

# XVI Agricultural Science Congress 2023 and ASC EXPO



Transformation of Agri-Food Systems for  
Achieving Sustainable Development Goals

10-13 October 2023 | Kochi, Kerala



## Programme Guide



# XVI ASC 2023

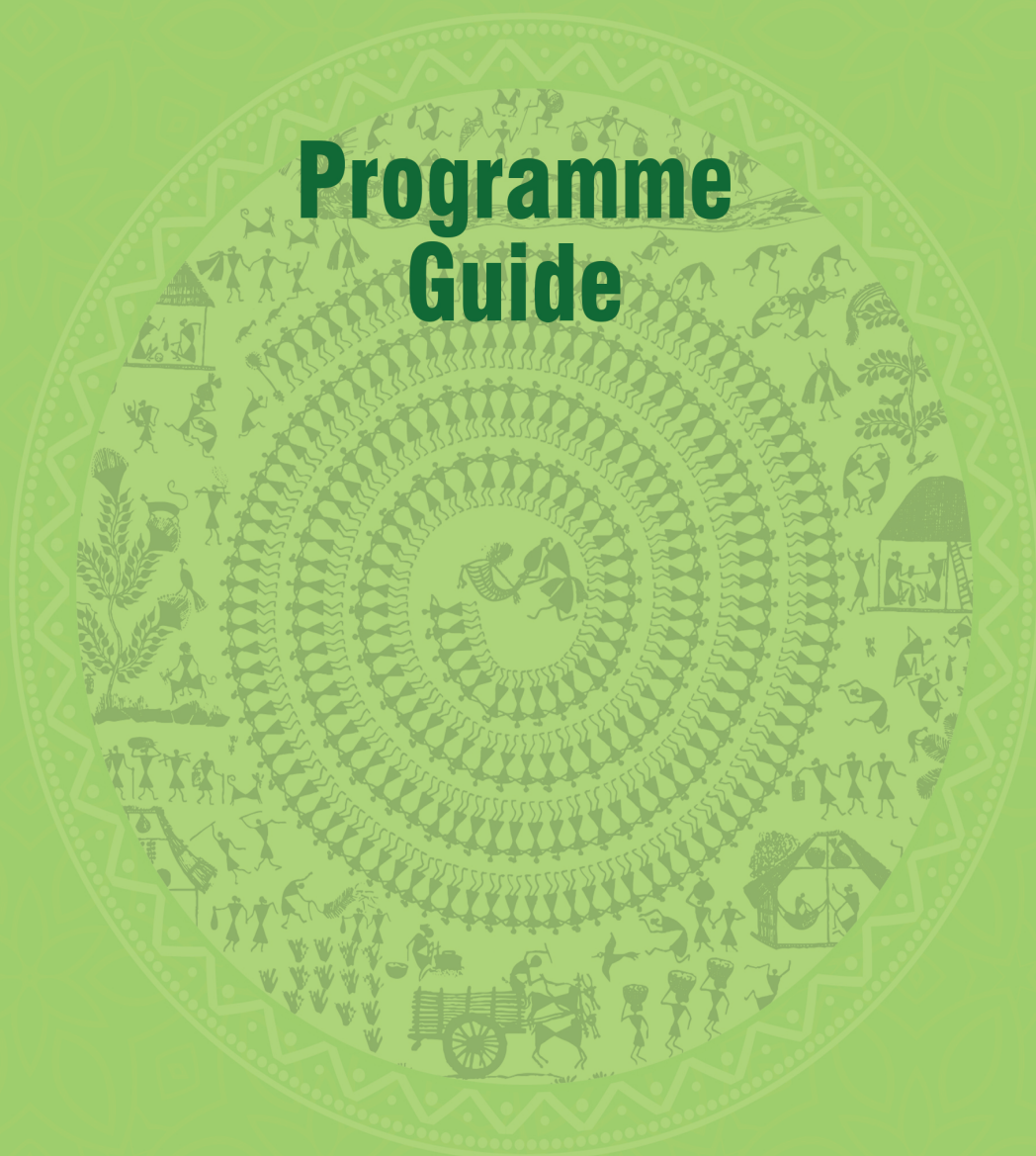


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## Programme Guide



# XVI ASC 2023





# XVI AGRICULTURAL SCIENCE CONGRESS & ASC EXPO

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## Daily Programme Schedule

Day-1 10/10/2023 (Tuesday)	14.00 - 15.00		15.00 - 16.45		16.45 - 17.00		17.00 - 18.00		18.00 - 19.00		19.00 - 20.15		20.15 - 21.15	
	Registration		Inauguration (Oman Hall)		High Tea		Presidential Address (Oman Hall)		Dr. A. B. Joshi Memorial Lecture (Oman Hall)		Cultural Programme (Oman Hall)		Dinner (Hall-MFAR 1)	
Day-2 11/10/2023 (Wednesday)	09.00-10.00	10.00-10.15	10.15-10.45	10:45-12:45		12.45-13.45	13.45 -15.45		15.45-16.00	16.00-16.30	16.30-18.30		18.30-19.30	19.45- 21.15
				Theme	Venue		Theme	Venue			Theme	Venue		
	Plenary Lect.-1 (Oman Hall)	Tea	Theme10-TS-1 (Oman Hall)	Theme 10-TS-1	Oman Hall	Lunch	Panel Dis- 1	Oman Hall	Tea	Poster/ Expo	Symposia 1	Oman Hall	Plenary Lect.-2 (Oman Hall)	Cultural Programme & Dinner
				Theme 3-TS-3	Nayanar Hall		Theme 3-TS-2	Nayanar Hall			Theme 3-TS-1	Nayanar Hall		
				Theme 6-TS-1	Sini 1		Theme 6-TS-2	Sini 1			Theme 6-TS-3	Sini 1		
				Theme 1-TS-2	Sini 2		Theme 1-TS-1	Sini 2			Theme 1-TS-3	Sini 2		
				Symposia 4	Shani 1		Symposia 2	Shani 1			Symposia 2	Shani 1		
				Theme 7-TS-3	Shani 2		Theme 7-TS-1	Shani 2			Theme 7-TS-2	Shani 2		
				Poster (Theme: 2)	CSM Hall		Poster (Theme: 4, 8)	CSM Hall			Poster (Theme: 5, 9)	CSM Hall		
				Farmers meet	Oman Hall		Theme 4-TS-1	Oman Hall			Theme 4-TS-2	Oman Hall		
