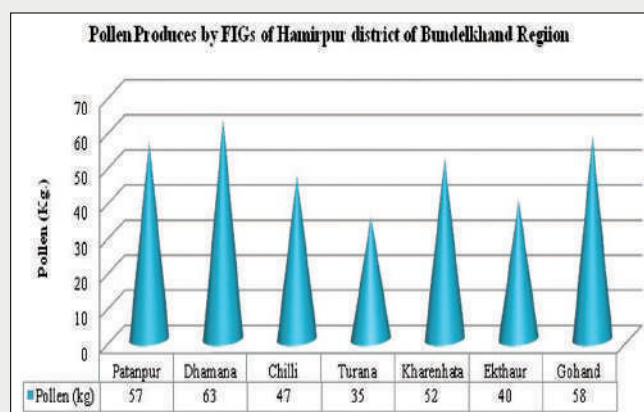
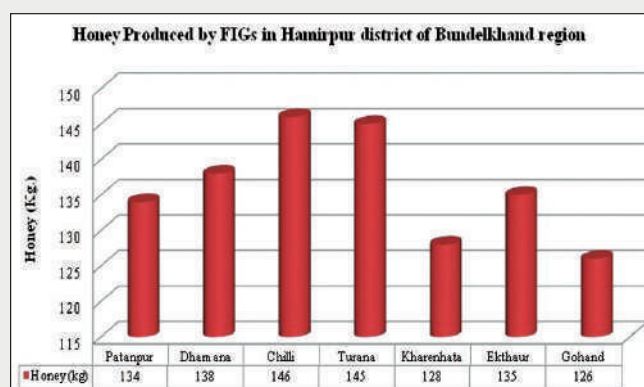
Plan, Implementation and Support: This project was implemented in partnerships with farming communities, the selection of farmers specially rural youths/school dropouts were done on the basis of their need and interest for mentioned objectives of project by using various tools and techniques of participatory rural appraisal (PRA). Focused group discussions (FGD) were also be made to reach out the final individuals as partner. Farmer interest group (FIG) was formed with selected farmers/rural youths/school dropouts at village level. Total seven FIGs were formed in the district and capacity building as well as hand holding support was provided to attract and motivate them towards apiculture as income generation venture. The frontline demonstration (FLD) on scientific beekeeping was conducted with FIGs formed. After that skill development training on the principle of learning by doing and seeing by believing, honeybee hive and basic tools were provided to them.

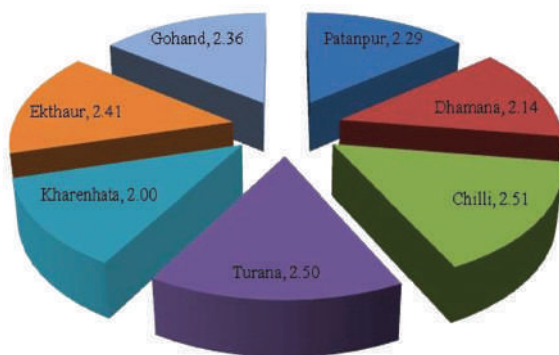
The site for apiary was selected at places, which were free from water logging and direct hot air during summer as well as source of drinking water must be available there. The site must receive sun light but also have some shade. Honeybee colonies were shifted in scientific manner at site selected. Time to time scientific advisories on apiary management was issued to the members of FIGs and observations were recorded on several scientific aspects of beekeeping. Rashtriya Krishi Vikas Yojana-RKVY (Remunerative Approaches for Agriculture and Allied Sector Rejuvenation-RAFTAAR), Uttar Pradesh and Banda University of Agriculture and Technology, Banda, Uttar Pradesh and Krishi Vigyan Kendra, Hamirpur, Uttar Pradesh have been supported financially and administratively as per requisition.

Output: The apiculture unit produces several hive products instead of serving as pollination agent in environment. The details of hive products harvested are given herewith:

- ✓ The maximum honey of 146.0 kg and bee pollen of 63.0 kg were harvested by FIGs in hamirpur district of bundelkhand region.

- ✓ The maximum increased population of honeybees was recorded as 180 frames, however minimum population as 80 frames only in district.
- ✓ Average operational cost of about ₹25,017 per unit of 50 colonies occurred in maintaining the apiary in hamirpur district of bundelkhand region. The maximum and minimum variable costs were recorded as ₹28,750 and ₹21,950 respectively.
- ✓ About ₹83,112 per unit average gross return was obtained from apiculture having 50 colonies. The maximum and minimum return were recorded as ₹1,00,887 and ₹71,475 respectively.
- ✓ Net return from beekeeping unit in hamirpur district of bundelkhand region was found ₹51,780 - 72137, which includes return obtained from honey, pollen and honeybees.
- ✓ On the basis of operational cost only, the benefit: cost ratio of this unit was computed and was found that it ranges between 2.0 and 2.5. The establishment/fixed cost have not been considered in computation of B: C ratio.





B:C ratio of Apiculture Unit Established by FIGs of Hamirpur District of Bundelkhand

Outcome: The members of the team and partners/ farmers assessed the performance of apiculture in hamirpur district of bundelkhand region jointly and found that the climatic conditions prevailed in district are comparatively more favorable for multiplication as well as survival of honeybees. One important climatic aspect recorded was that this region has more number of sunny days during winter, which enhance the activities of honeybees. Some adverse situations were also been observed during summer season in form of comparatively higher temperature and more wind velocity (heat wave). The economics of apiculture units revealed that good beekeeping practices (GBPs) in this region can enhance the income of farming communities as well. If beekeeping unit is incorporated as a component in integrated farming system (IFS) then it may become most profitable unit than others.

Impact: Apiculture unit has its direct as well as indirect impacts on agriculture in terms of beehive products and pollination services provided by honeybees. The farmers interest groups (FIGs) having a unit of 50 honeybee colonies in their apiary received a net monetary return of ₹58,094.6 during first year of establishment from hive products only. The average benefit cost ratio of 2.3 was recorded from unit. Honeybees established in villages were also served as pollination agents in different agricultural crops as Desi Babool, Sesame, Sorghum, Toria, Mustard, Babool, Sweet Lime, Lemon, Sisso, Palas, Jamun, Moringa, Tulasi, Van Tulasi, Cucurbits, Karanj, Arjuna, Sunflowere, Zaid Sesame, Zaid Maize, etc.

ICAR Events, Workshop, Conference, Capacity Building, International Linkages, MoU, Success Story, Visit, etc.

ICAR Reporter

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Training of Farmers and distributions of technological input



Honey Packed In Frame

Source: Chanchal Singh, A.K. Singh, B.K. Singh, Phool Kumari, Mohd. Mustafa, Narendra Singh and U.S. Guatam Banda University of Agriculture and Technology, Banda.

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