



# PROGRAM

## International Symposium on Horticulture : Priorities & Emerging Trends

5 - 8 September 2017, ICAR-IIHR, Bengaluru



*Organized by*

Indian Council of Agricultural Research (ICAR), New Delhi, India  
ICAR-Indian Institute of Horticultural Research, Bengaluru, India  
Society for Promotion of Horticulture, IIHR, Bengaluru, India  
International Society for Horticultural Science (ISHS), Belgium





# International Symposium on Horticulture : Priorities & Emerging Trends

5 - 8 September, 2017

## REGISTRATION

4th September 2017, Time : 2.00 - 4.00 p.m.

5th September 2017, Time : 8.00 a.m. onwards

Venue : J.N. TATA AUDITORIUM

National Science Seminar Complex

Indian Institute of Science, Bengaluru - 560012

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Indian Council of Agricultural Research (ICAR), New Delhi, India

ICAR-Indian Institute of Horticultural Research, Bengaluru, India

Society for Promotion of Horticulture, IIHR, Bengaluru, India

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# INAUGURAL SESSION

Monday, 4th September 2017

Venue: Main Auditorium, J.N. Tata Auditorium  
National Science Seminar Complex, IISc, Bengaluru

## INAUGURAL FUNCTION : 4.00-5.15 PM

4.00 PM	Arrival of His Excellency, Governor of Karnataka	
4.00-4.01 PM	National Anthem	
4.01-4.03 PM	ICAR Song	
4.03-4.05 PM	Invocation	<b>Dr. Uma Maheshwari</b>
4.05-4.10 PM	Video about ICAR-IIHR	
4.10-4.15 PM	Welcome address	<b>Dr. M.R. Dinesh</b> , Director ICAR-IIHR, Bengaluru
4.15-4.25 PM	About the Symposium	<b>Dr. A.K. Singh</b> , Deputy Director General (Hort. Sci.), ICAR, New Delhi
4.25-4.35 PM	Address by Guest of Honour	<b>Hon'ble Shri Ananth Kumarji</b> Union Minister of Chemicals & Fertilizers & Minister of Parliamentary Affairs, Govt. of India
4.35-4.45 PM	Address by Chief Guest	<b>Hon'ble Shri Radha Mohan Singhji</b> Union Minister of Agriculture and Farmers Welfare, Govt. of India
4.45-4.50 PM	Release of Jackfruit Farmer's Variety & Felicitation to progressive farmers	<b>His Excellency, Governor of Karnataka</b>
4.50-4.55 PM	Release of publications	<b>His Excellency, Governor of Karnataka &amp; the Guests</b>
4.55-5.10 PM	Presidential address	His Excellency <b>Shri Vajubhai Valaji</b> , Governor of Karnataka
5.10-5.14 PM	Vote of thanks	<b>Dr. C. Aswath</b> , General Secretary, SPH, ICAR-IIHR, Bengaluru
5.14-5.15 PM	National Anthem	

## POST INAUGURAL FUNCTION : 5.30-9.00 PM

Venue: Main Auditorium

<b>Chairman</b>	<b>Dr. A.K. Singh</b> , DDG (Hort. Sci.), ICAR, New Delhi	
<b>Co-Chairman</b>	<b>Dr. M.R. Dinesh</b> , Director, ICAR-IIHR, Bengaluru	
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
5.30- 5.40 PM	Report on Activities of ISHS	<b>Dr. Jill Stanley</b>
5.40- 5.50 PM	Report on Activities of SPH	<b>Dr. C. Aswath</b>
5.50-6.00 PM	Felicitation to retired ICAR-IIHR staff	<b>Dr. A. K. Singh</b> DDG (Hort. Sci.)
6.00- 6.10 PM	Prize distribution	
6.30- 8.00 PM	Cultural Programme	Dance forms of India
8.00 – 9.00 PM	Dinner	

**Day 1, September 5, 2017**

**Key Note Addresses**

Venue: Main Auditorium

Date: 05.09.2017

Time: 9.00-10.30 AM

**Dr. A.K. Singh**

DDG (Hort. Sci), ICAR, New Delhi

Research issues in Horticulture

**Dr. K.L. Chadha**

Former, DDG (Hort), ICAR, New Delhi

Global issues in Horticulture-Research  
and Development

**Technical Session**

**Session I : Global Scenario**

(Production, Trade, Marketing, Nutrition & Health issues)

Venue: Main Auditorium

Date: 05.09.2017

Time: 10.30 AM to 1.00 PM

Chairman

**Dr. A. K. Singh**, DDG (Hort. Sci.), ICAR, New Delhi

Co- Chairman

**Dr. T. Janakiram**, ADG (Hort. Sci.), ICAR, New Delhi

Convener

**Dr. H. Ravishankar**

Rapporteurs

**Dr. T.M. Gajanana & Dr. G.A. Atheequlla**

**Invited papers**

Time	Topic	Speaker
10.30-11.00 AM	Horticulture for nutritional security	M.G. Subba Rao, Scientist E, National Institute of Nutrition (ICMR), Hyderabad
11.00-11.30 AM	Trade, marketing and policy issues in Horticultural crops	P. K. Joshi, Director for South Asia, IFPRI, New Delhi
11.30-12.00 Noon	Export of Horticultural crops: Challenges & Strategies	Devendra Kumar Chairman, APEDA, New Delhi
12.00-12.20 PM	Opportunities for fruit tree crops to contribute to solutions to world challenges	Jill Stanley Alexandra, New Zealand

**Oral papers**

12.20-12.30 PM	Horticulture: Opportunities and Challenges (A15)	Mike Nichols, New Zealand
12.30- 12.40 PM	Global Food Security and Enhancing Production (A13)	Samih Abubaker Al Balqa Applied University, Jordan
12.40-12.50 PM	Condition and perspectives of horticulture development in the South of Russia (IS41)	Anatoliy Smykov, Russia
12.50-1.00 PM	Horticulture & Health (A765)	B. Mandakranta, ICAR-IIHR, Bengaluru
1.00-1.05 PM	<b>Chairman's Remarks</b>	
1.05-1.15 PM	<b>Group photo of all the delegates</b>	
1.15 -2.00 PM	<b>Lunch Break</b>	

## Key Note Address

Venue: Main Auditorium

Date : 05.09.2017

Time: 2.00-2.45 PM

**Dr. V. Prakash**

Value added products : Opportunities and Challenges

Former Director, CSIR-CFTRI, Mysuru

## Technical Session

### Concurrent Session

### Session II : Genetic Improvement - Plant Genetic Resources

Venue: Main Auditorium

Date: 05.09.2017

Time 3.00-5.00 PM

Chairman

**Dr. G. L. Kaul**, Former VC, AAU, Jorhat

Co-Chairman

**Dr. S. Ganesan**, Former Head, Division of PGR, ICAR-IIHR, Bengaluru

Convener

**Dr. P. E. Rajasekharan**

Rapporteurs

**Dr. C. Kanupriya & Dr. T. Usha Bharathi**

### Invited papers

Time	Topic	Speakers
3.00-3.20 PM	Conservation and utilization of future fruits	S.B. Dandin, Bioversity International, Bengaluru
3.20-3.40 PM	Priorities, approaches and methods of conservation and utilization of genetic resources of the Western Ghats	R. Vasudev, College of Forestry, Sirsi

### Oral papers

3.40-3.50 PM	Studies of diversity of wild and traditional mango genotypes in North-eastern region with morphological and molecular Characterization (A552)	Sukhen Chandra Das College of Agriculture Tripura
3.50-4.00 PM	Crimean autochthonous grape varieties and the effect of using them in breeding (IS7)	Svetlana Levchenko, Russia
4.00- 4.10 PM	Assessment of genetic variability for bunch compactness and berry size in grapes (A376)	Roshni R. Samarth ICAR-NRC for Grapes Pune
4.10 -4.20 PM	Diversification of temperate fruits in Western Himalayas: alternate to climate change (A608)	D.B. Singh, CITH, Srinagar
4.20-4.30 PM	NRCC Pummelo-5 :A new pummelo cultivar (A41)	I.P. Singh, ICAR – CCRI
4.30-4.40 PM	Underutilized <i>Allium</i> resources: A substitute to onion & garlic in India (A564)	Vijay Mahajan ICAR-DOGR, Pune
4.40-4.50 PM	Agro-morphological characterization and genetic divergence studies in garlic germplasm during <i>kharif</i> season (A341 )	Ashwini Benke ICAR-DOGR, Pune
4.50-5.00 PM	Exploration of tuber crops in southern districts of Assam (A72 )	P. Arun Kumar ICAR-CTCRI, Thiruvananthapuram
5.00-5.10 PM	Elite clones of nutmeg from Kerala, India(A589)	N. Miniraj KAU, Thrissur, Kerala, India
5.00-5.20 PM	<b>Discussion and Chairman's Remarks</b>	

## Technical Session

### Concurrent Session

#### Session III: Production Management- Cropping systems

Venue: Seminar Hall- A

Date: 05.09.2017

Time 3.00-5.00 PM

Chairman **Dr. B .M. C. Reddy**, Former VC, YSRUHS, AP

Co-Chairman **Dr. Vishal Nath**, Director, ICAR-NRC Litchi, Muzaffarpur

Convener **Dr. J. Sathisha**

Rapporteurs **Dr. G. C. Sathisha & Dr. Sujata Nair**

#### Invited papers

Time	Topic	Speakers
3.00-3.20 PM	Vertical farming : Potential and scope	<b>Christine Zimmermann-Loessl</b> Chairwoman, International Vertical Farming Association, Germany
3.20- 3.40 PM	Sustainable soil management module in horticulture production system.	<b>A. N. Ganeshamurthy</b> ICAR-IIHR, Bengaluru

