DAY: 3 Daate: 27.04.2023 (Thursday)

Technical Session: 12

Topic: Biodiversity: Genetic diversity, agro diversity of plant, animal, bacterial, microbial	Time: 10:30 AM – 5:00 PM	Venue: Room 6, Academic Complex (IDA),	
biodiversity, biodiversity law, approach,		(1571),	
conservation, etc			
Chairperson: Dr R.K. Chowdhury, Retd. Prin.	Moderator:	Rapporteurs:	
Scientist, AAU-ARRI, Titabar	1: Dr. Rumjhum Phukan, Department of PBG,AAU	Dr. Ratna Kalita, Department of ABT,	
Co-Chairperson: Dr H. Kalita, Joint Director,	2: Dr. Gaurav Kumar, Division, Crop Improvement	AAU, Jorhat	
ICAR- Regional Centre Nagaland	Division, ICAR-NRRI, Cuttack- 753006	Ms. Bhaswati Sarmah, Department of	
		PBG, AAU, Jorhat	
Time allocation:			
1	T . 1.50		

Total 53 papers

Key note: 15 Min - 2 Nos. (30 min) Lead lecture: 12 Min - 2 Nos. (24 min) Invited talk = 10 Min - 4 Nos. (40 min) Oral = 8 Min - 26 Nos. (208 min, 3 Hrs 28 min)

Panel discussion: 30- 60 Min

Poster session: after completion of oral presentation – 19 Nos.

Papers to be presented

S.No	Topic	Affiliation	Email ID	Mode of
				presentatio
				n
1.	Easy phenotyping for	Somnath Bhattacharyya, ShoumikSaha, NilanjanSinhamahapatra,	somnathbhat@yahoo.com	Key note
	the quick	Kriti Bhattacharyya		
	photoprotection	Crop Research Unit, Research Directorate, Genetics and Plant		
	recovery ability in rice	Breeding, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia,		

	and their validation in the mapping population	West Bengal,741252, India		
2.	Application of nuclear tools for improving crop productivity	Prasun K. Mukherjee Nuclear Agriculture and Biotechnology Division Bhabha Atomic Research Centre, Trombay, Mumbai	prasunm@barc.gov.in	Keynote
3.	Radiotracers and radiations for improving source-sink efficiency and mineral nutrition of crops	Building, ICAR-Indian Agricultural Research Institute, New Delhi-	bhupindersinghiari@yahoo.com	Lead
4.	Radiation technology to ensure three a's of food security: availability, accessibility, and affordability			Lead
5.	Biochemical evaluation of pearl millet landraces and elite cultivars for decoding their rancid behaviour and utilization in product development	Sumerpal Singh ² , C. Tara Satyavathi ³ , Ranjeet R. Kumar ^{1,*} ¹ Division of Biochemistry, ² Division of Genetics, ICAR-Indian Agricultural Research Institute, New Delhi	ranjeetranjaniari@gmail.com	Invited
6.	Mutation breeding for development of early maturing plant type in Indian mustard	P. K. Barua ¹ , R. Phukan ¹ , M. Barua ¹ , R. Das ² , S. J. Jambhulkar ³ ¹ Department of Plant Breeding & Genetics, AAU, Jorhat-785013 ² Department of Crop Physiology, AAU, Jorhat-785013 ³ Nuclear Agriculture & Biotechnology Division, BARC, Mumbai-400085	purna.barua@aau.ac.in	Invited

