



# CIAH NEWSLETTER



ICAR-Central Institute for Arid Horticulture  
Beechwal, Bikaner-334 006, Rajasthan

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## From the Director's Desk .....



It gives me immense pleasure in bringing out this six monthly Newsletter of ICAR-Central Institute for Arid Horticulture, Bikaner (Rajasthan). Ever since its inception, ICAR-CIAH is dedicated in conducting strategic research and developmental programmes to boost up the horticultural production in hot arid and semi-arid regions of the country. The Institute is actively engaged in research activities such as development of improve varieties and production technologies of arid horticultural crops which are able to give high yield with quality production under prevailing abiotic and biotic stresses in hot arid and semi-arid climatic conditions. The long term goal of the Institute is to turn the barren and unproductive lands of the hot arid and semi-arid regions of the country into productive green horticultural belts so as to reinforce the socio-economic status of rural inhabitants of the regions. Thus, the Institute is dedicated to serve the farmers and stakeholders of arid and semi-arid regions by developing location specific arid horticultural technologies, introduction of new genotypes/crops from iso-climatic conditions, feasible package and practices which can lead to successful production of horticultural crops under adverse climatic condition of the hot arid and semi arid regions of the country.

But the time was difficult and challenging during reported period of time. The worldwide spread of dreaded disease COVID-19 and attack of deadly locust in the Institute premises affected the smooth function of R and D programmes/ activities of the Institute during the period. As per instructions/ guidelines of the Governments, the Institute carried out/organized several activities and precautionary

measures were taken to avoid the ill effects of COVID-19 on the Institute, farmers, poor people/labourers, and others. The locust attacked several time in experimental farm, campus premises and nearby areas of the Institute. However, all staff members of the institute, including scientists, administrative staff, technical staff, SRF, YPs and labourers worked hard and flied away the swarms of the deadly locust from the Institute's premises and saved the Institute from great loss. Although, the time was challenging, all scientists and staff worked hard and tried to manage/ maintain all the programmes and activities/works of the Institute up to date as usual.

During so difficult time also, some promising genotype of fruits and vegetables like bael viz; CHESB-16 (IC-0629385), CHESB-21 (IC-0629386), CHESB-27(IC-06293867) and CHESB-29 (IC-0629388), CIAH- 22-6-1 of brinjal, LS-4xLS3-2 of bottle gourd (round shape), CHESIB-07 and CHESIB-10 of dolichosbean, etc., were identified and evaluated. The other novel technologies such as canopy management architecture in ber, flower regulation in pomegranate, biofortification of aonla candy, faster establishment and evaluation techniques in guava, budding technique in manila tamarind, etc., were also developed during the same period.

Farmers' programme and activities like trainings, farmers' advisories, FLDs, method demonstrations and interactions, research-extension-farmers-iteration meetings, visit to farmers' fields, activities for women empowerment, celebration of seed sale/distribution day, weeks, distribution of inputs, technical literatures, etc., were under taken during the period. Various programmes/ activities like training; technological interaction and input distribution among SC farmers/ farm women were also organized under ongoing SCSP Scheme in the Institute.

Before lockdown period of the COVID-19, some important meetings like 24th Annual Research Workers Group Meeting of AICRP on AZF at TNAU, Coimbatore (TN), Research Advisory Committee (RAC) Meeting, Institute Technology Management Committee Meeting and DUS Monitoring Team Meeting were also held.

The major programmes/activities and achievements of the Institute including its regional station and KVK during last six months are being highlighted through this Newsletter in brief.

(P. L. Saroj)  
Director

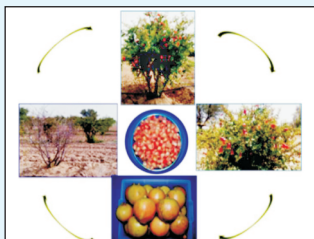
## Research Spectrum

At H. Q., Bikaner

● **Plant canopy architecture management in ber:** For the first time, ICAR-CIAH, Bikaner has initiated work on plant canopy architecture management in ber under hot arid ecosystem. Four varieties of ber viz., Gola, Thai ber, Goma kirti and Thar Sevika were planted on four training system i.e., Y shape trellis, Espalier trellis, Telephone and control. The plant spacing was 6m×3m and was maintained under drip system of irrigation. All varieties started fruiting after one year of planting. The initial two years observation revealed that the growing of ber on above training systems was better in terms of quality of fruit production than control. Ber being thorny plants, harvesting was easier when planted on different training systems over control. An average yield of 20kg/plant was harvested by growing ber on new training system. Among training systems, Y shape trellis has given better response in terms of yield/plant (**P.L.Saroj, D.K.Sarolia & B.D.Sharma**).



