

International Symposium on Horticulture: Priorities & Emerging Trends

4th to 8th September, 2017

Venue: J. N.Tata Auditorium, NSS Complex, I.I.Sc., Bengaluru-560 012

Wednesday, 06.09.2017

Keynote Address

Venue: Main Auditorium

Date:06.09.2017

Time: 9.00-9.45 AM

Dr. H. P. Singh Former DDG (Hort. Sci.), ICAR, New Delhi	Precision Horticulture: Opportunities and Challenges
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Concurrent Session

Technical Sessions

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. Sci.), 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
10.00-10.20AM	Mango genomics : Application and way forward	N. K. Singh ICAR-NRC PB, New Delhi
10.20-10.40 AM	Genome sequencing, developing molecular markers, marker-assisted breeding	Alok Kumar Hort Innovation, Melbourne
10.40-11.00 AM	Opportunities for fruit tree crops to contribute to solutions to world challenges	Jill Stanley Alexandra, New Zealand
11.00-11.20 AM	Genomics in Horticultural crops	Davis Moore Hort Innovation, Melbourne
11.20-11.40 AM	Realization of <i>Ficus carica</i> L. morphogenic capacity through organogenesis and somatic embryogenesis <i>in vitro</i> (I 42)	Irina Mitrofanova 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)	Kalpna Motha YSRHU, AP
11.30 -11.40 AM	Application of microsatellite markers in the study of pomegranate germplasm resources (A703)	C. Kanupriya ICAR-IIHR, Bengaluru
11.40-11.50 PM	Loop-mediated isothermal amplification for rapid and sensitive detection of <i>Xanthomonas axonopodis</i> pv. <i>punicae</i> infecting pomegranate (A340)	T.R. UshaRani ICAR-IIHR, Bengaluru
11.50-12.00 Noon	Screening of SSR Markers in Acid lime (<i>Citrus aurantifolia</i> Swingle) accessions in India (A231)	J.P.Tej Kumar ICAR -CCRI, Nagpur
12.00-12.10 PM	Production of triploids and tetraploids in sweet orange by innovative <i>in vitro</i> and <i>ex vitro</i> propagation techniques (A26)	Vijayakumari ICAR- CICR, Nagpur
12.20-12.30 PM	Identification of polymorphic SSR markers for genetic diversity and mapping studies in oil palm (<i>Elaeis guineensis</i> Jacq.) (A346)	H.P. Bhagya ICAR-IIOPR, Pedavegi
12.30 -12.40 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. Kalyana Babu ICAR-IIOPR, Pedavegi
12.40-12.50 PM	Discussion	
12.50-1.00 PM	Chairman's Remarks	
1.00-1.30 PM	Poster Presentation	A-100-A-250
Lunch	1.00-2.00 PM	

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

Venue: Seminar Hall -A

Date: 06.9.2017

Time: 10.00 AM-1.00 PM

Chairman	Dr. K. L. Chadha, Former DDG (Hort. Sci.), ICAR New Delhi	
Co-Chairman	Dr. P. L. Saroj, Director, ICAR-CIAH, Bikaner	
Convener	Dr. S.S. Hebbar	
Rapporteurs	Dr. B. L. Manjunath Dr. S. Sujatha	
Invited papers		
Time	Topic	Speakers
10.00-10.20 AM	Sustainable Development of Indian Horticulture: Role of Technologies and Technology Commercialization	S. P. Ghosh Former DDG(Hort.),ICAR, New Delhi
10.20-10.40 AM	High density in temperate fruit crops	Nazeer Ahmed,Vice Chancellor SKUAST, Srinagar
10.40 -11.00 AM	Protected cultivation of vegetables	Balraj Singh ,Vice Chancellor Agriculture University, Jodhpur
11.00-11.20 AM	High density planting and canopy management in litchi	Vishal Nath ICAR-NRC Litchi, Muzaffarpur
Oral papers		
11.20 -11.30 AM	Response of micronutrients on fruit yield and quality of mango (<i>Mangifera indica</i> L.) cv. Dashehari (A210)	Dinesh Kumar ICAR-CISH, Lucknow
11.30-11.40 AM	Withdrawal of P and K fertilizer and its impact on yield, petiole and soil nutrient status of grape (<i>var.</i> Thompson Seedless) in vineyard previously fertilized for 6 years (A612)	D. Vijaya SKLTHU, Hyderabad
11.40-11.50 AM	Development and performance of India's first customized fertigation products for pomegranate (A232)	Subhendu Bhadraray CAT, Tata Chemicals Ltd, Aligarh
11.50-12.00 Noon	Performance of exotic sweet orange on raised bed under black clay soils of central India (A309)	R.K. Sonkar ICAR-CCRI, Nagpur
12.00-12.10 PM	Precision citriculture through fertigation on black clay soil (A321)	P.S. Shirgure ICAR-CCRI, Nagpur
12.10-12.20 PM	Efficacy of defoliating chemicals in Nagpur mandarin (<i>Citrus reticulata</i> Blanco) (A570)	A. D. Huchche ICAR- CCRI, Nagpur
12.20-12.30 PM	Hand pollination and partial protection for organic kiwifruit production under high rainfall mid hill conditions (A423)	AshishYadav ICAR-NOFRI, Tadong, Gangtok
12.30 -12.40 PM	Effects of leaf-fruit ratio, bioregulator, pruning and nutrient spray on fruit grade and yield of kiwi fruit (A542)	K.K. Pramanik IARI RS, Shimla
12.40-12.50 PM	Discussion	
12.50-1.00 PM	Chairman's Remarks	
1.00-1.30 PM	Poster Presentation	A-100- A 250
Lunch	1.00- 2.00 PM	