7.	Improvement of local specialty rices as a boon	R. C. Chaudhary, Anjali Sahani, S. B. Mishra, Ravindra Kumar and A. K. Srivastava	ram.chaudhary@gmail.com	Invited
	to health and wealth	Participatory Rural Development Foundation, 59 Canal Road, Shivpur- Shahbazganj, Gorakhpur (U.P.) 273014		
8.	How much is too much: an untold story of Indian Arabidopsis thaliana	Sribash Roy CSIR-National Botanical Research Institute, Lucknow, UP-226001	sribashroy@nbri.res.in	Invited
	germplasms			
9.	Development of moisture stress tolerantvarieties of Indian mustard	Chamim Sultana Ahmed ² , Ranjan Das ^{1*} , Lopamudra Homchaudhuri ² , Jyotsna Baruah ¹ , Sangita Das ¹ , Meren Toshi ¹ and Sanjay J. Jambhulkar ³ Department of Crop Physiology, Assam Agricultural University,	csultanaadmed29@gmail.com	Oral
	Indian mustard (Brassica juncea)			
	through the application			
	of gamma radiation and			
	ethyl methane sulfonate	³ BRNS, BARC, Trombay		
10	(EMS)	M : 1 D I M I W · 2 D 1 C · 3 D W D 4 M		0.1
10.	Effect of gamma radiation on	Monish Paul ¹ , Malin Kropi ² , Parkey Gogoi ³ , R K Bora ⁴ N Basumatary ⁵ , and P Suprasanna ⁶	ranjankrbora@gmail.com	Oral
	radiation on germination, subsequent	, <u>, , , , , , , , , , , , , , , , , , </u>		
	growth and qualitative			
	characters of flowers of			
	Phaiustankervilleae			
	(Aiton) Bl.			
11.	Potential citrus varieties	E. S. Marboh, R. K. Sonkar, M. S. Ladaniya, K. Kiran Kumar, A.		Oral
	for north-eastern region	Thirugnanavel, N. M. Meshram and I. P. Singh		
	of India	ICAR-CCRI, Regional Research Centre for Citrus, Biswanath		
		Chariali, Assam		
		ICAR-Central Citrus Research Institute (CCRI), Nagpur, Maharashtra		
12.	Assessment of λ- irradiation efficacyagainstselected microbial flora as a	Polytechnic in Agro-processing, Junagadh Agricultural University, Junagadh, Gujarat, India, Processing & Food Engg. Department,	dkgojiya@jau.in	Oral

	function of moisture content during peanut (ArachishypogaeaL.) storage.			
13.	analysis for grain quality and yield attributes and genetic diversity analysis of Northeast	Harendra Verma1*, Moatoshi Jamir1, R. N. Sarma3, H. Kalita1 and V. K. Mishra2 1ICAR Research Complex for NEH Region, Nagaland Centre, Medziphema, Nagaland, 797106 2ICAR Research Complex for NEH Region, Umroi Road, Umiam, 793013 Meghalaya 3Assam Agricultural University, Jorhat, 785013	harendraicar@gmail.com	Oral
14.	Assessment of diversity for nutritional and physico-chemical properties of selected landraces of rice (grain) from Assam	¹ Crop Physiology and Biochemistry Division, ² Crop Improvement Division	gauraviari@yahoo.co.in	Oral
15.	Seed priming with nano- particles reduce the production of aflatoxins produced in rice and detection of seed borne pathogens through ELISA	Jyotimoni Gogoi ¹ , Sharmila Dutta Deka ¹ , Prakash Borah ¹ , Ranjan Das ² , Palash Debnath ³ , Pradip Kumar Borah ³ , Priyanka Sharma ¹ , Abhilisa Mudoi ¹ ¹ Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture ⁷ Assam Agricultural	2019amj169@aau.ac.in	Oral
16.	Role of seed dormancy for management of viviparous germination in rice	Kuntala Kisan, Preetam Kumar Senapati and EkamberKariali	Kuntala.kuni@gmail.com	Oral

17.	Adoption gap of selected BRRI released boro rice varieties	Mohammad Abdul Momin ¹ , Md. Sekender Ali ² , Md. Mahbubul Alam ² , Md. Rafiquel Islam ² and Mohammad Mizanul Haque Kazal ³	Smmomin80@gmail.com	Oral
18.	contributing characters of advanced mustard	, , , , , , , , , , , , , , , , , , , ,	ibrahimbd402@gmail.com	Oral
19.	Mutation detection in salinity and submergence tolerant rice mutants using whole genome sequencing	M. K. Saha ¹ , M. S. R. Khanom ^{2*} , U. Saha ¹ , M. S. Islam ¹ , M. B. R. Molla ³ , S. N. Begum ² , M. M.Islam ^{2,4} ¹ Department of Biotechnology, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh ² Plant Breeding Division, Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh, Bangladesh ³ Department of Poultry Science, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh ⁴ Director General, Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh, Bangladesh	sifaterabbana04@gmail.com	Oral
20.	On station and on farm performanceof photo-insensitive lablab bean [Lablab purpureus (L.) Sweet] genotypes during summer	M S Islam ^{1*} , B Debnath ¹ , D Debnath ² and M Z Akhi ³ Department of Horticulture, Sylhet Agricultural University,	shahidulhrt@gmail.com	Oral
21.	Genetic studies of flowering and grain traits in early generation crosses of basmati rice (Oryza sativaL.)	Department of Biotechnology, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, (U.P.) 211004, India	monalisha.2021rbt05@mnnit.ac.in nksingh@mnnit.ac.in	Oral
22.	Seed priming with zinc	Shailesh Kumar* ¹ , Dayanji Sherpa ¹ , Sweta Mishra ² , Brahmputra	shailesh_agri@yahoo.com	Oral

