



Vol 15 (1 & 2)

April 2017 – March 2018

## From Director's Desk



This issue of ICAR-CITH Newsletter provides the glimpse of the research achievements, extension activities, trainings, events, man power strengthening etc covered by the Institute during 2017-18. During the period germplasm collection of trait specific accessions was done to strength the field gene bank. Under varietal development programme hybrids developed in apple were screened scab resistance and other important traits. Further crossing was done to introgress scab resistance in apple cultivar Ambri from scab resistant cultivar Prima In walnut lateral bearing habit is an important trait which is available in some exotic cultivars. During present year crossing was done to transfer this character to walnut varieties developed by ICAR-CITH, Srinagar. Production and protection technologies were developed in temperate fruits and nut crops. Technologies were also developed in plant protection and post harvest management. Under TSP and MGGM schemes technologies/varieties were demonstrated on farmer's field and farmers were benefitted with latest technologies and varieties of temperate horticultural crops. Institute is putting continuous efforts to make the farmers/ officers of line departments aware of various technologies generated

in temperate horticultural crops for improving productivity and quality. The Institute has organized number of programs for human resource development. For the quick adoption of technologies ICAR-CITH is continuously organizing vocational trainings, model training courses, crop days, on campus and off campus trainings as well as demonstrations, farm visits, diagnostic visits, supply of quality planting material, publication in local language, participation in farmer fairs, radio talk, TV shows and display of exhibits on various occasions/ farmers fair etc. I extend my heartfelt wishes to the scientists and staff members for their well deserved promotions.

I hope the current issue of this newsletter reflecting the activities of ICAR-CITH will enlighten the readers about the ongoing activities and status of the Institute. Feedback and suggestions for further improvement of the Institute will always be acknowledged.

## CONTENTS

Research Highlights	2
Meetings and Events	4
Extension and HRD	8
Distinguished Visitors	9
Awards and Recognitions	10
Appointments/Transfers/Retirements/ Study Leave	12

---

## RESEARCH HIGHLIGHTS

The ICAR-Central Institute of Temperate Horticulture is taking the lead in development and generation of technologies and varieties in temperate horticultural crops for benefit of the farmers in the temperate region of the country. The Institute along with its two Regional Stations is continuously carrying out need based research on temperate horticultural crops to boost the productivity and quality of temperate horticultural crops. The Institute has added 70 new germplasm in its field gene bank and its number has reached to 2610 at main centre Srinagar, J&K while Regional Station Mukteshwar is maintaining more than 300 germplasm of various fruit, vegetable and flower crops.

In apple sixty genotypes comprising of commercial and wild cultivars were evaluated for estimating their anti-oxidative and free radical scavenging potential. Significant variability with respect to phenolic compounds was observed across the genotypes. Highest rutin content (483 µg/g) was recorded in cultivar Lal Ambri followed by Well Spur (309 µg/g) and *Malus baccata* (212 µg/g). Highest catechin content (1745 µg/g) was found in cultivar Benoni followed by Lal Ambri (1438 µg/g) and Antonovka (1180 µg/g). Percent inhibition revealed through DPPH assay which, varied from 9.01% (*Malus baccata*) to 77.57 % (cv Michal). Maximum anti-oxidative potential was observed in Lal Ambri showing highest FRAF values (2.63µmol Fe<sup>2+</sup>/g Fw) and highest free radical scavenging potential as revealed through highest percent inhibition through DPPH assays was observed in cultivar Michal, Prima and Jonica with more than 70% inhibition. In pear 32 cultivars were evaluated for different quality related attributes. Among the evaluated European pear cultivars (22) maximum fruit wt. (309.37 g), and fruit diameter (81.66 mm), were recorded in cultivar Gent Drouard and maximum fruit length (119.85mm) was recorded in King Pear and minimum fruit weight (46.87 gm) and fruit diameter (43.88 mm) was recorded in cultivar Red Anjou. Fruit firmness in pear cultivars ranged from 42.09-69.02 RI. In plum, 20 cultivars (Japanese and European) were evaluated for various physico-chemical parameters and maximum fruit weight (82.81g), length (57.22 mm), diameter (51.19 mm), thickness (48.07 mm) and stone weight (4.07 g) was recorded in Kubio-26 while minimum fruit weight (16.41 g), length (31.29 mm), diameter (29.70 mm), thickness (28.93 mm) and stone weight (0.52 g) were recorded in Black Beaut. In peach 40 genotypes were evaluated for fruit skin, pulp chromatic, firmness index, physical, chemical and yield parameter. The

