Session w	vise Article I	Details for National Seminar on Recer	nt Advances in Statistical Tools for Agriculture and Allied Sciences
Abstract. No	Technical Session	Title	Author
Inv	vited	Land Use Planning	S.P.Mukherjee, Formerly, Centenary Professor of Statistics, University of Calcutta and is currently Chairman, Board of Directors, International Statistical Education Centre, Indian Statistical Institute and Mentor, Indian Association for Productivity, Quality & Reliability
Inv	vited	Cryptology and Design of Experiments	Prof B. Roy, Former Director, ISI, Kolkata, E-mail:bimal@isical.ac.in,
Inv	vited	A More Powerful Test Identifying The Change In Mean Of Functional Data	Buddhananda Banerjee and Satyaki Mazumder, Department of Mathematics & Statistics, Indian Institute of Science Education and Research, Kolkata, E-mail: 05si.buddha@gmail.com
Inv	vited	Block designs robust against the Presence of positional effects	N. K. Mandal, University of Calcutta, E-mail : mandalnk2001@yahoo.co.in
Inv	vited	On Variance Balance And Efficiency Balance In Block Designs	G. M. Saha, Retired Professor, Indian Statistical Institute, Kolkata-700108
Inv	vited	On Affine Alpha Resolvable Designs	Premadhis Das and Madhura Mandal, Department of Statistics, University of Kalyani, Kalyani, Nadia, West Bengal, Email: dasp50@yahoo.co.in
Inv	vited	Computation of Women Empowerment in Agriculture Index Using CsPro & SAS - A Pilot Study	Ananta Sarkar* and H. K. Dash, ICAR-Central Institute for Women in Agriculture, Bhubaneswar - 751 003, E-mail: ananta8976@gmail.com
Inv	vited	Correlated Log-Normal Composite Error Models For Different Scientific Domains	Rabindra Nath Das, Department of Statistics, The University of Burdwan, Burdwan, West Bengal, India. Email: rabin.bwn@gmail.com
Inv	vited	Comparison of Cost Incurred In Two Survey Methodologies For Measles Vaccine Coverage	Dilip C. Nath and Bhushita Patowari Department of Statistics, Gauhati University, Guwahati, India Email: pbhushita@yahoo.com
Inv	vited	Redundancy : A Path to Increase System Reliability	Asok K. Nanda, Department of Mathematics and Statistics, IISER Kolkata, Mohanpur 741246, India

In	vited	Odds Generalized Exponential Uniform	Sudhansu S. Maiti1 *and Sukanta Pramanik2 1Department of Statistics, Visva-
		Distribution and its application	Bharati University, Santiniketan 731 235, India 2Department of Statistics, Siligur College, North Bengal University, Siliguri-734 001, India Emails: dssm1@rediffmail.com and skantaparmanik@gmail.com
101	TS I	Estimation of Area and Production of Major Horticultural Fruit Crops in Nagaland	A.K. Sahu , Department of Agricultural Economics, School of Agricultural Sciences and Rural Development, Nagaland University, Medziphema 797106, Email:aatishksahu@rediffmail.com
103	TS I	A Study On Applications Of Dummy Variables In Agriculture	A.Das, P. K. Sahu, A.K.Das, Department of Ag. Statistics, BCKV, Mohanpur, Nadia, West Bengal, India – 741252. Mohanpur, Nadia, West Bengal, India – 741252. Email: abhjnan.das@gmail.com
116	TS I	The Role of Variability in Biofortification and <i>in vitro</i> Conservation of Diversed Rice Landraces	Ashim Chakravorty, Biotechnology and Plant Tissue Culture Unit, Department of Botany, Sripat Singh College, Jiaganj-742123, Murshidabad, West Bengal, India, Email:ashimbot@gmail.com
180	TS I	Components of yield variability of Yellow Sarson (<i>Brassica rapa</i> var <i>trilocularis</i> (Roxb.) Kitam) in the Eastern Indo-Gangetic Plain	B. Biswas1, S. Chatterjee2, S. K. Sahoo2, R. Das2, D. C. Ghosh 3 and D. Singh4 1Directorate of Research, Bidhan Chandra Krishi Viswavidyalaya, Kalyani, Nadia West Bengal-741234. Tel.: (+91 94347 59696) E-mail address: kripahi@yahoo.com 2 Directorate of Agriculture, Govt. of West Bengal, Writers Building, Kolkata 700001, 3 Pally Siksha Bhavana, Sriniketan, Birbhum, West Bengal, 731236, 4 Directorate of Rapeseed Mustard Research, Bharatpur, Rajasthan, 321303
122	TS I	Study On Bioefficacy Of Mixed Formulation Of Some Insecticides Against Mango Hoppers And Their Impact On Yield	Sk. Fashi Alam ¹ , Biswajit Patra ^{2*} And Arunava Samanta ¹ , ¹ Department of Agricultural Entomology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal-741252., ² Regional Research Station (Hill Zone), Uttar Banga Krishi Viswavidyalaya, Kalimpong, West Bengal-734301,*E-mail: biswa.kris@gmail.com
127	TS I	Effect of manures and biofertilizers on growth and yield of turmeric (<i>Curcuma longa</i> L.)	D.K. Ghosh, M. Chanchan, J.K. Hore, Nilanjana Dutta, Department of Spices an Plantation Crops Faculty of Horticulture, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, *email: drdipakghosh08@gmail.com

