

## Unleashing Horticultural Potential for Self-Reliant India

Programme



November 06-09, 2023

#### Venue:

College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati Organised by



Indian Academy of Horticultural Sciences (IAHS), New Delhi



Assam Agricultural University Jorhat, Assam

## 10<sup>th</sup> Indian Horticulture Congress-2023 **Programme Summary**

Registration (08:45-09:45 hrs)
Inaugural Session (10:00-11:30 hrs)
IAHS Foundation Day Lecture (12:00-13:00 hrs)

Day 1, November 06, 2023

Session I: Horticulture in Amrit Kaal: Research Priorities (14:00-15:30 hrs)

Panel Discussion – 1 : Horticulture in *Amrit Kaal* : Education Priorities (15:30-16:45 hrs)

**Session II: Elite Germplasm and Variety Development** (16:45-18:30 hrs)

Cultural Programme (18:45-20:00 hrs)

Day 2, November 07, 2023

**Session III: Digital Farming in Horticulture** (09:00-10:30 hrs)

Session IV: Use of Rootstocks in Horticulture (10:30-12:00 hrs)

Panel Discussion - 2: Genome Editing in Horticultural Crops (12:00-13:30 hrs)

Session V: Innovation for Sustainable Horticultural Production (14:30-16:30 hrs)

Session VI: Strategies for Development of Minor Commercial Crops (16:30-18:15 hrs)

Annual General Body Meeting of IAHS (18:30-20:00 hrs)

Day 3, November 08, 2023

**Session VII : Urban and Peri-urban Horticulture** (09:00-10:15 hrs)

Session VIII: Horticulture in North-Eastern India (10:15-12:00 hrs)

Session IX: Management of Biotic and Abiotic Stresses (12:00-13:30 hrs)

Session X: Horticulture for Food, Pharmaceutical and Cosmetic Industries (14:30-16:45 hrs)

Panel Discussion – 3 : Clean Plant Production in Perennial Horticultural Crops (16:45-18:15 hrs)

Day 4, November 09, 2023

Session XI: Exploiting Emerging Trade Opportunities (09:00-10:30 hrs)

Farmers-Scientists Interface (10:30-12:30 hrs)

Valedictory Function (12:30-13:30 hrs)

Day 2, 3 & 4 : November 07-09, 2023 Schedule for Oral and Poster Papers Presentation



## 10th Indian Horticulture Congress-2023

## Unleashing Horticultural Potential for Self-Reliant India

Venue : College of Veterinary Sciences, Khanapara, Guwahati

November 06-09, 2023



## Day 1: November 06, 2023 Registration

Time: 08:00-09:45 hrs

Venue: Srimanta Sankaradeva International Auditorium, Sankaradeva Kalakshetra Society, Panjabari, Guwahati

## **Inaugural Session**

Time: 10:00-11:30 hrs

09:58 hrs	Arrival of Guests in the Auditorium			
09:59 hrs	State Song of Assam			
10:00-10:05 hr	Welcome of Guests with Bouquet			
10:05-10:10 hr	Lighting of Lamp			
10:10-10:15 hr	Welcome Address Dr Bidyut C. Deka			
		Vice Chancellor, AAU, Jorhat		
10:15-10:20 hr	About the Congress	Dr Sanjay Kumar Singh		
		Vice President, IAHS, New Delhi		
10:25-10:32 hr	Address by Chairman, National Dr K.L. Chadha			
	Organising Committee	President, IAHS, New Delhi		
10:32-10:40 hr	40 hr Address by Guest of Honour Shri Ashish Bhutani			
		Agricultural Production Commissioner, Govt. of Assam		
10:40-10:50 hr	Address by Guest of Honour	Dr H.S. Gupta		
		Chairman, Assam Agriculture Commission, Assam		
10.50-11.00 hr	Release of Publications			
	Conferment of IAHS Awards			
	(Citations to be read by Dr D.R.	Singh, Vice President, IAHS)		
11:00-11:25 hr	Inaugural Address by the	Shri Atul Bora, Hon'ble Minister		
	Chief Guest	Agriculture, Horticulture and Food		
		Processing, Animal Husbandry and Veterinary, Urban Development, Town		
		and Country Planning, Govt. of Assan		

11:25-11:29 hr Vote of Thanks

Dr V.B. Patel

National Organizing Secretary

11:29-11:30 hr National Anthem

(HIGH TEA: 11:30-11:55 hrs)

#### **IAHS** Foundation Day Lecture

**Topic: Booming Horticulture Sector in India** 

Chairman, Assam Agriculture Commission, Assam and Former Director General, Borlaug Institute for South Asia,

New Delhi

LUNCH: 13:00-14:00 hrs

## Day 1: November 06, 2023

Time: 14:00-15:30 hrs

Venue: Srimanta Sankaradeva International Auditorium, Sankaradeva Kalakshetra Society, Panjabari, Guwahati

### Session I

## Horticulture in Amrit Kaal: Research Priorities

Chair : Dr T. Janakiram, Vice Chancellor Dr YSR Horticultural University

Venkataramannagudem, West Godavari, Andhra Pradesh

Co-chair: Dr S. Rajan, Ex-Director, ICAR-Central Institute of Sub-tropical Horticulture,

Lucknow, Uttar Pradesh

Convener: Dr Prakash Patil, Project Co-Ordinator (Fruits), ICAR-AICRP on Fruits,

Bengaluru, Karnataka

Rapporteurs: Dr S. Manivannan and Dr Shrawan Singh

1	Lead	Prioritizing research on fruits crops	Dr V.B. Patel	Assistant Director General (Hort- Fruits and Plantation), ICAR, KAB-1, New Delhi
2	Lead	Prioritizing research on vegetable crops	Dr Sudhakar Pandey	Assistant Director General (Hort- Vegetables and flowers), ICAR, KAB-1, New Delhi
3	Lead	Prioritizing research on ornamental crops	Dr K.V. Prasad	Director, ICAR-Directorate of Floricultural Research, Mundhwa, Pune, Maharashtra
4	Lead	Prioritizing research on plantation crops	Dr K.B. Hebbar	Director, ICAR- Central of Plantation Crop Research Institute, Kasaragod, Kerala
5	Lead	Prioritizing research on spice crops	Dr R. Dinesh	Director, ICAR-Indian Institute of Spices Research, Kozhikode, Kerala
6	Lead	Prioritizing research on medicinal and aromatic plants	Dr Manish Das	Director, Directorate of Medicinal and Aromatic Plants, Anand, Gujarat

## Day 1: November 06, 2023

Time: 15:30-16:45 hrs

Venue: Srimanta Sankaradeva International Auditorium, Sankaradeva Kalakshetra Society, Panjabari, Guwahati

## Panel Discussion - 1 Horticulture in *Amrit Kaal*: Education Priorities

Chair : Dr D.R. Singh, Vice-Chancellor, Bihar Agricultural University, Sabour,

Bhagalpur, Bihar

Co-chair: Dr S.K. Singh, Director, ICAR-IIHR, Bengaluru, Karnatak
Rapporteurs: Dr Sheeba Rebecca Isaac and Dr Kalyan Barman

