

Transformation of Agri-Food Systems for Achieving Sustainable Development Goals

Plenary Lectures

Venue: Oman Hall

| Lecture | Speaker | Chair/Co-Chair | Convener | Lecture Title | Date & Time |
|--|---|---|---|---|--|
| Presidential Address | Dr. H. Pathak President, NAAS; Secretary, DARE & DG, ICAR | Chair: Dr. T. Mohapatra Chairperson, PPVFRA | Dr. K.C. Bansal Secretary, NAAS | | 10/10/2023 (17:00- 18.00 hrs.) |
| Dr. A.B. Joshi Memorial Lecture | Prof. Panjab Singh Past President, NAAS | Chair: Prof. R.B. Singh Past President, NAAS Co-Chair: Dr. H. Pathak President, NAAS; Secretary, DARE & DG, ICAR | Dr. W.S. Lakra Secretary, NAAS | Innovative Agri-food Systems Technologies for Sustainable and Resilient Agriculture | 10/10/2023 (18.00- 19.00 hrs.) |
| Plenary Lectures | | | | | |
| Plenary Lecture-1 | Dr. Channing Arndt Senior Director for Transformation Strategies of CGIAR and IFPRI | Chair: Dr. R.S. Paroda Chairman, TAAS | Dr. P.K. Joshi Former Secretary, NAAS | Rethinking Food Crisis Responses | 11/10/2023 (09.00- 10.00 hrs.) |
| Plenary Lecture-2 | Prof. Stuart Smyth Agri-Food Innovation and Sustainability Enhancement Chair The University of Saskatchewan, Canada | Chair: Dr. P.L. Gautam Former Chairperson PPVFRA | Dr. K.C. Bansal Secretary, NAAS | The Contributions of Gene Editing Towards Achieving the Sustainable Development Goals | 11/10/2023 (18.30- 19.30 hrs.) |
| Plenary Lecture-3 | Dr. Madhur Gautam Lead Economist, World Bank | Chair: Dr. Ramesh Chand Member, NITI Aayog | Dr. P.S. Birthal Director, ICAR-NIAP | Repurposing the Agriculture for Achieving SDGs | 12/10/2023 (09.00- 10.00 hrs.) |
| Plenary Lecture-4 | Dr. T. Mohapatra Chairperson, PPVFRA | Chair: Dr. Mangala Rai Past President, NAAS | Dr. Rajeev K. Varshney Foreign Secretary, NAAS | Biotechnology for Sustainable Use of Biodiversity to Transform Agri- food System | 12/10/2023 (18.30- 19.30 hrs.) |
| Plenary Lecture-5 | Dr. Essam Yassin Mohammed Director General, WorldFish (Recorded) | Chair: Prof. Panjab Singh, Past President, NAAS | Dr. W.S. Lakra Secretary, NAAS | Role of Aquatic Foods in Achieving Nutrition Security | 13/10/2023 (09.00- 10.00 hrs.) |
| Plenary Lecture-6 | Dr. Krishna Ella CMD, Bharat Biotech | Chair: Prof. Panjab Singh, Past President, NAAS | Dr. Malavika Dadlani Editor, NAAS | Role of Industry in Developing Sustainable Agri- Food Systems | 13/10/2023 (10.45 - 11.45 hrs.) |

Farmer-Scientist Interface Session

Date: 12 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Oman Hall

Convener

Dr. Ashok K. Singh

VC, RLBCAU, Jhansi

Co-Chair

Dr. V. Geethalakshmi

VC, TNAU

Co-Chair

Dr. Sanjay Singh

DG, UPCAR

Local Contact @ ICAR-CMFRI

Dr. Shinoj Subramannian

Principal Scientist & Head, KVK (Ernakulam)

Ph. 9496303457; Email: er_shinoj@yahoo.com

Dr. P.N. Ananth

Senior Scientist & Head, KVK (Lakshadweep)

Ph: 7377805984; Email: ananthkvk100@gmail.com

Rapporteurs: Dr Mary Regina Franklin, Professor & Head, KVK, Thrissur
Dr G Jayalekshmi, Associate Prof & Head, KVK, Kottayam

Students' Elocution Contest

Date: 12 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Nayanar Hall

Convener

Dr. Anupama Singh

Joint Director (Edn.) & Dean, IARI

Local Contact @ ICAR-CMFRI

Dr. Kajal Chakraborty

Principal Scientist & Head, MBFNHD, ICAR-CMFRI, Kochi

Ph. 9446418432; Email: chakrabortycmfri@gmail.com

Industry Interface

Date: 12 October 2023

Time: 16.30 - 18.30 hrs.

Venue: Nayanar Hall

Convener

Dr. S.N. Jha

DDG (Ag. Engineering), ICAR

Local Contact @ ICAR-CMFRI

Dr Shyam S Salim

Principal Scientist, ICAR-CMFRI

Ph. 9746885361; Email: shyam.cmfri@gmail.com

Exhibition

Date: 10 - 13 October 2023

Time: 09.00 - 20.00 hrs.

Venue: MFAR-2

Convener

Dr. A. Gopalakrishnan

Director, ICAR-CMFRI

Local Contact @ ICAR-CMFRI

Dr. Vipinkumar V.P.

Principal Scientist, ICAR-CMFRI

Ph. 9048540766; Email: vipincmfri@gmail.com

Transport and Accommodation

Dr. Najmudeen T.M.

Principal Scientist, ICAR-CMFRI

Ph. 9447233910

For invitees/ NAAS: Email: najmudeentm@yahoo.com

For all other registered participants: stay@16asc2023.in

Poster

Dr. P. Laxmilatha

Principal Scientist, ICAR-CMFRI

Ph. 9446473096; Email: laxmil@yahoo.com

Venue: CSM Hall

Transformation of Agri-Food Systems for Achieving Sustainable Development Goals

Themes & Theme Convenors

| Sl. No. | Theme Area | Theme Convenor | No. of Sessions |
|---------|--|---|-----------------|
| 1 | Theme 1 Ensuring Food & Nutritional Security: Production, Consumption and Value Addition | Dr. M.S. Bamji | 3 |
| 2 | Theme 2 Climate Action for Sustainable Agri-food Systems | Dr. P.K. Agrawal & Dr. Anil K. Singh, NAAS | 1 |
| 3 | Theme 3 Frontier Science and Emerging Genetic Technologies: Genome Breeding, Gene Editing | Prof. K.C. Bansal | 3 |
| 4 | Theme 4 Livestock Sector Transformation for Food Security | Dr. K.M. Bujarbaruah & Dr. Triveni Dutt | 2 |
| 5 | Theme 5 Horticulture-based Transformation of Food Systems | Dr. S.K. Singh | 4 |
| 6 | Theme 6 Aquaculture & Fisheries-based Transformation of Food Systems | Dr. J.K. Jena | 3 |
| 7 | Theme 7: Nature-based Solutions for Sustainable Agri-food Systems | Dr. Anil K. Singh, NAAS | 3 |
| 8 | Theme 8 Next Generation Technologies: Digital Agriculture, Precision Farming and AI-based Systems | Dr. Rajender Prasad | 2 |
| 9 | Theme 9 Role of Policies and Institutions in Transforming Agri-food System | Dr. P.K. Joshi | 3 |
| 10 | Theme 10 International Partnership for Research, Education and Development | Prof. Rajeev K. Varshney | 1 |

Detailed Programme

Theme and Session-wise

Theme 1: Ensuring Food & Nutritional Security: Production, Consumption and Value Addition

Theme Convenor

Dr. M.S. Bamji

INSA Emeritus Scientist &
Former Director-Grade Scientist,
ICMR-NIN, Hyderabad,

Date: 11 October 2023
Time: 10.45 - 12.45 hrs.
Venue: Sini 2

Technical Session 1 (Theme 1-TS-1)