Students' prog.	Nayanar Hall	PPVFRA	Nayanar Hall	Industry meet	Nayanar Hall									
Theme 5-TS-1	Sini 1	Theme 5-TS-2	Sini 1	Theme 5-TS-3	Sini 1									
Theme 8-TS-1	Sini 2	Theme 8-TS-2	Sini 2	Panel Dis- 2	Sini 2									
Theme 9-TS-1	Shani 1	Theme 9-TS-2	Shani 1	Theme 9-TS-3	Shani 1									
Panel Dis- 3	Shani 2	Symposia 3	Shani 2	Tech. / Product Promotions	Shani 2									
Poster (Theme:6)	CSM Hall	Poster (Theme: 6)	CSM Hall	Poster (Theme: 1, 3, 7, 10)	CSM hall									
Day-3 12/10/2023 (Thursday)	Plenary Lect.-3 (Oman Hall)	Tea	Poster/ Expo (CSM Hall)	Lunch		Lunch		Tea	Poster/ Expo	Plenary Lect.-4 (Oman Hall)		Dinner (Hall-MFAR 1)		
				Plenary Lect.-6	Oman Hall	Valedictory Function (Oman Hall)								
				Theme 2-TS-1	Nayanar Hall									
				Theme 5-TS-4	Sini 1									
				MMP	Shani 1									
Day-4 13/10/2023 (Friday)	Plenary Lect.-5 (Oman Hall)	Tea	Lunch		Lunch									
			Tech. /Product Promotions	Shani 2										

\*TS: Technical session



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

## 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

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## 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

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## 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

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## 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

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## 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

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## Poster

**Dr. P. Laxmilatha**

Principal Scientist, ICAR-CMFRI

Ph. 9446473096; Email: laxmil@yahoo.com

Venue: CSM Hall

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# Transformation of Agri-Food Systems for Achieving Sustainable Development Goals

