



# INTERNATIONAL WEB-CONFERENCE on Resource Management and Biodiversity Conservation to Achieve Sustainable Development Goals

September 11-12, 2020

Organized by: Academy of Natural Resource Conservation and Management, Lucknow (UP), INDIA

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## Programme

### DAY 1

September 11, 2020	
INAUGURAL SESSION	
<b>Chairman</b>	: Dr. D.K. Sharma, Ex-Director, ICAR-CSSRI, Karnal, Haryana, India
<b>Co-chair</b>	: Prof Annie Melinda Paz-Alberto, Central Luzon State University, Philippines
<b>Convener</b>	: Dr. Pradeep K. Rai, SKUAST Jammu, India; Dr. C.S. Singh, CSSRI, RRS, Lucknow, India
10:00-10:05	Welcome Address by <b>Dr. Atul K. Singh</b> , President, ANRCM
10:05-10:10	About ANRCM by <b>Dr. Sanjay Arora</b> , Secretary, ANRCM
10:10-10:15	About International Web Conference by <b>Dr. Sanjay Swami</b> , Organizing Secretary
10:15-10:35	Inauguration of International Web-Conference and <b>Inaugural Address</b> by <b>Prof Carmelo Dazzi</b> , President, European Society for Soil Conservation, Università di Palermo, Italy
10:35-10:50	Address by Guest of Honour, <b>Prof. S.H.R. Sadeghi</b> , Tarbiat Modares University, Iran
10:50-11:10	<b>Keynote Speaker Prof (Dr.) N.S. Rathore</b> , VC, MUPAT, Udaipur & Ex-DDG, ICAR, New Delhi, India <b>Topic:</b> Renewable Energy Sources for Agriculture
11:10-11:30	<b>Keynote Speaker Dr. Ashok K. Patra</b> , Director, ICAR-Indian Institute of Soil Science, Bhopal & President, Indian Society of Soil Science, New Delhi, India <b>Topic:</b> Enhancing Nitrogen Use Efficiency: A Key for Soil Health and Food Security
11:30-11:50	<b>Lead Speaker Prof. Miodrag D. Zlatic</b> , Belgrade University, Serbia <b>Topic:</b> Necessity For Soil Management For Sustainability
11:50-12:10	<b>Lead Speaker Prof. Jiftah Ben-Asher</b> , Ben Gurion University of the Negev- Beer Sheva, Israel <b>Topic:</b> Proximal sensing of nitrogen needs by spring wheat
12:10-12:15	Vote of thanks by <b>Dr. Nilay Borah</b> , Organizing Secretary

TECHNICAL SESSION- I	
Efficient Soil, Water and Energy Management under diverse ecosystems	
<b>Chairman</b>	: Prof. S.H.R. Sadeghi, Tarbiat Modares University, Iran
<b>Co-chairman</b>	: Dr. Vikas Sharma, SKUAST, Jammu, India
<b>Convener</b>	: Dr. Shefali Srivastava, Lucknow; Mr. Navneet Sharma, PAU, Ludhiana
12:15-12:35	<b>Lead Speaker Dr. Vikas Sharma</b> , SKUAST Jammu, India Soil erosion risk mitigation from Agricultural production systems in foothill Himalayas
12:35-12:55	<b>Lead Speaker Dr. Nand K. Agrawal</b> , ICIMOD, Nepal Solutions centric approach to Adaptation and resilience building: Experience from Hindu Kush Himalaya
12:55-13:15	<b>Lead Speaker Dr. Zainab Khalid</b> , Lanzhou University, Lanzhou Efficient water management system in diverse ecosystems

13:15-13:45	<b>Oral Presentations</b>	
	<b>Dr. Sreeja K.</b>	Farm level soil, water and energy conservation through efficient irrigation practices <i>Mamatha Prabhakar, Sreeja, K. and Anjaly C. Sunny</i>
	<b>Dr. M.S. Hadda</b>	Resilience and interactive effects of soil depth and slope position on soil chemical characteristics as affected by fencing under semiarid tropical environments <i>M.S. Hadda, Sanjay Arora and K.B. Thapa</i>
	<b>Dr. Sileshi Abbi</b>	Temporal and spatial variations of salt affected soils at Dubti/Tendaho state farm, north eastern Ethiopia <i>Sileshi Abbi, Kibebew Kibret and Amanuel Zenebe</i>
	<b>Dr. M. K. Sharma</b>	Hydro-geochemical investigations in Upper Ganga Basin, India <i>M. K. Sharma, Parul Prajapati, Kunarika Bhanot, Udita Wadhwa and Garima Tomar</i>
13.45-14.00	<b>Poster Presentations</b>	
14:00-14:30	<b>Lunch Break</b>	

**TECHNICAL SESSION- II**

**Innovative approaches & Policy Responses for Agricultural Sustainability and Livelihood Security**

<p><b>Chairman</b> : Dr. Y. P. Singh, ICAR-CSSRI, RRS, Lucknow, India  <b>Co-chairman</b> : Dr. Zachary Gichuru Mainuri, Egerton, Kenya  <b>Convener</b> : Dr Ratna Sahay, KVK Unnao, India; <b>Mr. Rohit P. Ojha</b>, CSSRI, RRS, Lucknow, India</p>		
14:30-14:50	<b>Lead Speaker</b> Dr. Stefanos Xenarlos, Nazarbayev University, Kazakhstan	Gender Impacts from Weather Extremes in South India
14:50-15:10	<b>Lead Speaker</b> Dr. Sudarshan Dutta, APNI, Morocco	Climate Smart Nutrient Management Approaches in Smallholder Farming System
15:10-15:30	<b>Lead Speaker</b> Dr. Mahesh K. Gathala, CIMMYT, Bangladesh	Enabling smallholder farmers to sustainably improve their food, energy and water nexus while achieving environmental and economic benefits in the EGP: Conservation agriculture-based sustainable intensification for smallholder systems