Problem of Malnutrition in India

Session Coordinator: Dr. R. Narayana Kumar, Principal Scientist, ICAR-CMFRI

Co-Chair I

Dr. Kamala Krishnaswamy

Former Director, ICMR - NIN

Co-Chair II

Dr. P. Geervani

Pro Chancellor, Chinmaya Vishwa Vidyapeeth

Rapporteur I

Dr. Shoji Joseph, ICAR-CMFRI

Rapporteur II

Dr. Saima Rehman, ICAR-CMFRI

Speaker

Topics

Duration

Dr. R. Hemalatha

Director, ICMR-NIN, Hyderabad
Email: rhemalathanin@gmail.com

Keynote Lecture

Dietary Guidelines for Indians, and
What Indians Eat

30 min

Dr. Sridevi Annapurna Singh

Director, CSIR-CFTRI, Mysuru
Email: sridevi@cftri.res.in

Invited Lecture

Food processing to combat
malnutrition in India

20 min

Dr. G. Bhanuprakash Reddy

Biochemistry Division ICMR-
NIN, Hyderabad Email:
geereddy@yahoo.com

Invited Lecture

Nutraceuticals In Foods and Health

20 min

Dr. Bharati Kulkarni

Indian Council of Medical Research
V Ramalingaswamy Bhawan, Ansari Nagar
New Delhi
Email:Kulkarni.bharati@icmr.gov.in
dr.bharatikulkarni@gmail.com

Invited Lecture (Recorded)

Addressing Dual Burden of
Malnutrition: Role of Food Systems

20 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 11 October 2023**Time: 13.45 -15.45 hrs.****Venue: Sini 2**

Technical Session 2 (Theme 1-TS-2)

Farm and Food-based Strategies for Combating Hidden Hunger

Session Coordinator: Dr. M.K. Verma, Director, CITH, Srinagar

Co-Chair I

Dr. V. Prakash

Former Director, CSIR-CFTRI

Co-Chair II

Dr. Ramesh Bhat

Deputy Director, ICMR-NIN,
Hyderabad, Telangana

Rapporteur I

Dr. Anulekshmi Chellapan

ICAR-CMFRI

Rapporteur II

Dr. Jeena N.S.

ICAR-CMFRI

Speaker

Topics

Duration

Dr. K. Madhavan Nair

Former Head of Micronutrient Research and
Scientist-F
ICMR-NIN, Hyderabad
Email: nairthayil@gmail.com

Keynote Lecture

Pharmaceutical Approach and
Food Fortification for Combating
Micronutrient Deficiencies

30 min

Dr. Siddharth Tiwari

Scientist-E, DBT, National Agri-Food
Biotechnology Institute (NABI)
Mohali, Punjab
Email: siddharth@nabi.res.in

Invited Lecture

Biofortification to combat hidden
hunger

20 min

Dr. G.N. Hariharan

Executive Director
M.S. Swaminathan Research Foundation
Chennai
Email: gnhariharan@mssrf.res.in

Invited Lecture

Food based approaches and the
role of women in alleviating
malnutrition

20 min

Dr. Subba Rao M. Gavaravarapu

Scientist F & Head, Nutrition Information
Communication & Health Education (NICHE)
Division
ICMR-NIN, Hyderabad
Email: subbarao.gm@icmr.gov.in

Invited Lecture

Nutrition Communication in
India: From Rhetoric to Reality

20 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 11 October 2023
Time: 16.30 -18.30 hrs.
Venue: Sini 2

Technical Session 3 (Theme 1-TS-3)

Resource Efficient and Environment Friendly Production of Pulses

Session Coordinator: Dr. Kajal Chakraborty, Principal Scientist & Head, ICAR-CMFRI

| Co-Chair I | | Co-Chair II | |
|--|--|---|--|
| Dr. Anupam Varma INSA Emeritus Scientist, Advanced Centre for Plant Virology, ICAR-IARI, New Delhi | | Dr. Anil K. Singh Principal Scientist ICAR-NIPB New Delhi | |
| Rapporteur I | | Rapporteur II | |
| Dr. Jayasree Loka , ICAR-CMFRI | | Dr. Krishna Sukumaran , ICAR-CMFRI | |
| Speaker | Topics | Duration | |
| Dr. P.K. Joshi Former Director South Asia International Food Policy Research Institute Email: pkj.in@outlook.com | Keynote Lecture Demand for and Supply of Agri-food Commodities in India | 30 min | |
| Dr. Sanjeev Gupta ADG (OP), ICAR | Invited Lecture Millets and Pulses | 20 min | |
| Prof. (Dr.) Ng. Iboyaima Singh Dean, College of Food Technology Central Agricultural University Imphal | Invited Lecture Impact of Climatic Changes on Food Safety and Nutrition | 20 min | |
| Dr. Ashish Kumar Singh Joint Director (Academic) & Dean, ICAR-NDRI Karnal | Invited Lecture Dairy Foods: Catalytic Tool in Achieving the Sustainable Development Goals | 20 min | |
| Discussion | | 15 min | |
| Co-Chairs' Remarks | | 5 min | |

Theme 2: Climate Action for Sustainable Agri-food Systems

Theme Convenors

Dr. P.K. Aggarwal, BISA

Dr. Anil.K. Singh,

Vice President, NAAS

Date: 13 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Nayanar Hall

Technical Session 1 (Theme 2-TS-1)

Climate Action for Sustainable Agri-food Systems

Co-Chair I

Dr. Himanshu Pathak

Secretary, DARE & DG, ICAR

Co-Chair II

Dr. B. Venkateswarlu

National Member, NAHEP External Advisory Panel, Former Director, ICAR-CRIDA

Rapporteur I

Dr. Shelton Padua, ICAR-CMFRI

Rapporteur II

Dr. Vinaykumar Vase, ICAR-CMFRI

| Speaker | Topics | Duration |
|--|--|----------|
| Dr. Philip Thornton ILRI | Keynote Lecture (Recorded) Blue Sky Technologies for Adapting to Climate Change in Agriculture | 30 min |
| Dr. Anupam Mishra VC, Central Agricultural University Imphal | Invited Lecture Extension Strategies for Mitigation and Adaptation of Climate Change in Eastern Himalayan Regions of India | 20 min |
| Dr. Paresh Shirsat Borlaug Institute for South Asia Email:p.bhaskar@cgiar.org | Invited Lecture Targeting Agriculture Technologies to Climate Risks: Pathways for Strengthening Adaptation | 20 min |
| Dr. Sudhanshu Singh Director, IRRI | Invited Lecture Opportunities in Big Data Analytics and ICTs to Accelerate Climate Adaptation | 20 min |
| Session Presentation | | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme 3: Frontier Science and Emerging Genetic Technologies: Genomics and Gene Editing

Theme Convenor
Prof. K.C. Bansal
 Former Director
 ICAR-NBPGR
 New Delhi

Date: 11 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Nayanar Hall

Technical Session 1 (Theme 3-TS-1)

Advances in Genomics and CRISPR-Cas Systems for Crop Improvement

Session Coordinator: Dr. Rita Sharma, BITS, Pilani

Co-Chair I

Dr. Trilochan Mohapatra
 Chairperson, PPVFRA, New Delhi

Co-Chair II

Prof. S.K. Datta
 Former DDG (Crop Sci.), ICAR

Rapporteur I

Dr. Anil K. Singh
 NIPB, New Delhi

Rapporteur II

Dr. Ginny Antony
 Central University of Kerala

| Speaker | Topics | Duration |
|--|--|----------|
| Prof. Rajeev Varshney Murdoch University, Australia | Keynote Lecture Genomics for genome editing | 30 min |
| Dr. Frank White University of Florida, USA | Keynote Lecture Genome Editing and the Remarkable Lives of Plant Pathogenic Bacteria | 25 min |
| Dr. Prabodh Trivedi CIMAP, Lucknow | Invited Lecture Interaction between Small Molecules Plays Bigger Role in Plant Development and Stress Response | 20 min |
| Dr. Debasis Chattopadhyaya NIPGR, New Delhi | Invited Lecture Large Scale Genome Editing for Resource Generation | 20 min |
| Dr. Rahul Mahadev Shelake Gyeongsang National University, Jinju, Korea | Short Lecture Designing CRISPR-based Genome Editing Tools for Microbial and Plant Biology | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 1.45 - 3.45 hrs.
Venue: Nayanar Hall

Technical Session 2: (Theme 3-TS-2)

Application of CRISPR-Cas Systems for Crop Improvement and Sustainable Development