23.	gamma radiation induced dwarf mutant in Indian mustard (Brassica juncea)	² Department of Plant breeding and Genetics Dr. Rajendra Prasad Central Agricultural University, Pusa (848125), Samastipur, Bihar, India Shankar K. Bhujbal, Archana N. Rai, Archana Joshi-Saha, Sanjay J. Jambhulkar Nuclear Agriculture and Biotechnology Bhabha Atomic Research Centre, Mumbai 400085 Homi Bhabha National institute, Mumbai 400094 Maharashtra	skbhujbal@barc.gov.in	Oral
24.	Evaluation ofadvancedbreeding linesof rice (<i>Oryza sativa</i> L.) genotypes under controlleddroughtconditi on at reproductivephase	Mst. Salma Pervin ^{1*} , Tamanna Sultana ¹ and Md. Abdul Kader ² ¹ Plant Physiology Division and ² Plant Breeding Division, Bangladesh Rice Research Institute, Gazipure-1701, Bangladesh	pervinsalma@yahoo.com	Oral
25.	Data-driven decisions for climate change challenges plant breeding	(India) bICAR-National Institute of Abiotic Stress Management, Baramati, Maharashtra (India)	basu86.gpb@gmail.com	Oral
26.	Study of mutation efficiency for proton beam induced mutants in wheat (<i>Triticum aestivum</i>) through molecular markers	¹ Department of Genetics and Plant Breeding, Uttar Banga Krishi Vishwavidayala, Pundibari, Cooch Behar - 736165, West Bengal, India. ² Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre, Trombay, Mumbai, 400085, India	tb.twinkle13@gmail.com	Oral
27.	Genetic variability in	Labhya Rani Gogoi* and R. N. Sarma	labhrj@gmail.com	Oral

	mungbean for traits related to synchronous maturity	Department of Plant Breeding and Genetics Assam Agricultural University, Jorhat-785013		
28.	Comparative study on sensory evaluation and volatile aromatic compound in Kon Joha mutants	, , , , , , , , , , , , , , , , , , , ,	Lonishree.dutta.adj19@aau.ac.in	Oral
29.	EMS and gamma ray induced quantitative variation in black gram (Vigna mungo(L). Hepper)	ArditaBiswas ^a , Akashi Sarma ^b Plant Breeding and Genetics, Assam Agricultural University, Jorhat- 13 Department of Plant Breeding and Genetics, Assam Agricultural University, Jorhat-13,	ardita.biswas.adj21@aau.ac.in akashi.sarma@aau.ac.in	Oral
30.	Impact of gamma ray on rice variety Ranjit Sub1 resistant to leaf folder, <i>Cnaphalocrocismedinali</i> s (Guen.) (Lepidopera: Pyralidae) in Assam	Purnima Das ^{1*} , P.K. Pathak ² , A. Hadapad ³ , P. J Bora ⁴ , Priyanka Saikia ¹ ¹ Dept. of Entomology, Assam Agricultural University, Jorhat; ² Director of Extension Education, Assam Agricultural University, Jorhat Board of Research in Nuclear Sciences (BRNS), Trombay ⁴ Farm manager, KVK, Gossaigaon, Assam	purnima.das@aau.ac.in	Oral
31.	Combining ability analysis for yield and component traits in Joha rice of Assam	B. Jayasankar Reddy ¹ , Dibosh Bordoloi ² , T. V. S. S. Manogna ³ , Debojit Sarma ¹ , Prakash Kalita ⁴ , A. Ranjan Baruah ⁵ and N. Sarma Barua ¹ ¹ Department of Plant Breeding and Genetics, AAU, Jorhat, Assam - 785013; ² KVK, AAU, Karimganj, Assam - 788712 ³ Department of Genetics& Plant Breeding, UBKV, Pundibari, West Bengal - 736165 ⁵ Department of Agricultural Biotechnology, AAU, Jorhat, Assam - 785013; ⁴ Department of Crop Physiology, AAU, Jorhat, Assam - 785013	bjay1661995@gmail.com	Oral
32.	Assessment of local maize germplasm of Northeast India and		hiramonibarman93@gmail.com	Oral