fruit shape index was found maximum in genotype Stark Early and minimum in genotype South Land Peach-2. Heaviest fruit was observed in Summer Glo and lightest in Mayfire. Among fruit chemical constituents, maximum TSS (oB) was estimated in CITH-P-5. In cherry among 32 evaluated genotypes 53.13% of genotypes showed higher range of TSS (15 to 18 oB) whereas 9.37% genotypes showed lower range of TSS (12 to 13 oB). The yield of fruit ranged from 5.27 to 19.4 kg/tree. CITH-C-04, CITH-C-07, CITH-C-15A, Lapins, and Double (Bigarreau Noir) recorded more than 15 kg yield/tree. In Apricot 62 germplasm accessions were evaluated for various floral, fruit and yield traits. The heaviest fruit weight was recorded at the tune of 75 g in CITH-AP-1, TSS ranged from 8.43 oB (Heartly ) to 25.83oB (CITH-AP-35). In almond 10 cultivars were evaluated for various traits related to flowering, nut, kernel characteristics and yield characteristics. The California Paper Shell, Primorskij, and Waris were found promising in respect of physical attributes of nut and kernel. However, highest yield recorded in Pranyaj followed by Waris. Further, highest kernel recovery was obtained from Nonpareil. Highest fruit set recorded in Drake followed by Waris and Makhdoom. Apart from Shalimar (74%) and Waris (84%) more than 90 per cent sound nut were obtained in evaluated cultivars. Double kernel was reported in all cultivars with variable number ranging from 3 to 50 per cent. Except Waris, IXL (3%), Nonpareil and Drake (4%) all other cultivars observed more than 10 per cent double kernel. Twin kernel was not observed in any cultivar.

In vegetable crops 53 kale genotypes were evaluated for yield and related parameters. The germplasm expressed marketable leaf yield of 1.00 to 30.78 t/ha. Three genotypes of chilli were evaluated during summer extended rabi 2017-18 at ICAR-CITH Regional Station, Mukteshwar, Nainital (UK) for their growth, yield and quality parameters. Most of lines exhibited significant differences for various growth, yield and quality parameters. In tulip 22 varieties were evaluated for various growth and floral traits. The plant height varied between 8.66 cm (Candella) to 37.33cm (Ben Van Zaintin) and the spike girth ranged 4.11mm (Candela) to 7.50 mm (Golden Parade).

In development of superior cultivars in apple through conventional and non-conventional breeding methods, thirteen hybrids were evaluated for fruit quality analysis and most of the hybrids showed superior performance with respect to some traits under analysis. Three hybrids viz Prima x Red Delicious, Well spur x *M. floribunda* and American Apirogue x *M. floribunda*

---

showed the presence of resistant gene *Vf Rvi6*. Four hybrids viz., Prima x *Malus floribunda*, American Apiroque x *Malus floribunda*, Prima x Red Delicious and Prima x Ambri were screened for presence of scab resistant genes. In order to identify the self fruitful genotypes in temperate fruits and nuts, experiment was conducted to identify self fruitful genotypes. A mega crossing programme was initiated in March 2018, involving Ambri as one of the parents carried out in apple. In development of superior varieties and hybrids in solanaceous vegetables, hybridization between slicing tomato (*Solanum lycopersicum* L.) and cherry tomato (*Solanum lycopersicum* var. *cerasiforme*) was done to introgress yellow color from latter into former and breed for other characteristics. In breeding for development of nutra-rich varieties in root crops different crosses of Purple Globe, Purple Round, Pink Top White Globe, Pink Top White Round, Pink Top White Flat, Mustard Yellow, Pink Round, White Round, White Globe, White Flat, Pink Flat, Pink Globe, Golden Ball and Pusa Chandrima were made into turnip hybridization programme and simultaneously got different F2 programme of turnips whereas in radish (green, white, and pink) were crossed and got F1 hybrids of radish. In characterization and diversity analysis for flowering related gene/ genes in almond, floral biology of 32 different cultivars/ genotypes were studied and screened for various flowering phenological stages. Low temperature sensitivity was investigated in almond under in-vitro low temperature treatment (0°C) at popcorn and full bloom phenological stages of flowering. The partial sequence of *PdFLC* was amplified from the genomic DNA of various almond cultivars.

During 2017-18 Institute produced about 33544 grafted plants of apple, walnut, cherry, peach and apricot on different rootstocks and 5656 budded plants of almond, apricot, cherry, peach, apple and plum. About 6.0 quintals of quality vegetable seed, strawberry runners (20, 000) and vegetable seedlings (15, 000) were also produced Bud-wood (>50, 000 sticks) of elite varieties of apple, pear, peach, plum, apricot, cherry, walnut, almond and olive were also provided to the stakeholders for popularization of elite varieties.