#### Oral papers

3.40-3.50 PM	Crop regulation using chemicals for flowering, fruit set and yield in mango ( <i>Mangifera indica</i> L) cv. Alphonso under ultra-high density plantation (A 410)	<b>B. Gopu</b> RVS Agric. college, Thanjavur
3.50-4.00 PM	Leaf litter decomposition and nutrient mineralization in mango, guava and litchi orchards of eastern plateau and hill region of India (A220)	<b>S. K. Naik</b> ICAR-RC for Eastern Region, Ranchi
4.00- 4.10 PM	Standardization of plant species and growing medium for vertical garden system: A new urban horticulture concept (A 555)	<b>S. Rameshkumar</b> Annamalai University, TN
4.10-4.20 PM	Growing Greener Cities: the FAO's Programme on urban and peri-urban horticulture (IS 12)	<b>Tristan Nondah</b> FAO, Italy
4.20-4.30 PM	Improving planting value of vegetable seeds through seed enhancement (A 64)	<b>V. K. Pandita</b> ICAR-IARI, RS, Karnal
4.30-4.40 PM	Effects of plant density and planting pattern on growth and flowering of tulip cv. Sprying (A18)	<b>D. Hashemabadi</b> Islamic Azad University, Rasht, Iran.
4.40-4.50 PM	Application of pranic agriculture protocol to enhance cucumber production(A 22)	<b>Srikanth N. Jois</b> World Pranic Healing Foundation, Mysuru
4.50-5.00 PM	<b>Discussion and Chairman's Remarks</b>	

**Session IV - Products and Value addition- Supply chain management**

Venue: Seminar Hall –C

Date: 05.09.2017

Time 3.00-5.10 PM

Chairman **Dr. S.P. Ghosh**, Former DDG (Hort. Sci. ), ICARCo-Chairman **Dr. W.S. Dhillon**, ADG (Hort. Sci.), ICARConvener **Dr. H.S. Oberoi**Rapporteurs **Dr. R.B. Tiwari & Dr. K. Ranjitha****Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Food process engineering in horticultural crops	<b>H. N. Mishra</b> IIT, Kharagpur
3.20- 3.40 PM	Supply chain management	<b>Karthik Jayaram</b> , Chennai
3.40-4.00 PM	Pomegranate value chain for sustainable profit and doubling farmers income	<b>Ram Krishna Pal</b> ICAR-NRC on Pomegranate, Solapur

**Oral papers**

4.00- 4.10 PM	Effect of methyl jasmonate on physico-chemical properties of mango fruits cv. Dashehari during cold storage (IS31)	<b>Bharati Khiladi</b> CISH, Lucknow
4.10-4.20 PM	Effect of anti-browning and anti-softening chemicals on quality and shelf life of minimally processed papaya cv. Arka Prabhat (A392)	<b>V.N.P Sivarama Krishna</b> YSRHU, Anantharajupeta
4.20-4.30 PM	Effect of pre-treatments and modified atmosphere packaging on the physico-chemical, microbial, sensorial attributes and postharvest life of minimally processed pomegranate arils cv. Bhagwa stored at 4-8°C (A700)	<b>S. S. Dhumal</b> College of Agriculture, Kolhapur
4.30-4.40 PM	CFB box wrapping of vegetables- a new shrink wrapping technology (A19)	<b>D. V. Sudhakar Rao</b> ICAR-IIHR, Bengaluru
4.40-4.50 PM	Eco friendly packages for freshness retention and shelf life extension of tuberose flower (A579)	<b>S.Bhuvaneswari</b> ICAR-IIHR, Bengaluru
4.50-5.00 PM	Effect of various packaging material on shelf life and quality of tuberose ( <i>Polianthes tuberosa</i> L.) (A641)	<b>Rahul S. Yadav</b> ICAR-DFR, Pune
5.00-5.10 PM	<b>Discussion and Chairman's Remarks</b>	

## Concurrent Session

### Session V: Biotic Stress Management- Insect pests

Venue: Seminar Hall-B

Date: 05.09.2017

Time 3.00-5.00 PM

Chairman

**Dr. H.C. Sharma**, VC, YSPUHF, Solan

Co-Chairman

**Dr. Nirmal Babu**, Director, ICAR-IISR, Kozhikode

Convener

**Dr. A.K. Chakravarthy**

Rapporteurs

**Dr. V. Sridhar & Dr. N.R. Prasanna Kumar**

### Invited papers

Time	Topic	Speakers
3.00-3.20 PM	Crop Pest modelling and forecasting.	<b>Subhash Chander</b> IARI, New Delhi
3.20 -3.40 PM	Integrated Pest Management in horticultural crops: future challenges	<b>P.D. Kamala Jayanthi</b> ICAR- IIHR Bengaluru
3.40- 4.00 PM	Fruit Fly Management : A challenge	<b>S. Ramani</b> , Bengaluru

### Oral papers

4.00- 4.10 PM	An innovative organic formulation for management of mango stem borer <i>Batocera rufomaculata</i> De Geer (Coleoptera: Cerambycidae) (A568)	<b>N. Bakthavatsalam</b> ICAR- NBAIR Bengaluru
4.10-4.20 PM	Bio-efficacy of newer insecticides molecules against Tortricid complex of mango fruit borers (A280)	<b>Gundappa</b> ICAR- CISH, Lucknow
4.20-4.30 PM	Management of sucking insect pests in grape (A169)	<b>N. D. Sunitha</b> College of Agric., Vijayapura
4.30-4.40 PM	First report of <i>Artocarpus heterophyllus</i> and <i>Artocarpus altialis</i> hosts of <i>Epepeotes uncinatus</i> Gahan, 1888 (Coleoptera: Cerambycidae) from Kerala. (A168)	<b>Gavas Ragesh</b> KAU, Thrissur
4.40-4.50 PM	Host Plant Resistance Study in Indian Cherry ( <i>Cordia myxa</i> L.) against <i>Dictyla cheriani</i> Drake (Hemiptera: Tingidae) in Arid Region of Rajasthan (A424)	<b>Shravan M. Haldhar</b> ICAR-CIAH, Bikaner
4.50-5.00 PM	Foraging activity and nesting behaviour of <i>Braunsapis pictarsus</i> (Apidae: Hymenoptera), a key pollinator of cashew (A646)	<b>K. Vanitha</b> , ICAR- DCR, Puttur
5.00 -5.10 PM	<b>Discussion and Chairman's Remarks</b>	

### Workshop

Venue: Main Auditorium

Date : 05.09.2017

Time : 5.30-6.30 PM

Conservation technologies- *in situ*, *ex-situ*, on-farm, complimentary approaches

**Speaker:**

Dr. Ramanath Rao

**Panellists:**

Dr. K.V. Peter

Dr. S. Uma

**Convener**

Dr. M.V. Dhananjaya



**Day 2, September 6, 2017**

**Key Note Address**

Venue: Main Auditorium

Date: 06.09.2017

Time: 9.00-9.45 AM

**Dr. H. P. Singh**

Former DDG (Hort), ICAR, New Delhi

Precision Horticulture: Opportunities and Challenges

**Technical Session**

*Concurrent Session*

**Session II: Genetic Improvement-Biotechnological Approaches**

Venue: Main Auditorium

Date: 06.09.2017

Time 10.00 AM-1.00 PM

Chairman

**Dr. G. Kalloo**, Former DDG (Hort. Sc. ), ICAR New Delhi

Co-Chairman

**Dr. S. K. Tikoo**, Director (R), Tierra Seed Science, Hyderabad

Convener

**Dr. H.S. Vageesh Babu**

Rapporteurs

**Dr. P. Nandeesha & Dr. T.R. Usha Rani**

**Invited papers**

Time	Topic	Speakers
10.00-10.20 AM	Mango genomics : Application and way forward	<b>N. K. Singh</b> ICAR-NRC PB, New Delhi
10.20-10.40 AM	Genome sequencing, developing molecular markers, marker-assisted breeding	<b>Alok Kumar</b> Hort Innovation, Melbourne
10.40-11.00 AM	Genomics in Horticultural crops	<b>Davis Moore</b> Hort Innovation, Melbourne
11.00-11.20 AM	Realization of <i>Ficus carica</i> L. morphogenic capacity through organogenesis and somatic embryogenesis <i>in vitro</i> (I 42)	<b>Irina Mitrofanova</b> Russia

**Oral papers**

11.20-11.30 AM	<i>In vitro</i> screening of grape root stock genotypes for NaCl tolerance and molecular characterization of grape rootstock genotypes with EST SSRs for salinity (A213)	<b>Kalpna Motha</b> YSRHU, AP
11.30 -11.40 AM	Loop-mediated isothermal amplification for rapid and sensitive detection of <i>Xanthomonas axonopodis</i> pv. <i>punicae</i> infecting pomegranate (A340)	<b>T.R. Usha Rani</b> ICAR-IIHR, Bengaluru
11.40-11.50 PM	Screening of SSR Markers in Acid lime ( <i>Citrus aurantifolia</i> Swingle) accessions in India (A231)	<b>J.P. Tej Kumar</b> ICAR -CCRI, Nagpur

11.50-12.00 Noon	Production of triploids and tetraploids in sweet orange by innovative <i>in vitro</i> and <i>ex vitro</i> propagation techniques (A26)	<b>Vijaya Kumari</b> ICAR- CICR, Nagpur
12.00-12.10 PM	Cashew enhancement project of the Department of Agriculture-Palawan Agricultural Experiment Station (Da-Paes) in Palawan, Philippines (IS64)	<b>Ferry Elmer</b> Philippines
12.20-12.30 PM	Study of compatibility mechanism in cocoa ( <i>Theobroma cacao</i> L.) tree (A63)	<b>N. R. Nagaraja</b> ICAR-CPCRI, RS, Vittal
12.30 -12.40 PM	Identification of polymorphic SSR markers for genetic diversity and mapping studies in oil palm ( <i>Elaeis guineensis</i> Jacq.) (A346)	<b>H.P. Bhagya</b> ICAR-IIOPR, Pedavegi
12.40-12.50 PM	Genome-wide association study (GWAS) of oil-yield related traits in oil palm ( <i>Elaeis guineensis</i> jacq.) using SNPs and SSR markers (A347 )	<b>B. Kalyana Babu</b> ICAR-IIOPR, Pedavegi
12.50-1.00 PM	<b>Discussion &amp; Chairman's Remarks</b>	