## Themes & Theme Convenors

Sl. No.	Theme Area	Theme Convenor	No. of Sessions
1	<b>Theme 1</b> Ensuring Food & Nutritional Security: Production, Consumption and Value Addition	<b>Dr. M.S. Bamji</b>	3
2	<b>Theme 2</b> Climate Action for Sustainable Agri-food Systems	<b>Dr. P.K. Agrawal &amp; Dr. Anil K. Singh, NAAS</b>	1
3	<b>Theme 3</b> Frontier Science and Emerging Genetic Technologies: Genome Breeding, Gene Editing	<b>Prof. K.C. Bansal</b>	3
4	<b>Theme 4</b> Livestock Sector Transformation for Food Security	<b>Dr. K.M. Bujarbaruah &amp; Dr. Triveni Dutt</b>	2
5	<b>Theme 5</b> Horticulture-based Transformation of Food Systems	<b>Dr. S.K. Singh</b>	4
6	<b>Theme 6</b> Aquaculture & Fisheries-based Transformation of Food Systems	<b>Dr. J.K. Jena</b>	3
7	<b>Theme 7:</b> Nature-based Solutions for Sustainable Agri-food Systems	<b>Dr. Anil K. Singh, NAAS</b>	3
8	<b>Theme 8</b> Next Generation Technologies: Digital Agriculture, Precision Farming and AI-based Systems	<b>Dr. Rajender Prasad</b>	2
9	<b>Theme 9</b> Role of Policies and Institutions in Transforming Agri-food System	<b>Dr. P.K. Joshi</b>	3
10	<b>Theme 10</b> International Partnership for Research, Education and Development	<b>Prof. Rajeev K. Varshney</b>	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: 13.45 - 15.45 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
<b>Dr. R. Hemalatha</b> Director, ICMR-NIN, Hyderabad Email: rhemalathanin@gmail.com	<b>Keynote Lecture</b> Dietary Guidelines for Indians, and What Indians Eat	30 min
<b>Dr. Sridevi Annapurna Singh</b> Director, CSIR-CFTRI, Mysuru Email: sridevi@cftri.res.in	<b>Invited Lecture</b> Food processing to combat malnutrition in India	20 min
<b>Dr. G. Bhanuprakash Reddy</b> Biochemistry Division ICMR- NIN, Hyderabad Email: geereddy@yahoo.com	<b>Invited Lecture</b> Nutraceuticals In Foods and Health	20 min
<b>Dr. Bharati Kulkarni</b> Indian Council of Medical Research V Ramalingaswamy Bhawan, Ansari Nagar New Delhi Email: kulkarni.bharati@icmr.gov.in dr.bharatikulkarni@gmail.com	<b>Invited Lecture (Recorded)</b> Addressing Dual Burden of Malnutrition: Role of Food Systems	20 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		5 min

