



IIHR News

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ICAR– Indian Institute of Horticultural Research

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From the Director's Desk



RESEARCH HIGHLIGHTS

Varieties/Technologies Identified

Mango variety Arka Uday: A cross between Amrapali x Arka Anmol. It is bunch bearing with medium sized fruits, semi-vigorous plant type. Fruits, firm pulp and deep yellow colour, pulp recovery of 68-70% and excellent shelf life. Fruit weight is 230 to 250 g with TSS of 23-24.0°Brix.



Arka Uday

Guava variety Arka Rashmi: A cross between Kamsari x Purple Local). The hybrid (3-29) bear round shaped medium size fruits (200-220 g) with pink pulp, medium lycopene content (4.93 mg/100 g), high vitamin C (235.5 mg/100 g), medium seed hardness (9.0 kg/cm²) and good yielding capacity.



Arka Rashmi

Gladiolus hybrid selection Arka Aayush: The hybrid selection IIHR G 11- Arka Aayush is suitable for flower quality and resistance to *Fusarium* wilt. Its florets are open-faced, thick, slightly ruffled, double row, red (41.C) having red (41.A) margin, blotch red (46.B) with yellow (13.C) border.



Arka Aayush

Gladiolus hybrid selection Arka Manorama: The hybrid selection IIHR G 7 Arka Manorama is suitable for attractive flower colour. Its florets are open-faced, medium, wavy, good, red-purple (65.B) having red-purple (62.A) streaks, red-purple (67.B) splash.



Arka Manorama

Marigold hybrid Arka Agni: Arka Agni (IIHRMOH-1) is hybrid developed from hybridization between IIHRMGYP-1 and 9-2. It is a petaloid male sterile line multiplied by vegetative propagation. It has medium height plant (80-85 cm), flower colour is orange (RHS colour N25C, orange group), petaloid male sterile flowers. Flowers are compact, large (7.5-8 cm), high yielding (7-7.5 tons/acre). Flowering starts 40-45 days after planting and continues to flower for 60 days. It is a vegetative propagated plant.



Arka Agni

Marigold hybrid Arka Alankara: Arka Alankara (IIHRMYH-1) is hybrid developed from hybridization between IIHRMGYP-1 and 9-2. It is petaloid male sterile line multiplied by vegetative propagation. It has medium height plant (75-80 cm). Flower colour is gold yellow (RHS colour 9A, yellow group). It has petaloid male sterile flowers. Flowers are compact and large (7-7.5 cm), high yielding with 6-6.5 tons/acre. Flowering starts 40-45 days after planting and continues to flower for 60 days. It is a vegetative propagated plant.



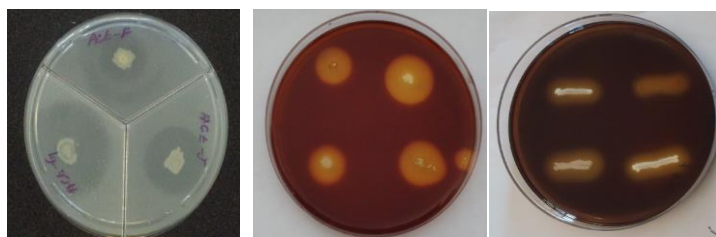
Arka Alankara

Arka Actino-Plus an Actinobacterial Consortium for Plant Growth Promotion:

This is a carrier based product containing three *Streptomyces* spp. that have ability to solubilize insoluble P & Zn, produce phytohormones and a variety of enzymes involved in organic matter recycling. The product can be stored and used without deterioration of its quality for 4-6 months under room conditions. It can be applied either through seed, seedlings, soil, irrigation water (drip irrigation – soil drenching) or by the enrichment of compost/FYM/cocopeat.

Benefits of the Actinobacterial Consortium:

- ❖ Increased seedling vigour
- ❖ Creates a nutrient rich environment in the rhizosphere due to enhanced mineralization
- ❖ Revitalizes plant health
- ❖ Reduces 25 % of N fertilizer requirement when recommended dosage of organic amendments are applied
- ❖ Reduces 25 % of P fertilizer requirement
- ❖ Enhances the nutrient uptake of plants
- ❖ Increases yields by 13 to 24 % in different vegetables



Phosphate
solubilisation

Cellulolytic
activity

Xylanolytic
activity

Mushroom fortified instant rasam mix: The technology for the production of mushroom fortified instant rasam mix has been standardised which involves mixture of traditional spices, tur and urad dal powder, tomato powder and mushroom powder made from dehydrated Elm oyster mushroom. The mushroom fortified instant rasam mix can be an excellent product for the enhancement of nutrition in daily diet of the vegetarians especially in rural areas.

Two amaranth varieties, Arka Samraksha and Arka Varna have been recommended for the release in North and South zones of Karnataka the details of which are given below.

Arka Samraksha: High yielding amaranth variety with high antioxidant activity of 499mg, low in nitrate and oxalates per 100 g fresh weight of leaves. It is a pulling type amaranth variety with green leaves and stem, yields 10.9 t/ha in 30-35 days duration.



Arka Samraksha

Arka Varna: High yielding amaranth variety with high antioxidant activity of 417mg, low in nitrate and oxalates per 100 g fresh weight of leaves. It is a pulling type amaranth variety with green leaves and pink stem, yields 10.6 t/ha in 30-35 days duration.



Arka Varna

A tomato F₁ hybrid Arka Samrat (IIHR –H 240) has been identified for release at National level for the zone VIII (Karnataka, Kerala and Tamil Nadu) during the 33rd AICRP meeting on Vegetable Crops held at IIVR Varansi during May21-24, 2015 the details of which are given below.

Arka Samrat: It is a high yielding fresh market F₁ hybrid with triple disease resistance to ToLCV, BW and early blight. Plants are semi-determinate with good foliar cover. Fruits are oblate to high round, large (90-110g) with deep red colour. Fruits are firm with extended shelf life (15-20 days). Suitable for Karnataka, Kerala and Tamil Nadu. Yields 80-85 t/ha in 140 days.



Arka Samrat

Other findings

CFB Box-shrink wrapping for extension of shelf life of capsicum



Box shrink wrapped green capsicum stored at 8°C and room temperature



Green capsicum (cv. Indra) were packed in 40 x 30 x10 cm size CFB boxes which were over wrapped using semi-permeable films. Green capsicum packed this way could be stored for 4 weeks at 8°C with a weight loss of only 4% as compared to 8% weight loss in capsicum stored in non-shrink wrapped CFB boxes. At room temperature (23.5-30.6° C, 23-51% RH) the box-shrink wrapped capsicum could be stored for 10 days with a weight loss of only 5% against 15% weight loss observed in capsicum stored in non-shrink wrapped CFB boxes for the same storage period.

Iron enriched mushroom

Post-harvest fortification of *Hypsizygus ulmarius* sporophores with 100ppm FeSO₄ + 400ppm Ascorbic acid resulted in production of iron enriched mushrooms. The iron content of the fortified mushrooms was 392 ppm as compared to non-fortified sporophores (161.4 ppm) which was an increase by 142.87% over control.

New GMS line in okra: Natural mutant of new GMS line in okra 11-1-50 pt 27 and pt 28 have been identified by confirmation of pollen fertility test and line is inherited in the ratio of 1:2:1. It is controlled by single recessive gene and also photo thermo insensitive nature.



New GMS line 11-1-50 pt 27

New GMS line 11-1-50 pt 28

Post-harvest Loss Assessment in Mango: In a study conducted for post-harvest loss assessment in mango, mango fields and mango mandies in Srinivaspura and Mulbagal taluks, Kolar district of Karnataka and Bangarupalyam and Irala mandals of Chittoor district in Andhra Pradesh were surveyed for postharvest loss assessment in Totapuri and Neelum mangoes. The losses at farmers' level was least in Totapuri (only 1-2% -mainly due to ripening on tree and anthracnose affected), while in Neelum it was more than 25% (due to insects). The losses at whole sale market level was less than 1% in Totapuri as almost all the fruits (99%) went for processing factories across the country (Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Gujarat and Uttar Pradesh). Substantial quantities of Neelum was also reported by the farmers / traders to be going for processing.

Efficacy of Paclobutrazol in Mango: In a study was conducted at CHES Bhubaneswar, application of paclobutrazol (PBZ) @ 0.75g a. i. per m canopy during mid-September through collar drench method has been found effective in advancing flowering by 10-15 days and increasing flowering intensity and yield by about 40% in mango var. Arka Neelachal Kesari and Amrapali.



Bearing in PBZ-treated mango var. Arka Neelachal Kesari under HDP

The residual analysis of PBZ indicated that the content of PBZ in soil reached to non-detectable level after nine months of application. On the other hand, the aerial part

of the plants like leaf, panicle, immature fruits and mature fruits had no PBZ residue.

Pruning Technique in Guava: Pruning is essential to keep the plant productive under high density plantation (HDP) of guava especially under hot and humid climate of eastern India, where excessive shoot growth affects the production of new laterals adversely. Study conducted at CHES, Bhubaneswar revealed that annual pruning of guava plants at 70% was found most effective to harvest a crop yield of 25-28 t/ha from 3 x 1.5 and 2.5 x 1.25m high density plantation. Increase in yield in 70% pruning intensity could be attributed to more fruit set (71-75%) and flowering shoot % (50-55%).

Watermelon Seed Extractor: A watermelon seed extractor for extracting seeds from watermelon fruits has been designed, fabricated and developed at the Section of Agriculture Engineering, IIHR, Hearaghatta, Bengaluru. The seed extractor has a seed extracting capacity of 2 kg/h with 99.5 per cent efficiency. The extracted seed has 97 per cent germination and 3207 vigour index. The cost of the machine is Rs. 52,500 with a cost benefit ratio is 1:1.49.

Post-harvest Removal of Smudgy Fungal Blemishes/ in Mango: Smudgy fungal blemishes or skin blackening is commonly observed in mango growing belts of eastern India. An effort towards removing this melody was made at CHES, Bhubaneswar by developing a chemical mix formulation. Dipping the fruits after harvesting in this chemical formulation removes 90-95% smudgy blemishes from the fruit surface. The effectiveness of this formulation was validated at DERAS farm of Directorate of Horticulture with 80 tonnes of mangoes coming from the Tribal Sub Plan villages of Rayagada district of Odisha. This formula was also evaluated on five different varieties of mangoes. Experimentation was also carried in three places of Saharanpur, Uttar Pradesh, one of the known mango belts of Northern India, where farmers are facing this problem and proved that this post-harvest dip treatment technology was highly successful in removing the smudgy fungal blemishes occurring on mango skin.



Mango fruits before and after post- harvest dip treatment

Arka Microbial Consortium and Arka Actino-Plus for Ginger

The performance of Arka Microbial Consortium and Arka Actino-Plus on ginger under farmer's field conditions was assessed at Kushal Nagar, Kodagu district. Combined application of Arka Actino-Plus (*Streptomyces* based product) @ 15 kg ha⁻¹ and Arka Microbial Consortium @ 15 kg ha⁻¹ as a soil drench (20 g/ lit) at bimonthly intervals significantly improved the vegetative growth and nutrient uptake of ginger plants.



Uninoculated plot Microbial consortium inoculated plot

The activities of the soil enzymes viz., dehydrogenase, acid phosphatase and alkaline phosphatase were also higher in treated plots, compared to control plots that received only inorganic fertilizers. This microbial intervention also reduced the incidence of rhizome rot when compared to the control plots.

Events**Union Minister for Agriculture visits Yelahanka Farm**

Shri. Radha Mohan Singh, Union Minister for Agriculture, Govt. of India, and President, ICAR accompanied by Shri. D.V. Sadananda Gowda, Union Minister for Law & Justice, Govt. of India, Shri. S.R. Vishwanath, Member of Legislative Assembly, Govt. of Karnataka, and Dr. S. Ayyappan, Secretary, DARE and Director General, ICAR, New Delhi visited Yelahanka Farm of ICAR-IIHR, Bengaluru on January 09, 2015. An exhibition showcasing the varieties/hybrids and technologies developed by the Institute including display of seed and planting material was arranged on the occasion. Dr. T.M. Rao, Director along with the Heads of Divisions of the Institute welcomed the dignitaries, took them to the exhibition and explained the activities and achievements of the Institute. Discussing about the activities and achievements of the Institute, Shri. Radha Mohan Singh enquired about the extent of coverage of these technologies in the farmers' field and their adoption and stressed the need for reaching the unreached in extensive and professional manner. Shri. D.V. Sadananda Gowda mentioned about the effective linkage between the Institute and State Government which has helped in the spread of technologies and emphasized on better marketing facilities for the horticulture produce.

International Women's Day

The Institute at Hesaraghatta celebrated 'International Women's Day' on March 10, 2015. Dr. T. Manjunatha Rao, Director, presided over the function. Smt. H.G. Vijaya Kumari, 53rd Additional District Judge, City Civil

Court, Bengaluru was the Chief Guest. Smt. B. G. Rama, 51st Additional District Judge, City Civil Court, Bengaluru, Smt. C.R. Geetha, Police Inspector, Vigilance, BESCO, Bengaluru, Smt. Rama Devi, Senior Advocate, City Civil Court, Bengaluru and Smt. Geetha Rani, Superintendent, Department of Horticulture, Lalbagh, Bengaluru were the Guests of Honour on the occasion. All the women staff members of the Institute including the women casual labours participated in the event. Dr. T. Manjunatha Rao, presided over the event. The woman achievers of IIHR, Hesaraghatta, Bengaluru were felicitated on the occasion. A cultural program by the women staff members was also organized on the occasion.

National Science Day

The Institute at Hesaraghatta observed the 'National Science Day' February 28, 2015 to commemorate the invention of 'Raman Effect' by the Nobel Laureate, Sir CV Raman. The Institute was declared open for the school students on the day to sensitize them about the importance of horticulture in food, nutrition and livelihood security and also about the activities and achievements of the Institute. Students from nine schools in and around Hesaraghatta visited the Institute. The students were taken to different laboratories, demonstration plots and an exhibition arranged on the occasion. More than 500 students visited the Institute and got benefitted.

Visit of Parliamentary Standing Committee on Agriculture

The ICAR-Indian Institute of Horticultural Research, Bengaluru organized the visit of the Parliamentary Standing Committee on Agriculture to Bengaluru on February 02-03, 2015. The committee comprising of 12 Members from Lok Sabha, four Members from Rajyasabha, officers from Ministry of Agriculture, GOI and officers from ICAR, New Delhi under the Chairmanship of Honourable Shri. Hukum Deo Narayana Yadav had informal discussion on 'Impact of chemical fertilizers and pesticides on agriculture and allied sectors in the country' with the representatives of Indian Farmers Fertilizer Co-operative, Jaivik Krishik Society and Green Foundation, Bengaluru, with the representatives

of Department of Agriculture, Govt. of Karnataka on Impact of chemical fertilizers and pesticides on agriculture and allied sectors in the country and with the representatives of Dept. of Horticulture, Govt. of Karnataka and representatives from South India Floriculture Association on implementation of various schemes of National Horticulture Mission, particularly protected cultivation of vegetable and flower crops in Karnataka state and the common problems of farmers in implementation of these on February 02, 2015. The Committee also visited ICAR- National Institute of Animal Nutrition and Physiology (NIANP), Bengaluru and had discussion with the Director and scientists of the Institute on various programs and achievements.

The Committee visited ICAR-Indian Institute of Horticultural Research (IIHR), Hesaraghatta, Bengaluru on February 03, 2015. An exhibition depicting the achievements and success stories of technologies developed by the Institute was organized for the benefit of the visiting delegation. The members visited the exhibition and had discussions with the scientists on the achievements made in their fields of specialization during which the Chairman of the Committee released Grape Special; a micronutrient formulation, a red fleshed soft seeded guava hybrid selection 'Arka Rashmi', a high yielding and yellow vein mosaic virus resistant French bean variety 'Arka Arjun' and a high yielding marigold variety 'Arka Bangara'. A MoU with private company for commercialization of the Institute developed bio-pesticide was also exchanged on the occasion. The Committee visited various laboratories and demonstration plots. The Committee under the Chairmanship of Honourable Chairman had discussion with the Director and senior Officers of the Institute and Assistant Director General (Hort.), ICAR, New Delhi on the programs and progress of the ongoing research activities. The Committee appreciated and congratulated the Institute for its excellent research work in the field of horticulture. The Director supported by the senior officers of the Institute, Asst. Director General (Hort.) and Assistant Director General (Plant Protection) ICAR, New Delhi participated in the meeting.