Session Coordinator: Dr. Satendra Mangrauthia, ICAR-IIRR, Hyderabad

Co-Chair I

Dr. Ashok K Singh
IARI, New Delhi

Co-Chair II

Dr. Ashwani Pareek
NABI, Mohali

Rapporteur I

Dr. Siddharth Tiwari
NABI, Mohali

Rapporteur II

Dr. Santosh Upadhya
Botany Department, PU, Chandigarh

| Speaker | Topics | Duration |
|---|---|----------|
| Dr. Robert M. Stupar University of Minnesota, St. Paul MN, USA | Keynote Lecture Gene Editing in Soybean: From Potential to Products | 30 min |
| Dr. C. Viswanathan ICAR-IARI, New Delhi | Invited Lecture Genome Editing for Improving Stress Tolerance in Rice | 20 min |
| Dr. R.M. Sundaram ICAR-IIRR, Hyderabad | Invited Lecture Reshaping the Rice Genome to Meet the Emerging Challenges | 20 min |
| Dr. Naveen Bisht NIPGR, New Delhi | Invited Lecture Genome Editing for an Ideal Low-seed, High-leaf Glucosinolate Oilseed Mustard | 20 min |
| Dr. Rupesh Deshmukh Central University of Haryana Mahendergarh | Short Lecture Enhancing Tomato Yield and Quality through a Multi- target Genome Editing Approach | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 10.45 -12.45 hrs.
Venue: Nayanar Hall

Technical Session 3: (Theme 3-TS-3)

Genome Editing: IPR Policy, Biosafety for Product Development and Socio-economic Considerations

Session Coordinator: Dr. Kutubuddin Molla, ICAR-NRRI, Cuttack

Co-Chair I

Dr. Madhura Swaminathan
 Indian Statistical Institute, Bengaluru

Co-Chair II

Dr. DK Yadava
 ADG (Seed), ICAR, New Delhi

Rapporteur I

Dr. Pranjal Yadav
 IARI, New Delhi

Rapporteur II

Dr. S. Antony Ceasar
 Rajagiri College of Social Sciences, Kochi

Speaker

Topics

Duration

| | | |
|---|--|--------|
| Dr. Michael Jones Murdoch University, Perth, Australia | Keynote Lecture An International Perspective on Trade in Gene-edited Crops: Issues and Current Status | 30 min |
| Dr. Ashwani Pareek NABI, Mohali (DBT perspective) | Invited Lecture Capacity Building and Biosafety Assessment for Genome Editing in Plants | 20 min |
| Dr. R. Ramakumar Tata Institute of Social Sciences, Mumbai | Invited Lecture Gene Editing and Public Science: A Socioeconomic Perspective | 20 min |
| Prof. Venkatesan Sundaresan Distinguished Professor Plant Biology and Plant Sciences University of California, Davis, USA | Special Lecture (Recorded) Generating Self-Cloning Hybrid Crops through Synthetic Apomixis | 20 min |
| Dr. K. Lakshmi, Dr. P.T. Prathima and Dr. C. Appunu ICAR-SBI, Coimbatore. | Session Presentation CRISPR/Cas9-mediated lignin modification in Sugarcane towards improved lignocellulosic biofuel production | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme 4: Livestock Sector Transformation for Food Security

Theme Convenor
Dr. K.M. Bujarbaruah
 Former VC, AAU,
 Jorhat

Date: 12 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Oman Hall

Technical Session 1 (Theme 4-TS-1) Towards Livestock Production Sector Transformation

Session Coordinator: Dr. V.K. Taneja, Former VC, GADVASU

Co-Chair I

Dr. C.S. Prasad
 Former VC, MAFSU

Co-Chair II

Dr. (Ms) G. Taru Sharma
 Director, NIAB

Rapporteur I

Dr. Divya P.R., ICAR-NBFGR

Rapporteur II

Dr. M.A. Pradeep, ICAR-CMFRI

| Speaker | Topics | Duration |
|--|---|----------|
| Dr. Abhijit Mitra AHC, Gol | Keynote Lecture Livestock Sector Transformation for Food Security | 30 min |
| Dr. T.J. Rasool Director, Camel Biotechnology Center, Abu Dhabi, UAE | Invited Lecture Prospect of Genome Edited Livestock in India | 20 min |
| Dr. A.K. Srivastava VC, DUVASU, Mathura | Invited Lecture Indian Dairy Sector's Preparedness for Food Security | 20 min |
| Dr. Raghavendra Bhatta Director, NIANP, Bengaluru | Invited Lecture Animal Feed Sector Transformation for Food and Environmental Security | 20 min |
| Session Presentation | | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme Convenor
Dr. Triveni Dutt
 Director,
 ICAR-IVRI, Izzatnagar

Date: 12 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Oman Hall

Technical Session 2 (Theme 4-TS-2)

Livestock Products, Health and Support Sciences

Session Coordinator: Dr. K.M.L. Pathak, Former DDG(AS) and VC, DUVASU, Mathura

| Co-Chair I | | Co-Chair II | |
|--|---|--|--|
| Dr. M.S. Chauhan VC, GB Pant University | | Dr. Kusumkar Sharma Former ADG (HRD), ICAR | |
| Rapporteur I | | Rapporteur II | |
| Dr. Krupesha Sharma , ICAR-CMFRI | | Dr. Sumitra T.G. , ICAR-CMFRI | |
| Speaker | Topics | Duration | |
| Dr. H. Rahman South East Asian Head, ILRI | Keynote Lecture Animal Health Sector Transformation for Food and Health Security | 30 min | |
| Dr. S.B. Barbuddhe Director, ICAR-National Meat Res. Institute Hyderabad | Invited Lecture Meat Sector Visioning and Action Agenda for Continued Food Security | 20 min | |
| Dr. R.N. Chatterjee Director ICAR-DPR Hyderabad | Invited Lecture Poultry Sector Transformation for Food and Livelihood | 20 min | |
| Dr. Dheer Singh Director ICAR-NDRI, Karnal | Invited Lecture Dairy Value Chain for Food and Income Security | 20 min | |
| Dr. A. Kumareshan Principal Scientist, NDRI, Bengaluru | Invited Lecture Sexed Sorted Semen for Higher Production and Income Security | 15 min | |
| Session Presentation | | 15 min | |
| Discussion | | 15 min | |
| Co-Chairs' Remarks | | 5 min | |

Theme 5: Horticulture based Transformations of Food Systems

Theme Convenor

Dr. Sanjay Kumar Singh

Director, ICAR-IIHR, Bengaluru

Date: 12 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Sini 1

Technical Session 1 (Theme 5-TS-1)

Fruit and Plantation Crops

Session Coordinator: Dr. Sanjay Kumar Singh, Director, ICAR-IIHR, Bengaluru

Co-Chair I

Dr. S.D. Shikhamany

Former Vice-Chancellor

Dr. YSR Horticultural University

Email: sdshikhamany@gmail.com

Co-Chair II

Dr. Balraj Singh

Vice-Chancellor, SKN Agriculture University,

Jobner, Jaipur, Rajasthan

Email: vc@sknau.ac.in

Rapporteur I

Dr. Deepu Mathew, KAU

Rapporteur II

Dr. Shoji Joy Edison, KVK, Ernakulam

Speaker

Dr. Anand K. Singh

Vice Chancellor, CSAU&AUT

Kanpur

Email: aksingh36@gmail.com

Topics

Keynote Lecture

Hi-volume Multiplication of Quality Planting

Material for *Atmanirbhar Bharat* in Fruit Crops

Duration

30 min

Dr. S. Uma

Principal Scientist

ICAR-NRC on Banana, Thiruchirapally

Email: umabinit@yahoo.co.in

Invited Lecture

Organic Production of Fruits and

Plantation Crops

20 min

Dr. Sanjay Kumar Singh

Director, ICAR-IIHR, Bengaluru

Email: sanjaydr2@gmail.com

Invited Lecture

Fast Track Breeding Approaches in Fruit

Crops for Targeted Genotype

Development

20 min

Dr. Partha P. Choudhury

Principal Scientist, ICAR-IIHR, Bengaluru

Email: partha.choudhury1@icar.gov.in

Invited Lecture

Integrated Approaches for Safe

Horticulture Production: Pesticide

Residue Management

20 min

Dr. Sajad Un Nabi

Scientist, ICAR-CITH

Srinagar, Jammu and Kashmir

Email: sajad.naingroo@icar.gov.in

Session Presentation

Transmission and Real time detection

of viruses (ApMV and ApNMV)

associated with mosaic disease of

apple (*Malus domestica*)