Theme Presentation-I	Horticultural Education in changing scenario of NEP 2020	Vice Chancellor, Assam Agricultural University, Jorhat, Assam
	Dr Bidyut Chandan Deka	
Theme Presentation-II	Horticulture in <i>Amrit Kaal</i> : Education Priorities and SWOT analysis	Dean and Joint Director (Education), ICAR-Indian Agricultural Research Institute, New Delhi
	Dr Anupama Singh	
Panelist	Dr Bijendra Singh	Vice Chancellor, Acharya Narendra Deva University of Agriculture & Technology, Kumarganj, Ayodhya, Uttar Pradesh
	Dr T. Janakiram	Vice Chancellor, YSR Horticulture University, West Godavari District, Andhra Pradesh
	Dr K.B. Kathiria	Vice Chancellor, Anand Agricultural University, Anand, Gujarat
	Dr Neeraja Prabhakar	Vice Chancellor, Sri Konda Laxman Telangana State Horticultural University, Siddipet, Telangana
	Dr Z.P. Patel	Vice Chancellor, Navsari Agricultural University, Eru Char Rasta, Dandi Road, Navsari, Gujarat.
	Dr R.S. Kureel	Vice Chancellor, Mahatma Gandhi Udyaniki Evam Vaniki Vishwavidyalaya, Patan, Durg, Chhattisgarh

## Day 1: November 06, 2023

Time: 16:45-18:30 hrs

Venue: Srimanta Sankaradeva International Auditorium, Sankaradeva Kalakshetra Society, Panjabari, Guwahati

## Session II Elite Germplasm and Variety Development

Chair : Dr Bijendra Singh, Vice Chancellor, Acharya Narendra Deva University of

Agriculture & Technology, Kumarganj, Ayodhya, Uttar Pradesh

Co-chair: Dr W.S. Dhillon, Ex-ADG, ICAR, New Delhi

Convener: Dr M.C. Jain, Dean, Agriculture University, Kota, Rajasthan

Rapporteurs: Dr H. Chouhdary and Dr Vishal Rana

	40.45	-20:00 hrs	Cultural Pr	
6	Lead	Nutraceutical horticultural crops improvement: A way forward for shaping horticulture future in India	Dr Pritam Kalia	Ex-Head, Division of Vegetable Science, ICAR- Indian Agricultural Research Institute, New Delhi
5	Lead	Innovations in year-round production and availability of the Onion and garlic	Dr Vijay Mahajan	Director, ICAR-Directorate of Onion and Garlic Research, Rajguru Nagar, Pune, Maharashtra
4	Lead	Development of elite germplasm and varieties in perennial horticultural crops	Dr M. Shankaran	Head, Division of Fruit Crops, ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka
3	Lead	Management of Indian fruit genetic resources for sustainable utilization and posterity: Current status and challenges	Dr S.K. Malik	Principal Scientist, ICAR- National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi
2	Key note	Trait enhancement in horticultural crops through wide hybridization	Dr K.B. Kathiria	Vice Chancellor, AAU, Anand, Gujarat
1	Key note	Breeding vegetable crops for yield, quality, adaptability and export	Dr Bijendra Singh	Vice Chancellor, ANDUAT, Kumarganj, Ayodhya, U.P.

GALA DINNER: 20:00-21:00 hrs

Time: 09:00-10:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session III Digital Farming in Horticulture

Chair : Dr Anil Rai, Assistant Director General (ICT), Indian Council of Agricultural

Research, New Delhi

Co-chair : Dr Subhasisa Dutta, Professor, Department of Civil Engineering, Indian

Institute of Technology Guwahati, Guwahati, Assam

Convener: Dr R.N. Sahoo, Principal Scientist, ICAR-Indian Agricultural Research

Institute, Pusa, New Delhi

Rapporteurs: Dr J.I. Mir and Dr Dipendra Yadava

1	Key note	Application of AI based tools for efficient horticultural production	Dr Neelam Patel	Member-Senior Advisor, Agriculture Allied Sector, Niti Aayog, Government of India, New Delhi
2	Key note	Disruptive ICT technologies for digital horticulture	Dr Anil Rai	Assistant Director General (ICT), Indian Council of Agricultural Research, New Delhi
3	Lead	Al enabled geospatial technology for horticulture development	Dr Subhasisa Dutta	Professor, Department of Civil Engineering, Indian Institute of Technology Guwahati, Guwahati, Assam
4	Lead	Drone technology: Benefits and challenges for precision farming of horticultural crops	Dr R.N. Sahoo	Principal Scientist, ICAR- Indian Agricultural Research Institute, Pusa, New Delhi
5	Lead	Robotics application in horticulture: An Indian Perspective	Dr S.K. Dwivedy	Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Assam
6	Lead	UAV and Remote Sensing use in Horticultural crops for NE region	Dr Bijoy K. Handique	North Eastern Space Applications Centre (NESAC), Department of Space, Government of India Umiam, Meghalaya

Time: 10:30-12:00 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session IV Use of Rootstocks in Horticulture

Chair : Dr Z.P. Patel, Vice Chancellor, Navsari Agricultural University, Navsari, Gujarat

Co-chair: Dr T. Damodaran, Director, ICAR-Central Institute for Sub-Tropical

Horticulture, Lucknow, Uttar Pradesh

Convener: Dr M. Sankaran, Head, Division of Fruit Crops, ICAR-IIHR, Bengaluru,

Karnataka

Rapporteurs: Dr Asish Yadav and Dr S. Saikia

1	Key note	The Transformative Role of Rootstocks in Modern Horticulture	Dr Z.P. Patel	Vice Chancellor, Navsari Agricultural University, Navsari, Gujarat
2	Lead	Challenges and Opportunities in Mango Rootstock Research	Dr S Rajan	Ex-Director, ICAR-Central Institute of Sub-tropical Horticulture, Lucknow, Uttar Pradesh
3	Lead	Current trends in standardization of rootstock in apple ( <i>Malus domestica</i> Borkh.)	Dr M.K. Verma	Director, ICAR-Central Institute of Temperate Horticulture, Srinagar, Jammu & Kashmir
4	Lead	Recent trends in standardization of new rootstocks in citrus	Dr O.P. Awasthi	Head, Division of Fruit and Horticulture Technology, ICAR- Indian Agriculture Research Institute, Pusa, New Delhi
5	Lead	Recent trends in optimization of rootstocks in important vegetable crops	Dr E. Sreenivasa Rao	Advisor (Horticulture), Government of Telegana, Commissionerate of Horticulture, Public Gardens, Nampally, Hyderabad
6	Lead	Exploitation of Stionic combination using interspecific rootstocks in vegetables	Dr Anant Bahadur	Head, Division of Vegetable Production, ICAR-Indian Institute of Vegetable Research, Varanasi, Uttar Pradesh
7	Lead	Changing scenario in rootstock for commercial rose production	Dr Markandey Singh	Head, Division of Floriculture & Landscaping, ICAR-Indian Agriculture Research Institute, Pusa, New Delhi

Time: 12:00-13:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Panel Discussion - 2 Genome Editing in Horticultural Crops

Chair : Dr Chittaranjan Kole, Former Vice-Chancellor, BCKV, Kalyani, West Bengal

Convener: Dr T.K. Behera, Director, ICAR-Indian Institute of Vegetable Research,

Varanasi, Uttar Pradesh

Rapporteurs: Dr Achuit K. Singh and Dr S.S. Dey

Theme Presentation-I	Dr Sanjay Kumar Singh	Director, ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka
Theme Presentation-II	Dr T.K. Behera	Director, ICAR-Indian Institute of Vegetable Research, Varanasi, Uttar Pradesh
Panelist	Dr C. Viswanathan	Joint Director (Research), ICAR-Indian Agricultural Research Institute, New Delhi
	Dr R.C. Bhattacharya	Director, ICAR-National Institute for Plant Biotechnology, Pusa, New Delhi
	Dr Bidyut Kumar Sharma	Centre Director, DBT NECAB, Assam Agricultural University, Jorhat, Assam
	Dr Achuit K. Singh	Principal Scientist, ICAR-Indian Institute of Vegetable Research, Varanasi, Uttar Pradesh
	Dr M. Ravindran	Director of Research, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
	Dr Swarup Parida	Scientist-V, National Institute of Plant Genomic Resources, New Delhi

