

CISH NEWS

01 January - 30 June, 2020

Number 01

FROM THE DIRECTOR'S DESK

We are happy to share activities and achievements during January to June 2020, a period of great concern due to Corona pandemic. The institute scientists tried their level best to continue experiments successfully during lockdown but several programs mainly trainings, planned earlier could not be organized due to restrictions of social gathering. *In-vitro* bio-induction of host plant tolerance against Fusarium wilt of banana was achieved through tissue culture towards production of disease free bio-fortified byplantlets using bioimmunizing compounds. Keeping in view the threat of Ceratocystis wilt of mango, bio-enhancers were tested and success was achieved through bacterial isolates from vermiwash under laboratory conditions. Protocol was developed for natural mango pulp based ice cream (bricks, cups and candy), liked by masses when scored in different programmes. An alternative to calcium carbide and ethrel was developed fulfilling the guidelines of Food Safety and Standard Authority of India (FSSAI) in the form of easy to use sachet for ripening of mango. A Self Help Group Called "Swavlamban", developed by Institute under the Farmer FIRST project at a village Mohammad Nagar Talukedari in Malihabad, women members was trained on various aspects of value addition of mango. Two entrepreneurship development programmes were organized for the production of processed products from mango, guava, bael and aonla. Agri-Business Incubation centre organized an online entrepreneurs meet to associate potential candidates for commercialization of institute technologies. Krishi Samridhi Mela-cum-National Workshop was also organized at Saragachi at Malda. Low-cost models for hydroponics and vertical gardening developed by the institute. Vertical hydroponics and soilless vegetable cultivation workshop was organized for 140 participants from different districts of Uttar Pradesh. Ready to fruit mushroom bag technology was extended to villagers of Lucknow and Unnao districts. Under the ITC Limited sponsored e-Choupal farmer training programme, two days training programmes were organized. Institute also participated in several programmes to demonstrate farmers friendly technologies. Visits of farmers from different parts of Uttar Pradesh, Madhya Pradesh and Bihar were also organized. MoUs were signed with Palvi Industries, Sangli, Maharashtra for solar power based insect trap technology development in PPP mode and with farmers to carry out experiments in their orchards at Barabanki and Saharanpur.



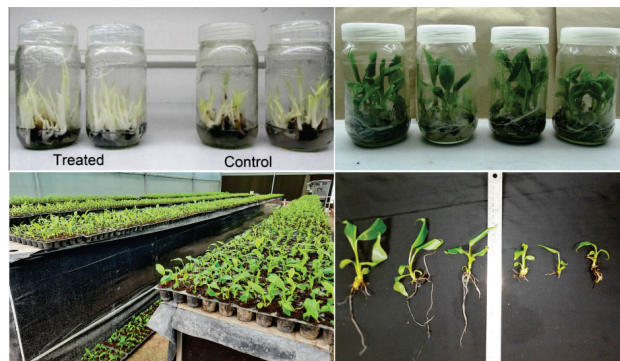
Shailendra Rajan

(Shailendra Rajan)

RESEARCH ACHIEVEMENTS

***In-vitro* bio-immunization – A novel tissue culture technology for production of biotic and abiotic tolerant banana plantlets**

In-vitro bio-induction of host plant tolerance is a first kind of its approach in tissue culture towards production of stress tolerant disease free planting material through bio-fortification of plantlets with bio-immunizing compounds. The banana tissue culture plantlets were made to uptake the immuno compounds formulation integrated in the *in-vitro* multiplication phase. The technology of bio-immunization for producing Fusarium wilt tolerant banana plantlets was tested for its bio-efficacy through pot culture



experiments where the immuno treated plantlets exhibited a disease index of 0.24 compared with the

FOC TR-4 treated control that showed 3.75 signifying the host induced tolerance through changing the tissue culture protocol. Initially, about 2700 plantlets were produced and are being tested in the fields of the hot spot region of Sohawal in the sick plot. The success in initial studies resulted in multiplication of 30000 plantlets through the technology for testing in the hotspot regions of Uttar Pradesh and Bihar on a much larger scale.