For enhancing feathering through plant growth regulators for high quality nursery production in apple, various growth regulator combination were tried and it was found that all treatments of plant growth regulators increased number of feathers, feather length, branching zone and per cent feathered plants compared to control. In fertigation, significant impact

on apple yield was observed and high yield enhancement along with good nutrient saving was observed on applying 75% of the recommended fertilizer through fertigation in two splits. Hence, 25% of the nutrients from recommended/prevaling practice could be saved along with little but noticeable increase in fruit yield. Effect of rootstock on pre-harvest fruit drop and quality of apple was studied and it was found that highest percentage of pre harvest fruit drop occur on M-9 rootstock and lowest on seedling.

Adroit mode of fertilizer application to get optimum quality saffron yield and corm multiplication rate, without polluting the environment was standardized. Midrib fertilizer placement upper to corms in two splits enhanced the quantity and quality of saffron with low nitrate leaching, well below the permissible limit, and low nitrous oxide emissions with least pollution potential and high nutrient use efficiency. In almond based intercropping system, non significant effects were observed for most of growth and floral traits. Significant differences were noticed for flower length, flower diameter, style and stigma length.

Under evaluation of different substrates and systems for soilless strawberry production in naturally ventilated conditions, coco-peat in combination with vermiculite (25:75 and 50:50) produced maximum growth as well as quality parameters in cv. Chandler and coco-peat in combination with vermiculite (50:50) produced maximum growth as well as fruit quality parameters in cv. Katrian Sweet under open ventilated polyhouse condition.

For round the year production of kale, transplanting was done on three different dates, to evaluate 27 promising genotypes and the July & August transplanting dates were found congenial. However, the September was found to be less favorable for germination and seedling development in most of the genotypes. Under crop diversification technology for round the year vegetable production under protected conditions in mid and high hills of Uttarakhand seven genotypes of tomato, eleven genotypes of capsicum, six genotypes of cucumber, lettuce, broccoli and Chinese cabbage were evaluated during summer extended Kharif under polyhouse at one location of ICAR-CITH Regional Station, Mukteshwar and other location at Pokhrad village of Nainital (UK) for their growth, yield and quality parameters. Most of lines exhibited significant differences for various growth, yield and quality parameters under study.

Under characterization of pathogens associated with apple canker disease and evaluation of botanicals against most prevalent canker in Kashmir valley, two

types of canker diseases were observed on different parts of apple trees with varied degrees of incidence and intensity. The cankers observed were smoky and stem bark canker. For characterization and botanical evaluation against *Stemphylium vesicarium* an incitant of Stemphylium blight (SB) of onion, six botanicals viz., Artichoke, Flex, Oreganum, Geranium, Iris and *R officinalis* were evaluated for its ecofriendly management. Botanical geranium and oreganum used @ 1000 ppm concentration gave highest percent radial growth inhibition among the all the botanicals evaluated against *Stemphylium vesicarium* under *in vitro* conditions.

In diagnosis and prognosis of apple viruses periodic detection of four apple viruses in different plant parts was done in four seasons, viz., spring, summer, and autumn/fall and winter/dormant. It was observed that all four viruses showed seasonal variation with respect to infectivity in different tested tissues. During spring, maximum infection was detected in leaves followed by buds, flowers, bark and pollen. In spring, flowers and pollen were found infected with the viruses which can be threatening because pollen flow can transfer the viruses to the healthy plants. During fall, ACLSV and ASPV were detectable both in leaves and bark. During winter season, ASPV & ASGV infection was observed in bark.

For management of chilli wilt different substrates were evaluated for fast multiplication and biomass production of *Trichoderma harzianum*. Vermicompost produced highest biomass of *Trichoderma harzianum* followed by pulses and cereals, after two weeks of inoculation. Conidial quantity assessment revealed that after 15 days, vermicompost followed by moong, produced highest colony forming units (CFU). It was found that *Trichoderma harzianum* grown on “vermicompost + cereals + pulses” reduces chilli wilt incidence significantly as compared to other treatments.

For dehydration of prune among the varieties Italian Plum took less time for dehydration and retained colour and ascorbic acid in addition to relatively higher rehydration ratio. Among different methods drying through osmo-dehydration followed by cabinet drying at 60°C took least time (3 hours 10 minutes OD + 8 hours CD) in Italian Prune with maximum retention of colour and ascorbic acid. In blending of juice s in different ratios, blending of sweet cherry with sour cherry (50% of each) retained maximum desirable colour i.e. brightness, redness, freshness, ascorbic acid, acidity and TSS when compared with other blending combinations. Blending of apricot with plum in the

ratio of 25% apricot + 75 % plum retained maximum desirable colour i.e brightness, redness, freshness, ascorbic acid, acidity and TSS when compared with other blending combinations. For enhancing storage and retention of quality in walnut different packaging systems were developed. It was found that at 12 month of storage period, vacuum packaging + Oxygen absorber + dark enhanced maximum shelf life and retains the post-harvest quality (fatty acid constituents) of walnut kernel characteristics as compared to traditional air packaging + light. In chilli, 23 accessions were evaluated antioxidant activities through DPPH and FRAP assays. Highest percentage of scavenging potential of about 15.57% followed by 15.44% was observed in Sel-836-1-2 and Sel-1055/11.