● **Standardization of flower regulation in pomegranate:** Flower regulation practice was standardized in pomegranate crop under hot arid climatic conditions. Withholding of irrigation during June + pruning + thinning with ethrel 2 ml/l +DAP 5 g/l treatment combination was found significantly superior over other treatments with highest marketable fruits yield, net return and B:C ratio. This technology was also demonstrated at farmers' field at Palana, Sujasar and Kanasar villages of Bikaner district who are getting good returns with high fruit yield (12-15 kg/plant) and low fruit cracking incidence (5-10 %) in Bhagwa cultivar (**R. Kumar, P. L. Saroj and B. D. Sharma**).



Flower regulation cycle in pomegranate cv. Jalore Seedless

● **First time noticed the brown spot disease in potato:** An observations were recorded in a trials conducted on potato varieties "Kufri Jyothi and Kufri Lavkar" at experimental farm of the Institute during 2019 and 2020. During the trials, the minute brown spots on leaves of these varieties with 1-20% disease incidence were observed. The disease incidence occurred in third week of February and onwards when temperature started increasing and crop was approaching to maturity. The samples from infected leaves were taken and causal organism of these brown spots were identified. It was found that these brown spots occurred due to the attack of *Alternaria alternate* which is resistance to strobilurin fungicides inherently. This kind of disease has been reported from other parts of country/globe but not yet so far reported

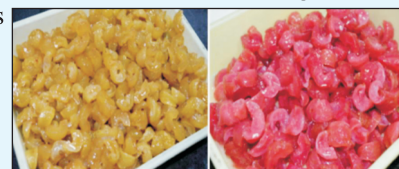


from Rajasthan (**Ramyashree D.G.S., M.K. Jatav and R.C. Balai**).

● **Identification and evaluation of promising genotype "CIAH- 22-6-1" of brinjal:** Identified and evaluated a promising genotype "CIAH- 22-6-1" of brinjal. The plants of this line were moderate in growth and thorny in nature. It took 56-62 days for first marketable fruit harvest from the date of transplanting. It is moderate bearer (16-27 fruits/plant) and marketable yield potential is 2.85-3.72 kg per plant/season. The plants exhibited good growth and continuous harvesting of quality fruits with temperature range of 42-46°C during May-June months. The genotype has potential for cultivation during both rainy-winter and spring-summer season under hot arid environment (**A.K. Verma and D.K. Samadia**).



● **Biofortification of aonla candy using karonda extract:** During preparation of aonla candy, the aonla fruits were blanched initially for few minutes to soften them and separation of segments from seed. The blanching of aonla fruits results in loss of heat sensitive bioactive components. Hence, an attempt was made to replenish the lost nutrients through impregnation of nutrient rich karonda fruit extract into the aonla candy. The karonda juice being rich in anthocyanins, iron and many other nutrients, would help in replenishment of nutrients lost during blanching and also improved the consumer appeal through imparting anthocyanin pigmentation to the aonla candy (**V. R. Reddy, R. K. Meena, M.K. Berwal and Ramesh Kumar**).



● **Impact of quality of irrigation water on nutraceutical value of Kachri:** An investigation was carried out to find out the impact of quality of irrigation water on nutraceutical value of Kachri fruits (var. -AHK-119). It was found that the Kachri fruits which were produced by applying the saline irrigation water had lower value of total antioxidants as compared to canal water irrigation. On applying canal irrigation water, the phenol value (3.27±0.108mg GAE/g DW to 5.10±0.144 mg GAE/g DW), total flavonoides values (0.312±0.013 to 0.50±0.022 mg Cat.E/gDW), total TAA mg AAE/g values (8.32±0.201 mg AAE/g to 9.11±0.371 mg AAE/g DW) were higher followed by irrigation applied through saline water (3.16±0.144 mg GAE/g DW to 4.24±0.144 mg GAE/g DW), (0.221±0.009 to 0.343±0.013 mg Cat. E/g DW), (6.68±0.262 mg AAE/g to 8.94±2.485 mg AAE/g DW), respectively. Thus, it was concluded that the fresh water (canal water) increase the nutraceutical value of kachri which can be utilized in increasing nutraceutical value of food items/stuff (**Anita Meena, R. C. Balai and**

● **Management of Fusarium wilt disease in muskmelon:** A trial was conducted for management of Fusarium wilt in muskmelon variety 'RM-50' under field conditions during summer season of 2019 at Pathological experimental Block

of this Institute. Among 11 treatments, carbendazim (0.1%) was found the most effective treatment against Fusarium wilt with minimum 14.29% disease incidence and 63.90% disease control, followed by neem leaf extract (@ 10%) with 19.67% disease incidence and 50.30% disease control (**S. K. Maheshwari and Ramyashree D.G.S.**).