Antimicrobial property of microbes isolated from bio-enhancers

Bio-enhancers are potent source of agriculturally important microbes and isolated microbes from different bio-enhancers have shown inhibition properties against pathogenic fungi. Bacteria V11 and V12 isolated from vermiwash were tested against *Colletotrichum gloeosporioides*, *Ceratocystis fimbriata*, *Pythium aphanidermatum* and *Fusarium oxysporum*. V12 isolate suppressed the growth of all four fungus pathogens. Microbial isolates from Cow pat pit i.e. CPP 2 suppressed the growth of *C. fimbriata*. CPP 8 and CPP 2 isolates inhibited the growth of *C. gloeosporioides* and *F. oxysporum*. P 8 isolates from Panchagavya inhibited the growth of all selected pathogens. Isolates from Beejamrita i.e. BJ 14, 23, 12 and 14 inhibited the growth of *C. gloeosporioides* and *F. oxysporum*.

Development of process for natural mango pulp based ice-cream

Protocol developed for natural mango pulp based ice cream (bricks, cups and candy). Commercial mango varieties of northern region were evaluated for natural pulp based ice cream. Ice creams were made from pulp of Dashehari, Amrapali, Mallika and Totapuri varieties. Dashehari (8.5) and Amrapali (8.5) ice cream got maximum sensory score and Totapuri (7.20) got lowest sensory score on hedonic scale. Highest carotene content was found in ice cream made from Amrapali (3.51 mg/100g) followed by Dashehari (3.11 mg/100g) and lowest carotene found in Totapuri (1.86 mg/100g). No significant difference was noticed in L, a and b value of Amrapali, Mallika and Dashehari ice cream. Totapuri ice-cream showed significantly higher L value due to light colour of its pulp.



Amrapali ice cream

Dashehari ice cream

Mango ripening sachet developed

Calcium carbide, a banned chemical is being used widely by fruit traders for ripening of mangoes. Ethrel or ethphon is another chemical also used for inducing artificial ripening of fruits. Food Safety and Standard Authority of India (FSSAI) permitted only ethylene gas for artificial ripening of fruits and according to FSSAI guidelines ethylene gas can be generated from various sources. As an alternative of calcium carbide and ethrel, ICAR-CISH has developed easy to use sachet for ripening of mangoes. The material in sachet contains ethylene releasing compounds which release ethylene gas after absorbing moisture from the fruits. The weight of sachet is 1.5 g and one sachet is sufficient for ripening of 5-10 kg mangoes. The sachet needs to be placed in between fruits in middle of CFB box/ crates subsequently covered with paper. Early harvested fruits ripened in four days, mid and late season fruits ripened within two days after placing sachet in fruit packaging box. The cost of one sachet is Rs. 3.00 only.

Fruit ripened by
CISH ripening sachet

Untreated fruits

'Swavlamban' a rural women Self Help Group for self reliance

ICAR-CISH, Rehmankhara, Lucknow capacity built 20 rural women on value addition of mango during the last two years under Farmer FIRST project which has helped them to come together during the lockdown for the processing of raw mango resulting into mango pickle, mango powder and *Aam Panna*. With the help of institute, they formed Self Help Group Called "Swavlamban" at a village Mohammad Nagar Talukedari in Malihabad. Generally rural women sell dried mango segments from undersized and dropped raw mango which is then sold to middle men in throw away price. These hapless women get a raw deal from middle men. Looking at their plight, the ICAR-CISH trained these women on various aspect of value addition of mango under the Farmer FIRST project. Equipped with skills and confidence, these women have started making pickle and other products which became popular in the local market. The mango pickle produced by *Swavlamban* will be packaged, branded and marketed through Agri-Incubatee who are part of

Agri-Business Incubation Centre of ICAR-CISH. Two apps 'MangoBaba' and 'Subtropical' developed by the Institute will also be marketing the products produced by women self help group.