20 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 12 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Sini 1

Technical Session 2 (Theme 5-TS-2)

Vegetable and Tuber Crops

Session Coordinator: Dr. T.K. Behera, Director, ICAR-IIVR, Varanasi

Co-Chair I

Dr. Bijendra Singh

Vice-Chancellor, ANDUA&T
 Ayodhya, Uttar Pradesh
 Email: vcnduat2018@gmail.com

Co-Chair II

Dr. S.K. Chakrabarti

Vice-Chancellor, UBKV
 Cooch Behar, West Bengal
 Email: vc@ubkv.ac.in

Rapporteur I

Dr. Anikuttan K., ICAR-CMFRI

Rapporteur II

Dr. Kalidas C., ICAR-CMFRI

Speaker

Topics

Duration

Dr. Major Singh

Member (PS)
 Agricultural Scientists Recruitment Board
 Krishi Anusandhan Bhavan-I,
 Pusa, New Delhi
 Email: singhvns@gmail.com

Keynote Lecture

Trait-specific Vegetable Breeding:
 Genetic Resources and Pre-breeding

30 min

Dr. Madhavi Reddy K.

Principal Scientist, Division of Vegetable Crops
 ICAR-IIHR, Bengaluru
 Email: MadhaviReddy.K@icar.gov.in

Invited Lecture

Targetted Breeding of Vegetables for
 Safe Production

20 min

Dr. Sudhakar Pandey

ADG (Hort-II), ICAR, New Delhi
 Email: sudhakarpandey.hsd@icar.org.in

Invited Lecture

Gene Editing in Vegetables for Biotic
 and Abiotic Stress Management

20 min

Dr. A. N. Tripathi

Scientist, ICAR-IIVR, Varanasi
 Email: antripathi_patho@rediffmail.com

Session Presentation

Detection, identification and chemo-
 sensitivity of seed borne pathogens in
 vegetable crop seeds

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 12 October 2023**16.30 - 18.30 hrs.****Venue: Sini 1****Technical Session 3 (Theme 5-TS-3)****Spices, Ornamental & Medicinal Plants**

Session Coordinator: Dr. R Dinesh, Director, ICAR-IISR,
Kozhikode

Co-Chair I**Dr. T. Janakiram**

Vice-Chancellor

Dr. Y.S.R. Horticultural

University

Andhra Pradesh

Email: vc@drysru.edu.in

Co-Chair II**Dr. K. Nirmal Babu**

Former Director

ICAR-IISR, Kozhikode, Kerala

Email: nirmalbabu30@gmail.com

Rapporteur I**Dr. Jayasree E.**, ICAR-IISR, Kozhikode**Rapporteur II****Dr. Thankam T. Paul**, ICAR-CIFRI**Speaker****Dr. Vinay Bhardwaj**

Director

ICAR-NRC on Seed Spices

Ajmer

Email: director.nrcss@icar.gov.in

Topics**Keynote Lecture**Total Quality Management in High
Value Spice Production**Duration**

30 min

Dr. K.V. Prasad

Director, ICAR-DFR, Pune

Email: director.dfr@icar.gov.in

Invited LecturePigments as Components of
Functional Foods: Lab to
Commercial Production

20 min

Dr. A.K. Shasany

Director, CSIR-NBRI, Lucknow

Email: akshasany@yahoo.com

Invited LectureApplication of Nanotechnology in
Horticultural Production

20 min

Dr. D. Prasath

Principal Scientist, ICAR-IISR, Kozhikode

Email: Prasath.D@icar.gov.in

Invited Lecture

Nutraceuticals from Indian Spices

20 min

Mrs. A.M. Simmy

Asst. Professor, AICRP on Floriculture

College of Agriculture, Vellanikkara

Email: simmy.am@kau.in

Session PresentationOrnamental flowers: Potential for future
food and health, an investigation.

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 13 October 2023
Time: 10.45 - 12.45 hrs.
Venue: Sini 1

Technical Session 4 (Theme 5-TS-4)

Nutraceuticals and Value Addition

Session Coordinator: Dr. Brajesh Singh, Director, ICAR- CPRI, Shimla

Co-Chair I

Dr. N. Kumar

Former Vice-Chancellor
 TNAU, Coimbatore, Tamil Nadu
 Email: kumarhort@yahoo.com

Co-Chair II

Dr. B.C. Deka

Vice-Chancellor, AAU
 Jorhat, Assam
 Email: bidyutcdeka@aau.ac.in

Rapporteur I

Dr. V.S. Basheer, ICAR-NBFGR

Rapporteur II:

Dr. Miriam Paul Sreeram, ICAR-CMFRI

Speaker

Dr. Ram Krishna Pal

Former Director
 ICAR-NRC on Pomegranate
 Sholapur, Maharashtra
 Email: rkrishnapal@gmail.com

Topics

Keynote Lecture

Application of Sensors, New Molecules
 and Smart Packaging in PHM of
 Horticultural Crops

Duration

30 min

Dr. T. John Zachariah

Former Director and Principal Scientist
 ICAR-IISR, Kozhikode
 Email: zacjohntj@gmail.com

Invited Lecture

Potential for Development of Functional
 Food from Horticultural Crops

20 min

Dr. R.T. Patil

Chairman
 Benevole Welfare Society for Post-Harvest
 Technology
 Chief Technical Adviser-Innovations
 Tanusha Foods & Beverages Pvt. Ltd.
 Bhopal
 Email: ramabhau@gmail.com

Invited Lecture (Recorded)

Novel bio-molecules from horticultural
 crops and their role in therapeutics and
 health benefits

20 min

Dr. Anindita Paul

Scientist
 ICAR- CTRI
 Rajahmundry
 Email: aninditapaul20@gmail.com

Session Presentation

Response surface methodology and
 Genetic Algorithm guided ultrasonication
 based resin assisted purification of
 anthocyanin

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Theme 6: Aquaculture & Fisheries-based Transformation of Food Systems

Theme Convenor

Dr. J.K. Jena

DDG (Fisheries Science), ICAR

Date: 11 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Sini 1

Technical Session 1 (Theme 6-TS-1)

Aquaculture Systems & Fisheries

Session Coordinator: Dr. Shoba J. Kizhakudan, Pr. Scientist & HoD, ICAR-CMFRI

Co-Chair I

Dr. K. Gopakumar

Former DDG (FS), ICAR

Co-Chair II

Dr. B.K. Das

Director, ICAR-CIFRI, Barrackpore

Rapporteur I

Dr. Muktha Menon, ICAR-CMFRI

Rapporteur II

Dr. Deepa Sudheesan, ICAR-CIFRI

| Speaker | Topics | Duration |
|--|--|----------|
| Dr. Rishi Sharma FAO, Fishery and Aquaculture Policy and Resources Division, Rome, Italy E mail: rishi.sharma@fao.org | Keynote Lecture Blue Transformation - Roadmap 2022–2030: A Vision for FAO's Work on Aquatic Food Systems with Special Emphasis on India | 30 min |
| Dr. J.K. Jena DDG (Fisheries Science), ICAR, New Delhi Email: jkjena2@gmail.com | Invited Lecture Sustainable Aquaculture & Fishing Practices: A Key Driver of Food Security in the 21 st Century | 20 min |
| Dr. Salin Krishna Chair, Aquaculture Program Asian Institute of Technology Bangkok, Thailand Email: salinkr@ait.ac.th | Invited Lecture Aquaculture to Improve Nutrition and Food Security in Developing Countries | 20 min |
| Dr. E. Vivekanandan Former Head, ICAR-CMFRI Email: evivekanandan@hotmail.com | Invited Lecture The Intersection of Climate Change and Fishery Management: Opportunities for Sustainable and Resilient Fisheries | 20 min |
| Dr. Suresh Kumar Mojjada ICAR-CMFRI, Veraval Regional Centre Email: sureshkumar.mjd@gmail.com | Session Presentation Development of mariculture technology parks in India: A SWOT-based evaluation adds a new dimension to the mariculture sector landscape. | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Sini 1