## MEETINGS AND EVENTS

### Workshop on olive research and development in India



Interaction of participants in the olive field during Olive workshop at ICAR-CITH Srinagar

Two-day workshop on “Olive Research and Development in India” was jointly organized by Oilseeds Division, Department of Agriculture and Corporation & Farmers Welfare and ICAR-Central Institute of Temperate Horticulture Srinagar from October 24-25, 2017 at ICAR-CITH, Srinagar. Workshop was inaugurated by Shri Gajendra Singh Shekhawat, Union Minister of State for Agriculture and Farmers welfare who in his inaugural address emphasized the role of research and development for combating the challenges faced by the farmers. This workshop was participated by officials from SKUAST (K), Srinagar, IARI, New Delhi, State Horticulture Department J & K, State Agriculture Department J & K, participants and farmers from various states like Meghalaya, Mizoram, Tamil Nadu, Jammu and Kashmir etc.

## Workshop at Leh

ICAR-Central Institute of Temperate Horticulture, Srinagar in collaboration with ICAR-CPRI, Shimla, ICAR-IIVR, Varanasi, ICAR-IIHR, Bangalore, ICAR-CAZRI RS Leh and HMAARI, SKUAST-K, Leh organized two days workshop on “Development of horticulture under cold arid region of Ladakh for enhancing quality production and improving livelihood” at SKUAST-K Campus Leh from 23rd to 24th August, 2017. The workshop was attended by around 135 participants including farmers from different areas of Ladakh, officers from line departments and scientists from ICAR and SKUAST Kashmir.



Interaction and deliberation during two days workshop at Leh

## Seminar on Emerging trends in Hi tech hill horticulture under changing climate

Two days seminar on “Emerging trends in Hi tech hill horticulture under changing climate” at ICAR-CITH RS Mukteshwar from 6 to 7<sup>th</sup> March, 2018 was organized. Keeping in view the effect of climate change on horticulture, deliberations and discussions were made by various experts from different states. The scientists, from various organizations, officers/officials from line department and progressive farmers participated in the seminar. Exhibition was also organized to highlight the various technologies of ICAR-CITH



Presentations during two days seminar at ICAR-CITH-RS, Mukteshwar

## State-wise coordination committee for doubling the farmers' income by 2022

Two meetings were organized by Dr Desh Beer Singh, Director, ICAR-Central Institute of Temperate Horticulture, Srinagar, and Member Secretary, under the Chairmanship of Dr Pradeep K Sharma, Vice Chancellor, SKUAST of Jammu, on May 11, 2017 and October 30, 2017 at SKUAST, Jammu, Chatha. The meeting focused on farm income potential of Jammu and Kashmir State and the strategies for doubling Farmers' Income in the State by 2022. Development Departments and other Senior Officials of State Government Departments attended the meetings and provided significant inputs. Strategy document for doubling farmer's income of Jammu and Kashmir by 2022 was compiled and submitted to the council.

## 13<sup>th</sup> Institute Research Council Meeting

Institute Research Council Meeting was held on 29 - 30<sup>th</sup> April 2017 (for CITH, Main campus) and 19<sup>th</sup> May, 2017 (for Regional Station, Mukteshwar) at CITH, Srinagar under chairmanship of Dr D B Singh, Director, CITH, Srinagar. All the scientists of CITH participated in the meeting. Besides these, scientists from IGFR, RS Srinagar and KVK, Baramulla also participated in the meeting. Project-wise presentations were made by respective PI's and results/ outcomes along with the activities to be taken up in next year were presented and discussed in details. Chairman gave critical inputs on experimentation for obtaining realistic and reproducible results.



Director, ICAR-CITH, Srinagar reviewing the research projects during IRC Meeting

## 14<sup>th</sup> Research Advisory Council Meeting

The 14<sup>th</sup> RAC Meeting was held on 3<sup>rd</sup> and 4<sup>th</sup> August, 2017 at ICAR-CITH, Srinagar under the Chairmanship of Dr K R Dhiman, Former Vice Chancellor, Dr YSPUH&F, Solan. The members who attended the meeting were Dr J C Rana, Dr A. Das Munshi, Dr M K Verma, Dr Hina

Shafi, Sh Desh Kumar Nehru, Dr W. S Dhillon, Dr Desh Beer Singh and Dr O C Sharma. The Chairman and members gave critical input on experimentation and new areas for research in temperate horticulture.