Entrepreneurship development programme on mango, guava, bael and aonla processed products

A three days Entrepreneurship Development Programme on mango, guava, bael and aonla processed product, sponsored by Public and Agriculture Development Institute, was organized by ICAR-CISH, Rehmankhhera, Lucknow during March 16-18, 2020 wherein forty two women entrepreneurs from Prayagraj who participated. During the programme, participants were apprised about pulp processing methods, necessary instruments, equipment, etc. to make various quality processed products of mango, guava, bael and aonla at large scale. Information about the process of obtaining license of FSSAI to sell their products were also given to women entrepreneurs. Dr. P.S. Gurjar (Scientist) and Er. D.K. Shukla (CTO) coordinated the programme.

PROGRAMMES ORGANIZED

Entrepreneurship development programme on mango and guava pulp processing

ICAR-CISH, Rehmankhhera, Lucknow organized three days Entrepreneurship Development Programme on Mango and Guava Pulp Processing during February 10-12, 2020 wherein entrepreneurs from West Bengal, Bihar, Madhya Pradesh, Haryana, Uttar Pradesh and Jharkhand participated. The entrepreneurs were exposed to various types of equipments used in the processing of mango and guava such as pulp extractor, finisher, pulp pasteurizer, etc. Information were also imparted to the entrepreneurs about pulp extraction from mango and guava besides the preparation of their value-added products. Dr. Shailendra Rajan, Director ICAR-CISH deliberated upon the importance of processing varieties, machinery and cost for pulp processing of mango and guava. The programme was coordinated by Dr. Pawan Singh Gurjar, Scientist.



Awareness campaign about constitution

The ICAR-CISH, Rehmankhhera, Lucknow organized an awareness campaign about the Constitution of India at Kithipara and Rehmankhhera villages of Kakori block on February 19, 2020. More than 70 people including local women, men and youth of the village who attended the programme were informed about the fundamental rights and fundamental duties. Villagers were also apprised of various flagship programmes run by the Government of India such as Swachh Bharat Abhiyan, Mera Gaon Mera Gaurav, Kaushal Bharat Mission, Start-up India, Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Kaushal Vikas Yojana, Beti Bachao Beti Padhao, etc. Villagers were sensitized and made aware about the disposal of bio-degradable and non bio degradable wastes and the importance of cleanliness and sanitation in day-to-day life. On this occasion, scientists gave information about the importance of nutrition in ones life, development of nutritional gardens, management of weeds and use of kitchen waste water to the villagers. Dr. Naresh Babu, Principal Scientist, Mr. Subhash Chandra, Scientist (SG) and Mr. Arvind Kumar, Assistant Chief Technical Officer coordinated the programme.



MEETINGS ORGANIZED

Interaction meet with front runners

An interaction meet with the front runners under Scheduled Caste Sub Plan was organized by ICAR-CISH, Rehmankhhera, Lucknow on February 18, 2020.

Thirty one front runners, present during the meeting, were apprised about the early production of cucurbits like Cucumber, Gourd, Bitter gourd, Water melon, Musk melon, etc. Front runners with their technical knowhow distributed cucurbits plant to the SC farmers as per the instructions of the institute.



Online Entrepreneurs Meet

Agri-Business Incubation centre of ICAR-CISH, Rehmankhhera, Lucknow organized an online Entrepreneurs Meet on June 4, 2020 wherein 14 budding agri-entrepreneurs from Delhi, Uttar Pradesh and Maharashtra interacted with Dr. S. Rajan, Director, ICAR-CISH and other mentors through video conferencing. ABI is going to hand hold entrepreneurs in various horticultural technologies such as processing and value addition of fruits, digital marketing of horticultural crops, bio-immunized tissue culture plant of banana, fruit fly trap, tree banding for mango mealy bug, on farm input, organic production, etc. During the dialogue, the budding agro-entrepreneurs were asked to submit a detailed action plan so that they could sign MoUs, in-house training, etc. and entrepreneurs can initiate the development of the product / prototype.