#### At CHES, Vejalpur, Godhra, Gujarat.

● **Faster establishment and evaluation of new selections of guava through *In-situ* patch budding:** The patch budding was done during January 25-30, 2020 on three years old *in-situ* established seedling root stocks. Sprouting of buds started in between 20-25 days. 70-75% buds survived in different genotypes with highest in Hyb. 4/3. Flowering and fruiting started in Hyb. 4/3 during May, 2020. Therefore, this method can be used for faster establishment and evaluation of new selections to shorten the breeding cycle in semi-arid climatic conditions (**D. S. Mishra**).

● ***In-situ* patch budding in manila tamarind:** Patch budding in manila tamarind was done, especially in dry hot areas with low precipitation where mortality in nursery raised grafts is very high. *In-situ* patch budding method was found very useful for the establishment of the orchard in rocky soils of dry hot areas. The plants propagated by this method in the month of March and April was recorded appreciable success i.e. 80.00 to 85.00% (**Sanjay Singh**).

● **Identification of superior phenotypic bottle gourd:** The superior phenotypic bottle gourd (round shaped) was identified from segregating population of crosses made between LS-4xLS3-2 and advanced to F<sub>8</sub> for homogeneity. Plants are highly vigorous with dense foliage, male and female flowers emerge from 7th and 11th nodes, respectively. Each plant produces 24-32 female flowers and set harvestable sized fruits in 57-62 DAS. The fruits are round in shape, creamy white flesh colour and each plant produces 12.91kg. fruits (**L. P. Yadav**).



#### ● Evaluation of promising genotypes of bael.

**CHESB-16** (IC-0629385): It is late maturing (3rd week of May), has drooping branches, whitish green fruit surface colour and identical curved petals which are the distinct characters of this genotype. Average yield per plant was 97.00 kg at 10th year.

**CHESB-21** (IC-0629386): It has highly centric locule arrangement, thorny, odourless and lemon coloured of fruit surface which are the distinct characters of this genotype. Average yield per plant was 91.50 kg at 10th year. It is medium maturing variety (3rd week of April).

**CHESB-27**(IC-06293867): It has compact canopy, dark green leaves, cluster bearing and pointed at stalk end attachment which are distinct characters of this genotype. Average yield per plant 105.80 kg in 10th year (heavy yielder). It is mid maturing variety (4th week of April).

**CHESB-29** (IC-0629388): It is mid maturing variety (4th week of April). Dwarf, roundish cricket ball like shape of fruits and purple stigma which are the distinct characters of this genotype. Average yield which per plant was 62.25 kg in 7th year (heavy yielder).

#### ● Identification of elite genotypes of Dolichosbean.

**CHESIB-07:** The pods of this genotype are attractive light pink in colour. The pods are curve shaped with average length of 14.0cm, girth of 4.0cm and weight of 6-6.5g. The fresh pods harvesting started at 95 to 100 DAS and average yield was 4.5-5.0 kg/plant.

**CHESIB-10:** The pods are very attractive creamy white in colour. The pods are broad, having an average pod length of 16.00cm and an average pod girth of 6.2cm with pod weight of 11.5g. The fresh creamy white broad pods were harvested at 115 to 120 days after sowing. The total number of pods per plant were 550-600 with an average yield of 3.5-5.0 kg/plant of fresh pods (**Gangadhara K, L.P.Yadav and V.V. Apparao**).

#### Farmers' programmes and extension activities.

##### (a) At H.Q. Bikaner

##### ◆ Trainings.

● **Organization of 03 days farmers' training programme on "Plant propagation, orchard development and management techniques for ber and khejri":** Three days farmers' training programme was organized at the Institute on "Plant propagation, orchard development and management techniques for ber and khejri" during 04-06 February, 2020 in collaboration of BIAF Development Research Foundation, Regional Office Barmer (**D.K. Samadia, D.K. Sarolia and R.C. Balai**).

● **Organization of 03 days farmers training programme on "Improved production technologies of arid horticultural crops":** Three days farmers' training programme was organized at the Institute in collaboration with ATMA of Hanumangarh (Raj.) on "Improved production technologies of arid horticultural crops" during 11.02.2020 to 13.02.2020 (**S. R. Meena, R. C. Balai and D. K. Samadia**).