15:30-16:30	<b>Oral Presentations</b>	
	<b>Dr. U. Surendran</b>	Nutrient budgeting using NUTMON –model for sustenance of soil fertility in humid tropical Kerala <i>U. Surendran and P. Raja</i>
	<b>Dr. Arvind Kumar Ishar</b>	Impact of COVID-19 on agriculture and allied sectors in Rajouri district of Jammu & Kashmir, India <i>Arvind K. Ishar, Suraj Parkash, Parul Gupta, Vishal Sharma, Rohit Sharma and Rajesh Kumar</i>
	<b>Dr. Ravindra Kumar</b>	Dissemination pattern of available nutrients and biological properties of soil in different four blocks of Moradabad district of Uttar Pradesh under sugarcane – wheat cropping system <i>Ravindra Kumar, Manoj Singh, Devendra Pal Singh, A. K. Mishra and N.C. Tripathi</i>
	<b>Dr. Samikshya Sedhai</b>	Good agriculture practices in mandarin ( <i>Citrus reticulata</i> Blanco); perception and factors affecting awareness among farmers at Gulmi, Nepal <i>Samikshya Sedhai, Surya Dhungan, Puspa Raj Dulal and Gaurav Adhikari</i>
	<b>Dr. Faiz Mohsin</b>	Performance of wheat and mustard in Agroforestry system under Terai conditions of UP <i>Faiz Mohsin, N.C. Tripathi, Afreen Mohsin and S.S. Dhaka</i>
	<b>Dr. A. P. Singh</b>	Evaluation of different alternate landuse systems for rainfed sub-tropics of Jammu <i>A. P. Singh, Jai Kumar, Brinder Singh, A.P. Rai, Vikas Gupta, Permendra Singh and Reena</i>
	<b>Dr. Syed Shamim Ahmed Simnani</b>	Studies on revival and conservation of Kashmiri Ambri apple <i>Shamim A. Simnani, Sabiha Ashraf, K.M. Bhat and M.K. Sharma</i>
	<b>Dr. Shravan M. Haldhar</b>	Bottom-up effect of difference genotypes of ber, <i>Ziziphus mauritiana</i> against fruit borer, <i>Meridarchis scyrodes</i> Meyrick <i>S.M. Haldhar, A.K. Singh and S. S. Singh</i>
	<b>Dr. Kohima Noopur</b>	Evaluation of yellow vein mosaic virus resistant single cross hybrids for yield and quality traits in Okra ( <i>Abelmoschus esculentus</i> L. Moench) <i>Kohima Noopur, R.K. Samnotra Manmohan Sharma and R. K. Salgotra</i>
	<b>Dr. N. A. Deshmukh</b>	New guava varieties for subtropics of North East India <i>N. A. Deshmukh, H. Rymbai and A. K. Jha</i>
16:30-18:00	<b>Poster Presentations</b>	

## DAY 2

September 12, 2020

### TECHNICAL SESSION- III

#### Biodiversity Conservation, Resource Management and Ecological Restoration for Sustainable Development

Chairman : Dr. M.S. Hadda, PAU, Ludhiana, Punjab, India  
 Co-chairman : Dr. Ajay K. Bhardwaj, ICAR-CSSRI, Karnal, India  
 Convener : Dr. Sarabdeep Kour, SKUAST Jammu; Mr. Pema Rinzin, Royal University of Bhutan

10:00-10:20	<b>Keynote Speaker Dr. Warshi S. Dandeniya</b> , University of Peradeniya, Sri Lanka	Carbon sequestration in soils under annual crop cultivation: challenges and way forward
10:20-10:40	<b>Keynote Speaker Dr. Nakul Chettri</b> , Programme Manager, ICIMOD, Nepal	Biodiversity Conservation, Sustainable Development and Climate Resilience in the Himalayas
10:40-11:00	<b>Lead Speaker Prof. U.K. Behera</b> , Dean, CoA, CAU, Kyrdemkulai	Conservation agriculture for enhancing resource use efficiency and crop productivity

11:00-11:30	<b>Oral Presentations</b>	
	<b>Dr. B. N. Hazarika</b>	Underutilized citrus fruits of Arunachal Pradesh <i>B. N. Hazarika</i>
	<b>Dr. Sheeba Rebecca Isaac</b>	Resource management and sustainability through organic recycling in homestead agroforestry systems <i>Reshma Das, Harishma S. J. and Sheeba Rebecca Isaac</i>
	<b>Dr. Meenakhi Prusty</b>	Organic Farming-A Key To Sustainable Agriculture <i>Meenakhi Prusty</i>
	<b>Dr. Sheeja K Raj</b>	Crop intensification for enhanced production under organic farming in Nendran banana <i>Sheeja K. Raj, K. Prathapan and N.V Radhakrishnan</i>
	<b>Ms. Nilakhi Dutta</b>	Exploitation of zinc solubilizing bacteria for zinc nutrition in rice <i>Nilakhi Dutta, Anjuma Gayan, D.J. Nath and Jyotirupa Kalita</i>
11:30-12:00	<b>Poster Presentations</b>	

### TECHNICAL SESSION- IV

#### Agriculture Diversification, Nutrient Management, Soil Health and Options for Environmental Sustainability

Chairman : Dr. T.K. Srivastava, ICAR-IISR, Lucknow  
 Co-chairman : Dr. K. Rajan, ICAR-IISWC, RC, Udghamandlam, Tamil Nadu, India  
 Convener : Dr. Akbar Hossain, Bangladesh; Dr. Rajan Bhatt, PAU, Ludhiana

12:00-12:20	<b>Lead Speaker Dr. R.K. Singh</b> , ICBA, UAE	Crop diversification: Key attributes for productivity in saline, drought and heat prone marginal environment
12:20-12:40	<b>Lead Speaker Dr. S.P. Vista</b> , NARC & Secretary, NSSS, Nepal	Soil fertility management in various ecological belts of Nepal
12:40-13:00	<b>Lead Speaker Dr. S.K. Sharma</b> , MPUAT, Udaipur	Global perspective of Organic farming

13:00-13:40	<b>Oral Presentations</b>	
	<b>Dr. Rajeev Padbhushan</b>	Role of integrated nutrient management in soil health and microbial activity under Indian subcontinent: A meta-analysis approach <i>Rajeev Padbhushan, Upendra Kumar, Anshuman Kohli, Sheetal Sharma and D. S. Rana</i>
	<b>Dr. Kaberi Mahanta</b>	Long term effect of fertilizer and herbicides on soil properties and productivity of rice-rice system in rainfed lowland ecosystem under subtropical region of eastern Himalayas, India <i>K. Mahanta, D. J. Rajkhowa, M.J. Konwar, R.K. Parit and D. Sonowal</i>
	<b>Dr. Nongthombam Surbala Devi</b>	Nitrogen transformation in paddy soil fertilized with urea and organic manures <i>N. Surbala Devi, Kh. Manorama and T. Sanahanbi Devi</i>
	<b>Dr. Mukesh Kumar Jat</b>	Impact of INM on soil fertility and yield in <i>Abelmoschus esculentus</i> – <i>Allium cepa</i> cropping system in semi arid zone of southern Haryana <i>M. K. Jat, R. Singh, P. K. Yadav, Amit Kumar, R.P.S. Deswal and Bikram Singh</i>
12:30-13:40	<b>Concurrent Poster Presentations</b>	
13:40-14:00	<b>Lunch Break</b>	

