

## Technical Programme

# XXII Biennial National Symposium

## Climate Smart Agronomy for Resilient Production Systems and Livelihood Security



22–24 November, 2023

Venue: St. Joseph Vaz Spiritual Renewal Centre, Old Goa



**Registration: Venue: St. Joseph Vaz Spiritual Renewal Centre, Old Goa**

November 21, 2023 Time: 16:00–18:00 hrs

November 22, 2023 Time: 08:00–09:00 and 11:00–17:00 hrs

November 23–24, 2023 Time: 09:00–13:00 hrs

### November 22, 2023 DAY 1

09:00–11:00

#### INAUGURAL SESSION

Hall I

11:00– 11:30

#### High Tea

11:30–12:15

#### Dr O.P. Gautam, Memorial Lecture:

**Chair:** Dr. Himanshu Pathak, Secretary, DARE and DG, ICAR, New Delhi

**Co-Chair:** Dr. S.K. Chaudhari, DDG (NRM) ICAR, New Delhi

**Convener:** Dr J.V.N.S. Prasad, PC, CRIDA, Hyderabad

**Speaker:** Dr. Arvind Kumar, Former VC, RLBCAU, Jhansi

*Topic: Pioneering Agronomic Solutions for Sustainable Development Goals*

#### DAY 1 Concurrent Session 1

12:30–16:30

#### Session I: Organic Farming and Natural Farming

Hall I

**Chairs:** Dr. S.K. Chaudhari, DDG (NRM) ICAR, New Delhi

Dr. B.R. Kamboj, VC, CCS HAU, Hisar

Dr. B.S. Mahapatra, Former VC, BCKV, Mohanpur

**Co-chairs:** Dr. Rajbir Singh, ADG, (AAF&CC), ICAR, New Delhi

Dr. S.K. Sharma, ADG (HRM), ICAR, New Delhi

**Conveners:** Dr. H.B. Bablad, Dean, OFRC, UAS, Dharwad

Dr. T.K. Srivastava, Principal Scientist, (Agronomy) & Former Head,

Division of Crop Production ICAR-Indian Institute of Sugarcane Research, Lucknow

**Rapporteurs:** Dr Subhash Babu, Senior Scientist, ICAR-IARI, New Delhi and

Dr Md. Hasnain, Scientist, ICAR-IARI, Samastipur

12:30-12.50

#### Keynote:

**Dr. S.K. Sharma**, ADG (HRM), ICAR, New Delhi

*Organic and Natural Farming for Transitioning to Sustainable Agri-Food Systems: Opportunities and Challenges*

12.50–13.30

#### Lead:

**Dr. Anup Das**, Director, ICAR-Research Complex for Eastern Region, Patna

*Organic and Natural Farming: opportunities and challenges for northeast India*

**Dr. N. Ravisankar**, PC IFS and NC, ICAR-IIFSR, Modipuram *Organic and Natural Farming: Research Status and Agro-Ecological benefits*

**Dr. D.K. Singh**, Professor, Agronomy, GBPUAT, Pantnagar

*Organic Farming: Transforming Science into Practice towards Healthy Ecosystem*

13:30–14:30

#### LUNCH

14.30–15.45

**Oral:**

**Dr. S.P. Singh**, Professor, GBPUAT, Pantnagar

*Effect of establishment methods and weed management under organic production system of rice-vegetable pea-sweet corn cropping system*

**Dr. P.P. Chaudhari**, Associate Professor, Directorate of Research, SDAU, Sardarkrushinagar  
*Effect of organic manures and bio-fertilizers on growth, yield and economics of kharif cowpea*

**Dr Adinath N. Paslawar**, Chief Scientist, PDKV, Akola

*Productivity potential of major crops and cropping systems under different organic nutrient modules in Vidarbha region of Maharashtra*

**Dr. Elisa Azura Azman**, Senior Lecturer, Universiti Putra Malaysia

*Effect of liquid organic fertilizer (LOF) on the soil enzymes grown with Brassica rapa var. Chinensis*

**Dr. Ashis Maity**, Senior Scientist (SS), ICAR-IIWM, Chandrasekharapur, Bhubaneswar  
*Influence of organic fertilizers on soil fertility, microbial activity, flowering and fruiting and fruit yield of pomegranate (Punica granatum L.)*

**Dr. Renu Singh**, Principal Scientist, ICAR-IARI, New Delhi

*Effect of natural farming inputs on crop yield of rice-wheat cropping system*

**Dr B.L. Manjunath**, Principal Scientist, ICAR-Indian IHR

*Rainfed Mango based integrated farming systems for sustainable productivity and profitability*

**Dr Madhumitha Srinivasan**, Research Analyst Sustainable Food Systems Council on Energy, Environment and Water ISID Campus, Vasant Kunj, New Delhi

*Predictors of awareness and interest in natural farming-Findings from Andhra Pradesh*

**Dr. Samrath Lal Meena**, Principal Scientist, ICAR-IARI, New Delhi

*Soil moisture and nutrient management for enhanced system productivity, rainfall-use efficiency, profitability and sustainability of pearl millet–mustard system in a semi-arid agro-ecology*

15.45-16.30

**Rapid Fire:**

**Dr Jayanta Layek**, ICAR-IIAB, Ranchi

*Integrated organic farming system (IOFS) enhanced system productivity and food security in hill Agriculture*

**Dr Amit A. Shahane**, Assistant Professor, College of Agriculture (CAU-I), Kyrdemkulai  
*Evaluation of lowland rice varieties in acidic soil under organic production system*

**Dr Mude Ramesh Naik**, Scientist, ICAR-NAARM, Rajendranagar, Hyderabad

*Organic Farming in India: Production Constraints and Policy Recommendations*

**Dr Deepak Kumar Meena**, Ph.D. Scholar, Agronomy, ICAR-IARI, New Delhi

*Topic: PROM and biodynamic manure for sustainable soil management in rainfed agro-ecosystems*

**Dr Supriya Singh**, Ph.D. Scholar (Agronomy), ICAR-NDRI, Karnal

*Yield attributes and yields of Organic Scented Rice (Oryza sativa L.) in North-West plains of India*

**Dr P.C. Ghasal**, Scientist (Agronomy), ICAR-IIFSR, Modipuram, Meerut

*Mustard Oilcake Integration for Organic Nutrient Management in Wheat under Upper Gangetic Plain Zone*

**Dr Bharat Arjun Gudade**, Deputy Director, Spices Board, Chhindwara

*Impact of foliar nutrition of zinc, manganese and magnesium on productivity and economics of large cardamom under Sikkim condition*

