International Conference on

Strategies for Global Food and Nutritional Security, Sustainability and Wellness (Nutri-2023)

CCS Haryana Agricultural University, Hisar-125004, India
December 04-06, 2023

CONFERENCE PROGRAMME

December 04, 2023

Time	Event	Venue
08:30-10:30 AM	Conference Registration	
10:30-11:00 AM	Hi-Tea and open Interaction among Delegates	Indira Gandhi
11:00 AM- 01:00 PM	Inaugural Session	Auditorium
1:.00- 1:10 PM	Photo session	
1.10 PM – 2.00 PM	Lunch	
	Oral Session 1 (Theme 10): Climate Change, Conservation	Hall 1
	Agriculture, Resource Management and Integrated Farming for Sustainable Agriculture	(Auditorium, College of Agriculture)
	Oral Session 2 (Theme 3): Modelling, Simulation Tools and Big	Hall 2
2:00 - 6:00 PM	Data in Agriculture Research	(Lecture Hall 10, Dept. of Genetics & Pl. Breeding)
	Oral Session 3 (Theme 5): Agri-Technology Transfer, Impact	Hall 3
	Assessment and Farmer Empowerment	(Lecture Hall 6, Dept. of Entomology)
	Oral Session 4 (Theme 9):Mechanization, Non-Conventional	Hall 4
	Energy Resources and Digitization for Smart Agriculture	(Lecture Hall 14, Dept. of Agricultural Meteorology)
2:00 - 6:00 PM	Poster Session 1 (Theme 8): Strategies for Biotic and Abiotic Stress Management in Crop Production and Microbes in Agriculture	Exhibition Hall
	Poster Session 2 (Theme 1): Millets for Global Nutritional Security and Well-Being	Examination Hall,
	Poster Session 3 (Theme 6): Industry Linkages and Agri- Business for Food and Nutritional Security	College of Agriculture
	Poster Session 4 (Theme 7): Agriculturally Important Fauna, Aquafarming and Livestock for Farm Economy	

December 05, 2023

Time	Event	Venue
9:00 AM -01:00 PM	Oral Session 5 (Theme 8): Strategies for Biotic and Abiotic Stress Management in Crop Production and Microbes in Agriculture	Hall 1 (Auditorium, College of Agriculture)
	Oral Session 6 (Theme 7): Agriculturally Important Fauna, Aquafarming and Livestock for Farm Economy	Hall 2 (Lecture Hall 10, Dept. of Genetics & Pl. Breeding)

	Oral Session 7 (Theme 6):	Hall 3
	Industry Linkages and Agri-Business for Food and Nutritional Security	(Lecture Hall 6, Dept. of Entomology)
	Oral Session 8 (Theme 1):	Hall 4
	Millets for Global Nutritional Security and Well-Being	(Lecture Hall 14, Dept. of Agricultural Meteorology)
9:00 AM -01:00 PM	Poster Session 5 (Theme 2): Conventional Breeding, Biotechnology, Bio Informatics, Genetic Engineering, Phenomics, Genomics and Proteomics for Crop Improvement	Exhibition Hall
	Poster Session 6 (Theme 11): Role of Agriculture and Allied Education in Food Security	
	Poster Session 7 (Theme 4): Post-Harvest Processing and Value Addition for Food Safety and Security	Examination Hall, College of Agriculture
	Poster Session 8 (Theme 12): Natural and Organic Farming for Wellness	
1.00 PM – 2.00 PM	Lunch	
02:00 PM -06:00 PM	Oral Session 9 (Theme 2): Conventional Breeding, Biotechnology, Bio Informatics, Genetic Engineering, Phenomics, Genomics and Proteomics for Crop Improvement	Hall 1 (Auditorium, College of Agriculture)
	Oral Session 10(Theme 12):Natural and Organic Farming for Wellness	Hall 2 (Lecture Hall 10, Dept. of Genetics & Pl. Breeding)
	Oral Session 11 (Theme 4): Post-Harvest Processing and Value Addition for Food Safety and Security	Hall 3 (Lecture Hall 6, Dept. of Entomology)
	Oral Session 12 (Theme 11):Role of Agriculture and Allied Education in Food Security	Hall 4 (Lecture Hall 14, Dept. of Agricultural Meteorology)
02:00 PM -06:00 PM	Poster Session 9 (Theme 10): Climate Change, Conservation Agriculture, Resource Management and Integrated Farming for Sustainable Agriculture	Exhibition Hall
32.00 T W	Poster Session 10 (Theme 3): Modelling, Simulation Tools and Big Data in Agriculture Research	Examination Hall, College of Agriculture
	Poster Session 11 (Theme 5): Agri-Technology Transfer, Impact Assessment and Farmer Empowerment	
	Poster Session 12 (Theme 9): Mechanization, Non-Conventional Energy Resources and Digitization for Smart Agriculture	

December 06, 2023

Time	Event	Venue
9:00 AM- 10:30 AM	Lead lectures	Auditorium,
10:30 AM -11:00 AM	Tea Break	College of Agriculture
11:00AM - 01:00PM	Plenary and Valedictory Session	Agriculture