33.	their S1 progenies for nutritional traits Evaluation of finger	Biochemistry and Agricultural Chemistry 3Department of Agricultural Biotechnology 4Department of Crop Physiology Assam Agricultural University, Jorhat. 785013	hpchaturvedi68@gmail.com	Oral
33.	millet (Eleusine coracana (L.) Gaertn) genotypes in Nagaland ecosystem for yield and yield related traits		inpenatur vedioo e ginani.com	Orar
34.	Genetic variability for yield and its component traits in M5 mutant lines in Indian mustard [Brassica juncea (L.) Czern.&Coss.]	RichaBora ^{1*} , Rumjhum Phukan ¹ , PurnaK. Barua ¹ and S. J. Jambhulkar ² ¹ Department of Plant Breeding & Genetics, Assam Agricultural University, Jorhat, Assam785013,India ² NuclearAgriculture&BiotechnologyDivision,BhabhaAtomicResearch Centre, Trombay, Mumbai 400085, India	richabora98@gmail.com	Oral
35.	Afforestation through seed ball propagation	¹ Kishore Kumar Kurmi, ² Akashi Sarma, ³ Abhilisa Mudoi and ³ Sharmila Dutta Deka ¹ Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013 ² Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013 ³ AICRP on Seed (Crops), Assam Agricultural University, Jorhat-785013	akashi.sarma@aau.ac.in	Poster
36.	Applications of machine learning in plant breeding	Akshay Ratanrao Uike Dept. of Plant Breeding and Genetics, Assam Agricultural University, Jorhat (Assam)- 785 013	akshay.uike.adj21@aau.ac.in	Poster
37.	Stay green trait:a prospective approach in crop improvement	Debolina Sinha Department of Plant Breeding and Genetics, Assam Agricultural University, Jorhat, Pin:785013, Assam	debolily.ds@gmail.com	Poster
38.	Optogenetics in plants	Dixita Rajkhowa,	dixita.rajkhowa.amj21@aau.ac.in	Poster

		Department of Plant Breeding and Genetics, Assam Agricultural University, Jorhat.PIN: 785013		
39.	Seed storage for vegetatively propagated crops with special reference to potato	Eunice SuoneiyangSerto and Kishore Kumar Sharma Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013	kishore.sharma@aau.ac.in	Poster
40.	Advances in in situ root phenotyping	Himashree Devi Department of Plant Breeding and Genetics, Assam Agricultural University, Jorhat. PIN: 785013	himashree.devi.amj21@aau.ac.in	Poster
41.	Mutation breeding for oilseed crop improvement		jahnavi.bhagat.amj21@aau.ac.in	Poster
42.	Seed pelleting: a useful technique to improve seed quality	Arkita Borkakoty and Sharmila Dutta Deka Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013 AICRP on Seeds (Crops), Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013	sharmila9368@gmail.com	Poster
43.	Identification of rice genotypes tolerant to low nitrogen, phosphorus and their combined stresses at seedling stage	Neha Anand ¹ , Sandeep Sharma ¹ , Priyanka Borah ² , Renu Pandey ^{1*} Mineral Nutrition Laboratory, Division of Plant Physiology, ICAR-Indian Agricultural Research Institute, New Delhi 110 012, India,	nehaa961@gmail.com renu_pphy@iari.res.in	Poster
44.	Nutri priming for sustainable seed production	Nisha Kumari and Sharmila Dutta Deka Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013 AICRP on Seeds(Crops), Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013	sharmila9368@gmail.com	Poster
45.	An initiative	Palki Priya Khargharia,	palki.khargharia.amj21@aau.a	Poster