**Prof. (Dr.) P. L. Saroj, Director and Scientists of the Institute interacting with trainee farmers of ATMA, Hanumangarh (Rajasthan).**

● **Organization of 03 days farmers training programme on "Improved production technologies of arid fruits and vegetables":** Another three days farmers' training programme was organized at the Institute on "improved production technologies of arid fruits and vegetables" in collaboration with ATMA (under Agriculture and Farmers Welfare Department) Gurugram, Haryana from 04.03.20 to 06.03.20 at the Institute (**S. R. Meena and R. C. Balai**).

### ◆ Front Line Demonstration (FLDs)

- FLDs were conducted on improved varieties of Kachri (AHK-119), Snapmelon (AHS-82), ridgegourd (Thar karni) and vegetable clusterbean (Thar Bhadvi) on field of Lal Chand Meghwal S/o Sh. Ram Lal Meghwal, village- Naiyo Ki Basti, Tehsil- Kolayat, Distt.- Bikaner on 27.02.2020
- FLDs were conducted on improved varieties of Kachri (AHK-119), snapmelon (AHS-82), ridgegourd (Thar karni) and veg. clusterbean (Thar Bhadvi) on field of Mange Lal Meghwal S/o Sh. Kheta Ram Meghwal, village- Salasar, Tehsil- Kolayat, Distt.- Bikaner on 28.02.2020
- FLDs were conducted on improved varieties of Kachri (AHK-119) and ridge gourd at the fields of Sh. Shiv Kumar Sarswat S/o Sh. Tara Chand Sarswat, vill. - Kanasar, Tehsil & Distt.-Bikaner on 07.03.2020.

In addition to FLDs, 32 method demonstrations on production technologies of arid horticultural crops were also performed at the Institute to visiting farmers or while visiting to the farmers' fields during the reported period of time.

### ◆ Organization of Exhibitions.

- Participated and displayed technological exhibition stall of the Institute in "Farmers' Fair" organized at NRCSS, Tabijee Ajmer during 15-16-Feb., 2020.
- Participated and arranged an exhibition stall during the Kisan Mela organized by KVK Gudamalani, Barmer-II under Agricultural University, Jodhpur on 24.02.2020. Hon'ble Union Minister of State Agriculture and Farmers' Welfare, Sh. Kailash Chaudhary was the Chief Guest of this Kisan Mela and he appreciated the technologies developed by the Institute & displayed in the exhibition stall during the Mela.



Hon'ble Union Minister of State Agriculture and Farmers' Welfare, Sh. Kailash Chaudhary visiting and discussing about technologies at exhibition stall of the Institute during the Kisan Mela organized at KVK Gudamalani, Barmer-II on 24.02.2020.

### ◆ Other extension activities.

- More than 200 farmers, students, field workers, supervisors, SMS, dignitaries/ NGO, etc. were visited to Institute during the reported period of time.
- Fifteen on/off campus Research- Extension - Farmers-Interface- Meetings and eleven diagnostic and advisory visits were made to the farmers' fields.
- The activities like visits, meetings/group discussions trainings, interactions, etc., were also organized for empowerment of farm women, particularly in the field of arid horticulture.

- Several farmers' programmes and activities were conducted in adopted villages under MGMG Scheme of the Institute.
- More than 500 technical folders/literatures were distributed among the farmers/ clients during different extension programmes and activities (S. R. Meena, D. K. Samadia, D. K Sarolia and R. C. Balai).

### (b) At Regional Station (CHES), Godhra (Gujarat).

- Organized a three days on campus training programme on "Nursery and orchard management for livelihood security in semi-arid region" under Schedule Caste-Sub Plan (SCSP) 10.03.2020 to 13.03.2020 at CHES, Godhra (Gujarat).
- Displayed exhibits of Station (CHES) during "Krishi Mela, Exhibition and Farmer workshop" organized by ATMA, Panchmahals Gujarat during 21.01.2020 to 22.01.2020.
- Participated and displayed the exhibits of station in "Global Potato Conclave- 2020" at Mahatma Ashram, Gandhinagar, Gujarat organized by ICAR and CPRI, Shimla during 28.01.2020 to 31. 01.2020.



### (c). At KVK, Panchmahal, Godhra (Gujarat).

During the reported period of time, Krishi Vigyan Kendra, Panchmahal, Godhra (Gujarat) working under ICAR-CIAH, Bikaner conducted 06 On Farm Trails, (OFT), 17 Front Line Demonstrations (FLDs) and 24 method demonstrations on various technologies of agriculture and animal husbandry. The KVK also conducted 17 training programmes on different aspects of agricultural and allied fields in which 296 farmers and farm women were benefitted. KVK also conducted a special training program on "small poultry farmers" sponsored by ASCI. Moreover, KVK, Panchmahal organized other different extension activities viz. Kisan Mela (02), workshop (02), farmers-scientist-interactions meet(02), field day (02), Kisan Goshthi (02), exhibitions (02), film shows (09), farmers visits to KVK (3129), SHG meeting (06), farmers meetings (16), scientists visit to farmers' fields (114), field and mobile advisory services (554), diagnostic visits (37), lecturers in training programmes (121), radio talks (07), etc. during the period.