LUNCH: 13:30-14:30 hrs

Time: 14:30-16:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

#### **Session V**

## **Innovation for Sustainable Horticultural Production**

Chair : Dr Balraj Singh, Vice Chancellor, Sri Karan Narendra Agriculture University,

Jobner, Rajasthan

Co-chair : Dr R.A. Marathe, Director, ICAR-NRC pomegranate, Solapur, Maharashtra

Convener: Dr R.M. Sharma, Editor, IAHS & Principal Scientist, ICAR-IARI, New Delhi

Rapporteurs: Dr Sudip K. Dutta and Dr Mahesh Kumar Dhakar

1	Key note	Potential of horticulture crops for self-reliance in Island based agri-system	Dr D.R. Singh	Vice-Chancellor, Bihar Agricultural University, Sabour, Bhagalpur, Bihar
2	Key note	Transforming Himalayan mountainous horticulture through Natural Farming	Dr R.S. Chandel	Vice-Chancellor, Dr Y S Parmar University of Horticulture & Forestry, Nauni, Solan, Himachal Pradesh
3	Lead	Cosmic Nutrient Management in Horticultural Cros: A Ray of hope for Nutrition, Health, Economic & amp; Environmental Security	Dr R.K. Pathak	Former Director, ICAR- Central Institute for Sub- tropical Horticulture, Lucknow, Uttar Pradesh
4	Lead	Integrated farming system approaches for sustainable intensification and diversification to Horticulture under Coastal agro-ecology	Dr Praveen Kumar	Director, ICAR-CCARI, Old Ila, Goa
5	Lead	Fruit Production in the trans- Himalaya Ladakh, India: Competitive Advantages and Fruit Directions	Dr Tsering Stobdan	Defense Institute of High Altitude Research, Leh, Ladakh C/o 56 APO, Defence R&D Organisation, Leh
6	Lead	High density orcharding in tropical and subtropical fruits- learnings and researchable issues	Dr Bikas Das	Director, ICAR -National Research Centre for Litchi, Muzaffarpur, Bihar

7	Lead	New Developments in training and pruning of temperate fruit crops	Dr J.I. Mir	Principal Scientist, ICAR- Central Institute of Temperate Horticulture, Srinagar, Jammu and Kashmir
8	Lead	Espalier System of Canopy Management for Increased Fruit Production in Guava, Custard Apple & Mango	Mr Randip Ghosh	Assistant Manager at VNR Nursery Private Limited, Raipur, Chhattisgarh
9	Lead	Biologicals: Innovative approaches for successful Biological solutions	Dr Vimala Prakash	Head, Research and Development, IPL Biologicals Limited, Gurugram, Haryana
10	Lead	Impact of Customized Nutrition Solution through Enhanced Efficiency Fertilizers (EEF) on Productivity, Quality, Soil Health & Climatic Resilience in Horticultural Crops	Dr Murli Yadav	General Manager, Crop Scientist, Deepak Fertilisers and Petrochemicals Corporation Limited, Pune, Mahrashtra
11	Lead	Arka Microbial Consortium: A Success Story in Technology Licensing and Entrepreneurship	Dr G. Selvakumar	Principal Scientist, ICAR – Indian Institute of Horticultural Research, Bengaluru
12	Lead	Bee and other pollinators for sustainable horticulture production	Dr Sachin S. Suroshe	Project Coordinator, Honey bees & Pollinators, Division of Entomology, ICAR-Indian Agricultural Research Institute, Pusa, New Delhi

Time: 16:30-18:15 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

### **Session VI**

## Strategies for Development of Minor Commercial Crops

Chair : Dr Neeraja Prabhakar, Vice Chancellor, Sri Konda Laxman Telangana State

Horticultural University, Siddipet, Telangana

Co-chair: Dr J.C. Rana, National Project Co-ordinator, Alliance of Bioversity

International and CIAT, New Delhi

Convener: Dr S.K. Malik, Principal Scientist, ICAR-National Bureau of Plant Genetic

Resources Pusa Campus, New Delhi

Rapporteurs: Dr Jitendra Singh and Dr Reeta Bhatia

1	Lead	Role of the minor vegetable crops in diversification of horticultural sector	Dr J.C. Rana	National Project Co-Ordinator, Alliance of Bioversity International and CIAT, New Delhi
2	Lead	Present trend and future prospects in cultivation of arid temperate fruits in India	Dr Sanjay K. Dwivedi	Scientist 'G' & Director, Directorate of Personnel (DoP), Defence Research and Development Organisation (DRDO) Bhawan, New Delhi
3	Lead	Transformation of Indian mushroom industry: Prospects and Challenges	Dr V.P. Sharma	Director, ICAR-Directorate of Mushroom Research, Solan, Himachal Pradesh
4	Lead	Unleashing the potential of oil palm production in India to reduce the import of edible oil and ensure self-reliance	Dr K. Suresh	Director, ICAR-Indian Institute of Oil Palm Research, Pedavegi, Andhra Pradesh
5	Lead	Potential non-conventional areas to enhance orchid production in India	Dr S.P. Das	Director, ICAR-National Research Centre for Orchids, Pakyong, Gangtok, Sikkim

6	Lead	Minor arid fruits: Present status and future prospects	Dr A.K. Singh	In-Charge & Principal Scientist, Central Horticultural Experiment Station, ICAR- Central Institute of Arid Horticulture, Godhra- Vadodara Highway, Vezalpur, Vododara, Gujarat

18:30-20:00 Annual General Body Meeting of IAHS

DINNER: 20:00-21:00 hrs

Time: 09:00-10:15 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session VII Urban and Peri-urban Horticulture

Chair : Dr M.L. Chadha, Former Director, AVRDC, The World Vegetable Centre,

Hyderabad, Andhra Pradesh

Co-chair : Dr B. Hemla Naik, Director of Education & Sr. Professor, KSN University

of Agricultural & Horticultural Sciences, Shivamogga, Karnataka

Convener: Dr Markandey Singh, Head, Division of Floriculture & Landscaping, ICAR-

Indian Agriculture Research Institute, Pusa, New Delhi

Rapporteurs: Dr Rebica Panwar and Dr Namita

1	Key note	Opportunities for expansion of protected cultivation in different states in India	Dr Balraj Singh	Vice Chancellor, Sri Karan Narendra Agriculture University, Jobner, Rajasthan
2	Key note	Potential of ornamental crops in urban and peri-urban horticulture	Dr T. Janakiram	Vice Chancellor Dr YSR Horticultural University Venkataramannagudem, West Godavari, Andhra Pradesh
3	Lead	Urban and Peri-Urban Horticulture in India: A Transformative Blueprint for Sustainable Urban Development, Food Security and Environmental Resilience	Dr Alka Singh	Dean, Aspee College of Horticulture & Forestry, Navsari, Gujarat
4	Lead	Low-cost protected structures for high value crops cultivation in northeast region	Dr Anand R. Zambre	Executive Director, National Committee on Plasticulture Applications in Horticulture, New Delhi
5	Lead	Beekeeping in North-East region of India	Dr Naveen Kumar Patle	Additional Commissioner (Horti.) & Executive Director, NBB DAC, Ministry of Agriculture and Farmers Welfare, New Delhi

Time: 10:15-12:00 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session VIII Horticulture in North-Eastern India

Chair : Dr H.S. Gupta, Chairman, Assam Agriculture Commission (AAC) and former

Director, ICAR - Indian Agricultural Research Institute, New Delhi

Co-chair : Dr Prabhat Kumar, Horticulture commissioner, Department of Agriculture &

Farmers Welfare, Ministry of Agriculture, New Delhi

Convener: Dr Ananta Saikia, Professor, Assam Agricultural University, Jorhat, Assam

