

**NATIONAL CONFERENCE**  
**on**  
**Enhancing Nutritional Security through Climate Smart Farming Practices**  
17<sup>th</sup> and 18<sup>th</sup> March, 2017  
RRS (HZ) UBKV, Kalimpong

**PROGRAM SCHEDULE**

Registration at Town Hall, Kalimpong from 8.30-10.00 hours  
Inauguration at Town Hall, Kalimpong from 10.00-11.00 hours  
High tea break at Town Hall, Kalimpong from 11.00-11.15 hours

**KEY NOTE ADDRESS**

**Date:** 17-03-2017; 11.15-13.00 hrs

**Venue:** Town Hall, Kalimpong

KN1	Key note address 1	Dr. Arun S. Ninawe, Advisor, DBT
KN2	Enhancing Employment and Income of the Resource Poor Families for Achieving Nutritional Security	M. Shivamurthy, University of Agricultural Sciences, Bangaluru, Karnataka

**Lunch break:** 13.00-13.45 hours

**Technical Session-1**

**Climate change, geo-informatics, greenhouse effect and disaster management, biodiversity for crop/animal improvement, sustainable utilization and conservation of natural resources**

**Venue:** Town Hall, Kalimpong

**Date:** 17-03-2017; 14.00-18.00 hrs

**Chairman: Dr. Pranab Hazra, Professor**

Department of Vegetable Crops  
Bidhan Chandra Krishi Viswavidyalaya, Mohanpur

**Co-chairman: Kajal Sengupta, Professor and Head, Department of Agronomy**

Bidhan Chandra Krishi Viswavidyalaya, Mohanpur

**Rapporteur: Lalu Das, Professor**

Bidhan Chandra Krishi Viswavidyalaya, Mohanpur

Code	Title of the paper	Speaker with affiliation
<b>Lead Lectures</b>		
LL 1.1	Ensuring nutritional security through Horticulture: prospects and constraints in a climate changed world	Pranab Hazra, BCKV, Mohanpur
LL 1.2	Pulse cultivation for nutritional security and sustainable ecology	Kajal Sengupta BCKV, Mohanpur
LL 1.3	CMIP5 GCMs based district-wise climate change scenarios and its impact on rice production over West Bengal	Lalu Das, Hanuman Prasad, Jitendra Kumar Meher and Javed Akhter BCKV, Mohanpur
<b>Oral presentations</b>		
OL-1-01	Ethnomedicinal and ethnoecological evaluation of <i>Haematocarpus validus</i> : A threatened medicinal plant in Bangladesh	MJM Khatun, MA Rahim, M Mahfuzur Rahman, Mahfuz Hossain Mirdah, BAU, Mymensingh, Bangladesh
OL-1-02	Genetic Resources of Tropical and Subtropical Fruit and its Role for Agrobiodiversity and Food Security in Bangladesh	MA Rahim, MS Alam, MM Anwar Hossain BAU, Mymensingh, Bangladesh
OL-1-03	Status of minor fruit diversity in Southern coastal zones of Bangladesh	MA Rahim, AKM Ashraful Alam, M Zulfikar Rahman, L Sebastian, Mauricio Bellon, D Chandrabalan and P Quek, BAU, Bangladesh
OL-1-04	Diversity of Underutilized Fruits in 'Kaptai' Reserve Forest, 'Rangamati', Bangladesh	Abdullah MR, Haque ME, Rahman MM, Ashrafuzzaman M, Fakir MSA,BAU, Mymensingh, Bangladesh
OL-1-05	Verification Trial of Jute in Tribal Areas of West Bengal through Soil Test and Target Yield Approach	AR Saha, SP Mazumdar, B Majumdar, R Bhattacharya and P Dey, CRIJAF, Barrackpore
OL-1-06	Conservation Agriculture based Resource Conservation Technologies: Prospects in Jute Based Cropping systems in Indo-Gangetic plains	R Saha, P Bhattacharyya, D Barman, MS Behera, SP Mazumdar, B Mazumdar, S Mitra, Alka Paswan and PG Karmakar CRIJAF, Barrackpore
OL-1-07	Determination of the Morphological and Physiological aspects of the flowers of Selected Sri Lankan Underutilized Blue flower Species	NVT Jayaprada and Sudarshanee Geekiyanage, University of Ruhuna, Sri Lanka,
OL-1-08	Evaluation and domestication of Lasoda germplasm under semi-arid climatic conditions of Rajasthan	MK Sharma and CS Pareek, SKN College of Agriculture, Jobner
OL1-09	The effect of forest fire on soil properties in Oak dominated forests of Garhwal Himalaya Uttarakhand India	Aatif Hussain, A. K. Negi, N. P. Todaria HNB Garhwal University, Srinagar Garhwal Uttarakhand