Online dialogue on "Conservation of Horticultural Crop Diversity for Sustainable Livelihood"

The ICAR-CISH, Rehmankhhera, Lucknow in collaboration with SDSH organized a Dialogue on "Conservation of Horticultural Crop Diversity for Sustainable Livelihood" to celebrate World Environment Day on June 5, 2020. Three eminent scientists delivered their lectures through video

conferencing on conservation of horticultural diversity. Dr. V.A. Parthasarathy, Ex. Director ICAR-IISR, Kozhikode spoke about conservation on heirloom variety of horticultural crop. Dr. S. Rajan, Director, ICAR-CISH, Lucknow emphasized the significance of Community based conservation approach for mango diversity and Dr. Vishal Nath, Director, ICAR-NRCL, Muzaffarpur shared his views on Enhancement of Litchi diversity. Academicians, researchers and students joined this online dialogue through google meet.



types of self-produced vegetables of the farmers and the winners were also awarded by the Hon'ble Agriculture Minister, Mr. Surya Pratap Shahi Ji.



World Environment Day

Dialogue on
Conservation of Horticultural Crop Diversity for Sustainable Livelihood



Dr. S. Rajan
Director
ICAR-CISH, Lucknow



Dr. V. A. Parthasarathy
Ex.-Director
ICAR-IISR, Kozhikode



Dr. Vishal Nath
Director
ICAR-NRCL, Muzaffarpur

5th June, 2020 (2 PM - 4.30 PM)

Google Meet (Email : abi.cish@gmail.com, WebLink : <https://meet.google.com/hsv-dhrk-nod>)

ICAR-Central Institute for Subtropical Horticulture, Lucknow, Uttar Pradesh
Society for Development of Subtropical Horticulture, Lucknow, Uttar Pradesh
Tel : (0522) 2841022-24, 2841026 www.cish.res.in

GOSTHI

Kisan Mela and Exhibition

ICAR-CISH, Rehmankhhera, Lucknow organized farmer fair and exhibition at its premises on February 26, 2020. More than 550 scheduled caste farmers from 35 villages of Kakori and Mall blocks participated in the fair. The chief guest of the function, Hon'ble Agriculture Minister of Uttar Pradesh, Shri Surya Pratap Shahi Ji, in his address, appreciated the work done by the institute on various aspects of subtropical fruits. He also praised the institute for developing of hydroponics model under RKVY project, funded by Uttar Pradesh Government. Latest horticultural techniques and products were showcased by other ICAR and CSIR institute, KVK, Private companies and farmers in the exhibition. The farmers were apprised about various farming techniques. Over and above, a competition was also organized to showcase various

WORKSHOPS ORGANIZED

Krishi Samriddhi Mela cum National workshop

Krishi Samriddhi Mela-cum-National Workshop was jointly organized by Dhanyaganga Krishi Vigyan Kendra and Ramakrishna Mission Ashrama Saragachi at Malda during January 10-13, 2020. Dr. P.K. Chakrabarty (Member, ASRB, New Delhi) was the chief guest of the event. On this function, Directors of several other ICAR Institutes were also present. During the Workshop, Dr. S. Rajan, Director, ICAR-CISH, Lucknow presented institute's promising technologies and was full of praise for the serious disease management issues of mango orchards at Murshidabad and Malda districts. In Samriddhi Mela, ICAR-CISH installed its exhibition stall and showcased developed products and technologies. More than 1000 farmers visited the ICAR-CISH exhibition stall and were benefitted from the information of advance technologies and products developed by the institute.





Vertical hydroponics and soilless culture workshop

ICAR-CISH, Rehmankhara, Lucknow organized a one-day Vertical Hydroponics and Soilless Culture Workshop for more than 140 participants representing different districts of Uttar Pradesh on January 24, 2020. Dr. K.K. Lal, Director, ICAR-NBFG, Lucknow was the chief guest of this workshop as. During the Lecture-cum-Interactive Session, Dr. S. Rajan, Director, ICAR-CISH, Lucknow discussed about the prospects and future of hydroponics in urban horticulture. The participants have learned about sorts of hydroponics and plant nutrient requirement, nutrient deficiency symptoms in hydroponics plants and their correction, disease and pest management in hydroponics and organic hydroponics vegetable production. Dr. S.R. Singh (Principal Scientist), Programme Coordinator demonstrated the models of low-cost hydroponics developed by the institute.