Rapporteurs: Dr Veerendra Kumar Verma and Dr Pauline Alila

Key note	Strategies for horticulture research & development in N-E regions with focus on Assam	Dr H.S. Gupta	Chairman, Assam Agriculture Commission (AAC) and former Director, ICAR - Indian Agricultural Research Institute, New Delhi
Lead	Accelerated Growth in Horticulture in North Eastern Region: Suggested Policy Interventions and Technology Commercialization Issues	Dr S.P. Ghosh	Former Deputy Director General, Horticulture Science, Indian Council of Agricultural Research, New Delhi
Lead	Potential of North-East India to ensure self-reliance in horticultural production	Dr Suresh Kumar Malhotra	Project Director, ICAR- Directorate of Knowledge Management in Agriculture, New Delhi
Lead	Impact of Technology Mission for North-Eastern region in improving livelihood	Dr Prabhat Kumar	Horticulture commissioner, Department of Agriculture & Farmers Welfare, Ministry of Agriculture, New Delhi.
Lead	Potential of the GI tagged horticulture based products for increasing farm profitability of the N-E region	Dr Bhanu Pratap Singh	Founder Executive Director, North East Region promotion across world mission, Guwahati, Assam
Lead	Scope of Introduction of New fruits crops in Different States of North-East India – A Case Study of Kiwi Fruit	Dr K.K. Jindal	Former Director of Research, Central Agricultural University Imphal, Manipur
	Lead Lead Lead	note research & development in N-E regions with focus on Assam  Lead Accelerated Growth in Horticulture in North Eastern Region: Suggested Policy Interventions and Technology Commercialization Issues  Lead Potential of North-East India to ensure self-reliance in horticultural production  Lead Impact of Technology Mission for North-Eastern region in improving livelihood  Lead Potential of the GI tagged horticulture based products for increasing farm profitability of the N-E region  Lead Scope of Introduction of New fruits crops in Different States of North-East India —	note research & development in N-E regions with focus on Assam  Lead Accelerated Growth in Horticulture in North Eastern Region: Suggested Policy Interventions and Technology Commercialization Issues  Lead Potential of North-East India to ensure self-reliance in horticultural production  Lead Impact of Technology Mission for North-Eastern region in improving livelihood  Lead Potential of the GI tagged horticulture based products for increasing farm profitability of the N-E region  Lead Scope of Introduction of New fruits crops in Different States of North-East India —

7	Lead	Horticulture based climate friendly intervention for sustainable lifestyle for ne communities	Dr Akali Sema	Professor, Department of Horticulture, School of Agricultural Sciences, Nagaland University, Nagaland
8	Lead	North East India – The Paradise Unexplored: Elevating Underutilized Fruit Crops and Mainstreaming the Bounty	Dr C.P. Suresh	Professor and Head, Department of Horticulture, North Eastern Hill University, Tura Campus, West Garo Hills, Meghalaya
9	Lead	Research Strategies for conservation of lesser known Fruits of North-east India	Dr T.K. Hazarika	Professor, Department of Horticulture, Aromatic and Medicinal Plants, Mizoram University, Aizawl, Mizoram

Time: 12:00-13:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session IX Management of Biotic and Abiotic Stresses

Chair : Dr K. Sammi Reddy, Director, ICAR-National Institute of Abiotic Stress

Management, Baramati, Pune, Maharashtra

Co-chairs: Dr Jagdish Rane, Director, ICAR- Central Institute for Arid Horticulture,

Bikaner, Rajasthan

Dr R. Selvarajan, Director, ICAR-National Research Centre for Banana,

Tiruchirapalli, Tamil Nadu

Convener: Dr Sachin S. Suroshe, Project Coordinator, AICRP Honeybees and

Pollinators, ICAR-IARI, New Delhi

Rapporteurs: Dr Amarjeet Gupta and Dr Anurag Kashyap

1	Key note	Abiotic stress management in horticultural crops to maximize water use efficiency	Dr K. Sammi Reddy	Director, ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, Maharashtra
2	Lead	Physiological and molecular basis of heat tolerance in important horticultural crops	Dr Jagdish Rane	Director, ICAR- Central Institute for Arid Horticulture, Bikaner, Rajasthan
3	Lead	BIOSMART Strategies for Biotic and Abiotic Stress Management: Advancing Climate-Resilient and Sustainable Horticulture	Dr T. Damodaran	Director, ICAR-Central Institute for Sub- Tropical Horticulture, Lucknow, Uttar Pradesh
4	Lead	High-throughput phenotyping: A multidimensional approach for stress resilience breeding and management of fruit crops	Dr R.M. Sharma	Principal Scientist, Division of Fruit Horticulture and Technology, ICAR-Indian Agriculture Research Institute, New Delhi
5	Lead	Advance and emerging plant pathogen detection techniques in horticultural crops	Dr R. Selvarajan	Director, ICAR- National Research Centre for Banana, Tiruchirapalli, Tamil Nadu

6	Lead	Events of invasive pests in India: Current status and management challenges in horticultural crops amidst climate crisis	Dr V. Ambethgar	Professor, Tamil Nadu Agricultural University, Department of Entomology, Anbil Dharmaligam Agricultural College and Research Institute, Tiruchirappalli, Tamil Nadu
7	Lead	Breeding vegetables for powdery mildew disease resistance	Dr Akhilesh Sharma	Professor, Department of Vegetable Science and Floriculture, CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur, Himachal Pradesh

LUNCH: 13:30-14:30 hrs

Time: 14:30-16:45 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

### **Session X**

## Horticulture for Food, Pharmaceutical and Cosmetic Industries

Chair : Dr Bidyut C. Deka, Vice Chancellor, Assam Agricultural University, Jorhat,

Assam

Co-chair: Dr M.K. Verma, Director, ICAR-CITH, Srinagar, J&K

Convener: Dr Akath Singh, Head, Division of Post Harvest Technology, ICAR-CISH,

Lucknow, Uttar Pradesh

Rapporteurs: Dr P Suresh Kumar and Dr Swati Sharma

1	Key note	Introduction to horticultural therapy its role and application in improving body, mind and spirit	Dr M.L. Chadha	Former Director, AVRDC, The World Vegetable Centre, Hyderabad, Andhra Pradesh
2	Lead	Potentiality of secondary horticulture in India	Dr R.K. Pal	Former Director, ICAR- NRC on Pomegranate, Pune, Solapur, Maharashtra
3	Lead	Recent developments in management of pesticide residues in horticultural crops	Dr Kaushik Banerjee	Director, ICAR-National Research Centre for Grapes, Pune, Maharashtra
4	Lead	Melatonin: A Biomolecule for Mitigating Postharvest Chilling Injury in Fruit and Vegetables	Dr Suneel Pareek	Head, Department of Agriculture and Environmental Sciences, NIFTEM, Kundli, Sonipat, Haryana
5	Lead	Dropped Immature fruits: A potential source of Nutraceutical	Dr Dinesh Kumar	Head, Division of Food Science & Post Harvest Technology, ICAR-IARI, New Delhi
6	Lead	Creation of robust circular economy: Production of high- value compounds and innovative future products from Banana	Dr P. Suresh Kumar	Principal Scientist, ICAR- National Research Centre for Banana, Tiruchirapalli, Tamil Nadu
7	Lead	Zero waste horticulture and trends in minimizing postharvest losses	G.J. Janavi	Professor & Head, Dept. of Postharvest Technology, HC&RI, TNAU, Periyakulam

Time: 16:45-18:15 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Panel Discussion - 3

## Clean Plant Production in Perennial Horticultural Crops

Chair : Shri Priya Ranjan, Joint Secretary, MIDH, Ministry of Agriculture and Famrers