DETAILED PROGRAMME

December 04, 2023

08:30-10:30 AM	Registration		
10:30-11:00 AM	Hi-Tea and open Interaction among Delegates Venue: Indira Gandhi Auditorium		
11:00 AM- 01:00	Inaugural Session		
PM	Rapporteurs: Dr. Asha Kawatra, Dr. Renu Munjal		
1: 00 PM- 2.00 PM	Lunch Break		
2: 00 PM- 6.00 PM	Concurrent Oral Sessions (Oral	Session 1 to Oral Sessi	on 4)
Oral Session - 1	Venue: Auditorium, College of	Agriculture	
Theme	10: Climate Change, Conserva Integrated Farming	tion Agriculture, Resc for Sustainable Agricu	
Chairperson	: Dr. Dieter H. Trautz, Professo	or, Osnabruck University	of Applied Sciences, Germany
Co-Chairperson	: Dr. Francisco Faggion, Profe	ssor, Universidade de Bra	asília, Brazil
Rapporteurs	: Dr. Rajbir Garg (RD, RRS Ka	rnal), Dr. Surender Singh	n, (MHU)
Session coordinators	s : Dr. Parveen Kumar (Agronon	ny), Dr. K K Bhardwaj (Sc	oil Science)
		d Lectures	
2:00 - 2:20PM	Dr. Dieter H. Trautz,	Global and Regional As	spects of Climate Change
	Professor, Osnabruck University of Applied Sciences, Osnabruck, Germany	FET	
2:20 - 2:40 PM	Dr. Francisco Faggion, Professor, Universidade de Brasília, Brazil	No-Tillage System in B	razil
2:40 - 3:00 PM	Dr. H.S. Jat, Director, IIMR, Ludhiana	Conservation Agricult Building Resilience in to	ure for Resource Conservation and o Major-Agri-Food Systems of India'
	Oral	Presentation	,
3:00 - 3:05PM	Vineeta (1018)	Edible flowers for food review	d and nutritional security: A systematic
3:05 - 3:10PM	Vijay Kumar (1020)		s leads to environmental degradation: cation in different <i>Rabi</i> crops in Haryana
3:10-3:15PM	Mohit Sehal (1025)	Theorganic cultivation Haryana	scenario in the world, India, and
3:15- 3:20PM	A. K. Dhaka (1035)	Energy budget, econo based crop rotations wi	mics and yield performance of millet- ith wheat
3.20-3.25 PM	Ashok Kumar Deswal (1053)	•	f boundary planted clonal eucalyptus(C-g under agroforestry in South Haryana.
3.25-3.30 PM	K. K. Bhardwaj (1120)	agroforestry systems	leaf litter fall by different tree species in
3.30-3:35 PM	Ankush (1172)	soils of Palwal district	al variability of available potassium in
3:35 - 3:40 PM	Pooja Gupta Soni (1282)	irrigated conditions	wheat genotypes under restricted
3:40- 3:50 PM		Tea Break	

3:50 - 3:55 PM	Jitender Kumar (1293)	Productivity and profitability of mungbean (<i>Vigna radiate</i> L. Wilczek)-wheat (<i>Triticum aestivum</i> L.) cropping system under different tillage in semi-arid conditions
3:55 - 4:00 PM	K Gopalakrishna Naidu (1336)	Differential response and different mechanisms of drought tolerance in tropical field corn hybrids under mid-season drought
4:00 - 4:05 PM	Karmal Singh Malik (1366)	Foliar application of mepiquat chloride enhance seed cotton yield by modulating plant geometry under semi-arid conditions
4:05 - 4:10 PM	Suresh Kumar (1388)	Intercropping of fodder oats in bed planted wheat
4:10 - 4:15 PM	Ankur Chaudhary (1391)	Potential impact of surface rice residue retention in ameliorating terminal heat stress in wheat in north-western India
4:15-4:20 PM	P. Bhasker (1393)	Evaluation of onion cultivars for water stress resilience in field conditions: Examining morphological, physiological and yield parameters
4:20-4:25 PM	M.L. Khichar (1432)	Impact of weather-based farm advisory services to farming community of Haryana State under climate change scenario
4:25-4:30 PM	Dharam Bir Yadav (1436)	Direct seeded rice, zero tillage wheat and green manuring for resource conservation and sustainability of rice-wheat cropping system in north-western India
4:30-4:35 PM	Dinesh (1461)	Characterization and classification of soils of Nutri-Cereal Research Station Farm, Gokalpura, Bhiwani, CCS HAU, Hisar, Haryana
4:35 - 4:40 PM	Naresh Kumar (1544)	Effect of weather parameters on yield of sorghum at different growing environments
4:40 - 4:45 PM	Seema Sangwan (1564)	Lipopeptide biosurfactants produced by <i>Staphylococcus lentus</i> BK68: Characterization and application in yield enhancement of mungbean (<i>Vigna radiata</i> L.)
4:45- 4:50 PM	Karuna Jain (1637)	Phosphorus recovery in water using biochar-based adsorbent and its potential use as fertilizer
4:50 - 4:55 PM	Vijendra Kumar Verma (1725)	Cropping system impact on soil properties in Sirsa district of Haryana, India
4:55 - 5:00 PM	Mamta Phogat (1766)	Impact of long term zero tillage in wheat on soil organic carbon and physical properties in different cropping systems and moisture regimes in Indo Gangetic plains
5:00 - 5:05 PM	Usha Kumari (1875)	Distribution of organic nitrogen fractions in different size soil aggregates in semi-arid condition of India
5:05 - 5:10 PM	Isha Ahlawat (1879)	Wheat productivity as influenced by varying doses and application methods of metribuzin under different tillage systems
5:10 - 5:15 PM	Jitender Kumar Bhatia (1905)	Measuring Crop Diversification Index: Essential for agricultural sustainability of farm household in Haryana
5:15-5:20 PM	Aradhana Bali (2015)	Resource conservation through crop diversification for attaining yield enhancements and economic gains through sustainable agriculture
5:20-5:25PM	Sandeep Rawal (2020)	Resource conservation through crop residue management practices for sustainable agriculture
5:25-5:30 PM	Sunil Kumar (2022)	Direct-Seeded Rice: Emerging Issues and Opportunities in Northwest India
5:30-5:35 PM	Malay Kumar Bhowmick (2059)	Prospects and potentials of weed-competitive rice cultivars under direct-seeded conditions