**Date: 11 October 2023****Time: 10.45 -12.45 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 Chellappan**

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 Food Production

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

<b>Co-Chair I</b>		<b>Co-Chair II</b>	
<b>Dr. Anupam Varma</b> INSA Emeritus Scientist, Advanced Centre for Plant Virology, ICAR-IARI, New Delhi		<b>Dr. Anil K. Singh</b> Principal Scientist ICAR-NIPB New Delhi	
<b>Rapporteur I</b>		<b>Rapporteur II</b>	
<b>Dr. Jayasree Loka, ICAR-CMFRI</b>		<b>Dr. Krishna Sukumaran, ICAR-CMFRI</b>	
Speaker	Topics	Duration	
<b>Dr. P.K. Joshi</b> Former Director South Asia International Food Policy Research Institute Email: pkj.in@outlook.com	<b>Keynote Lecture</b> Demand for and Supply of Agri-food Commodities in India	30 min	
<b>Dr. Sanjeev Gupta</b> ADG (OP), ICAR	<b>Invited Lecture</b> Resource efficient and Environment friendly production of Pulses	20 min	
<b>Prof. (Dr.) Ng. Iboyaima Singh</b> Dean, College of Food Technology Central Agricultural University Imphal	<b>Invited Lecture</b> Impact of Climatic Changes on Food Safety and Nutrition	20 min	
<b>Dr. Ashish Kumar Singh</b> Joint Director (Academic) & Dean, ICAR-NDRI Karnal	<b>Invited Lecture</b> Dairy Foods: Catalytic Tool in Achieving the Sustainable Development Goals	20 min	
<b>Discussion</b>		15 min	
<b>Co-Chairs' Remarks</b>		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
<b>Dr. Philip Thornton</b> ILRI	<b>Keynote Lecture</b> (Recorded) Blue Sky Technologies for Adapting to Climate Change in Agriculture	30 min
<b>Dr. Anupam Mishra</b> VC, Central Agricultural University Imphal	<b>Invited Lecture</b> Extension Strategies for Mitigation and Adaptation of Climate Change in Eastern Himalayan Regions of India	20 min
<b>Dr. Paresh Shirsat</b> Borlaug Institute for South Asia Email:p.bhaskar@cgiar.org	<b>Invited Lecture</b> Targeting Agriculture Technologies to Climate Risks: Pathways for Strengthening Adaptation	20 min
<b>Dr. Sudhanshu Singh</b> Director, IRRI	<b>Invited Lecture</b> Opportunities in Big Data Analytics and ICTs to Accelerate Climate Adaptation	20 min
<b>Dr. Paras Nath Jha</b> Scientist, ICAR-CIFT, Kochi	<b>Session Presentation</b> A Comparative Analysis of Energy Use, Carbon Footprint and Related Environmental Burdens of Different Fishing Systems Through Life Cycle Assessment Approach	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Prof. Rajeev Varshney</b> Murdoch University, Australia	<b>Keynote Lecture</b> Genomics for genome editing	30 min
<b>Dr. Frank White</b> University of Florida, USA	<b>Keynote Lecture</b> Genome Editing and the Remarkable Lives of Plant Pathogenic Bacteria	25 min
<b>Dr. Prabodh Trivedi</b> CIMAP, Lucknow	<b>Invited Lecture</b> Interaction between Small Molecules Plays Bigger Role in Plant Development and Stress Response	20 min
<b>Dr. Debasis Chattopadhyaya</b> NIPGR, New Delhi	<b>Invited Lecture</b> Large Scale Genome Editing for Resource Generation	20 min
<b>Dr. Rahul Mahadev Shelake</b> Gyeongsang National University, Jinju, Korea	<b>Short Lecture</b> Designing CRISPR-based Genome Editing Tools for Microbial and Plant Biology	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Dr. Robert M. Stupar</b> University of Minnesota, St. Paul MN, USA	<b>Keynote Lecture</b> Gene Editing in Soybean: From Potential to Products	30 min
<b>Dr. C. Viswanathan</b> ICAR-IARI, New Delhi	<b>Invited Lecture</b> Genome Editing for Improving Stress Tolerance in Rice	20 min
<b>Dr. R.M. Sundaram</b> ICAR-IIRR, Hyderabad	<b>Invited Lecture</b> Reshaping the Rice Genome to Meet the Emerging Challenges	20 min
<b>Dr. Naveen Bisht</b> NIPGR, New Delhi	<b>Invited Lecture</b> Genome Editing for an Ideal Low-seed, High-leaf Glucosinolate Oilseed Mustard	20 min
<b>Dr. Rupesh Deshmukh</b> Central University of Haryana Mahendergarh	<b>Short Lecture</b> Enhancing Tomato Yield and Quality through a Multi- target Genome Editing Approach	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Dr. Michael Jones</b> Murdoch University, Perth, Australia	<b>Keynote Lecture</b> An International Perspective on Trade in Gene-edited Crops: Issues and Current Status	30 min
<b>Dr. Ashwani Pareek</b> NABI, Mohali (DBT perspective)	<b>Invited Lecture</b> Capacity Building and Biosafety Assessment for Genome Editing in Plants	20 min
<b>Dr. R. Ramakumar</b> Tata Institute of Social Sciences, Mumbai	<b>Invited Lecture</b> Gene Editing and Public Science: A Socioeconomic Perspective	20 min
<b>Prof. Venkatesan Sundaresan</b> Distinguished Professor Plant Biology and Plant Sciences University of California, Davis, USA	<b>Special Lecture (Recorded)</b> Generating Self-Cloning Hybrid Crops through Synthetic Apomixis	20 min
<b>Dr. K. Lakshmi, Dr. P.T. Prathima and Dr. C. Appunu</b> ICAR-SBI, Coimbatore.	<b>Session Presentation</b> CRISPR/Cas9-mediated lignin modification in Sugarcane towards improved lignocellulosic biofuel production	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Dr. Abhijit Mitra</b> AHC, Gol	<b>Keynote Lecture</b> Livestock Sector Transformation for Food Security	30 min
<b>Dr. T.J. Rasool</b> Director, Camel Biotechnology Center, Abu Dhabi, UAE	<b>Invited Lecture</b> Prospect of Genome Edited Livestock in India	20 min
<b>Dr. A.K. Srivastava</b> VC, DUVASU, Mathura	<b>Invited Lecture</b> Indian Dairy Sector's Preparedness for Food Security	20 min
<b>Dr. Raghavendra Bhatta</b> Director, NIANP, Bengaluru	<b>Invited Lecture</b> Animal Feed Sector Transformation for Food and Environmental Security	20 min
Session Presentation		15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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