Technical Session 2 (Theme 6-TS-2)

Genetics, Health & Nutrition

Session Coordinator: Dr. Imelda Joseph, Pr. Scientist, ICAR-CMFRI

Co-Chair I

Dr. Iddya Karunasagar

Former FAO Expert &
 Sr. Director (International Relation)
 NITTE University, Mangaluru

Co-Chair II

Dr. P.K. Sahoo

Director, ICAR-CIFA
 Bhubaneswar

Rapporteur I

Dr. Krupesha Sharma

ICAR-CMFRI

Rapporteur II

Dr. Sandhya Sukumaran

ICAR-CMFRI

| Speaker | Topics | Duration |
|--|---|----------|
| Dr. Eric-Jan Lock Research Director Nutrition and Feed Technology NOFIMA, Norway Email: Erik-Jan.Lock@nofima.no | Keynote Lecture Fish Feed: Innovations for Driving Sustainable Aquaculture Growth | 30 min |
| Dr. Morten Rye Director of Genetics, Benchmark Genetics Norway | Invited Lecture Leveraging Technology for Genetic Improvement in Aquaculture Production | 20 min |
| Dr. Kuldeep K. Lal Director, ICAR-CIBA, Chennai Email: kuldeepklal@gmail.com | Invited Lecture: Fish Biotechnology Options for Transforming Aquaculture | 20 min |
| Dr. Neeraj Sood Principal Scientist & HoD, ICAR-NBFGR Lucknow Email: sood-neeraj@rediffmail.com | Invited Lecture Technological Advancements and the Promise of Innovations towards Emerging Threats to the Fish Health in Aquaculture Systems | 20 min |
| Dr. Biju Sam Kamalam Senior Scientist, ICAR-DCFR, Bhimtal Email: bijunut@hotmail.com | Session Presentation Future proofing rainbow trout aquaculture with functional feeds | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Sini 1

Technical Session 3 (Theme 6-TS-3)

Processing, Value Addition, Quality Control & Social Sciences

Session Coordinator: Dr Toms Joseph, Principal Scientist, ICAR-CIFT

Co-Chair I

Dr. B. Meenakumari

Former DDG (FS), ICAR &
Former Chairperson, NBA

Co-Chair II

Dr. Bimal Mohanty

ADG (I.Fy), ICAR

Rapporteur I

Dr. Aswathy N., ICAR-CMFRI

Rapporteur II

Dr. Tanuja Abdulla, ICAR-CIFRI

| Speaker | Topics | Duration |
|--|--|----------|
| Prof. (Dr.) Soottawat Benjakul Professor, Prince of Songkla University, Thailand Email: soottawat.b@psu.ac.th | Keynote Lecture Advancements in Seafood Preservation: Ensuring Safe and Nutritious Fish Products | 30 min |
| Dr. Ravishankar C.N. Director, ICAR-CIFE, Mumbai Email: cnrs2000@gmail.com | Invited Lecture Innovations in Fish Processing Technology for Increasing Efficiency and Reducing Wastage | 20 min |
| Dr. Satyen Kumar Panda Advisor (Quality Assurance), FSSAI, Delhi Email: satyenpanda@gmail.com; advisor.qa.fssai.gov.in | Invited Lecture Quality Certification Standards in Fish Product Processing for Consumer Food Safety – An Indian Perspective | 20 min |
| Dr. Holly Hapke Director of Research Development School of Social Sciences University of California, Irvine Email: drhollyhapke@gmail.com; hhapke@uci.edu | Invited Lecture Gender in Fisheries & Aquaculture: Driving Transformational Change for Food Systems | 20 min |
| Dr. Remya S. Senior Scientist, ICAR-CIFT Kochi Email: remya03cof@gmail.com | Session Presentation Preparation of colorimetric spoilage indicators using plant anthocyanin extracts for intelligent packaging application in fish | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme 7: Nature-based Solutions for Sustainable Agri-food Systems

Theme Convenor
Dr. Anil K. Singh
 Vice President, NAAS

Date: 11 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Shani 2

Technical Session 1 (Theme 7-TS-1)

Water Harvesting and Enhancing Water Productivity

Session Coordinator: Dr. P.S. Brahmanand, Project Director, Water Technology Centre, ICAR - IARI

| | | |
|--|---|---|
| Co-Chair I | | Co-Chair II: |
| Dr. M. Madhu Director, ICAR-IISWC, Dehradun | | Dr. K.G. Mandal, Director, ICAR-MGIFRI, Motihari, Bihar |
| Rapporteur I | | Rapporteur II |
| Dr. Rema Madhu, ICAR-CMFRI | | Dr. S. Ramkumar, ICAR-CMFRI |
| Speaker | Topics | Duration |
| Dr. Alok Sikka Former DDG (NRM) | Keynote Lecture Potential of Conjunctive Management of Water Resources in India | 30 min |
| Prof. Vinay Nangia Research Leader, ICARDA | Invited Lecture Nature based Solutions for Climate Smart Water Management | 20 min |
| Dr. S.P. Wani Former Director ICRISAT Development Centre Asia | Invited Lecture Innovations in Rain Water Harvesting Technologies and their Utilization | 20 min |
| Dr. P.S. Minhas Former Director, NIASM, Baramati | Invited Lecture Managing Poor Quality Water for Sustainable Agri-foods Systems | 20 min |
| Dr. Manoranjan Kumar Principal Scientist, CRIDA | Session Presentation Bio-drainage Systems in Food Industry: Concept and Design for Zero Discharge Production Unit | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Shani 2

Technical Session 2 (Theme 7-TS-2)

Soil Health and its Restoration

Session Coordinator: Dr. S.P. Datta, Director, IISR, Bhopal

Co-Chair I

Dr. Sammi Reddy

ICAR-NIASM

Rapporteur I

Dr. Sumitra TG, ICAR-CMFRI

Co-Chair II

Dr. R.K. Yadav

HoD, ICAR-CSSRI

Rapporteur II

Dr. Vinothkumar R, ICAR-CMFRI

| Speaker | Topics | Duration |
|---|--|----------|
| Dr. B.S. Dwivedi Member (NRM), ASRB | Keynote Lecture Soil Health Enhancement for Sustainable Agriculture Production | 30 min |
| Dr. B. Mohan Kumar Former VC Arunachal University of Studies | Keynote Lecture Agro-forestry: A Nature based Solution for Mitigation and Adaptation to Climate Change | 20 min |
| Dr. Ch. Srinivasa Rao Director, ICAR-NAARM Hyderabad | Invited Lecture Carbon Farming Opportunities and Action Plan towards Achieving SDGs in India | 20 min |
| Prof. A.R. Podile Senior Professor University of Hyderabad | Invited Lecture Microbiome-based Approaches for Sustainable Agriculture | 20 min |
| Mr. Shailendra Singh COO, M/s Zydex Agro Solutions | Technological Improvement in Soil Health Improvement (Industry) | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 11 October 2023
Time: 10.45 - 12.45 hrs.
Venue: Shani 2

Technical Session 3 (Theme 7-TS-3)

Ensuring Nutritional Security through Natural Resource Management

Session Coordinator: Dr. A. Arunachalam, Director, ICAR-CAFRI, Jhansi

Co-Chair I

Dr. O.P. Yadav
 Director, CAZRI

Co-Chair II

Dr. V.K. Mishra
 ICAR-RC NEH

Rapporteur I

Dr. Krishna Radhika N.
 ICAR-CTCRI

Rapporteur II

Dr. Johnson B.
 ICAR-CMFRI

Speaker

Topics

Duration

Dr. Suresh Kumar Chaudhari
 DDG (NRM), ICAR

Keynote Lecture
 Addressing Nutritional Security through Natural Resource Management

30 min

Prof. Indira Sarangthem
 Dean, CoA, CAU, Imphal

Invited Lecture
 Prospects of Nature – based – Solutions for Climate Resilient Agriculture