5:35-5:40 PM	Jagdeep Singh (2060)	production of <i>Cordyceps militaris</i> mushroom	
5:40-5:45 PM	Himshikha Gusain (20	Potential of traditional farming systems and its component management by Himalayan women farmers in Uttarakhand	
5:45-5:50 PM	Abhay K. Pandey (211	6) Pseudopestalotiopsis ampullacea, a new species causing gray blight on tea crop and its management	
5:50-5:55 PM	Proloy Deb (2117)	Does Direct Seeded Rice (DSR) really help in improving the water productivity of rice	
Oral Session -2	Venue : Hall 2 (Lectu	ure Hall 10, Dept. of Genetics & Pl. Breeding)	
The	eme 3: Modelling, Simula	tion Tools and Big Data in Agriculture Research	
Chairman	: Dr. Maxwell Mkondiv	wa, CIMMYT, New Delhi	
Co-Chairman	: Dr. Takuro Shinano,	Graduate School of Agriculture, Hokkaido University, Japan	
Rapporteurs	: Dr. O.P. Sheoran (M	laths), Dr. Anil Kumar (Ag. Met)	
Session Coordinat	ors : Dr. Sarita Rani (Math	hs), Mr. Manuj Saini (GPB)	
		Lead Lectures	
2:00 - 2:30 PM	Dr. Maxwell Mkondiwa	Empowering sustainability transitions in agri-food systems using big data and causal artificial intelligence (AI)	
2:30 - 3:00 PM	Dr. Takuro Shinano,	Impact of nuclear accident on Japanese agriculture and its remediation	
	Graduate School of Agriculture, Hokkaido		
	University, Japan		
		Oral Presentations	
3:00 - 3:10 PM	Dr. Nitin Bhardwaj (1023)	Forecasting crop yield based on weather parameters using ARIMAX	
		model	
3:10 - 3:20 PM	Ms. Anu (1032)	Prediction of aphid population through mathematical modelling	
3:20-3:30 PM	Mr. Naveen G P (1034)	Improved estimator of population mean under compromise method of imputation	
3:30- 3:40PM	Dr. Anurag (1125)	Analysing spectral signatures for enhanced crop monitoring: A case study for cotton crop in Haryana	
3:40 - 4:00PM		Tea Break	
4:00 - 4:10 PM	Dr. Rajender Singh (1180)	Rajender Singh (1180) Modeling for grape anthracnose development in relation to weather parameter	
4:10 - 4:20 PM	Dr. Kamla Malik (1338)	Biochemical and functional characterization of rice straw cultivars in agro-climatic zones of Haryana	
4:20- 4:30 PM	Ms. Pooja Rawat (1400)	Robust EBLUP estimation of rice yield using satellite spectral data in Karnal district, Haryana	
4:30 - 4:40 PM	Dr. Vikash Siwach (1449)	A web application for curve and surface fitting	
4:40 - 4:50 PM	Ms. Darshana (1454)	redundancy allocation for weighted -k-out-of-n systems with components having multi performance level	
4:50 - 5:00 PM	Dr. Hemant Poonia (1460)		
5:00 - 5:10 PM	Dr. Monika Devi (1523)	A study on arrival and prices pattern of onion in Haryana	
5:10 - 5:20 PM	Dr. Axay Bhuker (1894)	Seeding the future: Artificial intelligence pivotal role in seed technology	
5:20-5:30 PM	Swatantra Kumar Dubey (2036)	y Assessing the effect of extreme trends on agricultural yields in Haryana districts, India	
5:30-5:40 PM	Ajay Sharma (2094)	Price forecasting of potato crop using GARCH model	
5:40-5:50 PM	Manuj Saini (2109)	AMMI, BLUPs and WAASB Models for advancing stable wheat yield and persistent quality	

5:50-6:00 PM	Monika (2113) Precisio analytic:	n agriculture using IoT, simulation models and big data
Oral Session - 3	Venue : Hall 3 (Lecture Hall 6, Depa	
Theme	5: Agri-Technology Transfer, Imp	pact Assessment and Farmer Empowerment
Chairperson	: Dr. Arthur Charles Riedacker, I	PCC Nobel Prize Co-Laureate Ex. INRAE, France
Co-Chairperson	: Dr. B.K. Sharma, Dean COFS,	MPUAT, Udaipur
Rapporteurs	: Dr. Nisha Arya (TAD), Dr. Arvir	nd Malik (RDS SF)
Session Coordinat	1 \ 3.	y), Dr. Rijul Sihag (Agri. Economics)
		Lectures
2:00 - 2:30 PM	Dr. Arthur Charles Riedacker, IPCC Nobel Prize Co-Laureate Ex. INRAE, France	Global constraints and integrated approaches for sustainable crop production at local, national and international level, for more sustainable and equitable developments
2:30- 3:00 PM	Dr. Parvender Sheoran, Director, ICAR-ATARI Zone 2, Ludhiana	Paddy straw management in achieving mission zero burning: KVK initiatives and way forward
3:00 - 3:30 PM	Dr. Ram Singh, Professor (Agricultural Economics) & Head, School of Social Sciences, Central Agricultural University, Meghalaya	Food consumption pattern of household of Meghalaya: Impact of different schemes
	Oral Pro	esentations
3:30 - 3:10 PM	Bhupender Singh (1061)	Gaps in knowledge, extension of rose cultivation technology in Haryana
3:10 - 3:20 PM	Shivam (1163)	Factors influencing farmers decision to purchase seeds: A study of Sirsa zone in Haryana
3:20-3:30 PM	Joginder Singh Malik (1330)	Social Networking in Agriculture
3:30- 3:40 PM	Neelam Kumari (1333)	Impact after Linkage of Farmers with Farmer Producer Organizations
3:40 – 4:00 PM		Tea Break
4:00 - 4:10 PM	Meenu (1337)	Empowering Women in Agriculture: A Path to Feminization for Sustainable Growth
4:10 - 4:20 PM	Dangi Pooja Arun (1348)	A Factor-Cluster Analysis Profile of Group Farmers of Maharashtra
4:20- 4:30 PM	Rijul Sihag (1519)	Empowering Farmers: A closer look at the PM KISAN scheme in Haryana
4:30 - 4:40 PM	Subhash Chander (1536)	Kisan Credit Card and Its Contribution to Socio-Economic Development in Haryana
4:40 - 4:50 PM	Jatesh Kathpalia (1553)	Socio-economic empowerment of farmers through adoption of super seeder agricultural technology
4:50 - 5:00 PM	Sandeep Bhakar (1577)	Impact study of vocational training programmes: Assessing perceived benefits, technology adoption and constraints
5:00 - 5:10 PM	Manju Dahiya (1596)	Protray nursery technique: A sustainable and entrepreneurial approach for rural women
5:10 - 5:20 PM	Murari Lal (1668)	Quality seed production of mungbean in participatory mode
5:20-5:30 PM	Chander Shekhar Dagar (2054)	Impact assessment of micro level weather-based technology transfer to the farmers of Haryana, India
5:30-5:40 PM	Argha Basu (2057)	Need of Intervention by natural gamma-ray based geophysical methods for sustainable management of soil resource