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131	TS I	Quality Of Jamun Jam And Squash On Self Life	1.Eresh Kumar.k, 2.Vamsi Krishna.V, 3.Appa Rao. CH, 4.Kishore.N, College of Agricultural Engineering, JNKVV, Jabalpur, Madhya Pradesh, Email: eresh5@gmail.com
139	TS I		Jayoti Majumder1*, Verma Manjusha3, S. K. Singh2, Kanwar P. Singh1 and C. Tara Sathyavati4, 1Division of Floricultural Science, Indian Agricultural Research Institute New Delhi-110012,*Phone 011 2584 3983,* Fax01125843768,*Email:jayotisarkar1@gmail.com, 1Division of Fruit and Horticultural Technology, Indian Agricultural Research Institute,New Delhi-110012, 3National Bureau of Plant Genetic Resource, New Delhi-110012, 4Division of Genetics, Indian Agricultural Research Institute, New Delhi-110012
140	TS I	Nitrogen Response Of Promising Avt-2 Very Early Rice Cultures Under Aerobic Situation	K. Jana1*, G. Moinuddin1, S. K. Das1, R. Poddar1, B. Biswas1 and A. M. Puste2 1*AICRP on Forage Crops and Utilization, 1Directorate of Research, Bidhan Chandra Krishi Viswavidyalaya, Kalyani- 741235, Nadia, West Bengal, INDIA, 2Department of Agronomy, Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur- 741252, Nadia, West Bengal, INDIA *Corresponding author email:kjanarrs@gmail.com
141	TS I	Seed Yield Of Linseed Varieties Grown As 'Paira' Crop As Influenced By Dates Of Sowing In Red And Laterite Zone Of West Bengal	K. Jana1*, G. Sathish2, D. C. Roy3, A. Kundu4 and M. Ray5 1AICRP on Forage Crops and Utilization, 5AICRP on Integrated Farming System Research, Directorate of Research, Bidhan Chandra Krishi Viswavidyalaya, Kalyani- 741235, Nadia, West Bengal, INDIA 2Department of Agricultural Statistics, 3Department of Agronomy, Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur- 741252, Nadia, West Bengal, INDIA 4Department of ILFC, WBUAFS, Mohanpur-741252, Nadia, West Bengal, INDIA, *Corresponding author e-mail: kjanarrs@gmail.com

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149	TS I	Effect Of N, P And K Doses On Growth, Yield And Quality Of Guava (<i>Psidium</i> <i>Guajava</i> L.) Cultivars Under Meadow System Of Planting	N. Thirupathi1, M. Raj Kumar2, D. Sridhar3 and S. Venugopal4*, 1,2,3 Department of Horticulture, College of Horticulture, SKLTSHU, Rajendranagar, Hyderabad-500030. 4 Department of Spices and Plantation crops, Faculty of Horticulture, B.C.K.V, P.O. Krishiviswavidyalaya, Mohanpur, Pincode: 741252, Nadia, West Bengal, India. Corresponding author Email:thiru35nalla@gmail.com
150	TS I	PCA and Cluster analysis for comparing the genetic diversity among selected greengram accessions under Saline and Non-Saline condition	Vibha Singh1 and Md. Nasim Ali11,2 1Department of Agricultural Biotechnology, Faculty Centre for Integrated Rural Development and Management, School of Agriculture and Rural Development, Ramakrishna Mission Vivekananda University, Ramakrishna Mission Ashrama, Narendrapur, Kolkata-700103, West Bengal, India, 2Department of Agricultural Biotechnology, Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia-741252, West Bengal, India, Email:nasimali2007@gmail.com
151	TS I	Resource Use Efficiency in Black Gram in Lalitpur District of Uttar Pradesh	Nimit Kumar*; Gunadhar Dey and Rede Ganeshkumar Dilipkumar, Department of Agricultural Economics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal – 741252, *Email of corresponding author: nimittomar008@gmail.com
154	TS I	Assessment of infestation by pink stem borer, Sesamia inferens Walker (Noctuidae: Lepidoptera) at different tillage conditions and its impact on some morphological and economical characters of wheat in Malda district, West Bengal	* 1 Dr. Paramita Bhowmik, Dr. Bankim Chandra Rudra 2 and P.K.Gangopadhyay3 Email: paramita.bhowmik2@gmail.com, 1*Subject Matter Specialist (Plant Protection), Malda Krishi Vigyan Kendra, Uttar Banga Krishi Viswavidyalaya, Ratua, Malda, 732205, India, 2Farm Manager, Malda Krishi Vigyan Kendra, Uttar Banga Krishi Viswavidyalaya, Ratua, Malda, 732205, India, 3Programme coordinator, Malda Krishi Vigyan Kendra, Uttar Banga Krishi Viswavidyalaya, Ratua, Malda, 732205, India
156	TS I	Evaluation Of White Onion Varieties For Quality And Yield Of Bulbs During Rabi Season	1A.Pushparani Devi*, 2A.Chattopadhyay, and 3Jhilki Kabiraj, 1Research Fellow of Department of Horticulture vegetable crops,*Email:jashmine199011@gmail.com, 2 Associate Professor Department of Horticulture vegetable crops, 3Research Fellow of Department of Horticulture vegetable crops, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur-741 252, West Bengal (India)