OL-1-10	Human wildlife conflict, an assessment of predation in the various ranges of Rudrapryag Uttarakhand	Pritam Ayush, Aatif Hussain, Rajiv Dhiman, HNB Garhwal University, Srinagar Garhwal Uttarakhand
OL-1-11	Contribution of wheat biomass to nitrous oxide emission in Ganga basin of West Bengal, India	G Saha, S Karmakar, B Kar, G Singh Bidhan Chandra Krishi Viswavidyalaya, Nadia
OL-1-12	Regenerative agriculture: Replenishing soil carbon under changing climate	Sritama Biswas, Ananya Chakraborty, Agnibha Sinha and Pintoo Bandopadhyay BCKV, Mohanpur
OL-1-13	Effect of paddy straw plus non forage fibre sources based complete feeds containing different levels of neutral detergent fibre on milk composition parameters of lactating dairy cows	Biju Chacko, K. M. Syam Mohan, K. Ally, K. Shyama, K. S. Anil and C. T. Sathian College of Veterinary and Animal Sciences, Mannuthy, Kerala
OL-1-14	Self-Incompatibility study in cocoa ( <i>Theobroma cacao</i> L.) accessions	NR Nagaraja, S Elain Apshara and Vinaya Rao, CPCRI, Vittal, Karnataka
OL-1-15	Potential and challenges of participatory approach in forest wildfire management using fire wise approach in forest-fire management at Uluguru Nature Reserve, Tanzania	Kagosi Tanzania Forestry Research Institute (TAFORI); P.O.BOX 1854, Morogoro, Tanzania
OL-1-16	Plant Diversity in contrasting forest management units in Govind Pashu Vihar Wildlife Sanctuary Uttarakhand, India- An implication of in-situ conservation	Showkat Aziem, AK Negi and NP Todaria HNB Garhwal University, Srinagar Garhwal, Uttarakhand
OL-1-17	Studies on relationship between weather parameter, crop phenology and pest population build up in okra	B Subba, N Chaudhuri, J Ghosh, SK Senapati, UBKV, Pundibari
OL-1-18	Pollination of blossoming plants	TDC Hasanthi and EW A Gayani and N Dahanayake, University of Ruhuna Sri Lanka
OL-1-19	Effect of different tillage and residue management in productivity of chickpea under chickpea-maize-t. aman rice cropping pattern in High Barind soil of Bangladesh	KK Roy, MEA Pramanik and MMI Chowdhury, Bangladesh Agricultural Research Institute, Dinajpur, Bangladesh
OL-1-20	Genetic variability for grain yield and its attributing traits in Finger millet [ <i>Eleusine coracana</i> (L.) Gaertn] genotypes	S Gangaprasad, MP Pavan, CS Sahana and Dushyantha Kumar University of Agricultural and Horticultural Sciences, Shivamogga, Karnataka
OL-1-21	Partial nutrient balance in rice-wheat cropping sequence under the influence of tillage, residue and bio fertilizer	AK Sinha, S Rakesh, P Mukhopadhyay, P. M Bhattacharya, A Ghosh, P Mukherjee, S. Biswas, UBKV, Pundibari
OL-1-22	Soil security: It needs to be protected	Satadeep Singha Roy and Biswapati Mandal, BCKV, Mohanpur