Group Discussion of the All India Coordinated Research Project on Fruits



The Project Coordinating Unit, AICRP of Fruits, IIHR, Bengaluru organised the second Group Discussion of the All India Coordinated Research Project on Fruits at the Maharana Pratap University of Agriculture & Technology (MPUAT), Udaipur during February 26 - March 01, 2015. Dr. N.K. Krishna Kumar, Deputy Director General (Hort. Sci.) ICAR inaugurated the group discussion and complimented the progress made by AICRP on Fruits. Dr. O.P. Gill, Vice Chancellor, MPUAT, Udaipur presided over the inaugural session. Dr. Prakash Patil, Project Coordinator (Fruits) presented the progress of work done at 39 centres across the country. Dr. S. Ayyappan, Secretary (DARE) and Director General, ICAR graced the occasion on March 01, 2015 and addressed the participants. Dr. S.L. Mehta, former Vice Chancellor, MPUAT and former, DDG (Education), ICAR also attended the program.

Research achievements during 2013-14 in crop improvement, crop production and crop protection were reviewed in eight technical sessions and technical program for 2015-16 was formulated for the mandate fruit crops. A total of 10 technologies that were found suitable for different regions in the country were recommended. Three publications viz., Crop Calendar on Fruits - Compendium of Technologies Developed by AICRP on Fruits and Different SAUs, "Hi-tech Bagwani" and "Aam Aour Amrud Utpatan Prodhogiki" and a monograph on "Insect and Mite Pests of Citrus in India" were released on the occasion. Dr. T. Janakiram, ADG(Hort. Sci.), ICAR, New Delhi, Dr. P.L. Maliwal, Director of Research, MPUAT, Udaipur, Dr. K. Srinivas, former Head, Division of Fruit Crops, ICAR-IIHR, Bengaluru, Dr. M.M. Mustaffa, Director, ICAR-NRC for Banana and Dr. M.S. Ladaniya, Director, ICAR-NRC for Citrus CCRI, Dr. Vishal Nath, Director, ICAR-NRC for Litchi and Dr. S.D. Sawant, Director, ICAR-NRC for Grapes and Dr. S. Rajan, Director (Acting), ICAR-CISH, Lucknow also attended the group discussion. A total of 160 delegates from 28 SAU-based centres, 13 ICAR-institute-based centres, 3 CAU-based centres, including 1 private centre, and growers and nurserymen of Rajasthan participated in the four-day event.

ICAR Inter- Zone Sports Meet

The ICAR- Indian Institute of Horticultural Research, Bengaluru participated in the ICAR Inter- Zone Sports Tournament held at ICAR-NDRI, Karnal during March 11-14, 2015 and won Gold in 200mtrs & Silver in 100mtrs for women, Gold in Javelin throw & Silver in Discus throw for women, Silver in 400 & 800 mtrs for men, Gold in 4x100 mtr Relay and bagged the overall Runner-up.

IIHR Sports Contingent with the Overall Runner-up Trophy

Review of NEH Program

The review of NEH program of horticulture was organized at ICAR Research Complex for NEH region, Umiam during 23-24 March, 2015. Dr. S. Azad Thakur, Director (A/C), ICAR Research Complex for NEH region, Umiam inaugurating the program emphasized for demonstration of organic production technologies in NEH region. Dr. A.K. Tripathi, Zonal Project Director who organized the review meeting mentioned that IIHR is one of the few institutes which is systematically implementing the NEH programme. Dr. G. Senthil Kumaran, Convener, IIHR NEH programme explained the importance and the requirement of the meeting. The IIHR scientists team visited the KVK, Tura to assess the ongoing IIHR demonstration works and the facilities available for further introduction of IIHR technologies and further reviewed the progress of the work done under NEH program during 2014-15 and drawn the technical program - 2015-16 for all the participating 25 KVKs of the region. Inputs like improved vegetable varieties, micro

nutrient formulation, microbial consortium, fruit harvesters, publications etc. were distributed to KVKs for further demonstration in farmer's fields.

State Level Consultative Workshop on Climate Change: Challenges and Solutions

The CHES, Hirehalli organized the inaugural program of the State Level Consultative Workshop on Climate Change: Challenges and Solutions at its campus in collaboration with AVISHKAR, an NGO based at Tumakuru and Pipal Tree, Bengaluru on March 28, 2015. The main objective of the workshop was to campaign climate change justice/environmental issues and finding solutions to mitigate climate change impacts. Shri. C. Yatiraju, Environmentalist and Secretary, Karnataka Rajya Vigyanan Parishat, Tumakuru, Shri. Reddy, Shri. Ramesh, Dept. of Forest and Shri. Swamy, Organic farmer were the guests on the occasion. Various issues on 'Climate change - Present challenges with respect to agriculture, water and livelihoods' were discussed during which Dr. N. Loganandhan, Programme Co-ordinator, KVK shared the experience of National Initiative on Climate Resilient Agriculture (NICRA) activities done at D.Nagenahalli, Tumakuru. The SMSs of the KVK, Hirehalli, representatives from NGOs, media persons and interested general public working for climate change issues participated in the workshop.

One day Workshop on Science and Technology in Livestock Management

The KVK, Hirehalli, Tumakuru organised one day Workshop on 'Science and Technology in Livestock Management' on February 25, 2015 at NICRA D. Nagenahalli, Village, Koratagere, Tumakuru in

collaboration with NIANP, Bengaluru and ZPD Zone VIII, Bengaluru. Dr. Ragavendra Bhatta, Director and Dr. Ramachandra, NIANP, Bengaluru inaugurated the workshop. Prize were distributed to farmers of D. Nagenahalli for best livestock management under four categories viz., Indigenous breed Cow/Buffalo, Cross breed, Sheep /Goat and Maintenance of livestock shed, the competition for which was held on February 18, 2015 at D. Nagenahalli. Dr. N. Loganandhan, PI, Mr. K.N. Jagadish, Co-PI and Mr.P.R. Ramesh, Nodal Officer of NICRA Village, KVK, Hirehalli, Tumakuru, Dr. Sreenivasa, B.P, Principal Scientist, IVRI, Bengaluru, Dr. N.K.S. Gowda, Principal Scientist and Dr. Girish, Senior Scientist, NIANP, Bengaluru and farmers of D. Nagenahalli participated in the workshop.

National Meet on Distant Hybridisation in Horticultural Crop Improvement National



The ICAR- Indian Institute of Horticultural Research, Bengaluru in association with the Society for Promotion of Horticulture (SPH), Bengaluru organized National Meet on Distant Hybridisation in Horticultural Crop Improvement at its campus during January 22 – 23, 2015. Dr. B.M.C. Reddy, Vice Chancellor, Dr. YSR Horticultural University, Andhra Pradesh, the Chief Guest inaugurated the Meet presided over by Dr. N.K. Krishna Kumar, DDG (Hort. Sci.), ICAR, New Delhi. Dr. N.K. Krishna Kumar addressing the participants said that there is a need to collect as many wild species as possible and produce double haploids to bring together different species and there is a need for gene silencing and bio- technological approaches. Dr. M.R. Dinesh, Organising Secretary and Head, Division of Fruit Crops presented the genesis of the National Meet. Dr. T. Manjunatha Rao, Director, ICAR-IIHR, Bengaluru delivered the welcome address. Mr. G.R. Chintala, CGM-Karnataka Region, NABARD, Bengaluru, a special invitee addressing the gathering presented the role of NABARD in promotion of agriculture. Dr. C.P.A. Iyer, Former Director, CISH, Lucknow gave an account of the role of distant hybridisation in horticultural crops. Dr. C. Aswath, Vice President, Society for Promotion of Horticulture, explained the role of SPH for the

development of horticulture. Two publications viz., Catalogue on Appemidi mango and Book of Abstracts were released on the occasion. Scientists, researchers and students from various organisations including private sectors participated in the Meet. An exhibition was also arranged on the occasion showcasing the technologies and varieties released by the Institute.

Research Advisory Committee Meeting



RAC meeting in progress at CHES, Bhubaneswar

The second meeting of the 21st Research Advisory Committee (RAC) meeting of the Institute was held under the Chairmanship of Prof.. Gautam Kalloo, former DDG (Hort.), ICAR & former Vice Chancellor, JNKVV, Jabalpur at IIHR, Hesaraghatta, Bengaluru on April 08, 2015. Dr T. Janakiram, ADG (Hort-I), ICAR, Dr. D. P. Singh, former ADG (Hort), ICAR., Dr. R. T. Patil, Former Director, CIPHET, Ludhiana, Dr. K. Krishnaiah, former Director, DDR., Dr. D.M. Hegde, Former Director, DOR, Dr. N. K. Singh, National Professor, B.P. Pal Chair, Mr A. Shivanna. IMC member, IIHR, Mr. B. Dongare, IMC member, IIHR, Dr.T. Manjunatha Rao, Acting Director, IIHR, Bengaluru, all Members of the RAC and Dr.B.N.S. Murthy, Principal Scientist & Member Secretary, RAC attended the meeting. The Committee visited the field experimental plots of the ongoing projects, various laboratories and infrastructure facilities like poly houses, nursery unit and seed processing unit etc. of the Institute.

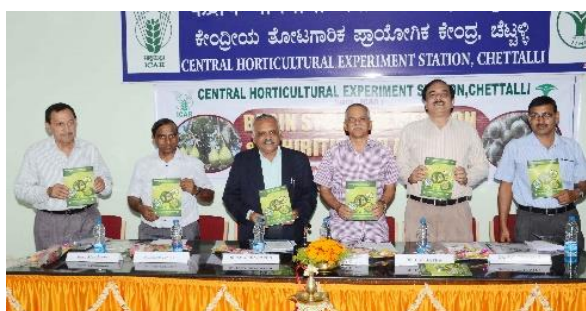
The Committee appreciated progress and achievements made by the Institute and stressed upon the need for taking up research on peri-urban horticulture and root top gardens to meet the daily nutrition requirement of urbanites. The other issues raised were Factor Productivity in vegetable crop production, need for demonstrations on items of critical factors not just the varietal performance, interdisciplinary working mode for addressing the issues faced by farmers and to take up socio-metric appraisal. The Committee also visited CHES, Bhubaneswar on April 09-10, 2015 and deliberated on the activities of CHES-Bhubaneswar and CHES-Chettali. After detailed deliberations on the activities and achievements of the Institute, general/specific recommendations and the advisory points were made by the committee for follow up.

Celebration of World Veterinary Day

The Krishi Vigyan Kendra, Gonikoppal and Department of Animal Health and Veterinary Services, Kodagu, Govt. of Karnataka jointly organized World Veterinary Day on April 25, 2015. A guest lecture on 'Importance of vector borne diseases with zoonotic potential' by Dr. Srikrishna Isloor, Associate Professor, Dept. of Microbiology was organized on the occasion. A total of 34 district veterinary practitioners attended the programme.

84th Institute Joint Staff Council (IJSC) Meeting

The Institute conducted the 84th IJSC meeting at IIHR, Bengaluru on May 20, 2015 under the Chairmanship of Dr. T. Manjunatha Rao, Director, IIHR, Bengaluru. Dr M.R. Hegde, Chairman, RMCU, Dr. D. Sreenivasa Murthy, Principal Scientist, Sri Charles Ekka, Senior Administrative Officer, Sri A. Srinivasamurthy, Finance & Accounts Officer, Sri R.N. Pandey, Chief Technical Officer, Sri Tittu Kumar, Member Secretary (Official side) from office side and Shri A.N. Lokesh, Secretary IJSC, Shri P.T. Mahanthesh, Shri. T.S. Rajanna, Shri. S. Venkateshaiah, Shri D. Krishnappa Shri Shivarudrappa and Shri N. Hanumanthappa, members from staff side participated in the meeting. Addressing the members, the Chairman spoke about the purpose of the meeting and importance of IJSC for the welfare of staff members of the Institute and invited the members to come forward to discuss various issues of common interest of the staff of the Institute. Various action taken points of last meeting and new agenda items were discussed in the meeting.

One day Brain Storming Session and Exhibition on Avocado

The CHES, Chettalli organized Brain Storming Session and Exhibition on Avocado at its campus on May 27, 2015. The main objective of the Brain storming Session was to discuss various issues related to avocado industry in India and to create a platform for exchange of ideas and thoughts among the scientific fraternity, entrepreneurs, farmers, growers, students from different parts of the country who have been associated with avocado cultivation, promotion, marketing etc. More than 150 participants comprising of scientists from IIHR, Bengaluru, DFRL, Mysore IISR, Appangala, University of Agriculture Mudigere, CRSS, Chettalli, CFTRI, Mysore, TANU Coimbatore, KVK, Gonikoppal, College of Forestry, Ponnampet and officials of state Government, entrepreneurs, farmers, growers, students etc. from Kerala, Karnataka, Tamilnadu, Maharashtra, North Eastern states participated in the program. The Brain Storming Session was inaugurated by Dr. P.G. Chengappa, Former Vice Chancellor, UAS, Bengaluru, Air vice Marshall O.P. Tiwari, VSM, Air Force Station, Mysore, Dr. H.V. Batra, Director, DFRL, Mysore and Sri. Bose Mandanna as Guests of Honour, chaired by Dr. T. Manjunath Rao, Director, IIHR, Bengaluru. Dr. P.C. Tripathi, Head CHES, Chettalli welcomed all dignitaries and planters. The Inaugural Session was followed by the Technical Session chaired by Dr. P.G. Chengappa, and Co-chaired by Dr. R. Chithraichelvan, Dean, Rai Tech University. Dr. P. C. Tripathi, Dr. S. K. Dutta, ICARRC, NEH, Mizoram, Dr Ananthan, TNAU, Mr.Veera Aarasu, Progressive Planter, TamilNadu, Dr. Siby Varghese, DFRL, Mysore, Mr Abhilash, Avacado India, Nashik, Mr Madhusudan, M/s Vishal Natural Foods, Bengaluru, Dr. Shivaram, IIHR, Bengaluru presented papers on genetic resources, production technologies, processing, marketing and other aspects of avocado. A Souvenir and Abstract on Avocado was released on the occasion. An exhibition on avocado was organized on the occasion. Air vice Marshall O. P. Tiwari inaugurated the exhibition. More than 100 promising selection of avocado maintained at CHES, Chettalli and more than 50 collections from farmers and many post-harvest products of avocado were displayed in the exhibition for the benefit of the participants. A field visit to the avocado blocks of CHES, Chettalli was also organized to get an exposure to the avocado germplasm, production technology, flowering and fruiting etc.

Jackfruit Diversity Fair cum-Exhibition -2015

The Central Horticultural Experiment Station and Krishi Vigyan Kendra, Hirehalli, Tumakuru, jointly organized Jackfruit Diversity Fair cum Exhibition -2015 at its campus in collaboration with AICRP – Fruits and DBT Project on Jack Fruit, UAS, GKVK, Bengaluru on June 27, 2015. The main objective of the Jackfruit fair was to create awareness about the potentials of this crop as a commercial and industrial fruit crop to the farming community as well as the entrepreneurs in Tumakuru

area and to promote this as a valuable cash crop in the years to come. The event was an excellent platform for farmer-scientist interaction on different issues concerning jack fruit industry in India, exchange of ideas and thoughts among the scientific fraternity, entrepreneurs, farmers, and growers from different parts of the state who have been associated with jackfruit cultivation.