CELEBRATIONS

International Women Day

Several awareness related programmes on economic empowerment of farm women through the formation of self help group were held at Mohammad Nagar Talukedari village of Malihabad block

under the Farmers FIRST project by the ICAR-CISH, Rehmankhara, Lucknow on the occasion of International Women Day on March 8, 2020. Scientists of the institute interacted with the rural women and explicated them about the advantages of SHGs in economic and social empowerment. Fifteen rural women working on the value addition of raw mango powder participated in the programme. Now these women will form their own SHGs for the production of dehydrated vegetables / fruits and better market linkage for sustainable income.

The institute also organized a meeting in Kusmaura village under the Scheduled Castes Sub Plan wherein seedlings of vegetable plants were demonstrated to ensure nutritional security and sustainable livelihood of poor women belonging to scheduled castes. Apart from this, a team of scientists of the institute went to Krishi Vigyan Kendra, Dhaura to discuss women-centric technologies such as Nutri Garden with SC rural women for nutritional and economic security. The institute distributed vegetable plants and seeds to rural women belonging to scheduled castes for the establishment of Nutri Gardens.



MISCELLANEOUS

Meditation camp

Under the stress management programme, three days meditation camp was organized at ICAR-CISH, Rehmankhara, Lucknow from January 6-8, 2020. Shri R.S.L. Srivastava, Trainer, Heartfulness Mediation Centre, IIM Road, Lucknow taught the methodology of different meditations and delivered lectures wherein more than 45 scientists, officers and staff participated. In course of his lectures, he told the gathering that meditation plays a tremendous role in controlling human mind even during the busiest hours of life. He informed that mediation makes one cool, calm and composed in even adverse circumstances. He further added that mediation not only controls anger but also helps in increasing the efficiencies of the employees. During the three days camp, participating meditation practitioners also learnt how to cleanse mental garbage. On this occasion, Dr. Shailendra Rajan,

Director, ICAR-CISH briefed the gathering about the benefits of meditation. Everyone had a tremendous experience about meditation.



Mushroom related activities

To promote round the year cultivation of mushroom among rural masses, 294 kg Oyster and milky mushroom spawn was produced. Out of which 271 kg spawn was sold to growers and rest was utilized in the preparation of ready to fruit mushroom bags for distribution among scheduled caste farmers. Ninety-five ready to fruit mushroom bags were given to ten farmers of Malihabad block during January and June 2020. Twenty-five Oyster ready to fruit mushroom bags were distributed to famers in a training programme organized by KVK, Dhaora, Unnao on March 08, 2020.



TRAININGS ORGANIZED

Entrepreneurship and leadership development programme

ICAR-CISH, Rehmankhhera, Lucknow organized six days self financed training on "Entrepreneurship and leadership development programme for horticulture entrepreneurs" on the syllabus pattern of National Horticulture Board (NHB) Gurugram, Haryana during January 20-25, 2020. The trainees were from

Maharashtra and Andhra Pradesh whom experts provided in depth knowledge about leadership development for successful running of project to the trainees as Agripreneurs. Dr. Ashok Kumar, Principal Scientist coordinated the training programme.

e-Choupal programme

Under the ITC Limited sponsored e-Choupal farmer training programme, two days training programme was organized at ICAR-CISH, Rehmankhhera, Lucknow during January 24-25, 2020 wherein a group of 21 farmers from Chandauli and Ghazipur district attended the training programme. Dr. Shailendra Rajan, Director, ICAR-CISH, in his speech, underlined the prospective varieties of guava. Farmers were apprised about high density planting of guava, rejuvenation, canopy management, disease and pest management, intercropping, fruit bagging espalier and container gardening. Trainees also visited the experimental plot of the Institute. Dr. K.K. Srivastava, Principal Scientist was the coordinator the programme.



Horticulture of subtropical fruits and vegetable production techniques

A three days Training on Horticulture of subtropical fruits and vegetable production techniques was organized by ICAR-CISH, Rehmankhhera, Lucknow during February 24-26, 2020. Trainees were apprised about latest technique of vegetable production, hydroponics technology, high density planting, rejuvenation, canopy management, disease and pest management, intercropping, fruit bagging espalier and container gardening. Trainees also visited the experimental plots of the Institute. The programme was coordinated by Shri Subhash Chandra (Scientist SG).