**Dr. M.S. Chauhan**

VC, GB Pant University

#### Co-Chair II

**Dr. Kusumkar Sharma**

Former ADG (HRD), ICAR

#### Rapporteur I

**Dr. Krupesha Sharma**, ICAR-CMFRI

#### Rapporteur II

**Dr. Sumitra T.G.**, ICAR-CMFRI

Speaker	Topics	Duration
<b>Dr. H. Rahman</b> South East Asian Head, ILRI	<b>Keynote Lecture</b> Animal Health Sector Transformation for Food and Health Security	30 min
<b>Dr. S.B. Barbuddhe</b> Director, ICAR-National Meat Res. Institute Hyderabad	<b>Invited Lecture</b> Meat Sector Visioning and Action Agenda for Continued Food Security	20 min
<b>Dr. R.N. Chatterjee</b> Director ICAR-DPR Hyderabad	<b>Invited Lecture</b> Poultry Sector Transformation for Food and Livelihood	20 min
<b>Dr. Dheer Singh</b> Director ICAR-NDRI, Karnal	<b>Invited Lecture</b> Dairy Value Chain for Food and Income Security	20 min
<b>Dr. A. Kumareshan</b> Principal Scientist, NDRI, Bengaluru	<b>Invited Lecture</b> Sexed Sorted Semen for Higher Production and Income Security	15 min
Session Presentation		15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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