**Dr Mangesh R. Thakur**, Assistant Research Scientist (Agronomy), NAU, Achhalia

*Integrated nitrogen management in sorghum to sustain productivity, profitability and soil fertility*

16:30–16:40

Tea

November 22, 2023

Day 1 Concurrent Session 2

12:30–16:30

Session II: System approaches for agro-ecosystem sustainability and integrated farming systems

Hall II

**Chair:** Dr. A.K. Vyas, VC, Agriculture University, Kota

**Co-chairs:** Dr. D.K. Sharma, Former Director, ICAR-CSSRI, Karnal  
Dr. Sunil Kumar, Director, ICAR-IIFSR, Modipuram

**Convener:** Dr. N. Ravishankar, PC(IFS), ICAR-IIFSR, Modipuram  
Dr. S.K. Sarangi, PS, ICAR-CSSRI, RRS, South 24 Parganas

**Rapporteurs:** Dr R.S. Bana, Senior Scientist, ICAR-IARI, New Delhi  
Dr Bappa Das, Scientist, ICAR-CCARI, Goa

**Keynote:**

**Dr. Sunil Kumar**, Director, ICAR-IIFSR, Modipuram

*Agroecology concepts on Integrated Farming Systems, Organic Farming and Natural Farming*

**Lead:**

**Dr. K.G. Mandal**, Director, ICAR-MGIFRI, Motihari, East Champaran

*Efficient water management and crop intensification*

**Dr Jacob John**, Professor Agronomy & Head, Thiruvananthapuram

*Integrated farming Systems Suited for West Coast Plain*

13:30–14:30

**LUNCH**

14.30-14.45

**Lead:**

**Dr. S.S. Rathore**, Head, Agronomy, ICAR-IARI, New Delhi

*IFS as climate-smart agronomy to ensure resilience in production system under changing climate conditions*

14.45–15.45

**Oral:**

**Dr. S.P.S. Tanwar**, Head, Division of Transfer of Technology & Training, ICAR- CAZRI, Jodhpur

*On Farm performance and farmers participatory assessment of newly introduced Fodder beet crop in farming systems of arid Western Rajasthan*

**Dr. Sachin Rautaray**, Principal Scientist and Programme Leader, CAR-Indian Institute of Water Management, Bhubaneswar

*Systems approach for a water use efficient integrated farming system in high rainfall zone*

**Dr. Shivani**, Principal Scientist (Agronomy), ICAR Research Complex for Eastern Region, Patna

*Enhancement of cropping intensity and system productivity through diversification of rice-wheat cropping system in middle Indo-Gangetic Plains*

**Dr. Sanjeev Kumar**, Head, ICAR Research Complex for Eastern Region, Patna, Bihar  
*Production and income sustainability through Integrated farming system approaches for small and marginal farmers of Eastern India*

**Dr P.M. Shanmugam**, Professor (Agronomy), Tamil Nadu Agricultural University, Coimbatore

*Integrated farming system: A tool to achieve national food security with sustainability*

**Dr. G. Suresh**, Principal Scientist, ICAR-IIOR, Rajendranagar, Hyderabad

*Evaluation of castor genotypes for their suitability in rabi season*

**Dr. Paramesha V.**, Scientist Agronomy, ICAR-Central Coastal Agricultural Research Institute, Old Goa, Goa

*Environmental impact assessment of rice based lowland integrated farming system in the west coast of India*

15.45-16.30	<p><b>Dr Sanjay Kumar Yadav</b>, Senior Scientist, ICAR-Indian Institute of Sugarcane Research, Lucknow, Uttar Pradesh <i>Enhancing sugarcane productivity through diversification of sugarcane based cropping system with medicinal and aromatic plants</i></p> <p><b>Dr Rakesh Kumar</b>, Senior Scientist (Agronomy), Division of Crop Research, ICAR-RC for Eastern Region, Patna <i>Conservation agriculture-based crop management practices improved system productivity and soil physical health in rice- fallow system of eastern India</i></p> <p><b>Dr Panneerselvam Peramaiyan</b>, International Rice Research Institute <i>Mechanized crop establishment methods for improving rice-based systems productivity in Eastern India</i></p> <p><b>Rapid Fire:</b></p> <p><b>Dr Dinesh Jinger</b>, ICAR-Indian Institute of Soil and Water Conservation, Research Centre, Vasad, Anand, Gujarat <i>Dragon fruit based-horti-silviculture system for enhancing ecosystem services of Mahi ravines of Central Gujarat</i></p> <p><b>Dr. Bipin Kumar</b>, WTC, ICAR-IARI, New Delhi <i>Impact of concentrated application of FYM inside the raised bed on productivity of maize-wheat at different water regimes</i></p> <p><b>Dr. Mavji Patidar</b>, ICAR-CAZRI, RRS, Jaisalmer <i>Improving farm productivity through livestock based farming system in Arid Regions</i></p> <p><b>Dr R.L. Meena</b>, ICAR-National Bureau of Soil Survey and Land Use Planning, Regional Centre, Udaipur <i>Suitability Assessment of Wheat (<i>Triticum aestivum</i> L.) under Land Management Units of Arid Western Plain of Gujarat (AESR 2.4), India</i></p> <p><b>Dr Satish Imade</b>, Anand Niketan College of Agriculture, Warora, Dist-Chandrapur <i>Direct and residual effect of INM on green gram under rice-green gram cropping sequence</i></p> <p><b>Dr Amit Kumar</b>, ICAR Research Complex for NEH Region, Sikkim Centre, Tadong, Gangtok, Sikkim <i>Impact of organic nutrition on productivity and economic viability of maize based cropping systems in terraced land of Sikkim Himalayas</i></p> <p><b>Dr G. Manjulatha</b>, Principal Scientist, Agricultural Research Station, Karimnagar, Professor Jayashanker Telangana State Agricultural University, Telangana <i>Integrated effect of biofertilizers, organic manures and inorganic fertilizers on growth and yield of winter maize</i></p>
16:30-16:40	Tea
12:30-16:30	<p style="text-align: center;"><b>Day 1 Concurrent Session 3</b></p> <p><b>Session III: Agro-ecological approaches for biotic and abiotic stress management</b> <span style="float: right;"><b>Hall III</b></span></p> <p><b>Chairs:</b> <b>Dr. P.K. Ghosh</b>, Director, ICAR-NIBSM, Raipur <b>Dr N.P. Singh</b>, Former Director, ICAR-NIASM, Baramati</p> <p><b>Co-chair:</b> <b>Dr. M. Madhu</b>, Director, ICAR-IISWC, Dehradun</p> <p><b>Convener:</b> <b>Dr G. Ravindra Chary</b>, Former PC AICRPDA, ICAR-CRIDA, Hyderabad</p> <p><b>Rapporteurs:</b> <b>Dr Subash Babu</b>, Senior Scientist, ICAR-IARI, New Delhi <b>Dr Dinesh Jinger</b>, ICAR-IISWCR, Anand</p>
12:30-13.10	<p><b>Keynote:</b></p> <p><b>Dr. P.K. Ghosh</b>, Director, ICAR-NIBSM, Raipur <i>Biotic and abiotic stress scenario and its interaction</i></p>