TECHNICAL SESSION-V		
Precision Agriculture and Climate Smart Approaches for Sustainable Management of Resources		
Chairman : Dr. Ashwani Kumar, Ex-Director, ICAR-IIWM, Bhubaneswar, Odisha, India		
Co-chairman : Dr. Munish Kumar, CSAUAST, Kanpur		
Convener : Ms. Divya Sahni, Amity University, Lucknow, India; Dr. N.K. Pareek, SKRAU, Bikaner, India		
14:00-14:20	<b>Keynote Speaker Prof. Ildefonso Pla Sentis</b> , University of Lleida, Spain & Past President, ISCO	Soil and water use and management under climate changes for sustainable agricultural developments
14:20-14:40	<b>Lead Speaker Dr. Reeta Rai</b> , Bhutan	Surface water pollution due to vehicle washing activities
14:40-15:00	<b>Lead Speaker Prof. Dillip K. Swain</b> , IIT Kharagpur	Climate change adaptations for food security

15:00-16:30 Oral Presentations		
	<b>Dr. M.L. Gaur</b>	River pollution and quantitative dilapidation of water resources in Gujarat <i>Murari Lal Gaur and Bhavin Ram</i>
	<b>Dr. A. Madhavi Lata</b>	Climate smart approach through Silvi-medicinal system <i>A.Madhavi Lata and Ashly Abraham</i>
	<b>Dr. Santosh Marahatta</b>	Ecological weed management practices and seed bed preparation optimized the yield of dry direct seeded rice in sub humid condition of Chitwan, Nepal <i>Santosh Marahatta</i>
	<b>Dr. G. T. Patle</b>	On-farm rainwater harvesting for vegetable production using low cost poly houses in NEH region <i>G. T. Patle</i>
	<b>Dr. B.R. Bazaya</b>	Influence of irrigation methods and weed management practices direct-seeded rice <i>B. R. Bazaya, R. Puniya, S. M. Dadhich, Ashiana Javeed and Supneet Kaur</i>
	<b>Dr. Monika Shukla</b>	Diversification of maize based cropping system under middle Gujarat conditions <i>Monika Shukla, A. C. Sadhu and Pinal Patel</i>
	<b>Dr. Nirmal Kumar Patra</b>	Mapping District Level Emission of Greenhouse Gases from the Livestock Sector of Uttar Pradesh, India <i>N. K. Patra and Suresh Chandra Babu</i>
	<b>Dr. Anita Kumawat</b>	Impact of crop residue management on soil properties and crop productivity under conservation agriculture in Vertisols of Central India <i>Anita Kumawat, A.K. Vishwakarma and Devideen Yadav</i>
	<b>Dr. Tarun Adak</b>	Characterizing hydraulic architecture and soil properties in fruit orchards for precision farming <i>Tarun Adak, Kailash Kumar and Vinod Kumar Singh</i>
	<b>Dr. Ajay K. Bhardwaj</b>	Sustainable resource conservation strategies for rice-wheat cropping systems and their relevance to climate resilience <i>Ajay K. Bhardwaj</i>
15:00-16:30	<b>Concurrent Poster Presentations</b>	<i>All Poster Sessions:</i> <b>Chairman: Dr. Anshuman Kohli</b> <b>Co-Chairman: Dr. Anil Sharma</b>

PLENARY SESSION	
<b>Plenary Speaker:</b> <b>Prof (Dr.) Rattan Lal,</b> <b>Distinguished Professor, The Ohio State University, USA; WORLD FOOD PRIZE LAUREATE 2020</b>	
16:30-16:35	Welcome of Plenary Speaker by <b>Dr. Sanjay Arora</b> , Secretary ANRCM & Convener Org. Committee
16:35-17:15	<b>Plenary Talk by Prof. (Dr.) Rattan Lal</b> <b>Topic:</b> Climate-Resilient Agriculture for Sustainable Management of Natural Resources and Advancing Agenda 2030 of the United Nations
17:15-17:45	Interaction with participants
17:45-17:50	Vote of Thanks by <b>Dr. Sanjay Swami</b> , Organizing Secretary

VALEDICTORY SESSION	
18:00-18:30	Proceedings Report and Declaration of Awards

*Time as per Indian Standard Time*

## POSTER PRESENTATIONS

September 11, 2020 (13:45 – 14:00)		
POSTER SESSION- I		
Efficient Soil, Water and Energy Management under diverse ecosystems		
1	Annual and seasonal rainfall variability of Shillong, Meghalaya	MirbanaLusick K. Sangma
2	Effect of scheduling of irrigation with mulch under different planting methods on sugarcane juice quality	Satendra Kumar
3	Application of no till technology for sowing of Wheat and Lentil	Vimlesh Kumar Pandey
4	Effect of irrigation levels and weed management on phytotoxicity in Chickpea	Sahaja Deva
5	Optimization of irrigation and fertigation levels for turmeric in western zone of Tamil Nadu	Thiyagarajan, G.
6	Suchitha– An innovative thermochemical technology for proper solid waste management	Geethu Jacob
7	Low cost rooftop level rainwater harvesting	Dharmendra Kumar
8	Effect of deficit irrigation and plastic mulch on growth and production of drip irrigated tomato under naturally ventilated polyhouse	Dhuri Pradnya Kamalakar
10	Low cost perennial water harvesting structure, jalkund for sustainable livelihood of the Nungbrang village of Imphal east district, Manipur,India	Gunajit Oinam
11	Precision water management in different rice establishment methods	Midde Sai Kumar
12	Irrigation and nutrient coupling on growth, yield, fruit quality and water use efficiency of Indian jujube in an Inceptisol	Riasha Kar
13	Irrigation scheduling in mango ( <i>Mangifera indica</i> L.) for higher water use efficiency	Arti Sharma
14	Conservation agriculture-Principal, problems and prospects in Indian conditions	Yogendra Kumar Shukla
15	Optimization of parameters for microbial degradation of benzo- $\alpha$ -pyrene	Arjita Punetha
16	Proficiency of water purification system against bacterial contamination in water	Nandani Raghav
17	Development of various rainwater harvesting structures to strengthen groundwater and increase crop productivity in semi-arid areas - A case study	Sarvepalli Vijaya Kumar
18	Adoption of conservation agriculture: a sustainable approach towards an efficient resource management and soil health restoration	Dipankar Saikia
19	Innovations for climate resilience in rainfed conditions in village Warkhed, District Akola of Maharashtra State	Vishal Prakash Pandagale
20	Initial and conditional probabilities of South-West monsoon rainfall at Rajouri	Rohit Sharma
21	Water quality assessment for irrigation purposes in Yamuna River	Divya Thakur
22	Weed management of wheat in rice based cropping system under conservation agriculture system	Ramphool Puniya
23	Effect of soil moisture and calcium carbonate content on leaf reddening in Bt. cotton	Swati Panjabrao Zade
24	Drought phenomena its occurrence and cost effective technologies for mitigating its impact	Mukesh Kumar
25	Assessing the influence of nutrient management and irrigation	Sruthi P