**Session III: Production Management- Precision farming & input use efficiency**

Venue: Seminar Hall -A

Date: 06.09.2017

Time 10.00 AM-1.00 PM

Chairman **Dr. K. L. Chadha**, Former DDG (Hort. Sci. ), ICAR New Delhi

Co-Chairperson **Dr. S. Uma**, Director, ICAR-NRCB, Trichy

Convener **Dr.S.S. Hebbar**

Rapporteurs **Dr. B.L. Manjunath & Dr. S. Sujatha**

**Invited papers**

Time	Topic
10.00-10.20 AM	Sustainable development of Indian Horticulture: Role of technologies and technology commercialization
10.20-10.40 AM	Protected cultivation of vegetables
10.40 -11.00 AM	High density planting and canopy management in litchi

**Speakers**

**S. P. Ghosh**  
Former DDG (Hort.),ICAR, New Delhi

**Balraj Singh**,Vice Chancellor  
Agriculture University, Jodhpur

**Vishal Nath**  
ICAR-NRC Litchi, Muzaffarpur

**Oral papers**

11.00 -11.10 AM	Response of micronutrients on fruit yield and quality of mango ( <i>Mangifera indica</i> L.) cv. Dashehari (A210)
11.10 -11.20 AM	Effect of Calcium Nitrate treatments in germination and seedling vigour of Papaya ( <i>Carica papaya</i> L.) A585
11.20 -11.30 AM	Withdrawal of P and K fertilizer and its impact on yield, petiole and soil nutrient status of grape ( <i>var. Thompson Seedless</i> ) in vineyard previously fertilized for 6 years (A612)
11.30-11.40 AM	Development and performance of India's first customized fertigation products for pomegranate (A232)
11.40-11.50 AM	Performance of exotic sweet orange on raised bed under black clay soils of central India (A309)
11.50-12.00 Noon	Precision citriculture through fertigation on black clay soil (A321)
12.00-12.10 PM	Efficacy of defoliating chemicals in Nagpur mandarin ( <i>Citrus reticulata</i> Blanco) (A570)
12.10-12.20 PM	Hand pollination and partial protection for organic kiwifruit production under high rainfall mid hill conditions (A423)
12.20-12.30 PM	Effects of leaf-fruit ratio, bioregulator, pruning and nutrient spray on fruit grade and yield of kiwi fruit (A542)
12.30-12.40 PM	Variations in leaf morphology and physiological characteristics among selected <i>Annona</i> species(A446)
12.40-12.50PM	Seed priming studies in cashew(A621)
12.50-1.00 PM	<b>Discussion &amp; Chairman's Remarks</b>
<b>Lunch</b>	<b>1.00- 2.00 PM</b>

**Dinesh Kumar**  
ICAR-CISH, Lucknow

**Maneesha S.R.**  
ICAR-CCARI, Goa

**D. Vijaya**  
SKLTHU R'Nagar, Hyderabad

**Subhendu Bhadrarav**  
CAT, Tata Chem Ltd, Aligarh

**R.K. Sonkar**  
ICAR-CCRI, Nagpur

**P.S. Shigure**  
ICAR-CCRI, Nagpur

**A. D. Huchche**  
ICAR- CCRI, Nagpur

**AshishYadav**  
ICAR-NOFRI, Gangtok

**K.K. Pramanik**  
IARI RS,Shimla

**Chandrakant M. Awachare**  
ICAR-IIHR, Bengaluru

**A.V. Meera Manjusha** KAU, Kasaragod.

**Session IV: Products and Value addition- Value addition and processing**

Venue: Seminar Hall - C

Date: 06.09.2017

Time: 10.00 AM to 1.00 PM

Chairman **Dr. S. K. Mitra**, ISHS Representative- India  
 Co-Chairman **Dr. R. K. Pal**, Director, NRC Pomegranate, Sholapur  
 Convener **Dr. C. K. Narayana**  
 Rapporteurs **Dr. D.V. Sudhakar Rao & Dr. A. Shamina**

**Invited papers**

Time	Topic	Speakers
10.00-10.20 AM	Mechanization of post harvest operations in Horticultural crops	<b>R.T. Patil</b> Ex- Director, ICAR-CIPHET
10.20-10.40 AM	Value Addition and Product Development	<b>Jix Antony</b> ITC Ltd, Bengaluru
10.40-11.00 AM	Postharvest handling and processing in <i>Citrus</i>	<b>M. S. Ladanía</b> CICR, Nagpur
11.00-11.20 AM	Post harvest technological interventions in horticultural crops: Prospects & Challenges	<b>H.S.Oberoí</b> ICAR-IIHR, Bengaluru

**Oral presentation**

11.20-11.30 AM	A study on effect of commercial product to obtain quality dried grapes (A422)	<b>Ajay Kumar Sharma I</b> CAR-NRC Grapes, Pune
11.30-11.40 AM	Freeze drying of sapota fruit slices cv.Kalpatti (IS33)	<b>Parag Pandit</b> Gujarat
11.40-11.50 AM	Development of spiced aonla squash (A296)	<b>Neelima Garg</b> CISH , Lucknow
11.50-12.00 Noon	Antioxidant activity of underutilized and ethno-medicinally important fruit crops of North-East India (A517)	<b>Sudip Kumar Dutta</b> ICAR RC NEH Region, Mizoram
12.00-12.10 PM	Development of leaf powder and spray dried powder from <i>Moringa oliefera</i> as a potential source of phytochemicals (A258)	<b>Pushpa Chethan Kumar</b> ICAR-IIHR, Bengaluru
12.10 -12.20 PM	Studies on value addition in floral products through production of potpourri (A454)	<b>S. A. Safeena</b> ICAR- DFR, Pune
12.20-12.30 PM	Effect of varieties, dehydration and brewing on quality of rose herbal tea (A662)	<b>Sangama</b> ICAR-IIHR, Bengaluru
12.30 -12.40 PM	Novel chemo types of ginger for various end uses(A 417)	<b>P. Anitha</b> KAU, Kerala
12.40-12.50 PM	<b>Discussion</b>	
12.50-1.00 PM	<b>Chairman's Remarks</b>	
<b>Lunch</b>	<b>1.00- 2.00 PM</b>	

## Session V: Biotic Stress Management- Diseases

Venue: Seminar Hall-B

Date: 06.09.2017

Time: 10.00 AM -1.00 PM

Chairman

**Dr. M. K. Naik**, Director of Research, UAHS, Shivamogga

Co-Chairman

**Dr. M. Krishna Reddy**, Head, Div. of Plant Pathology, ICAR-IIHR, Bengaluru

Convener

**Dr. S. Sriram**

Rapporteurs

**Dr. P.V.R. Reddy & Dr. C. Chandrashekar****Invited papers**

Time	Topic	Speakers
10.00-10.20AM	Current trends in crop disease management	<b>C. D. Mayee</b> Ex Chairman, ASRB, New Delhi
10.20-10.40 AM	Host - Plant- Resistance	<b>H. C. Sharma</b> Vice Chancellor, YSPUHF Solan
10.40-11.00 AM	Diagnosis and management of viral diseases in horticultural crops: A way forward	<b>M. Krishna Reddy</b> ICAR-IIHR, Bengaluru

**Oral papers**

11.00-11.10 AM	Integrated disease management of yellow sigatoka leaf spot disease of banana (A55)	<b>R.V. Deshmukh</b> Banana Research Station, Nanded
11.10-11.20 AM	Epidemiology and management of rust in grape var. Bangalore Blue (A647)	<b>A. K Saxena</b> ICAR-IIHR, Bengaluru
11.20 -11.30 AM	Status and Diversity of <i>Phytophthora</i> and <i>Candidatus</i> Liberio bacter causing decline in Coorg Mandarin (A592)	<b>Priti Sonavane</b> CHES, ICAR-IIHR, Chettalli
11.30-11.40 AM	Molecular Detection of Major viruses of Pears in North Western Himalayan Region (A497)	<b>Santosh Watpade</b> IARI Regional Station, Shimla
11.40-11.50 AM	RNAi induced gene silencing: a novel approach for plant parasitic nematode management (A325)	<b>Kommu Kiran Kumar</b> ICAR-CCRI, Nagpur
11.50-12.00 Noon	Case study on incidence of inflorescence blight and fruit rot ( <i>Choanephora</i> sp.) on dolichos bean and yard long bean (A160)	<b>P.S. Kurian</b> KAU, Thrissur
12.00-12.10 PM	Bacterial wilt resistant and susceptible parental polymorphism screening using SSR markers in Brinjal ( <i>Solanum melongena</i> L.) (A195)	<b>P. S. Khapte</b> ICAR-CAZRI, Jodhpur
12.10 -12.20 PM	Residues of commonly used pesticides in exotic vegetables analyzed by LC-MS/MS for evaluation of waiting period (A471)	<b>Debi Sharma</b> ICAR-IIHR, Bengaluru
12.20- 12.30 PM	In vitro expression and purification of coat protein gene of Leek yellow stripe virus (LYSV) from garlic in India and its application in ELISA based diagnostics (A491)	<b>Nitika Gupta</b> ICAR-DFR, Pune,
12.30 -12.40 PM	Management of black spot caused by <i>Diplocarpon rosae</i> in open cultivated rose using strobilurin and triazole fungicides(A639)	<b>S. Sriram</b> ICAR-IIHR, Bengaluru
12.40-12.50 PM	<b>Discussion</b>	
12.50 - 1.00 PM	<b>Chairman's Remarks</b>	
<b>Lunch</b>	<b>1.00 - 2.00 PM</b>	