Concurrent Session**Session IV: Products and Value addition- Value addition and processing****Venue: Seminar Hall - C****Date: 6.9.2017****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 PM	Mechanization of post harvest operations in Horticultural crops	S.N. Jha ICAR, New Delhi
10.20-10.40 AM	Value Addition and Product Development	Jix Antony ITC Ltd, Bengaluru
10.40-11.00 AM	Postharvest handling and processing in citrus	M. S. Ladania CICR, Nagpur
Oral Presentation		
11.00-11.10 AM	Evaluation of the potential of survival and growth of probiotic strains in RTS Mango beverage(A738)	H.S.Oberoi ICAR-IIHR, Bengaluru
11.10-11.20 AM	Genetic variability, heritability, and genetic advance in Mango for nutraceutical compounds (A403)	B.M. Muralidhara ICAR-CISH, Lucknow
11.20-11.30 AM	A study on effect of commercial product to obtain quality dried grapes (A422)	Ajay Kumar Sharma ICAR-NRC Grapes, Pune
11.40-11.50 PM	Colourimetric and anthocyanin changes in pretreated and Modified atmosphere packaged Ready-to Eat Pomegranate arils cv. Bhagwa (A700)	S. S. Dhumal College of Agriculture, Kolhapur
11.50-12.00 Noon	Freeze drying of sapota fruit slices cv. Kalipatti (IS33)	Parag Pandit Gujarat
12.00-12.10 PM	Development of spiced aonla squash (A296)	Neelima Garg CISH , Lucknow
12.10 -12.20 pm	Antioxidant activity of underutilized and ethno-medicinally important fruit crops of North-East India (A517)	Sudip Kumar Dutta ICAR RC NEH Region, Mizoram
12.20-12.30 pm	Development of leaf powder and spray dried powder from <i>Moringa oliefera</i> as a potential source of phytochemicals (A258)	Pushpa Chethan Kumar ICAR-IIHR, Bengaluru
12.30 -12.40 PM	Studies on value addition in floral products through production of potpourri (A454)	S. A. Safeena ICAR- DFR, Pune
12.40-12.50 PM	Effect of varieties, dehydration and brewing on quality of rose herbal tea (A662)	Sangama ICAR-IIHR, Bengaluru
12.40-12.50 PM	Discussion	
12.50-1.00 PM	Chairman's Remarks	
1.00 -1.30 PM	Poster Presentation	A-100- A 250
Lunch	1.00- 2.00 PM	