Oral Session 4	Venue : Hall 4 (Lecture Hall 14, Dep	partment of Agri. Meteorology)	
Theme 9: Mechanization, Non-Conventional Energy Resources and Digitization for Smart Agriculture			
Chairperson	: Prof. Sergio C. Capareda, A&M University, College Station, Texas, USA		
Co-Chairperson	: Dr. Mukesh Jain, Director, NRF	MTTI, Hisar	
Rapporteurs	: Dr. Vijaya Rani (FMPE), Dr. Ya	dvika (RBEE)	
Session Coordinate	ors : Er. Bharat Patel, Er. Ganesh U	padhyay (FMPE)	
	Lead	Lectures	
2:00 - 2:30 PM	Prof. Sergio C. Capareda, A&M University, College Station, Texas, USA	Agricultural science and engineering strategies for sustainable development in a circular economy	
2:30 - 3:00 PM	Surinder Singh, FTSE, FAA CSIRO Agriculture and Food, Canberra, Australia	Harnessing the power of metabolic engineering for production of designer plant oils	
3:00 - 3:30 PM	Dr. Gurdev Chand, Professor, SKUAS&T, Jammu	Potential of hydroponic farming in Jammu and Kashmir	
3:30 - 4:00 PM	Tea Break		
4:00 - 4:30 PM	Dr. Rakesh Sharda	Data driven applications of Al for sustainable water management	
	Oral Pre	esentations	
4:30 - 4:40 PM	Swapnil Choudhary (1108)	A novel electronically-actuated metering mechanism for the development of precision planters	
4:40 - 4:50 PM	Amarjit Kalra (1319)	Implementation of an automated moisture control system in cotton gin	
4:50 - 5:00 PM	Mohit Kumar (1342)	Performance evaluation of developed experimental plot corn harvester	
5:00 - 5:10 PM	Anil Kumar (1568)	IOT based weather base agromet advisories technological tool development and its dissemination system, Haryana	
5:10 - 5:20 PM	Raveena Kargwal (1948)	Biogas enhancement using slurry recirculation system	

December 05, 2023

09:00 AM-1.00 PM	Concurrent Oral Sessions (Oral Ses	ssion 5 to Oral Session 8)	
Oral Session 5	Venue: Hall 1 (Auditorium, College	/enue: Hall 1 (Auditorium, College of Agriculture)	
	_	and Abiotic Stress Management in	
		Microbes in Agriculture	
Chairperson	Chairperson : Dr. Takao Ishikawa, Professor, Faculty of Biology, University of Warsaw, Poland		
Co-Chairperson	: Dr. Viktor Kamkin, Professor,	Toraighyrov University, Kazakhstan	
Rapporteurs	: Dr. Satpa IBaloda (Horticulture	e), Dr. Satyajeet (RRS Bawal)	
Session Coordinate	ors : Dr. Bhupinder (SNIATTE), Dr.	Reena Chauhan (Entomology)	
Lead Lectures			
9:00 - 9:30 AM	Dr. Takao Ishikawa, Professor, Faculty of Biology, University of Warsaw, Poland	Unveiling Arctic Enzymatic Diversity – The Story of Coldactive Cellulases and Pectinases	
9:30 - 10:00 AM	Dr. Vinod Shivran and Dr. Nawab Ali, Syngenta India Ltd.	Agricultural transformation required for a developed India	
Oral Presentations			
10:00 – 10:05 AM	Puneeth Raj M S (1017)	Influence of seed treatment on plant growth, seed yield and quality parameters in chickpea seeds (Cicer arietinum L.)	
10:05-10:10 AM	Sumit Saini (1066)	Integrated Pest management (IPM) modules for rice pests, evaluated for farmers' acceptance	

10:10- 10:15 AM	Prem Lal Kashyap (1076)	Genetic diversity of <i>Tilletia indica</i> and development of diagnostics for the detection of secondary sporidia causing Karnal bunt disease in wheat
10:15-10.20 AM	Reena Chauhan (1096)	Evaluation of dissipation pattern of readymix formulation of betacyfluthrin and imidacloprid in cucumber
10:20 - 10:25 AM	Maha Singh Jaglan (1100)	Field screening of rice genotypes for resistant to different insect-pests in semi-arid region of India
10:25 - 10:30 PM	Kiran Saroy (1132)	Interactive effects of polyamines and <i>Rhizoglomus</i> intraradices in modulating growth, polyamines biosynthesis, and yield on nickel stress in <i>Cajanus cajan</i> (pigeonpea) genotypes
10:30 - 10:35 PM	Parvesh Kumar (1146)	Prevalence, identification and pathogenicity of <i>Rhizoctonia</i> isolates associated with banded leaf and sheath blight of maize in Haryana, India
10:35- 10:40 PM	Amoghavarsha Chittaragi (1188)	Risk assessment, pathogenic diversity, sexuality, and distribution of avirulence gene/s of <i>Magnaporthe oryzae</i> in different rice ecosystems
10:40 - 11:00PM		Tea Break
11:00 - 11:05 P M	Naresh Kumar Yadav (1307)	Screening of groundnut germplasm for resistance against tikka disease
11:05 - 11:10 PM	Rajni Kant Sharma (1309)	Nematicidal efficacy of <i>Terminalia bellirica</i> and <i>Semecarpus anacardium</i> Linn. fruit
11:10-11:15 PM	Manjeet Singh (1353)	Cultural and morphological variability in Bipolaris <i>maydis</i> isolates inciting maydis leaf blight of maize
11:15- 11:20 PM	Poonam Jasrotia (1414)	Activities of Defense Related Enzymes Induced by Aphid (<i>Rhopalosiphum maidis</i> Fitch) Infestation Enhance Resistance in Wheat Genotypes
11:20-11:25 PM	Gurvarinder Kaur (1486)	Exploring role of <i>Piriformospora indica</i> and 28- Homobrassinolide in <i>Brassica juncea</i> seedlings against Cadmium stress
11:25 - 11:30 PM	Vikas Gupta (1585)	Multivariate approaches for effective selection against individual heat or drought versus combined heat and drought stresses in bread wheat
11:30 -11:35 PM	Isha Madaan (1605)	Unveiling the pleiotropic role of plant steroids in reciprocation to noxious effects of lead in <i>Vigna radiata</i> .
11:35 -11:40 PM	Harbinder Singh (1717)	Efficacy of fungicides against maydis leaf blight of maize
11:40 -11:45 PM	Annu (1738)	Determination of slow white rusting response of Indian mustard genotypes to white rust
11:45 -11:50 PM	Prexha Kapoor (1816)	Harnessing Biosynthesized ZnO Nanoparticles for Sustainable Crop Enhancement via Seed Priming
11.50-11.55 PM	Nita Lakra (1839)	Adaptive biochemical and molecular responses in mustard to high-temperature stress
11.55-12.00 Noon	Vijay Pooniya (1860)	Post-anthesis dry matter and nutrient partitioning and their remobilization in <i>aestivum</i> wheat genotypes under timely-and late- sown environments
12.00-12.05 PM	Priyanka Goyal (1869)	Biochemical aspects for salinity stress tolerance at early stages of plant growth in barley (<i>Hordeum vulgare</i> L.)
12.05-12.10 PM	Dilfuza Jabborova (1887)	Bacillus sp. and <i>Pseudomonas koreensis</i> improve physiological traits while alleviating the effects of salinity stress in black cumin (<i>Nigella sativa</i> L.)