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157	TS I	Sources of resistance to alternaria blight of rapeseed-mustard genotypes in uniform disease nursery	R. Das, Assistant Professor in Plant Pathology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal, India, E-mail: rajudas05@gmail.com
181	TS I	Effect Of Variety And Flower Flush On Fruit Yield Of Tomato	Shubhashree Priyadarshinee, Das, A. R. Mandal and Jhilki Kabiraj Department o Vegetable Crops, BCKV, Mohanpur *Email id: shubhashree23@gmail.com
169	TS I	Studies On Quality And Shelf Life Of Jamun Juice Alone And Blended With Guava And Pomegranate Juice	D. Sridhar*1, P. Prasanth2, N. Thirupathi3 and S.Venugopal4*, 1,2,3 Department of Horticulture, College of Horticulture, SKLTSHU, Rajendranagar, Hyderabad 500030.4 Department of Spices and Plantation crops, Faculty of Horticulture, B.C.K.V, P.O. Krishiviswavidyalaya, Mohanpur, Pincode: 741252, Nadia, West Bengal, India. Corresponding author Email:durgamsridhar66@gmail.com
170	TS I	Optimization of <i>in vitro</i> regeneration and callus conservation protocol of <i>Rauvolfia serpentina</i> L an endangered medicinal plant	Subhendu S. Gantait1*, Koushik Dutta2 and Jayoti Majumder1,1Bidhan Chandra Krishi Viswavidyalaya, Dept. of Floriculture & Landscaping, Faculty of Horticulture, Mohanpur, Nadia-741252, 2Uttar Banga Krishi Viswavidyalaya, Dept. of Floriculture, Medicinal & Aromatic Plants, Faculty of Horticulture, Pundibari, Cooch Behar-736165, Email: ssgflori@gmail.com
173	TS I	Characterization of garlic (<i>Allium sativum</i> L.) genotypes	Tarique Aslam1,2, Manoj Kumar Nalla1, Navjot Singh Brar1, P.P. Mohapatra2, B.S. Dudi1,1Department of Vegetable Science, CCSHAU, Hisar, 2Department of Vegetable Crops, BCKV, Mohanpur,3Division of Vegetable Science, IIHR, Bangalore*, Email id: aslam.hortico@gmail.com
175	TS I	Cryo Grinding Technology In Spice Crops	S. Venugopal*1, A. Pariari2, N. Thirupathi3 and D. Sridhar4*, 12Department of Spices and Plantation crops, Faculty of Horticulture, Bidhan Chandra Krishi Viswavidyalaya, P.O. Krishiviswavidyalaya, Mohanpur, Pincode: 741252, Nadia, West Bengal, India, 34Department of Fruits and Orchard Management, Faculty of Horticulture, B.C.K.V, P.O. Krishiviswavidyalaya, Mohanpur, Pincode: 741252, Nadia, West Bengal, India, Email: venugopal.sripathi@gmail.com
194	TS I	Influence of nursery management and fertilizer application on weed population and yield of <i>kharif</i> rice	

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196	TS I	A Review on application of Tissue Culture Technology for the production of Flavonoids	Moumita Chakraborty1, N.M. Bhattacharya,2, Lakshmi Hijam1.1 Assistant Professor,Department of Genetics and Plant Breeding,Uttar Banga Krishi Viswavidyalaya,Pundibari,736165,2 ExProfessor, Department of Genetics and Plant Breeding, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, 741252 Email: moumitabckv@gmail.com
199	TS I	Study on suitability of banana varieties for making chips	Venkata Satish Kuchi [*] , J. Kabir, F.K. Bauri and R.S. Dhua Department of Postharvest Technology, BCKV, Mohanpur, Nadia, WB 741252 Email: newmoon_9@yahoo.com
113	TS II	Study on Drying Parameters for Solar Drier with Electrical Backup	AnkurNagori* and V. BhushanaBabu, Central Institute of Agricultural Engineering, Berasia Road, Nabibagh, Bhopal 462 038, *Email: talktoankur411@gmail.com
115	TS II	Dynamics of climatic parameters over composition of milk	Archana Khare ¹ , Alok Shrivastava ² , Ashok Agrawal ¹ , Anil Khare & Sankalpa Ojha ² , ¹ College of Dairy Science and Food Technology (CGKV) Raipur 492 012 India, *Corresponding Author E-mail: igkvalok@gmail.com
125	TS II	Stochastic Model Of An Omnivorous Fish Species, <i>Anabas testudineus</i> Ham., (KOI) In Controling Riverine Water Pollution And Quality Fish	Debabrata Das, Central Inland Fisheries Research Institute, (Indian Council of Agricultural Research), Barrackpore, Kolkata- 700 120 Email: ddas.icar@gmail.comddas.icar@gmail.com
187	TS II	Patterns of pre-weaning piglet mortality and economic losses in field condition	Rakesh Roy, Tista Mondal1 and M.W. Moktan, Darjeeling KrishiVigyan Kendra, Uttar BangaKrishiViswavidyalaya, Kalimpong-734301, Darjeeling, India, 1Animal Resource Development Department, Govt. of West Bengal, Email: rakeshvetext@gmail.co
172	TS II	Determining the Factors Influencing Adoption of Livestock Insurance by the Dairy Farmers in Karnal District of Haryana	S.P. Singh1, B.S.Chandel2, Payal Jaiswal3, S. P. Lal4 and Mir Miraj Alli5, 1Research Scholar, Deptt. of Agril. Economics, B.C.K.V., Mohanpur, Nadia, W.B741252, 2Principal Scientist, Deptt. of Dairy Economics, Statistics and Management, N.D.R.I, Karnal, Haryana-132001, 3Research Scholar, Deptt. of Agril. Economics, I.G.K.V., Raipur, Chhattisgarh -492012, 4Research Scholar, Deptt. of Agril. Extension, N.D.R.I, Karnal, Haryana-132001 5M.Sc. Student, Deptt. of Dairy Economics, Statistics and Management, N.D.R.I, Karnal, Haryana-132001,E-mail: shyamsingh7296@gmail.com

