

South Asia Biosafety Program

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INDIA

GEAC Recommends GM Mustard for Environmental Release

Dr. Vibha Ahuja, Biotech Consortium India Limited, and Country Coordinator, South Asia Biosafety Program, New Delhi

The Genetic Engineering Appraisal Committee (GEAC), the apex regulatory committee for approval of genetically modified organisms (GMOs) in India has recommended the commercial release of genetically modified (GM) mustard to the Ministry of Environment, Forest and Climate Change (MoEFCC).

GM mustard in India has been developed by a team of scientists led by the geneticist Prof. Deepak Pental from Centre for Genetic Manipulation of Crop Plants (CGMCP), University of Delhi South Campus. The development of GM mustard has been funded by Department of Biotechnology, Government of India and the National Dairy Development Board (NDDB). GM mustard was developed to provide a pollination control system to facilitate hybridization of Indian mustards with high-yielding European mustard varieties.

The introduced genes, barnase and barstar, are derived from bacteria; one is used to create male sterility so that the largely self-pollinating plant can be cross-fertilised. The other gene is used to restore fertility. A third gene, bar, is used as a selectable marker. The barnase-barstar method of creating mustard hybrids is a more efficient process than the conventional cytoplasmic method, as it enables superior hybrid development. The application to GEAC seeking environmental release of the parental transgenic events, bn 3.6 and modbs 2.99, and derived progeny was submitted by University of Delhi South Campus in September 2015. The GEAC has met eight times to carefully evaluate



BANGLADESH

Professor Dr. Zeba I. Seraj Honored as a Top Ten Woman of Influence in Bangladesh

Since 1993, Anannya magazine has celebrated and acknowledged women in Bangladesh for outstanding contributions to their respective fields. Anannya's top ten awards have become one of the most prestigious events in the industry, with many winners going onto receive the highest national recognition such as Ekushey Padak and Bangla Academy Puroshkar. On 6 May 2017, Professor Dr. Zeba I. Seraj was recognized with this prestigious award by the Honorable Minister of Agriculture, Begum Matia Chowdhury, for her outstanding contributions to agriculture. Dr. Seraj, Department of Biochemistry and Molecular Biology, University of Dhaka, is leading a ground-breaking effort to produce salt tolerant and high yielding rice varieties intended for the coastal region of Bangladesh. Any improved rice variety for the coastal region will make major impacts in the livelihoods of the resource-poor farmers of the region, in addition to increasing total rice production, which is important to maintain self-sufficiency for this staple food in Bangladesh. Dr. Seraj has been a frequent contributor to the South Asia Biosafety Program, serving as a technical resource and expert speaker at meetings like the South Asia Biosafety Conference. SABP warmly congratulates Dr. Seraj for this well-deserved honour!

the submission. Additionally, a document on safety assessment of GM mustard "Assessment of Food and Environmental Safety" was placed on the website for public comments in September 2016. A total of 750 comments were received and the same were reviewed by a sub-committee of the GEAC, which met three times. The report of the sub-committee conveying the safety of parental lines and the hybrid DMH-11 has been accepted by GEAC.

NITI Aayog's Three Year Action Agenda for National Development Announced

Dr. Vibha Ahuja, Biotech Consortium India Limited, and Country Coordinator, South Asia Biosafety Program, New Delhi



The National Institution for Transforming India (NITI Aayog) is the premier policy think tank of the Government of India, providing both directional and policy inputs. A draft of the three-year action agenda for the nation's development was recently presented at the 3rd Meeting of Governing Council of NITI Aayog held on April 23, 2017 under the chairmanship of the Honorable Prime Minister Shri Narendra Modi.

The 2017-2020 proposed action agenda stated: "Genetically modified (GM) seeds have emerged as a powerful new technology promising high productivity, improved quality and lower use of fertilizers, weedicides and pesticides in the last one to two decades. They have also gained increasing acceptance among farmers around the world. Indian farmers also enthusiastically embraced these seeds in the only crop in which they have been permitted so far: cotton."

It also included a statement that read: "there is some concern that GM seeds can be monopolized by multinationals, which may then exploit our farmers. But this concern is readily addressed by limiting GM seeds to those varieties discovered by our own institutions and companies."

The NITI Aayog shared that technology in the form of high-yielding seeds and fertilizer were the driver of India's attainment of self-sufficiency through the Green Revolution, and new technology remains one of the most important determinants of growth in agriculture for which there is a need to work on several fronts.