	method on growth of two different rice cultivars - Uma and Kanchana	
26	In-situ conservation of kharif moisture for timely sowing of wheat in rabi season under rainfed conditions of Rajouri	Vishal Sharma
27	Conservation agricultural practices and soil nitrogen losses through erosion in foothill Shivaliks	Divya Sharma
28	Effect of drip irrigation level and micronutrient application method on yield of Indian mustard ( <i>Brassica juncea</i> L.)	O. S. Bhukhar
29	Biostimulants: Source of mitigation of moisture stress in cow pea	Preety Rani and Sarita Devi
30	Conservation Agriculture- A climate smart approach for carbon enrichment	Bishnuprasad Dash
31	Emitter spacing under point and disc source flow geometry for surface drip irrigation	Chhedi Lal Verma
32	Evaluation of evapotranspiration models for estimating reference evapotranspiration in sub-tropic region	Yadvendra Pal Singh

**September 11, 2020 (16:30 – 18:00)**

**POSTER SESSION- II**

**Innovative approaches & Policy Responses for Agricultural Sustainability and Livelihood Security**

1	Study of livelihood security by adoption of cost effective NRM through agroforestry in SAT region, Central India	Karuna Nidhan Singh
2	Covid- 19 impacts on agriculture	Swati Singh
3	Covid- 19 pandemic and its impact on livestock sector	Mohd Yousuf Dar
4	Impact of Covid-19 pandemic on food and agriculture	Gudapati Ashoka Chakravarthy
5	Value chain management in oilseed crops	Keisham Dony Devi
6	Agroclimatic indices for prediction of groundnut yield under the middle Gujarat agroclimatic zone	Santosh Tukaram Yadav
7	Leakage compositional changes accompanying to exposure of some mango cultivars to low temperature under field conditions	Ali Ashour Shaaban Sayed
8	Germplasm evaluation and conservation strategies for Indian Elecampane	Harpal Singh
9	SWOT analysis of organic farming with special reference to Nagaland	Nchumthung Murry
10	Sustainable agriculture module for livelihood security	Ajay Babu
11	Alternative sources of soil amendments for reclamation and management of salt affected soil	Vivek Kumar Patel
12	Impact of Covid-19 on Indian agriculture	Ayushi Agarwal
13	Covid-19 challenges to the agriculture policy	Sumit Bharat Wasnik
14	a review paper on impact of environmental externalities in agriculture and allied sector	Rachana Bansal
15	Biorational approaches for the management of various diseases of Indian mustard	Narender Singh
16	Foliar supplementation to enhance pulse productivity	Pooja Singh
17	Heterosis, inbreeding depression, heritability and genetic advance for grain iron and zinc concentration, yield and related traits in pearl millet [ <i>Pennisetum glaucum</i> (L.) R. Br.]	Mithlesh Kumar
18	Identification of simple sequence repeat markers associated for grain micronutrients concentration in pearl millet [ <i>Pennisetum glaucum</i> (L.) R. Br.]	Mithlesh Kumar
19	Impact of Covid-19 on livelihood security of mountain community	Rommila Chandra
20	Resource conservation technologies in rabi pulses at farmers field and their impact on crop yield, technological and extension yield	Rajesh Kumar Kanojia

	gaps	
21	Impact of Covid-19 on Indian agriculture	Prashant Bagade
22	Plant growth regulators and their importance in abiotic stress management	Arvind Kumar
23	Integrated farming system and their impact on productivity and rural livelihood	Mattepally Vikram Sai
24	Resource capture and utilization through canopy stratification in homesteads: a blue print of sustainability	Arunjith P.
25	Impact of Covid-19 in agriculture at current scenario	Manish Raj
26	Nutrient requirement of papaya ( <i>Carica papaya</i> L.) in the homestead farming system of Kerala for yield optimisation	Bindu B.
27	Resource conservation through alley cropping in interspaces of fruit orchards under rainfed conditions	Vikas Gupta
28	Strategies for boosting indian agriculture in the current scenario	Dayanidhi Chaubey
29	Yielding behaviour of chickpea varieties under varying plant rectangularities in late sown conditions of Pantnagar	Anita Arya
30	Baseline survey and identification of problems in hill cattle production system of Pauri Garhwal district of Uttarakhand	Naresh Prasad
31	Hi-tech agriculture and scopes of agri-entrepreneurship	Shaheemath Suhara K. K.
32	Interactive effect of green manure and zinc fertilization on the physical and nutritional quality of basmati rice under Indian rice-wheat system	Devideen Yadav
33	Nitrification regulation - a mitigation strategy for nitrogen pollution in agriculture	Sruthy A. B.
34	Leaf surface inhabiting pigmented methylotrophic bacteria tapped for their plant growth promoting traits	Anjuma Gayan
35	Lycopene: A nutraceutical	Fozia Hameed
36	Suggestions from farmers to overcome the constraints in the efficient use of mobile communication technologies to transfer agricultural information	Pankaj Kumar Meghwal
37	Hydrolysis of urea by immobilized urease : An integrated approach for urease stabilization and its utilization in environmental and industrial applications	Rajnish Kumar Singh
38	Response of bottle gourd to organic and inorganic fertilizers	Amit Kumar
39	Seed Invigouration: A climate-smart crop production practice	Anju B. Raj
40	Impact of Covid-19 lockdown on farming community in cold desert region-Ladakh	Phuntsog Tundup
41	A study on use of banana leaves for the treatment of burn injuries in cows	Rudraswamy M.S.
42	Impact of Covid-19 pandemic on food supply chain and food industry	Skarma Choton
43	Plant breeding techniques in the era of changes	Shefali Gupta
44	Isolation and molecular characterization of zinc solubilising bacteria and evaluation of their potential to influence the growth and yield of maize ( <i>Zea mays</i> )	Aradhana Sukhwal
45	Nutritional aspects of seabuckthorn to improve the livelihood condition in Gangotri region	Richa Badhani
46	Awareness and approach of people towards biomedical waste and household waste management during Covid-19	Naveena Nazim
47	Effect of surface sterilants on survival rate of <i>Dalbergia sissoo</i> roxb. through tissue culture technique	Aaradhna Chauhan
48	Effect of microclimate on the performance of salad cucumber under naturally ventilated polyhouse	Praveena K. K.
49	Affect of Covid 19 pandemic on Agri Start-ups	Anil Bhat