Welfare, New Delhi

Convener: Dr V.B. Patel, Assistant Director General (Fruits and Plantation), Indian

Council of Agricultural Research, New Delhi

Rapporteurs: Dr Sujoy Saha and Shri C.P. Gandhi

Lead Presentation	Shri Priya Ranjan	Joint Secretary, MIDH, Ministry of Agriculture and Famrers Welfare, New Delhi
Panelist	Dr V.K. Baranwal	National Professor, ICAR-Indian Agricultural Research Institute, New Delhi
	Dr S.C. Dubey	Assistant Director General (Plant Protection & Biosafety), Indian Council of Agricultural Research, New Delhi
	Dr Dilip Ghosh	Director, ICAR- Central Citrus Research Institute, Nagpur, Maharashtra
	Dr R.A. Marathe	Director, ICAR-NRC pomegranate, Solapur, Maharashtra
	Dr Celia Chalam Vasimalla	Head, Division of Plant Quarantine, ICAR-National Bureau of Plant Genetic Resources, New Delhi
	Dr Sujoy Saha	Principal Scientist, ICAR-NRC on Grapes, Pune, Maharashtra
	Dr P.K. Shukla	Principal Scientist, ICAR-Central Institute for Sub- Tropical Horticulture, Lucknow, Uttar Pradesh
	Shri C.P. Gandhi	Joint Director, National Horticulture Board, MoAFW, Govt. of India, Gurugram, Haryana

DINNER: 19:30-21:00 hrs

### Day 4: November 09, 2023

Time: 09:00-10:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## Session XI Exploiting Emerging Trade Opportunities

Chair : Dr S.K. Malhotra, Project Director, ICAR-Directorate of Knowledge Management

in Agriculture, New Delhi

Co-chair : Dr J. Dinakara Adiga, Director, ICAR-Directorate of Cashews Research,

Puttur, Karnataka

Convener: Dr Dinesh Kumar, Head, Division of Food Science & Post Harvest Technology,

ICAR-Indian Agricultural Research Institute, New Delhi

Rapporteurs: Dr Elain Apsara and Dr K. Dinesh Babu

1	Lead	Strategies for boosting export of horticultural produce and products	Dr Raka Saxena	Principal Scientist, ICAR- National Institute of Agricultural Economics and Policy Research, New Delhi
2	Lead	Harnessing India's GI Fruits: From Fields to Market	Dr Prakash Patil	Project Co-Ordinator (Fruits), ICAR-AICRP on Fruits, Bengaluru, Karnataka
3	Lead	A quest for self-reliance in cashew nut: issues and strategies	Dr Dinakar Adiga	Director, ICAR- Directorate of Cashews Research, Puttur, Karnataka
4	Lead	Potato Seed: An Opportunity for Indian Seed Industry	Dr Brajesh Singh	Director, ICAR- Central Potato Research Institute, Shimla, Himachal Pradesh
5	Lead	Quality Seeds in onion and garlic–opportunities in domestic and export markets	Dr P.K. Gupta	Additional Director, National Horticulture Research and Development Foundation, New Delhi
6	Lead	Potential of seeds spices in export and industrial use	Dr Vinay Bhardwaj	Director, ICAR-National Research Centre on Seed Spices, Ajmer, Rajasthan

## Day 4: November 09, 2023

Time: 10:30-12:30 hrs

Venue: Auditorium, College of Veterinary Sciences, Khanapara, Guwahati

## **Farmers-Scientist Interaction**

Chair : Dr Ashish K. Bhutani, Agricultural Production Commissioner, Govt. of Assam

Co-Chairs: Dr Bidyut C. Deka, Vice Chancellor, Assam Agricultural University, Jorhat,

Assam

Dr S.K. Singh, Director, ICAR-Indian Institute of Horticultural Research,

Bengaluru, Karnataka

Dr M.K. Verma, Director, ICAR-CITH, Srinagar, J&K

Convener: Dr Manoranjan Neog, Director Extension, Assam Agricultural University,

Jorhat, Assam

## **Valedictory Function**

Time: 12:30-13:30 hrs

LUNCH: 13:30-14:30 hrs

## Schedule for Oral Paper Presentation

Day 2: November 07, 2023

Time: 9:30-11:30 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## Session I Genomics for Trait Specific Breeding

Chair : Dr S.K. Singh, Director, ICAR-Indian Institute of Horticultural Research,

Bengaluru, Karnataka

Co-chair : Dr A.S. Dhatt, Additional Director of Research, Punjab Agricultural

University, Ludhiana

SI. No.	Paper No.	Title	Presenter
1.	OL-60	Development of trait-specific germplasm for yield, quality and stresses in Indian cauliflower	Shrawan Singh
2.	OL-103	Genetic variability and character association studies in wild brinjal of NE Region of India	Lalhmingsanga
3.	OL-22	Variability in vegetative and flowering traits of gerbera evaluated by multivariate biplot analysis	Sonia Singh
4.	OL-52	Assessment of qualitative and quantitative morphological traits pertaining to yield in lettuce ( <i>Lactuca sativa</i> L.) germplasm	•
5.	OL-77	Use of marker assisted selection for the development of root-knot nematode resistant candidate rootstock for low-chill peach	Anirudh Thakur
6.	OL-56	Elucidating the genetics of post-harvest shelf-life of cucumber fruit and identification of associated QTLs and candidate genes	S.S. Dey

SI.	Paper	Title	Presenter
No.	No.		
7.	OL-49	Elucidating the potential of chilli lines forhigher bioactive compounds, shelf-life and their Suitability for phytonutrient industry	Partha Saha
8.	OI-135	Application of genomics for introgression of disease resistance gene(s) from wild germplasm in melon	Harshawardhan Choudhary
9.	OL-149	Elucidation of novel drought-responsive genes from tuber transcriptome of cassava under drought stress	A.V.V. Koundinya
10.	OL-19	Breeding for highly adapted onion cultivars under Indian conditions	Jiffinvir Khosa
11.	OL- 35	Molecular marker based characterization of cytoplasm and restorer of male sterility locus in Indian onion	Hira Singh
12.	OL-91	Screening of carrot ( <i>Daucus carota</i> L.) genotypes for heat tolerance	Ruma Devi
13.	OL-39	Genome editing for improvement of quality and processing traits in tomato	Jagesh K. Tiwari
14.	OL-36	Induced parthenogenesis – a novel approach for the induction of gynogenetic haploids and doubled haploids in African marigold	Reeta Bhatia
15.	OL-115	Mutation Breeding: Standardization of $\rm LD_{\rm 50}$ & $\rm GR_{\rm 50}$ of gamma rays for the pomegranate cultivars	P. Roopa Sowjanya
16.	OL-167	Study on differential gene expression and pathway analysis for flower color in tuberose (Agave amica)	Harish, D.