20 min

Dr. G. Ravindra Chary
 Project Coordinator
 AICRP for Dryland Agriculture
 ICAR-CRIDA, Hyderabad

Invited Lecture
 Food and Nutrition Security in Rainfed Eco-systems

20 min

Dr. Anil K. Singh
 NAAS

Invited Lecture
 Criticality of Soil and Water in 'One Health'

20 min

Mr. Gulshan Rana
 M/s Bayer

Advancing Sustainable Climate Smart Resilient Agriculture Eco-system in India (Industry)

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Theme 8: Next Generation Technologies: Digital Agriculture, Precision Farming and AI-based Systems

Theme Convenor
Dr. Rajender Parsad
 Director, IASRI

Date: 12 October 2023
Time: 10.45 - 12.45 hrs.
Venue: Sini 2

Technical Session 1 (Theme 8-TS-1)

Digital Agriculture

Session Coordinator: Dr. Alka Arora, ICAR-IASRI

Co-Chair I

Dr. R.C. Agrawal
 DDG (Education)

Co-Chair II

Dr. P.S. Pandey
 VC, RPCAU, Pusa Samastipur, Bihar

Rapporteur I

Dr. Eldo Varghese, ICAR-CMFRI

Rapporteur II

Dr. K.G. Mini, ICAR-CMFRI

| Speaker | Topics | Duration |
|---|---|----------|
| Dr. J. Adinarayana Professor, Centre of Studies in Resources Engineering (CSRE) Indian Institute of Technology - Bombay (IITB) | Keynote Lecture AIIA (Assimilate, Interpret, Innovate and Adapt) Model in Smart Agriculture | 30 min |
| Dr. E.V.S. Prakasa Rao Former Advisor, CSIR-Fourth Paradigm Institute | Invited Lecture Digital Agriculture for Agri-Food Systems Disruption in India- Prospects and Problems | 20 min |
| Dr. Ajit Govind Senior Climatologist and Systems Modeler Acting Head Geo Agro ICARDA, Egypt Email: A.Govind@cgjar.org | Invited Lecture Digital Transformation of Agricultural Sector in the Global Drylands: Digital Tools, Stakeholder Engagement, and Scaling | 20 min |
| Dr. Rabi N. Sahoo Principal Scientist, ICAR-IARI | Invited Lecture Getting ready for Next Leap in Precision-AG Innovations: Challenges and Opportunities | 15 min |
| Dr. S.K. Chakraborty ICAR-CIAE Nabibagh, Berasia Road, Bhopal | Invited Lecture Compact field savvy instrument for rapid detection of aflatoxins-B1 in maize using a hyperspectral imaging system with machine learning | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 12 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Sini 2

Technical Session 2 (Theme 8-TS-2)

Artificial Intelligence based Systems

Session Coordinator: Dr. Sudeep Marwah, ICAR-IASRI, New Delhi

Co-Chair I
Prof. Gajendra Singh
 Emeritus Prof., AIT

Co-Chair II
Dr. Anil K. Singh
 EX VC, RVSKV

Rapporteur I
Dr. Sreenath K.R., ICAR-CMFRI

Rapporteur II
Dr. Abdul Azeez, ICAR-CMFRI

| Speaker | Topics | Duration |
|---|---|----------|
| Dr. Sanjay Chaudhary Professor and Associate Dean School of Engineering and Applied Science Ahmedabad University Email: sanjay.chaudhary@ahduni.edu.in | Keynote Lecture Artificial Intelligence Systems for Agriculture | 30 min |
| Dr. Alka Arora ICAR-IASRI | Invited Lecture Artificial Intelligence: Case Studies in Indian Agriculture | 20 min |
| Dr. Satyajit Dwivedi Regional Director EMEAP, SAS Email: satyajit.dwivedi@sas.com | Invited Lecture Opportunities and challenges in application of AI in building innovative climate-smart digital agriculture solutions | 20 min |
| Dr. J. Jayasankar Head, FRAEE Division ICAR-CMFRI Email: jjsankar@icar.gov.in | Invited Lecture Charting the Future of Marine Fishery Resource Management: Harnessing Artificial Intelligence Systems for Exploration and Sustainable Utilization | 20 min |
| M/s. Anil Pareek Ltd. | Use of Technology in Agriculture/Digital Agriculture | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme 9: Role of Policies and Institutions in Transforming Agri-food System

Theme Convenor

Dr. P.K. Joshi

Former Director

South Asia, International Food Policy Research Institute

Date: 12 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Shani 1

Technical Session 1 (Theme 9-TS-1)

Food System Transformation: Role of Policies and Institutions

Session Coordinator: Dr. R. Sendhil, Associate Professor, Pondicherry University

Co-Chair I

Dr. Mruthyunjaya

Former Project Director, NAIP

Co-Chair II

Dr. P.S. Birthal

Director, NIAP

Rapporteur I

Dr. Solomon Rajkumar

ICAR-CCARI

Rapporteur II

Dr. S. S. Raju

ICAR-CMFRI

Speaker

Dr. Prabhu Pingali

Professor and Founder Director
TCI, Cornell

Topics

Keynote Lecture

Food System Transformation in India: Role of Policies and Institutions

Duration

30 min

Dr. N.P. Singh

Member, CACP

Invited Lecture

Price Policy and Food System transformation

20 min

Dr. Anjani Kumar

Senior Research Fellow, IFPRI

Invited Lecture

Biofortified Food Commodities for Achieving SDGs

20 min

Dr. Smita Sirohi

Joint Secretary, MoA&FW

Invited Lecture

G 20 and Agri-food System Transformation

20 min

Session Presentation

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Date: 12 October 2023
Time: 13.45 - 15.45 hrs.
Venue: Shani 1

Technical Session 2 (Theme 9-TS-2)

Diet Diversification and Food System Transformation

Session Coordinator: Dr. Ranjay K. Singh, ADG (Extn.), ICAR

Co-Chair I

Dr. C. Ramasamy

Former Vice Chancellor, TNAU

Co-Chair II

Dr. N.P. Singh

Member, CACP

Rapporteur I

Dr. Sanal Ebenezer

ICAR-CMFRI

Rapporteur II

Dr. Chandrasekhar S.

ICAR-CMFRI

| Speaker | Topics | Duration |
|--|--|----------|
| Dr. Puranjan Das Former DDG (Extn) | Keynote Lecture Balancing Food Demand and Ecological Sustainability | 30 min |
| Dr. Surabhi Mittal Economist-Asia, Nutritional International | Invited Lecture Diversification of Food Diets through Social Safety Net Programs | 20 min |
| Dr. Avinash Kishore Research Fellow, IFPRI | Invited Lecture Affordability of Food System transformation | 20 min |
| Dr. Shalander Kumar Deputy Global Research Program Director ICRISAT | Invited Lecture Food System Transformation in Marginal Environment | 20 min |
| Session Presentation | | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Date: 12 October 2023

Time: 16.30-18.30 hrs.

Venue: Shani 1

Technical Session 3 (Theme 9-TS-3)**Agri-food System Transformation towards High-value Commodities**

Session Coordinator: Dr. P. Shinoj, Senior Scientist, ICAR-CMFRI, Kochi

Co-Chair I**Dr. Vijay Paul Sharma**

Chairman, CACP

Co-Chair II**Dr. Anjani Kumar**

Senior Research Fellow, IFPRI

Rapporteur I**Dr. Vikram Singh**

ICAR-NRCM

Rapporteur II**Dr. R. Kirubasankhar**

ICAR-CIARI, Port Blair

| Speaker | Topics | Duration |
|--|--|----------|
| Dr. P.S. Birthal Director, NIAP | Keynote Lecture Policies and Institutions for transforming High-value Food Commodities | 30 min |
| Dr. Seema Bathla Professor, Jawaharlal Nehru University | Invited Lecture Changing Pattern of Demand for Agri-processed Commodities | 20 min |
| Dr. Ashok Mishra Chair, Kemper and Ethel Marley Foundation Arizona State University Mesa, USA | Invited Lecture Innovative Value Chains for Agri-food System Transformation | 20 min |
| Dr. Sukhpal Singh Professor, IIM | Invited Lecture Role of FPOs and Contract Farming in Agri-food System Transformation | 20 min |
| Session Presentation | | 15 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Theme 10: International Partnership for Research, Education and Development

Theme Convenor

Prof. Rajeev K. Varshney

Foreign Secretary, NAAS

Date: 11 October 2023

Time: 10.45 - 12.45 hrs.