## Key Note Address

Date: 06.9.2017

Venue: Main Auditorium

Time: 2.00-2.45 PM

**Dr. C. Srinivasa Rao**

Director, ICAR-NAARM, Hyderabad

**Mitigating impact of climate change in horticultural crops**

**Concurrent Session**

### Session – II Genetic Improvement – Biotechnological Approaches

Venue: Main Auditorium

Date: 06.09.2017

Time 3.00-5.00 PM

Chairman

**Dr. T. A. More**, Former VC, MPKV, Rahuri

Co-Chairman

**Dr. B. Singh**, Director, ICAR-IIVR, Varanasi

Convener

**Dr. J. B. Mythili**

Rapporteurs

**Dr. K. Padmini & Dr. Smaranika Mishra**

### Invited papers

Time	Topic	Speakers
3.00-3.20 PM	Biotechnological tools for improvement of vegetable crops	<b>Pritam Kalia</b> ICAR-IARI, New Delhi
3.20-3.40 PM	Volatiles as pre-selection indices in breeding of horticultural crops	<b>K. S. Shivashankara</b> ICAR-IIHR, Bengaluru

### Oral papers

3.40-3.50 PM	Assessing the genetic diversity of South African sweet potato germplasm using DNA markers (I-34)	<b>Michael Pillay</b> South Africa
3.50-4.00 PM	Feasibility of commercial scale micropropagation of papaya ( <i>Carica papaya</i> L.) (A445)	<b>Pious Thomas</b> ICAR-IIHR, Bengaluru
4.00-4.10 PM	Research status and improvement for supply of seed bulb induced by meristem culture on garlic in Korea (I-50)	<b>Young-Seok Kwon</b> South Korea
4.10-4.20 PM	Study on cross-species transferability and DNA fingerprinting in ashwagandha ( <i>Withania somnifera</i> (L.) varieties, morphotypes and chemotypes using SSR markers (A328)	<b>M.R. Rohini</b> ICAR-IIHR, Bengaluru
4.20-4.30 PM	Towards cloning nematocidal cry gene from Indian isolates of <i>Bacillus thuringiensis</i> (A407)	<b>P. Nandeesha</b> ICAR- IIHR, Bengaluru
4.30-4.40 PM	Genetic diversity analysis of Asiatic lily genotypes through morphological and Sequence Related Amplified Polymorphism (SRAP) markers (A297)	<b>S.Y.Chandrashekar</b> , S.Y. College of Hort., Mudigere
4.40-4.50 PM	Genetic variability, heritability, and genetic advance in Mango for nutraceutical compounds (A403)	<b>B.M. Muralidhara</b> ICAR-CISH, Lucknow
4.50-5.00 PM	<b>Discussion &amp; Chairman's remarks</b>	

**Session III: Production Management- Precision farming and input use efficiency**

Venue: Seminar Hall -A

Date: 06.09.2017

Time: 3.00 - 5.00 PM

Chairman **Dr. H. P. Singh**, Former DDG (Hort. Sci. ), ICAR, New Delhi

Co-Chairman **Dr. S. Bhaskar**, ADG, ICAR New Delhi

Convener **Dr. T. N. Shivananda**

Rapporteurs **Dr. H.P. Sumangala & Dr. D. Kalaivanan**

**Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Management of Plantation crops: Issues and challenges	<b>P. Rethinam</b> Ex ADG (Hort.), Coimbatore
3.20-3.40 PM	Management of spices: Issues and challenges	<b>K. Kandianan</b> ICAR-IISR, Kozhikode

**Oral papers**

3.40-3.50 PM	Mango cultivation on trellis system: Potential and limitations(A574)	<b>Kundan Kishore</b> ICAR-IIHR, CHES, Bhubaneswar
3.50-4.00 PM	Effect of fertigation on Growth, Yield, Fruit Quality and Fertilizer use efficiency of Strawberry ( <i>Fragaria × ananassa</i> Duch.) cv. Chandler (A209)	<b>Dilip Singh Kachwaya</b> YSPUHF, Solan
4.00-4.10 PM	Effect of water soluble fertilizers on enhancing growth and nutrient uptake in brinjal hybrids ( <i>Solanum melongena</i> L.) (A447)	<b>A. Anburani</b> Annamalai University, Chidambaram
4.10-4.20 PM	Propagation techniques in Kartoli ( <i>Momordica dioica</i> Robx) (A698)	<b>V. K. Garande,</b> College of Agriculture Kolhapur
4.20-4.30 PM	Mineral content of potatoes of Eastern India (A71)	<b>Dalamu, J</b> ICAR-CPRI, Shimla
4.30-4.40 PM	Chitosan-urea nano-formulation: Synthesis, characterization and impact on tuber yield of potato (IS 55)	<b>Anu Kalia</b> PAU , Ludhiana
4.40-4.50 PM	Studies on growth, tubers yield and mineral content of Indian potato cultivars under elevated CO <sub>2</sub> (A21)	<b>Prince Kumar</b> ICAR-CPRS, Jalandhar
4.40-4.50 PM	Effect of mulching materials on soil temperature, soft rot incidence, growth, flowering, and bulb yields of calla lily ( <i>Zantedeschia aethiopica</i> ) (IS 13)	<b>Jin-Jae Lee</b> , Korea
4.50-5.00 PM	<b>Discussion &amp; Chairman's Remarks</b>	

**Session IV: Products and Value-addition: By-products and waste utilization**

Venue: Seminar Hall C

Date: 06.09.2017

Time 3.00- 5.00 PM

Chairman **Dr. S. B. Dandin**, Bioversity International, Bengaluru

Co-Chairman **Dr. R.T. Patil**, Former Director, ICAR- CIPHET, Ludhiana

Convener **Dr. I. N. D. Gowda**

Rapporteurs **Dr. Sangamma & Dr. Preeti Singh**

**Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Floral scent mechanism in ornamental plants	<b>Adinpunya Mitra</b> IIT, Kharagpur

**Oral papers**

3.20-3.30 PM	Quantification of juice yield and processing waste in pomegranate fruit & nutritional composition of its peels (A427)	<b>C.K.Narayana</b> ICAR-IIHR, Bengaluru
3.30-3.40 PM		
3.40-3.50 PM	Hesperidin: A promising bioflavonoid in Indian <i>Citrus</i> fruits (A152)	<b>Dinesh Kumar</b> ICAR-CCIR, Nagpur
3.50-4.00 PM	Effect of different extraction process on yield and quality of banana pseudostem fibre (A559)	<b>R. Brindha</b> ICAR-NRC Banana Tiruchirapalli
4.00-4.10 PM	Lutein and antioxidants estimation in five marigold ( <i>Tagetes erecta</i> L.) cultivars of north India (A177)	<b>Jayoti Majumder</b> ICAR-DFR, Pune
4.10-4.20 PM	Antioxidant activity in orange cultivars of temperate carrot (A273)	<b>Raj Kumar</b> ICAR-IARI RS, Katrain
4.20-4.30 PM	QuEChERS based LC -MS/MS method for Simultaneous determination of aflatoxin B <sub>1</sub> , B <sub>2</sub> , G <sub>1</sub> and G <sub>2</sub> in economically important medicinal herb senna ( <i>Cassia angustifolia</i> ) and kalmegh ( <i>Andrographis paniculata</i> ) (A388)	<b>Ajoy Saha</b> ICAR-DMAPR, Anand
4.30-4.40 PM	Water stress induced stage specific variation in andrographolide content in <i>Andrographis paniculata</i> (Kalmegh) (A460)	<b>Preeti Singh</b> ICAR-IIHR, Bengaluru
4.40-4.50 PM	<b>Discussion</b>	
4.50-5.00 PM	<b>Chairman's Remarks</b>	



## Session V: Abiotic Stress Management

Venue: Seminar Hall-B

Date: 06.09.2017

Time: 3.00 -5.00 PM

Chairman **Dr. C. Srinivasa Rao**, Director, ICAR-NAARM, HyderabadCo-Chairman **Dr. G. Lal**, Director, ICAR-NRC Seed Spices, AjmerConvener **Dr. K. S. Shivashankara**Rapporteurs **Dr. R. H. Laxman & Dr. Carolina Rathina Kumari****Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Arid fruit cultivation for mitigating climate change	<b>P.L. Saroj</b> ICAR-CIAH, Bikaner
3.20-3.40 PM	Strategies for abiotic stress management in horticultural crops	<b>M. B. Chetti</b> ICAR, New Delhi

**Oral papers**

3.40-3.50 PM	Screening salt tolerance of mango ( <i>Mangifera indica</i> L.) rootstocks (A377)	<b>V. K. Singh</b> ICAR-CISH, Lucknow
3.50-4.00 PM	Calcined Kaolin (Surround WP): Effect on heat stress and bananas ( <i>Musa sp.</i> ) productivity in Costa Rica (IS39)	<b>Ruben Ortiz</b> Costa Rica
4.00-4.10 PM	Responses of papaya seedlings ( <i>Carica papaya</i> L.) to water deficit stress: changes in root anatomy, osmolyte accumulation and antioxidant status (A259)	<b>K.K. Upreti</b> ICAR-IIHR, Bengaluru
4.10-4.20 PM	Physiological response of different Citrus rootstocks to drought stress (A479)	<b>R.A. Marathe</b> ICAR – CCRI, Nagpur
4.20-4.30 PM	Photosynthetic efficiency and light saturation points in Citrus spp.	<b>Kiran Bhagat</b> ICAR - CCRI, Nagpur
4.30-4.40 PM	Low chill cultivars of temperate fruits in sub-tropics –a viable option to raise farm income under in frequent frost conditions (A624)	<b>V. K. Sharma</b> YSPUHF, Neri, Hamirpur
4.40-4.50 PM	Climate Change Effects and Quality Makhana ( <i>Euryale ferox</i> Salisb.) Production under Wetland Ecosystem of North Bihar (A500)	<b>B.R. Jana</b> ICAR-RCER, RC for Makhana Darbhanga
4.50-5.00 PM	<b>Discussion &amp; Chairman Remarks</b>	

**Workshop**

Venue : Main Auditorium

Date: 06.09.2017

Time: 5.30-6.30 PM

**Production of quality planting material****Speaker:**  
Dr. T Janakiram**Panellists:**  
Dr. B.N.S. Murthy  
Dr. H.P. Maheshwarappa**Convener:**  
Dr. T. Sakthivel

**Day 3, September 7, 2017**

**Key Note Address**

Venue: Main Auditorium

Date: 07.09.2017

Time: 9.00-9.45 AM

**Prof. Mruthunjaya**

Former National Director,  
National Agricultural Innovation Project ( NAIP),  
New Delhi.