- 13.10–13.40 **Dr. J.S. Mishra**, Director, Indian Institute of Weed Science, Jabalpur  
*Ecological approaches for sustainable weed management*
- Lead:**
- Dr. Anil Dixit**, Joint Director, ICAR-NIBSM, Raipur  
*Recent advances in biotic stress management*
- Dr. H.B. Babalad**, Dean, OFRC, UAS, Dharwad  
*Environment Friendly Ecological Approaches for Sustainable Food Production*
- 13:30–14:30 **LUNCH**
- 14.30–14.40 **Dr C.R. Chinnamuthu**, Professor, TNAU, Coimbatore  
*Using nano technological approach to control cyperus rotundus*
- 14.40–16.00 **Oral:**
- Prof. Murali Arthanari Palanisamy**, Professor and Head, Sugarcane Research Station, and Programme Coordinator, KVK, Sirugamani, Thiruchirapalli  
*Weed biology and its impact on crop weed competition in direct seeded rice ecosystem*
- Dr. Kuldeep Singh**, Director and Principal Agronomist, Punjab Agricultural University, Regional Research Station, Faridkot  
*Exploring climatic resilience in promising sugarcane varieties through irrigation scheduling in semi-arid regions of Punjab*
- Dr D.D. Chaudhari**, AICRP on Weed Management, AAU, Anand  
*Integrated weed management in dry direct seeded rice under irrigated condition*
- Dr Rajvir Sharma**, Principal Scientist, ICAR-IARI, New Delhi  
*Bio-efficacy and selectivity of herbicides in chickpea*
- Dr G.A. Rajanna**, ICAR-Directorate of Groundnut Research, RRS, Ananthapur  
*Agro-techniques for minimizing groundnut yield losses in frequent drought situations*
- Dr Prabhu Govindasamy**, Division of Agronomy, ICAR-IARI, New Delhi  
*Early deduction of Malva parviflora (Common mallow) invasion in wheat crop*
- Dr. Rishi Raj**, Division of Agronomy, ICAR-IARI, New Delhi  
*Tillage, residue and herbicide effects on weed and nematode management in DSR*
- 16.00-16.30 **Rapid Fire:**
- Dr Shiv Ram Samota**, ICAR-IIW&BR, Karnal  
*Pyroxasulfone based herbicide combinations for weed control in conservation tillage wheat*
- Dr Bonti Gogoi**, Krishi Vigyan Kendra, Nagaon, Simaluguri  
*Chemical management of orobanche in toria (Brassica campestris L. var. toria)*
- Dr V.K. Choudhary**, ICAR-Directorate of Weed Research, Adhartal  
*Optimizing seed rate and weed management for weed control, crop productivity and profitability in dry-seeded rice*
- Dr Bharat Lal Meena**, RARI, SKNAU, Durgapura  
*Influence of different intercrops on yield attributes and productivity of pigeonpea based cropping system*
- Dr. Tushar Kumar**, Assistant Professor, Navsari Agri. University, Bharuch Campus  
*Drainage technology to ameliorate waterlogging and salinity*
- Dr. Dibakar Ghosh**, Scientist, ICAR-IIWM, Bhubaneswar  
*Organic manure alleviates hexavalent chromium (Cr)-induced phytotoxicity by restricting Cr translocation in rice (Oryza sativa L.)*
- Dr. Maruthadurai R**, Senior Scientist, ICAR-CCARI Ela, Old Goa  
*Impact of pulses and legume-based intercropping on the incidence of invasive fall armyworm in Fodder Maize*

**Dr Prithwiraj Dey**, Agricultural and Food Engineering Department, IIT-Kharagpur, Kharagpur  
*Lodging reduction and quality improvement of fibre flax with seed rate and nutrient management*

**Dr E. Rajanikanth**, Professor Jayashankar Telangana State Agricultural University, Telangana  
*Effect of tillage, mulching and hydrogel on performance of rainfed maize*

16.00-16.30

**November 22, 2023**

**Day 1 Concurrent Session 1**

**Hall I**

16.30-18.30

**Session IV: Machine learning and artificial intelligence in smart agronomic management**

**Chair:** **Dr P.S. Pandey**, Vice Chancellor, Dr RPCAU, Pusa Samastipur

**Co-chair:** **Dr P.S. Brahmanand**, Project Director, WTC, New Delhi

**Convener:** **Dr. E.V.S. Prakasa Rao**, Hon. Scientist, CSIR-Fourth, Paradigm Institute, Bengaluru

**Rapporteurs:** **Dr Prabhu G.**, Senior Scientist, ICAR-IARI, New Delhi  
**Dr Rishi Raj**, Senior Scientist, ICAR-IARI, New Delhi

16.30-17.10

**Keynote:**

**Dr. E.V.S. Prakasa Rao**, Hon. Scientist, CSIR-Fourth Paradigm Institute, Bengaluru  
*Role of Digital Technologies in Developing Smart Agronomy for Resilient Production Systems and Livelihood Security*

**Dr P.S. Brahmanand**, Project Director, WTC, ICAR, New Delhi  
*IoT enabled precision water management*

17.10-17.40

**Lead:**

**Dr. N. Ravikumar**, Principal Scientist, Computer Applications in Agriculture, ICAR-CRIDA, Hyderabad  
*Assessing crop abiotic stress using computer vision technologies for better management*

**Dr S.N. Islam**, ICAR-IASRI, New Delhi

*Artificial Intelligence; Roles, Application and Prospects in Modern Agriculture*

**Dr Kantha Rao Bhimala**, Scientist, CSIR Fourth Paradigm Institute, Bengaluru  
*soil moisture monitoring and modelling from multi source data to aid irrigation management in crop fields*

17.40-18.30

**Oral:**

**Dr M. Malla Reddy**, Professor, Agronomy, PJTSAU, Hyderabad

*New Approaches in Mechanization of Cotton (*Gossypium hirsutum* L.) Production in India*

**Dr Shivashankar K.**, University of Agricultural Sciences, Dharwad, Karnataka

*Artificial intelligence-based leaf nitrogen estimation in Maize*

**Dr. Ram Swaroop Bana**, Senior Scientist, ICAR-IARI, New Delhi

*Identifying optimum residue levels under conservation agriculture for sustainable crop and water productivity of rice-wheat rotation using APSIM model*