Dr. S.V. Hittalamani, former Additional Director (Fruits) Department of Horticulture, GOK was the Chief Guest presided over by Dr. T. Manjunatha Rao, Director, IIHR, Bengaluru. Inaugurating the Fair and addressing the participants Dr. Hittalamani emphasized on conservation and utilization of jackfruit for food and nutritional security of the common people. Presiding over the function Dr. Manjunatha Rao gave a brief account of the achievements of the IIHR, Bengaluru in the field of collection of germplasm and crop improvement in jackfruit and appreciated the efforts of CHES and KVK, Hirehalli in organizing this unique event for larger benefit of dry land farmers of the state in general and Tumakuru district in particular. Dr. Paramashiviah the Guest of Honour on the occasion emphasized the role of jackfruit in the livelihood security of rural and tribal people and stressed the need for on farm conservation of the indigenous jackfruit and cultivars. Dr. M. R. Dinesh, Head, Division of Fruits crops, IIHR, Bengaluru welcoming the guests and the participants made a presentation on introduction and technologies for adoption by identification of jackfruit and appealed to the young entrepreneurs and other stakeholders to come forward to grow jackfruit.

The inaugural session was followed by technical session in which Dr. Prakash Patil, Project Coordinator (Fruits) IIHR, Bengaluru, Sri Munishamanna, PHT, UAS, Bengaluru and Dr. R. B. Tiwari, IIHR, Bengaluru made presentations on production aspect of jackfruit, value addition and processing in jackfruit and IIHR Technology of osmo dehydrated products from jackfruit respectively. Progressive farmers viz., Mr. Padmaraju, Tovinakere; Mr. Beligere Krishnamurthy, Gubbi; Mr. Vishwas, Hassan; Mr. Shivanna, Kadaur and Mr. Kamanna, Rangapur Madhugiri Taluk expressed their passion towards jackfruit production, processing and marketing.

An exhibition on jackfruit diversity was organized on the occasion. More than 100 Jackfruit collections and various value added products made out of jackfruit by Women Self Help Groups (SHG) from Sirihalli, Thovinakere, NICRA farmers from D.Nagenahalli, Koratagere other NGOs were displayed for the benefit of the participants. Special exhibits of different local specific varieties was also displayed by the progressive farmers who are maintaining jackfruit trees and utilizing jackfruit as food in various forms. More than 500 farmers and students from different parts of the Karnataka participated in the event and got benefitted. Dr. G. Karunakaran, Head,

CHES, Hirehalli coordinated the event and Dr. N. Loganandhan, Programme Coordinator KVK, Hirehalli presented the vote of thanks.

Human Resource Development

Post Graduate Education

IIHR Scientists as Chairman/Co-chairman/External Examiner/Evaluation of Thesis

- Dr. Madhavi Reddy, K. acted as External Examiner to conduct final *viva voce* examination for Ms. V. Chaitanya, ID No. RHD/2011-01, Ph.D. (Hort.) student in the Department of Vegetable Science, College of Horticulture, Rajendranagar, Hyderabad, January 03, 2015.
- Dr. Sridhar, V. acted as External Examiner for conducting final *viva voce* examination of **Student Name? ID No.?**, Ph.D.(Discipline) student at Department of Agricultural Entomology, Agricultural College and Research Institute, Madurai, TNAU, Tamil Nadu on January 05, 2015.
- Dr. Madhavi Reddy, K. acted as External Examiner to conduct Comprehensive *viva voce* Examination for 6 M.Sc & 2 Ph.D. students with specialization in Vegetable Science of Horticultural College & Research Institute, **Dr. Y.S.H.U**, Venkataramannagudem, Andhra Pradesh, March 06, 2015.
- Dr. Madhavi Reddy, K. acted as Chairperson of Research Advisory Committee conducted **Student Name? ID No.?** final Ph.D. external *viva voce* on thesis problem "Genetic and molecular analyses for resistance to viruses (cucumber mosaic virus & chilli veinal mottle virus), drought tolerance and fruit quality traits in chilli (*Capsicum annuum* L.)", **Place?**, March 19, 2015.
- Dr. Narayanaswamy, B. acted as the Co-guide in the Advisory Committee of M.Sc. Agri Extension students **Mr. G. Chandrashekar Student Name? ID.No. ?** in the Dept. of Agriculture Extension, UAS, Bengaluru, **Date**
- Dr. Panneerselvam, P. evaluated Ph.D thesis entitled 'Hypolipidemic activity of some medicinal plants from **Student Name? ID No.?** P.G. and Research Department of Botany, H.H. The Rajah's Govt. College, Bharathidasan University, Pudukkottai Tamil Nadu and 'Rhizosphere engineering to enhance carbon sequestration potential in degraded forest Chennai' from Anna University, Chennai, Tamil Nadu.
- Mr. Ansar Hussain, ID No. UHS12PGD46, was awarded Ph.D. (Horticulture) for thesis entitled "Assessment of ploidy levels and tracing half-sib parentage using DNA markers in carnation (*Dianthus caryophyllus* L.)" submitted to University of Horticultural Sciences, Bagalkot, Karnataka under the guidance of Dr. M.V. Dhananjaya, Principal Scientist, **day? June 2015.**

- Dr. Varalakshmi, B. was nominated as the Chairperson of Mr. Karthik, D, M.Sc. (Hort.) student of UHS, Bagalkot.
- Dr K. Madhavi Reddy was nominated as Chairperson and conducted advisory committee meeting of Mr Rajeev Kumar Yadav, Ph. D. (Vegetable Science) student on May 07, 2015.
- Dr. Narayanaswamy, B. attended the final colloquium of M. Sc. (Ag.) extension student, Asha, K. IDPAL133118, Department of Extension – UAS (B) Bengaluru as PG Research Advisory Member on 5.6.2015.
- Dr. Girija Ganeshan, acted as examiner for evaluation of Ph.D thesis entitled “*In vitro* and *In vivo* studies and innovative formulations of *Aloe vera*” submitted by Ms. Santhoshi Kumari, C. H., Jawaharlal Nehru Technological University, Hyderabad.
- Dr. Vasantha Kumar, T. was nominated as External Examiner for the students (5 nos) for Species, Plantation, Medicinal and Aromatic Crops of 2013-15 batch of TNAU for conducting written and oral qualifying examination on May, 15-16, 2015.
- Dr K. Madhavi Reddy, K acted as a member for conducting qualifying examination to Ms. Pavitra, B. S. Ph. D. (Plant Path) at GKVK, Bengaluru.

Award of Degree

- Mrs. Rashmi, B. Artal ID.No. was awarded Ph.D. in Microbiology for thesis work on “Bio-intensive management of tomato wilt caused by *Ralstonia solanacearum* E.F. Smith (Yabuuchi *et al.*, 1995)” submitted to Kuvempu University, Shimoga, Karnataka, under the guidance of Dr. Gopalakrishnan, C., **date?**
- Ms. Chetana, B. S. was awarded Ph. D degree from Jawaharlal Nehru Technological University, Hyderabad on 03.06.2015 under the guidance of Dr. Girija Ganeshan, for her thesis entitled “Purple blotch disease of onion, its management and understanding pathogen diversity”.

Submission of Thesis

- Ms. Bhuvaneswari, S. completed her dissertation entitled “Studies on processing and preservation of minimally processed onion (*Allium cepa*.L)” for the Ph. D. (part time) of the Gandhigram Rural Institute under the co-guidance of Dr. Narayana, C. K.

Training of IIHR Staff

- Mr. Hemanth, Young Professional-I, SRF was deputed for the ‘Ten days orientation programme on isolation and identification of pomegranate bacterial blight pathogen’ organized for SRFs and RAs recruited under flagship project on ‘Integrated approach to eradicate pomegranate bacterial blight’ by ICAR-NRC on Pomegranate, Solapur, March 16-25, 2015.

- Sri. Jagadish, K. N. was deputed to participate in ICAR -sponsored short course on ‘*Communication and Management Skills for Extension Professionals*’ at National Academy for Agricultural Research Management, Hyderabad during June 01-10, 2015.

Participation in Seminar/Symposium/Conference/Meeting etc.,

The following scientists participated in various national and international seminar/symposium and conference/workshop/meeting etc.

- ❖ Dr. Rao, M.S. and Dr. Umamaheswari, R. - National symposium on nematode management: a challenge to Indian agriculture in the changing climate, YASHADA, Pune, Maharashtra, January 08-10, 2015.
- ❖ Dr. Narayana, C.K. - Workshop for finalizing the technical programme of CRP on natural fibres, CIRCOT, Mumbai, January 15-16, 2015.
- ❖ All the scientists of the Division of Fruit Crops, IIHR, Bengaluru and Drs. Tripathi, P.C., Senthilkumar, R., Sankar, V., Bhatt, R.M., Ravindra, V., Upreti, K.K., Shivashankara, K.S., Laxman, R.H., Anuradha Sane, Anushma, P.L., Linta Vincent, Girija Ganeshan and Varalakshmi, B. - National meet on distant hybridisation in horticultural crop improvement, ICAR-IIHR, Bengaluru, January 22-23, 2015.
- ❖ Dr. Narayana, C.K. - National review meeting on repeat study of post-harvest loss assessment in food and perishable commodities, IIT, Madras, Tamil Nadu, January 23, 2015.
- ❖ Dr. Senthil Kumaran, G. - Technical committee meeting of agriculture and food processing equipments section committee, FAD-20, Noida, New Delhi, January 27-28, 2015.
- ❖ Dr. Senthil Kumaran, G. - XXX workshop of AICRP on farm implements and machinery, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, February 04-06, 2015.
- ❖ Dr. Sampath Kumar, P. and Mr. Jayaramaiah, N. - National Seminar on promotion of oil palm cultivation in India through NMOOP, ICAR-Indian Institute of Oil Palm Research, Pedavagi, Andhra Pradesh, February 05-06, 2015.
- ❖ Dr. Narayana, C.K. - Group discussion meeting of All India Network Project on Onion and Garlic organized by Directorate of Onion and Garlic Research, Rajgurunagar, Davanagere, February 06-07, 2015.
- ❖ Dr. Manjunatha Rao, T. - 4th Research Advisory Committee (RAC) meeting of Directorate of Floricultural Research, College of Agriculture, MPKV Campus, Shivajinagar, Pune, Maharashtra, February 09, 2015.
- ❖ Dr. Aghora, T.S. and Dr. Murthy, B.N.S. - Seminar on Horticulture Crops at Krishika Samaj Channagiri, organized by Krishika Samaj and Lions Club, Channagiri, **Dist?**, February 10, 2015

- ❖ Dr. Tripathi, P.C. - Coffee waste management seminar, Madikeri, Kodagu, February 14, 2015.
- ❖ Dr. Senthil Kumaran, G. - International conference on technical interventions in agricultural sciences for enhanced productivity, nutritional quality and value addition (TIAS – 2014), Central Institute of Horticulture, Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India, Medziphema, Dimapur, Nagaland, February 17-19, 2014.
- ❖ Dr. Manjunatha Rao, T. - 86th Annual Meeting of ICAR Society, New Delhi, February 18, 2015.
- ❖ Dr. Manjunatha Rao, T. - 396th Meeting of the Academic Council of ICAR-IARI, New Delhi, February 19, 2015.
- ❖ Dr. Manjunatha Rao, T. - 53rd Convocation of the ICAR-IARI, New Delhi, February 20, 2015.
- ❖ Dr. Murthy, B.N.S. - Workshop of the PME In-charges of the ICAR Institutes, organized by ICAR-NAARM, Hyderabad, NASC Complex, New Delhi, February 23, 2015.
- ❖ Dr. Akella Vani - 5th Institute Management Committee (IMC) Meeting of National Research Centre for Plant Biotechnology, New Delhi, February 23, 2015.
- ❖ Dr. Sreenivasa Murthy, D. - First meeting of the Research Advisory Committee of CTCRI, Trivandrum, Kerala, February 24-25, 2015.
- ❖ Dr. Panneerselvam and Dr. Selvakumar, G. - NRDC Innovate India Conference 2015, PSG College of Technology, Coimbatore, Tamil Nadu, February 25-26, 2015.
- ❖ Drs. Dinesh, M.R., Reju.M. Kurian, Rekha, A., Satisha, J., Vasugi, C., Reddy, P.V.R., Saxena, A.K. and Senthilkumar, R, Narayana, C.K. - Group discussion of the scientists of AICRP on fruits, Maharana Pratap University of Agriculture & Technology, Udaipur, Rajasthan, February 26-March 01, 2015.
- ❖ Dr. Sudha Mysore - Interface meeting on establishment of horti-business incubation Centre, UHS, Bagalkot, Bengaluru, February 28, 2015.
- ❖ Dr. Saxena, A.K. - Project review meeting on National initiative on climate resilient agriculture, NICRA, IIHR, Bengaluru, March 07, 2015.
- ❖ Dr. Harinder Singh Oberoi and Dr. Sudhakar Rao, D.V. - Indo-French workshop on scientific co-operation for agricultural research, jointly organized by ICAR and the National Institute for Agricultural Research, France at NASC Complex, New Delhi, March 09-11, 2015.
- ❖ Drs. Dinesh, M.R., Murthy, B.N.S., Sakthivel, T., Aghora, T.S., Mohan, N., Narayana, C.K., Sankar, V. and Mr. Prakash, B. - National farmers meet on horticultural crops, organized by ICAR in association with TNAU, Coimbatore at Regional Research Station, Paiyur, Tamil Nadu, March 14, 2015.
- ❖ Dr. Narayana, C.K. - International Conference on Dynamics of Technology for Quality Production of Banana, organized by Jain Irrigation Systems Ltd and Confederation of Horticultural Associations of India, Jain Hills, Jalgaon, Maharashtra, March 16-17, 2015.
- ❖ Dr. Aghora, T.S. - Zonal Action Plan 2015-16 meeting of Zone 8, GKVK Bengaluru, March 16-18, 2015.
- ❖ Dr. Gopalakrishnan, C. - Annual review meeting of outreach programme on phytophthora, fusarium and ralstonia diseases of horticulture and field crops, ICAR-Indian Institute of Spices Research, Kozhikode, Kerala, March 18, 2015.
- ❖ Dr. Harinder Singh Oberoi and Dr. Panneerselvam, P. - Annual review meeting of the Programme Coordinators and other officers of KVKs of the NEH region at the ICAR complex for NEH region, Barapani, Shillong, Meghalaya, March 23-25, 2015.
- ❖ Dr. Manjunath, B.L. - Workshop of consortia research platform on winter at Indian Institute of Water Management, Bhubaneswar, Odisha, March 25-26, 2015.
- ❖ Dr. Dinesh, M. R. and Dr. Murthy, B. N. S. - RAC meeting of ICAR-IIHR-CHES, Bhubaneswar, Odisha, April 09-10, 2015.
- ❖ Dr. Carolin Rathinakumari, A. - Two days' workshop on making engineering scientists contribution more meaningful to stake holders and the nation, NASC, New Delhi, April 13-14, 2015.
- ❖ Dr. Saju George, and Dr. Suresh, S. C. - SREP meeting, DATC, Kudige, April 15, 2015.
- ❖ Dr. Vasugi, C. and Dr. Varalakshmi, B. - Regional horticultural research, extension advisory and project formulation (RHREA & PF) for southern and northern regions, organized by University of Agricultural Sciences, Bagalkot at College of Horticulture, Mysuru, April 16-17, 2015.
- ❖ Drs. Tripathi, P. C., Sankar, V., Senthil Kumar, R. and Priti Sonavane - Regional research advisory committee meeting of Coffee Research Substation, Chettalli, April 17, 2015.
- ❖ Drs. Manjunatha Rao, T. M., Krishna Reddy, M. and Dr. Sangama - XXIV annual group meeting of AICRP on Floriculture, SKUAST, Srinagar, April 17-19, 2015.
- ❖ Dr. Doreyappa Gowda, I. N. - One day work shop on Innovations in Shelf Stable Food & Beverages, Hotel Lalit Ashok in Bengaluru on April 21, 2015.
- ❖ Dr. Vasugi, C. and Dr. Varalakshmi, B. - ZHREC meeting of North Zone, Arabhavi, April 24, 2015.
- ❖ Dr. Manjunatha Rao, T. - Meeting of all the Directors under Horticultural Sciences Division, ICAR under the Chairmanship of DDG (Horticultural Science), ICAR, New Delhi, May 14, 2015.
- ❖ Dr. Manjunatha Rao, T. - Conference of Vice-Chancellors of Agricultural Universities and Directors of ICAR Institutes, NASC, Pusa, New Delhi, May 14-16, 2015.