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

**Dr. Major Singh**

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

#### Topics

**Keynote Lecture**

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

#### Duration

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	Topics	Duration
<b>Dr. Vinay Bhardwaj</b> Director ICAR-NRC on Seed Spices Ajmer Email: director.nrcss@icar.gov.in	<b>Keynote Lecture</b> Total Quality Management in High Value Spice Production	30 min
<b>Dr. K.V. Prasad</b> Director, ICAR-DFR, Pune Email: director.dfr@icar.gov.in	<b>Invited Lecture</b> Pigments as Components of Functional Foods: Lab to Commercial Production	20 min
<b>Dr. A.K. Shasany</b> Director, CSIR-NBRI, Lucknow Email: akshasany@yahoo.com	<b>Invited Lecture</b> Application of Nanotechnology in Horticultural Production	20 min
<b>Dr. D. Prasath</b> Principal Scientist, ICAR-IISR, Kozhikode Email: Prasath.D@icar.gov.in	<b>Invited Lecture</b> Nutraceuticals from Indian Spices	20 min
<b>Mrs. A.M. Simmy</b> Asst. Professor, AICRP on Floriculture College of Agriculture, Vellanikkara Email: simmy.am@kau.in	<b>Session Presentation</b> Ornamental flowers: Potential for future food and health, an investigation.	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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<sup>st</sup> 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
<b>Dr. Eric-Jan Lock</b> Research Director Nutrition and Feed Technology NOFIMA, Norway Email: Erik-Jan.Lock@nofima.no	<b>Keynote Lecture</b> Fish Feed: Innovations for Driving Sustainable Aquaculture Growth	30 min
<b>Dr. Morten Rye</b> Director of Genetics, Benchmark Genetics Norway	<b>Invited Lecture</b> Leveraging Technology for Genetic Improvement in Aquaculture Production	20 min
<b>Dr. Kuldeep K. Lal</b> Director, ICAR-CIBA, Chennai Email: kuldeepklal@gmail.com	<b>Invited Lecture: Fish Biotechnology</b> Options for Transforming Aquaculture	20 min
<b>Dr. Neeraj Sood</b> Principal Scientist & HoD, ICAR-NBFGR Lucknow Email: sood-neeraj@rediffmail.com	<b>Invited Lecture</b> Technological Advancements and the Promise of Innovations towards Emerging Threats to the Fish Health in Aquaculture Systems	20 min
<b>Dr. Biju Sam Kamalam</b> Senior Scientist, ICAR-DCFR, Bhimtal Email: bijunut@hotmail.com	<b>Session Presentation</b> Future proofing rainbow trout aquaculture with functional feeds	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Prof. (Dr.) Soottawat Benjakul</b> Professor, Prince of Songkla University, Thailand Email: soottawat.b@psu.ac.th	<b>Keynote Lecture</b> Advancements in Seafood Preservation: Ensuring Safe and Nutritious Fish Products	30 min
<b>Dr. Ravishankar C.N.</b> Director, ICAR-CIFE, Mumbai Email: cnrs2000@gmail.com	<b>Invited Lecture</b> Innovations in Fish Processing Technology for Increasing Efficiency and Reducing Wastage	20 min
<b>Dr. Satyen Kumar Panda</b> Advisor (Quality Assurance), FSSAI, Delhi Email: satyenpanda@gmail.com; advisor.qa.fssai.gov.in	<b>Invited Lecture</b> Quality Certification Standards in Fish Product Processing for Consumer Food Safety – An Indian Perspective	20 min
<b>Dr. Holly Hapke</b> Director of Research Development School of Social Sciences University of California, Irvine Email: drhollyhapke@gmail.com; hhapke@uci.edu	<b>Invited Lecture</b> Gender in Fisheries & Aquaculture: Driving Transformational Change for Food Systems	20 min
<b>Dr. Remya S.</b> Senior Scientist, ICAR-CIFT Kochi Email: remya03cof@gmail.com	<b>Session Presentation</b> Preparation of colorimetric spoilage indicators using plant anthocyanin extracts for intelligent packaging application in fish	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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

**Dr. M. Madhu**

Director, ICAR-IISWC, Dehradun

#### Co-Chair II:

**Dr. K.G. Mandal,**

Director, ICAR-MGIFRI, Motihari, Bihar

#### Rapporteur I

**Dr. Rema Madhu, ICAR-CMFRI**

#### Rapporteur II

**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

#### Co-Chair II

**Dr. R.K. Yadav**

HoD, ICAR-CSSRI

#### Rapporteur I

**Dr. Sumitra TG, ICAR-CMFRI**

#### Rapporteur II

**Dr. Vinothkumar R, ICAR-CMFRI**

Speaker	Topics	Duration
<b>Dr. B.S. Dwivedi</b> Member (NRM), ASRB	<b>Keynote Lecture</b> Soil Health Enhancement for Sustainable Agriculture Production	30 min
<b>Dr. B. Mohan Kumar</b> Former VC Arunachal University of Studies	<b>Keynote Lecture</b> Agro-forestry: A Nature based Solution for Mitigation and Adaptation to Climate Change	20 min
<b>Dr. Ch. Srinivasa Rao</b> Director, ICAR-NAARM Hyderabad	<b>Invited Lecture</b> Carbon Farming Opportunities and Action Plan towards Achieving SDGs in India	20 min
<b>Prof. A.R. Podile</b> Senior Professor University of Hyderabad	<b>Invited Lecture</b> Microbiome-based Approaches for Sustainable Agriculture	20 min
<b>Mr. Shailendra Singh</b> COO, M/s Zydex Agro Solutions	Technological Improvement in Soil Health Improvement (Industry)	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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
<b>Dr. Suresh Kumar Chaudhari</b> DDG (NRM), ICAR	<b>Keynote Lecture</b> Addressing Nutritional Security through Natural Resource Management	30 min
<b>Prof. Indira Sarangthem</b> Dean, CoA, CAU, Imphal	<b>Invited Lecture</b> Prospects of Nature – based – Solutions for Climate Resilient Agriculture	20 min
<b>Dr. G. Ravindra Chary</b> Project Coordinator AICRP for Dryland Agriculture ICAR-CRIDA, Hyderabad	<b>Invited Lecture</b> Food and Nutrition Security in Rainfed Eco-systems	20 min
<b>Dr. Anil K. Singh</b> NAAS	<b>Invited Lecture</b> Criticality of Soil and Water in ‘One Health’	20 min
<b>Mr. Gulshan Rana</b> M/s Bayer	Advancing Sustainable Climate Smart Resilient Agriculture Eco-system in India (Industry)	15 min
<b>Discussion</b>		15 min
<b>Co-Chairs’ Remarks</b>		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. Eldho 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