To view the action agenda, please visit: <http://niti.gov.in/content/niti-governing-council-meetings>



SEEDING LABS IS NOW ACCEPTING APPLICATIONS FOR INSTRUMENTAL ACCESS

Seeding Labs is a US-based organization dedicated to helping talented scientists in the developing world conduct life-changing research. Applicants are invited to apply now for their Instrumental Access Program. Instrumental Access makes high-quality laboratory equipment and supplies more affordable to university departments in low and middle-income countries. The deadline to apply is 28 July 2017. For details, please see the Request for Applications at: <https://seedinglabs.org/programs-and-impact/instrumental-access/>

New Sir Richard John Roberts Centre for GMOs Launched at Amity University, Noida

Dr. (Mrs.) Susmita Shukla, Assistant Professor, Centre for Plant and Environmental Biotechnology, Amity Institute of Biotechnology, Amity University, Noida



Amity Institute of Biotechnology, Amity University, Noida has established the Sir Richard John Roberts Centre for Genetically Modified Organisms (GMOs) with a mission to undertake research and communication activities related to GMOs with a focus on genetically engineered (GE) plants. The idea of creating the Centre was conceptualized in a daylong international seminar on biosafety and regulatory affairs on GMOs and GE plants organized by Amity University on September 9, 2016 in association with Biotech Consortium India Ltd, New Delhi. The purpose of the seminar was to create awareness on biosafety assessment and regulatory affairs and increase understanding of the use of GMOs.

The event was inaugurated by Dr. Balvinder Shukla, Vice Chancellor, Amity University and Dr. W. Selvamurthy, President, Amity Science Technology and Innovation Foundation. Technical sessions were held around the following themes: GMOs and the environment, use of regulations of GMOs and GM crops, biosafety assessment and regulatory affairs, and biotechnology revolution and solution. These technical sessions featured presentations from eminent national

and international experts. Dr. Julian Adams, Professor, Departments of Molecular Cellular and Developmental Biology and Ecology and Evolutionary Biology, University of Michigan, USA, highlighted the global advances in agricultural biotechnology. Dr. Pham Van Toan, Associate Professor, Vietnam Academy of Agricultural Sciences, discussed Vietnam's experience in dealing with GM food and feed. A poster session was organized where students participated enthusiastically and were awarded with prizes. In the valedictory session, Founder and President of Amity University, Dr. Ashok K. Chauhan announced that the university would set up a dedicated Centre on GMOs.

On January 11, 2017, the Centre was officially launched under the aegis of Amity University Uttar Pradesh. This Centre honors the renowned biochemist, molecular biologist and Nobel laureate, Sir Roberts, for his exceptional scientific vision, deep commitment to research, and outstanding contribution to humanity. Sir Richard John Roberts has been designated as the Honorary President of this Centre.

The Centre is in the process of initiating research programmes and other activities related to GMOs and GE plants.



Training Workshop on Bangladesh Biosafety Regulatory System and Network Development

Dr. M. Imdadul Hoque, Dean, Faculty of Biological Sciences, University of Dhaka, and Country Coordinator, South Asia Biosafety Program, Dhaka

The Department of Environment (DOE) with funding from the UNEP/GEF Implementation of National Biosafety Framework (INBF) project organized a regional training workshop on April 16, 2017 at the Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh. Approximately 80 participants attended from Bangladesh Agricultural University (BAU), Mymensingh; BARI Regional Research Station, Jamalpur; the Department of Agricultural Extension of Mymensingh region; Bangladesh Institute of Nuclear Agriculture (BINA); Bangladesh Fisheries Research Institute (BFRI), Mymensingh; the Cotton Development Board, Upazilla and the DOE Mymensingh region. The purpose of this training workshop was to raise awareness among regional stakeholders on the recent development of biosafety-related issues and the activities being carried out under the INBF project.

The inaugural ceremony was held at BINA. Mr. Md. Raisul Alam Mondal, Director General, Department of Environment inaugurated the training workshop as the Chief Guest. Dr. Md. Shamsheer Ali, Director General, BINA, graced the ceremony as the Special Guest. Mr. Md. Yousof Ali, Director, DOE, Mymensingh presided over the inaugural ceremony. The inaugural ceremony began with a welcoming address by Mr. Mohammed Solaiman Haider, Director (Planning), DOE & Project Director, INBF Project. In his address, Mr. Haider shared brief highlights on the UNEP/GEF-funded INBF project as well as the purpose of this regional training workshop. Dr. Md. Shamsheer Ali thanked the DOE for holding such an important training workshop at his institute, and pointed out the need to develop technologies to grow more foods with limited lands. He also emphasized that the application of modern biotechnology has made it possible to develop biotic and abiotic stress tolerant crop plants. He mentioned that the Government of Bangladesh has already given permission for the field release of fruit and shoot borer resistant Bt brinjal and anticipates more crops in the future. Against this background, scientists, academics, and non-governmental organizations working at grass root levels need to be informed about the technology as well as have their biosafety concerns addressed. This workshop offered an opportunity for participants to do this.