Session V: Biotic Stress Management- Diseases

Venue: Seminar Hall-B

Date: 06.9.2017

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. A. K. Saxena Dr. P.V.R. Reddy	
Invited papers		
Time	Topic	Speakers
10.00-10.20AM	Current trends in crop disease management	C. D. Mayee Ex Chairman, ASRB, New Delhi
10.20-10.40 AM	Host - Plant- Resistance	H. C. Sharma Vice Chancellor, YSPUHF Solan
10.40-11.00 AM	Diagnosis and management of viral diseases in horticultural crops: A way forward	M. Krishna Reddy ICAR-IIHR, Bengaluru
Oral papers		
11.00-11.10 AM	Integrated disease management of yellow sigatoka leaf spot disease of banana (A55)	R.V. Deshmukh, Banana Research Station, Nanded
11.10-11.20 AM	Probiotic lactobacillus as bio-control agent of post-harvest diseases of banana and papaya fruits (A295)	Nileema Gore MGM's IBST, Aurangabad
11.20 -11.30 AM	Epidemiology and management of rust in grape var. Bangalore Blue (A647)	A. K Saxena ICAR-IIHR, Bengaluru
11.30-11.40 AM	Status and Diversity of <i>Phytophthora</i> and <i>Candidatus Liberobacter</i> causing decline in Coorg Mandarin (A592)	Priti Sonavane CHES, ICAR-IIHR, Chettalli
11.40-11.50 PM	Molecular Detection of Major viruses of Pears in North Western Himalayan Region (A497)	Santosh Watpade IARI Regional Station, Shimla
11.50-12.00 Noon	RNAi induced gene silencing: a novel approach for plant parasitic nematode management (A325)	Kommu Kiran Kumar ICAR-CCRI, Nagpur
12.00-12.10 PM	Case study on incidence of inflorescence blight and fruit rot (<i>Choanephora</i> sp.) on dolichos bean and yard long bean (A160)	P.S. Kurian KAU, Thrissur
12.10 -12.20 PM	Bacterial wilt resistant and susceptible parental polymorphism screening using SSR markers in Brinjal (<i>Solanum melongena</i> L.) (A195)	P. S. Khapte ICAR-CAZRI, Jodhpur
12.20- 12.30 PM	Residues of commonly used pesticides in exotic vegetables analyzed by LC-MS/MS for evaluation of waiting period (A471)	Debi Sharma ICAR-IIHR, Bengaluru
12.30 -12.40 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)	Nitika Gupta ICAR-DFR, Pune,
12.40-12.50 PM	Discussion	
12.50 - 1.00 PM	Chairman's Remarks	
1.00 - 1.30 PM	Poster Presentation	A-100- A-250
Lunch	1.00 - 2.00 PM	

Key Note Address

Date: 06.9.2017

Venue: Main Auditorium

Time: 2.00-2.45 PM

Dr. Himanshu Pathak Director, ICAR-NRRI, Cuttack, Odisha	Mitigating impact of climate change in horticultural crops
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Concurrent Session

Session – II Genetic Improvement – Biotechnological Approaches

Venue: Main Auditorium

Date: 06.9.2017

Time: 3.00- 500 PM

Chairman	Dr. Nazeer Ahmed, Vice Chancellor, SKUAST, Srinagar	
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	Pritam Kalia ICAR-IARI, New Delhi
3.20-3.40 PM	Volatiles as pre-selection indices in breeding of horticultural crops	K. S. Shivashankara 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)	Michael Pillay South Africa
3.50-4.00 PM	Micropropagation of triploid seedless watermelon: A feasibility assessment (A444)	Pious Thomas 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)	Young Seok Kwon 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)	M.R. Rohini ICAR-IIHR, Bengaluru
4.20-4.30 PM	Towards cloning nematocidal cry gene from Indian isolates of <i>Bacillus thuringiensis</i> (A407)	P. Nandeeshha 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)	S.Y. Chandrashekar College of Hort., Mudigere
4.40-4.50 PM		
4.50-5.00 PM	Discussion & Chairman's remarks	
5.00-5.30 PM	Poster Presentation	A-250-A-450

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

Venue: Seminar Hall -A

Date: 06.9.2017

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	P. Rethinum Ex ADG (Hort.), Coimbatore
3.20-3.40 PM	Management of spices: Issues and challenges	K. Kandiannan ICAR-IISR, Kozhikode
Oral papers		
3.40-3.50 PM	Effect of fertigation on Growth, Yield, Fruit Quality and Fertilizer use efficiency of Strawberry (<i>Fragaria × ananassa</i> Duch.) cv. Chandler (A209)	Dilip Singh Kachwaya YSPUHF, Solan
3.50-4.00 PM	Effect of water soluble fertilizers on enhancing growth and nutrient uptake in brinjal hybrids (<i>Solanum melongena</i> L.) (A447)	A. Anburani Annamalai University, Chidambaram
4.00-4.10 PM	Propagation techniques in Kartoli (<i>Momordica dioica</i> Robx) (A699)	V. K. Garande College of Agriculture Kolhapur
4.10-4.20 PM	Mineral content of potatoes of Eastern India (A71)	Dalamu, J ICAR-CPRI, Shimla
4.20-4.30 PM	Chitosan-urea nano-formulation: Synthesis, characterization and impact on tuber yield of potato (IS 55)	Anu Kalia PAU, Ludhiana
4.30-4.40 PM	Studies on growth, tubers yield and mineral content of Indian potato cultivars under elevated CO ₂ (A21)	Prince Kumar ICAR-CPRS, Jalandhar
4.40-4.50 PM	Discussion	
4.50-5.00 PM	Chairman's Remarks	
5.00-5.30 PM	Poster Presentation	Papers : A 250 - A 400