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105	TS III	Empowering the rural women politically through SHG approach	K. Pradhan ¹ , Avishek Saha ² , Rema Das ² , Victor Sarkar ² , Bablu Ganguly ² , 1. Associate Professor, 2. Research Scholar, Department of Agricultural Extension, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal, 736165, Corresponding author: avisheksaha1988@gmail.com
106	TS III	Exploring the social empowerment of women through SHG approach	K. Pradhan ¹ , Bablu Ganguly ² , Avishek Saha ² , Rema Das ² , Victor Sarkar ² , 1. Associate Professor, 2. Research Scholar, Department of Agricultural Extension, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal, 736165, Corresponding author: avisheksaha1988@gmail.com
124	TS III	Representativeness of Ranked Set Sampling in Estimation of Population Proportion	Dilip C. Nath, Vivek Verma, Department of Statistics, Gauhati University, Assam, India, Radhakanta Das, Department of Statistics, Presidency University, West Bengal, India, Email: dcnath@rediffmail.com
134	TS III	A Statistical Investigation Of Socio- Economic Correlates Of People - A Case Study From Thoubal District Of Manipur	Sh. Herojit Singh, P.K. Sahu, Vishwajith K.P, Krajairi Mog, Department of Agricultural Statistics, BCKV, Mohanpur, Nadia, WB, 741252 Email:
137	TS III	Horticultural Enterprise: A Sustainable Livelihood Option in Rural Bengal	J.K.Das, Mr. Shivshankar, Miss. S.Bhattacharjee, &Miss Jayasree Datta Dept.of Agricultural Extension, BCKV, Mohanpur, 741252, West Bengal Email: jayanta1794@gmail.com bhattacharjeeshraddha20@gmail.com
176	TS III	Study on livelihood status of Toto tribes in West Bengal: An empirical study	1Akash Saha, 2Atanu Biswas and 3Manas Mohan Adhikary, 1&2Research Scholar 3Professor, Department of Agricultural Extension, Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, Krishi Viswavidyalaya, Nadia, West Bengal E-Mail: dradhikary@gmail.com, saha.aakash1992@gmail.com
152	TS III	A Study On Analysis Of Yield Gap In Pulses Of Nadia District Of West Bengal	Ome Jopir1, Bimal Bera2,1Deptt of Agricultural Economics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal2, Proffessor, Deptt of Agricultural Economics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal, Email: ojopir@yahoo.in

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158	TS III	Promoting and nurturing the aspect of cultural empowerment among the women Self Help Group members in West Bengal	K. Pradhan1, Rema Das2*, Avishek Saha2, Victor Sarkar2 and Bablu Ganguly2, 1. Associate professor; 2. Research Scholar, Department of Agricultural Extension, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal-736165, *Email: remadas.cob2013@gmail.com
160	TS III	Clinico epidemiological study to correlate the health benefits of fish consumption on maternal and child health –A cross-sectional study at Farakka, West Bengal	Rohan Kumar Raman, Satabdi Ganguli, Arabinda Mahanty, Tandrima Mitra, Debajit Das, Prasenjit Paria, Tanuja Abdulla, P. K. Parida, B. K. Behera, Md. Aftabuddin and B. P. Mohanty, ICAR-Central Inland Fisheries Research Institute, Barrackpore, Kolkata-700 120, E-mail, rohan4741@gmail.com, bimal.mohanty@icar.gov.in
163	TS III	Socio-Economic Analysis Of Household Food Security In Rural Areas In Nagaland State Of India	Somching Leivang1, Laureate Hynniewta2, 1Deptt. of Agricultural Economics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, WB2, Deptt. of Horticulture, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, WB, Email: escee15@gmail.com
166	TS III	An Economic analysis of the contributing factors of Jute cultivation in West Bengal during 1981-2011	S. Chatterjee1*; P. Bandopadhyay2 and S.Biswas2, 1Department of Agricultural Economics, 2Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, W.B741 252, *Corresponding Author: Email: soumitra.soum123123@gmail.com
133	TS III	Socio-economic Analysis of Food Security Problems in Kohima District of Nagaland - A Case Study	Mausumi Dutta Biswas1, Bendangmelna Tzudir2 and Md. Hasrat Ali3, Email: alihasrat366@yahoo.co.in
197	TS III	Resource Use Efficiency In Gram Production of Amravati Division	Rede Ganeshkumar Dilipkumar*, S.J. Kakde** and Nimit Kumar**Department of Agricultural Economics, BCKV, Mohanpur, Nadia (WB)-741252. **Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Krishinagar Po, Akola (MS)-444104.Email:ganeshrede3156@gmail.com