High density orcharding of mango and guava

The ICAR-CISH, Rehmankhhera, Lucknow organized a training programme on “High density orcharding of Mango and Guava” sponsored by Directorate of Horticulture (Shimla-2), Himachal Pradesh during February 27 to March 2, 2020. The training programme was attended by 25 trainees from Bilaspur district of Himachal Pradesh. At the very outset of the programme, Dr. S. Rajan, Director ICAR-CISH, apprised the trainees about the varieties and technologies of subtropical fruits developed by the institute. The experts of the Institute gave information about the high density orcharding of mango and guava, care and maintenance, canopy management, rejuvenation, drip irrigation, water and nutrients management, disease and pest management, tree-architecture, etc. to the trainees. Trainees were also exposed to experimental field of the institute. Dr. K.K. Srivastava, Principal Scientist coordinated the training programme.



Dehydration of vegetables

ICAR-CISH, Rehmankhhera, Lucknow organized two days training programme on “Dehydration of Vegetables” under SCSP during March 4-5, 2020. Total seventeen candidates, 10 rural women and 7 farmers from Kushmora, Mandoli and Nabipanah villages participated in the training programme. Methods for dehydration of, root, tuber, leafy vegetables and cole crops were demonstrated to the trainees. The trainees themselves practiced all the necessary steps involved in vegetable dehydration such as washing, blanching, drying and packaging. Trainees were apprised with how preparation and marketing of

dehydrated vegetable products can be made as a source of livelihood for rural women. Trainees also learnt process of rehydration of dried vegetables for use in off season.



PARTICIPATION IN EXHIBITION FOR TECHNOLOGY DISSEMINATION

National Horticultural Fair -2020

ICAR-CISH, Rehmankhhera, Lucknow participated and displayed its technologies in National Horticultural Fair - 2020 organized by ICAR-IIHR, Hessarghatta, Bengaluru with the theme, Horticulture: making farming an enterprise during February 05-08, 2020. The fair was inaugurated by Secretary, DARE and Director General, ICAR, New Delhi, Dr. Trilochan Mohapatra on February 5, 2020. During the fair, more than 6000 farmers visited ICAR-CISH Exhibition stall and benefitted from the information of advance technologies developed by the institute. Mr. Arvind Kumar, Assistant Chief Technical Officer participated in the fair.





Flora Fauna Innovation Summit

ICAR-CISH, Rehmankhera, participated & displayed its technology show casing exhibition stall in the Flora Fauna Innovation Summit organized by Flora Fauna Science Foundation at Emereld-9, Institute of Management and Technology, Barabanki on February 15, 2020. The summit was inaugurated by Prof. Alok Dhawan, Director, CSIR-Indian Institute of Toxicology Research, Lucknow along with Dr. S.P.S Khanuja, President, FFSF. More than 200 farmers, students and entrepreneurs from Lucknow and Barabanki districts participated in the summit. They were made aware about the technologies developed by ICAR-CISH during their visit to our showcasing stall.



Vegetable and Flower Show-2020

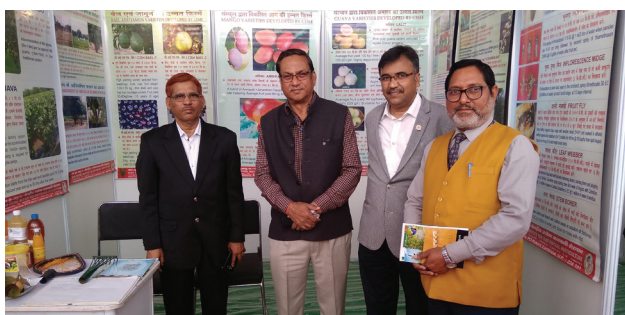
Directorate of Horticulture and Food Processing, Lucknow organized three days (February 22-24, 2020) Vegetable and Flowers Show at Rajbhawan, Lucknow. Scientists and Technical staffs of ICAR-CISH participated and showcased the institute technologies. The show was inaugurated by Honourable Chief Minister Shri Aditya Nath Yogi on February 22, 2020. Guava cvs. CISH-Lalit and CISH-Shweta; Bael varieties- CISH B1 and CISH B2, beans, exotic vegetable varieties, lettuce, strawberry, processed fruit products, mechanical device for removing leaf webber in mango and mango harvester were made big attraction for visitors at the institute’s stalls. More than 5000 farmers visited the stall and were benefited from the information on advance technologies developed by the Institute. Dr. Shailendra Rajan, Director, ICAR-CISH took feed-back from the visitors about the various problems in cultivation of vegetables, fruits and flowers. Hon’ble Governor of Uttar Pradesh, Smt. Anandi Ben Patel was the chief guest of the concluding session on February 24, 2020.