**Importance of Social Science research in technology  
dissemination & commercialisation**

**Concurrent Session**

**Session II: Genetic Improvement-Conventional breeding**

Venue : Main Auditorium

Date: 07.09.2017

Time : 10.00 AM - 1.00 PM

Chairman

**Dr. C. P.A. Iyer**, Former Director, CISH, Lucknow

**Dr. S. Rajan**, Director, CISH, Lucknow

Convener

**Dr. Tejaswini**

Rapporteurs

**Dr. E. Srinivas Rao & Dr. C. Vasugi**

**Invited papers**

**Time**

**Topic**

**Speakers**

10.00-10.20 AM

Rose breeding

**David Byrne**, Texas A&M University, USA

10.20-10.40 AM

Use of GIS in management of genetic  
resources in horticultural crops

**S. Rajan**,  
ICAR-CISH, Lucknow

10.40-11.00 AM

Improvement of Banana for yield and  
quality

**S. Uma**  
ICAR-NRCBanana, Tiruchirappalli

11.00-11.20 AM

Improvement of of spice crops

**B. Sashi Kumar**, ICAR- IISR, Kozhikode

11.20 - 11.40 AM

Breeding of Plantation Crops

**R.D.Iyer**, Ex Head, ICAR-CPCRI, Kasargod

**Oral papers**

11.40-11.50 AM

Hybridization for improvement in  
quality and disease resistance in apple  
(*Malus domestica* Borkh) (A409)

**J.I. Mir**  
ICAR-CITH, Srinagar

11.50-12.00 Noon

Prospects of Induced Mutations for  
Genetic Improvement of Thompson  
Seedless (A534)

**Sharmistha Naik**  
ICAR- NRC Grapes, Pune

12.00-12.10 PM

Paradigms of Indian Citrus  
Improvement Programme (A766)

**Ashutosh A. Murkute**  
ICAR- CCRI, Nagpur

12.30- 12.30 PM

Elite genotypes of bael (*Aegle  
marmelos*) identified in sub-tropical,  
sub-humid climatic zone of Eastern  
India (A484)

**S.K. Bishnoi**  
ICAR-NBPGR, RS, Ranchi

12.30- 12.40 PM

Studies on genetic variability in  
quantitative traits in cashew  
(*Anacardium occidentale* L.) (A453)

**K. Sethi**  
OUA&T, Bhubaneswar

12.40-12.50 PM

Breeding for high yield in oil palm:  
Early performance of advance  
breeding lines (A587)

**Sunil kumar**  
ICAR-IIOPR RS, Palode

12.50-1.00 PM

**Discussion & Chairman Remarks**

**Lunch**

**1.00-2.00 PM**

## Session III: Production Management- Precision Farming

Venue: Seminar Hall -A

Date: 07.09.2017

Time 10.00 AM-1.00PM

Chairman **Dr. S. K. Mitra**, ISHS Representative, India  
 Co-Chairman **Dr. D. R. Singh**, Director, ICAR-NRC Orchids, Gangtok  
 Convener **Dr. T. M. Rao**  
 Rapporteurs **Dr. T. Roopa & Dr. T. K. Radha**

## Invited papers

Time	Topic	Speakers
10.00-10.20 AM	Canopy management and high density planting in tropical fruits	<b>Sisir K. Mitra</b> ISHS Representative- India
10.20-10.40 AM	Precision Horticulture for higher productivity	<b>E. Vaidivel</b> , Former Dean, HC&RI, TNAU, Coimbatore
10.40-11.00 AM	Orchids trade potential in India : Issues & scope	<b>D. R. Singh</b> NRC Orchids, Gangtok
11.00-11.20 AM	Bioreactors in production of planting material in flower & medicinal crops	<b>Chenna Reddy Aswath</b> ICAR-IIHR, Bengaluru
11.20-11.40 AM	Use of plastics in horticulture	<b>Mahabaleshwara Hegde</b> GKVK, UAS, Bengaluru

## Oral papers

11.40- 11.50 AM	Elevated carbon dioxide and temperature effects on rooting of grape cuttings: with OTC, FATE and FACE facilities (A602)	<b>A. Gopala Krishna Reddy</b> CRIDA, Hyderabad.
11.50- 12.00 Noon	Standardization of planting geometry for multiplication of small aeroponic tubers under protected conditions (A44)	<b>Tanuja Buckseth</b> ICAR-CPRI, Shimla
12.00-12.10 PM	Diurnal fertilizer application affected nitrogen uptake in <i>Vanda</i> via roots and leaves (IS20)	<b>Kanokwan Panjama</b> Thailand
12.10-12.20 PM	Effects of Nitrogen Concentration on Growth of <i>Hippeastrum</i> (IS21)	<b>Sirinrat Phuyodying</b> Thailand
12.20-12.30 PM	Influence of foliar application of $GA_3$ and $KNO_3$ on flower yield and quality of tuberose (A186)	<b>Y. A. Mahajan</b> CSIR-NCL, Pune
12.30 -12.40 PM	Effect of foliar application of $ga_3$ and chemicals on yield and quality of gladiolus cv. American beauty (A108)	<b>R. P. Gajbhiye</b> College of Agriculture, Nagpur
12.40-12.50 PM	Evaluation of nutritional status and yield limiting nutrients in oil palm plantations of eastern Tamil Nadu, India (A492)	<b>S. K. Behera</b> ICAR-IIOPR, Pedavegi
12.50-1.00 PM	Micronutrient availability affected by organic and inorganic nutrient sources in cashew ( <i>Anacardium occidentale</i> L.) orchard soils (A494)	<b>Prabha Susan Philip</b> ICAR-DCR, Puttur
1.00- 1.10 PM	<b>Discussion &amp; Chairman Remarks</b>	

**Session IV: Products and Value-addition- Mechanisation in PHT**

Venue: Seminar Hall-C

Date: 07.09.2017

Time: 10.00- 11.00 AM

Chairman **Dr. G. D. Joshi**, Former ,Director Research, BSKKV, Dapoli  
Co-Chairman **Dr. Prakash Patil**, P.C. (AICRP-Fruits), ICAR-IIHR, Bengaluru  
Convener **Dr. D.V. Sudhakar Rao**  
Rapporteurs **Dr. Pushpa Chetan Kumar & Dr. B. R. Raghu**

**Oral papers**

<b>Time</b>	<b>Topic</b>	<b>Speakers</b>
10.00-10.10 AM	Development of a mango dipping tool to control spongy tissue (A286)	<b>G.Senthil Kumaran</b> ICAR-IIHR, Bengaluru
10.10-10.20 AM	Chipping bucket – A feasible approach for oil palm trunk disposal (A327)	<b>P. Preethi</b> ICAR-IIOPR, Pedavegi
10.20- 10.30 AM	Design and development of a power operated onion de-topper (A153)	<b>Carolina Rathina Kumari</b> ICAR-IIHR, Bengaluru
10.30- 10.40 AM	Mechanization of dry cleaning of sapota (A240)	<b>M. N. Dabhi JAU,</b> Junagarh
10.40-10.50 AM	Design, development and performance evaluation of foldable transportation container for sapota fruit (A581)	<b>D. K. Antala</b> CAET, JAU, Junagadh
10.50- 11.00 AM	<b>Discussion &amp; Chairman's Remarks</b>	

## Session IV: Products &amp; Value-addition-Student session

Venue : Seminar Hall -C

Date: 07.09.2017

Time: 11.00 AM to 1.00 PM

Chairman  
Co-Chairman  
Convener  
Rapporteurs

**Dr. S. K. Mitra**, ISHS Representative, India  
**Dr. M. S. Ladania**, Director, ICAR - CCRl  
**Dr. C. K. Narayana**  
**Dr. A. Shamina & Dr. D.V. Sudhakar Rao**

**Oral papers****Time**

11.00 AM -12.50 PM

**Topic**

Appemidi: A tiny house nutraceuticals (A229)

Effect of chlorine dioxide, polyhexamethylene guanidine and 1-methylcyclopropene on shelf life of banana fruit (*Musa paradisiaca* L.) cv. Grand Naine during cold storage (A242)

Antioxidant and phytochemical characterizations of custard apple (*Annona squamosa* L.) (A255)

Effect of gamma radiation on off-season guava at ambient storage condition (A135)

Post harvest management of fruits & vegetables in trans-Himalayan region of Ladakh (A378)