108	TS IV	Assessing the Historical Rainfall Change over Three Agro-climatic Zones of West Bengal	Javed Akhter* ¹ and Lalu Das** ² , ¹ Department of Physics, Jadavpur University, Kolkata-700037, ² Department of Agricultural Meteorology and Physics, Bidhan Chandra Krishi Viswavidayalaya,Mohanpur, Nadia, Pin -741252, Email: akhterexpressju@gmail.com, daslalu@yahoo.co.in

192	TS IV	Bio-efficacy, persistence and safety	Sandip Patra1, Arunava Samanta2 and Anjan Bhattacharyya31Division of Crop
192	1317	evaluation of pyridalyl in/on tomato	Protection, ICAR Research Complex for NEH Region, Umiam, Meghalaya-793 103.2Department of Agricultural Entomology, Bidhan Chandra Krishi Viswavidyalaya, Kalyani, West Bengal, India-741252.3Department of Agricultura Chemicals, Bidhan Chandra Krishi Viswavidyalaya, Kalyani, West Bengal, India-741252.*Correspondence: sandippatra47@gmail.com
185	TS IV	Gerbera as intercrop in coconut based cropping system increases the productivity through adoption of natural Resource management	D.K. Ghosh (Sr.), S. Das, and A. Bandopadhayay, Department of Spices and Plantation Crops. Faculty of Horticulture, Bidhan Chandra Krishi Vishwavidyalaya, Mohanpur, 741252, Nadia. W.B, India. (Email - drdkghosh@yahoo.in)
182	TS IV	Grain phosphorus: an indicator of arsenic tolerance during germination and early seedling stage of rice	Puspendu Dutta, S. Mondall, Department of Seed Science and Technology, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar-736 165, W.B.1 Department of Plant Physiology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia-741 252, W.B. Corresponding author: pdutta.pph@gamil.com
183	TS IV	Organic Farming vis-à-vis Conventional Practices on Yield and Fertility of Soil in Rice-Potato-Groundnut Cropping System	Sushanta Saha*, S.K. Mukherjee, M. Ray, M. Pramanick, P. Halder & S. Chatterjee AICRP on Integrated Farming Systems, Directorate of Research, Bidhar Chandra Krishi Viswavidyalaya, Kalyani, West Bengal- 741 235 *Email of the presenting author: sushanta.saha@bckv.edu.in
168	TS IV	Statistical Assessing the relationship between weather parameters on production of arecanut in Uttara Kannada District	Srinath Reddy AB, Y N Havaldar, S N Megeri SRINATH REDDY A B, MSc Agricultural Statistics, Research Associate, Agricultural Research Station, Anantapur, Andhra Pradesh, Email: sreenath6101agri@gmail.com
164	TS IV	Variations In Performance Of Major Crops In North Eastern And Eastern Regions Of India	Sonia Sagolsem and Arabinda Mitra, Department of Agricultural Economics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia – 741252, India, E-mail: soniasaga2012@gmail.com
162	TS IV	Time Series Analysis of monthly rainfall for Gangetic West Bengal using Box Jenkins ARIMA modeling	Sathish G1*, Banjul Battacharyya2, Soumik Ray3 and Bhavyashree S4, Department of Agricultural Statistics, Faculty of Agriculture Bidhan Chandra Krishi Viswavidyalaya, Mohanpur -741252, Nadia, West Bengal, *Correspondence email: sathishg.sunny90@gmail.com

190	TS IV	Forecast of Crop Yield Using Discriminant	Ria Biswas1*, Banjul Bhattacharyya2 Department of Agricultural Statistics,
		Function Analysis of Weather Parameters	Bidhan Chandra Krishi Viswavidyalaya, Faculty of Agriculture, Mohanpur, Nadia West Bengal, India, PIN – 741252 1Research Scholar, 2Associate Professor *Corresponding author: Ria Biswas, Department of Agricultural Statistics, Bidhan Chandra Krishi Viswavidyalaya, Faculty of Agriculture, Mohanpur, Nadia, West Bengal, India, PIN – 741252, E-Mail: ria.biswas6@gmail.com, Ph. No 9433444576
101	TC IV	Application of Novel store of second	
184	TS IV	Application of Novel class of surface modified metal oxides for ground water arsenic and Fluoride removal	Indranil Saha Department of Chemistry, Sripat Singh College, Jiaganj, Murshidabada, Email: Indranilsaha2010@yahoo.com
188	TS IV	District wise rainfall change over West Bengal during 1901-2000	Lalu Das1*, Hanuman Prasad Yadav1** and Bappa Das2, 1Department of Agril Meteorology and Physics, BCKV, West Bengal, 741 252, 2ICAR-Central Coastal Agricultural Research Institute, Old Goa-403402, Goa, India, Corresponding author: daslalu@yahoo.co.in
117	TS IV	Rainfall pattern change over West Bengal	Asis Mukherjee ^a , Saon Banerjee ^a , Suman Samanta ^a , Monotosh Das Bairagya ^b , Pramiti Kumar Chakraborty ^b , Dibyendu Mahatac, a AICRP on Agrometeorology project, b AICRPAM-NICRA project, Directorate of Research, BCKV, Kalyanic, Agromet Advisory Service project, Directorate of Research, BCKV, Kalyani, Corresponding author: asismukherjee@gmail.comDirectorate of Research, BCKV, Kalyani