**November 22, 2023**

**Day 1 Concurrent Session 2**

**Hall II**

16:30-18.30

**Panel Discussion I: Innovative products development and delivery in Agronomic Research**

**Chair:** **Dr. Neeraj Kumar Awasthi**, Country Head, Anglo, America Co. Ltd., Sriganganagar

**Co-chair:** **Dr. Shashi Kant Bhide**, Mosaic India Pvt. Ltd., Gurugram

**Moderator:** **Dr. Tarunendu Singh**, Manager (A.S.) & Head, (Agricultural Services), IFFCO Sadan, New Delhi



**Rapporteurs:** **Dr Vipin Mishra**, Regional Manager, India,  
AngloAmerican Vipin.mishra@angloamerican.com

**Panelist.**

**Ajeet Singh Tomer**, President, Dhanuka, Agri-tech Limited Dhenuka House, Karol Bagh, New Delhi  
**Dr. Anand Jha,/Dr. Shashikant Kulkarni**, TD lead Special, Projects – South Asia, UPL Limited, Hyderabad  
**Mr. K.R. Saxena**, Managing Director & CEO Rallis India Limited, Mumbai  
**Mr. Sanjiv Kanwar**, Managing Director, Yara Fertilisers, India Private Limited  
**Dr. G.V. Subbareddy**, Vice President, Coromandel International Ltd., Secunderabad

18.30-19.00

**Award Ceremony**

19.00-20.30

**Cultural Programme**

20.30

**Dinner**

**November 23, 2023**

**DAY 2**

0900-10.00

**Plenary Lecture:** **Dr. Sudhanshu Singh**, Director IRRI, Varanasi **Hall I**  
**Topic:** Transforming rice-based agri.-food systems to improve small holder, Livelihood and Climate resilience in South-Asia

**Chair:** **Dr Rajbir Singh**, ADG, (AAF&CC), ICAR, New Delhi

**Co-Chair:** **Dr R.K. Rai**, Former Professor & Head (Agronomy),  
(HUDA), Gurgaon

**Convener:** **Dr N.K. Jain** Principal Scientist (Agronomy), HRM  
Unit, KAB-II, ICAR, New Delhi

**Rapporteurs:** **Dr Anchal Dass**, Principal Scientist, ICAR-IARI, New Delhi  
**Dr Sanjay Kumar Yadav**, ICAR-IISR, Lucknow

**November 23, 2023**

**Day 2 Concurrent Session 1**

**Hall I**

10.00-13.00

**Session V: Revitalizing Goan Agriculture and Allied Sectors for resilient Farmer's Income**

**Chairs:** **Dr Parveen Kumar**, Director, ICAR-CCARI, Goa  
**Dr. V.S. Korikanthimath**, Former Director, ICAR-CCARI, Goa  
**Mr. Nevil Alphonso**, Director, Directorate of Agriculture, Govt. of Goa

**Convener:** **Dr. Paramesha, V.**, Scientist (Agronomy), ICAR-CCARI, Goa

**Rapporteurs:** **Dr. Bappa Das**, Scientist, ICAR-CCARI, Goa

**Dr. Amiya Ranjan Sahu**, Scientist, ICAR-CCARI, Goa

**Context setting**

**Revitalizing Goan Agriculture and Allied Sectors for Doubling Farmer's Income**

**Dr. Parveen Kumar**, Director, ICAR-CCARI, Goa

**Panelists:**

**Shri Nevil Alphonso**, Director, Directorate of Agriculture, Govt. of Goa

**Shri Prasad Volvoikar**, Director, Animal Husbandry and Veterinary Services, Govt. of Goa

**Shri Deepesh Priolkar**, Director, Directorate of Fisheries, Govt. of Goa

**Dr. Milind R Bhirud**, Chief General Manager, NABARD, Goa

**Dr. Pradip V. Sarmokadam**, Member Secretary, Goa State Biodiversity Board

**Dr. Suresh Kunkaliker**, Principal, Goa College of Agriculture

**Dr. Jose Romeno Faleiro**, FAO Consultant

**Dr. Sachin Tendulkar**, Mineral Foundation of Goa

**Shri Madhav Sahakari**, Sahakari Spice Farms, Goa

**Shri Paul Fernandes**, Freelance Agriculture Journalist

**Dr A.R. Desai**, Former Principal Scientist, ICAR-CCARI, Goa

**November 23, 2023**

**Day 2 Concurrent Session 2A**

**Hall II**

10.00-12.00

**Session VI: Carbon management in agricultural production systems**

**Chairs:** **Dr Arvind Kumar**, DDG ICRISAT, Patancheru, Hyderabad

**Dr Rajender Kumar Yadav**, Director, ICAR-CSSRI, Karnal

**Co-Chairs:** Dr C. Tiwari, Professor & Head, KVK, Jyolikot, Nainital  
Dr G. Ravindra Chary, Former PC, AICRPDA, ICAR-CRIDA, Hyderabad  
**Convener:** Dr S.S. Rathore, Head, Agronomy, ICAR-IARI, New Delhi  
**Rapporteurs:** Dr Manoj Kumar Singh, BHU, Varanasi, U.P.  
Dr Asha Ram, ICAR-CAFRI, Jhansi, U.P.

10.00-10.20

**Keynote:**

**Dr. R.K. Yadav**, Director, ICAR-CSSRI, Karnal  
*Managing salt affected ecologies: issues and strategies in changing world*

10:20–10.50

**Lead:**

**Dr. H.S. Jat**, Director, IIMR, Ludhiana  
*Carbon Management in Indian Agriculture towards Net Zero: Challenges, Opportunities and Strategies*

**Dr T.K. Das**, Professor (Agronomy), ICAR-IARI, New Delhi  
*Conservation Agriculture for Crop Productivity Soil Health and Suitability*

10.50-11.30

**Oral:**

**Dr. Raj Singh**, Principal Scientist, Agronomy, ICAR-IARI, New Delhi  
*Improving soil properties, organic carbon storage and productivity through tillage and residue management in pearl millet-based cropping systems under semi-arid environments*

**Dr. Bipin Bihari Panda**, Head, RCRRS, ICAR-NRRS, Naira, Srikakulam  
*Effect of residue management on productivity and greenhouse gas emissions from rice in an intensive rice based cropping systems*

**Dr. A.V. Ramanjaneyulu**, Head and Professor, AICRP on Agroforestry, PJTSAU, Rajendranagar  
*Carbon sequestration and performance of fodder grasses under Melia dubia based silvi-pastoral system*