AllA (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@cgiar.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, RVSKVV

### 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

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**

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

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

<b>Chair: Dr. N.P. Singh</b> Former Director, NIASM, Baramati	<b>Co-Chair: Dr. S. Ghosh</b> ADG (Marine), ICAR	
<b>Rapporteur I</b> <b>Dr. S. Kundu</b> ICAR- CRIDA	<b>Rapporteur II</b> <b>Dr. Anshida Beevi</b> ICAR-CRIDA	<b>Rapporteur III</b> <b>Dr. Loveson Edward</b> ICAR-CMFRI
<b>Speaker</b>	<b>Topics</b>	<b>Duration</b>
<b>Dr. V.K. Singh</b> Director, ICAR-CRIDA, Hyderabad	<b>Keynote Lecture</b> Farming system for efficient resource use, nutritional security and sustainable livelihood.	30 min
<b>Panellists (5-10 minutes each)</b>		
<b>Dr. N.P. Singh</b> Former Director, NIASM, Baramati	Integrated Farming System (IFS) in Coastal and Hill Ecosystem	10 min
<b>Dr. Sunil Kumar</b> 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
<b>Dr. M.L. Jat</b> Global Research Program Director Resilient Farm and Food Systems, ICRISAT, Hyderabad	Conservation Agriculture-Based Integrated Farming System	10 min
<b>Dr. Vandana Dwivedi</b> Advisor (PKVY), DAC&FW Ministry of Agriculture & Farmers Welfare Krishi Bhawan, New Delhi	Organic based Integrated Farming Systems	10 min
<b>Dr. H.B. Babalad</b> Dean (Agri) and Professor of Agronomy College of Agriculture, University Agricultural Sciences, Dharwad	Prospects of Natural Farming in Integrated Farming System Approach	10 min
<b>Dr. K. Narsaiah</b> ADG (Process Engineering), KAB II ICAR, New Delhi- 110012	Income Enhancement through Post-harvest Management and Value Addition in Integrated farming System	10 min
<b>Prof. Sudheesh M.V.</b> Associate Dean Amrita Vishwa Vidyapeetham Coimbatore - 641 112	Promoting sustainable income and nutritional diversity through tribal mixed cropping practices	10 min
<b>Open Discussion</b>		25 min
<b>Co-Chairs' Remarks</b>		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

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

<b>Rapporteur I</b> <b>Dr. Rekha Devi C.</b> ICAR-CMFRI		<b>Rapporteur II</b> <b>Dr. Ritesh Ranjan</b> ICAR-CMFRI	
<b>Topic</b>	<b>Speaker</b>	<b>Duration</b>	
Welcome	<b>Dr. W.S. Lakra</b> , Secretary, NAAS	5 min	
Chairman's address - IYM 2023: Role of India and global expectations	<b>Dr. D.K. Yadav</b> ADG (Seed), ICAR, New Delhi	15 min	
Mainstreaming millets for food and nutritional security	<b>Dr. C. Tara Satyavathi</b> Director IIMR, Hyderabad	15 min	
Enhancing productivity of millets	<b>Dr. O.P. Yadav</b> Director, CAZRI, Jodhpur	15 min	
Genome editing for enhancing productivity in millets	<b>Prof. K.C. Bansal</b> Former Director ICAR - NBPGR	15 min	
The Push for Nutricereals: The Vision and roadmap of the Indian Government	<b>Smt. Shubha Thakur</b> 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	<b>Dr. Dayakar Rao</b> CEO, NutriHub, IIMR, Hyderabad	15 min	
<b>Panel Discussion</b>			
<b>Promoting Millets Production, Value Addition and Consumption: Experience of the stakeholders</b>			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
<b>General Discussion</b>			15 min
<b>Concluding remarks by Chairman</b>			5 min
<b>Vote of Thanks</b>	<b>Dr. C. Tara Satyavathi</b> , Convener		5 min