**Cultural program and Cocktail at RRS (HZ) campus: 18.30-19.30 hours**

**Conference dinner hosted by Vice Chancellor, UBKV Pundibari: 19.30-20.30 hrs**

## **Day-2**

**Date:** 18-03-2017

**Breakfast:** 08.30 – 09.30 hrs

**Concurrent poster session for all themes at Regional Research Station (Hill Zone) campus, Kalimpong**

**Time:** 09.30 - 17.00 hrs

## **Technical Session-2**

**Biotechnology, biotic and abiotic stress management strategies under changing climate scenario, strategies of food and nutritional security, bio-fortification, product diversification/value addition and market linkages**

**Venue:** Seminar Hall RRS (HZ), Kalimpong; Time 09.30 - 14.00 hrs

**Chairman: Dr. Subhra Mukherjee, Professor**

Genetics and Plant Breeding

Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal

**Co-chairman: Dr. Benukar Biswas, Associate Professor**

Department of Agronomy and Irrigation

Bidhan Chandra Krishi Viswavidyalaya, Mohanpur

**Rapporteur:** Mr. Biswajit Patra, RRS HZ, Kalimpong

<b>Code</b>	<b>Title of the paper</b>	<b>Speaker with affiliation</b>
<b>Lead lectures</b>		
LL-2-01	Nutritional Security, Livelihood and Climate Smart Agriculture	SS Hundal, PAU, Ludhiana

LL-2-02	Identification and scope of utilization of moisture stress tolerance genotype in <i>Olitarius</i> Jute.	Bikash Chandra Deb, Moutushi Sarkar, Nitesh Kumar, Subhra Mukherjee, KK Sarkar BCKV, Mohanpur
LL-2-03	Role of relay cropping in a climate changed world for sustaining productivity	Benukar Biswas, BCKV, Mohanpur
<b>Oral presentations</b>		
OL-2-01	Improving the value chain and linking the market for fruit growers in quality management of post-harvest systems in Bangladesh	MA Rahim Bangladesh Agricultural University
OL-2-02	Long-term effect of Soil test-targeted yield (ST-TY) based integrated nutrient management on soil health under jute-rice-lentil cropping sequence in Gangetic alluvial soil of West Bengal	S Mukherjee, B Majumdar, SP Mazumdar and AR Saha CRIJAF, Barrackpore
OL-2-03	Identification of Profitable Cropping System for Rice Fallow Situation in NC Zone of Andhra Pradesh	A Upendra Rao, V Visalakshmi, K Madhu Kumar, N Harisatyanarayana and NVG Rao, ANGRAU, AP
OL-2-04	Enhancement of nutritional traits in rice grains using relevant genes and QTLs through advanced approaches	Mukul Kumar, MBAC, Agwanpur, Saharsa, BAU, Sabour
OL-2-05	Temporal Dissection of induced sieve element 'interactome'- A new perspective for better understanding of the plant defence response to aphids	Hossain Ali Mondal, UBKV
OL-2-06	Biopriming: getting ready to tackle stress in soil-plant-atmosphere continuum	Amitava Rakshit, Institute of Agricultural Science, BHU, Varanasi
OL-2-07	Bioefficacy of EC formulations of <i>Strychnus nuxvomica</i> extracts against <i>Plutella xylostella</i> Linn. in cauliflower ( <i>Brassica oleracea</i> L. var. <i>botrytis</i> )	C Selvaraj and JS Kennedy Tamil Nadu Agricultural University, Coimbatore
OL-2-08	Weed management options for unpuddled transplanted rice in <i>Terai</i> zone of West Bengal	Biplab Mitra, Koushik Patra, Prateek Madhab Bhattacharya and Apurba Kumar Chowdhury, UBKV
OL-2-09	Photosynthetic potential and water use efficiency of wheat genotypes under water stress condition	S Sikder, J Foulkes, H West, J De Silva and O Gaju, School of Biosciences, University of Nottingham, Loughborough LE12 5RD, UK
OL-2-10	Molecular cloning and characterization of a <i>germin-like protein</i> gene ( <i>SIGLPH</i> ) for achieving abiotic and biotic stress resistance in tomato	Tirthartha Chattopadhyay, Vikash Kumar and Pawan Kumar, Bihar Agricultural University, Sabour, Bhagalpur
OL-2-11	Nutrient management in Onion	TK Maity and Tarique Aslam Bidhan Chandra, BCKV, Mohanpur