12.10-12.15 PM	Seema Garcha (1934)	Root exudation and incidence of phosphate solubilizing bacteria in Wheat varieties grown in phosphate stress.	
12.15-12.20 PM	Bajrang Lal Sharma (1939)	Efficacy of different insecticides for the management of Spotted Stem borer, <i>Chilopartellus</i> (Swinhoe) in forage sorghum	
12.20-12.25 PM	Rakesh Punia (1954)	Influence of sowing dates and weather variables on development of white rust disease in Indian mustard	
12.25-12.30 PM	Surender Singh Yadav (1960)	Ecological interventions for the management of fruit borer in tomato	
12.30-12.35 PM	Neeraj (1976)	Influence of various sowing dates and application of growth retardants on performance of Bt cotton	
12.35-12.40 PM	Lochan Sharma (1987)	Suitability of chitosan based copper nanoparticles for the management of root-knot nematode, <i>Meloidogyne incognita</i>	
12.40-12.45 PM	Amandeep Kaur (2000)	Laboratory assessment of different insecticides against Pectinophora gossypiella (Saunders) infesting Bt cotton under sub-tropical conditions of Punjab	
12.45-12.50 PM	Lal Chand (2067)	Understanding the growth, osmotic behavior, oxidative stress level, antioxidant system, and abscisic acid levels in citrus rootstocks under water deficit stress using reciprocal grafting	
12.50-01:00 PM	Anil Kumar (2073)	Efficacy of Entomopathogenic nematode (<i>Heterorhabditis indica</i>) for the management of <i>Spodoptera litura</i> in cabbage	
Oral Session-6	Venue: Hall 2 (Lecture Hall 1	0, Dept. of Genetics & Pl. Breeding)	
Theme 7: A	griculturally Important Fauna, F	Aquafarming and Livestock for Farm Economy	
Chairperson	: Dr. Hossam Rushdi, Professo	or,Cairo University, Egypt	
Co-Chairperson	: Dr. Bimal Prasanna Mohanty, Assistant Director General (Inland Fisheries)		
Rapporteurs	: Dr. Rachna Gulati (COFS), Dr. Leelawati (Microbiology)		
Session coordinators : Dr. Satpal (Forage), Dr. Ravi Kant (Zoology)		Kant (Zoology)	
	Lead	Lectures	
9:00 - 9:20 AM	Dr. Hossam Rushdi, Professor, Cairo University, Giza, Egypt	Climate Change and Livestock Production: Impacts and Adaptation Strategies	
9:20 - 9:40 AM	Dr. Bimal Prasanna Mohanty, ADG (Inland Fisheries)	Hidden Hunger and Malnutrition Alleviation - Priming Indian Aquaculture towards Food and Nutrition Security	
	Indian Council of Agricultural Research, New Delhi	_2	
9:40 - 10:00 AM	Dr. B. K. Sharma, Dean, College of Fisheries, MPUA&T, Udaipur	Fish Products, By-Products and Value Addition	
10:00 – 10:20 AM	Dr. Anita Bhatnagar, Professor, Kurukshetra University	Recent Trends for the Development of Sustainable Fish Culture Systems to Enhance Food Security	
	Oral Presentations		
10:20-10:30 AM	Harveer Kaur (1089)	Avian diversity and its management in organic and conventional fields of green gram pulse in district Ludhiana	
10:30- 10:40 AM	Krishna Rolania (1106)	Species richness and relative density of scarab beetle in Haryana	
10:40 – 11:00 AM		Tea Break	
11:00 - 11:10 AM	Manoj Kumar (1199)	Avian trophic guild structure in open grain storage facilities at Ludhiana, Punjab	
11:10 - 11:20 AM	Ashutosh Lowanshi (1209)	Delonix regia leaf extract: A potential nutraceutical for Labeorohita	

11:20- 11:30 AM	Rachna Gulati (1225)	Efficacy of nutrient rich Azolla based feed on growth performance of shrimp (<i>Litopenaeus vannamei</i>)	
11:30 - 11:40 AM	Satpal (1279)	Influence of sowing time, spacing and fertilizer levels on fodder maize	
11:40 - 11:50 AM	Pratibha Sharma (1289)	Diversity of beneficial avian species in rice and wheat crop fields in Punjab and Haryana	
11:50 - 12:00 Noon	Nisha Vashishat (1291)	Biochemical alterations induced by microplastics exposure in vital organs of Labeorohita	
12:00 - 12:10 PM	Nitish Bansal (1332)	Effect of earthworm extract supplemented diet on haematological, growth and survivality of <i>Cypriniscarpio</i> against infection caused by bacterial pathogen <i>Aeromonas hydrophila</i>	
12:10 - 12:20 PM	Kuldeep Dudi (1524)	Effect of supplementing fortified bypass fat on productive and economic parameters in cross bred cattle	
12:20-12:30 PM	Padmanabha A. (1576)	Water quality and soil dynamics of selected shrimp farms of Ankola, Uttara Kannada district, Karnataka	
12:30-12:40 PM	Shikha Ahalavat (1841)	Distribution and Diversity of Phytoplankton in a fish pond at Hisar (Haryana)	
12:40-12:50 PM	Rajwinder Singh (2033)	Comparative anuran diversity and abundance in sprayed and unsprayed transplanted rice crop fields in Punjab	
12:50-1:00 PM	Divya Mittal (2118)	Novel biocompatible green copper nanoparticles efficiently eliminate multidrug resistant nosocomial pathogens and mycobacterium species	
Oral Session-7	Venue: Hall 3 (Lecture Hall 6, Dep	partment of Entomology)	
Th		ousiness for food and nutritional security	
Chairperson		rch Unit AGAP Institute, France	
Co-Chairperson	: Dr. R.A. Kaushik, Director Ex	tension Education, MPUAT, Udaipur	
Rapporteurs	: Dr. Jitender K. Bhatia (Agril. I	Economics), Dr. Subodh Aggarwal (Agri-Business)	
Session Coordinator	rs : Deepika Kalkal (Entomology)	, An <mark>kush</mark> (Soil Science)	
	Lead	Lectures	
9:00 - 9:30 AM	Dr. R. A. Kaushik Director Extension Education, MPUA&T, Udaipur, Rajasthan	Insuring Nutritional Security, Sustainability and Wellness Through Minor Fruits	
9:30 - 10:00 AM	Viktor Kamkin, Professor, Toraighyrov University, Kazakhstan	Medicinal crop production as a source of medicines against COVID-19	
10:00 - 10:30 AM	Dr. Anita Dua, Professor, Institute of Integrated & Honors Studies, Kurukshetra University	Topic of the talk: Unlocking the Potential of Bioactive Compounds from Spices as Treasurers	
10:30-11:00 AM	Tea E	Break	
	Oral Presentations		
11:00 – 11:15AM	Mr. Vinay Kumar (2048)	Dynamics of cotton price trends and arrival patterns in major cotton markets of haryana	
11:15 – 11:30 AM	Mr. Mukesh Kumar (1385)	Electronic National agriculture market (e-NAM): A current imperative in transforming agricultural markets for food security and agribusiness growth	
11:30 – 11:45AM	Dr. Rajesh Kathwal (1003)	National seed portal: The need of the hour	
11:45 - 12:00 Noon	Mr. K Siddaardha Duggirala (1739)	Antimicrobial resistance in bacterial isolates recovered from functional food plants	