**Dr. Subhash Babu**, Senior Scientist, Division of Agronomy, ICAR-Indian Agricultural Research Institute, New Delhi  
*Designing system approach for Enhancing Energy Use Efficiency and Reducing Carbon Footprint in Indian Agriculture*

**Dr Raman Jeet Singh**, ICAR-IIS&WC, Dehradun  
*Modified tillage and surface residue cover management practices for successful implementation of conservation agriculture on rainfed sloping crop lands of Himalaya*

**Dr Teekam Singh**, Principal Scientist, ICAR-IARI, New Delhi  
*Tillage and concentrated urea spray as defoliator effect on pigeon pea productivity and shaded leaf biomass in pigeonpea-wheat rotation*

**Dr Sukanta K. Sarangi**, Principal Scientist (Agronomy), ICAR-Central Soil Salinity Research Institute (CSSRI), Regional Research Station, Canning Town-743 329, South 24 Parganas, West Bengal

*Smart cropping systems for climate change adaptation, mitigation and economic gain in the coastal region*

11.00-11.30

**Tea**

11.30-12.00

**Rapid Fire:**

**Dr. Mhaskar N.V.**, AICRP on IFS, RARS, Karjat, Dist. Raigad  
*Management of green house gas emissions through integrated farming systems*

**Dr. Ravikumar Chinnathambi**, Assistant Professor, Agronomy, Annamalai University Annamalai Nagar

*Estimation of soil organic carbon stock in INM practised post-harvest soils of the rice-sunflower cropping system*



**Dr. Abir Dey**, Division of Soil Science and Agricultural Chemistry, ICAR-IARI, New Delhi  
*Temperature sensitivity of carbon mineralization from different crop residues with different biochemical compositions*

**Dr. Manish Kushwaha**, Scientist (Seed Production), PAU Seed Farm, Nabha, Patiala  
*Combined application of fertilizer and municipal solid waste compost affects nutrient dynamics and fodder yield of baby corn*

**Dr. Sunil Kinge**, Ph. D. Scholar, Agronomy, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli

**Dr. Alize Pradhan**, Scientist, ICAR-NIASM, Baramali  
*Influence of Land Configuration and Crop Residue Management on Yield of Soybean*

**Dr Pragya Naithani**, GBPUAT, Pantnagar  
*Mitigating Carbon Footprint through Tillage and Nutrient Management in Wheat Cultivation Precision*

**Dr Krutika Subodh Patel**, NAHEP-CAAST Student, Agronomy, NAU, Navsari  
*Biochar : A sustainable way of organic farming*

**Dr Gunjan, Guleria**, CoA, RLB CAU, Jhansi  
*Effect of tillage and weed management practices on mustard crop in Bundelkhand region*

13.00-14.00

**Lunch**

**Day 2 Concurrent Session 2B**

**Hall II**

12.00-13.30

**Panel discussion II: Farming System Approach for one health**

**Chair:** **Dr. Sunil Kumar**, IIFSR Director, ICAR-IIFSR, Modipuram, Meerut

**Moderator:** **Dr. A. Velumurugan**, ADG, SWM, ICAR, New Delhi

**Rapporteurs:** **Dr. Jayanta Layek**, Division of Crop Production, ICAR-Research Complex for NEH Region, Umiam, Meghalaya  
**Dr Rakesh Kumar**, Scientist (Agronomy), ICAR, RC for Eastern Region, Patna

**Panelists:**

**Dr. Nachiketa Kotwaliwale**, Director, ICAR-Central Institute of Post-harvest Engineering Technology, PAU, Ludhiana

**Dr. Hari Ram**, Principal Agronomist (Wheat), PAU, Ludhiana

**Dr Ashwin Kotnis**, Additional Professor, Department of Biochemistry, AIIMS Bhopal

**Dr. Anand Shekhar Mishra**, Animal Nutrition, ICAR-Krishi Bahawan, New Delhi

**Dr. Neeraj Awasthi**, Country Head, Anglo, America Co. Ltd., New Delhi

**Dr Raghavendra Singh**, Principal Scientist & Head, Cropping Systems & Resource Management, Modipuram, Meerut

**Dr. Soumitra Das**, Director, South Asia-Zinc Nutrient Initiative, IZA, New Delhi

**Day 2 Concurrent Session 3**

**HALL III**

10:00-13:00

**VII: Precision input management**

**Chairs:** **Dr V.K. Singh**, Director, ICAR-CRIDA, Hyderabad

**Dr J.S. Mishra**, Director, ICAR-DWR, Jabalpur

**Co-Chair:** **Dr N.K. Jain**, Principal Scientist, (Agronomy), HRM Unit, KAB-II, ICAR, New Delhi

**Convener:** **Dr S.K. Shukla**, Director, UPCR, Shahjahanpur

**Rapporteurs:** **Dr Anil Kumar Choudhary**, Principal Scientist, ICAR-CPRI, Shimla

**Dr Mukesh Kumar**, Professor, Dr. RPCAU, Pusa Samastipur

10.00-10.20

**Keynote:**

**Dr. V.K. Singh**, Director, ICAR-CRIDA, Hyderabad

*Precision input management for sustainable productivity and addressing climate change issues*

10.20-11.20

**Lead:**

**Dr. Neeraj Awasthi**, Anglo American Plant Nutrients

*Potential role of natural minerals fertilizers for climate friendly strategies*

**Dr. Anchal Dass**, Principal Scientist, ICAR-IARI, New Delhi

*Precision nutrient and water management using latest tools and technologies*

**Dr. T.K. Srivastava**, Principal Scientist, ICAR-IISR, Lucknow

*Sugarcane in sub-tropics not a water guzzler but an efficient rain water harvesting crop*

**Dr. S.C. Tripathi**, PI, Resource Management, AICRPW, ICAR-IIWBR, Karnal, Haryana

*Precision nitrogen and water management in wheat: viable technologies for enhancing use efficiency*

**Prof. Samunder Singh**, MICADA, Haryana, President, International Weed Science Society

*Interaction of drip irrigation and herbicides on rice and wheat*

11.20-12.20

**Oral:**

**Dr Raghavendra Singh**, Principal Scientist & Head, ICAR-IIFSR, Modipuram

*Effect of conservation tillage and precision irrigation scheduling on productivity and resource use efficiency in fieldpea*

**Dr Kodary Avil Kumar**, Water Technology Centre, Professor Jaya Shankar Telangana State Agricultural University, Rajendranagar, Hyderabad

*Yield and Economics of Different Rabi crops underneath AgroPhotoVoltaic System*

**Dr V. Visha Kumari**, Senior Scientist, ICAR-CRIDA, Hyderabad

Bhopal

*Integrated nutrient management practices for crop growth and productivity in maize-chickpea cropping sequence in Vertisol*