118	TS IV		Dr. Banjul Bhattacharyya1, & DR. Debashis Bhowmik2, 1. Associate Professor, Department of Agricultural Statistics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, W.B – 741235, 2. Agriculture Officer (Statistics), Directorate of Agriculture, Krishi Bhawan, Agartala. Email: banjulbhattacharyya@gmail.com
147	TS IV	Amplified future warming over the Western Himalayan Region of India	Monami Dutta** and Lalu Das*, Department of Agricultural Meteorology and Physics, Bidhan Chandra Krishi Viswavidayalaya, Mohanpur, Nadia, Pin -741252, *corresponding author: email: daslalu@yahoo.co.in, ** Presenting author: monamidutta2509@gmail.com
193	TS IV	A study of rainfall trend in Gomati & South Tripura District using nonparametric statistical method	D. Bhowmik, Department of Agriculture, Government of Tripura, debashis2576@gmail.com

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191	TS IV	Application of nonparametric modelling approach predict above ground biomass production using IRS data in Bundelkhand region of India	*A. Ghosh, D. Deb, J.P. Singha and R.S. Chaurasiaa, aIndian Grassland and Fodder Research Institute, Jhansi (UP)-284003, India, bUttarBangaKrishiViswavidyalaya,
102	TS V	Role Of Foreign Direct Investment In The Growth Of Indian Economy: An Economic Analysis	*A.Anbarassan1, M.Chinnadurai2, V.Karthick3, V.Balamurugan4*, 1& 2 Department of Agricultural Economics, CARDS, Tamil Nadu Agricultural University, Coimbatore-641 003, Tamil Nadu. *Corresponding Author: anbu.arassan@gmail.com
107	TS V	Production and market opportunities of organic agricultural producean economic analysis	Mohan K. M and Adarsh L. K1, Department of Agricultural Economics University of Agricultural Economics, Bangalore-560065 1Bidhan Chandra Krishi Viswavidyala, Mohanpur-741252. Corresponding author: adharsh.k.gowda@gmail.com
138	TS V	Sustainable Income From Rice Enterprise In Hill Ecosystem	J.K.Das, Miss.L.Lyngdoh and Miss.S. Bhattacharjee, Department of Agricultural Extension, BCKV, Mohanpur -741252, Nadia, West Bengal, Email:jayanta1794@gmail.com
114	TS V	Cost Economics of Automated Drip System with Low Cost Soil Moisture Sensor Based Drip System	Ch. Apparao, G. Rakesh and K. Eresh kumar, College of Agricultural Engineering Bapatla, Acharya N.G.Ranga Agricultural University, Andhra Pradesh, India, Corresponding author: rao0790@gmail.com
189	TS V	Analysis of export competitiveness of Indian tea: Markov chain approach	B. S. Dhekale*, P. K. Sahu, Vishwajith K. P., Md Noman and Lakshmi Narsimhaiah, Department of Agriculture Statistics, Bidhan Chanda Krishi Vishwavidyalaya, West Bemgal–741252, India Email: bhagyashreedhekale@yahoo.com
186	TS V	Comparison of ARIMA, ARIMAx and GARCH model for forecasting the gram production scenario of India	Vishwajith, K.P., Sahu, P.K., Dhekale, B.S., Md Noman And Mishra, P, Department of Agril. Statistics, Bidhan Chandra Krishi Viswavidyala, Mohanpur, Nadia, West Bengal.Email: vishwajithkp@gmail.com
179	TS V	Study on Marketing System and Value Addition of Pineapple (<i>Ananus comosus</i>) in West Bengal	b. Das1, K. K. Das2 & T. N. Roy2 1Assistant Professor (Agricultural Economics) Tripura Agricultural University, Agartala, Tripura, 2 Department of Agricultural Economics, UBKV, Pundibari, Coochbehar (WB) Correspondence: tuhinnroy@rediffmail.com

128	TS V	Modeling and forecasting Farm power availability	Dikeshwar Nishad*, Anurup Majumder, Manoj Kumar, Hiranmoy Das and Abhijit Saha, Bidhan Chandra KrishiViswavidyalaya, Mohanpur, Nadia -741 252, W.B., *Email: dikeshwarnishad89@gmail.com
199	TS V	Distribution of Area, Production And Productivity of Wheat And Barley Crops In Different Districts Of Northern Hills Of Chhattisgarh	Pradeep Kumar Ganjeer ¹ , M. L. Lakhera and Vaibhav Mishra, College of Agriculture, Indira Gandhi Krishi Vishwavidyalaya, Raipur, 492012 (CG) e-mail: pkganjeer7@gmail.com
200	TS V	Assessment of Distribution of Area, Production and Productivity Of Sugarcane in Durg District of Chhattisgarh	Vaibhav Mishra1, Dr. (Smt.) S. Shukla and Pradeep Kumar Ganjeer, Deptt. of Agril. Statistics, College of Agriculture, IGKV, Raipur (C.G.) 492012 ,Email: mishralali4@gmail.com
109	TS VI	Growth and Instability: An Inter regional disparity among different districts for principal crops in Chhattisgarh	Alok Shrivastava ¹ and R. R. Saxena ² , Sankalp Ozha ¹ & Deepa Hiremath ¹ , Deptt. of Agril. Statistics, College of Agriculture, Navasari Agricultural University, Department of Agril. Statistics and Language (L), Indira Gandhi Krishi Vishwavidyalaya, Raipur, *Corresponding Author E-mail: igkvalok@gmail.com