RAC members visiting and reviewing the research programme in the experimental farm

### Vigilance Awareness Week

The Vigilance Awareness Week was observed at ICAR-CITH, Srinagar From 30<sup>th</sup> October, 2017 to 4<sup>th</sup> November, 2017 on the theme “ My Vision- Corruption Free India”. A pledge ceremony was also organized in which all staff took pledge. On 2<sup>nd</sup> November, 2017, small talks on corruption and measures to stop it to achieve corruption free India were delivered by various staff members and all staff members shared their views.

### Intersession meeting of the consultative committee

ICAR-CITH organized Intersession meeting of the Consultative Committee of the Ministry of Agriculture and Farmers Welfare on the subject “Farm Mechanization” at SKICC Srinagar on 3<sup>rd</sup> July, 2017. Meeting was chaired by Shri Radha Mohan Singh, Hon’ble Union Minister of Agriculture and Farmers Welfare

### Hindi Week

Hindi week was celebrated by ICAR-Central Institute of Temperate Horticulture, Srinagar from 14 to 20<sup>th</sup> September, 2017 for compliance of official language policy. Institute organized some competition for staff members. Hindi Pakhwada was also celebrated at Regional Station Mukteshwar, Uttarakhand from 14 to 29<sup>th</sup> of Sept., 2017.

### International Yoga Day

ICAR-Central Institute of Temperate Horticulture celebrated third International Yoga Day on 21st June,

2017. All scientific, administrative, technical and supporting staff of ICAR-CITH, Srinagar, and scientific staff of ICAR-NBPGR-RS, Srinagar and ICAR-IGFRI-RS, Srinagar participated.



International Yoga Day celebration at ICAR-CITH, Srinagar

### Blossom Day

ICAR- Central Institute of Temperate Horticulture, Srinagar organized “Blossom Day” on 6<sup>th</sup> April, 2017 at its main campus Srinagar. The theme of the event was “Bloom in Temperate Fruits - Boon for Productivity and Horti-Tourism”. Expert scientists from NBPGR, Regional Station, Srinagar, IGFRI, Regional Station, Srinagar, SKUAST-K etc participated in the event along with the local farmers. Dr Desh Beer Singh, Director, ICARCITH, Srinagar enlightened the participants on the importance and role of temperate horticulture crop blossom on prediction of productivity and horti-tourism.



Blossom Day celebration at ICAR-CITH, Srinagar

### Root Crop Carnival

Root Crop Carnival was organized on 27<sup>th</sup> December, 2017 at main campus of the institute in which about 50 farmers from district Budgam participated. The farmers were made aware about importance of

various root crops and various nutra enriched hybrids/ varieties of carrot, turnip and radish were displayed in the carnival.



Exhibition of root crops and discussion during root crop carnival

### World Soil Day

Institute celebrated World Soil Day on 5<sup>th</sup> December, 2017. The function was attended by farmers from various districts of Kashmir, along with all the scientific, technical and administrative staff of ICAR-CITH. During the function farmers were made aware about the importance of soil sampling and testing through various audio-video aids and lectures by the experts. Address of honorable Minister of Agriculture & Farmers Welfare, Shri. Radha Mohan Singh was extended to the house through a video clip.



World Soil Health Day celebration at ICARCITH, Srinagar

### Agriculture Education Day

Institute celebrated Agriculture Education Day for promoting the spirit of agriculture and allied subjects among the participants. The programme was marked with the participation of staff members of ICAR-CITH including RA's, SRF'S, Field/Lab assistants and other contractual staff.



Discussions during Agricultural Education Day

### Kale Day

Institute celebrated Kale Day on 5<sup>th</sup> December, 2017. The function was attended by 60 farmers from various districts of Kashmir along with scientific, technical and administrative staff. During the function farmers were informed about the importance of kale crop and its nutritive value.



Demonstration on technologies and varieties to farmers during Kale Day

### Swachh Bharat Abhiyan

Institute organized "Swachhta Hi Seva" w.e.f. 15<sup>th</sup> Sept to 02<sup>nd</sup> October 2017 under Swachh Bharat Mission at ICAR-CITH, Srinagar. All staff of the Institute actively participated in the programme. Different activities were performed at different places as per the programme.



Cleanliness drive at ICAR-CITH Srinagar

## Apple Growers meet-Apple Day

An apple grower's meet-Apple day was organized on 18<sup>th</sup> August -2017 at ICAR-CITH RS, Mukteshwar in which many farmers from Uttarakhand participated and farmers were acquainted with different aspects of apple production and protection practices. During this day an exhibition was also organized.