Pusa Krishi Vigyan Mela

The ICAR-CISH, Rehmankhera, Lucknow participated and displayed its technologies through showcasing at the exhibition stall in the three days Pusa Krishi Vigyan Mela organized by ICAR-IARI, New Delhi at

its Pusa Campus during March 01-03, 2020. The Mela was inaugurated by Shri Narendra Singh Tomar, Hon'ble Minister for Agriculture & Farmers Welfare, GOI, New Delhi along with Dr. Trilochan Mohopatra, Secretary, DARE & D.G., ICAR, New Delhi. More than one thousand visitors including stakeholders from various organizations, students, farmers from across the country visited ICAR-CISH exhibition stall. Dr. Shailendra Rajan, Director, ICAR-CISH, Lucknow was also present during the inaugural session of the Mela and also interacted with progressive mango growers on stall. Dr. Naresh Babu and Mr. Arvind Kumar participated and interacted with the visitors.



VISITS

Women farmer trainees

Under the “Women Empowerment Training” at the State Agricultural Management Institute, a group of 32 women farmer trainees from Bijnor, Bhadoi and Chandauli districts visited the processing laboratory of ICAR-CISH, Lucknow on January 09, 2020. Dr. Abha Singh, Principal Scientist underscored about empowerment of women farmers through agricultural and agricultural based products. Women trainees were apprised about tested methods, necessary instruments, equipment, etc. to make various quality processed products of mango, guava, bael and aonla at large scale. These women are already preparing and selling the processed products and other items. Er. D.K. Shukla, Chief Technical Officer gave information about the process of obtaining license of FSSAI to sell the products to women trainees.



Farmers from Damoh, Madhya Pradesh

Fifty six farmers sponsored by Department of Agriculture, Damoh, Madhya Pradesh visited the experimental field of ICAR-CISH, Lucknow on January 9, 2020. Principal Scientist, Dr. K.K. Srivastava apprised them about high density planting of mango and guava, rejuvenation, canopy management, disease and pest management, intercropping, espalier and container gardening.



Farmers from Satna, Madhya Pradesh

Eighteen farmers sponsored by Department of Agriculture, Satna, Madhya Pradesh visited the experimental field of ICAR-CISH, Lucknow on January 27, 2020. Farmers were apprised about high density planting of mango and guava, rejuvenation, canopy management, disease and pest management, management of irregular bearing in mango, intercropping, espalier and container gardening.



Women farmer trainees from Siwan, Bihar

Under the ongoing 'Women Empowerment Training' at the State Agricultural Management Institute, a group of 22 women farmer trainees from Siwan district of Bihar visited the processing laboratory of ICAR-CISH, Lucknow on February 24, 2020. Er. D.K. Shukla, Chief Technical Officer apprised the women trainees about the tested methods, necessary instruments, equipment, etc. to make various quality processed products of mango, guava, bael and aonla at large scale.



Women farmer trainees

Under the ongoing 'Women Empowerment Training' at the State Agricultural Management Institute, a group of 52 women farmer trainees from Hardoi district visited the processing laboratory of ICAR-CISH, Lucknow on March 13, 2020. Er. D.K. Shukla, Chief Technical Officer apprised the women farmer trainees about tested methods, necessary instruments, equipment, etc. to make various quality processed products of mango, guava, bael and aonla at large scale.