Oral Session-8 Ver	nue: Hall 4 (Lecture Hall	14, Department of Agri. Meteorology)
		obal Nutritional Security and Wellbeing
Chairperson		ector Maize and Maize Expert, ICAR
Co-Chairperson		Biotech Program Director, Los Angeles Mission College, CA
Rapporteurs		Parveen Kumar (Agronomy)
Session Coordinators	: Dr. Veenu Sangwan (F	FN), Dr.Subes Singh (Assistant Director Extension)
		Lead Lectures
9:00 - 9:30 AM	Dr. Sain Dass, Ex-Director Maize and Maize Expert, ICAR	Maize ensures Food, Nutritional, and Energy Security for Sustainable Agriculture
9:30 - 10:00 AM	Dr. Chander P Arora Biotech Program Director, Los Angeles Mission College, CA	Enhancing the Bioavailability of Nutrients from Millets
	0	ral Presentations
10:00-10:10 AM	Dr. Pummy Kumari (1069)	Screening of Advance Sorghum Genotypes for Dual Purpose
10:10- 10:20 AM	Dr. Veenu Sangwan (1086)	Enhancing the Shelf Life of Pearl Millet Flour for Food and Nutrition Security
10:20-10:30 AM	Dr. Reema Devi (1119)	Formulation and organoleptic evaluation of millet-based value- added food products for improving household food and nutritional security
10:30-10:40 AM	Dr. Vinod Kumar Malik (1184)	Klebsiella Aerogenes: An endophyte establishing pathogenicity in millets in Haryana
10:40 – 11:00 AM		Tea Break
11:00 - 11:10 AM	Dr. Vishal Goyal (1354)	Enhancing nutrient use efficiency through targeted yield approach of soil test crop response in a long-term pearl millet- wheat study: the key to nutritional security and sustainability
11:10 - 11:20 AM	Dr. Sarita Rani (1456)	Effect of INM on soil properties and yield of pearl millet under saline water irrigation
11:20- 11:30 AM	Dr. Geetika Sirhindi (1481)	Millets: climate smart crops
11:30 - 11:40 AM	Dr. Sube Singh (1542)	Millets as climate resilient crops to ensure food and nutritional security under climate change conditions and future prospects
11:40 - 11:50 AM	Dr. Ritu (1579)	Quinoa: a novel starch source
11:50 - 12:00 Noon	Dr. Om Vir Singh (1594)	Hulless Barley: a mighty cereal to bring health and economic revolution in country
12:00 - 12:10 PM	Dr. Sujata Sethy	Millets based food premixes: sustainable food options towards attaining nutritional security
12:10 - 12:20 PM	Ms. Pritam Omprakash Bhutada	Effect of nutrient management on productivity of parching sorghum genotypes in <i>rabi</i> season
		Lorentzia et al la contra de la contra del contra de la contra del la contra del la contra del la contra del la contra de la contra del la
12:20-12:30 PM	Sandhaya Sharma (1881)	Importance of culture in the promotion of Millet
12:20-12:30 PM 12:30-12:40 PM		Bacterial synthesis of iron and zinc nanoparticle and their effect on seed germination of pearl millet (<i>Pennisetum glaucum</i> L.)
	(1881) Pradeep Kumar	Bacterial synthesis of iron and zinc nanoparticle and their effect on

02:00 PM-6.00 PM	Concurrent Oral Sessions (Or	al Session 9 to Oral Session 12)
Oral Session-9	Venue: Hall 1 (Auditorium, Co	llege of Agriculture)
Theme 2: 0		ology, Bio Informatics, Genetic Engineering, oteomics for Crop Improvement
Chairperson : Dr. Ahmed Jahoor, Swedish University of Agricultural Sciences, Denmark		
Co-Chairperson	: Dr. R.K. Behl, DAAD Fellow	
Rapporteurs	: Dr. Yogesh Jindal (GPB), Dr. N	Mukesh Kumar (GPB)
Session Coordinators	: Dr. Ravika, Dr. Harsh Deep (G	PB)
	Lead L	ectures
2:00 - 2:30 PM	Dr. Ahmed Jahoor	Genomics for disease resistance in crop plants
	Nordic Seed A/S – Lolland, Denmark	
2:30 - 3:00 PM	Dr. R.K. Behl, DAAD Fellow,	Bio-stimulatory effects of protein hydrolases from human
	Prof. MMU, Ambala	hair on stem strength and grain yield components in various crops
3:00-3:30 PM	Dr. S.K. Gupta	Enhancing genetic gain for climatic resilience and
	ICRISAT Hyderabad, Telangana	nutritional traits in pearl millet
	Oral Pres	entations
3:30-3:35 PM	Manoj Kumar (1015)	Understanding cellulose biosynthesis in plants for efficient utilisation of plant biomass to produce bio-fuels and novel materials and chemicals
3:35-3:40 PM	Ashok Kumar Chhabra (1575)	Key factors in the selection of parents for the Chickpea crossing program
3:40 - 4:00 PM		Tea Break
4:00 - 4:05 PM	Sunil Kumar (1169)	Identification of new kabuli chickpea variety Haryana Chana 5 (HC 5)
4:05 - 4:10 PM	Anamika Thakur (1284)	Comprehensive transcriptome analysis of <i>Allium</i> carolinianum: unveiling genetic insights and marker development
4:10 - 4:15 PM	Arti Sharma (2114)	Breeding first Pecan nut variety of India: Jammu Pecan nut/ SKJPP25
4:15 - 4:20 PM	Chaitra G. Bhat (1341)	Genomics-based decryption of the desiccation tolerance pathways and mechanisms in the entomopathogenic nematodes
4:20 - 4:25 PM	Dev Vart (1474)	Genetic variability for blast incidence in pearl millet [Pennisetum glaucum (L.) R. Br.] hybrids and their parents
4:25 - 4:30 PM	Charu Lata (1206)	Decoding sugar transporters: A gateway to sustainable wheat rust management
4:30 - 4:35 PM	Ramesh Kumar (1586)	Breeding for quality traits in maize
4:35 - 4:40 PM	Rishiraj Raghuvanshi (1657)	Unlocking the genetic blueprint of soybean flowering: A comprehensive GWAS study
4:40 - 4:45 PM	Manika Goswami (1702)	Confirmation of hybridity in guava using SSR markers
4:45 - 4:50 PM	Rajesh Kumar Arya (1832)	Effect of environment on ashwagandha (<i>Withania somnifera</i> L.) elite genotypes root yield and its other parameters
4:50 - 4:55 PM	Tushadri Singh (1847)	Optimizing gRNA designing for SDN1-CRIPSR/Cas9 genome editing in wheat
4:55-5:00 PM	Nirmal Sharma (1919)	Character Association Studies among Seedling Population of Guava (<i>Psidium guajava</i> L.)