Venue: Oman Hall

Technical Session 1 (Theme 10-TS-1)

International Partnership for Research, Education and Development

Session Coordinator: Dr. Bikash Mandal, ADG (International Relations), ICAR, New Delhi

Co-Chair I

Dr. R.S. Paroda

TAAS, India

Co-Chair II

Dr. Ravi Khetrpal

APAARI, Thailand

Rapporteur I

Dr. Reshma Gills

ICAR-CMFRI

Rapporteur II

Dr. Kutubuddin Molla

ICAR-NRRI

Speaker

Topics

Duration

Prof. R.B. Singh

Former ADG, FAO

Keynote Lecture

Role of International Partnership for Transformation of Agri-Food Systems for Achieving Sustainable Development Goals

30 min

Dr. Chikelu Mba

FAO, Italy

Invited Lecture (Recorded)

Plant Genetic Resources for Food Security and Nutrition: A Commons Approach

20 min

Dr. Kadambot Siddique

UWA, Australia

Invited Lecture

International Partnership for Advancing Agricultural Research and Education

20 min

Dr. Prachi Kaul

Director,
Shastri Indo-Canadian Institute

Invited Lecture

Role of Shastri Indo-Canadian Institute (SICI) in International Collaboration

20 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Panel Discussion 1

Quality Education for Transforming Agri-food Systems

Convenor

Dr. R.C. Agrawal

DDG (Ag. Edu.), ICAR

Date: 11 October 2023

Time: 13.45 - 15.45 hrs.

Venue: Oman Hall

| | | |
|--|---|-----------------|
| Co-Chair I Dr. W.S. Lakra Former Director, ICAR-CIFE | Co-Chair II Dr. A.R. Rao ADG (PIM), ICAR | |
| Rapporteur I Dr. Srinivasa Raghavan , ICAR-CMFRI | Rapporteur II Dr. Anuja, A.R. , ICAR-CMFRI | |
| Speaker | Topic | Duration |
| Dr. R.C. Agrawal , DDG (Ag. Edn) | Keynote Lecture: Quality Education for Transforming Agri-food System | 30 min |
| Panellists (5-10 minutes each) | | |
| • Dr. Nazeer Ganai , VC, SKUAST, Srinagar | | 10 min |
| • Dr Chindi Vasudevappa , Former Vice Chancellor, NIFTEM and UAHS, Shivamogga | | 10 min |
| • Dr. M.S. Chauhan , VC, GBPUA&T, Pantnagar | | 10 min |
| • Dr. M.K. Naik , Former VC, Univ. of Agricultural & Horticultural Sciences, Shivamogga | | 10 min |
| Open Discussion | | 35 min |
| Co-Chairs' Remarks | | 5 min |

Panel Discussion 2 Innovation in Information Dissemination

Convenor

Dr. Ashok K. Singh

VC, RLBCAU, Jhansi

Date: 12 October 2023

Time: 16.30 - 18.30 hrs.

Venue: Sini 2

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|--|---|-----------------|
| Co-Chair I Dr. U.S. Gautam , DDG (AE), ICAR | Co-Chair II Dr. Rajarshi Roy Burman , ADG (AE), ICAR | |
| Rapporteur I Dr. Girijesh Singh Mahra ICAR-IARI | Rapporteur II Dr. Reshma Gills ICAR-CMFRI | |
| Speaker | Topics | Duration |
| Dr. A.K. Singh VC, RLBCAU, Jhansi | Keynote Lecture: ICT led Innovations in Information Dissemination for Sustainable Agricultural Development and Livelihood Security | 30 min |
| Panellists (5-10 minutes each) | | |
| Dr. Poonam Malakondaiah Special Chief Secretary Govt. of Andhra Pradesh | Innovative Agricultural Extension Models: A Case of RBK | 10 min |
| Dr. Anil Rai ADG (ICT), ICAR | Innovative Multimedia-based Information Dissemination through social media: A Case of Pusa Samachar | 10 min |
| Dr. S.N. Meera Director, ICAR-ATARI, Hyderabad | Innovations in ICT led Extension-Global Experiences | 10 min |
| Dr. R. Sarvanan Director, MANAGE, Hyderabad | Innovations in ICT led Extension | 10 min |
| Open Discussion | | 35 min |
| Co-Chairs' Remarks | | 5 min |

Panel Discussion 3

Farming Systems for Enhancing Nutrition and Sustainability

Convenor

Dr. V.K. Singh

Director, ICAR-CRIDA, Hyderabad

Date: 12 October 2023

Time: 10.45 -12.45 hrs.

Venue: Shani 2

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|---|--|--|--|
| Co-Chair: Dr. N.P. Singh Former Director, NIASM, Baramati | | Co-Chair: Dr. S. Ghosh ADG (Marine), ICAR | |
| Rapporteur I Dr. S. Kundu ICAR- CRIDA | | Rapporteur II Dr. Anshida Beevi ICAR-CRIDA | Rapporteur III Dr. Loveson Edward ICAR-CMFRI |
| Speaker | Topics | Duration | |
| Dr. V.K. Singh Director, ICAR-CRIDA, Hyderabad | Keynote Lecture Farming system for efficient resource use, nutritional security and sustainable livelihood. | 30 min | |
| Panellists (5-10 minutes each) | | | |
| Dr. N.P. Singh Former Director, NIASM, Baramati | Integrated Farming System (IFS) in Coastal and Hill Ecosystem | 10 min | |
| Dr. Sunil Kumar Director ICAR-IIFSR, Modipuram Meerut – 250110, UP | Integrated Farming System for Higher Income, Nutritional Security and Sustainable Use of Natural Resources in Intensive System | 10 min | |
| Dr. M.L. Jat Global Research Program Director Resilient Farm and Food Systems, ICRISAT, Hyderabad | Conservation Agriculture-Based Integrated Farming System | 10 min | |
| Dr. Vandana Dwivedi Advisor (PKVY), DAC&FW Ministry of Agriculture & Farmers Welfare Krishi Bhawan, New Delhi | Organic based Integrated Farming Systems | 10 min | |
| Dr. H.B. Babalad Dean (Agri) and Professor of Agronomy College of Agriculture, University Agricultural Sciences, Dharwad | Prospects of Natural Farming in Integrated Farming System Approach | 10 min | |
| Dr. K. Narsaiah ADG (Process Engineering), KAB II ICAR, New Delhi- 110012 | Income Enhancement through Post-harvest Management and Value Addition in Integrated farming System | 10 min | |
| Open Discussion | | | 35 min |
| Co-Chairs' Remarks | | | 5 min |

Symposia 1

Coastal Agriculture: Livelihood and Sustainability

Convenor:

Dr. Parveen Kumar
Director, CCARI, Goa

Date: 11 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Oman Hall

Session Coordinator: Dr. R. Solomon Rajkumar, Senior Scientist, ICAR-CCARI, Goa

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|---|---|
| Chair Dr. Suresh Kumar Chaudhari DDG (NRM), ICAR | Co-Chair Dr. R.N. Chatterjee Director, DPR, Hyderabad |
| Rapporteur I Dr. Gokuldas P.P. ICAR-CCARI | Rapporteur II Dr. Sreekanth G. B. ICAR-CCARI |
| Speaker | Topics Duration |
| Dr. M.R. Dinesh Former Director, ICAR-IIHR, Bengaluru | Innovative Technologies to Augment the Productivity and Sustainability of Horticultural Crops in the Coastal Regions 25 min |
| Dr. Parveen Kumar Director ICAR-CCARI Goa | Integrated Farming System Approaches for Sustainable Intensification, Livelihood Security and Diversification of Coastal Agriculture 15 min |
| Dr. Grinson George Head, MBEMD, ICAR-CMFRI, Kochi | Reframing Indian Coastal Aquaculture and Fisheries: An IPCC Risk Assessment Framework Perspective 15 min |
| Dr. Sejian. V. Dean, Rajiv Gandhi Institute Veterinary Education and Research, Puducherry | Impact of Climate Change and Mitigation Strategies for Sustainable Livestock Production in Coastal Regions 15 min |
| Dr. N. Ravisankar Principal Scientist ICAR-IIFSR Modipuram | Natural Farming for Systemic Transformation of Coastal Agriculture 15 min |
| Dr. R. Solomon Rajkumar Senior Scientist and Coordinator Agro-Ecotourism Center ICAR-CCARI, Goa | Agro-ecotourism for Livelihood Diversification and Scaling of Entrepreneurship among Rural Youth 15 min |
| Discussion | 15 min |
| Co-Chairs' Remarks | 5 min |

Symposia 2

IYM 2023: Mainstreaming Millets

Chairman: Dr. D. K. Yadava, ADG (Seed), ICAR

Convener: Dr. C. Tara Satyavathi, Director, ICAR-IIMR, Hyderabad

Date: 11 October 2023

Time: 13.45 - 18.30 hrs.