### The activities carried out during Lock Down Period of COVID-19 by the Institute.

The Institute carried out/organized the following activities for the benefits/protection of farmers, poor people/labourers, Institute's staff and others during the lockdown period (24.03.2020 to 30.06.2020) due to spread of COVID-19.

- **Precautionary measures taken against spread of COVID-19 in the Institute:** As precautionary measures against spread of COVID-19 in the Institute, the Institute was closed as per Governments guidelines, except essential works in experimental blocks; time to time proper

sanitization of the office building, laboratories, farm complex, residential colony, farm implements. Distribution of masks and sanitizers among all staff members of the Institute including SRFs, YPs, labourer, and regular temperature checking of all employee and sanitization at the main gate of the Institute were also carried out. The actions to maintain social distance in working areas and pasting of pamphlets to create awareness about precautions to be taken against COVID-19 within and outside of the Institute, etc., were also taken care of.



Sanitization and maintaining isolation distance, using mask, etc. by the staff of the Institute against COVID-19

Moreover, "Arogya Setu App" was also downloaded and used by all staff and family members for their own health and hygienic benefits during the attack of COVID-19.

● **Helps/life support activities:** During the lockdown period, the Institute distributed arid fruits and vegetables among the several needy labourers/poors for their life support as there was scarcity of fruits and vegetables in the locality during the lockdown period due to attack of COVID-19. The fruits like pomegranate were also distributed among the staff of police station, Bichwal, Bikaner as they were on hard duty during CORONA period with scares time and improper food.



● **Sale of fresh vegetables and fruits at low cost:** During the lockdown period, arid fruits and vegetables were also provided to staff, labourers, poors, etc., at lower cost to help them.

● **Creating knowledge and awareness about COVID-19:** Created knowledge and awareness among the farmers, rural and other people about the negative impact and precautionary measures to be taken against spread of COVID-19 using digital means like WhatsApp, other Apps, android mobile phones, emails, calls and messaging, etc.

● **Seed/ inputs distribution to farmers:** The seeds of improved varieties of arid vegetables, cluster bean (grain type), fertilizers, technical folders, etc, were distributed among the farmers to help them under SCSP Scheme by maintaining isolation distance, using of mask and other

precautionary measures against COVID-19.

● **Farmers' advisories:** During the lock down period, the following farmers' advisories were brought out (both in Hindi & English) for the benefit of a large number of farmers through Institutes' website, arid horticultural farmers' WhatsApp group (Arid Hort Farmers @CIAH), ICAR website through DKMU-ICAR, daily news papers, WhatsApp sent to individual farmers/stakeholders, etc. are as under.

- \* Farmers' advisory on arid horticultural crops (30.03.2020)
- \* Farmers' advisory on arid horticultural crops (18.04.2020)
- \* Farmers' advisory on arid horticultural crops (05.05.2020)
- \* Farmers' advisory on protection and proper care of arid horticultural crops (23.05.2020).
- \* Farmers' advisory on arid vegetable production during Kharif season (08.06.2020).

In addition to above, several farmers/stakeholders were also provided with advisories and guidance related to improved production technologies and management practices of arid horticultural crop through digital means like android mobile phone, emails, call and messaging, etc.

#### Locust attack in the Institute and controlling measures taken.

On 20.05.2020; 01.06.2020; 21.06.2020 and 29.06.2020; deadly locust swarms attacked on experimental blocks/farm, campus premises and nearby areas of the Institute. The swarm of the locust was about 2- 4.0 km long and came from the western border area of Bikaner district of Rajasthan. This locust swarm attacked on several crops/trees like Khejri plantation, pomegranate, date palm, citrus, lasoda, bael, aonla and vegetables (snap melon, longmelon, ridge gourd, sponge gourd, brinjal, etc.) and made minor damage to the crops. The swirling swarms of the deadly locust remained in the experimental blocks and campus premises of the Institute for about an hour. All staff members of the institute including scientists, administrative staff, technical staff, SRF, YPs and labourers immediately came into action on invasion of the locust and started to make metallic sound through beating utensils, iron boxes, blowing car horns, burning of waste material/ grasses in the experimental blocks and campus premises. Due to sound and burning of waste material/ grasses, the locust swarm fled away from the experimental blocks/farm and campus of the Institute and we could succeed to save the crops/trees of the experimental blocks/campus from severe damage. After attack in the Institute, the locust swarm swirled away towards the Nagaur district of Rajasthan. Immediately, the information about the locust attack was given to State Government Department and Regional Locust Warning Organization located in Bikaner city for kind attention and needful action, if any. The information of locust attack was also communicated to higher authority at ICAR H.Q. New Delhi.