In his address, the Director General, Department of Environment welcomed and thanked the participants. He described the work

activities being carried out at his Department on the UNEP/GEF funded Implementation of National Biosafety Framework Project, including drafts of different regulatory documents as well as movement towards updating the existing rules and guidelines, specifically the Biosafety Guidelines of Bangladesh and Bangladesh Biosafety Rules 2012. He requested that participants assist the DOE with their inputs on the drafted biosafety regulatory documents and complete forms to be uploaded in the biosafety network database.

The technical session of the workshop followed the inaugural ceremony. Four papers were presented during this session. The first paper was presented by Mr. Haider on "Biosafety: National and International Perspective", which addressed issues related to the emergence of biosafety applicable for the research and developmental activities of modern biotechnology. He also gave a brief overview on the emergence of the Cartagena Protocol under the Convention of Biological Diversity (CBD) and how Bangladesh became a party to this Protocol. Finally, he described the chronology of the Biosafety Regulatory Regimes of Bangladesh.

Dr. M. Khalequzzaman Akhond Chowdhury, National Project Coordinator (NPC), INBF Project presented a paper on "Biosafety Systems as per Biosafety Rules and Biosafety Guidelines". Dr. Chowdhury highlighted the history behind these regulatory documents as well as their scope and applications.

Professor Dr. M. Imdadul Hoque, Bangladesh Country Coordinator, South Asia Biosafety Program presented a paper on "Biosafety Concerns in Contained, Confined, and Open Fields Trials of Genetically Engineered Crops". Prof. Hoque described the need and purpose of these types of field trials as well as the precautionary principles which need to be followed.

The final paper was presented by Mr. Mohammed Solaiman Haider on "Risk Assessment, Management and Communications". In his presentation, Mr. Haider addressed issues related to assessment, management and communication of any potential risk which may be posed during research and field trials of genetically engineered crops. There were lively discussions at the end of each presentation.



Interested in contributing to the SABP Newsletter?

The SABP Newsletter, published monthly, is distributed to over 10,000 regulators, scientists, policy makers and other stakeholders interested in agricultural biotechnology in South Asia. Each edition includes editorials, information about biosafety regulation and policy developments in India, Bangladesh and Pakistan, SABP and other capacity building activities in the region, and related science or news stories. All contributions to the newsletter should have a clear connection to the mission of SABP, relate to South Asia and cannot be promotional. For more information or for your article to be considered, please email Libby Williams at lwilliams@ilsirf.org.

The Organizing Committee for the 5th Annual South Asia Biosafety Conference Welcomes Submission of Abstracts for Both Oral and Poster Presentations



Oral Presentations

SABC 2017 has two sessions open to a limited number of participants interested in submitting an abstract for an oral presentation. These are Plenary Session II: Crop Biotechnology and Biosafety in South Asia or Plenary Session V: New Applications of Biotechnology - Focus on Forestry and Biofuels. Submissions should describe research that is relevant to the topic of either session, and preference will be given to those abstracts that have a strong emphasis on biosafety-related research.

Posters

The 5th Annual South Asia Biosafety Conference Poster Program is an opportunity for individuals to share their research, findings and achievements with colleagues at the conference. Presenting a poster is a noteworthy way to share expertise or accomplishment with the diverse group of attendees.

For additional information, view pages 7-8, visit the South Asia Biosafety Conference website <http://sabc.biotech.co.in> or contact Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited, at vibhaahuja.bcil@nic.in or Libby Williams, Communications Manager, ILSI Research Foundation, at lwilliams@ilsf.org.

Space is limited. Abstracts will be considered on a first come, first served basis.

Frequently Asked Questions

Q: Where do I submit my abstract for the South Asia Biosafety Conference?

A: To submit your abstract, please use our official submission form on the conference website <http://sabc.biotech.co.in>

Q: Are there rules for abstract submission?

A: Submissions should be a maximum of 300 words and describe research directly relevant to agricultural biotechnology and biosafety in South Asia, or applications of biotechnology for forestry and biofuels. Preference is given to research that directly addresses biosafety risk assessment. Additional guidelines for the submission are available on the conference website.

Q: Do I need to attend the conference if my abstract is accepted?

A: Yes, oral and poster presenters need to register and attend the South Asia Biosafety Conference.