50	Repercussion of Covid 19 on Indian agriculture	Amardeep Kour
51	Mentha intercropping with wheat- A boon for the Farmers	Devendra Pal
52	Agriculture diversification in India	Sushila Aechra
53	Plants used in traditional health care of livestock of Uttarkashi, Garhwal Himalaya	Jai Laxmi Rawat
54	Shelf life study of fruits and vegetables using chemical and natural preservatives	B. Naveena
55	Performance of different chemical herbicides on weed dynamics, yield and economics in spring planted sugarcane ( <i>Saccharum officinarum</i> L.).	Shiv Poojan Yadav and Deepak Kumar Yadav
56	Characterization and classification of soils under different land uses in Golaghat district of Assam	Pallabi Kalita
57	Vegetable grafting for environmental sustainability	Pooja P. Gowda
58	Bt cotton in India : An overview	Gangishetti Ranjithkumar
59	Sahiwal cattle, the pride of India: An overview	Devesh Singh
60	Role of GA3 and BA in floriculture	Renuka
61	Constraints perceived by the farmers in adoption of IPM practices in cauliflower cultivation in Jaipur district of Rajasthan	Sita Ram Bijarnia
62	Impact of climate change on crop production & food security	Praveen Mishra
63	Measures to overcome the effect of Covid-19 in agriculture	Anjali Verma
64	Invasion success and management strategies for <i>Vespula</i> wasps	Vikram
65	Recent advances of nitrogen management in rice	Milon Jyoti Konwar
66	Covid-19 impacts on agriculture, food security and mitigation measures	Kuldeep Sharma
67	Resource management through foliar feeding for increasing the pulse production – A review	Pooja A. P.
68	Covid-19 probable impacts on post harvest management : agriculture	Jyotsna Setty
69	Covid-19 impact: Rise of reforms in Indian agriculture for sustainability	Akshita Maheshwari
70	Soil acidity tolerance in crop plants	Bapsila Loitongbam
71	Impact of Covid-19 on agriculture and livelihood security	Renu Gangwar
72	Impact of covid-19 on agricultural sector and socio economic conditions of the farming community of district Poonch (J&K)	Sudhir Singh Jamwal
73	Productivity and profitability of major rainfed rabi crops as affected by traditional and mechanized planting	Vikas Gupta
74	Mango fruit an agricultural commodity in northern India supply chain merchandise	Dhruv Sanandan Bhardwaj
75	Efficient management of sugarcane based intercropping practices for crop diversification, sustainable productivity, improving soil health and environmental quality	Pallavi Yadav
76	Cadmium tolerant PGPR as agricultural diversifier: an innovative strategy for maintaining soil's health and environmental sustainability.	Ananya Roy Chowdhury
77	Aftermath of Covid-19 pandemic on Indian agriculture: unprecedented challenges and its mitigating strategies	Tannishtha Bardhan
78	Rural environmental planning an approach to environmental sustainability	Katiki Srikar
79	Covid-19 impacts on agriculture	Manisha Kumari
80	Impact of polyethylene mulch on growth and yield of tomato ( <i>Solanum lycopersicum</i> L.) in sub tropical condition	Viveka Nand Singh
81	Roof top gardening: viable option for nutritional security in urban areas	Veenika Singh
82	Thermal response of potato under different sowing dates and	G. N. Gurjar



	organic mulches in north east India	
83	Mineralization pattern of organic mulches in potato under valley lands of north east India	G. N. Gurjar
84	Integrated farming systems: an approach for livelihood security of small and marginal farmers	Sushant
85	Studies on variability, heritability and genetic advance of brinjal ( <i>Solanum melongena</i> L.) for different yield attributing characters	Ch. Durga Hemanth Kumar
86	Strategies to up-scaling fodder production to sustain livestock demand: a need of hours	Sandeep Kumar
87	Rearing performance and cocoon characters of muga silk worm on primary food plants in different crop	Vikram Kumar
88	Impact of Covid-19 on Indian agriculture	Anju Yadav and Shailza
89	Covid-19 impacts on agriculture, policy responses and livelihood security	Mayank
90	Deciphering genetic inheritance and interallelic interactions for grain micronutrients concentration, yield and its component traits by generation mean analysis in pearl millet [ <i>Pennisetum glaucum</i> (L.) R. Br.]	Mithlesh Kumar
91	Covid 19 impact on agriculture	Rukhsana Rahman
92	Evaluation of genotypes and non-conventional chemicals against sheath rot of rice caused by <i>Sarocladium oryzae</i> (sawada) Gams and Hawksworth in Haryana	R S Chauhan
93	Impact of Covid-19 on agriculture and its reconstruction with special reference to north-east India	Arindam Deb
94	Major constraints in mango production and productivity in some villages of Lucknow district, Uttar Pradesh	Meenakshi Malik
95	Strengthening linkage between researchers and farming community through various web based and android applications in Indian agriculture	Meenakshi Malik
96	Impact of growing environment on phenological development, growth and yield of Barley ( <i>Hordeum vulgare</i> ) cultivars under semi-arid regions of Haryana	Karan Chhabra
97	Long term effect of fertilizer and herbicides on soil properties and productivity of rice-rice system in rainfed lowland ecosystem under subtropical region of eastern Himalayas, India	K. Mahanta
98	Screening of traditional rice cultivars due to rice root-knot nematode <i>Meloidogyne graminicola</i>	Priyanka Gogoi
99	Resource management and sustainability through organic recycling in homestead agroforestry systems	Reshma Das
100	Studies on the collection and evaluation of bael cultivars	Satpal Singh
101	Leakage compositional changes accompanying to exposure of some mango cultivars to low temperature under field conditions	Farouk M. Gadallah
102	Conversion of point source field dipper method to line source field dipper method for in-situ measurement of unsaturated hydraulic conductivity	Shubham Ojha
103	Integrated farming systems for ensuring food, nutritional and livelihood security of tribal farmers in north-eastern hill region of India	Sanjay Swami
104	Frontier technological management of intensive rice-wheat systems of south-Asia for food and environmental security	Akbar Hossain
105	Effect of weed management practices on yield, economics and weed dynamics of spring maize at Dhading Besi, Nepal	Bhimsen Shrestha