## EXTENSION AND HRD

The Institute has organized four 2-3 days training programmes for line department and technical staff, one six days training programme for BHT students of KVK, Kargil, 7 student visits/ trainings, 41 one day training/ visits for farmers at Srinagar and 20 training/ demonstration activities at Mukteshwar and one three days training to farmers of Dirang at Regional Station Dirang (Arunachal Pradesh). The technologies were also directly delivered to the farmers through demonstrations and trainings under MGMG, TSP, NMSHE, network projects, livelihood and nutritional improvement of tribal farm women through horticulture programme. Besides these, 2 training programmes of 2-3 days for officers of Uttarakhand, 13 one day training programmes to farmers of J&K, H.P, were also organized under various schemes. The scientists delivered 15 radio/ TV talks and displayed 8 exhibitions at various occasions.

### Training programme on hybridization techniques in root vegetable crops

A three days training programme on 'Hybridization techniques in root vegetable crops' was conducted for line department officers from Deptt. of Agriculture Govt. of J&K, technical and supporting staff of ICAR-CITH Srinagar. Twenty six officers/officials participated in the training programme.

### Training programme on Scope of temperate horticulture crops in cold arid region of Ladakh

Two days Training Programme on, "Scope of Temperate Horticulture crops in cold arid region of Ladakh" was organized for officials/officers from Ladakh region from 22<sup>th</sup> to 23<sup>rd</sup> September, 2017 at ICAR-CITH Srinagar. Total 15 officials/officers participated in said programme. The participants were made acquainted with the various aspects of crop diversification in cold arid region of Ladakh.

### Training programme on production technology of winter vegetables in Jammu and Kashmir

Two 3-days training programmes entitled 'Production technology of winter vegetables in Jammu and Kashmir' was organized for line department

officers from Kashmir and Jammu divisions. Seventeen officers including AEA, AEO and JAE0 from both the divisions participated in the trainings. The aim of these training programmes was to acquaint the officers with advances in scientific and profitable cultivation techniques of winter vegetables popular in different agroclimatic zones of Jammu and Kashmir.



Training programme on "Production technologies of winter vegetables in J & K"

### Training programme on canopy management of temperate fruits for BHT students of KVK, Kargil

Six days training programme on "Canopy management of Temperate Fruits" was organized for BHT students of KVK, Kargil, from 6<sup>th</sup> to 11<sup>th</sup> Dec 2017 at ICAR-CITH, Srinagar. During the training programme maximum emphasis was given to practical and hands on canopy management and architectural engineering.

### Training programme on post-harvest management and value addition of stone fruits for farm youth of Kargil district

Three days training programme on "Post-Harvest Management and Value Addition of Stone Fruits for Farmers of Kargil District" was organised for unemployed youth of Kargil district from 24<sup>th</sup> to 26<sup>th</sup> July, 2017 at ICAR-CITH Srinagar. Total 15 number of farmers participated in said training programme.



Training on value addition of stone fruits to farm youth of Kargil



## Diagnostic visits, publications and Radio/

### TV programmes

The expert scientists from CITH main Station and Regional Station Mukteshwar visited farmer's field for identifying and solving different problems faced by these farmers. Remedies pertaining to plant and soil health were provided by the visiting experts. During the year more than 35 diagnostic visits were conducted to solve the farmer's problems in J & K and Uttarakhand. The scientists delivered 15 radio/ TV talks and displayed 8 exhibitions at various occasions. The scientists of ICAR-CITH published 42 research papers, 4 review articles, 6 books, 14 popular articles and 12 extension bulletin/ folders for the benefit of students, researchers, extension functionaries and farmers.

### Tribal Sub Plan Scheme

During 2017-18 three districts were covered under TSP scheme viz Ganderbal, Poonch and Udhampur. Technological and varietal demonstrations were laid out with complete package and practice developed by CITH, Srinagar for the benefit of tribal farmers. Tribal families of these districts were benefitted through this scheme. Scientists from CITH, Srinagar regularly visited the identified tribal villages to observe the performance and give technical advice for success of the programme. On-spot guidance was provided to the farmers for proper pruning, training, nutrition management, irrigation etc for obtaining higher productivity. Training to tribal farmers on different aspects of temperate horticulture was imparted.



Training on canopy management at Babanagri, Ganderbal under TSP

### Mera Gaon Mera Gaurav Programme

For implementation of Mera Gaon Mera Gaurav programme planting material of apple, peach, apricot, almond, cherry and vegetable seeds etc were distributed among more than 180 beneficiaries of district Anantnag (village Hatigam), Pulwama (village

Urcharso) and Sunkiya village, Uttarakhand. On spot demonstration and training was provided to the beneficiaries on planting procedure, HDP, precision farming, pollination management, plant protection etc.