Time: 11:30-13:00 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## Session II Elite Germplasm and Variety Development

Chair : Dr Pritam Kalia, Former Head, Vegetable Science, ICAR-IARI, New Delhi

Co-chair : Dr T.N. Hazarika, Professor, Department of Horticulture, Aromatic and Medicinal

Plants, Mizoram University, Aizawl, Mizoram

SI. No.	Paper No.	Title	Presenter
1.	OL-89	Custard apple breeding in India – present status and way forward	Sakthivel T.
2.	OL-32	Selection of elite Darjeeling mandarin ( <i>Citrus reticulata</i> blanco) germplasm from Eastern Himalayan region of West Bengal.	Natasha Gurung
3.	OL-30	Morphological, biochemical and molecular characterization of jackfruit germplasm	Nilesh Bhowmick
4.	OI-72	Optimization of physical and chemical mutagen based on lethality and growth reduction in dragon fruit cultivars	G. Karunakaran
5.	OL- 45	Metabolomics-aided techniques for characterization and improvement of native Indian banana	A.K. Panda
6.	OL-61	Improving rind and aril colour of pomegranate cv. Jalore Seedless through hybridization	P.R. Meghwal
7.	OL-54	Unveiling the richness of avocado ( <i>Persea americana</i> Nill.) genotypes from southern Karnataka	Venkata Rao
8.	OL-82	Status of seedling mangoes of Bihar and its conservation strategies	Sanjay Kumar Singh
9.	OL-148	Development of cocoa ( <i>Theobroma cacao</i> L.) varieties towards self sufficiency in plantation sector of India	S. Elain Apshara
10.	OL-108	Genomics assisted breeding in mango for fruit quality traits using high density genome wide SNPs	Muthukumar
11.	OL-116	Discrimination and reclassification of citrus germplasm based on ionome signature	S. Manivannan

SI. No.	Paper No.	Title	Presenter
12.	OL-66	Development of promising aster lines through conventional breeding	Naveen Kumar P.
13.	OL-40	Root traits and phenotyping strategies for orienting vegetable breeding to climate change	Sat Pal Sharma
14.	OL-78	Genetic diversity and development of trait specific onion varieties	Amar Jeet Gupta
15.	OL-97	Unraveling variability, correlation and path relationships in tomato ( <i>Solanum lycopersicum</i> L.)	Deepa Sharma
16.	OL-7	Unveiling capsaicin diversity in Andaman Island chili peppers: a comprehensive HPLC analysis	V. Shajeeda Banu
17.	OL-47	Flower, true seed traits and quality characterization of selected varieties and wild species of sweet potato	P. Murugesan
18.	OL-147	CIM-Suras: A menthol rich, erect growth habit, sucker producing and high yielding peppermint ( <i>Mentha piperita</i> L.) variety)	Birendra Kumar
19.	OL-164	Evaluation of sapota genotypes for cultivation in the eastern plateau and hill region of India	M.K. Dhakar

Time: 14:00-16:30 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## **Session III**

## Use of Rootstocks in Horticulture and Innovation for Sustainable Horticultural Production

Chair : Dr S.K. Mitra, Former Dean, BCKV, Kalyani, West Bengal

Co-chair : Dr Bikash Das, Director, ICAR-NRC Litchi, Muzzafarpur, Bihar

SI. No.	Paper No.	Title	Presenter
1.	OL-134	Soil properties and yield of apple under climate resilient natural farming practices in cold desert of spiti valley	Sudhir Verma
2.	OL-69	Revitalization of unproductive high density plantation of mango var. Dashehari	K.K. Srivastava
3.	OL-10	Exploring the prospects of soil-less acclimatization in banana ( <i>Musa</i> spp.) cv. Grand Naine	M.S. Saraswathi
4.	OL-33	Thiourea impact on growth of jackfruit (Artocarpus heterophyllus L.) cv. Chandra plants	Jitendra Singh
5.	OL-25	Intercropping of seed spices with guava tree	S.S. Meena
6.	OL-26	Soil organic carbon stocks and fractions in different orchards of North Eastern Hill region of India	Shaon Kumar Das
7.	OL-101	Effect of severity of pruning and different fertilizer application on growth and yield of custard apple	S.R. Patil
8.	OL-28	Improve yield and quality of Nagpur mandarin by mechanical pruning in high density planting	D.M. Panchbhai
9.	OL-71	Innovative approaches in pomegranate production for higher yield and better quality fruits	K. Dhinesh Babu
10.	OL-74	Boosting fruit cultivation in Asian subtropics as a way forward for global food and nutritional security	Shashi K. Sharma
11.	OL-83	Growth, biomass, and nutritional responses of pummelo seedlings to the combined effects of humic acid and micronutrients	D. Kalaivanan

SI. No.	Paper No.	Title	Presenter
12.	OL-75	Demonstration of rejuvenation technology of Khasi mandarin	Tasvina R. Borah
13.	OL-76	Effect of bunch trimming on yield and quality in banana var. Grand Naine	R.S. Wankhade
14.	OL-81	Influence of pre-sowing seed treatment with organic inputs at varying intervals on germination and growth attributes of papaya ( <i>Carica papaya</i> L.) under polyhouse condition	P. Barman
15.	OL-59	Study of phenological growth stages of litchi ( <i>Litchi chinensis</i> Sonn.) cultivar Deshi using the BBCH scale in Indo-Gangetic plain of India	Ruby Rani
16.	OL-85	Weed mat technology for pineapple cultivation	Biswajit Das
17.	OL-87	Unlocking the secrets of pomegranate fruit cracking: a comprehensive study of irrigation levels and chemical treatments	Pinky Raigond
18.	OL-155	Standardization of branch bending in guava for yield and quality under hot and humid climate of Eastern India	Deepa Samant
19.	OL-80	Effect of IBA on rooting and growth in lemon (Citrus limon Burm) cuttings	Shweta Sabharwal
20.	OL-109	Grafting success and seedling growth of loquat scion affected by different rootstocks and grafting time	Amit Kumar
21.	OL-112	Exploring the air layering in grape with concentrations of IBA	P.H. Nikumbhe
22.	OL-117	A comparative analysis on propagation techniques of Basella alba L.	Pinaki Acharyya
23.	OL-119	Stionic compatibility of rough lemon with different citrus rootstocks	Anjan Borah
24.	OL-150	Quality planting material production of cassava through seed village	A.R. Muthuraj
25.	OL-53	Commercialization of sustainable plant tissue culture technologies in Bihar	Hidayatullah Mi
26.	OL-154	Standardization of embryo rescue technique in mango	Manoj Kundu
27.	OL-160	Technology for the vertical expansion of nursery under protected conditions using soilless rooting medium	Wasim H. Raja

SI. No.	Paper No.	Title	Presenter
28.	OL-105	Studies on available micronutrient status of different coffee growing soils of India	Hareesh S.B.
29.	OL-92	Parthenocarpic mango matures and ripe earlier then non-parthenocarpic mango ( <i>Mangifera indica</i> L.)	Israr Ahmad
30.	OL-55	Next generation molecules for increasing horticultural crop production	M. Feza Ahmad
31.	OL-153	Studies on spread, acceptance and profitability of ICAR-IIHR released brinjal and chilli hybrids in South India	V. Sankar
32.	OL-156	Spread, acceptance, economics of Arka Supreme avocado in India	R. Senthil Kumar
33.	OL-159	Performance of Nagpur mandarin on raised bed and conventional Flatsystem	Raj kumar Sonkar

Time: 16:30-18:00 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## **Session IV**

## Strategies for Minor Commercial Crops and Urban and Peri-urban Horticulture

Chair : Dr K.V. Prasad, Director, ICAR-Directorate of Floricultural Research, Pune,

Maharashtra

Co-chair: Dr S.K. Sharma, Former Director, ICAR-CIAH, Bikaner, Rajasthan

SI. No.	Paper No.	Title	Presenter
1.	OL-64	Status and prospects of avocado cultivation in India	P.C. Tripathi
2.	OL-68	Synthetic seed production of minor horticultural crops for conservation, utilization and commercialization of germplasm	Priyanka Sharma
3.	OL-63	Smart agronomic practices for enhancing fruit quality in pomegranate in arid climate	Akath Singh
4.	OL-27	Conservation and sustainable exploitation of indigenous ferns of Andaman and Nicobar Islands for commercial use	V. Baskaran
5.	OL-16	Synthesized zinc oxide nano-fertilizer to enhance biomass production and yield in vegetable crops	G.C. Satisha
6.	OL-42	Flower regulation in pomegranate under hot arid climate	R. Kumar
7.	OL-14	Effect of genotypes on growth, yield and quality of cherry tomato under protected cultivation.	S.N.S. Chaurasia
8.	OL-21	Varietal response of turmeric (Curcuma longa L.) for spacing under plastic mulching	Patil Shekharagouda
9.	OL-67	Development of grain amaranthus varieties with high nutraceutical quality and yield for commercial cultivation	S. Praneetha
10.	OL-13	Effect of drought period on water status, starch, transpiration loss and pigment status of cymbidium hybrid "Pine Class Moon Venus"	D. Barman
11.	OL-98	Satellite-based assessment of horticultural yield variation in eastern Brahmaputra valley	Dibyendu Deb