A field view of locust attack in the Institute.

**HRD Programmes/activities.**

● **Organization of 21 days training programme on "Quality Seed Grower":** The Institute organized a 21 days skill development training programme in the Institute from 20th February to 11th March, 2020 on "Quality Seed Grower" sponsored by the Ministry of Skill Development and Entrepreneurship, GOI, New Delhi.



The basic objective of this training was to improve existing skills of farmers, make them self-sufficient and develop entrepreneurship in the field of quality seed production (**P.L. Saroj, B.R. Choudhary and A. K. Verma**).

● **Organization of 21 days training programme on "Organic Grower":** The Institute organized a 21 days skill development training programme from 16th January to 05th February, 2020 on "Organic Grower" sponsored by Agriculture Skill Council of India, New Delhi. The basic objective of this training was to improve existing skills of farmers, make them self-sufficient and develop entrepreneurship in the field of organic production (**P.L. Saroj, B.D. Sharma, R.C. Balai, and B.R. Choudhary**).



● **Organization of orientation training programme for newly joined Scientists:** One month orientation training programme was organized (on/offline) from 21.05.2020 to 19.06.2020 at the Institute for newly joined four scientists, namely Dr. Rekha Rani, Scientist (Ag. Economics); Sh. Rajeshwar Sanodiya, Scientist (PM & P); Sh. Mahendra Kumar Choudhary, Scientist (G & PB) and Ms. Monika Punia Scientist (G & PB).

**Programmes under SCSP Scheme:**

● **Organization of training and input/items distribution programme under SCSP Scheme:** A training and input distribution programme under SCSP Scheme was organized on 25.01.2020 at the Institute and the inputs/items such as milk cane, vegetable seeds like ridge gourd, bottle gourd, cluster bean, kitchen garden veg. packets, technical folders, etc., were distributed among 53 SC farmers of Gigasar village at the end of the training programme (**Director & SCSP Committee**).

● **Organization of training and input/items distribution programme under SCSP Scheme:** Another training and input distribution programme under SCSP Scheme was organized on 13.03.2020 at 465 RD, Block- Chhatargarh of Bikaner district. During this programme, the inputs/items (improved seeds of ridge gourd, bottle gourd and technical folders) were distributed among the 28 SC farmers at the end of training programme (**Director & SCSP Committee**).

● **Organization of training and input/items distribution programme under SCSP Scheme:** Another training and input distribution programme under SCSP Scheme was organized on 24.06.2020 at the Institute. In this programme,

25 SC farmers of Takhatpura village of Chhatargarh Block of Bikaner district participated and at the end of the training programme these farmers were provided with the inputs/items like improved seeds of cluster bean (grain) ridge gourd, bottle gourd, fertilizers and technical folders (**Director & SCSP Committee**).

● **Organization of 07 days women training program:** There was organized 07 days training programme on "Value addition of arid fruits and vegetables" from 24.02.20 to 01.03.20 at the Institute under SCSP Scheme for economic empowerment of rural women (SC) through development of value addition based horticulture enterprises" (**Anita Meena, D. K. Sarolia and V. R. Reddy**).

● **Organization of 07 days women training program:** There was organized 07 days training programme on "Economic Empowerment of Rural Women (SC)" through Nursery Management" from 13.03.20 to 19.03.20 at the Institute under SCSP Scheme (**Anita Meena, D. K. Sarolia, R. K. Meena, and V. R. Reddy**).



Some views of trainings and input distribution under SCSP Scheme.

**Organization/Celebration of days/weeks/ fortnights.**

● **Celebration of seed sale/distribution day:** The seed distribution day was celebrated at the Institute on 06.02.2020. In this programme, more than 1000 farmers participated from different states of the country like Rajasthan, Punjab, Haryana, Madhya Pradesh, Gujarat, etc.



Long queue of farmers waiting to get vegetable seeds

They were provide with the seeds of improved varieties of arid vegetables like Kachri (AHK-119), snap melon (AHS-82), long melon (Thar Sheetal), ridge gourd (Thar Karni), sponge gourd (Thar Tapish), brinjal (Thar Rachit), Palak (Thar Hariparna), etc., along with their

improved production technologies. On the occasion, Prof. (Dr.) P. L. Saroj, Director and scientists of the institute interacted with the farmers and addressed the farmers' queries. The farmers responded that cultivation of these varieties is highly beneficial. Some of the farmers informed that they are multiplying seeds of these crop varieties and getting gross income of worth Rs. 1.0 - 1.5 lakh/ha/season.