Distribution of planting material for demonstration under MGMG

### DISTINGUISHING VISITORS

- ◆ Shri Radha Mohan Singh, Hon'ble Union Minister of Agriculture & Farmers Welfare visited ICAR-Central Institute of Temperate Horticulture, Srinagar on 4th July, 2017. He emphasized upon the plantation of trees along the border, intercropping, commercialization of technologies and varieties developed by the Institute. He also pointed out the need of cooperation and collaboration of the Institute with other agencies. Hon'ble Union Minister of Agriculture and Farmers Welfare appreciated overall contribution of ICAR-CITH, Srinagar



Shri Radha Mohan Singh, Hon'ble Union MoA&FW interacting with ICAR-CITH, Staff

- ◆ Shri. Ghulam Nabi Lone, Minister for Agriculture Production, J&K visited ICAR-CITH, Srinagar on 4th July, 2017
- ◆ Shri. Sunil Kumar Sharma, Hon'ble Minister of State transport (independent charge), Revenue, Public

works, Rural Development and Panchayati Raj, Agriculture Production YSS, Jammu and Kashmir visited ICAR-CITH, Srinagar on 4th July, 2017

- ◆ Shri Sundeep Kumar Nayak, Principal Secretary Agriculture Production, Jammu and Kashmir visited ICAR-CITH, Srinagar on 4th July, 2017
- ◆ Shri Gajendra Singh Shekhawat, Union Minister of State for Agriculture and Farmers Welfare visited ICAR-CITH, Srinagar and inaugurated Two-day workshop on “Olive Research and Development in India on 24<sup>th</sup> October, 2017. In his inaugural address, he emphasized the role of research and development for combating the challenges faced by the farmers.
- ◆ Shri Dalbir Singh Chib ( MoS & Vice President Kisan Advisory Board) visited ICAR-CITH on 25th of May 2017
- ◆ Shri Mukul Rohatagi, Attorney General for India and Shri Subhash Srivastava, Member PM’s Empowered Committee for Excellence in Public Administration visited ICAR-CITH, RS Mukteshwar on 30.05.2017.



Shri Dalbir Singh Chib, interacting with ICAR-CITH, Srinagar staff

## AWARDS AND RECOGNITIONS

- ◆ Dr D B Singh, Director, received Dr J C Anand Memorial Gold Medal In Post Harvest Technology-2017 on 6th November, 2017 at Dr B P Pal Auditorium , IARI, Pusa, New Delhi.
- ◆ Dr Raj Narayan, Principal Scientist, received first prize for lead lecture in the seminar on hi-tech hill horticulture in changing climate, 6-7 March, 2018, organized by ICAR-CITH, RS, Mukteshwar, Nainital, Uttarakhand.
- ◆ Dr O C Sharma, Principal Scientist received Bharat Jyoti Award 2017 by IIFS, New Delhi on 20<sup>th</sup> Dec,



Dr Desh Beer Singh, receiving Dr J C Anand Memorial Gold Medal

2017 during seminar on National Growth and National Integration.

- ◆ Dr Javid Iqbal Mir, Senior Scientist, received Best Researcher Award during National Seminar on Saffron Production and Promotion at SKUAST-K on August, 7, 2017
- ◆ Dr Javid Iqbal Mir, Senior Scientist, received best poster award during National Seminar on Saffron Production and Promotion at SKUAST-K on August, 8, 2017
- ◆ Dr Javid Iqbal Mir, Senior Scientist, received Best poster award during National Conference on “Climate Change and Agricultural Production” organized by BAU, Bhagalpur and Indian Ecological Society, Ludhiana from 6-8 April, 2017
- ◆ Dr Javid Iqbal Mir, Senior Scientist, received best Lead Lecture Award during Seminar on “Emerging trends in hi-tech horticulture in changing climate” organized at ICAR-CITH, Regional Station Mukteshwar from March 6-7, 2018 at Mukteshwar.
- ◆ Dr Shiv Lal, Scientist, (Sr Scale), received Dr B.R. Barwale Young Researcher Award in Horticultural



Dr J I Mir, receiving Best Researcher Award

Biotechnology -2017 conferred by Horticulture Society of India, Cash prize 12500/- certificate, medal and citation was presented during the function held at New Delhi.

- ♦ Dr Shiv Lal, Scientist, (Sr Scale), received Young Scientist Award-2017 by The Society of Tropical Agriculture, New Delhi (India).
- ♦ Dr Shiv Lal, Scientist, (Sr Scale), received Kanwar Virender Singh Memorial All India Best Publication Awards in Fruit Science 2017 by Society for Advancement of Human and Nature, Dr YS Parmar University of Horticulture and Forestry Nauni, Solan 173 230 Himachal Pradesh, India. Rs.1000 cash prize, citation and certificate were received.
- ♦ Dr Shiv Lal, Scientist, (Sr Scale), received best oral presentation award for paper presented on “Olive cultivation under horticulture farming system during seminar entitled “Emerging trends in Hi tech Hill Horticulture under changing climate” held from March 6-7, 2018 at ICAR-CITH RS Mukteshwar (Uttarakhand).
- ♦ Dr Arun Kishore, Scientist, received first prize for best oral research paper in the seminar on emerging trends in hi-tech hill horticulture in changing climate, 6-7 March, 2018, organized by ICAR-CITH, RS, Mukteshwar, Nainital, Uttarakhand.
- ♦ Dr Selvakumar R, Scientist received “Young Scientist Award” during ‘International Conference on Agriculture, Horticulture and Plant Science organized by Indian Society of Tropical Agriculture at Anandam Resort, Rishikesh, Uttarkhand on June 24-25, 2017