**Dr Anil Choudhary**, Principal Scientist, Division of Crop Production, ICAR-Central Potato Research Institute, Shimla, Himachal Pradesh-171 001, India

*Influence of organic farming, integrated crop management and conventional farming practices on potato productivity, profitability & ecological footprints in wet-temperate Himalayas*

**Dr T. Selvakumar**, Professor, TNAU, Vagarai, Dindigul

*Efficacy of nano urea application in maize productivity*

**Prof. Manukonda Srinivas**, Principal Scientist (Agronomy) & Head, ANGRAU, RARS, Maruteru

*Performance of Rice (*Oryza sativa*. L) under different Puddling practices and Planting techniques*

**Dr V. Ramulu**, Principal Scientist (Agronomy), Water Technology Centre, Professor Jayashanakar Telangana State Agricultural University, Rajendranagar, Hyderabad, Telangana

*Field evaluation of nano soil moisture sensors for higher water productivity*

**Dr. B.T. Sinare**, Associate Professor of Agronomy, MPKV, Rahuri

*Efficacy of different weed management methods for weed control and yield of soybean (*Glycine max* L.)*

**Dr S. Vijaykumar**, Scientist, IRRI, *Determination of optimum spray volume for systemic herbicide application in dry direct seeded rice through Unmanned Aerial Vehicle*

12.20-13.30

**Rapid Fire:**

**Dr. K.C. Sharma**, Principal Scientist, ICAR-Indian Agricultural Research Institute, Regional Station, Indore

*Effect of growth retardants and nitrogen levels on the lodging, growth and productivity of wheat (*Triticum aestivum* L.) in Vertisols of Central India*

**Dr. Saroj Kumari**, CSK HPKV, Palampur

*Effect of regulated water deficit scheme on plant height of wheat*

**Dr Vishal Tyagi**, Scientist, Division of Agronomy, ICAR-IARI, New Delhi  
*Assessing the effect of cropping system and phosphorus management on growth and economics of maize based systems under conservation agriculture*

**Dr Dogga Sreelatha**, Principal Scientist (Agro), Regional Agricultural Research Station, Polasa, Jagtial district, Telangana  
*Nitrogen levels and Schedules for enhancement of yield in Dry Direct Seeded Rice (D-DSR) in Telangana*

**Dr. Mohammad Hasanain**, Scientist, ICAR-IARI RS Pusa Samastipur  
*Precision Nutrient Management under Conservation Agriculture based Wheat in Indo-Gangatic Plain Zone of India*

**Dr. Harish M.N.**, Scientist (Agronomy), ICAR-ATARI, JNKVV, Jabalpur  
*Effect of Tillage and Phosphorus fertilization on growth indices in wheat under Maize-Wheat Cropping System*

**Dr. Hemalatha Muniyandi**, Tamil Nadu Agricultural University  
*Iron and Zinc fortification of rice seeds for Production of sturdy seedlings suitable for machine transplanting*

**Dr Mukesh Kumar**, Dr Rajendra Prasad Central Agricultural University (RPCAU), Pusa, Samastipur, Bihar  
*Tillage and irrigation methods affect the root growth, water use efficiency and productivity of wheat*

**Dr Bharat Prakash Meena**, Senior Scientist, ICAR-Indian Institute of Soil Science, Bhopal  
*Integrated nutrient management practices for crop growth and productivity in maize-chickpea cropping sequence in Vertisol*

**Dr Debarup Das**, Scientist, Division of Soil Science and Agril. Chemistry, ICAR-IARI, New Delhi  
*Effects of seaweed extract-based products on the performance of wheat crop under sub-optimal NPK fertilization*

#### **Day 2 Concurrent Session 1**

14.00-17.00	<p><b>Session VIII: Millets (Shree Anna) for human and environmental health</b>      <b>Hall I</b></p> <p><b>Chair:</b>      <b>Dr Arun Kumar</b>, VC, SKRAU, Bikaner</p> <p><b>Co-chairs:</b>      <b>Dr Praveen Singh</b>, Former VC, SKNAU, Jobner  <b>Dr Vilas Tonapi</b>, Former Director, ICAR-IIMR, Hyderabad</p> <p><b>Convener:</b>      <b>Dr G. Suresh</b>, Principal Scientist, ICAR-IIOR, Hyderabad</p> <p><b>Rapporteurs:</b> <b>Dr S.C. Tripathi</b>, Principal Scientist (Agronomy), ICAR-IIW&amp;BR, Karnal  <b>Dr. A.V. Ramanjameyulu</b>, Head &amp; Professor, ASCRP, AF, PJTSAC, Hyderabad</p>
14.00-14.20	<p><b>Keynote:</b></p> <p><b>Dr. Vilas Tonapi</b>, Former Director, ICAR-IIMR, Hyderabad, Telangana  <i>Millets (Shri Anna) for Food and Nutrition Security in the climate change scenario</i></p>
14.20-15.20	<p><b>Lead:</b></p> <p><b>Dr. D.D. Patel</b>, Principal Scientist, COA, Bhrauch, Gujarat  <i>Sensitization of millet cultivation technologies for food and nutritional security</i></p> <p><b>Dr. Sangappa</b>, Senior Scientist, IIMR, Hyderabad  <i>Farmer producer organizations for enhancing rural entrepreneurship in climate resilient millets</i></p>
15.20-17.00	<p><b>Oral:</b></p> <p><b>Dr R. Srinivasa Rao</b>, PJTSAU, Krishi Vigyan Kendra, Bhadradri Kothagudem  <i>Evaluation of Sorghum Varieties under Late Rabi conditions in Bhadradri Kothagudem District of Telangana</i></p>

**Dr. Ashok Kumar**, Senior Scientist, ICAR-NBSS&LUP, RC, New Delhi  
*Evaluation of soil suitability for pearl millet as an alternate land use option towards achieving food and nutritional security and climate resilience -A case study in IGP*

**Dr Ranjita Brahma**, Department of Agronomy, S.C.S. CoA Rangamati, Bahalpur, Distt. Dhubri

*Performance of finger millet cultivars under different sowing windows in rainfed upland of Lower Brahmaputra Valley Zone of Assam*

**Dr G. Ravi Shankar**, Professor of Agronomy and Officer In Charge, College of Agriculture, HAGARI, Ballari Taluk & District

*Response of browntop millet to dates of sowing, fertilizer levels and row spacings*

**Dr Sonali Chaudhari**, NAU, Navsari

*Millets : Resilient Staples*

**Dr Vikas Gupta**, Scientist, SKUAST, Jammu

*Performance of pearl millet varieties and their relationship with weather parameters in Shivalik range of N-W Himalayas*