SI. No.	Paper No.	Title	Presenter
12.	OL-106	Performance of colocasia in different tree based agroforestry system in Terai region of West Bengal	Amarendra N. Dey
13.	OL-111	Effect of foliar application of nutrients on growth and flowering of orchid ( <i>Dendrobium</i> ) under NVPH	Parmeshvari Chaudhari
14.	OL-118	Impact of carbon dioxide fertilization on growth and tuber yield in Chinese potato [ <i>Plectranthus rotundifolius</i> (Poir.) Spreng.]	Sheeba Rebecca Isaac
15.	OL-131	Effect of NPK briquettes and nano urea on yield of tomato	Rupsikha Goswami
16.	OL-58	Phytoremediation of industrial and municipality waste water using lotus ( <i>Nelumbonucifera</i> ) in lab scale	Jayoti Majumder
17.	OL-125	Effect of soilless media in roof top gardening	D.P. Duarah
18.	OL-126	Evaluation of biofortified sweet potato varieties for its growth, yield and economic performance under Assam condition	Rocktim Baruah
19.	OI-127	Performance of no-till garden pea ( <i>Pisum sativum</i> ) under rice fallow areas of Kokrajhar	Priyanka Bora
20.	OL-51	Wild edible flora and mushrooms for health and nutritional security in tribal dominated areas of Assam	Sanchita Brahma
21.	OL-152	Evaluation of the relationship between NDVI & curcumin in turmeric using remote sensing	Paaus S. Pawar
22.	OL-130	Impact of climate variability in off-season tomato production in Dhubri district of Assam	B.J. Gharphalia,
23.	OL-145	Resource conservation technologies for commercial cultivation of high value vegetables in Eastern India	Bal Krishna Jha
24.	Ol-163	Ornamental Crops as Pollinator-Friendly Habitats: Investigating Their Role in Pollinators Conservation and Biodiversity Enhancement	D.M. Firake

Time: 10:00-11:30 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## Session V Horticulture in North-Eastern India

Chair : Dr K. Suresh, Director, ICAR-Indian Institute of Oil Palm Research, Nr Jawahar

Navodya Vidyalaya, Pedavegi, Andhra Pradesh

Co-chair: Dr S.P. Das, Director, ICAR-National Research Centre for Orchids,

Pakyong, Gangtok, East Sikkim

SI. No.	Paper No.	Title	Presenter
1.	OL-129	Exploration of some potential wild edible fruits of the North-Eastern India	Shourov Dutta
2.	OL-114	Mapping of Potential Sites for Pineapple Cultivation in East Garo Hills District of Meghalaya using Geospatial Technology	Banisha Kharbteng
3.	OL-18	Indigenous horticultural crops of North-East India and possibilities in their commercialization	Pauline Alila
4.	OL-133	Morphological evaluation of locally available taro ( <i>Colocasia esculenta</i> L.) cultivars of Kokrajhar district for growth and yield potential	Puja Basumatary
5.	OL-44	Horticulture and livelihoods of hill women in North-Western Himalayas –a case study of apple cultivation in Himachal Pradesh	Vishal Rana
6.	OL-102	Ethno-medicinal significance, phyto-chemical diversity and therapeutic prospects of <i>Dactylorhiza</i> orchids	Dipankar Saha
7.	OL-29	Characterization and biochemical analysis studies of black pepper ( <i>Piper nigrum</i> L.) germplasm grown under arecanut plantation in lower Brahmaputra valley zone of Assam	L.S. Singh
8.	OL-95	Harnessing microbial consortia: an innovative strategy for improving turmeric cultivation	K. Venkatesan

SI.	Paper	Title	Presenter
No.	No.		
9.	OL-124	Effect of various doses of inorganic fertilizers on growth and yield of dragon fruit ( <i>Hylocereus polyrhizus</i> L.) in Assam	
10.	OL-88	DUS characteristic features of new farmer pomegranate variety "Sharad King"	Shilpa P.
11.	OL-122	Seed portal" under theme Artificial Intelligence/ Digital Agriculture	Atheequlla
12.	OL-132	Impact of herbs and wild plants in traditional food items of Mishing community of Lakhimpur district of Assam	Dipshikha Hazarika
13.	OL-143	Horticulture integration to upscale the income of farmers: thriving success stories	Ramya H.R.
14.	OL-79	Doubling farmers' income through CPRV model: case studies of advanced citrus cultivation in Maharashtra	Sangeeta Bhattacharya
15.	OL-12	Characterising fruit drop of Sikkim mandarin and their organic management strategies	Sudip K. Dutta
16.	OL-165	Harnessing the power of ginger: Opportunities and challanger for Assam's farmer	Moromi Gogoi
17.	OL-169	Vitamins based diversity analysis of wild edible Solanum species of Northeast India	Chandra Deo
18.	OL-170	Performance of different sweet orange and grapefruit varieties in North Eastern region of India	E.S. Marboh

Time: 11:30-13:00 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## Session VI Management of Biotic and Abiotic Stresses

Chair : Dr K.B. Hebbar, Director, ICAR- Central of Plantation Crop Research Institute,

Kasaragod, Kerala

Co-chair: Dr Vijay Mahajan, Director- ICAR-Directorate of Onion and Garlic

Research, Pune, Maharashtra

SI. No.	Paper No.	Title	Presenter	
1.	OL-8	Development of resistance and resurgence in insect pests of potato against pesticides in Northern India	Anuj Bhatnagar	
2.	OL-9	Monitoring based simple and effective management strategy for grapevine stem borer, <i>Celosterna scabrator</i>	Deependra Singh Yadav	
3.	OL-37	Mealy bugs fauna of agri-horti ecosystem of Assam	Rudra N. Borkakati	
4.	OL-100	Metabolic profiling of tomato defence response against Ralstonia solanacearum and imparting resistance through root-stock grafting	Anurag Kashyap	
5.	OL-140	Breeding for bacterial wilt resistance in hot pepper and egg plant	Naresh Ponnam	
6.	OL-144	Screening of carrot (Daucus carota L.) genotypes for heat tolerance	T.S. Dhillon	
7.	OL-104	Mapping of anthracnose ( <i>Colletotrichum</i> sp.) fruit rot resistance genes in capsicum	B. Vanlalneihi	
8.	OL-57	Phytoplasma characterization and identification of their alternative hosts in rose ( <i>Rosa</i> spp.)	Namita	
9.	OL-142	Prevalence and characterization of Dragon fruit stem canker caused by neoscytalidium dimidiatum, and identifying effective fungicides for its control	Manjunatha	
10.	OL-94	Prevalence of plant- parasitic nematodes in horticultural field of Jorhat	Kshetrimayum Ria	