Concurrent Session

Session IV: Products and Value-addition- Bye products and waste utilization

Venue: Seminar Hall C

Date: 06.9.2017

Time 3.00- 5.00 PM

Chairman	Dr. S. B. Dandin, Bioversity International Bengaluru	
Co-Chairman	Dr. S.N. Jha, ADG (Ag. Eng.), ICAR	
Convener	Dr. I. N. D. Gowda	
Rapporteurs	Dr. Sangamma Dr. Carolina Rathina Kumari	
Invited papers		
Time	Topic	Speakers
3.00-3.20 PM	Floral scent mechanism in ornamental plants	Adinyapunya Mitra IIT, Kharagpur
3.20-3.40 PM	Quantification of juice yield and processing waste in pomegranate fruit & nutritional composition of its peels (A427)	C.K.Narayana ICAR-IIHR, Bengaluru
Oral papers		
3.40-3.50 PM	Hesperidin: A promising bioflavonoid in Indian <i>Citrus</i> fruits (A152)	Dinesh Kumar ICAR-CCIR, Nagpur
3.50-4.00 PM	QuEChERS based LC -MS/MS method for Simultaneous determination of aflatoxin B ₁ , B ₂ , G ₁ and G ₂ in economically important medicinal herb senna (<i>Cassia angustifolia</i>) and kalmegh (<i>Andrographis paniculata</i>) (A388)	Ajoy Saha ICAR-DMAPR, Anand
4.00-4.10 PM	Eco friendly packages for freshness retention and shelf life extension of tuberose flower (A473)	S. Bhuvanewari ICAR-IIHR, Bengaluru
4.10-4.20 PM	Effect of different extraction process on yield and quality of banana pseudostem fibre (A559)	R. Brindha ICAR-NRC Banana Tiruchirapalli
4.20-4.30 PM	Lutein and antioxidants estimation in five marigold (<i>Tagetes erecta</i> L.) cultivars of north India (A177)	Jayoti Majumder ICAR-DFR, Pune
4.30-4.40 PM	Antioxidant activity in orange cultivars of temperate carrot (A273)	Raj Kumar ICAR-IARI RS, Katrain
4.40-4.50 PM	Discussion	
4.50-5.00 PM	Chairman's Remarks	
5.00-5.30 PM	Poster Presentation	A-250-400

Concurrent Session

Session V: Abiotic Stress Management

Venue: Seminar Hall-B

Date: 06.09.2017

Time: 3.00 -5.00 PM

Chairman	Dr. H. Pathak, Director, ICAR-NRRI, Cuttack	
Co- Chairman	Dr. G. Lal, Director, NRC Seed Spices, Ajmer	
Convener	Dr. K. S. Shivashankara	
Rapporteurs	Dr. R. H. Laxman Dr. Preeti Singh	
Invited papers		
Time	Topic	Speakers
3.00-3.20 PM	Arid fruit cultivation for mitigating climate change	P.L. Saroj ICAR-CIAH, Bikaner
3.20-3.40 PM	Strategies for abiotic stress management in horticultural crops	M. B. Chetti ICAR, New Delhi
Oral papers		
3.40-3.50 PM	Screening salt tolerance of mango (<i>Mangifera indica</i> L.) rootstocks (A377)	V. K. Singh 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)	Ruben Ortiz 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)	K.K. Upreti ICAR-IIHR, Bengaluru
4.10-4.20 PM	Physiological response of different Citrus rootstocks to drought stress (A479)	R.A. Marathe ICAR – CCRI, Nagpur
4.20-4.30 PM	Low chill cultivars of temperate fruits in sub-tropics –a viable option to raise farm income under in frequent frost conditions (A624)	V. K. Sharma YSPUHF, Neri, Hamirpur
4.30-4.40 PM	Climate Change Effects and Quality Makhana (<i>Euryale ferox</i> Salisb.) Production under Wetland Ecosystem of North Bihar (A500)	B.R. Jana ICAR-RCER, RC for Makhana Darbhanga
4.40-4.50 PM	Discussion	
4.50-5.00 PM	Chairman Remarks	
5.00 -5.30 PM	Poster Presentation	A-250- A400

Workshop

Venue: Main Auditorium

Date: 06.09.2017

Time: 5.30-6.30 PM

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