**Dr B.O. Mallikarjuna**, Scientist (Agronomy), KVK Road, Kadalivana Vidyanagar, Davanagere

*Assessment of Different Foxtail Millet Varieties for Growth and yield under Rainfed Farming*

**Dr Parminder Singh Sandhu**, Farm Advisory Service Center, Tarn Taran

*Descriptive analysis of Scenario of Millet Consumption in the District Moga and Tarn Taran Punjab - A Survey*

**Dr P. Uday Deleep**, Trichanoor post, Tirupati

*Strategic approach of nitrogen sources on yield of finger millet*

**Dr P. Ashoka**, Senior Agronomist and Head, ARS, UAS, Dharwad

*Studies Of Establishment Techniques And Varied Nutrient Levels On Yield And Economics Of Teff- An Emerging New Climate Crop*

**Dr Biswajit Pramanick**, Agronomy, Dr. RPCAU, Pusa Samsatipur

*Site-specific nutrient management using GreenSeeker-based N-management can improve the bioenergetics of finger millet cultivation*

**Dr Aalok Yewale**, KVK, Ranichauri, Tehri Garhwal

*Assessment on perception of farmers towards consumption pattern and health benefits of millets among rural inhabitants of Tehri Garhwal*

**Dr Keshav Patidar**, NAHEP CAAST, NAU, Navsari

*Incredible Post-Harvest Value Added Products of Millets*

### Day 2 Concurrent Session 2

Hall II

14.00-17.00

### Session IX: Post-harvest management to achieve the farm-to-fork concept

**Chair:** **Dr Nachiket Kotwaliwale**, Director, ICAR-CIPHET, Ludhiana

**Co-chairs:** **Dr Pratap Singh**, Director Research & Professor (Agronomy), Kota, Rajasthan

**Dr D.S. Rana**, Former Emeritus Scientist, ICAR-IARI, New Delhi

**Convener:** **Dr C.S. Prahraj**, Principal Scientist and Head, ICAR-Directorate of Groundnut Research, Junagarh

**Rapporteurs:** **Dr. Harish M.N.**, Scientist (Agronomy), ICAR-ATARI, JNKVV Campus, Jabalpur

**Dr Biswajit Pramanick**, Assistant Professor, Agronomy, Dr. RPCAU, PUSA, Samastipur, Bihar

14.00-14.20

### Keynote:

**Dr. Nachiket Kotwaliwale**, Director, ICAR-CIPHET, Ludhiana

*Engineering the path of prosperity through post-harvest processing and Secondary Agriculture*

- 14.20-15.20 **Lead:**  
**Dr. R. Jaganmohan**, Professor & Head, Department of Food Product Development, NIFTEN, Thanjavur  
*Value chain management in selected crops for better food and nutritional security*
- 15.20-16.20 **Mr. Satish Chudasama**, NAU, Navsari Agronomic bio-fortification –an excellent approach for alleviating malnutrition  
**Ms. Tejasvini Amrutbhai Patel**, Ambach, Navasari  
*Turning Waste into Wealth: The Case of Distillery Spent Wash*  
**Dr. C.S. Praharaj**, Principal Scientist and Head, ICAR-DGR, Junagarh  
*Pulses as the climate and nutrition smart crops*

**November 23, 2023**

**Day 2 Concurrent Session 3**

**Hall III**

10:00-12:00

**Panel Discussion III: Agronomic Research for Last Mile Delivery**

- Chair:** **Dr U.S. Gautam**, DDG (AE), ICAR, New Delhi  
**Co-Chairs:** **Dr R.R. Burman**, ADG (AE), ICAR, New Delhi  
**Dr Anjani Kumar**, Director, ICAR-ATARI, Garbhuchak,  
**Moderator:** **Dr Parvender Sheoran**, Director, ICAR-ATARI, Ludhiana  
**Rapporteurs:** **Dr Anil Kumar Choudhary**, Senior Scientist, CPRI, Shimla  
**Dr Bipin Bihari Panda**, Crop Production Division, ICAR-NRRI, Cuttack
- Panelist:**  
**Dr J.P. Misra**, Director, ICAR-ATARI, Zone-II, CAZRI Campus, Jodhpur  
**Dr S.R.K. Singh**, Director, ICAR-ATARI, JNKVV, Jabalpur  
**Dr Venkat**, Director, ICAR-ATARI, Bengaluru  
**Dr Shantanu Kumar Dubey**, Director, ICAR-ATARI, Kanpur  
**Dr Pardeep Dey**, Director, ICAR-ATARI, Kolkata  
**Dr A.K. Mohanty**, Director, ICAR-ATARI, Umiam (Barapani)  
**Dr Shaik N. Meera**, Director, ICAR-ATARI, CRIDA Campus, Santhosh Nagar, Hyderabad

**November 23, 2023**

14:00-17:00 Session

**Day 2 Concurrent Session 3A**

**Hall III**

**Session Special Oral/Rapid Fire Presentation)**

- Chairs:** **Dr G. Ravindra Chary**, PC, ICAR-CRIDA, Hyderabad  
**Dr M.A. Shankar**, Former Director Research, UAS, Bengaluru  
**Co-Chair:** **Dr N.K. Jain**, Principal Scientist, ICAR-KAB II, New Delhi  
**Convener:** **Dr Anchal Dass**, Principal Scientist, ICAR-IARI, New Delhi  
**Rapporteurs:** **Dr Hari Ram**, Professor, PAU, Ludhiana  
**Dr Sanjeev Kumar**, Senior Scientist, ICAR-NDRI, Karnal

**DAY 2 Concurrent session 3A**

**Special Oral/Rapidfire Presentation**

**Oral:**

- Dr Ipsita Kar**, Assistant Professor, Department of Agronomy, College of Agriculture, OUAT, Odisha  
*Effect of different organic manures and Bio NPK consortium on yield and quality of Asalio (Lepidium sativum L).*
- Dr. Joseph Mani**, Senior Professor (Agro), Retd., PJTSAU, Hyderabad, Telangana  
*Effect of Enhanced nutrients levels and irrigation regimes on use efficiencies of wet seeded rice under Tamirabarani command area of Tamil Nadu*
- Dr. K Shekar**, Scientist (Agro.) & Coordinator, PJTSAU, Tandur, Viakarabad Dist, Telangana  
*Impact of technological interventions on precision nitrogen management in green gram proceeding rice for sustainable soil health management*
- Dr. Balaji Naik**, Principal Scientist (Agro) & Head, PJTSAU, Hyderabad, Telangana  
*Spectral Vegetation Indices for Detection of Water and Nitrogen Stress in Maize*