143	TS VI	A Statistical Study on Pineapple in North- Eastern states of India for Sustainable Policy Development.	Krajairi Mog*, Sh. Herojit Singh and Anurup Majumder, Bidhan Chandra Krishi Viswavidyalaya, P.O Krishi Viswavidyalaya, Dt. Nadia, West Bengal, India, Pin: 741 252, *Email ID of Presenter: krajainrimgc@gmail.com
153	TS VI	Production performance of Chilli in India- A statistical approach	K Padmanaban, P K Sahu, Viswajith K P, Lakshmi Narsimhaiah and Md. Noman, Department of Agrilcultural Statistics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal- 741 252, Email:padmanaban.agri@gmail.com
161	TS VI	Modelling Chaos And Entropy: The Restless Progres And Seamless Decadence In Indian Farming And Beyond	S K Acharya, Department of Agricultural Extension, Faculty of Agriculture Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal, E-Mail: acharya09sankar@gmail.com, dr_sacharya2005@yahoo.co.in, Phone: +919674419142(M), +919874631953 (M)
165	TS VI	Modeling food grain production of India: Past trend and future prospect	Soumik Ray, Banjul Bhattacharyya G Sathish3 and Sourav Haldar4, Department of Agricultural Statistics123, Department of Agricultural Extension4, Bidhan Chandra KrishiViswavidyalaya, Mohanpur, Nadia, West Bengal, India, Pin Code-741252, *Email- raysoumik4@gmail.com
142	TS VI	Price transmission and volatility spillover in spot and futures market of Black pepper	Kanchan Sinha, Scientist, ICAR-Indian Agricultural Statistics Research Institute, New Delhi-110012, E-mail: kksiasri@gmail.com

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129	TS VI	Statistical modeling on Area, Production and Yield trends of Rice in West Bengal	Ramesh Dasyam*, Banjul Bhattacharyya, *Dr YSR Horticultural University, HC & RI, Anantharajupeta, Andhra Pradesh, Bidhan Chandra Krishi ViswaVidyalaya, Mohanpur, West Bengal, *Email:dasyam.ramesh32@gmail.com				
144	TS VI	Modeling and Forecasting of Coconut Production in India	L. Narsimhaiah, P K Sahu, K P Vishwajith, Md Noman and K Padmanaban, Department of Agricultural Statistics, Bidahn Chandra KrishiViswavidyalaya, Mohanpur, Nadia, West Bengal – 741252, *Corresponding author's: e mail: lakshmi.narasimhaiah1988@gmail.com				
136	TS VII	Efficient estimation of the PDF and CDF of the Generalized Exponential Distribution	Sanku Dey1, Indrani Mukherjee2* and Sudhansu S. Maiti2, 1Department of Statistics, St. Anthony's College, Shillong-793 001, Meghalaya, India, 2 Department of Statistics, Visva-Bharati University, Santiniketan-731235, West Bengal, India. Email:indranimukherjee.stat@gmail.com				
104	TS VII	Adjustment Of Treatment Effects By Selection Of Covariates In Eucalyptus Based Cropping System At Red And Laterite Zone Of West Bengal	Abhijit Saha ¹ , A. Majumder ¹ , Manjunatha G.R. ¹ and P. Dhara ² , ¹ Dept. of statistics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal -741252, India, 2 Dept. of soil and water conservation, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal -741252, India, Email: abhijit996.saha@gmail.com				
145	TS VII	Comparing Test Treatments Versus More Than One Control Treatment With Correlated Observations	A. Majumder, *Manoj Kumar and H. Das, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia -741 252, *E mail: manoj_iasri@yahoo.com				
130	TS VII	Statistical Models for biomass accumulation and carbon sequestration in <i>Tectonagrandis</i> Linn. f. grown in Bundelkhand region of India.	D. Deb ^{*a} , A. Ghosh ^b , J.P. Singh ^a and R.S. Chaurasia ^a , ^a Indian Grassland and Fodder Research Institute, Jhansi (UP)-284003, India, ^b UttarBangaKrishiViswavidyalaya, CoochBehar(W.B.)-736165, India,*Corresponding author email: debiasri@gmail.com				
112	TS VII	Construction of Composite Index for Cash Crop	Manoj Kumar, Anil Paswan*, AnurupMajumder, AdyantKumar and Rajeev Kumar Corresponding author: anilbausabour@gmail.com Bidhan Chandra KrishiViswavidyalaya,Mohanpur, Nadia -741 252, Corresponding Email:anilbausabour@gmail.com				

146	TS VII	Evaluating the performance of multiple-	Jitendra Kumar Meher* and Lalu Das**, Department of Agricultural Meteorology
		gridded data towards replacing the missing values in the station data using diffent conventional statistical indices	and physics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur Nadia, West Bengal, Pin 741252., Email: jitendra.meher29@gmail.com, daslalu@yahoo.co.in
174	TS VII	A study on usefulness of neural networks for time series modeling	Tirthankar Ghosh, Department of Statistics Visva-Bharati, Santiniketan, WB, Email: tirthankarghosh2@gmail.com
167	TS VII	Different Methods for Judging the Normality Assumption for Univariate and Bivariate Data and Its Remedial Measure	SoumitraSankar Das1, Prof. A. Majumder2, Prof. A.K. Das3, Research Scholar, Department Ag Statistics, UBKV, Pundi Bari, Cooch Behar, Email:soumitradas30@gmail.com