- ❖ Dr. Sudha Mysore - NCAP network project market intelligence review workshop, BHU, Varanasi, May 07-08, 2015.
- ❖ Dr. Manjunath, B. L. - Konkan Fruit Fest, organized by the Botanical Society of Goa, Panaji, May 08-10, 2015.
- ❖ Dr. Carolin Rathinakumari, A. - Review meeting conducted by DST, Institute of Himalaya Bio-Resource Tech. (IHBT), Palampur, Himachal Pradesh, May 15-16, 2015.
- ❖ Dr. Tiwari, R. B. - Full proposal development workshop, organized by ITRA –Agri. & Food, IIT Delhi, May 15-16, 2015.
- ❖ Dr. Karunakaran, G. - National jackfruit fest and seminar, Aranmula, Kerala, May 15-18, 2015.
- ❖ Drs. Sadashiva, A.T., Madhavi Reddy, K., Agohra, T. S., Singh, T. H., Pitchaimuthu, M., Shankar Hebbar, S., Kashinath, B. L., Krishna Reddy, M. and Ganeshan, S. - AICRP (VC) Meeting, IIVR Varansi, May 21-24, 2015.
- ❖ Dr. Vasantha Kumar, T. - Mid-term review of AICRP on MAP&BV at Directorate of Medicinal and Aromatic Plant Research, Boraivi, Gujarat, May 25, 2015.
- ❖ Dr. Narayana, C. K. - Workshop on role of Regional Centers in National Agricultural Education Accreditation Board, NASC Conference Room, New Delhi, May 25, 2015.
- ❖ Dr. Gajanana, T. M. - Workshop on impact assessment of agricultural research and development, jointly organized by NIAP, New Delhi and IFPRI, USA, May 25-29, 2015.
- ❖ Dr. Tripathi, P. C., Sankar, V., Senthil Kumar, R. and Priti Sonavane - Brain storming session on avocado, CHES Chettalli, May 27, 2015.
- ❖ Dr. Narayana, C. K. and Dr. Sumanagla, H. P. - National conference on dynamics of smart horticulture for livelihood and rural development, organized by Lt. Amit Singh Memorial Foundation and CHAI, MGCGV, Chitrakoot, Madhya Pradesh, May 28-31, 2015.
- ❖ Dr. Manjunath, B. L. - Awareness raising meeting on international year of soil, organized by FAO at MANAGE, Hyderabad, June 05, 2015.
- ❖ Dr. Venugopalan, R. - 70th SAC meeting of NHRDF, Nashik, New Delhi, June 06, 2015.
- ❖ Dr. Laxman, R. H. - Integrated modelling group meeting, CESCRA, IARI, New Delhi, June 08, 2015.
- ❖ Dr. Karunakaran, G. and Dr. Loganandhan, N. - Bhoo Samrudhi Programme in Tumkuru with regard to Horticultural Technology Intervention for Tumkuru District, June 09, 2015, CEO, Zilla Panchayat, Tumkuru and JDA office, Dept., of Agriculture, Tumkuru, June 30, 2015.
- ❖ Dr. Dinesh, M. R. - Mango diversity fair, Dr. Y.S.R. Horticultural University, Kadapa District, Andhra Pradesh, June 10-11, 2015.

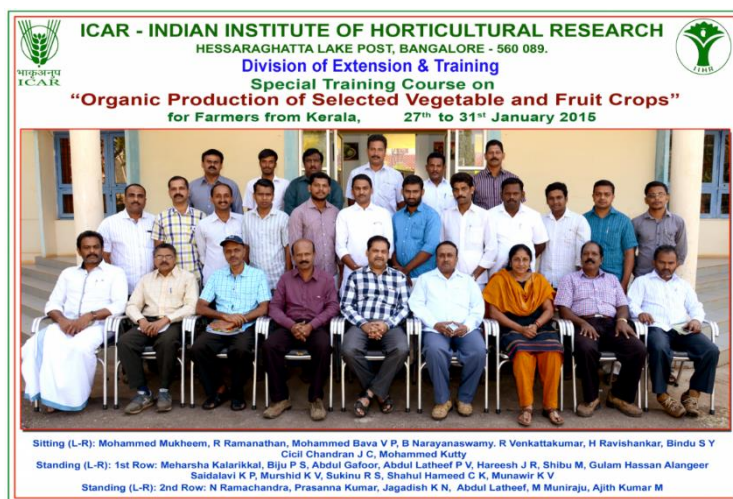
- ❖ Drs. Tripathi, P. C., Madhavi Reddy, K., Pitchaimuthu, M., Sankar, V. and Senthil Kumar, R. - Vegetable field day, Kushal Nagar, June 11, 2015.
- ❖ Dr. Varalakshmi, B. - 1st task force meeting for finalization of the DUS test guidelines of Amaranth, Palak and Ridge gourd, organized by PPV&FRA, New Delhi, at UHS, Bagalkot, June 16, 2015.
- ❖ Drs. Sankar, V., Senthil Kumar, R. and Priti Sonavane - Foundation day and cashew farmers meet, DCR Puttur, June 18, 2015.
- ❖ Dr. Manjunath Rao, T. and Dr. Narayanaswamy, B. - Annual workshop and action plan meeting on Government of Karnataka – ICRISAT Initiative on Bhoo-Samrudhi, and they suggested IIHR Horticultural Technological Interventions, ICRISAT Patancheru, Hyderabad, June 22, 2015.
- ❖ Dr. Karunakaran, G. and Mr. Prasanth, J. M. - Jackfruit diversity Fair and value added products with self-help women group “Halli Siri” and 10 jackfruit growers, June 24, 2015.
- ❖ Dr. Krishna Reddy, M. - Jack fruit diversity fair organized at CHES / KVK, Hirehalli, June 27, 2015.
- ❖ Dr. Senthil Kumaran, G. - XVII Annual Workshop of AICRP on Mushroom, DMR, Solan, June 28-30, 2015.

Special/Guest lectures delivered

The scientists of the Institute delivered special lectures/guest lectures on various topics as detailed below:

- Dr. Venugopalan, R. - Advanced statistical techniques in horticultural science research, organized by Centre of Advanced Faculty Training in Agricultural Statistics & Computer Applications, January 02-21, 2015.
- Dr. Debi Sharma - Impact of pesticide residues in environment at the orientation training program for Pesticide Dealers and Distributors by Central Integrated Pest Management Centre, DPPQ&S, GOI, Bengaluru at Regional Cooperative Training Institute, GOI, Padmanabhanagar, BSK II Stage, Bengaluru, January 20, 2015.
- Dr. Rajasekharan, P.E. - Management of horticultural genetic resources at the National level UGC sponsored workshop on in glass technology for bio-resource conservation, Department of Biotechnology, St. Joseph College, Trichy, Tamil Nadu, February 04, 2015.
- Dr. Sadashiva, A.T. - Bench marking in vegetable varieties /hybrids at IIWR, Karnal, **Haryana**, February 05, 2015.
- Dr. Aghora, T.S. - Recent vegetable varieties suitable for Davanagere dist. at Krishika Samaj Channagiri, organized by Krishika Samaj and Lions Club, Channagiri, **Davanagere Dt.?** February 10, 2015.
- Dr. Rajasekharan, P.E. - Biodiversity conservation at the UGC refresher course, Academic Staff College Bengaluru University, **Bengaluru**, February 20, 2015.

- Dr. Akella Vani - Recent trends in plant sciences protected cultivation of high value vegetable and ornamental crops for the officers of Kerala. February 09-14, 2015
- Dr. Sadashiva, A.T. - Improved tomato and disease in horticultural crops. February 16-21, 2015
- Dr. Senthil Kumaran, G. and Rathinakumari, A. - Horticultural Mechanization Advances in management of fruits, vegetable and ornamental crops. February 24-March 01, 2015.
- Dr. Panneerselvam, P. - ICAR-IIHR microbial inoculants technology for NE States at the review meeting of IIHR- North East Programme at ICAR, Research Complex, Barapani, Shillong, Meghalaya, March 24, 2015.
- Dr. Aghora, T.S. - Vegetable varieties and technologies suitable for NEH region at the review meeting of IIHR- North East Programme at ICAR, Research Complex, Barapani, Shillong, Meghalaya, March 24, 2015.
- Dr. Karunakaran, G. - Mutation breeding in fruit crops for post graduate students of UHS, Bagalkot at IIHR, Bengaluru, May 07, 2015.
- Dr. Varalakshmi, B. - Leafy vegetable improvement-current status and future thrusts to the faculty members and PG students of UHS, Bagalkot, June 16, 2015.
- Dr. Tiwari, R. B. - Post harvest technology and value addition to horticultural crops with special reference to guava in Kishan Goshthi, Badaun UP, June 23, 2015.
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Group photo of participants and coordinators

On Campus Training

A training was organized at KVK Jharnapani in Dimapur for the farmers and KVK officials on Potential mushrooms for NEH region, (date-?)

The Division of Extension and Training in association with other division of the Institute organized the following on campus and off campus training programs.

Transfer of Technology

Training

At IIHR, Hesaraghatta

On Campus Training

The Division of Extension and Training in association with other division of the Institute organized the on campus training programs.

Sl. No	Title	Dates
On campus		
1.	Protected cultivation of high value vegetable and ornamental crops for farmers	28.04-02.05. 2015
2.	A hands on training of assisted pollination in cv. Arka Saban hybrid custard apple for farmers from Karnataka and Andhra Pradesh	16.04.2015
3.	Advances in production technologies of horticultural crops for officers/farmers	02-06.06. 2015
4.	Protected cultivation of high value vegetable and ornamental crops for officers	16-20.06. 2015
5.	Entrepreneurship development through mushroom spawn production and mushroom cultivation-entrepreneurs	18-26.06.2015
Off campus		
6.	Exposure training on mushroom cultivation and its nutrition in collaboration with Creative Green Lifestyles, Bengaluru, a NGO at Sarjapur, Bengaluru.	

management of banana crops at Gollahalli of Channarayana nagar District.	19.06. 2015	April 18, 2015 to assess the problems of horticulture in the state.
pesticides awareness & training programme at Horticultural Research Station & Krishi Vigyan Kendra, Channarayana, Vellore district, Tamil Nadu	18.06.2015	100
pesticide management using bio-pesticides under organic cultivation at Chickballapur, Karnataka	25.6.2015	80



Dr. T. Sakthivel giving hands on training on pollination in custard apple hybrid Arka Sahan and Bio pesticides awareness & training programme

At CHES, Bhubaneswar

The Station organized one On campus and two Off campus trainings to the different stakeholders benefiting a total of 95 participants as detailed below

Sl.No.	Title	Date	Number of Participants
On campus		At KVK, Gonikoppal	
1.	Mango production technology under tribal sub-plan.	March 12	30
Off campus		At KVK, Gonikoppal	
2.	Minimal processing of raw jackfruits for vegetable purpose for the tribal farm women of different SHGs of Mohana block of Gajapati dist. (Odisha).	February 13	30
3.	Backyard kitchen gardening and commercial cultivation of cucurbits for the tribal farmers of different villages of Mohana block of Gajapati dist. (Odisha.)	March 09	95

At CHES, Bhubaneswar

The Station organized the following trainings programs during the period.

Sl.No.	Title	Date	Target group
1.	Three days training on pre and post-harvest management in mango for skill augmentation.	21-23.04. 2015	Tribal farmers of Odisha
2.	Five days training on pre and post-harvest management of fruit crops	26-30.04. 2015	Cluster resource persons at its campus during February 23-28, 2015 in collaboration with Zilla Panchayat, Tumakuru. About 30 cluster resource persons from Tumakuru participated in the program.

➤ Apart from this an interaction meet with district horticultural officers of the states was organized on

Sl.N o.	Title	Date
1.	Coconut and vegetable cultivation and input distribution.	06.06.2015
2.	Fertilizer management in coffee, pepper, fruit plants and vegetables and input distribution.	20.06.2015



Training –cum-input distribution program at tribal villages of Chettalli

At KVK, Gonikoppal

Upgrading the knowledge of different stakeholder viz. farmers, farm women, rural youths and extension functionaries in agriculture and its allied fields is one of the mandates of the Krishi Vigyan Kendra. During the quarter the KVK conducted six training programmes in different disciplines for the benefit of 75 farmers and 106 farm women the details of which are given below.

Discipline	No. of trainings	No. of Participants		Total
		Male	Female	
Horticulture	01	16	06	22
Livestock	03	30	66	96
Plant Protection	01	29	02	31
Home science	01	00	32	32
Total	06	75	106	181

At KVK, Hijihehalli

The KVK organized a six days training programme for cluster resource persons at its campus during February 23-28, 2015 in collaboration with Zilla Panchayat, Tumakuru. About 30 cluster resource persons from Tumakuru participated in the program.

IIHR Scientists as Resource Persons

- Dr. Sampath Kumar, P. - Two days training programme on 'Production technology of grapes for quality produce and better returns' convened by the Assistant Director of Horticulture, Govt. of Andhra Pradesh, Ananthapuramu at Regional Horticulture Training Institute, Udyana Bhavan, Ananthapuram, February 27-28, 2015.
- Dr. Reddy, Y.T.N. - One day training programme on 'Mango cultivation, export and improved technologies' organized by Karnataka State Mango Development Centre, a unit of Government of Kanaraka, Madikere, Chintamani, at Kurubur Village, February 24, 2015.
- Dr. Sankar, V., Mr. Devaiah, Dr. Reddy, T. M. and Mrs. Swathy, P. B. - Training programme on commercial coffee nursery raising at Balagundi tribal village and Somvarpet taluk, Madikeri, March 09, 2015.
- Drs. Sankar, V., Senthikumar, R., Reddy, R. M. and Mrs. Swathy, P. B. - Training programme on commercial nursery raising in vegetables and pepper at Balagundi tribal village and Somwarpet taluk, Madikeri, March 16-17, 2015.

Field Days/Campaigns/Awareness Programs etc.,

Field day and Exhibition at ICAR- IIHR campus on January 09-10, 2015



The Institute organized Field day and Exhibition at its campus on January 09-10, 2015 with the objective of showcasing high yielding varieties/hybrids and technologies developed by the Institute. The event was organized coinciding with KISAN-2015 organized at BIEC, Bengaluru for which IIHR was the Knowledge partner. Arrangements were made to bring the interested farmers from the International Exhibition Center, Bengaluru to the Institute and were taken round the demonstration blocks of the Institute where the varieties/hybrids developed by the Institute and also to the exhibition organised showcasing the technologies and products of the Institute for the benefit of the visiting public. The

KVK, Hirehalli and CHES, Chethalli also displayed their technologies. Entrepreneurs who had benefitted from IIHR technologies also displayed their technologies and products. The scientists of the Institute interacted with the visiting public and provided the first-hand information on the activities, achievements and technologies developed by the Institute to the visiting public. A sale counter was arranged for sale of seeds, products, as well as literature. More than 1400 farmers visited the institute and benefitted from the programme.