Potentiality of solar drying in development of osmotically dehydrated spiced aonla (*Phyllanthus emblica* L.) segments (A 268)

Physiological quality attributes of potato (*Solanum tuberosum* L.) cultivars under different packaging systems during ambient storage (A189)

Fruit yield components and bio-active compounds of bitter gourd genotypes (*Momordica charantia* L.) (A83)

Effect of different media for dehydration of some ornamental flowers' (Article no. IS3)

Effectiveness of post-harvest treatments and modified atmosphere packagings on fresh-cut lettuce (A244)

Physical and sensory evaluation of cookies prepared from aerial yam (*Dioscorea bulbifera* L.) Flour (A92)

Influence of physical and chemical pre-treatment on biochemical and antioxidant properties of Tree Bean- An underutilized legume in north eastern hill region of India (A549)

Shelf life studies in *Raphanus sativus* L. root vegetable in the cold arid region Ladakh (A86)

**Discussion & Chairman's Remarks****Lunch****Speakers**

**G.L.Veena**  
ICAR-IIHR, Bengaluru

**Hemalatha**  
UAS, GKVK, Bengaluru

**Yashwant Kumar**  
GBPAU&T, Pantnagar

**Sayan Sau**  
BCKV, Mohanpur

**Tsetan Dolker**  
DRDO - DIHAR, Leh

**O. J. Sujayasree**  
ICAR-IIHR, Bengaluru

**Archana Brar**  
CCS HAU, Hisar

**Priya P. Mohapatra**  
BCKV, Mohanpur

**Moumita Malakar**  
Uni. of Calcutta, Kolkata

**Manpreet Kaur**  
ICAR-IARI New Delhi

**Pallavi Bansod**  
PDKV, Akola

**M. Premi Devi**  
ICAR Research complex for NEH Region, Lamphelpat, Imphal

Sonam Chorol et al DIHAR, DRDO, Leh

12.50-1.00 PM

1.00-2.00 PM

**Session V: Abiotic Stress Management**

Venue: Seminar Hall- B

Date: 07.09.2017

Time: 10.00 -11.00 AM

Chairman **Dr. Uma Shanker**, GKVK, UAS , Bengaluru

Co-Chairman **Dr. Jagdish Rane**, Head, NIASM, Baramati

Convener **Dr. K. S. Shivashankara**

Rapporteurs **Dr. V. Ravindra & Dr. M. Manmohan**

**Oral papers**

Time	Topic	Speakers
10.00-10.20 AM	Scope and opportunities for imaging science to accelerate efforts for abiotic stress resilient orchards	<b>Jagdish Rane</b> NIASM, Baramati

**Oral papers**

10.20-10.30 AM	Climate Change: Impact and management strategies in fruit crop production in India (A627)	<b>Kiran Thakur</b> , Y S P UHS&F, Solan
10.30- 10.40 AM	Root proteomic responses to NaCl stress by a salt-sensitive banana genotype (A686)	<b>M. Mayil Vaganan</b> , ICAR- NRC Banana, Tiruchirapalli
10.40-10.50 AM	Alleviation of salt stresses in micro-propagated grape rootstock plantlets with arbuscular mycorrhizal fungi (A688)	<b>D. Ramajayam</b> ICAR – NRC Banana, Tiruchirapalli
10.50- 11.00 AM	<b>Discussion &amp; Chairman's remarks</b>	

## Session V: Stress Management (Biotic &amp; Abiotic) - Student session

Venue: Seminar Hall- B

Date: 07.09.2017

Time: 11.00 AM -1.00 PM

Chairman **Dr. H. C. Sharma**, Vice Chancellor, YSPUHF, Solan  
 Co-Chairman **Dr. Nirmal Babu**, Director, ICAR-IISR, Kozhikode  
 Convener **Dr. A. K. Chakravathy**  
 Rapporteurs **Dr. B.R.Jayanthimala & Dr. N.R. Prasanna Kumar**

## Oral papers

Time	Topic	Speakers
11.00 AM -12.50 PM	Variation in incidence of downy mildew disease on Sharad Seedless grapes as influenced by different sources of potassium and their method of application (A221)	<b>Y. Pushpavathi</b> ICAR – IIHR Bengaluru
	Parasitization potential of <i>Trichogramma</i> species and feeding potential of <i>Chrysoperla zastrowisillemi</i> on pests of pomegranate and their biosafety (A235)	<b>K. Elango</b> TNAU, Coimbatore
	Phenology of Nagpur mandarin in changing climate: A paradigm shift (A99)	<b>R. K. Jhade</b> JNKV, Jabalpur, M.P.
	Eco-friendly management of various diseases of vegetable pea through SAR chemicals in Kashmir, India (A84)	<b>Mudasir Bhat</b> Srinagar
	Screening the different varieties of brinjal ( <i>Solanum melongena</i> L.) against Egyptian Broomrape ( <i>Orobanchaegyptiaca</i> Pers.) (A187)	<b>Gulwaiz Akhter</b> A.M.U., Aligarh
	Effect of trichomes in cowpea pods on infestation by spotted pod borer, <i>Maruca vitrata</i> (Fab.) (Lepidoptera: Crambidae) (A167)	<b>A.N. Nasiya-Beegum</b> KAU,Vellanikkara
	Raising sorghum as border crop to enhance the population of <i>Aprostocetus diplosidis</i> Crawford for natural biological of suppression bitter gourd gall midge <i>Lasioptera falcata</i> Felt / L. bryoniae Schiner (A293)	<b>M. Muthukumar,</b> TNAU,Coimbatore
	Gametophytic selection for <i>fusarium</i> wilt resistance in carnation ( <i>Dianthus caryophyllus</i> L.) (A751)	<b>G. Purnachandra Gowda</b> COH, Bengaluru
	Microclimate modification by <i>Tamarindus indica</i> native to Oman (IS25)	<b>Eric Hopkins</b> Oman
	Protective role of nitric oxide during bean seed germination under salt stress (IS6)	<b>Hamdino Ahmed</b> Egypt
12.50- 1.00 PM	<b>Discussion &amp; Chairman's Remarks</b>	

## Key Note Address

Venue: Main Auditorium

Date: 07.09.2017

Time: 2.00-2.45 PM

**Dr. B. N. S. Murthy**

Horticulture Commissioner, Gol, New Delhi

Application of ICT in Horticulture

### Concurrent Session

### Session II: Genetic Improvement - Conventional breeding

Venue: Main Auditorium

Date: 07.09.2017

Time 3.00-5.30 PM

Chairman

**Dr N. Anand**, Managing Director, Namdhari Seeds, Bengaluru

Co-Chairman

**Dr. A. T. Sadashiva**, Head, Div. of Vegetable Crops, ICAR-IIHR, Bengaluru

Convener

**Dr. K. Hima Bindu**

Rapporteurs

**Dr. Rajeev Kumar & Dr. Linta Vinscent**

### Invited papers

**Time**

**Topic**

**Speakers**

3.00-3.15 PM

Resistance breeding for biotic and abiotic stresses in vegetables

**N. Anand**

Namdhari Seeds, Bengaluru

3.15-3.30 PM

Resistance breeding in okra

**B. Singh**, Director/ICAR-IIHR, Varanasi

3.30-3.45 PM

Recent advances in breeding of tomato

**A. T. Sadashiva**, ICAR-IIHR, Bengaluru

3.45-4.00 PM

Status and challenges of seed spice research development in India

**G. Lal**

ICAR -NRCSS, Ajmer

4.15-4.30 PM

Development of male sterility based  $F_1$  hybrids for doubling the farmers income in horticultural crops

**R. Veere Gowda**

ICAR -IIHR, Bengaluru

4.30-4.45 PM

Breeding French bean for resistance to biotic stresses

**T.S. Aghora**

ICAR -IIHR, Bengaluru

### Oral papers

4.45-4.55 PM

Development of Indian gynocious cucumber lines through marker assisted selection (MAS) (A758)

**T. K. Behera**

ICAR-IARI, New Delhi

5.05-5.15 PM

Improving onion through introgression of genes from long day and short day hybridization (A282)

**Amar Jeet Gupta**

ICAR-DOGR, Pune

5.15-5.25 PM

Evaluation of soybean germplasm for vegetable types and molecular characterization for rust resistance (A721)

**B.R. Raghu**

ICAR-IIHR, Bengaluru

5.25-5.35 PM

Preliminary evaluation of Taro (*Colocasia esculenta* (L.) Schott) germplasm collection in South Africa (IS11)

**Abe Gerrano**

South Africa

5.45-5.55 PM

Utilization of diversity within traditional African leafy vegetables to address nutritional and food security challenges (IS23)

**Tsvetelina Stoilova**

Tanzania

5.55-6.05 PM

Cut-style pollination: a method for temporarily suppressing self-incompatibility in tuberose (*Polianthes tuberosa* L.) (A337)

**T. Usha Bharathi**

ICAR-IIHR, Bengaluru

6.05-6.15 PM

Breeding the flower crops cultivars which are resistant to discoloration from solarinsolation (IS43)

**Yury Plugatar**

Russia

6.15 -6.20PM

**Chairman's Remarks**



**Session III: Production Management- Precision Farming**

Venue: Seminar Hall -A

Date: 07.09.2017

Time 3.00-5.30 PM

Chairman **Dr. T. Janakiram**, ADG, ICAR-IIHR, Bengaluru

Co-Chairman **Dr. D. B. Singh**, Director, CITH, Srinagar

Convener **Dr. Prakash Patil**

Rapporteurs **Dr. T. Roopa & Dr. T. K. Radha**

**Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Problems and prospects of mandarin ( <i>Citrus reticulata</i> Blanco) production in India	<b>H. Ravishankar</b> ICAR-IIHR, Bengaluru
3.20-3.40 PM	Microbes for higher productivity in horticultural crops	<b>G. Selva Kumar</b> ICAR-IIHR, Bengaluru