155	TS VII	Akaike Information Criterion (Aic) And Bayesian Information Criterion (Bic) For Selection Of Best Neural Network Architecture	Pavana Kumar S T*, Debasis Mazumdar and Minakshi Mishra, Ph.D Research Scholar, Department of Agricultural Statistics, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal-741252, *Email: pvnkmr625@gmail.com
	TS VII	Dual of any α-resolvable Binary Proper Equireplicate Incomplete Block Design (BPEIBD)	Premadhis Das, Madhura Mandal Department of Statistics, University of Kalyani, Nadia, West Bengal, Email: dasp50@yahoo.co.in
148	TS VII	A Non-Linear Discriminant Analysis approach to develop a risk map for Haemorrhagic septicaemia using remote sensing variables	M.M. Chanda., Ashwini P., R. Yogisharadhya., J.Hiremath., P Krishnamoorthy., B.R. Shome, and S.B. Shivachandra, ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Yelahanka, Bengaluru-560064, Karnataka, India, Email: chandamudassar@gmail.com
178	TS VII	Fuzzy Time Series Forecasting Of Oil Seeds Production In India	G. S. Siva1, D. S. Gupta2, M. K. Debnath3 and S. S. Das4, Email: mkanti1984@gmail.com, 1Research Scholar, Department of Agricultural Statistics UBKV, Pundibari, West Bengal-736165, 2Associate Professor, Department of Agricultural Statistics, UBKV, Pundibari, West Bengal-736165, 3Assistant Professor, Department of Agricultural Statistics, UBKV, Pundibari, West Bengal-736165, 4Research Scholar, Department of Agricultural Statistics, UBKV, Pundibari, West Bengal-736165
126	TS VII	Flowerings(2) Distribution Of Sesbania grandiflora (Lin.) In Tropic	Debabrata Das, CIFRI, Indian Council of Agricultural Research(ICAR), Barrackpore, Kolkata-700 120, Email: ddas.icar@gmail.com

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120	TS VII	Fuzzy based Multi Criteria Decision approach for distribution fitting of Weekly Rainfall in Haryana	V. Bhushana Babu1 and B.K. Hooda2,1 Scientist(Sr. Scale) at ICAR-Central Institute of Agricultural Engineering, Nabibagh, Berasia Road, Bhopal, Madhya Pradesh. 2 Professors (Statistics), College of Basic Sciences & Humanities, CCS HAU, Hisar, Haryana, Email: bhushanciae@gmail.com
119	TS VII	Study Of Direct And Phenotypic Charaters And Identification Of Stable Indirect Effects Of Genotypes Of Mulberry Using Some Parametric Methods.	S. Bhavyashree1, K. N. Krishnamurty2 and G.C. Girisha3, Department of Agricultural statistics, UAS Bangalore.2 Department of Agronomy, UAS Bangalore.Email: bhavyashree5591@gmail.com
132	TS VII	D- and E-Optimal Blocked Main E ects Plans withUnequal Block Sizes When n Is Odd	Ganesh Dutta1, Rita SahaRay2, 1Basanti Devi College, Kolkata-700029, India, 2Indian Statistical Institute, Applied Statistics Division, Kolkata-700108, India. Email: duttaganesh78@gmail.com
135	TS VII	Test of Additivity of Effects and Independence of Errors in Agricultural Experimental Data	Hiranmoy Das1*, P.K. Batra2, Anurup Majumder1 and Manoj Kumar1, 1Department of Agricultural Statistics, BCKV, Mohanpur, WB, 2Division of Design of Experiments, IASRI, New Delhi, Email*-hiranmoydas.stat@gmail.com
191	TS VII	Estimation Of The Smallest Location Of Two Negative Exponential Populations	Partha Pal, Department of Statistics, Maulana Azad College, Kolkata and Uttam Bandyopadhyay, Department of Statistics, University of Calcutta Email: santiranjanpal@rediffmail.com
195	TS VII	Construction of Balanced n-ary Designs based on BIB Designs	Sanjeeta Biswas and H.L. Sharma Department of Mathematics and Statistics, College of Agriculture, J.N. Krishi Vishwa Vidyalaya, Jabalpur (M.P.) drhlsharma_jnkvv@rediffmail.com
177	TS VII	Triangular Generalised Neighbour PBIB Designs in Circular Blocks for Correlated Observations	1*Manjunatha G.R., 2A. Majumder, 2Manoj Kumar, 3S. G. Patil and 2H. Das, 1Central Sericultural Research &Training Institute, Berhampore, West Bengal – 742 101, 2Bidhan Chandra Krishi Viswavidyalaya, P.O. Krishi Viswavidyalaya, District- Nadia, West Bengal- 741 252. 3A.C.R.I., Tamil Nadu Agricultural University, Killikulam-628 252. *E-mail:- mgr.dvg@gmail.com
198	TS VII	Regression coefficients and weather indices for modelling and forecasting of crop yield	Achal Lama ¹ , Rahul Banerjee ¹ , Bishal Gurung ¹ , and K. N. Singh ¹ Indian Agricultural Statistics Research Institute, New Delhi
179	TS VII	Stochastic Modeling of Major Sucking Pests and Predator Incidences of Chilli in New Alluvial Zone	Md. Noman, P. K. Sahu, Vishwajith K. P, B. S. Dhekale, L. Narsimhaiah and K Padmanaban, Department of Ag. Statistics, BCKV, Mohanpur, Nadia, West Benga India – 741252.