● The Institute celebrated the online International Yoga Day on 21.06.2020.

### Important Meetings held.

#### ● Organization of 24th Annual Research Workers Group Meeting of ICAR-All India Coordinated Research Project on Arid Zone Fruits:



Dignitaries on dias during ARWG meeting of AICRP on AZF

Dignitaries on dias during ARWG meeting of AICRP on AZF. Annual Research Workers Group Meeting of ICAR-All India Coordinated Research Project on Arid Zone Fruits was held during 25th February to 01st March, 2020 at Tamil Nadu Agricultural University, Coimbatore (TN). The 75 scientists from all the centres, invited guests and the university officers have attended the meeting. Prof. (Dr.) P. L. Saroj, Director and P C, AICRP on AZF presented the progress report of the achievements made during the last one year. Research workers also presented their achievements made during 2019 and also finalized the technical programme for the next year (2020). Dr. W. S. Dhillon, ADG (Hort. Science), ICAR, New Delhi has stated in his remarks that the AICRP system contributed lot in the progress of the horticultural scenario in the country. Dr. N. Kumar, Hon'ble Vice Chancellor (TNAU) stated that arid fruit crops are future crops and in near future they will play an important role in the country's GDP.

- **Organization of brainstorming session :** The Institute organized one day brain storming session on "Crop Improvement of Arid Zone Fruits at SKNAU, Jobner on 18.01.2020.
- **Research Advisory Committee (RAC) Meeting:** Research advisory Committee meeting was held in the



Institute during 3-4 Jan., 2020 under Chairmanship of Dr. T.A. More, Former Vice-Chancellor, MPKV, Rahuri (Maharashtra).

- **Institute Technology Management Committee Meeting:** Institute Technology Management Committee meeting was held at the Institute on 20.02.2020 under the Chairmanship of Prof. (Dr.) P. L. Saroj, Director of the Institute.
- **DUS Activity Monitoring Team Meeting:** DUS Activity Monitoring Team meeting was held at the Institute during March 03-04, 2020 under the Chairmanship of Prof. (Dr.) P. L. Saroj, Director of the Institute.



### Visit of VIPs/ Dignitaries at the Institute.

#### At H. Q. Bikaner.

- Sh. Josh Mohan, Inspector General of Police, Bikaner Range visited the Institute (ICAR-CIAH, Bikaner) on 01.01.2020.
- Dr. T.A. More, Former Vice-Chancellor, MPKV, Rahuri (Maharashtra) & Chairman, RAC, visited the Institute on 03<sup>rd</sup> Jan., 2020.
- Dr. Ashwani Kumar, Ex-Director, ICAR-IIWR, Bhubaneswar, visited the Institute on 03<sup>rd</sup> Jan., 2020.
- Dr. W.S. Dhillon, ADG, Horticultural Science, ICAR, New Delhi visited the Institute on 03<sup>rd</sup> Jan., 2020.
- Sh. D. D. Singh, Commandant (IPS) of RAC, Bikaner visited the Institute on 05.02.2020.
- Sh. Pradeep Mohan Sharma, Superintendent of Police (SP) of Bikaner visited the Institute on 11.05.2020.
- Dr. Ravi Prakash, Registrar, PPV & FRA, New Delhi visited the Institute on 03.03.2020
- Dr. O P. Awasthi, Principal Scientist, Division of fruit Science, IARI, Pusa, New Delhi visited the Institute on 03.03.2020.

#### Visits / meetings / programme attended / participated by the Director of the Institute.

- Worked as a member of Technical Committee to assess the suitability of the land for establishing the RRS of ICAR-DGR, Junagarh at Bikaner on 01.02.2020.
- As Co-Chairman of Technical Session and invited lead speaker participated in "Global Potato Conclave- 2020" at Mahatma Ashram, Gandhinagar, Gujarat organized by ICAR-CPRI, Shimla during 28.01.2020 to 31.01.2020.
- Worked as a Chairman for finalization of Sukumar Basu Memorial Award Committee at IARI, New Delhi on 30.01.2020.
- Attended a meeting of Board of Studies of the faculty of Institute of Agriculture Business Management, SKRAU, Bikaner (Rajasthan) on 03.02.2020.
- Participated in Indian Horticultural Summit-2020,

organized at MGCG, Chitrakoot, MP and presented lead paper during February 14-16, 2020.