Q: If my oral presentation is not accepted, can it be considered for the poster presentation?

A: Yes, abstracts that are not selected for oral presentations may be considered for posters instead.

Q: What is the deadline for abstract submission?

A: June 15, 2017 is the deadline for oral presentation submissions. August 1, 2017 is the deadline for poster presentation submissions.

EVENT	ORGANIZED BY	DATE	WEBSITE
INDIA			
Series of Training Workshop for Customs officials and Plant Quarantine officials on Transboundary movement of Living Modified Organisms	Ministry of Environment, Forest and Climate Change (MoEFCC), ICAR-National Bureau of Plant Genetic Resources (NBPGR), Directorate of Plant Protection, Quarantine & Storage (DPPQS) and National Academy of Customs, Excise and Narcotics (NACEN)	1. May 25-26, 2017 Shillong 2. June 6-7, 2017 Amritsar	www.bcil.nic.in
International conference on "Recent trends in agriculture, biotechnology and food processing"	College of Agriculture, Hassan, Karnataka	July 5-7, 2017 Hassan, Karnataka	
International Symposium on Horticulture: Priorities & Emerging Trends	Indian Council of Agricultural Research (ICAR), New Delhi, Indian Institute of Horticultural Research, Bengaluru, India Society for Promotion of Horticulture, IIHR, Bengaluru, India International Society for Horticultural Science (ISHS), Belgium	September 5-8, 2017 Bangalore	http://www.iihr.res.in/content/international-symposium-horticulture-priorities-emerging-trends
5 th Annual South Asia Biosafety Conference	SABP, ILSI Research Foundation, Biotech Consortium India Limited (BCIL)	September 11-13, 2017 Bangalore	http://sabc.biotech.co.in/
INTERNATIONAL			
Risk Analysis for the Release of GMOs into the Environment	International Centre for Genetic Engineering and Biotechnology (ICGEB) Biosafety Group	May 22-26, 2017 Trieste, Italy	www.icgeb.org/meetings-2017.html
14 th International Symposium on the Biosafety of Genetically Modified Organisms (ISBGMO14)	International Society for Biosafety Research (ISBR)	June 4-8, 2017 Guadalajara, Mexico	http://isbr.info/ISBGMO14
7 th International Meeting on Synthetic Biology (SB7.0)	Biobricks Foundation and Synbiobeta	June 13-16, 2017, Singapore	http://sb7.info/
BIO International Convention	Biotechnology Innovation Organization	June 19-22, 2017 San Diego, CA, USA	www.convention.bio.org
Plant Transformation & Biotechnology IV	Vienna International Science Conferences & Events Association (VISCEA)	June 29-30, 2017 Vienna, Austria	http://viscea.org/index.php/plant-trans-biotech



SOUTH ASIA
BIOSAFETY PROGRAM

The South Asia Biosafety Program (SABP) is an international developmental program implemented in India and Bangladesh with support from the United States Agency for International Development. SABP aims to work with national governmental agencies and other public sector partners to facilitate the implementation of transparent, efficient and responsive regulatory frameworks for products of modern biotechnology that meet national goals as regards the safety of novel foods and feeds, and environmental protection.



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To receive an electronic copy of this newsletter send your name, institutional information and e-mail address to: vibhaahuja.bcil@nic.in

Registration Form

5th Annual South Asia Biosafety Conference

September 11-13, 2017

Taj West End, Bangalore, India



Registrations are limited to 120 for the conference. Registrants that cannot be accommodated will be added to a waitlist, and notified if space becomes available.

Attach mailing label from brochure,
or your business card.

Name Preferred on Badge _____

Complete the following if the information on the mailing label is incorrect or no label is provided.

Registrant is:

Gender Male Female

Title Mr. Mrs. Ms. Dr.

First Name _____

Middle Initial _____

Last/Surname _____

Job Title _____

Employer/Company/Institution _____

Address _____

Street _____

City _____

State/Province _____

Zip/Postal Code _____

Country _____

Telephone _____

Facsimile _____

E-mail _____

Select one optional workshop to attend on September 12:

Workshop I: Thinking Ahead: Designing Confined Field Trials to Maximize Data Transportability (limited to 30 attendees)

Workshop II: Best Practices for Public Sector GE Product Development Programs (limited to 25)

Workshop III: Intersection of the Cartagena Protocol and the Indian Biosafety Regulatory System (limited to 40)

Registration*

Category	Fee	
	INR	US\$
Industry	Rs. 6,500/-	\$100
Research Institution, Universities, Individual Experts	Rs. 3,500/-	\$50
Students	Rs. 2,700/-	\$40
BCIL Biotech Club Members	25% discount	
Additional delegates from same organization (except students)	25% discount	
Government Departments and Ministries	No fee up to two nominations and Rs. 2,000/- each for additional nomination. Registration must be submitted through email to vibhaahuja.bcil@nic.in and confirmed by organizers. No online registration.	