September 12, 2020 (11:30 – 12:00)

POSTER SESSION- III

Biodiversity Conservation, Resource Management and Ecological Restoration for Sustainable Development

1	Effects of herbicides on soil microbial count under mungbean cultivation	Kuldeep Singh
2	An overview entomopathogenic fungus biological control of locust	Rajendra Kumar
3	Studies on the collection and evaluation of bael cultivars	Ankit Gavri
4	Climate change: impact on horticultural crops	Dinesh Sah
5	Climate transform variation strategies for resource management	Gyanaranjan Sahoo
6	Pollution status and conservation of Manomicitic lake of Kashmir Himalaya, India	Jahangeer Mohd Reshi
7	Impact of climate change on weed menace	Devrani Gupta
8	Effect of jute caddies on physico-chemical properties of soil under chilli production	Sagnika Bhattacharyya
9	Brown manuring for effective weed management and sustainable yield in rice	Thoudam Anupama Devi
10	Sustainable farming and its future needs	Mukesh Kumar
11	Impact of climatic conditions on horticultural crop production	Yogeshwari Sahu
12	Sustainable agriculture technologies: approaching natural resource management	Leela Kaur
13	Studies on cytology, phenology and breeding system of Viola Pilosa blume : a medicinally important herb	Geeta Sharma
14	Indigenous technical knowledge (ITK) – a means to climate smart agriculture (CSA)	Shashank Sharma
15	Role of biodiversity conservation to natural environment and nutritious	Patel Tirthkumar Dasharathbhai
16	Genetic variability of morphological traits among Indian mustard ( <i>Brassica juncea</i> L. Czern&Coss) genotypes under non- irrigated and irrigated condition	Khushboo Chandra
17	Role of resistant gene in the management of root-knot nematodes	Sujata
18	<i>Trichoderma</i> potential biocontrol agent for management of plant parasitic nematodes	Ritul Saharan
19	Performance evaluation of local banana cultivars of southern kerala under coconut	Dhanu Unnikrishnan
20	Biodiversity: need of the current situation for sustainable crop production	Seema
21	Role of biodiversity conservation to natural environment and food security	Patel Pinalben Bharatbhai
22	Impacts of climate change on plant growth, biodiversity and potential adaptation measures	Manjeet Singh
23	Role of plant genetic diversity in sustainable agriculture	Sandeep Kumar Bangarwa
24	Untapped therapeutic uses of medicinal orchids	Sayooj S
25	Assessment of drought tolerant <i>Pseudomonas</i> sp. on Zn and Fe biofortification and drought tolerance conferring efficacy on wheat	Amir Khan
26	Impacts of climate change on plant growth, biodiversity and potential adaption measures	Gourav
27	Impact assessment of zooplankton diversity and pollution status of river Alaknanda, Uttarakhand	Garima Tomar
28	Molecular markers approaches and role of bioinformatics in assessing diversity of germplasm resources	Ravi Kumawat
29	Role of microbes in bioremediation of polluted environment	Jaison M.
30	Diversity studies in Himalayan ginger ( <i>Zingiber officinalerosc.</i> )	Ankila Salathia

	using phenotypic and molecular markers	
31	Biodiversity and conservation of Indian goat genetic resources for sustainable development - an overview	Balbir Singh Khadda
32	Role of coffee on biodiversity conservation, restoration of ecological balance & sustainable development in agency areas of Andhra Pradesh	Atiqur Rahman Bora
33	Rhizosphere - An unexplored vista for sustainable agriculture	Arunima Babu C. S.
34	Diversity of insect fauna associated with cowpea [ <i>Vigna unguiculata</i> (L.) Walp.] in southern Rajasthan	Gaurang Chhangani
35	Rhizosphere mediated nutrient management using phosphate solubilising rhizobacteria in Inceptisols of Jammu, J&K	Renu Gupta
36	Maintaining the soil health by soil biodiversity conservation: an ecological approach towards the sustainable crop production	Kishor Kumar Sahu
37	Resource conservation management for sustainable development	Rakesh Kumar
38	Effect of plantation on soil carbon stock and heavy metals in mined out forest area of Talcher, Odisha	Shraddha Mohanty
39	Dynamics of microbial population in sodic soil as influenced by enriched municipal solid waste compost and other amendments	Mamta Prajapati
40	Phosphate solubilizing microorganisms (PSMS): A promising approach as bio-fertilizers	P.K. Rai
41	Plant growth promoting rhizobacteria (PGPR) for sustainable agriculture	P.K. Rai
42	Role of tribals in conservation of biodiversity in Pir Panchal ranges of Rajouri & Poonch districts of Jammu & Kashmir, India	Arvind Kumar Ishar
43	Exploring biodiversity of foothill Himalayas for production and anticancer efficiency of L-Asparaginase	Sweeta Manhas
44	Improving the farm biodiversity and sustainability through agroforestry	Ashish Kumar
45	Kitchen and garden waste management: using microbial inoculants for enhancing crop yield in Haryana	Rahul Choudhary
46	Bio fertilizers: a promising tool for sustainable farming	Geeta Kumari
47	Soil microbes in the service of humanity	Mousumi Malo
48	Harnessing productivity potential and rehabilitation of degraded sodic lands through <i>Jatropha</i> based intercropping systems	Y.P. Singh
49	Interplay between forest dependency, ecosystem services and biodiversity conservation in Kalsa-Gola sub-watershed, Nainital Uttarakhand	Harish Bahadur Chand
50	Efficacy of various insecticides against the major insect pests of summer squash ( <i>Cucurbita pepo</i> ) in Dhading, Nepal	Sapana Parajuli