Venue: Shani 1

Programme

| Rapporteur I Dr. Rekha Devi C. ICAR-CMFRI | | Rapporteur II Dr. Ritesh Ranjan ICAR-CMFRI | |
|--|---|--|--------|
| Topic | Speaker | Duration | |
| Welcome | Dr. W.S. Lakra , Secretary, NAAS | 5 min | |
| Chairman's address - IYM 2023: Role of India and global expectations | Dr. D.K. Yadav ADG (Seed), ICAR, New Delhi | 15 min | |
| Mainstreaming millets for food and nutritional security | Dr. C. Tara Satyavathi Director IIMR, Hyderabad | 15 min | |
| Enhancing productivity of millets | Dr. O.P. Yadav Director, CAZRI, Jodhpur | 15 min | |
| Genome editing for enhancing productivity in millets | Prof. K.C. Bansal Former Director ICAR - NBPGR | 15 min | |
| The Push for Nutricereals: The Vision and roadmap of the Indian Government | Smt. Shubha Thakur Joint Secretary, IYoM DA&FW Ministry of Agriculture & Farmer's Welfare, New Delhi | 15 min | |
| Value Addition and Promotion of Millets - The journey, challenges and roadmap | Dr. Dayakar Rao CEO, NutriHub, IIMR, Hyderabad | 15 min | |
| Panel Discussion | | | |
| Promoting Millets Production, Value Addition and Consumption: Experience of the stakeholders | | | 5 min |
| • Shri M. Karthikeyan, Nature-Positive Farming and Wholesome Foods Foundation, Krishnagiri, Tamil Nadu | | | 5 min |
| • Shri. Jacob Nelithanam, Bharat Beej Swaraj Manch, Bilaspur, Chhattisgarh | | | 5 min |
| • Representative from MSSRF, Chennai | | | 5 min |
| • Shri. M.M. Abbas, Organic Kerala Charitable Trust | | | 5 min |
| • Smt. R. Latha, ADA, Department of Agriculture, Attapady | | | 5 min |
| • Representative from Attappady Tribal Farmers Association for Millets (FPO) | | | 5 min |
| General Discussion | | | 15 min |
| Concluding remarks by Chairman | | | 5 min |
| Vote of Thanks | | Dr. C. Tara Satyavathi , Convener | |

Symposia 3

Repurposing Agriculture for Achieving SDGs

Convenor
Dr. P.S. Birthal
 Director, NIAP

Date: 12 October 2023
Time: 13.45 -15.45 hrs.
Venue: Shani 2

Technical Session

Repurposing Agriculture for Achieving SDGs

Session Coordinator: Dr. Raka Saxena, ICAR-NIAP

Co-Chair I

Dr. M.L.Jat
 ICRISAT

Co-Chair II

Dr. K. Srinivas
 ICAR - NAARM

Rapporteur I

Dr. B. Santosh, ICAR-CMFRI

Rapporteur II

Dr. D. Lingaprabhu, ICAR-CMFRI

Speaker

Dr. K. Srinivas
 ICAR – NAARM

Topics

Keynote Lecture
 Repurposing Agriculture for Improving Resource Use Efficiency, Environmental and Human Health: Technological, Institutional and Policy Requirements

Duration

30 min

Dr. C.S.C. Sekhar

Professor
 Institute of Economic Growth
 New Delhi

Invited Lecture

Reorienting Price Policy for Food and Nutrition Security, and Viability and Sustainability of Smallholder Agriculture

20 min

Dr. Shivendra Kumar Srivastava

Senior Scientist, ICAR-NIAP, New Delhi

Invited Lecture

Repurposing Agricultural Subsidies for Higher and Sustainable Agricultural Development

20 min

Dr. Ranjit Kumar

Principal Scientist
 NAARM, Hyderabad

Invited Lecture

From Farm to Fork: Role of FPOs and Agri-star-ups

20 min

Session Presentation

Dr. Raka Saxena

15 min

Discussion

15 min

Co-Chairs' Remarks

5 min

Symposia 4

Towards Youth Empowerment and Gender Equity for Meeting the SDGs

Convenor
Dr. Malavika Dadlani
 NAAS

Date: 11 October 2023
Time: 10.45 -12.45 hrs.
Venue: Shani 1

| Session Coordinator: Dr. Neeru Bhushan, ADG, ICAR | | |
|--|---|-----------------|
| Co-Chair I | Co-Chair II | |
| Dr. V. Geethalakshmi VC, TNAU | Dr. S.K. Sharma ADG (HRM), ICAR | |
| Rapporteur I | | |
| Dr. Anuradha Agarwal | | |
| Speaker | Topics | Duration |
| Dr. V. Geethalakshmi VC, TNAU | Empowering Youth and Women for Entrepreneurship driven Economic Development | 30 min |
| Dr. Neeru Bhushan ADG (IPTM), ICAR | Creating a Start Up Ecosystem to Empower Youth and Women in Amrit Kaal | 20 min |
| Dr. Satender Arya CEO, ASCI | Empowerment of Youth by Skilling in Agriculture | 20 min |
| Dr. Swati Nayak IRRI | Empowering Farm women through Seed system | 20 min |
| Dr. Malavika Dadlani NAAS | Bridging Gender Inequity in Agriculture through Innovation and Technology | 20 min |
| Discussion | | 15 min |
| Co-Chairs' Remarks | | 5 min |

Workshop on Advancements in Research for Marine Mammal Conservation in India

Convenor

Dr. Ratheesh Kumar R.

Scientist & Principal Investigator

Marine Mammal Project, ICAR-CMFRI

Date: 13th October 2023

Time: 10.30 - 13:00 hrs.

Venue: Shani 1

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| Co-Chair I Dr. Grinson George Principal Scientist & Head, ICAR-CMFRI | Co-Chair II Dr. Sreenath K.R. Senior Scientist, ICAR-CMFRI | |
| Rapporteur I Dr. Miriam Paul Sriram, ICAR-CMFRI | Rapporteur II Dr. L. Ranjith, ICAR-CMFR | |
| Welcome address | Dr. Grinson George Principal Scientist & Head MBEMD ICAR-CMFRI | 5 min |
| Inaugural address | Dr. A. Gopalakrishnan Director, ICAR-CMFRI | 15 min |
| Keynote address Compelling research priorities for conservation imperatives of marine mammals Tea Break | Dr. E. Vivekanandan Former Principal Scientist & Head ICAR-CMFRI | 30 min |
| Invited Lecture On-board sampling survey methods | Dr. R. Jeyabaskaran Director General, Fishery Survey of India, Mumbai | 15 min |
| Invited Lecture Methods of marine mammal stock assessment | Dr. J. Jayasankar Principal Scientist & Head FRAEED, ICAR-CMFRI | 15 min |
| Invited Lecture Bycatch mitigation strategies | Dr. V.R. Madhu Principal Scientist ICAR-CIFT | 15 min |
| Invited Lecture Addressing trade-related issues for the conservation of endangered species | MPEDA, Kochi | 15 min |
| Discussions and Recommendations | All participants | 20 min |
| Vote of Thanks | Dr. Ratheesh Kumar R. Scientist & Principal Investigator Marine Mammal Project ICAR-CMFRI, Kochi | 10 min |