OL-2-12	Hydrogel application and water availability under different irrigation regimes in zero-tilled green gram - jute relay system	B Biswas, PK Bandyopadhyaya, S Banerjee, SK Patra and S Sarkar, BCKV, Mohanpur
OL-2-13	A comparative study on productivity, profitability and water use efficiency in SRI and conventional rice system in West Bengal	S Sardar, S Goswami, B Mukherjee and D Dutta, BCKV, Mohanpur
OL-2-14	Enhancing the post harvest longevity and quality of ornamental flowers for decorations using household paraffin wax	AGKMWS Atapattu, Nilanthi Dahanayake, PU Kumara University of Ruhuna, Srilanka
<b>14.00 – 15.00 Lunch Break</b>		
OL-2-15	Eco-agricultural-reclamation on mined out degraded land in Jharkhand: a successful approach by Bharat Cooking Coal Limited	EVR Raju, Rajkumar, Harish Pal, Mamta Rani Bharat Cooking Coal Limited, Dhanbad, Jharkhand
OL-2-16	Bamboo shoot: traditional uses and value addition	Vineeta, Gopal Shukla, Nazir A Pala and Sumit Chakravarty, UBKV
OL-2-17	Effect of pre drying treatments, drying methods and storage of dehydrated mature and ripe ber fruits cv Kaithali and Umran on non enzymatic browning	Mukesh Kumar, Surender Singh, R K Godara, Devi Singh and D V Pathak CCS Haryana Agricultural University
OL-2-18	Prospects of Indian Ramie for production of quality fibre and basic understanding of its degumming	DP Ray, Pradipta Banerjee, Pratik Satya, Rakesh Kumar Ghosh <sup>1</sup> and Pabitra Kumar Biswas NIRJAFT, Kolkata
OL-2-19	Nutritional Security through Climate Smart Agricultural practices in Rice farming	Anmol panda, Shivamurthy M and Suresh DK UAS, Bengaluru
OL-2-20	GypCal: A Decision Support Desktop Application for Chemical Reclamation of Sodic Soil to Enhance Crop productivity in Indo-Gangetic Plains	Sanjay Arora, Atul K Singh, YP Singh, VK Mishra and DK Sharma Central Soil Salinity Research Institute, Regional Research Station, Lucknow
OL-2-21	Novel biopolymeric hydrogel based formulations comprising <i>Trichoderma harzianum</i> and zinc sulphate: preparation, shelf-life, fungicidal activity against <i>Rhizoctonia solani</i> and evaluation on health of rice seedlings	Prithusayak Mondal, Anupama Singh and Dhruva Jyoti Sarkar RRS TZ, UBKV, Pundibari
OL-2-22	Symptoms and pathogen association studies in relation to rhizome rot and wilt disease complex of ginger in Darjeeling hills	BR Sharma, S Roy, S. Dutta, A Thapa, Sibdas Baskey, Sajeed Ali and S Chakravarty RRS (HZ), UBKV Kalimpong
OL-2-23	Study of photosynthetic efficiency in C <sub>3</sub> cycle of carbon metabolism for selected wheat genotypes	Sourav Maity, Puspendu Dutta, and Saikat Das, UBKV, Pundibari