**September 12, 2020 (12:30 – 13:30) concurrent**

**POSTER SESSION- IV**

**Agriculture diversification, nutrient management, soil health and options for environmental sustainability**

1	Soil health management through enrichment of beneficial microbes	Jaimin Rameshchandra Pandya
2	Effect of foliar application of nutrients and growth regulator on fruit cracking and yield of Pomegranate Cv. Bhagwa	Satpal Baloda
3	Sulphur desorption with different physico-chemical properties of cultivated soils of Himachal Pradesh, India	Ajay Sharma
4	Role of micronutrient for crop production and future challenges	Arvind Kumar Mishra
5	Optimization of NPK fertilizer doses through STCR target yield approach for oat ( <i>Avena sativa</i> L.) grown in inceptisols of Uttar Pradesh	Vimlesh Kumar

6	Manganese transformation and availability in soils under different wheat based cropping systems in north-western India	Shreyansh Mittal
7	Conservation agriculture for soil health and environmental sustainability	Shivani Ranjan
8	Impact of residual crop establishment methods and organic manures under zero tillage pea cultivation technique after harvest of black aromatic rice	Yumnam Sanatombi Devi
9	Integrated nutrient management for agricultural production and environmental sustainability	Sumit Sow
10	Spatial distribution of available micronutrient status under different land use systems of district Doda, J&K	Tajamul Aziz Alaie
11	Effect of micronutrients on growth, yield and economics of linseed under limited irrigation	Anchal Singh
12	Release pattern of boron as influenced by applied calcium and boron in acidic soils under different soil orders	Ajin S Anil
13	Synergistic effect of vesicular arbuscular mycorrhiza (VAM) with different amendments on soil pH and phosphatase activity	Aswitha K
14	Bio-fertilizers in fruit crops for soil health and fruit production	Shyam Ji Mishra
15	Development of multifunctional microbial consortia for sustaining soil health and improving nutrient use efficiency in high mountain Himalayan agro-ecosystem	Basharat Hamid
16	Effect of sugar industry solid waste on soil biological properties	Prabhavathi N
17	Effect of phosphorus and boron fertilization on yield of black gram and their temporal availability in acid Inceptisol	Muddana Sri Sai Charan Satya
18	Response of plant nutrients on productivity, economics and nutrient uptake of maize ( <i>Zea mays</i> L.) - chickpea ( <i>Cicer arietinum</i> ) cropping system	Girishbhai Jethalal Patel
19	Effect of biochar in improving the soil health for environmental sustainability	Soumya Pattnaik
20	Influence of lime and organic manures on growth and yield performance of baby corn ( <i>Zea mays</i> L.) under rainfed condition	Kalyan Pathak
21	Nutrient dynamics as influenced by organic and inorganic inputs in rice grown in Inceptisols	Divyansh Verma
22	Comparative evaluation of soil acidity in organic and conventional system of tea cultivation for long term sustainability	Samikhya Bhuyan
23	Effect of organic manures and phosphorus levels on growth, yield and economics of cowpea	G.D. Umadevi
24	Response of boron application on yield and economics of maize ( <i>Zea mays</i> L.)	Amit Phonglosa
25	Effect of integration of organic and inorganic sources of nitrogen in rice crop on soil fertility status at harvest	Harish Shenoy
26	Crop and environmental sustainability through integrated nutrient management (INM)	Srikanth Bathula
27	Effect of vermicompost and FYM to enhance soil nutrient availability and nutrient uptake of rice	R. Kamaleswaran
28	Role of applications of various organic sources in nutrient management on the basis of soil testing along with diversified agriculture to maintain ecological restoration and natural resources management	Pawan Kumar
29	Yield and soil fertility as effected by manures and fertilizers in rice	B.Vajantha
30	Impact of integrated nitrogen management on productivity of pearl millet under rainfed conditions of Jammu	Brinder Singh
31	Validation of soil test and yield target based balanced fertilizer prescription model for glory lily on an Alfisol	K M Sellamuthu

32	Agriculture diversification for food, nutrition, livelihood and environmental security	Sundar Anchra
33	Soil health and environment	Abhimanyu Yadav
34	Impact of soil health cards on soil fertility in India	Busi Naveen
35	Impact of FYM, zinc fertilization and different RSC waters on zinc fractions, response studies, productivity and profitability of barley in Typic Ustipsamment soils of III-a agroclimatic zone of Rajasthan	Prerna Dogra
36	Minimum soil disturbances for attaining good soil health	J. D. Saritha
37	Declination of available sulphur and micronutrient status in soils of district Allahabad, Uttar Pradesh	Ranvir Singh
38	Effect of long term application of fym and nitrogen on nutrients uptake by crop and weeds	Kavinder
39	Effect of irrigation and nitrogen management on distribution of nitrate nitrogen in soil profile, plant n uptake, n use efficiencies and yield of wheat crop under zero tilled condition.	Samaresh Sahoo
40	Role of microbes in bioremediation of polluted environment	Shiva Kumar Udayana
41	Nutrient indexing for forecasting emerging deficiencies of micro and secondary nutrients in sorghum-wheat based cropping system	Prashant Awadhut Sarap
42	Role of biochar for increasing soil fertility and productivity	Naresh Kumar Yadav
43	Nutrient management in pigeonpea based inter cropping system under rainfed condition	Atik Ahamad
44	Effect of organics on P fertilizer optimization in onion crop	Kalyani Kolanpaka
45	Nutrient indexing for forecasting emerging deficiencies of micro and secondary nutrients in sorghum-wheat based cropping system	Sandeep Sevakram Hadole
46	Influence of soil test crop response based manure and fertilizer application on nutrient uptake and yield of okra	V.R. Mageshen
47	Feasibility of customised fertilizers for nutrients availability in soil and yield of rice	Neeraj Kumar
48	Soil phosphorus fractions as influenced by crop residue retention and phosphorus fertilization under maize-wheat cropping system	ChiranjeevKumawat
49	Effect of long term fertilization on nutrient availability in irrigated Soybean-wheat cropping system	Manoj Parihar
50	Impact of Resource conservation techniques on chemical properties of soil in lower Shivaliks of Jammu	Meena Yadav
51	Nutrient indexing in soils of <i>Gloriosa superba</i> crop to forecast emerging nutrient disorders	P. Malathi
52	Crop Residues: A boom for effective soil nutrient management	Asisan Minz
53	Soil carbon sequestration - good for soil health, potential contribution to climate change mitigation	Manjushree B. K.
54	Integrated Plant Nutrient Management for agriculture	A.K. Mishra
55	Land uses affect the soil carbon stocks and metabolic quotient in Alfisol ecosystem altering soil health and environmental sustainability	Amarjeet Kumar
56	Soil Test Based Fertilizer recommendations for targeted yield of Soybean in Inceptisols of Telangana	T. Sriyaya
57	Field validation of Soil Test Crop Response based fertilizer recommendations for targeted yields of onion in red soils	A. Madhavi
58	Effect of nitrogen and zinc management on growth, yield and economics of bread wheat ( <i>Triticum aestivum</i> ) varieties	Mohd. Arif
59	Chemical speciation and availability of macro and micro nutrients in different four blocks of Moradabad district of Uttar Pradesh	Ravindra Kumar
60	Effect of organic sources of nutrients in yield, soil health and	Popiha Bordoloi