**Dr. K.V. Ramana Murthy**, Principal Scientist, Agronomy, Regional Agricultural Research Station, Anakapalli, A.P.

*Efficient cropping systems for sugarcane under irrigated condition*

**Dr. J.S. Bindhu**, Assistant Professor, AICRP-IFS, KAU, IFSRS, Karamana TRIVANDRUM, Kerala

*Diversification of farming system models through integrated approach in West coast plain and Ghat region*

**Dr Asha Ram**, Senior Scientist (Agronomy), ICAR-Central Agroforestry Research Institute, Jhansi, U.P.

*Conservation agroforestry: A new concept of climate resilient production system*

**Dr Arkaprava Roy**, Scientist (Soil Sciences), ICAR-NIBSM, Raipur, Chhattisgarh  
*Silicon enhances extractable arsenic in soil but reduces its uptake in rice*

**Dr. Desam. Lakshmi Kalyani**, RARS, ANGRAU, Nandyal, A.P.

*Enhancing Profitability, Sustainability and Yield in Bt Cotton through a Multitier Cropping System*

**Dr. T.L. Neelima**, Sr. Scientist (Agro), Water Technology Centre PJTSAU, Telangana  
*Mapping the early season rice area using Time series Sentinel 1 SAR Data on Google Earth Engine in Nizamabad District*

**Dr. Rameti Jangir**, Assistant Professor (Agronomy), AICRP-Castor, ARS, AU, Mandor, Jodhpur, Rajasthan

*Conservation agricultural practices for improved soil health under castor (Ricinus communis L.) based intercropping systems in North Western Rajasthan*

**Dr M.A. Ansari**, Senior Scientist, ICAR-Indian Institute of Farming Systems Research, Modipuram, Meerut, U.P.

*Comparative analysis of sustainable livelihood security in organic and conventional farming practices*

#### **Rapid Fire**

**Dr Jyoti Gaikwad**, Ph.D Student, Dept. of Agronomy, COA, Navsari, NAU, Gujarat  
*Role of liquid organic manures in pulses, oilseeds and vegetables crop production*

**Dr. Dileep Kumar**, Scientist, ICAR-IISR, Lucknow

*Effect of date of ratoon initiation and integrated nutrient management on yield attributes and yield of sugarcane (saccharum officinarum L.) Ratoon crop*

**Mr. Nitin Gudadhe**, Navsari Agricultural University, Navsari, Gujarat  
*Nano atrazine synthesis and application for environmentally benign weed control in maize*

**Ms. Anjali Rawat**, Agronomy, G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand

*Nutrient management in soybean (Glycine max L.)*

**Mr. Vipin Kumar**, Division of Agronomy, ICAR-Indian Agricultural Research Institute, New Delhi

*Effect of polyhalite on productivity and uptake of potassium and sulphur in wheat under Indo-Gangetic plains of India*

**Mr. Satyam Rawat**, Ph.D. Student Division of Agronomy, ICAR-Indian Agricultural Research Institute, New Delhi

*Comparing the Effect of Different Nitrogen Doses and Foliar Spray (Nano-urea vs. Prilled Urea) on Leaf Nitrogen Content and Productivity of Maize in Rainfed Soil of Eastern Indian*

**Mr. Shashank Patel**, Ph.D. Student Division of Agronomy, ICAR-Indian Agricultural Research Institute, New Delhi

*Performance of Indian mustard (Brassica juncea L.) under diverse production systems'*



**Ms. Kavita Kumari**, Scientist, Crop Production Division, ICAR-NRRI, Cuttack, Odisha  
*Soil chemical dynamics in long-term integrated rice-based farming systems: A case study from Eastern India*

**Dr Shreyas Bagrecha**, Department of Agronomy, Institute of Agricultural Sciences, BHU, Varanasi

*Biostimulants protein hydrolysates and seaweed extract differential rate influences growth and yield of transplanted rice (Oryza sativa L.)*

**Ms. Ananya Gairola**, Ph.D. Scholar, Department of Agronomy, College of Agriculture, Chaudhary Charan Singh Haryana

*Agricultural University, Hisar, Haryana*  
*Chemical weed management in irrigated chickpea (Cicer arietinum L.)*

**Dr Nilutpal Saikia**, Ph.D. Scholar, ICAR-Indian Agricultural Research Institute, New Delhi  
*Effectiveness of ALS and ACCase Inhibitor herbicides on weed management in DSR and PTR*

**Anamika Barman**, Ph.D. Student, ICAR-Indian Agricultural Research Institute, New Delhi  
*Post-silking dry matter remobilization in maize hybrid under different integrated crop management practices*

**Priyanka Sahoo**, Junior Research Fellow, Centre For Water Technology and Management, Department of Agronomy, Punjab Agricultural University, Ludhiana, Punjab

*Enhancing yield and system productivity of spring maize through integrated nutrient management and crop diversification in maize based cropping system*

17:30-19:30

**November 24, 2023**

**General Body Meeting**

**DAY 3**

09:00–10:30

**Session X: Redesigning agronomy for knowledge and skill development** Hall I

**Chair:** **Dr Panjab Singh**, Former DG, ICAR and President, FAARD Foundation, Varanasi, Uttar Pradesh

**Co-chairs:** **Dr V.M. Bhale**, Former VC, Dr PDKV, Akola  
**Dr Kalyan Singh**, Former Dean, BHU, Varanasi

**Convener :** **Dr Pratap Singh**, Director of Research, Agriculture University, Kota

**Rapporteurs:** **Dr Gulshan Mahajan**, Professor, PAU, Ludhiana  
**Dr Sumit Chaturvedi**, Professor, GBPUAT, Pantnagar

09:00–10:30

**Keynote:**

**Dr. S.K. Malhotra**, Project Director, DKMA, ICAR-KAB I, Pusa, New Delhi  
*New Knowledge management tools for crop production*

**Dr. M.A. Shankar**, Former DoR, UAS, Bengaluru

*Agronomy-way forward for knowledge and skill development*

**Dr. Sahdev Singh**, Dean & Professor, SOAG, Galgotia University, G. Noida

10:30–11:00

**Tea**

11:00–13:00

**VALEDICTORY FUNCTION**

**Hall I**

**Chair:** **Dr. Panjab Singh**, Former DG, ICAR and President, FAARD Foundation, Varanasi, Uttar Pradesh

**Co-chairs:** **Dr J.S. Mishra**, Director, ICAR-DWR, Jabalpur  
**Dr. M.A. Shankar**, Former DoR, UAS, Bengaluru

**Convener:** **Dr. G. Ravindra Chary**, PC, ICAR-CRIDA, Hyderabad

**AWARD CEREMONY**

13:00–14:00

**Lunch**

14.00

**Field visit**