**Oral papers**

3.40-3.50 PM	A quantitative analysis of wild herbaceous plant species for medicinal uses in four Regional Parks in Sicily (Italy) (IS61)	<b>Salvatore La Bellaitaly</b>
3.50-4.00 PM	Soil enzymes and microbial populations in mono and multi varietal Mango orchards of Chittoor district ( 625)	<b>T. K. Radha</b> ICAR-IIHR, Bengaluru
4.00-4.10PM	Foliar fertilization for enhancing yield and fruit quality of apple under rain-fed conditions of mid-Himalayas (A644)	<b>Sanjeev K.Banya</b> IYSPUHF,RC, Hamirpur
4.10-4.20 PM	Plant nutrient imbalance and interactions in pomegranate under semi-arid region of Peninsular India (A314)	<b>H.B. Raghupathi</b> ICAR-IIHR, Bengaluru
4.20-4.30PM	Effect of pre-harvest sprays of for chlorfenuron and boron on fruit cracking and quality of pomegranate ( <i>Punica granatum</i> L.) cv. Kandhari (A429)	<b>Prativa Sahu</b> ICAR- IIWM Bhubaneswar
4.30-4.40PM	Influence of zinc oxide Nanoparticles on Zn uptake, biomass production and yield of cabbage ( <i>Brassica oleracea</i> var. <i>capitata</i> ) (A588)	<b>G.C. Sathisha</b> ICAR-IIHR, Bengaluru
4.40-4.50 PM	Effect of varying irrigation methods and mulching on growth, yield, quality and profitability of Chilli ( <i>Capsicum annum</i> L.) in arid condition(A85)	<b>R. L. Bhardwaj</b> Agriculture University, Jodhpur
4.50-5.00 PM	<b>Discussion &amp; Chairman's Remarks</b>	

**Session VI: Applications of ICT in Horticulture**

Venue: Seminar Hall-C

Date: 07.09.2017

Time 3.00-5.00 PM

Chairman **Dr. B. N. S. Murthy**, Horticulture Commissioner, Govt. of India, New Delhi

Co-Chairman **Dr. K. V. Prasad**, Director, ICAR-DFR, Pune

Convener **Dr. D. Srinivasamurthy**

Rapporteurs **Dr. B. Balakrishna & Mr. Malay Bisht**

**Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	ICT solution for pest surveillance and IPM	<b>A. Dhandapani</b> , NAARM, Hyderabad
3.20-3.40 PM	Application of drone technology in horticultural research and development	<b>N. V. Maslekar</b> Sattva e –Tech, Bengaluru

**Oral papers**

3.40-3.50 PM	ICT – A way forward to disseminate oil palm technology (A428)	<b>K.L.Mary Rani</b> ICAR-IIOPR, Pedavegi
3.50-4.00 PM	Stability analysis in horticultural crop research: A re-look (A711)	<b>R. Venugopalan</b> ICAR-IIHR, Bengaluru
4.00-4.10 PM	An online Information System for the germplasm collection of IIHR (A 397)	<b>V. Radhika</b> ICAR-IIHR, Bengaluru
4.10-4.20 PM	Unique DSS for cashew germplasm management: harnessing latest IT (A2)	<b>G.S.Mohana</b> ICAR- DCR, Puttur
4.20-4.30 PM	Integrating technological solutions for identification of potential locations for rain water harvesting interventions in ICAR-IIHR farm (A637)	<b>A.Bhanu</b> ICAR-IIHR, Bengaluru
4.30-4.40 PM	Rainfall Trend Analysis of a Mini Watershed: A Case Study (A657)	<b>Pradeep Raja</b> PPESIT-Bengaluru
4.40-4.50 PM	<b>Discussion</b>	
4.50-5.00 PM	<b>Chairman's Remarks</b>	

**Session VII – Participatory Technology Development and Adoption**

Venue: Seminar Hall-B

Date: 07.09.2017

Time 3.00-5.30 PM

Chairman **Dr. K. Narayana Gowda**, Former Vice Chancellor, UAS, Bengaluru

Co-Chairman **Dr. Sreenath Dixit**, Director, ICAR-ATARI, Bengaluru

Convener **Dr. R.Venkattakumar**

Rapporteurs **Dr. B. Narayana Swamy & Dr. T. M. Reddy**

**Invited papers**

Time	Topic	Speakers
3.00-3.20 PM	Technology commercialization and scope for growing global	<b>Karim Maredia</b> Michigan State University, USA
3.20-3.40 PM	Participatory technology development in horticultural crops: A KVK experience	<b>Srinath Dixit</b> ICAR- ATARI, Bengaluru

**Oral papers**

3.40-3.50 PM	Role of tropical and subtropical fruits for crop diversification, biodiversity, environmental protection in changing climates, nutritional food security and poverty reduction in Bangladesh (IS66)	<b>Mohammad Abdur Rahim</b> Bangladesh
3.50-4.00 PM	Pomegranate orcharding enterprise for sustainable livelihood in Himachal Pradesh under changing climate: Opportunities, constraints and prospectives (A591)	<b>S. D. Sharma</b> YSPUHF RC, Neri Hamirpur
4.00-4.10 PM	Post-harvest loss and marketing of fruits– economic analysis of pink flesh guava in local and distant markets in India(A 708)	<b>T.M. Gajanana</b> ICAR-IIHR, Bengaluru
4.10-4.20 PM	Developing and scaling of small-scale technologies for vegetable producers' lessons learned from a research project in Tanzania (IS10)	<b>Andreas Gramzow</b> Tanzania
4.20-4.30 PM	Introducing potato in dryland system of Western Rajasthan of India to make farmers self-reliant (A654)	<b>Sushma Arya</b> IPC (SWCA), New Delhi,
4.30-4.40 PM	A study on sustainable quality potato seed production in Karnataka and Maharashtra, India (A655)	<b>Shahid Ali</b> IPC (SWCA), New Delhi
4.40-4.50 PM	Role of farmers producers organizations (FPOs) in promoting horticultural innovations: Experience of selected FPOs (A740)	<b>R. Venkatta Kumar</b> ICAR-IIHR, Bengaluru
4.50-5.00 PM	<b>Discussion &amp; Chairman's Remarks</b>	

**Workshop**

Date: 07.09.2017

Time: 5.30-6.30 PM

Topic	Lead speakers	Panelists	Convener	Venue
<b>Sustainable Horticulture</b>	Dr .D. L .Maheshwar	Dr. S. B. Dandin	Dr. H. S. Yogeesha	Seminar Hall - A
<b>Eco-friendly technologies</b>	Dr. A.K. Chakravarthy	Dr. Mahabaleshwara Hegde	Dr. Shivaram Bhat	Seminar Hall - B

**Cultural Programme: 6.30-8.00 PM**

**Dinner: 8.00-9.00 PM**

**Day 4, September 8, 2017**

**Technical Session**

**Session II: Genetic Improvement- Student's Presentations**

Venue: Main Auditorium

Date: 08.09.2017

Time: 9.00 to 11.00 AM

Chairman **Dr. P S Naik**, Former Director, ICAR-IIVR, Varanasi

Co-Chairman **Dr. C.K. Narayana**, ICAR-IIHR, Bengaluru

Convener **Dr. K.M. Sankaran**

Rapporteurs **Dr. E. Srinivasa Rao & Dr. C.Vasugi**

**Invited papers**

Time	Topic	Speakers
9.00-9.10 AM	Potato Research and Development for improving food and income security in South West Asia (A557)	<b>Mohinder Singh Kadian</b> IPC (SWA) New Delhi

**Student's oral papers**

9.10-11.50 AM	Protection of Plant Genetic Resources in North East India : A legal perspective (A142)	<b>Partha Pratim Medhi</b> NE Hill University, Shillong
	Studies on inter specific and inter varietal hybridisation in mango ( <i>Mangifera indica</i> ) (A 215)	<b>M. Kishor Kumar</b> ICAR-IARI, New Delhi.
	Alleviating in vitro shoot tip necrosis in grape cv. Red Globe (IS35)	<b>N.C. Surakshitha</b> TNAU, Coimbatore
	Qualitative characterization of Kerala collections of Rambutan ( <i>Nephelium lappaceum</i> L.) (A12/IS5)	<b>Sameer</b> Muhammed College of Horticulture, KAU
	Evaluation of selected jackfruit ( <i>Artocarpus heterophyllus</i> L.) accessions/varieties for quality attributes (IS40)	<b>Aswini Ajith</b> KAU, Vellayani
	Heterosis and combining ability studies in tomato for yield and quality traits (A196)	<b>Manoj Kumar</b> CoH, Mudigere
	Study of combining ability in diallel crosses of hot pepper ( <i>Capsicum annum</i> L.) for horticultural traits (A533)	<b>S. Vijeth</b> KAU, Vellayan
	Genetic variability, correlation and path coefficient studies in Okra ( <i>Abelmoschus esculentus</i> L. Moench) genotypes (A414)	<b>Rajeev Kumar Yadav</b> ICAR-IARI, New Delhi

Study on pollen morphology and germination of *Lilium Longoflorum* cv. Pavia (A398) **Narendra Singh Bhandari**  
ICAR-IIHR

Effect of cold pretreatment on improving anther culture response of marigold cultivar 'Pusa Narangi Gaiinda' (A369) **Thaneshwari**  
ICAR- IARI-Indian Institute of Horticultural Research,  
aswathiihr@gmail.com

Commercial multiplication of gerbera (*Gerbera jamesonii* Bolus ex. Hooker F.) from young capitulum explant **Rashmi R.**  
Ph.D. (Hort.) (UHS),  
Bagalkotaswathiihr@gmail.com