	economics of vegetable crop for maintaining sustainable agriculture in RiBhoi district of Meghalaya, North-east India	
61	Enhancing Nitrogen use efficiency through different tools and techniques	Shivani Kumari

**September 12, 2020 (15:00 – 16:30) concurrent**

**POSTER SESSION- V**

**Precision Agriculture and Climate Smart Approaches for Sustainable Management of Resources**

1	Feasibility of laser land levelling on yield of wheat and water saving	Naveen Kumar Singh
2	Climate smart approaches with precision agriculture for managing resources sustainably	Supriya Kumari
3	Improved Neuro-Wavelet model for flood forecast of Nagavali river basin	Rambha Venkata Ramana
4	Long term annual and seasonal rainfall variability of Agartala	Hamtoiti Reang
5	Precision agriculture and climate smart agriculture- towards a superior and sustainable future of the sector	Pritisha Patgiri
6	Soil moisture effect on potassium availability and fixation	Shailja Kumari
7	2-D flood simulation using hydrodynamic model Fornagavali river basin	Karri Sai Raghava Naveen Reddy
8	Land suitability assessment of Moridhal watershed in Dhemaji district of Assam using remote sensing and GIS	Prem Kumar Bharteey
9	The role of conservation agriculture in mitigation to climate change	Payal Vyas
10	Examination of Horton and Kostiakov infiltration model for suitability on hilly slopes	Libi Robin P.
11	Assessing the performance of machine learning techniques to map soil properties from multispectral imageries	Sagar Taneja
12	Climate smart agriculture to mitigate the effect of climate change on vegetables	Pramila
13	Flood simulation using Hechms and Hec ras for Vamsadhara river basin	T. Hari Krishna
14	Challenges in adopting precision farming technologies	Kungumaselvan T.
15	Influence of fertility management on soil carbon stocks under different agro climate zones	P.V. Geetha Sireesha
16	Effect of Urocystis agropyri and different inoculum levels of Heterodera avenae on chlorophyll content and growth of wheat	Lochan Sharma
17	Precision N management in rice-wheat cropping system for higher productivity and sustainability	Pratishruti Behera
18	Precision Agriculture: A tool towards sustainable management of resources	Sarita
19	Mapping and characterization of Melang Watershed for identification of priority areas of agriculture using GIS – A case study from Assam	Prarthana Priyom Hazarika
20	Application of Nanoscience in rhizosphere studies and smart delivery systems	Shubham Singh
21	GIS-based hypsometric analysis of the Mand sub-basin of Mahanadi river basin, Chhattisgarh, India	Shreeya Baghel
22	1. Precision Farming - A new revolution 2. Importance of Nutrient Management 3. Integrated Nutrient Management- A novel approach	Theetla Tejaswini
23	Origin and Mineralogy of Nano Clays of Indian Vertisols and their implications in selected soil properties	Ranjan Paul
24	Innovations for climate resilience in rainfed conditions in village Warkhed, District Akola of Maharashtra State	Ravikiran Shantaram Mali



25	Soil Resource Mapping and Crop Suitability Assessment by using Geo-spatial technologies in South-Eastern Rajasthan, India	Rameshwar Singh
26	Precision agriculture for sustainable management of resources	Gauri Mohan
27	Swat primarily based assessment and prediction of global climate change and its impact	Bhagyashri Ramesh Jalgaonkar
28	Design and fabrication of single slope solar still	Snehal Nanarao Dongardive
29	Prediction and comparison of water table heights in response to left and right skewed peak recharge rates within raised bed of integrated farming system model	Gyan Singh
30	Climate resilient agronomic strategy for rice based cropping system of Bihar	Suborna Roy Choudhury
31	Sustainability in fruit orchard ecosystem-a way for assessing precision management	Tarun Adak
32	Climate smart breeding – need or greed?	Shanmugam A.
33	Soil organic carbon stocks under various temperature and moisture regimes as an indicator of climate change	Priyanka Kumari
34	Daily river flow forecasting using wavelet ANN hybrid models	Manish Kumar
35	Effect of sediment particle orientation on incipient motion	Anuradha Kumari
36	Reservoir water spread area estimation using different image classification techniques	Pydi Srinivasa Rao
37	Precision agriculture and climate smart approaches for sustainable management of resources	Yogita
38	Precision agriculture and climate smart approaches for sustainable management of resources	Neha
39	Enterprise selection in farming system for livelihood security under changing climate scenario	Lalit Kumar Verma
40	River basin modeling using SWAT model	Ayushi Trivedi
41	Application of nanoscience in Rhizosphere studies and smart delivery systems	Shubham Singh
42	Plant Biosecurity for Sustainable Food Security	Duddukur Rajasekhar
43	Impact of different herbicides on growth and yield of direct seeded rice ( <i>Oryza sativa</i> L.)	Manoj K. Singh
44	Precision agriculture and climate smart approaches for sustainable management of resources	Astha Pandey
45	Effect of planting dates and sources of nitrogen on growth and yield of cauliflower (var-snow mystic) at Rampur, Chitwan, Nepal	Binaya Baral