Field Day & Awareness Program on Protection of Plant Varieties and Farmers' Rights Act



A

Field Day & Awareness Program on Protection of Plant Varieties and Farmers' Rights was organized at KVK demonstration farm at Athur on the forenoon of January 13, 2015. The program was organized in two phases. The first phase was the Vegetable Field Day in the demonstration block of the KVK where 16 different types of vegetables and their varieties/hybrids developed by IIHR, Bengaluru. Mr. N. Bose Mandanna Progressive Grower and Former Vice Chairman, Coffee Board was the Chief Guest and inaugurated the Field day. Dr. T. Manjunatha Rao, Director, IIHR, Bengaluru, Dr. P.C Tripathy, Head, CHES, Chettalli; Dr. S. J. Ankegowda, Head, CRC, Appangala; Dr. A.T. Sadashiva, Head, Division of Vegetable Crops, and team of scientists from Division of Vegetable Crops IIHR, Bengaluru and CHES, Chettali were present as resource persons. More than 250 farmers, representatives from Forestry College, Ponnampet; officials from Department of Agriculture, Horticulture, ATMA, Bhoochetana, NGO representatives working for agriculture, press and media representatives from all the three talukas of Kodagu district participated in the program. The scientists from the Institute interacted with farmers on the varieties and hybrids of tomato, chilli, French beans, yard long bean, brinjal, radish, bhendi, peas, dolichos, corinader, palak, amaranthus developed by the Institute and also cabbage, *Knol Khol*, beet root and carrot from other sources. The field was followed by Awareness Program on Protection of Plant Varieties and Farmers' Rights Act in the afternoon. Dr. T. Manjunatha Rao, Director, IIHR, Bengaluru inaugurated the program. Dr. P.C. Tripathi, Dr. A.T. Sadashiva, Dr. T.S. Aghora, from IIHR, Bengaluru and Dr. S. J. Anke Gowda from CRC, Appangla explained about

role and importance of Protection of Plant Varieties and Farmers' Rights Act (PPV&FRA), the farmer's rights and provisions for registering farmers varieties present in the act, DUS guidelines in various vegetables, cardamom, black pepper, turmeric and ginger etc.. An exhibition was arranged on the occasion to exhibit vegetable varieties from IIHR, Bengaluru. Farmers also exhibited their vegetables, black pepper and rice varieties.

Field Day on Vegetable Varieties and F₁ Hybrids



The Division of Vegetable Crops, IIHR, Bengaluru in collaboration with KVK, Gonikoppal and CHES, Chettalli organized a Field Day on Vegetable Varieties and F₁ Hybrids developed by IIHR, Bengaluru in the field of Mr. Prem Kumar, a progressive farmer at Chikkaluvara village, Somwarpet taluk, Kodagu district on June 11, 2015. More than one hundred farmers including farm women from nearby villages viz., Hebbale, Kodige, Kushalnagara & Nallur, scientists from the Division of Vegetable Crops, IIHR, Bengaluru, staff of KVK, Gonikoppal and CHES, Chettalli, staff of College of Forestry, Ponnampet and College of Horticulture, Mysuru and officials from the Department of Horticulture/Agriculture participated in the Field Day.

All the participants visited the vegetable field of Mr. Prem Kumar and witnessed the vegetable crops viz., chilli (Arka Meghana), brinjal (Arka Anand), tomato F₁ hybrids (Arka Rakshak and Arka Samrat) & Yard Long bean variety, Arka Mangala cultivated on his three acre farm. Mr. Prem Kumar expressed that all the vegetable varieties/hybrids were completely free from diseases like bacterial wilt (tomato and brinjal) and viruses (chilli). Mr. Prem Kumar expressed that he could get excellent yields in chilli, brinjal and tomato hybrids & Yard Long bean variety. Dr. A.T. Sadashiva, Head, Division of Vegetable crops, IIHR, Bengaluru emphasized that about 35,000 hectares of land in Kodagu region is being left fallow after the harvest of paddy during the period from October to March and the main aim of organizing field day was to create awareness among the Kodagu planters that vegetable cultivation would benefit them in several ways which include utilization of fallow land and supply of fresh, nutrition rich & pesticide free vegetables to their families and friends. A farmer- scientist interactive meet and an

exhibition of vegetable varieties/hybrids samples grown by the farmers was also arranged on the occasion for the benefit of the farmers.

Mango Field Day



The CHES, Bhubaneswar organized a Mango Field Day on April 19, 2015 at its campus with an aim to strengthen the public understanding on varietal diversity, quality, marketing and related aspects in mango. More than 100 participants from different sections like scientists, doctors, mango lovers, mango growers, farm women and consumers participated in the program. Addressing the gathering on the occasion Dr. H. S. Singh, Head, CHES, Bhubaneswar briefed about the activities and achievements of the Station with special reference to the extra early mango variety, Arka Neelachal Kesari developed by the Station and cautioned about the use of hazardous chemical for mango ripening, posing a threat to human health. More than 50 varieties of mango and promising varieties/clones of fruits and vegetables were displayed for the benefit of the participants.

Field Demonstrations

The following field demonstrations were taken up by KVK, Gonikoppal.

- **Use of PGPR encapsulated bio capsules for management of soft rot disease in ginger:** Ten demonstrations were taken up in Torenuru, Shirangala and Arvathoklu villages of Kodagu district which includes rhizome treatment with PGPR encapsulated bio capsules and drenching of PGPR talc formulation of IISR, Calicut.
- **Assessment of ginger varieties for high yield:** Demonstrations were taken up on assessing yield and quality of ginger varieties, IISR var. Varada, IISR Mahima and IISR Rejatha at Hudikeri village of Virajpet taluk, Kodagu.
- **Assessment of foot rot disease management in black pepper:** Five on-farm trials have been taken up at Balyamandoor, Hosuru villages of Virajpet taluk, Kodagu to find out the effective treatment for management of quick wilt in black pepper. The treatments include Bordeaux mixture spray, soil

application of Arka Microbial Consortia, Potassium Phosphonate spray and drenching of Metalaxyl +Mancozeb and plastic mulching around the base of the vine.

Surveys/Field Visits

1. Drs. Tripathi, P.C., Shankar, V. and Senthikumar, V. R. visited litchi orchard of Namdhari Farm to assess the performance of litchi crop on 14.01.2015.
2. Dr. Tripathi, P.C. and Sankar, V. visited Subramnaya Estate – Vegetable Demonstration Plot to give technical advice on 05.02.2015, 26.02.2015 and 18.03.2015.
3. Dr. Sankar, V. and Dr. Reddy, R. M. Visited Lakshmi Estate, Horror, Madikeri taluk for collection of indigenous cucurbits and survey on coorg mandarin revival on 19.02.2015.
4. Dr. Varalakshmi, B. visited the Contract seed production plot of Coriander variety, Arka Isha at Dodda Tumkur, Devanahalli Taluk on 20.2.2015
5. Dr. Sankar, V , and Mrs. Swathy, P. B. visited Balagundi, Theyathur and Awargundha Tribal *Hadis* to distribute Agricultural/Horticultural inputs and to collect some indigenous cucurbits and tubers on 19 & 29, 30.01.2015, 03.02.2015,09.02.2015, 25.02.2015, 02 & 03.03.2015, 9 &10.03.2015,16 and 17.03.2015 and 23.03.2015.
6. Dr. Tripathi, P.C. visited vegetable demonstrations in Ponampet and Nakoor on 07.03.2015.
7. Dr. Girija Ganeshan conducted survey on different diseases in onion seed crop in Bommenahalli, Kanaganahalli, Manchenahalli, P.Nagenahalli, Hirebidanur and Narasapura areas, and for the bulb crop in Gunaganapalli, Kothakota and Nalamalepalli area of Bagepalli region of Chikkaballapura district on 10-03-2015.
8. Dr. Ganeshan, S. visited ICAR-CIAH, Bikaner to assess the problem of date palm flowering asynchrony from 31-03 to 01-04-2015.
9. Dr. K. Madhavi Reddy, K. and Dr. Pitchaimuthu, M. visited the field demonstrations of vegetables conducted Nellur, Ponnampet, Chettalli, Gonikoppal, Sunkoppa, Periyapattana and Shanivarasante of Kodagu District on 31.03.2015.
10. Dr. Linta Vincent, Scientist carried out exploration (1) to visit N.B.P.G.R. Regional Station, Thrissur for recording flowering data on the polyembryonic mango varieties and (2) to collect scion material of other polyembryonic mango varieties available in Thrissur FGB for enriching the PE diversity in mango.
11. Dr. G. Karunakaran conducted survey in Hassan for collection of high yielding clone of jackfruit on May 09, 2015.
12. Shri. P. Dayananda visited the farmers' field at Kadur for demonstration of the IIHR manual drawn onion seeder, IIHR animal drawn onion seeder and IIHR

tractor operated raised bed former cum onion seeder on May 21, 2015.

13. Dr.V. Sankar, Ms. Nischita and Sunil Kumar, surveyed the Coorg for collection of wild varieties mango.
14. Dr. Priti Sonavane and P. B. Swathy surveyed five Coorg mandarin orchards for collection of samples of Phytophthora disease in Kandekhere.
15. Dr. C. K. Narayana, visited mango, papaya, jackfruit farms in BCKV, Mohanpur on 29.06.2015.

TV Programs

Sl. No.	Topic	Channel
1.	Management of pomegranate crop and hints to farmers	Chandana, Bengaluru
2.	Plant protection measures in important fruit crops	Chandana, Bengaluru
3.	Arka Rakshak and Arka Samrath – excellent hybrids of tomato(Hindi)	National Agriculture Channel
4.	Management of horticulture crops during summer	DDK, Chandana
5.	Pollination techniques in Arka Sahan	DDK, Chandana
6.	Maintenance of plantation crop during summer- panel discussion	DDK, Chandana
7.	Management of medicinal crop – live program	DDK, Chandana
8.	Seed treatment methods in paddy	TV 1
9.	Jackfruit Diversity Fair cum Exhibition-2015 at Hirehalli	Praja Pragahathi
10.	Jackfruit Diversity Fair cum Exhibition-2015 at Hirehalli	DDK, Chandana

Dr. K. Madhavi Reddy participated in video shoot of 'Vigyan Prasar' (an autonomous organization under the DST, GOI), a project to popularize science and technology behind the IT and how it has impacted India through the television series titled 'Spices' conducted by M/S Beacon Television, Mumbai on March 28, 2015.

Radio Programs

The following radio programs on various aspects of horticulture were broadcasted on All India Radio during the period.

Sl. No.	Topic	Date
1.	Harvesting and post-harvest technology on mango.	15.04.1
2.	Scientific paddy cultivation	05.06.1
3.	Mandates and activities of KVK, Gonikoppal	13.06.1

4.	Disease management in black pepper	16.06.15	Mr.Veerendra Kumar K.V	29.04.2015
5.	Back yard poultry rearing	18.06.15	Dr.Suresh S.C	Yelahanka,
6.	Scientific Bordeaux mixture preparation	20.06.15	Mr.Veerendra Kumar, K.V	Bengaluru,
7.	Scientific disease management in piggery	25.06.15	Dr.Suresh S.C	07.06.2015
			Dr.Karif Krishi Sammalen	Muzaffarnagar,
			2015	27.06.2015

Fairs/Exhibitions

The Institute and its regional stations organized/participated in the following exhibitions.

Sl. No.	Event	Place and date
1.	Southern Regional Agricultural Fair -2015 jointly organised by Min. of Agriculture, GOI and TNAU, Coimbatore.	06-09.01.2015 At TNAU, Coimbatore
2.	Visit of Hon'ble Minister of Agriculture, GOI.	09.01.2015 At IIHR Yelahanka campus
3.	Field Day on vegetables coinciding KISAN – 2015 at Bangalore International Exhibition Center Bengaluru.	09-10.01.2015 At IIHR, Bengaluru
4.	Horti Sangam Fair.	09-11.01.2015 Lalbagh, Bengaluru
5.	National Meet on Distant Hybridization in Horticultural Crops.	22-23.01.2015 At IIHR, Bengaluru
6.	Visit of Parliamentary Standing Committee on Agriculture.	03.02.2015 At IIHR, Bengaluru
7.	National Seminar on Promotion of Oil Palm Cultivation	05-06.02.2015 At DOPR, Pedavegi
8.	Eastern Zone Agriculture Fair organized by CPRS, Patna, Bihar	19-21.02.2015 At CPRS, Patna, Bihar
9.	Annual Pusa Krishi Vigyan Mela organized by ICAR-IARI, New Delhi	10-12.03.2015 At ICAR-IARI New Delhi
10.	National Farmers Meet jointly organised by the ICAR, New Delhi and TNAU, Coimbatore	14.03.2015 At RRS Payur, Krishnagiri
11.	Tribal Mela	24.3.2015 At Aweregunda village
	Horti Sangham-2015	Mothihar, Bihar, 10-12.04.2015
	Exhibition on the occasion of Hockey	Ponnampet, Kodagu

Commercialization of technologies

➤ The following technologies have been transferred during the period.

1. Fruit beverage technologies viz., Blended Amla and Bottle gourd juice, Kokum juice and Passion fruit juice to Mr. M. S. Ganesh Kumar of M/s ZEUS Industries Pvt. Ltd, Andhra Pradesh and training was also imparted during 26-29.05.2015.
2. Shrink wrapping technology for capsicum to M/s Sarayu Green Farms Pvt Ltd, Dist Mahabubnagar, Telangana State.
3. Technology on "Long term preservation of mango slices for subsequent use in pickling" to Mr. Vinayak Dhote, Vanita Udyog, Maharashtra.

➤ A total amount of Rs 17, 69,294/- has been generated as revenue from utilization of IP assets during the first quarter by licensing 16 technologies under the theme area Plant Health Management & Post Harvest Technologies to 16 clients.

Revenue Generated by Mushroom Laboratory

- ✚ An amount of Rs. RS. 7, 17,827/-was generated by the mushroom laboratory through sale of Mushroom spawn (Rs. 5, 81,872/-), RTF bags (Rs. 6070/-) and training (Rs. 1, 29, 885/-).
- ✚ An amount of Rs. 6, 74,402/- was generated by the mushroom laboratory through sale of Mushroom spawn (Rs. 5, 30,242/- RTF bags (Rs. 5010/-) and training (Rs. 1, 39, 150/-).

Sale of Technological Products through ATIC

The technological products of IIHR viz., Banana Special, Mango Special, Vegetable Special, Citrus Special, Trichorich-N, *Pseudomonas fluorescens*, *Paecilomyces lilacinus*, Microbial Consortium, Pongemia soap, Neem soap, Sealer cum healer, Vegetable fruit fly traps and lures, Institute publications, VCDs and DVDs, Vegetable seeds kits & Sample packets, PHT products, sapota, mango and lime harvesters etc. were sold through the ATIC, IIHR, Bengaluru to the visiting farmers and general public and an amount of Rs. 30,70,909/- was generated as revenue.

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soap, Sealer cum healer, Vegetable fruit fly traps and lures, Institute publications, VCDs and DVDs, Vegetable seeds kits & Sample packets, PHT products, sapota, mango and lime harvesters etc. were sold through the ATIC, IIHR, Bengaluru to the visiting farmers and general public and an amount of Rs. 11,39,671/- was generated as revenue.

General Visitors

A total of 3153 visitors comprising of 445 farmers, 2672 students and 36 others/officers visited the Institute at Hesaraghatta, Bengaluru during the quarter. The visitors were taken round the Institute farm and laboratories by the staff of the Division of Extension and Training. The activities and achievements of the Institute were explained to the visitors.

A total of 443 farmers, 698 students and 49 others/officers visited the Institute at Hesaraghatta, Bengaluru. The visitors were taken round the Institute farm and laboratories and the activities and achievements of the Institute were explained to them by the staff of Division of Extension and Training

A total of 22 exposure visits comprising of 731 farmers from Odisha, Jharkhand and Chattisgarh visited CHES, Bhubaneswar for exposure in horticultural technologies and got benefitted.