5:00-5:05 PM	Somveer (1922)	Breeding cotton genotypes for high density planting system: A future breeding programme in the North Indian context
5:05-5:10 PM	Subhash C. Kashyap (1953)	Genetic diversity studies in barnyard millet (<i>Echinochloa frumentacea</i>) for yield and quality traits.
5:10-5:15 PM	Akshay Kumar Vats (1986)	Screening of genotypes for different NUE related traits to develop multi parent population in bread wheat (<i>Triticum aestivum</i> L. Em. Thell)
5:15-5:20 PM	Neeru Redhu (2006)	Computational characterization of OsRuvBL1a in transgenic pigeon pea [Cajanus cajan (L.) Millspaugh] for salt tolerance
5:20-5:25 PM	Prakash Banakar (2110)	Suppressor become shelter: mRNA sequencing decode the survival of <i>Meloidogyne indica</i> in neem
Oral Session-10	Venue: Hall 2 (Lecture Hall 10, D	Department of Genetics and Pl. Breeding)
		ganic Farming for Wellness
Chairperson	: Prof. Yo Toma, Hokkaido Univers	
Co-Chairperson	: Dr. S.K. Sharma, Assistant Direc	
Rapporteurs	: Dr. Anil Kumar (DDUCE-OF), Dr	
Session Coordinators	: Dr. Jagmohan Singh (Veg. Scien	nce), Dr. Suresh Kumar (DDUCE-OF)
	Lead Le	ectures
2:00 - 2:30 PM	Prof. Yo Toma, Research Faculty of Agriculture, Hokkaido University, Japan	Measurement of CH ₄ and N ₂ O emissions from cow dung and urine and their identification using uav and objection detection in rangeland
2:30 - 3:00 PM	Dr. S.K. Sharma Assistant Director General (HRM), ICA, Delhi	Scientific and universal dimensions in organic and natural farming: Status and way forward
	Oral Pres	entations
3:30 - 3:40 PM	Leela Wati (1502)	Potential of actinomycetes as biocontrol agents and improvement of soil health
3:00 - 3:10 PM	Baljeet Singh Saharan (1142)	Microbial alchemy for sustainable agriculture: unraveling bacterial contributions to global food security and ecosystem wellness
3:10 - 3:20 PM	Sunaina (1151)	Organic food as sustainable consumption: Assessing food safety concerns, health consciousness, and ecological motives
3:20- 3:30 PM	Saroj Yadav (1197)	Natural Dyes: Sustainable sources of textile colouration
3:30 - 4:00 PM	Tea Break	
4:00 - 4:10 PM	Nandni (1204)	Evaluation of sulphur-oxidizing bacteria for plant growth promoting traits and impact on germination of mustard and mungbean under in vitro condition
4:10 - 4:20 PM	V.P.S. Panghal (1214)	Impact of farmyard manure and biofertilizers on the growth, yield, quality, and economics of a potato-onion cropping sequence under organic conditions
4:20- 4:30 PM	Jagmohan Singh (1468)	Hormonal regulation of defense mechanism in tomato plant at the transcriptional level by Chaetomium globosum in the absence and presence of biotic stress (<i>Alternaria solani</i>)
4:30 - 4:40 PM	Shrilatha K A (1477)	Organic farming for nutritional security and sustainable agriculture
4:40 - 4:50 PM	Priyanka (1496)	Antagonistic activity and plant growth promoting attributes of potential Streptomyces
4:50 - 5:00 PM	Neel Kamal (1497)	Plant growth promoting attributes of Trichoderma