- Participated in a video conferencing with DDG (Hort. Sci.), ICAR, New Delhi on 18.03.2020.
- Participated in a video conferencing with Secretary (DARE) and DG, ICAR, New Delhi on 19th March, 2020.
- Participated in a video conferencing with Secretary (DARE) and DG, ICAR, New Delhi on 10.04.2020.
- Acted as a Co-Chairman and presented online paper in National Webinar organized by CSAU, Kanpur on 06.05.2020.
- Participated and delivered a video talk in Face Book on Arid Horticulture on 10th May, 2020 for Progressive Horticulture Group.
- Participated in a virtual meeting on implementation of E-Office with Additional Secretary (DARE) and Secretary, ICAR, New Delhi on 24th June, 2020.
- Participated in a Webex meeting to discuss points of ICAR Bye-Laws with Additional Secretary (DARE), New Delhi 26th June, 2020.
- Participated in a webinar meeting on "To develop strategy to manage the locust" as a Panelist organized by SKNAU, Jobner on 27th June, 2020.
- Delivered a lecture on face book live at NDUAT Masti Live Group.

### Awards and Peer Recognitions.

- Prof. P. L Saroj, Director, ICAR- CIAH, Bikaner received "Life Time Achievement Award" from Dr. G. Kallu, Ex-DDG (Hort.), ICAR during Indian Horticultural Summit-2020 on February 14, 2020 for his contribution in the field of arid horticulture.
- Dr. B. R. Choudhary, Senior Scientist (Vegetable sunice) was honoured as "Fellow (2018) of the Society for Horticultural Research and Development" Ghaziabad (UP).
- The Institute participated and displayed technological exhibition stall during the Farmers' Fair organized at NRCSS, Tabijee Ajmer from 15.02.2020 to 16.02.2020. Our Institutes' exhibition was honoured with "Best Technological Exhibition Award" during this Mela.
- The Institute participated and displayed another technological exhibition stall during the Kisan Mela organized by KVK Gudamalani, Barmer-II under Agricultural University, Jodhpur on 24.02.2020. Our Institutes exhibition was honoured with "Best Technological Exhibition Award" during this Mela also. Hon'ble Union Agriculture and Farmers' Welfare Minister, Sh. Kailash Chaudhary Ji



was the Chief Guest of this Kisan Mela. He visited the technological exhibition stall of Institute and he highly appreciated the arid horticultural technologies developed by the Institute.

- The Regional Station of the Institute, CHES, Vejalpur, Godhra, Gujarat displayed the technological exhibition during "Krishi Mela, Exhibition and Farmer Workshop" organized by ATMA, Panchmahal, Gujarat during 21.01.2020 to 22.01.2020 and the exhibition of the Station received First Prize for best exhibition.



### Staff News

#### Appointment/joining/transfer:

- Dr. S.M. Haldhar, Scientist (Ag. Ento.) relieved from the Institute on 13.01.2020 (A.N.) to join at College of Agriculture, CAU, Imphal as Associate Professor (Ag. Ento.) at College of Agriculture, CAU, Imphal.
- Dr. Rekha Rani, Scientist (on probation), Agricultural Economics joined the Institute on 04.04.2020.
- Sh. Mahendra Kumar Choudhary, Scientist (on probation), Genetic & Plant Breeding joined the Institute on 04.04.2020.
- Ms. Monika Punia, Scientist (on probation), Genetic & Plant Breeding joined the Institute on 04.04.2020.
- Sh. Rajeshwar Sanodiya, Scientist (on probation), Farm Machinery & Power joined the Institute on 06.04.2020.
- Sh. S.C. Rathore, LDC joined duty back on 28.05.2020 at ICAR-CIAH, Bikaner after completion of one year duty on deputation at ICAR-CSWRI, RS, Bikaner.

#### Promotion/Assessment:

- Dr. Deepak Kumar Sarolia, Senior Scientist (Fruit Science) got probation clearance from 06.10.2017.
- Dr. Daya Shanker Mishra, Senior Scientist (Fruit Science) got probation clearance from 01.03.2018
- Dr. Vikas Yadav, Scientist (Fruit Science) got probation clearance from 31.12.2016
- Dr. Vijay Rakesh Reddy S., Scientist (Fruit Science) got probation clearance from 30.06.2017.
- Dr. Kamlesh Kumar, Scientist (Fruit Science) got probation clearance from 31.12.2017
- Dr. Lalu Prasad Yadav, Scientist (Vegetable Science) got probation clearance from 31.12.2016.
- Dr. Gangadhara K., Scientist (Vegetable Science) got probation clearance from 30.06.2017
- Dr. Ajay Kumar Verma, Scientist (Vegetable Science) got probation clearance from 31.12.2017

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