MEMORANDUM OF UNDERSTANDING

ICAR-CISH inked MoU with Palvi Industries, Sangli

A memorandum of understanding (MoU) with Palvi Industries, Sangli, Maharashtra ICAR-CISH, Rehmankhara, Lucknow had on January 3, 2020. On this occasion, Dr. Shailendra Rajan, Director, ICAR-

CISH along with Mr. Sudarshan Hurley, Director (Marketing), Palvi Industries and other members of the Institute Technology Management Unit were present. Under this agreement, the institute will evaluate the effectiveness of solar light based crop specific automatic (switch on/ off) insect trap equipment developed by Palvi Industries to protect crops from pests.



MoU with mango farmers

MoUs were signed with Mr. Abdul Gaffar, village Igari, Saharanpur; Mr. Rohit Singh Rana, village Mandora, Behat, Saharanpur and Mr. Md. Iqbal, Badagaon, Masauli, Barabanki for conducting experiments in their mango orchards for management of diseases and insect pests.

PERSONALIA

I. Transfer (In)

(A) Scientist

1. Dr. Ashish Yadav, Sr. Scientist (Horticulture) joined ICAR-CISH, Lucknow on transfer from ICAR-National Organic Farming Research Institute, Tadong w.e.f. 13.01.2020
2. Dr. Ravi S.C., Scientist (Agri. Economics) joined ICAR-CISH, Lucknow w.e.f. 04.04.2020

II. Confirmation

1. Smt. Jyoti Meena, Technical Assistant (Lab. Tech.) after completion of 02 years probation period up to 12.06.2020, confirmed in Institute w.e.f. 13.06.2020.
2. Dr. Sumit Kumar Soni, Technical Assistant (LT) after completion of 2 years probation period up to 18.06.2020, Confirmed in Institute w.e.f. 19.06.2020.

III. Promotion

(A) Administrative

1. Shri Rahul Bhat, Assistant of the institute was promoted to the post of Assistant Administrative Officer on 01.01.2020 after the DPC.
2. Shri Sajeevan Lal Gautam, Assistant was granted IIIrd MACP on 19.01.2020 after completing 30

years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.

(B) Skilled Supporting Staff

1. Shri Ram Khelawan S/o Shri Sukhlal-I, S.S.S. granted IInd MACP on 01.09.2008 after completing 20 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
2. Shri Shrikrishna, S.S.S. granted IInd MACP on 01.09.2008 after completing 20 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
3. Shri Rajaram, S.S.S. granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
4. Shri Govind Prasad, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
5. Shri Shriram, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
6. Shri Devideen, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
7. Shri Ram Bali, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
8. Shri Nankau, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
9. Shri Ram Pratap, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
10. Shri Shatrohan, S.S.S granted IIIrd MACP on

06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.

11. Shri Ram Swaroop, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
12. Shri Ram Lakhan, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
13. Shri Bholanath, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.
14. Shri Ram Khelawan S/o Shri Maiku, S.S.S granted IIIrd MACP on 06.12.2015 after completing 30 years of service vide letter no.1-1-(20)/Estt. dated 08.05.2020.
15. Shri Rajesh Kumar, S.S.S granted IInd MACP on 11.09.2016 after completing 20 years of service vide letter no. 1-1-(20)/Estt. dated 08.05.2020.

IV. Retirements

(A) Skilled Support Staff

1. Shri Ram Charan, S.S.S. retired from the Council's service w.e.f. 29.02.2020.
2. Smt. Savitri Devi, S.S.S. retired from the Council's service w.e.f. 31.05.2020.
3. Shri Nankau, S.S.S. retired from the Council's service w.e.f. 30.06.2020.
4. Shri Devi Deen, S.S.S. retired from the Council's service w.e.f. 30.06.2020.
5. Shri Raja Ram, S.S.S. retired from the Council's service w.e.f. 30.06.2020.
6. Shri Arjun, S.S.S. retired from the Council's service w.e.f. 30.06.2020.



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P.K. Shukla, Priti Sharma & Dhiraj Sharma

ICAR-Central Institute for Subtropical Horticulture

Rehmankhara, P.O. Kakori, Lucknow-226 101

Website: www.cish.res.in, e-mail: cish.lucknow@gmail.com

Phones: [+91-522-2841022](tel:+91-522-2841022), 24; Fax: [+ 91-522-2841025](tel:+91-522-2841025)