Publications

Research Papers

1. Archana, S. Rao, Girija Ganeshan, Ramachandra, Y. L., Chethana, B. S. and Bellishree, K. (2015). Bioefficacy of fungicides against *Alternaria porri* (Ellis) Cif. causing purple blotch of onion (*Allium cepa* L.). *Environ. Ecology*. **33**(1):99-104.
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4. Arka Microbial Consortium for Sustainable Vegetable Production (English)
5. Cultivation Practices of Muskmelon and Watermelon (English)
6. ಟಮೇಟೋ ಬೆಳೆಯಲ್ಲಿ ಸಮಗ್ರ ಪೀಡೆ ನಿರ್ವಹಣೆ (Kannada)
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- Ravishankar, H. (2015). Proceedings of Acta Horticulturae on Global Conference on Augmenting Production, Productivity and Utilization of Mango: Biotic and Abiotic Stresses, an official publication of the International Society for Horticultural Science (ISHS), Belgium. *Acta Horticulturae* Number 1066, January 2015. p.233.
- Narayana, C.K. 2015. Handling of Fresh Banana for Export and Product Diversification. Souvenir of International Conference on Dynamics of Technology for Quality Production of Banana, Jain Hills, Jalgaon, March 15-17, 2015.
- Karunakaran G., Loganandhan N, Hegde M. R. Senthilkumar M, Jagadish K N, Ramesh P R, Prasanth J M, Hanumanthegowda B, Radha R. Banakar, Somashekar, Shashidhar KN. (2015) Souvenir, Jack Fruit Diversity Fair-2015. Organized by CHES/KVK, Hirehalli, Tumkur.
- Srivastava, R. C., Babita Singh, Gautam, N. C., Rai, D. P. and Sumangala, H. P. (2015). Souvenir, Shodh Chintan. Published by ASM Foundation, New Delhi and Jain Irrigation Systems Pvt. Ltd. Jalgaon, Vol.7. pp. 234.
- Sumangala, H. P. (2015). Abstracts, Commercial floriculture- an option for livelihood and rural development. The ASM Foundation, Vijayee Veer Awas, Sector 18-A, Dwarka, New Delhi. pp.106.
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- Tiwari, R. B, Prakash Patil and Sarojini Jalali (2015). Research on value addition of jackfruit at IIHR, Souvenir, Jackfruit Diversity Fair 2015, CHES, Hirehalli, June 27, 2015.
- Tripathi, P. C., Sankar, V., Senthilkumar, R. and Priti Sonavane (2015). Souvenir and Abstract, Brain Storming Session on Avocado. CHES Chettalli, May 27. pp.68.

Papers Presented in Seminar/Symposium/ Conference etc.,

National Symposium on Nematode Management: A Challenge to Indian Agriculture in the Changing Climate, YASHADA, Pune, January 08-10, 2015.

- ❖ Umamaheswari, R. and Rao, M. S. - Mitigating nematode menace in protected horticulture.
- ❖ Grace, G. N., Rao, M. S., Shivananda, T. N., Umamaheswari, R. and Priti, K. - Antagonistic effect of *Paecilomyces lilacinus* on *Meloidogyne incognita*.

3rd Kannada Sahithya Sammelana, Sira, Tumkur, Karnataka, January 17-18, 2015.

- ❖ Narayanaswamy, B. - Women empowerment through self-help group approach and entrepreneurship.

National Meet on Distant Hybridization in Horticultural Crop Improvement, ICAR-IIHR, Bengaluru, January 22-23, 2015.

- ❖ Aswath, C., Rao, T. M., Tejaswini, Dhananjaya, M. V., Rajiv Kumar and Padmini - Use of wild species in ornamental crops improvement (gerbera, anthurium, carnation and gladiolus).
- ❖ Dutta, O. P., Sadashiva, A.T., Madhavi Reddy, K. and Pitchaimuthu, M. - Wild species utilization in vegetable crop improvement – challenges and way forward.
- ❖ Ganeshan, S. - Conservation and utilization of wild species in horticultural crop improvement.
- ❖ Ganeshan, S. - Pollen cryopreservation.
- ❖ Ravishankar, H., Murthy, B.N.S. and Anuradha Sane. - Genetic improvement of passion fruit (*Passiflora edulis* Sims.) for key economic traits.
- ❖ Senthil Kumar, R., Tripathi, P.C., Sankar, V. and Karunakaran, G. - Preliminary study on intergeneric hybridization between *Carica papaya* and *Vasconcellea cauliflora* at high altitude and high rainfall Kodagu region.
- ❖ Sudha, M. - Prospects, opportunities & concerns for commercialization of hybrids.
- ❖ Sunil Gowda, D. C., Vasugi, C., Dinesh, M.R., Krishna Reddy, M. and Shivshankara, K. S. -

Genetical studies in intergeneric progenies of papaya.

- ❖ Tripathi, P.C., Senthil Kumar, R., Sankar, V. and Karunakaran, G. - Wide hybridization in Citrus for development of resistant rootstocks for biotic stress.
- ❖ Vasugi, C., Dinesh, M.R. and Rajashekaran, P.E. - Conservation of nuclear gene of *Vasconcellea* in papaya breeding.
- ❖ Vasugi, C., Lichamo and Krishna Reddy, M. - Further studies on overcoming the intergeneric crossing barriers in papaya improvement.

Innovative Insect Management Approaches for Sustainable Agro Ecosystem, Agricultural College, Madurai, TNAU, January 27-30, 2015.

- ❖ Sudhagar, S., Reddy, P.V.R., Nagalakshmi, G. and Varun Rajan, V. - Investigations on the endosymbionts in the gut of Indian honey bee, *Apis cerana* F. populations using 16S rRNA gene region.
- ❖ Ganga Visalakshy, P. N., Darshana, C.N., Swathi, C., Krishnamoorthy, A. and Pillai, K. G. - Antagonistic effect of entomopathogenic fungi *Metarhizium anisopliae* (IIHR strain) against plant pathogens *Colletotrichum gloeosporioides*, *Pestalotia mangiferae* and *Botrydiplodia theobromae*.

National Symposium on Challenges and Management Approaches for Crop Diseases of National Importance, Organized by Indian Society of Mycology & Plant Pathology and TNAU, Madurai, February 12 -14, 2015.

- ❖ Saxena, A.K., Rathnamma, K., Thilaka Rani, R. and Shashank, S. - Influence of weather factors on black banded disease in mango.

International Conference on Technological Interventions in Agricultural Sciences for Enhanced Productivity, Nutrition Quality and Value Addition (TIAS-2014), Central Institute of Horticulture, Department of Agriculture and Co-operation, Ministry of Agriculture, GOI, Medziphema, Dimapur, Nagaland, February 17-19, 2014.

- ❖ Meera Pandey - Potential of mushroom technology in NER region.
- ❖ Senthil Kumaran, G. - Machinery for mushroom cultivation and spawn production.

Eastern Zone Regional Agriculture Fair, Patna, February 19-21, 2015

- ❖ Tiwari, R. B. - Post-Harvest Technologies of Horticultural Crops

National Meeting on new/safer Molecules and Bio Control Technologies for Integrated Pest Management in Crops, Karnataka Veterinary Council, Bengaluru, February 23, 2015.

- ❖ Sridhar, V. - New molecules for IRM in horticultural crops.

National seminar on Recent trends in plant sciences, Andhra University, Visakhapatnam February 26-27, 2015

- ❖ Akella Vani - Recent trends in plant sciences (Keynote address)

National Conference on Emerging Trends in Agri Nano Technology (Agri Nano 2015). Tirupathi, Andhra Pradesh, March 11-13, 2015.

- ❖ Naveena, N. L., Saroja, S. and Ranganath, H. R. - Insects and Nano science: An intimacy.

National Seminar on Recent Trends in Eco-Friendly Farming Practices for Food Security, organized by Gandhigram Deemed University, Dindigul, Tamil Nadu, Dindigul, March 12-13, 2015.

- ❖ Mr. Ravindra Kumar –
(i) Influence of spacing and pruning on fruit quality attributes of Fig (*Ficus carica*) cultivars.
(ii) Spacing and pruning effects on leaf area, specific leaf weight, ABA and proline contents in Fig (*Ficus carica*) cultivars.

International Conference on Dynamics of Technology for Quality Production of Banana, organized by Jain Irrigation Systems Ltd and Confederation of Horticultural Associations of India, Jain Hills, Jalgaon, March 16-17, 2015.

- ❖ Narayana, C.K. - Handling of fresh banana for export.

National Symposium on Understanding Host-Pathogen Interaction through Science of Omics. ICAR-Indian Institute of Spices Research, Kozhikode, Kerala. March 16-17, 2015.

- ❖ Gopalakrishnan, C. and Rashmi B. Artal. - Induction of systemic resistance by rhizobacteria in tomato against bacterial wilt caused by *Ralstonia solanacearum* E.F. Smith

The VII International Workshop on Management of the Diamondback Moth and Other Crucifer Pests, Bengaluru, March 23-27, 2015.

- ❖ Onkar Naik, S., Sridhar, V., Jayashankar, M. and Chkravarthy, A.K. - Synergistic effect of oils on the bioefficacy of flubendiamide and indoxacarb against diamondback moth, *Plutella xylostella* (L.) (Lepidoptera: Plutellidae) on cabbage.
- ❖ Sridhar, V. and Chakravarthy, A.K. - Management of diamondback moth, *Plutella xylostella* (L.) (Lepidoptera: Plutellidae) on cabbage.

Regional Research, Extension Advisory and Project Formulation for Southern Regions, UHS, Bagalkot, COH, Mysuru, April 17, 2015.

- ❖ Pitchaimuthu, M. - Watermelon hybrid Arka Akash for farm trial.
- ❖ Varalakshmi, B. - Farm trial results of Amaranth varieties, Arka Samraksha and Arka Varna.

National Seminar on Harmonizing Biodiversity and Climate Change: Challenges & Opportunity (NSBC-2015),

ICAR – Central Island Agricultural Research Institute, Port Blair, April 17-19, 2015.

- ❖ Shamina Azeez, Pooja Bohra, Shivaramu, K. and Anuradha Sane - Evaluation of Jamun (*Syzygium cumini* L.) germplasm for major biochemical constituents.
- ❖ Shivaramu, K., Pooja Bohra, Anuradha Sane and Ganesh N. Khadke - Assessing the variability amongst seedling population of Jamun (*Syzygium cumini* L.) for morphometric parameters.

RHREA & PF for Northern Region of the UHS, Bagalkot organized at College of Horticulture, Arabhavi, April 24, 2015.

- ❖ Pitchaimuthu, M. - Watermelon hybrid Arka Akash for farm trail.
- ❖ Varalakshmi, B. - Farm trial results of Amaranth varieties, Arka Samraksha and Arka Varna.

International Conference on Low Temperature Science and Biotechnological Advances, NASC Complex, New Delhi, April 27-30, 2015.

- ❖ Anushma, P. L. - Cryopreservation of pollen in wild solanums for resistance gene introgression into modern day egg plant cultivars.
- ❖ Ganeshan, S. - Cryogenbanking in horticulture-current status and future perspectives.
- ❖ Rajasekharan, P. E. - Preservation of threatened species pollen cryopreservation in RET medicinal plants of Indian origin.

6th International Conference on Emerging Technologies in Food and Nutrition for Health Management (ICETF-2015), Southern Regional Station, ICAR-NDRI, May 14-15, 2015.

- ❖ Bhuvaneswari, S., Senthil Kumaran, G. and Raghupathy, H. B. - Effect of high humidity storage on freshness and nutritional quality of coriander leaves.
- ❖ Doreyappa Gowda, I. N. and Manjunath, C. B. - Enzymatic liquefaction of sapota pulp using commercial pectinase enzymes.
- ❖ Shamina Azeez, Tripathi, P. C., Karunakaran, G., Shivashankara, K. S. and Roy, T. K. - Antioxidant potential of the under-utilized fruit karonda in relation to its phenolics.

National Seminar on National Jackfruit Fest, jointly organized by Aranmula Heritage Trust and Centre for Innovation in Science and Social Action (CISSA), Aranmula, Pathanamthitta District, Kerala, May 15-16, 2015.

- ❖ Linta Vincent - Conservation of jack fruit genetic diversity.

33rd AICRP Meeting on Vegetable Crops, IIVR, Varansi, May 23, 2015.

- ❖ Sadashiva, A. T. - Tomato seeds : requirement and gap.

Brain Storming Session and Exhibition on Avocado, CHES, Chettalli, May 27, 2015.

- ❖ Karunakaran, G., Tripathi, P. C., Sakthivel, T., Sankar, V. and Senthil Kumar, R. - Commercial potential of avocado fruits - with promising future.
- ❖ Priti Sonavane, Tripathi, P. C., Senthil Kumar, R., Sankar, V. and Jayanthi Mala, B. R. - Incidence and severity of anthracnose disease in avocado germplasm.
- ❖ Priti Sonavane, Tripathi, P. C., Senthil Kumar, R., Sankar, V. and Jayanthi Mala, B. R. - Etiology and management of anthracnose disease in avocado.
- ❖ Sankar, V., Tripathi, P. C., Senthil Kumar, R., Karunakaran, G. - Nutritional benefits of avocado - a review.
- ❖ Saxena, A. K., Preeti Sonawane and Tripathi, P. C. - Disease management in avocado.
- ❖ Senthil Kumar, R., Tripathi, P. C., Sankar, V., Karunakaran, G. and Sakthivel, T. - Evaluation of avocado germplasm for higher yield and fruit quality.
- ❖ Tripathi, P. C., Karunakaran, G., Sakthivel, T., Sankar, V., Senthil Kumar, Jayanthi Mala, B. R., Priti Sonavane, Ravisankar, H. and Chithraichelvan, R. - Avocado research at CHES Chettalli.
- ❖ Tripathi, P. C., Karunakaran, G., Sankar, V. and Senthil Kumar, R. - Propagation studies in avocado.
- ❖ Tripathi, P. C., Sankar, V., Senthil Kumar, R. and Priti Sonavane - Avocado-introduction.
- ❖ Tripathi, P. C., Senthil Kumar, R., Sankar, V., Karunakaran, G. and Sakthivel, T. - Selection of promising lines of avocado.

National Conference on Dynamics of Smart Horticulture for Livelihood and Rural Development, MGCGV, Chitrakoot, Madhya Pradesh, May 28-31, 2015.

- ❖ Sumangala, H. P. - Floriculture for livelihood and rural development.

International Conference on Agriculture & Horticultural Sciences, New Delhi, June 06-07, 2015.

- ❖ Carolin Rathinakumari, A. - Physical and mechanical properties of garlic bulbs and cloves.

Trimonthly Meeting of Horticultural Officers of Karnataka, Horticultural Colleges of UHS, Bagalkot, June 10, 2015.

- ❖ Sadashiva, A. T. - Vegetable varieties and hybrids developed by IIHR.

1st National Conference on Agricultural Scientific Tamil, Chennai, June 13-14, 2015.

- ❖ Senthil Kumaran, G. - Vengaya vidhai vidhakkum eyandhiram.
- ❖ Senthil Kumaran, G. - Poondupal vidhaiporul thayarika poodu udaikum eyandhiram.

One Day Seminar on Biological Indication of Kuttiaattoor Mango, organized by Kerala Agriculture Department,

SHM, KVK, Kannoor, IIHR, Bengaluru, Gram Panchayat and Kuttiattoor, June 15, 2015.

- ❖ Dinesh, M. R. - Improvement of quality of the mangoes.
- ❖ Dr. Sudhakar Rao, D. V. - Better post-harvest management practices of mango.
- ❖ Gajanana, T. M. - Marketing of indigenous mangoes.

1st Task Force Meeting organized by PPV&FRA, New Delhi at UHS, Bagalkot, June 16, 2015.

- ❖ Varalakshmi, B. - DUS Test guidelines of Amaranth, Palak and Ridge gourd.

Jackfruit Diversity Fair 2015, CHES, Hirehalli, June 27, 2015.

- ❖ Tiwari, R. B. - Research on value addition of jackfruit at IIHR.