Genome editing technologies and its applications in horticultural crop breeding (A171) **Manoj K. Nalla**  
ICAR-IARI, New Delhi

Pollen Viability and Storability of Sugar Apple (*Annona squamosa* L.) cv. Balanagar (A 724) **Subhash Chander**  
ICAR-IIHR, Bengaluru

10.50-11.00 AM

**Discussion and Chairman Remarks**

## Session III: Production Management- Student presentation

Venue: Seminar Hall-A

Date: 08.09.2017

Time: 9.00- 11.00 AM

Chairperson

**Dr. Jill Stanley**, Secretary, ISHS

Co-Chairman

**Dr. H. Ravishankar**, Head, Div. of Fruit Crops, ICAR-IIHR, Bengaluru

Convener

**Dr. R. Venugopal**

Rapporteurs

**Dr. K. Padmini & Dr. Smaranika Mishra****Student's oral papers****Time**

9.00-10.30 AM

**Topic**

Physio-biochemical responses of polyembryonic mango (*Mangifera indica* L.) genotypes to varying levels of salinity (A547)

Effect of foliar application of micronutrients on yield of mandarin orange (*Citrus reticulata* Blanco.) (A100)

Effect of gamma ray irradiation and cryopreservation on pollen stainability, *in vitro* germination and fruit set in Pomegranate (A674)

Study on the comparative performance of drip irrigation and basin irrigation on soil moisture content, water requirement and water use efficiency of peach (*Prunus persica* (L.) Batsch.) cv. Redhaven (A102)

Use of plant growth regulators in onion (A145)

Sustainable production of ridge gourd (*Luffa acutangula* Roxb.) as influenced by organic inputs (A78)

Effect of different planting times and mulching materials on flower quality and yield of China aster cultivars (A174)

Effect of pinching and gibberellic acid on floral and yield attributes of African marigold under summer conditions (A182)

Quality performance of turmeric transplants (*Curcuma longa* L.) under fertigation system (A24)

Bush pepper-An emerging trend in pepper cultivation. (A73)

Variable Rate Application (VRA) in Precision Horticulture: The Need of an Hour (A137)

Bioprospecting: A strategy to mitigate future challenges of Indian Agriculture (A143)

Performance evaluation of Garlic (*Allium sativum* L.) in the plains of Kerala (A464)

VERTISCAPING - a new dimension of horticulture for environmental sustainability (IS67)

**Speakers**

**P. K. Nimbolkar**  
ICAR-IIHR, Bengaluru

**C.J. Nithin Kumar**  
TNAU, Periyakulam

**Banoth Shiva**  
ICAR-IIHR, Bengaluru

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Dr. YSPUH&F, Solan

**Jyothi Baby**, PDKV, Akola

**Nishant Barik**  
AAU, Jorhat

**A. A. Bajad**  
Dr.YSPUH&F, Solan

**Sonu Sheoran**,  
College of AgricultureCCSHAU, Hisar

**K.S. Sangeetha**  
KAU,Thrissur

**Dharini Chittaragi**  
KAU,Thrissur.

**Saheb Pal**  
ICAR-IIHR,Bengaluru

**Amarjeet Kumar Rai**  
ICAR-IIHR, Bengaluru

**Shibana S.N.**  
KAU, Vellanikkara

**M. SharathKumar**  
The Netherlands

**A. Arunachalam**, ICAR, New Delhi

**Invited paper**

10.30-10.50 AM

Climate Resilience in Horticulture

10.50-11.00 AM

**Discussion & Chairman Remarks**

**Session VI: Applications of ICT in Horticulture**

Venue: Seminar Hall-C

Date: 08.09.2017

Time: 9.00 AM to 11.00 AM

Chairman **Dr. W. S. Dhillon**, ADG (Hort Sci) ICAR, New Delhi

Co-Chairman **Dr. Subhajit Sen**, Bengaluru

Convener **Dr. D. Srinivasamurthy**

Rapporteurs **Dr. B. Balakrishna & Mr. Malay Bisht**

**Invited papers**

Time	Topic	Speakers
9.00-9.30 AM	Generating Data Base Information for moderating huge losses India incurring in perishable commodities.	<b>K.Narayana Gowda</b> Former Vice-Chancellor, UAS, Bengaluru
9.30-10.00 AM	Sensor and ICT technologies for monitoring Fruit & Vegetable Freshness	<b>Subhajit Sen</b> Bengaluru

**Oral papers**

10.00-10.10 AM	Application of Remote Sensing in Fruit Production (A365)	<b>A. Shaili Kumari</b> ICAR-IIHR, Bengaluru
10.10-10.20 AM	Intervention of precision farming in cashew (A452)	<b>A. Roy,</b> OUAT, Bhubaneswar
10.20-10.30 AM	Contribution of Information and Communication Technologies for horticulture farmers in India (A157)	<b>Anupama</b> SKRAU, Sriganaganagar,
10.30-10.40 AM	Temperatures zoning and its trend analysis for horticulture crops in north-west India using GIS in context to climate change (A663)	<b>Mohan Singh,</b> CCS HAU, Hisar
10.40-10.50 AM	Remote sensing and geographical information system in Horticulture (A14)	<b>Mukesh K. Meena</b> ICAR-CIAH, Bikaner
10.50-11.00AM	<b>Discussion &amp;Chairman Remarks</b>	

**Session VII: Participatory Technology Development, Adoption & Gender issues**

Venue: Seminar Hall-B

Date: 08.09.2017

Time: 9.00- 11.00 AM

Chairperson **Dr. (Mrs.) N. Sandhya Shenoy**, Ex-Head, ESM, NAARM, Hyderabad  
 Co-Chairperson **Dr. Leela Sahijram**, Head, Div. of Biotechnology, ICAR-IIHR, Bengaluru  
 Convener **Dr. Sudha Mysore**  
 Rapporteurs **Dr. Soudamani Mohapatra & Dr. Achala Paripurna**

**Invited papers**

Time	Topic	Speakers
9.00-9.20 AM	Gender issues in Horticulture	<b>N. Sandhya Shenoy</b> , NAARM, Hyderabad
9.20-9.40 AM	A professional approach for plant protection: Post graduate programme in plant medicine (A236)	<b>A.B.Patil</b> UAS, Bengaluru

**Oral papers**

9.40-9.50 AM	Technology commercialisation and incubation in horticulture: Status, progress and future strategy (A159)	<b>Sudha Mysore</b> ICAR-IIHR, Bengaluru
9.50-10.00 AM	Mango cultivation in Karnataka: An Economic Analysis (A308)	<b>M. G. Kerutagi</b> College of Hortic., Bagalkot
10.10-10.20 AM	Efficiency of production and export competitiveness of tomato in India (A709)	<b>D. Sreenivasa Murthy</b> ICAR-IIHR, Bengaluru
10.10 10.20 AM	Satisfaction level of potato contract farmers compared to non-contract farmers in Banaskantha district of North Gujarat (A158)	<b>Baljeet Singh</b> Sardar Patel University Vallabh Vidyanagar
10.20-10.30 AM	Effect of front line demonstrations on yield enhancement of <i>kachri</i> ( <i>Cucumis cellosus</i> ): A case study in arid zone of Rajasthan (A197)	<b>M. L. Meena</b> ICAR-CAZRI, KVK, Pali
10.30-10.40 AM	Smallholder farmers' adoption of vegetable production technologies in Babati district, Tanzania (IS29)	<b>Ochieng Justus Tanzania</b>
10.40-10.50 AM	Impact of technology dissemination on livelihood promotion through Floriculture (A569)	<b>D.K.Mishra</b> KVK, Kasturbagram, Indore
10.50-11.00 AM	<b>Chairman Remarks</b>	



## Open and Plenary Session

Venue: Main Auditorium

Date: 08.09.2017

Time: 11.00 AM- 1.00 PM

**Chairman**                    **Dr. A. K. Singh**, DDG (Hort. Sci.), ICAR, New Delhi  
**Panellists**                    **Dr. M.R. Dinesh**, Director, ICAR-IIHR  
                                      **Dr. T. Janakiram**, ADG (Hort. Sci.), ICAR, New Delhi  
                                      **Dr. W.S. Dhillon**, ADG (Hort. Sci.), ICAR, New Delhi  
**Convenors**                    **Dr. C. Aswath, Dr. P. C. Tripathi & Dr. T. S. Aghora**

<b>Time</b>	<b>Topic</b>	<b>Speakers</b>
11.00-11.10 AM	Processed Products	<b>Satyamurthy</b> , MCI, Krishnagiri
11.10-11.20 AM	Arka Microbial Consortium	<b>Suhas Mohan</b> Bloom Biotech, Chikkamagaluru
11.20-11.30 AM	Bio-pesticides and AMC	<b>Manoj</b> , Natura Crop Care, Bengaluru
11.30-11.40 AM	Pluck Fresh	<b>Kevin</b> , Bengaluru
11.40 -11.50 AM	Discussion	
11.50-12.00 PM	Recommendations of sessions	Conveners of various Sessions
12.00-12.10 PM	Award distribution	By Chairman
12.10-12.20 PM	Address by ADG (Hort. Sci.)	<b>Dr. T. Janakiram</b>
12.20-12.30 PM	Address by ADG (Hort. Sci.)	<b>Dr. W.S. Dhillon</b>
12.30-12.40 PM	Address by Director, ICAR-IIHR	<b>Dr. M.R. Dinesh</b>
12.40-12.55 PM	Address by DDG (Hort. Sci.)	<b>Dr. A. K. Singh</b>
12.55-1.00 PM	Vote of thanks	
1.00-2.00 PM	<b>Lunch</b>	
2.00-6.00 PM	<b>Visit to IIHR, Hessaraghatta &amp; High Tea</b>	

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