## 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**

<b>Session Coordinator: Dr. Neeru Bhushan, ADG, ICAR</b>		
<b>Co-Chair I</b>	<b>Co-Chair II</b>	
<b>Dr. V. Geethalakshmi</b> VC, TNAU	<b>Dr. S.K. Sharma</b> ADG (HRM), ICAR	
<b>Rapporteur I</b>		
<b>Dr. Anuradha Agarwal</b>		
<b>Speaker</b>	<b>Topics</b>	<b>Duration</b>
<b>Dr. V. Geethalakshmi</b> VC, TNAU	Empowering Youth and Women for Entrepreneurship driven Economic Development	30 min
<b>Dr. Neeru Bhushan</b> ADG (IPTM), ICAR	Creating a Start Up Ecosystem to Empower Youth and Women in Amrit Kaal	20 min
<b>Dr. Satender Arya</b> CEO, ASCI	Empowerment of Youth by Skilling in Agriculture	20 min
<b>Dr. Swati Nayak</b> IRRI	Empowering Farm women through Seed system	20 min
<b>Dr. Malavika Dadlani</b> NAAS	Bridging Gender Inequity in Agriculture through Innovation and Technology	20 min
<b>Discussion</b>		15 min
<b>Co-Chairs' Remarks</b>		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: 13<sup>th</sup> October 2023**

**Time: 10.30 - 13:00 hrs.**

**Venue: Shani 1**

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

## Special Session on Role of PPV&FRA in Transformation of Agri-Food Systems for Achieving Sustainable Development Goals

**Convenor**  
**Dr.T.Mohapatra**  
 Chairperson,  
 PPVFRA

**Date: 12-10-2023**  
**Time: 13.45-15.45 hrs.**  
**Venue: Nayanar Hall**

### Protection of Plant Varieties and Farmer's Rights in India

**Session Coordinator: Dr. Ravi Prakash, PPVFRA, New Delhi**

#### Co-Chair I

**Dr. P.L. Gautam**  
 Former Chairperson  
 NBA-Chennai and PPVFR Authority  
 New Delhi

#### Co-Chair II

**Dr. Rajendra Prasad**  
 Ex. VC, UAS, Bengaluru

#### Rapporteur I

**Dr. Javid Iqbal Mir, ICAR-CITH**

#### Rapporteur II

**Dr. Smita Lenka Jain, ICAR-NBPGR**

#### Speaker

**Dr. D.K. Agarwal**  
 Registrar General, PPV&FR Authority  
 New Delhi

#### Topics

**Keynote Lecture**  
 An Overview of the PPV&FR Act and its Provisions.

#### Duration

30 min

#### Dr. J.C. Rana

Country Representative - India, Biodiversity for Food and Agriculture (Alliance Bioversity-CIAT)

#### Invited Lecture

Role of Community Seed Banks of farmer's varieties in Seed security

20 min

#### Dr. Raji Namboodiri

Asst. Professor and Coordinator IPR Cell  
 KAU, Kerala

#### Invited Lecture

Protection of Farmer's Varieties & Conservation efforts by the farmer's of the State of Kerala

20 min

#### Mr. Sanjay Patil

Chief Thematic Programme Executive (Agrobiodiversity)  
 BAIF Development Research Foundation  
 Nashik - Pune

#### Invited Lecture

Protection of Farmer's Varieties & Conservation efforts by the farmer's of the State of Maharashtra

20 min

#### Mr. S.S. Parmesh

Siddhu Jack, Karnataka

#### Session Presentation

Protection, Conservation and commercialization of Siddhu Jack Varieties

15 min

#### Mr. John Joseph

Nutmeg Conserver, Kannur, Kerala

#### Session Presentation

Protection and Conservation of Nutmeg Varieties

#### Discussion

15 min

#### Co-Chairs' Remarks

5 min

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## Congress Secretariat

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