	approach for breeding of Rosaceous crops	Department of Plant Breeding and Genetics, Assam Agricultural University, Jorhat	<u>c.in</u>	
46.	Influence of seed storage and priming on naturally aged seeds of aromatic rice	P.P. Bora ¹ , M. Barua ^{1*} , S.D. Deka ¹ , P. Das ² and P. K. Barua ¹ ¹ Department of Plant Breeding & Genetics, ² Department of Biochemistry & Agricultural Chemistry, Assam Agricultural University, Jorhat 785 013, Assam, India	meghali.barua@aau.ac.in	Poster
47.	Seed industry: a promising avenue for youth of north eastern India	Prasurjya Das and BhaswatiSarmah Seed Science and Technology Programme, Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013 Department of Plant Breeding and Genetics, Faculty of Agriculture, Assam Agricultural University, Jorhat-785013	bhaswati.sarmah@aau.ac.in	Poster
48.	A review on use and importance of radiation technology in plant physiology	Rajesh Chintey ¹ , Chandan A.S. ² , Tilak Prasad Panika ³ ¹ Department of Crop Physiology, Assam Agricultural University, Jorhat, Assam, 785013 ² Department of Crop Physiology, Assam Agricultural University, Jorhat, Assam, 785013 ³ Department of Soil Science, Assam Agricultural University, Jorhat, Assam, 785013	rajesh95chintey@gmail.com	Poster
49.	Advances for nutritional trait improvement in maize	, , , , , , , , , , , , , , , , , , , ,	faheem704@gmail.com	Poster
50.	Genetic variability and diversity analysis in potato (Solanum tuberosum L.) genotypes for yield and yield attributing traits	¹ Department of Plant Breeding & Genetics, Assam Agricultural University, Jorhat, Assam, 785013 ² Department of Agronomy, CPGS-AS, Central Agricultural	shibaniirbora@gmail.com, debasmitaindrani@gmail.com	Poster
51.	Influence of magneto- priming on seed germination and early	l .	puspendu@ubkv.ac.in	Poster

	seedling growth of chilli	Uttar Banga Krishi Viswavidyalaya, Pundibari-736165,		
	(Capsicum annum L.)	Cooch Behar, West Bengal, India.		
		² Plant Molecular Biology Laboratory, Department of Botany,		
		Raiganj University, Raiganj -733134, Uttar Dinajpur, West Bengal,		
		India		
52.	Development of	Suman Hazarika	suman.hazarika.adj21@aau.ac.in	Poster
	aluminium tolerant	Dept. of ABT, AAU Jorhat		
	variety for climate			
	resilient agriculture			
53.	Breeding pulse crops for	Pragyan Adhikari,	pragyan.adhikari.amj21@aau.ac.in	Poster
	moisture stress	Department of Plant Breeding and Genetics, Assam Agricultural		
	resistance	University, Jorhat. PIN- 785013		

Panel Discussion

Topic: Role of New Plant Breeding Technologies for Food Security and Sustainable Agricultural Development

Panellist

- 1) Dr. Tapan Kumar Group Director Biosciences Ghanti, BRNS, BARC, Trombay
- 2) Dr. R. N. Sarma, Professor, Plant Breeding and Genetics, AAU Jorhat
- 3) Dr. K.K. Sarma, HOD, Plant Breeding and Genetics, AAU Jorhat
- 4) Dr. Somnath Bhattacharyya, Crop Research Unit, Research Directorate, Genetics and Plant Breeding, BCKV, Nadia, WB,741252, India
- 5) Dr. Prasun K. Mukherjee, Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre, Trombay, Mumbai
- 6) Dr. Bhupinder Singh, Division of Environment Science, Nuclear Research Laboratory building, ICAR-IARI, New Delhi-110 012, India.
- 7) Dr. Pervin, Tamanna Sultana, Plant Physiology and Plant Breeding Division, BRRI, Gazipure-1701, Bangladesh

^{*}Chairperson and Co-chairperson will judge both oral and poster presentation session.

^{*}After completion of the oral presentations, the poster presentations will be judged.

^{*} Rapporteurs will submit the proceedings same day to Dr. P. K. Barua, Professor, PBG & Chairman, Technical Committee covering the particulars of presented papers, results and outcome of the sessions. (mail id:purna.barua@aau.ac.in)