*No free on-the-spot registrations.

In case you face difficulty in the online registration, please download the registration form and send it to us along with payment through bank transfer. The details for Bank Transfer are as follows:

Beneficiary Name: Biotech Consortium India Limited

Account Number: 00032320008527

IFSC Code: HDFC0000003 (HDFC Bank Limited)

Cancellation/Refund Policy

Registration cancellations must be made in writing and received by BCIL no later than September 1, 2017. Cancellations received by this date are subject to a 20% processing fee. Registration and ticketed event cancellations received after September 1, 2017, are NOT subject to a refund.

Registration forms should be sent to:

Dr. Vibha Ahuja, Chief General Manager
Biotech Consortium India Limited (BCIL)
Anuvrat Bhawan, 5th Floor, 210, Deen Dayal Upadhyaya Marg
New Delhi, India - 110 002
Telephone Number +91-11-23219064-67 (Ext. 204; 205);
23219059(D)
Fax Number +91-11-23219063
Email: vibhaahuja@biotech.co.in; vibhaahuja.bcil@nic.in

Abstract Submission Form

5th Annual South Asia Biosafety Conference

September 11-13, 2017

Taj West End, Bangalore, India



Participants are encouraged to participate in this year's program in two ways:

1. **Submit an abstract for an oral presentation** in Plenary Session II: Crop Biotechnology and Biosafety in South Asia or Plenary Session V: New Applications of Biotechnology: Focus on Forestry and Biofuels. Submissions should describe research directly relevant to either of these topics, with preference to research that directly addresses biosafety risk assessment. Areas of particular interest include:

- Innovations for resistance to plant pathogens and insect pests
- Biotechnology as a tool for managing post-harvest losses
- Genetically engineered trees for use in timber or biofuel production, and mechanisms to manage gene flow
- Genetically engineered algae for biofuel production
- Biotechnology and genetic conservation in natural forests

Abstracts submitted for oral presentations will be evaluated by the conference organizers for quality and applicability. Abstracts that are not selected for oral presentations may be considered for posters instead.

2. **Submit an abstract for a poster presentation** during the Poster Program. Presenting a poster is a noteworthy way to share expertise or accomplishment, and poster presenters will have a dedicated time to present and discuss their work with the diverse group of attendees. All posters must convey relevance to biosafety research, environmental risk assessment of genetically modified organisms (GMOs), or the regulation of GMOs— plants, animals, arthropods, or micro-organisms.

Guidelines for Submission

The following are suggestions that will contribute to ensuring the readability and quality of abstracts submitted for oral or poster presentations:

- Check for proper spelling and grammar.
- Use a standard typeface such as Times Roman with a font size of 12.
- Begin sentences with words (not numbers).
- Standard abbreviations may be used without definition, but nonstandard abbreviations/acronyms should be placed in parentheses after the first use of the terminology. It is important to keep nonstandard abbreviations/acronyms to a minimum, to allow for readability and understanding.
- Do not include tables, figures, or graphs in the abstract.
- Limit the abstract to 300 words.
- Try to organize the abstract with the following headings where appropriate: purpose, methods, results, conclusions (e.g., for research projects) OR purpose, description, evaluation and outcomes (e.g., for capacity building projects).

Space is limited. Abstracts will be considered on a first come, first served basis.

Deadlines

June 15, 2017 for oral presentations

August 1, 2017 for poster presentations

Please complete the form below and email it to lwilliams@ilsa.org and copied to vibhaahuja.bcil@nic.in. You will receive a return email acknowledging receipt of your abstract and subsequently a second email informing you if your abstract has been accepted into the program.

I. Lead Presenter

First Name _____

Last/Surname _____

Institution _____

Telephone _____

E-mail _____

III. Co-Presenters (Include name, organization, e-mail)

III. Abstract Submission for

Oral Presentation Plenary Session II: Crop Biotechnology and Biosafety in South Asia

Oral Presentation Plenary Session V: New Applications of Biotechnology: Focus on Forestry and Biofuels

Poster Presentation

IV. Abstract Title

V. Abstract (Maximum 300 words)

(Note: Presenters must register for the 5th Annual South Asia Biosafety Conference. If an abstract is received from an author who is not registered, the abstract will NOT be included in the review process.)