Honours/Recognitions/Awards

Best Stall Award



Dr. C Vasugi receiving the award from the minister

- ✚ The Institute was awarded the 1st prize as Best Stall Award at the Southern Regional Agri. Fair –2015 organised by Ministry of Agriculture Govt. of India in collaboration with TNAU at Coimbatore, January 6-9, 2015.



Dr. Achalapuri and Mr. Jagadish, K. N. receiving the award from the Hon'ble Union Minister of State for Agriculture, Govt. of India

- ✚ The Institute was awarded the Best Stall Award at the Pusa Krishi Vigyan Mela 2015. The award was conferred by the Hon'ble Union Minister of State for Agriculture, Ministry of Agriculture, Government of India Dr. Sanjeev Kumar Balyan on March 12, 2015, in the presence of Dr. S. Ayyappan, Secretary (DARE) &

Director General (ICAR), Dr. Gurbachan Singh, Chairman (ASRB), Dr. Ravinder Kaur, Director (Acting), ICAR - IARI, New Delhi and other delegates.

Sports : Overall Runner up Trophy



ICAR-IIHR Sports Contingent with the Overall Runner-up Trophy

- ✚ The Institute bagged Overall Runner-up in ICAR Inter- zone Sports Tournament held at ICAR-NDRI, Karnal during March 11-14, 2015 with Medal winners as below:

1. Ms. Meenakshi - Gold in 200mtrs & Silver in 100mtrs.
2. Ms. Venkatalekshamma- Gold in Javelin throw & Silver in Discus throw.
3. Mr. Rajanna- Silver in 400 & 800 mtr. and Gold in 4x100 mtr. Relay (Rajanna, Mallesh, Venkatesh & Sridhar).

Young Scientist Award



Dr. N. Loganandhan receiving the award

- ✚ Dr. N. Loganandhan, Programme Co-ordinator, KVK, Hirehalli, Tumakuru was awarded Young Scientist Award at ISEE National Seminar, Gwalior Feb 2015.

Best paper/article/Heading ?

- ✚ The research paper entitled 'Potential of mushroom technology in NER region' by Dr. Meera Pandey was awarded Best Paper Award at the International conference on technological interventions in agricultural sciences for enhanced productivity, nutrition quality and value addition (TIAS-2014), February 17-19, 2015.

- ✚ The research paper entitled 'Breeding tomato (*Solanum lycopersicum* L.) for high nutritive value' by Sadashiva, A.T., Shivashankara., K.S., Rao, V.K., Ravi Shankar, K.V., Kavitha, P. and Shilpa, P. was awarded Best Poster Award at the 6th Indian Horticulture Congress held at CODISS Trade Fair Complex, Coimbatore, November 06-09, 2015.
- ✚ Dr. Sudhakar Rao, D.V. was awarded the First prize during the annual meeting of KSAMB held on 13/3/2015 for the popular article on ಹಣ್ಣುಗಳನ್ನು ಮಾಗಿರುವ ಕೃತಕ ವಿಧಾನಗಳ ಸಾಧಕ ಬಾಧಕಗಳು ಮತ್ತು ಶಿಫಾರಸ್ಸುಗಳು published in Krishi Pete. 40(04) issue published by KSAMB, Hubli.

Chairman/Experts?

- ✚ Dr. Tiwari, R.B. Principal Scientist, Division of PHT was nominated as Technical Consultant/Expert Advisor for the Hindi magazine – Mai Hun Kisan to be published by HCMS society.
- ✚ Dr. Senthil Kumaran, G. has been nominated as a member of the Technical Committee on Agriculture and Food Processing Equipments Section Committee, FAD-20 at Noida, New Delhi.
- ✚ Dr. Narayanaswamy, B. has been nominated as Nodal officer for carrying and monitoring works related to Vikaspada Karnataka E- Portal for IIHR technologies.
- ✚ Dr. Narayana, C.K. acted as Co-Chairman for Technical Session on Growth, Development and Value Addition, during the 2nd All India Group Discussion of AICRP-Fruits, at Maharana Pratap University of Agriculture and Technology, Udaipur, February 26 - March 01, 2015.
- ✚ Dr. Narayana, C.K. acted as Co-Chairman for Technical Session on Plant Nutrition and Health Management during the International Conference on Dynamics of Technology for Quality Production of Banana, at Jain Hills, Jalgaon, Maharashtra, March 15-17, 2015.
- ✚ Dr. Vasugi, C. acted as Rapporteur for the session on Management of genetic resources and varietal improvement during the 2nd All India Group Discussion of AICRP-Fruits, at Maharana Pratap University of Agriculture and Technology, Udaipur, February 26 - March 01, 2015.
- ✚ Dr. Pitchaimuthu, M. acted as a rapporteur at the National Farmers Meet at Regional Research Station, Paiyur, of TNAU, Coimbatore, Tamil Nadu, March 14, 2015.
- ✚ Dr. Pitchaimuthu, M. acted as rapporteur at the National Meet on Distant Hybridization in Horticultural Crop improvement, IIHR, Bengaluru, January 22-23, 2015.
- ✚ The Institute was awarded the Best Stall Award at IIHR Exhibition stall at the Yelahanka Allalasandra Lake festival on June 07, 2015.

- ✚ The Institute was adjudged as the Overall Runners-up with 63 points in the ICAR South Zone Inter-Institutional Sports Meet held at CIFT, Kochi during May 25-29, 2015.
- ✚ Dr. P.C. Tripathi has been awarded Young Scientist Award from Mehta Foundation, Advaita Ashram Road, Fairlands, Salem during May 2015.
- ✚ The following staff members won various events as detailed below at the ICAR South Zone Inter-Institutional Sports Meet held at Kochi
 - IIHR Relay Team - Gold Medal in 4 x 100 M Relay.
 - IIHR Kabaddi Team - Gold Medal
 - Ms. Meenakshi - Gold medals in 100 M & 200M and Bronze medal Long jump.
 - Ms. Venkatalakshamma - Gold medals in Discus Throw and High Jump and Bronze Medal in Javelin throw.
 - Ms. Meenakshi and Ms. Venkatalakshamma - Silver medal in Shuttle Badminton (Doubles).
 - Smt. Bhagyalakshmi - Gold medal in Javelin Throw and Bronze medal in Discuss throw.
 - Mr. A Rajanna - Gold medal in 400 M and Bronze medal in 200 M race.
 - Mr. B. Mallesh - Silver medal in 100 M Race.
 - Mr. Naveen Kumar - Second prize in Cycle race.
- ✚ Dr. P.C. Tripathi has been awarded Fellow of Confederation of Horticultural Assoc. of India (CHAI), New Delhi during May 2015.
- ✚ Dr. Sudha Mysore has been nominated as a Member, RAC, IIVR Varanasi.
- ✚ Dr. Sudha Mysore has been nominated as a Member, ITMC, NRCP, Solapur.
- ✚ Dr. Sudha Mysore has been nominated as the Member Secretary for Screening Agribusiness Incubation Proposals received under National Agriculture Innovation Fund (NAIF) at NAARM, Hyderabad.
- ✚ Dr.R.Venugopalan has been nominated as a Member, Scientific Advisory Committee, NHRDF, Nashik for the period 2015-17.
- ✚ Dr.Girija Ganeshan, has been nominated as a Member, Mulberry Varietal Authorization Committee, Central Silk Board, Govt of India, for a period of three years w.e.f July 2015.
- ✚ Dr. B.Varalakshmi has been nominated as Member, 1st Task Force Committee constituted by PPV&FRA, New Delhi for finalization of the DUS Test guidelines of amaranth, palak and ridge gourd during 2015-16.
- ✚ Dr. B. Narayanaswamy has been nominated as Nodal Officer for Government of Karnataka ICRISAT Initiative project on Bhoo Samrudhi from IIHR, Bengaluru. The project is being supplemented by the Department of Agriculture on pilot basis in selected eight district of Karnataka.
- ✚ The research paper entitled 'Vengaya vidhai vidhakkum eyandhiram - by Dr. G. Senthil Kumaran,

A. Carolin Rathinakumari and R. Veere Gowda"was awarded Second Best Paper Award at the 1st National Conference on Agricultural Scientific Tamil" held at Chennai during June 13-14, 2015.

- The research paper entitled "Enzymatic liquefaction of sapota pulp using commercial pectinase enzymes" by Manjunath C.B. and Doreyappa gowda, I. N. was awarded Best Oral Paper Award at the 6th International Conference on Emerging Technologies in Food and Nutrition for Health Management (ICETF-2015) organized by the 3rd IIFANS-2015 (International Institute of Food and Nutritional Sciences) at Southern Regional Station, ICAR-NDRI during May 14-15, 2015.

- The research paper entitled "Antioxidant potential of the under-utilized fruit karonda in relation to its phenolics" by Shamina Azeez, P. C. Tripathi, G. Karunakaran, K. S. Shivashankara and T. K. Roy., was awarded Best Oral Paper Award at the 6th International Conference on Emerging Technologies in Food and Nutrition for Health Management (ICETF-2015) organized by the 3rd IIFANS-2015 (International Institute of Food and Nutritional Sciences) at Southern Regional Station, ICAR-NDRI during May 14-15, 2015.

- Dr. S. Bhuvaneswari acted as Co-chairperson for the Technical Session on 'Public Health Management' in the ICMR and DST sponsored '6th International Conference on Emerging Technologies in Food and Nutrition for Health Management', organized by the 3rd IIFANS-2015 (International Institute of Food and Nutritional Sciences) at NDRI(SRS) Aduvudi, Bengaluru during May 14-15, 2015.

- Dr. A. T. Sadashiva acted as Co-Chairperson for the Session-V: Resistant Varietal Evaluation during 33rd AICRP meeting on Vegetable Crops held at IIVR Varansi during May 21-24, 2015.

- Dr. H.P. Sumangala acted as Convener for Technical Session-7: Designer crops and a new paradigm in improvement during National Conference on Dynamics of Smart Horticulture for Livelihood and Rural Development held at MGCGV, Chitrakoot, Madhya Pradesh during May 28-31, 2015.

- Dr. Rajasekharan,P.E. acted as Rapporteur for the session 5 - Cryopreservation of Crop Species for Food and Agriculture.

- Dr. Anuradha Sane acted as Rapporteur for the Technical Session in Jackfruit Diversity Fair 2015 held at CHES, Hirehalli on June 27, 2015.

- Dr.M.Sankaran, acted as Rapporteur for Technical Session and Farmers-Entrepreneurs Interaction Session at the Jackfruit Diversity Fair held at IIHR-CHES, Hirehalli, on June 27, 2015.



Olympian T. C. Yohannan handing over Overall Runners-up trophy to ICAR-IIHR sports team

Personalia

New Entrants

- ❖ Ms. Susmitha Cherukuri, Scientist (on probation) after completion of LOZ FOCARS training at NAARM joined Div. of Vegetable Crops in IIHR w.e.f. 10.04.2015.
- ❖ Mr. M. Senthilkumar, Scientist at CHES, Hirehalli w.e.f. 06.05.2015.

Promotion

Scientific Staff

- ❖ Dr. P.D. Kamala Jayanthi, Senior Scientist has been promoted to Principal Scientist w.e.f. 24.04.2013.
- ❖ Dr. H.S. Vageesh Babu, Senior Scientist has been promoted to Principal Scientist w.e.f. 26.11.2013.
- ❖ Dr. V. Keshava Rao, Senior Scientist has been promoted to Principal Scientist w.e.f. 03.06.2013.

Administrative Staff

- ❖ Mrs. Prashanthi Chandrashekar, UDC has been promoted to Assistant w.e.f. 22.06.2015.

Technical Staff

- ❖ Mr. K.V. Prakash, Asst. Technical Officer (Retd.)-promoted to Chief Technical Officer (Field/Farm) w.e.f. 04.04.2011.

Field / Farm Technicians				
Sl. No	Name	Present grade	Promotion/Placement	Date
1	Mr. B. Madhusudhana Rao	Technical Officer (Field/Farm) Cat.II (Rs.9300-34800+ 4600)	Senior Technical Officer (Field/Farm) Cat.III (Rs. 15600-39100+ 5400)	10.04.2015
2	Mr. N. Jayaramaiah	Senior Tech. Asstt. (Field/Farm) Cat.II (Rs.9300-34800+ 4200)	Technical Officer (Field/ Farm) Cat.II (Rs.9300-34800+ 4600)	01.04.2015

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3	Mr. H.M. Puttamada Shetty	Senior Tech. Asstt. (Field/ Farm) Cat.II (Rs.9300-34800+ 4200)	Technical Officer (Field/ Farm) Cat.II (Rs.9300-34800+ 4600)	01.07. 2014				34800+ 4200)	
4	Mr. T.S. Rajanna	Senior Tech. Asstt. (Field/ Farm) Cat.II (Rs.9300-34800+ 4200)	Technical Officer (Field/ Farm) Cat.II (Rs.9300-34800+ 4600)	01.07. 2014	12	Mr. M. Siddanjanappa	Senior Technician (Driver-Workshop) Cat.I (Rs.5200-20200+ 2400)	Technical Assistant (Driver-Workshop) Cat.II (Rs.5200-20200+ 2800)	29.0 201
5	Mr. L. Balakrishna	Technical Assistant (Field/Farm) Cat.II (Rs.5200-20200+ 2800)	Senior Tech. Assistant (Field/ Farm) Cat.II (Rs.9300-34800+ 4200)	05.03. 2014	Transfer				
6	Mr. M.A. Raghavendra Rao	Technician (Field/Farm) Cat.I (Rs.5200-20200+ 2000)	Senior Technician (Field/ Farm) Cat.I (Rs.5200-20200+ 2400)	19.12. 2013	<ul style="list-style-type: none"> ❖ Dr. Prasanna Kumar, N.R., Scientist (Ag.Ento) has been transferred from IARI, Regional Station to IIHR, Bengaluru w.e.f. 02.05.2015. ❖ Dr. Pushpa Chethan Kumar, Scientist has been transferred from CISH, Lucknow to IIHR, Bengaluru w.e.f. 25.05.2015. ❖ Dr. Venkataravanappa, V., Scientist has been transfer from IIVR, Varanasi to CHES, Chettalli w.e.f. 26.05.2015. ❖ Mrs. Meenkashi Sharma, Assistant has been transferred from IIHR, Bengaluru to IARI, New Delhi (Inter-Institutional) on her own request w.e.f. 30.05.2015. ❖ Dr. Shivarama Bhatt, P., Principal Scientist (Ag.Ento.) has been transferred from Directorate of Cashew Research, Puttur to IIHR, Bengaluru w.e.f. 01.06.2015. ❖ Mr. G.A. Atheequlla, Scientist has been transferred from VPKAS, Almora (Uttarkhand) to IIHR, Bengaluru w.e.f. 15.06.2015. ❖ Mr. E. Rangaswamy, Scientist has been transferred from VPKAS, Almora (Uttarkhand) to IIHR, Bengaluru w.e.f. 15.06.2015. ❖ Dr. P.C. Tripathi has been transferred from CHES, Chettalli to IIHR, Bengaluru w.e.f. 15.06.2015. ❖ Mr. K. Biju, Sr. Technical Asst. has been transferred from CHES, Hirehalli to IIHR, Bengaluru w.e.f. 15.06.2015. ❖ Dr. T.M. Reddy has been transferred from CHES, Chettalli to IIHR, Bengaluru w.e.f. 22.06.2015. ❖ Mr. Kishore Kumar Mahanti, Scientist has been transferred from NRC, Tiruclivapalli to IIHR, Bengaluru w.e.f.22.06.2015. 				
7	Mrs. Bhagyamma	Technician (Field/Farm) Cat.I (Rs.5200-20200+ 2000)	Senior Technician (Field/ Farm) Cat.I (Rs.5200-20200+ 2400)	27.12. 2013					
8	Mrs. R. Anjanamma,	Technician (Field/Farm) Cat.I (Rs.5200-20200+ 2000)	Senior Technician (Field/ Farm) Cat.I (Rs.5200-20200+ 2400)	27.12. 2013					
Laboratory Technicians									
9	Mr. Bishnucharan Patra,	Technician (Lab.) Cat.I (Rs.5200-20200+ 2000)	Senior Technician (Lab.) Cat.I (Rs.5200-20200+ 2400)	23.12. 2013					
Workshop Staff Including Engg.Workshop Staff & Drivers									
10	Mr. M. Ramamurthy	Technical Assistant (Driver-Workshop) Cat.II (Rs.5200-20200+ 2800)	Senior Tech. Assistant (Driver-Workshop) Cat.II (Rs.9300-34800+ 4200)	05.11. 2013					
11	Mr. Suresh Angadi	Technical Assistant (Tr.Driver-Workshop) Cat.II (Rs.5200-20200+ 2800)	Senior Tech. Assistant (Tr.Driver-Workshop) Cat.II (Rs.9300-	17.05. 2014					
					Superannuation				
					<ul style="list-style-type: none"> ✚ Mr. Kotrabasappa, Technical Officer, IIHR, Bengaluru retired from Council Service on attaining the age of 60 years w.e.f. 31.01.2015. ✚ Dr. Reddy, Y.T.N. Principal Scientist, IIHR, Bengaluru, retired from Council Service on attaining the age of 62 years w.e.f. 28.02.2015. ✚ Mrs. Sarojini Jalali, Chief Technical Officer, IIHR, Bengaluru, retired from Council Service on attaining the age of 60 years w.e.f.28.02.2015. 				