SI. No.	Paper No.	Title	Presenter
11.	OL-141	Effect of brassicaceous host crops on the life table and demographic parameters of diamondback moth, <i>Plutella xylostella</i> (L.) (lepidoptera: plutellidae)	
12.	OL-99	Study on Substrate decomposing fungi of mushroom and their management by GRAS Chemicals	Neethi Barua
13.	OL-139	Biochemical basis of Host Plant Resistance to ash weevil, Myllocerus subfasciatus Guerin Meneville (Coleoptera: Curculionidae) in wild <i>Solanum</i> spp.	Jayanti Mala B.R.
14.	OL-128	Efficacy assessment of fungicides against rust disease of garden pea	Abhilasa K. Borthakur
15.	OL-138	Effect of botanicals in management of septoria leaf blight of chrysanthemum ( <i>Chrysanthemum morifolium</i> , Ramat cv "Ratlam selection") in Punjab	Aman Sharma
16.	OL-166	The efficacy andresidue dynamics of chlorantraniliprole in managing earias species in okra under field conditions	Satyapriya Singh

Time: 15:00-16:30 hrs

Venue: Hall-II, College of Veterinary Science Campus, Assam Agricultural University, Khanapara, Guwahati

## **Session VII**

# Horticulture for food, New Initiatives and Developments for Minimizing Post-harvest Losses and Emerging Trade Opportunities

Chair : Dr R.K. Pal, Ex-Director, ICAR- National Research Centre on Pomegranate,

Pune- Solapur Highway, Solapur, Maharashtra

Co-chair: Dr Dinesh Kumar, Head, Food Science and Post Harvest Technology,

ICAR-IARI, New Delhi

SI. No.	Paper No.	Title	Presenter
1.	OL-11	Peel of bottle gourd ( <i>Lagenaria siceraria</i> ) is superior beyond pulp in bioactive content, antioxidant and enzymatic activities	Swati Sharma
2.	OL-46	Transition to Mechanization – Boon or bane for Indian cashew nut processing system	Balasubramanian D.
3.	OL-20	Comparative study on effect of pomegranate peel powder as natural preservative and chemical preservatives on quality and shelf life of muffins	Namrata Ankush Giri
4.	OL-15	Influence of nitric oxide enriched carboxymethyl cellulose – chitosan composite coating on storability of <i>jamun</i> fruit	Kalyan Barman
5.	OL-17	Nutraceutical and biochemical profiling of Khejri ( <i>Prosopis cineraria</i> ) pods at different developmental stages for utilization as functional food	P.S. Gurjar
6.	OL-107	Phytochemical analysis and assessment of nutraceutical potential of <i>Hibiscus rosasinensis</i> germplasm	Alka Singh
7.	OL-113	CISH met wash a novel bio-formulation for extending the shelf life and controlling the post harvest diseases in mango cv. Dashehari	Karma Beer
8.	OL-62	Nutritionally enriched cashew apple and finger millet flour based extrudates	G.L. Veena

SI. No.	Paper No.	Title	Presenter	
9.	OL-110	Evaluation of ferns for cut green in South Gujarat conditions	Dipal S. Bhatt	
10.	OL-31	Effects of drying methods and brewing conditions on flavonoid, phenolics, anthocyanins and antioxidant contents in rose tea	Ganesh B. Kadam	
11.	OL-73	Assessment of potential mango hybrids for bioactive compounds	Ashish Yadav	
12.	OL-84	High resolution LC-MS characterization of phenolic compounds of <i>Hygrophila spinosa</i> (Kulekhara)	Tanmay Kumar Koley	
13.	OL-86	Development of bio-fortified genotypes in ginger and turmeric for food, pharmaceuticals and cosmetic industries	Veerendra Kumar Verma	
14.	OL-120	Response surface and artificial intelligence based genetic algorithm based optimization of total phenolic content from potato peel with ultrasound assisted extraction	Arpan Bhowmilk	
15.	OL-43	Enhancing stability and bioavailability of laminarin and fish oil through coacervation-based encapsulation with banana starch and faba bean protein	P. Suresh Kumar	
16.	OI-90	Pericarp water loss is a vital marker of postharvest browning and fruit quality in litchi	Alemwati Pongener	
17.	OL-65	Integration of hot water treatment with quarantine irradiation treatment reduced disease incidence and improved fruit quality	Vijay Rakesh Reddy S.	
18.	OL-93	Maturity stage detection of Assam lemon using convolution neural networks through image processing	Sarmistha Rani Baruah	
19.	OL-146	Fruit quality and juice nutritional properties of newly developed citrus hybrids ( <i>C. Maxima</i> [burm. F.] Osbeck × <i>Citrus sinensis</i> [L.] Osbeck)	Narendra Singh	
20.	OL-70	Characterization and exploration of underutilized bio-active resources of medicinal Dendrobium orchid flowers	Suman Natta	
21.	OL-96	Valorization of cashew apple as a source of nutrients	Jalaja S. Menon	
22.	Ol-121	Influence of floral preservatives solution with sucrose pulsing on vase life and quality of cut lotus ( <i>Nelumbo nucifera</i> Geartn.) flowers	Kankana Deka	

SI.	Paper	Title	Presenter
No.	No.		
23.	OL-123	Enhancing the nutritional composition of kombucha by infusing locally available herbs and fruits as fermentable substrates	Ananta Saikia
24.	OL-136	Shelf-stable food through combination processing with irradiation	Ivi Chakraborty
25.	OL-137	Black Raisins: Health benefits, varieties and grape drying	Ajay Sharma
26.	OL-157	Advancements in vapor adsorption cold storage technologies: A comprehensive review	Vinod M. Wankar
27.	OL-158	Design and development of Innovative solar cyclone dryer for drying moringa leaves	Sachin Raut
28.	OL-168	Anthocyanin extraction, characterization and evaluation of its antioxidant potential from gladiolus ( <i>Gladiolus grandiflora</i> ) spikes: A potent nutraceutical source	

### Note:

- 1. The time allocation for Oral presentation is 5 (4+1) minutes only.
- 2. Keep slides 6-8 with compact and crispy content to run the session on time.

## **Schedule for Poster Sessions**

(Day 2, 3 & 4)

Technical session	Session title	Date	Time (hrs)		
	POSTER SESSION 1				
III	Artificial Intelligence in Horticulture				
IV	Strategies for Development of Minor Commercial Crops	07-11-2023	9:30-11:30		
V	Production of Seeds and Planting Material				
VIII	Urban and Peri-urban Horticulture				
	POSTER SESSION 2				
X	Management of Biotic and Abiotic Stresses	07-11-2023	12:00-13:15		
	POSTER SESSION 3				
I and II	Elite Germplasm and Variety Development Trait Specific Breeding	1 17-11-2023   12			
	POSTER SESSION 4				
VI	Innovation for Sustainable Horticultural Productions-I (1-50)	08-11-2023	09:30-11:30		
	POSTER SESSION 5				
	Innovation for Sustainable Horticultural Productions-II (51-85)	08-11-2023	12:00-13:30		
	POSTER SESSION 6				
VII	Horticulture in North-Eastern India	08-11-2023	14:30-17:30		
	POSTER SESSION 7				
IX	Horticulture Based Farming System				
XII	Secondary Horticulture				
XIV	New Initiatives and Developments for Minimizing Post-harvest Losses	09-11-2023	9:30-12:00		
χv	Exploiting Emerging Trade Opportunities				
XVI	Horticulture under New Education Policy, 2020				

### **Guidelines for Poster Presentation**

- Keep the title of the poster same as the accepted abstract
- Font size of title not less than 48 preferably Arial
- Title should be followed by Name(s) of the Author(s) and Affiliation(s)
- Font size for content of the poster should be minimum 24 preferably Arial
- It is advised to use short text in bullet points
- All Figures and Tables must have headings, and labelled appropriately
- The poster must consist of Introduction with Objective/s, Materials & Methods, Results and Conclusion
- The poster size: 36 inch / 90 cm × 54 inch / 135 cm (W × L) in portrait
- The presenter should ensure his / her presence during evaluation

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## **10<sup>th</sup> Indian Horticulture Congress**

#### 06-09 November, 2023

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