OL-2-24	New Grading System of Ramie Fibre	SC Saha, A. Sarkar, G Sardar and G Roy, NIRJAFT, Kolkata
OL-2-25	Introduction of GLY II gene into Mosambi for increasing salt tolerance	Amardeep Kour and HS Rattanpal Punjab Agricultural University, Ludhiana

## Technical Session-3

**Impact of climate resilient crops/horticulture for hilly agro ecosystem, socio-economic development through climate smart agriculture**

**Date:** 18-03-2017; 09.30 - 14.00 hrs

**Venue:** Conference Hall, Darjeeling KVK, Kalimpong

**Chairman: Professor (Dr). C. P. Suresh, Department of Horticulture**  
North Eastern Hill University, Tura Campus, Meghalaya

**Co-chairman: Dr. Pravat Pal, Associate Professor**  
Department of Agricultural Extension  
Uttar Banga Krishi Viswavidyalaya, Pundibari, West Bengal

**Rappoteur:** Dr. Kaushik Roy, RRS HZ, Kalimpong

Code	Title of the paper	Speaker with affiliation
<b>Lead lectures</b>		
LL-3-01	Back to the roots: Wild edible fruits for crop improvement and nutritional security	CP Suresh and Kalkame Ch Momin NEHU, Tura Campus
LL-3-02	Assessment of arsenic infection in household level- a nutritional perspective	PK Pal, Arup Sarkar and D. Mukhopadhyay, UBKV, Pundibari
<b>Oral presentations</b>		
OL-3-01	Role of Producer Companies in Nutrition-Sensitive Agriculture	P Venkatesan and BS Sontakki ICAR-NAARM, Hyderabad
OL-3-02	Climate change versus livelihood- perception, of forest fringe communities from West Bengal	Tanusri Dey, Vineeta, Nazir A Pala, PK. Pal, Gopal Shukla and Sumit Chakravarty, UBKV, Pundibari
OL-3-03	Economical feasible cropping system for diversification in South-Western Punjab	Anureet Kaur, AS. Sidhu, KS Sekhon and S. Thaman, PAU, Regional Station, Bathinda

OL-3-04	Integration of spices, medicinal and aromatic plants for crop diversification and enhancing farm income in jute seed based cropping system	MS Behera, DK Kundu, S Satpathy, AK Jha, Amarpreet Singh and Ra njan Kumar Naik, CRIJAF, Barrackpore
OL-3-05	Mushroom cultivation for food security and rural development in Koshi region of Bihar	Md. Nadeem Akhtar, Santosh Kumar and Vimlesh Kumar Pandey BAU, Sabour
OL-3-06	Coconut inflorescence sap “Neera and its value added products” – a new approach towards making coconut more profitable	DK Ghosh (Late KN), S Das, A Bandopadhyay, BCKV, Mohanpur
OL-3-07	Enhancement of livelihood security of tribal farmers of North-24 Parganas through sustainable technological interventions	SK Jha, A Shamna, RK Naik and S Sarkar, CRIJAF, Barrackpore
OL-3-08	Food security against climate change through climate smart agriculture	Binod Kumar BAU, Saharsa
OL-3-09	Livelihood diversity in family farming in selected hill areas of West Bengal, India	Litan Das, Phubu Tshering Bhutia, and PK Pal, UBKV, Pundibari
OL3-10	Study on organised self help group approach to increase profitability in dairying in draught hit cluster villages of Shivamogga district of Karnataka	KL Phaniraja and SS Vijaya Kumar Veterinary College, Bengaluru
OL-3-11	Sustainable utilization and conservation of natural resources in West Garo Hills region of Meghalaya	Gino A Sangma, Kalkame Ch. Momin, Y Somi Singh and CP Suresh NEHU, Tura
OL-3-12	The effect of mobile radiation on agriculture in respect of hill topology.	Subrata Manna and Kausik Saha Darjeeling KVK, UBKV, Kalimpong