- ✚ Mr. Veerangaiah, V. Skilled Support Staff, IIHR, Bengaluru, retired from Council Service on attaining the age of 60 years w.e.f.28.02.2015.
- ✚ Mr. Lal Bahdur Thapa, Skilled Support Staff, IIHR, Bengaluru, retired from Council Service on attaining the age of 60 years w.e.f.31.03.2015.
- ✚ Mr. Lakshmikantha Achar, IIHR, Bengaluru, retired from Council Service on attaining the age of 60 years w.e.f.31.03.2015.
- ✚ Dr. Sulladamath, V.V., Principal Scientist, IIHR, Bengaluru retired from council service w.e.f. 30.04.2015.
- ✚ Mr. Lakshmaiah, M., TO (Lab) IIHR, Bengaluru retired from council service w.e.f. 30.04.2015.
- ✚ Mr. Siddegowda, C., TO (Field/Farm), IIHR, Bengaluru retired from council service w.e.f. 30.04.2015.
- ✚ Dr. Meenakshi Srinivas, Principal Scientist, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Dr. Naik, L.B., Principal Scientist & Head, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Dr. Shivaramu, K., Senior Scientist, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Subbaiah, N., TO (Filed/Farm), IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Robert Lewis, STO, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Vasanthakumar, C.K., TO (Filed/Farm), KVK, Gonikoppal retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Nanjunda, K.A., STO, CHES, Chettalli retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Viswanatha Setty, Private Secretary, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Mr. Narayanappa, K., SSS, IIHR, Bengaluru retired from council service w.e.f. 31.05.2015.
- ✚ Mrs. Munivenkatamma, SSS, IIHR Bengaluru retired from council service w.e.f.31.05.2015.
- ✚ Mrs. Gangamma, D., SSS, CHES, Hirehalli retired from council service w.e.f.30.06.2015.
- ✚ Mr. Sreedhara, S.A., TO, IIHR, Bengaluru retired from council service w.e.f. 30.06.2015.
- ✚ Mr. Murugesh, B.J., TO, IIHR, Bengaluru retired from council service w.e.f. 30.06.2015.
- ✚ Mr. Patil, C.S., ACTO, CHES, Chettalli retired from council service w.e.f. 30.06.2015.
- ✚ Mr. Vishwambara, K.K., Technician, CHES, Chettalli retired from council service w.e.f. 30.06.2015.

Voluntary Retirement

- ✚ Mr. Bala Brahmaiah, P. CFAO, IIHR, Bengaluru retired voluntarily from Council Service w.e.f. 01.01.2015. (FN)

Miscellaneous

The following Administrative and Skilled Support Staff were granted 1st, 2nd and 3rd Financial Upgradation on 29.01.2015

Sl. No	Administrative Staff	Sl.No.	Skilled Support Staff
1	Mr. P. Nagaraj, PA	1.	Mr. H.A. Rajanna
2	Mr. K.N. Prakash , PA	2.	Mr. V. Rajanna
3	Mrs. Shailaja.R.Prasad, Asst	3.	Mrs. Munivenkatamma
4	Mrs. D. Vijayalakshmi, Asst	4.	Mr. Munikrishnappa
5	Mrs. V. Asha Kumar, Asst	5.	Mr. S.Narayan Rao
6	Mr. A.G. Seshachalam, Asst	6.	Mr. Ramanjini
7	Ms. A.C. Manjula, Asst	7.	Mr. Bylanjanappa
8	Mr. R. Gopal, Asst	8.	Mrs. K.Vasantha
9	Mr. D. Krishnappa, Asst.	9.	Mrs. D.Anjanamma
10	Mrs. Shylaja Chandrashekar, UDC	10.	Mr. Gobinda Naik
		11.	Mr. M. Hanumantharaju
		12.	Mr. M. Rudresh.

The following probationary cases were cleared during the period.

Sl. No	Name of the Official	Post/Grade & scale of pay	C
Administrative			
01	Mrs. Minakshi Sharma IIHR, Bengaluru	Assistant Rs.9300-34800+GP 4200/-	1
Skilled Support Staff			
01	Mrs. B. Rathnamma IIHR, Bengaluru	Skilled Support Staff Rs.5200-20200+GP 1800/-	2
02	Mr. G. Manjanna IIHR, Bengaluru	Skilled Support Staff Rs.5200-20200+GP 1800/-	3
Technical Staff			
01	Mrs. Malarvizhi IIHR, Bengaluru	Technical Assistant (Lab) Rs.5200-20200+GP 2800/-	1
02	Ms. V. M. Shilpashree IIHR, Bengaluru	Technical Assistant (Lab) Rs.5200-20200+GP 2800/-	2
03	Ms. H. Bharthamma IIHR, Bengaluru	Technical Assistant (Lab) Rs.5200-20200+GP 2800/-	1
04	Mr. M. Lakshmipathy IIHR, Bengaluru	Technician (Filed/Farm) Rs.5200-20200+GP 2000/-	1
05	Ms. R. Meenakshi	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	0
06	Mr. N.S. Nage Gowda IIHR, Bengaluru	Sr.Tech.Officer(Field/Farm) Rs.15600-39100+GP -5400/-	1

07	Mr. A. Rudresha IIHR, Bengaluru	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	10.10.2014 Visitors IIHR, Hesaraghatta, Bengaluru	11.10.2014
08	Mr. T. Muniraju IIHR, Bengaluru	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	07.06.2015 Shri. Radhakrishna Mohan Singh, Union Minister for Agriculture, Govt. of India and President, ICAR, Shri. D.V. Sadananda Sarda, Union Minister for Law & Justice, Govt. of India	
09	Mr. Muralidhara IIHR, Bengaluru	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	04.11.2014 Shri. S.R. Vishwanath, Member of Legislative Assembly, Govt. of Karnataka, Dr. S. Ayappa, Secretary, DARE and Director General, ICAR, New Delhi (09.01.2015-confirmed in the post of SS. Gr. I)	
10	Mr. Lakshmikanthachar IIHR, Bengaluru	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	03.06.2015 Dr. H. Arun Sharma, Chairman and Managing Director, National Rural Development Corporation and Dr. Arun Sharma, Director, NBAIM, Mau Nath Bhanjan	
11	Mrs. R. Anjanamma IIHR, Bengaluru	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	01.02.2013 Dr. O.P. Dutta, Former Head, Division of Vegetable Crops and Dr. G. Kalloo, Former DDG (Hort)	
12	Mr. K.N. Shashidhara KVK, Hirehalli	Program Assistant (Lab) 9300-34800+GP -4200/-	16.10.2014 Dr. O.P. Dutta, Former Head, Division of Vegetable Crops and Dr. G. Kalloo, Former DDG (Hort)	17.10.2014
13	Mr. G. Suresha CHES, Chettalli	Technician (Field/Farm) Rs.5200-20200+GP 2000/-	02.02.2014 (23.01.2015)	03.02.2014

Advance Increment

The following staff members were granted one advance increment based on the recommendation of the Five Year Assessment

Sl. No.	Name	Present grade	Period	Date
Field / Farm Technicians				
1	Mr. Abhimanyu Das, CHES, Bhubaneswar	Technical Assistant (Field/Farm)(Cat.I)	08.06.2012	09.06.2012
2	Mr. Purna Chandra Majhi, CHES, Bhubaneswar	Technical Assistant (Field/Farm)(Cat.I)	03.10.2012	04.10.2012
3	Mr. Anandeswar Kanhar, CHES, Bhubaneswar	Technical Assistant (Field/Farm)(Cat.I)	06.10.2012	07.10.2012
Workshop Staff Including Engg. Workshop Staff & Drivers				
4	Mr. Syed Idrish Ali, CHES, Bhubaneswar	Technical Assistant (Driver Workshop) (Cat.I)	27.10.2013	28.10.2013

- ❖ Dr. Sudha Mysore has taken over the charge of In-charge Head, Sec. of Economic & Statistics w.e.f 12.06.2015 (FN).
- ❖ Dr. R. Senthil Kumar, Principal Scientist (Hort.) taken over as In-charge Head of CHES, Chettalli w.e.f. 16.06.2015.

- Dr. B.M.C. Reddy, Vice Chancellor, Dr. YSR Horticultural University, Andhra Pradesh, Dr. N.K. Krishna Kumar, DDG (Hort. Sci.), ICAR, New Delhi, Mr. G.R. Chintala, CGM-Karnataka Region, NABARD, Bengaluru, Dr. C.P.A. Iyer, Former Director, CISH, Lucknow (22/23.01.2015).
- Parliamentary Standing Committee on Agriculture comprising of 12 Members from Lok Sabha, four Members from Rajyasabha, officers from Ministry of Agriculture, GOI and officers from ICAR, New Delhi under the Chairmanship of Honourable Shri. Hukum Deo Narayana Yadav (03.02.2015).
- Dr. Sithanatham, Director, Sunagro Technologies Ltd., Chennai.
- Dr. K. Krishnaiah, Former Director, Directorate of Rice Research, Hyderabad.
- Smt. H. G. Vijaya Kumari, 53rd Additional District Judge, City Civil Court, Bengaluru Smt. B. G. Rama, 51st Additional District Judge, City Civil Court, Bengaluru, Smt. C. R. Geetha, Police Inspector, Vigilance, BESCOM, Bengaluru, Smt. Rama Devi, Senior Advocate, City Civil Court, Bengaluru (10.03.2015)
- A team of 35 Project Implementing officers from 14 NGO's and three officials facilitated by NABARD (17.03.2015)



- ❖ Prof. Gautam Kalloo, former DDG (Hort.), ICAR & former Vice Chancellor, JNKVV, Jabalpur (08.04.2015).
- ❖ Dr T. Janakiram, ADG (Hort-I), ICAR, New Delhi (08.04.2015).
- ❖ Dr. D. P. Singh, former ADG (Hort), ICAR, New Delhi (08.04.2015).
- ❖ Dr. R. T. Patil, Former Director, CIPHET, Ludhiana (08.04.2015).
- ❖ Dr. K. Krishnaiah, former Director, DDR, Hyderabad (08.04.2015).
- ❖ Dr. D.M. Hegde, Former Director, DOR, Hyderabad (08.04.2015).
- ❖ Dr. N. K. Singh, National Professor, B.P. Pal Chair, IARI, New Delhi (08.04.2015).
- ❖ Mr A. Shivanna. IMC member, IIHR, Bengaluru. (08.04.2015).
- ❖ Mr. B. Dongare, IMC member, IIHR, Bengaluru (08.04.2015).
- ❖ **Mr. Ross**, Global Head, Agriculture, Heinz, USA

CHES, Bhubaneswar

- ❖ Prof. Gautam Kalloo, former DDG (Hort.), ICAR & former Vice Chancellor, JNKVV, Jabalpur (08.04.2015).
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- ❖ Mr A. Shivanna. IMC member, IIHR, Bengaluru. (08.04.2015).
- ❖ Mr. B. Dongare, IMC member, IIHR, Bengaluru (08.04.2015).
- ❖ Shri B. Routray, Minister of Revenue, Government of Odisha (23.06.2015).
- ❖ Shri V Pradeep Kumar Dev, former Member of Parliament, Visakhapatnam (25.06.2015).

CHES, Chettalli

- Dr. N. K. Krishnakumar, DDG, (Hort.), ICAR, New Delhi (23.01.2015).
- Dr. T. Janakiram, ADG, (Hort.), ICAR, New Delhi, Dr. M. N. Venugopal, Dr. M.R. Sudharshan, Dr. K.K. Sharma, Dr. K. Nirmal Babu, Project Coordinator (Spices), Dr. John Zachariya and Dr. .Devasahayam (19.02.2015).
- Dr. Abraham Varghese, Director, NBAII, Bengaluru (17.03.2015).


- Dr. Y. Raghumamulu, Director, Central Coffee Research Institute, Chikmangaluru (17.03.2015).
- Dr. S. V. Hittalmani, Former Additional Director, Dept. of Hort, Govt. of Karnataka, Bengaluru (11.03.2015).
- 1275 farmers and other visitors from Karnataka, Kerala, and Tamil Nadu visited CHES, Chettalli for planting material and consultancy services.
- Dr. P.G. Chengappa, Former Vice Chancellor, UAS, Bengaluru (27.05.2015).
- Air vice Marshall O.P. Tiwari, VSM, Air Force Station, Mysore (27.05.2015).
- Dr. H.V. Batra, Director, DFRL, Mysore (27.05.2015).
- Dr. T. Manjunath Rao, Director, IIHR, Bengaluru (27.05.2015).
- Dr. R. Chithraichelvan, Dean, Rai Tech University, Bengaluru (27.05.2015).
- Dr. S. K. Dutta, ICARRC, NEH, Mizoram (27.05.2015).
- Dr Ananthan, TNAU (27.05.2015).
- Dr. Siby Varghese, DFRL, Mysuru (27.05.2015).
- Mr Abhilash, Avacado India, Nasik (27.05.2015).
- Mr Madhusudan, M/s Vishal Natural Foods, Bengaluru (27.05.2015).
- Dr. Dhimman, Chairman, QRT of NRC Orchids (12.06.2015).
- Dr. D.R. Sing, Director, NRC Orchids (12.06.2015).
- Dr. Ramani (12.06.2015).

KVK, Hirehalli

- Dr. V. Veerabhadraiah, Former DE, UAS-Bengaluru, Dr. Sreenath Dixit, ZPD, Zone-VIII, Bengaluru, Dr. YG Prasad, NICRA -Technology Demonstration, Coordinator, CRIDA, Hyderabad, Dr. V Ramamurthy, Principal Scientist, NBSS & LUP, Reg. Centre, Bengaluru, Dr. N. Nagaraja, Professor, UAS-Bengaluru, Dr. DVS Reddy, Principal Scientist, ZPD-VIII & NICRA in-charge. (20.02.2015)
- Dr. Ragavendra Bhatta, Director and Dr. Ramachandra, Principal Scientist, NIANP, Dr. Sreenivasa, B. P, Principal Scientist, IVRI, Bengaluru, Dr. N K S Gowda, Principal Scientist and Dr. Girish, Senior Scientist, NIANP, Bengaluru (25.02.2015).
- Smt. B. Jayashree, Members Parliament (Rajya Sabha) (24.03.2015)

CHES, Hirehalli

- Dr. S.V. Hittalmani, former Additional Director (Fruits) Department of Horticulture, GOK (27.06.2015).
- Dr. T. Manjunatha Rao, Director, IIHR, Bengaluru. (27.06.2015).
- Dr. Paramashiviah (27.06.2015).






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