5:00 - 5:10 PM	Annu Rani (1611)	Endophytic bacterial volatile organic compounds (VOCs) induced growth of tomato (Solanum lycopersicum)
5:10 - 5:20 PM	Shalini Rukhaya (1789	Green biocomposites: the next generation sustainable composite material
5:20-5:30 PM	Chinthala Mounika (18:	29) Effects of varying levels of nitrogen through vermicompost on growth characteristics and yield performance in cotton
Oral Session-11	Venue: Hall 3 (Lecture	e Hall 6, Department of Entomology)
The		ing and Value Addition for Food Safety and Security
Chairperson	: Dr. Rabe Yahaya, If	
Co-Chairperson	: Dr. Ramesh Kumar Goyal, Directorate of Research, MHU	
Rapporteurs	: Dr. D.K. Sharma (SNIATTE), Dr. Sushil Sharma (Horticulture)	
Session Coordinate	Session Coordinators : Dr. Dalip Bishnoi (Ag. Eco), Dr. Preeti Yadav (Veg. Sci)	
		Lead Lectures
2:00 - 2:30 PM	Dr. Rabe Yahaya, Senior Scientist- Mechanization	Climate smart mechanization and post-harvest
	and Postharvest	- A STATE OF THE S
2:30-3:00 PM	Ramesh Kumar Goyal	Influence of postharvest application of salicylic acid, calcium chloride,
2.00 0.00 1 101	Directorate of Research	sodium nitroprusside and putrescine on storage behaviour and
	MHU	quality of Kinnow fruits stored under ambient conditions
	Oral Presentations	
3:00-3:07 PM	Poonam Abrol (1051)	Empowering people: Millet processing for sustainable nutrition and livelihood security
3:07- 3:14 PM	Mukesh Kumar (1090)	Fruit Processing- Alternate to doubling farmers income
3:14- 3:21 PM	Jarpla Mounika (1157)	Stored product pests and food security: A global perspective
3:21 - 3:28 PM	Ritu (1190)	Economic analysis of gladiolus flower crop in Haryana
3:28-3:34 PM	Dalip Kumar Bishnoi (1305)	An Economics analysis of Processing of Cane Products in Haryana
3:34-341 PM	Sushma Rani (1424)	Sustainable anti-felting treatment to wool fabric using wheat starch biopolymer
3:41 – 4:00 PM		Tea Break
4:00-4:07 PM	Ravi Kumar (1526)	Effect of <i>Lactobacillus</i> fermentation on crude protein and anti- nutritional profile of faba bean flour
4:07-4:14 PM	Rajni (1548)	Enrichment of mungbean grains with zinc through application of zinc sulphate
4:14-4:21 PM	Rekha (1574)	Value added instant halwa mix through malting and supplementation
4:21-4:28 PM	Sanjeev Sharma (1676)	Enhancing tilapia surimi gelling properties through the valorisation of pomegranate peel waste as a sustainable bioresource
4:28-4:34 PM	Ranjan Kaushik (1676)	Standardization and evaluation of sattu from Bengal gram and finger millet
4:34-4:41 PM	Dipsikha Mondal (1722)	Sustained release formulation of betalains extracted from dragon fruit (<i>Hylocereus</i> spp.) peels for improved stability and bioaccessibility
4:41-4:48 PM	Sourabh Suman (1737)	Chitosan Nano-emulsion of Bioactive Essential Oils from <i>Litsea cubeba</i> for the control of stored fungal pathogen
4:48-4:55 PM	Sangeeta Chahal Sindhu (1745)	Malting characteristics of pearl millet variety
4:55-5:02 PM	Urvashi Nandal (1791)	Study the effect of processing on pesticide residue in vegetables for food safety
5:02-5:09 PM	Meena Sindhu (1835)	Antioxidative activity of bioactive peptides produced from Pearl millet using solid state fermentation
5:09-5:16 PM	Anupama Sandal (1837)	Flaxseed based energy bar- a nutritious supplement for children

5:16-5:23 PM		Impact of storage containers on seed quality parameters in Barley (Hordeum vulgare) during storage
5:23-5:30 PM		Active modified atmosphere packaging (MAP) of tomato for retention of physicochemical quality attributes
5:30-5:37 PM	Smriti Sharma (2030)	Persistence and kinetic study of different pesticides in <i>Allium cepa</i> L.
5:37-5:44 PM		Estimation of spirotetramat and diafenthiuron residues on chilli by LC-MS/MS
Oral Session-12	Venue: Hall 4 (Lecture Hall 1	4, Department of Agri. Meteorology)
		ture and Allied Education in Food Security
Chairperson	: Dr. Devki Nandan, Professor, The University of British Columbia, Canada	
Co-Chairperson	, 00	ion, Professor, Universidade de Brasília, Brazil
Rapporteurs	D D I I / (C	. Vinod Goyal (Botany & Plant Physiology)
Session Coordinat	tors : Dr. Ronlas Kumar (Sc	pil Science) Dr. Savita (Horticulture)
		Lead Lectures
2:00 - 2:30 PM	Dr. Devki Nandan, Profe Faculty of Medicine, The Univ of British, Columbia	essor, / CRISPR-cas-Edited Agriculture: Future of Sustainable Food Supply
2:30 - 3:00 PM	Dr. Oksana Ermakova Profe Toraighyrov University, Kazakl	1 3
	0	Oral Presentations
4:00 - 4:10 PM	Anita Kumari (1019)	A comparative study on functional properties, proximate composition, minerals and fatty acid profiling of hulled barley varieties
4:10 - 4:20 PM	Sandeep Bhardwaj (1463)	Prolonging Freshness with Edible Fruit Coatings: A Review
4:20 - 4:30 PM	Shivani Rana (1467)	Kitchen Gardening: An approach towards improving nutritional security of households
4:30 - 4:40 PM	Shamsher Singh (1604)	Lodging Mitigation Strategies for Basmati Rice: A Study on Mepiquat Chloride Application and Lopping in the Context to Nitrogen Fertilization.
3:30-4:00 PM	Tea Break	
4:00 - 4:10 PM	Savita Rani (1620)	Advances in agricultural education for the assessment of soil salinity to ensure global food security
4:10 - 4:20 PM	Poonam Mor (2002)	Role of Education in Agriculture for Promoting Food Security
4:20 - 4:30 PM	RituChikkara (2003)	Study on Feminization of Farming, Food Security and Female Empowerment in Rural Haryana
4:30 - 4:40 PM	Krishan Kumar (2031)	Significance of Quality Seeds for Food and Nutritional Security in Agriculture
4:40 - 4:50 PM	Pushpinder Kaur Brar (2050)	Residue estimation of Isocycloseram in tomato by LCMS/MS
4:50 - 5:00 PM	Aayushi (2088)	Role of Dalit women in the context of Indian agriculture
5:00 - 5:10 PM	Meenakshi (2092)	Problems and challenges of Panchayat Development Society and Human Rights

December 06, 2023

Venue: Hall 1 (Auditorium, College of Agriculture)

	<u> </u>	
9:00 -10:30 AM	Lead Lectures	
9:00 - 9:30 AM	Dr. Bouchaib Khadari	Towards sustainable Mediterranean olive growing in the face of
		climate change
9:30-10:00 AM	Dr. Rajvir Rathi, Director Public	Harnessing innovations- Advancements in climate resilient
	Affairs, Science & sustainability	agriculture for small holder farmers
	(IBSL), Bayer Crop Science	
10:00-10:30 AM	M.K. Gathala, Senior Systems	Enabling ecosystem for scalable crop diversification options
	Agronomist and Science-Lead-	provides sustainable food, energy and water nexus in North-
	Asia, CIMMYT-Bangladesh	West Indo-Gangetic Plains of India
10:30-11:00 AM	Tea Break	
11:00 AM-1:00 PM	Plenary Session Valedictory Session	
	Rapporteurs: Dr. S.K. Thakral (HOD, Agronomy), Dr. S.K. Tehlan (HOD Veg. Science)	
1:00 PM -2:00 PM	Lunch	