- ♦ Dr Selvakumar R, Scientist received “Young Researcher Award” during International Conference on Advances in Agriculture and Crop Science organized by Clyto Access at Hyatt Regency, Gurgaon on October 9, 2017.
- ♦ Dr Selvakumar R, Scientist received “Young Scientist Award” during National Seminar on Farmer Centric Cinema at ICAR-IISR on October 14-16, 2017 at Lucknow.
- ♦ Dr Selvakumar R, Scientist received “Gold Medal - Dwarika Nath Memorial Award-2017” for Best PhD Thesis during the National Conference on Food and Nutritional Security through Vegetable Crops in relation to Climate Change (NCVEG-17) organized by ICAR-Indian Institute of Vegetable Research and Indian Society of Vegetable Science from December 9-11 at Varanasi.
- ♦ Dr Selvakumar R, Scientist received “Best Poster Award” during National Conference on Food and Nutritional Security through Vegetable Crops in relation to Climate Change (NCVEG-17) organized at ICAR-Indian Institute of Vegetable Research and Indian Society of Vegetable Science from December 9-11 at Varanasi.
- ♦ Dr Selvakumar R, Scientist received “Excellence and Innovation Research Award” in Horticultural Sciences during National Education Summit-2017, Madurai on December 10th, 2017.
- ♦ Dr Selvakumar R, Scientist received “Official Spotlight Certificate Award” during 6th Academic Brilliance Award, 28th January 2018 at Noida.



Dr Shiv Lal, Receiving Dr B.R. Barwale Young Researcher Award



Dr Selvakumar R receiving “Dr Dwarka Nath Award-2017” at ICAR-Indian Institute of Vegetable Research, Varanasi

- ♦ Dr Selvakumar R, Scientist received “Best PhD Thesis Award in Vegetable Science” during National Conference on Innovative Technological Interventions for Doubling Farmers Income” organized by Society for Integrated Development of Agriculture, Veterinary and Ecological Science (SIDAVES) from February 8 -10, 2018 at SKUAST-Jammu.
- ♦ Mr Sajad Un Nabi, Scientist received Young Scientist Award-2017 in Agriculture from Society of Photochemistry and Pharmacognosy for the year 2017
- ♦ Mr Sajad Un Nabi, Scientist received best poster award during National Seminar on Saffron Production and Promotion at SKUAST-K on August, 8, 2017

## **APPOINTMENTS/TRANSFERS RETIREMENTS/ STUDY LEAVE**

### **Appointments**

- ♦ Sh Mohammad Mudasir Magray, Senior Technical Officer was relieved from this Institute on 2<sup>nd</sup>

August, 2017 after being selected as Assistant Professor at SKUAST-K, Srinagar

- ♦ Sh Akhil Thukral , Asst Admn Officer joined back ICAR-CITH, RS Mukteshwar after completion of his deputation at Competitive Commission of India, New Delhi on 11<sup>th</sup> December, 2018

### **Transfers**

- ♦ Dr Anil Kumar, Scientist, Plant Pathology transferred from ICAR-CITH, RS Mukteshwar to ICAR-DMR , Solan on 7th June, 2017.

### **Retirements**

- ♦ Sh. Mushtaq Ahmad Khan, Senior Technician (Lab) superannuated from Council’s services w.e.f 30th September, 2017 (AN)

### **Study Leave**

- ♦ Shri Sovan Debnath, Scientist (Soil Science) ICAR-CITH, RS Mukteshwar was deputed for Ph. D on 8th August, 2017.

## **ICAR-CITH Newsletter 2017-18 (August 2018)**

*Published by* : **Dr Desh Beer Singh,**  
Director, Central Institute of Temperate Horticulture  
Rangreth, Srinagar-191132, J&K, India,  
Phone: 0194-2305044, Fax 0194-2305045 Email: dircithsgr@icar.org.in

*Compiled and Edited by* : Dr D. B. Singh, Dr O. C. Sharma, Dr. J.I. Mir and Dr Anil Sharma

*Printed by* : M/s Royal Offset Printers, A-89/1, Naraina Industrial Area, Phase-I  
New Delhi-110 028