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South Asia Biosafety Program

NEWSLETTER FOR PRIVATE CIRCULATION ONLY – NOT FOR SALE

INDIA

IGI Workshop on Navigating Regulatory Pathways for Agricultural and Environmental Genetically Engineered Microorganisms (GEMS 2026)

Dr. Vibha Ahuja, Senior Advisor, South Asia Biosafety Program (SABP) and Technical Advisor, Biotech Consortium India Limited (BCIL)

Group photo of speakers and participants at the workshop on "Navigating Regulatory Pathways for Agricultural and Environmental Genetically Engineered Microorganisms (GEMS 2026)" (15 June 2026).

An international workshop on "Navigating Regulatory Pathways for Agricultural and Environmental Genetically Engineered Microorganisms (GEMS 2026)" was organized by the Innovative Genomics Institute (IGI) at the University of California, Berkeley, from 15-17 June 2026. The IGI, a collaborative partnership between the University of California Berkeley, the University of San Francisco, and the University of California Davis, focuses on advancing genome engineering to solve critical challenges in human health, climate resilience, and sustainable agriculture. This event convened fifty regulators, researchers, and technology developers representing eleven countries to examine the scientific research, risk assessment, and policy landscapes surrounding genetically engineered microorganisms (GEMs). A major driving force behind the workshop is that current regulatory frameworks, which were originally built for conventional chemicals or plant biotechnology, are struggling to keep pace with the rapid diversification of microbial products, leading to growing divergence between international regulatory systems.

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To address these challenges, the program was structured to move systematically from scientific foundations to policy solutions. The sessions began by establishing the current state of the science and

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mapping the existing global regulatory reality, followed by regional overviews of how different countries currently classify and manage GEMs. Technical sessions focused on risk assessment methodologies, detection strategies, monitoring, and containment protocols. Participants then engaged in interactive breakout sessions to analyze model case scenarios and construct potential roadmaps to commercial use, ultimately concluding with dedicated discussions on international regulatory convergence. The coordination of these deliberations was led by IGI organizers Bradley Ringeisen, the Executive Director, along with Manar Zaghlula and Elizabeth Njuguna.

During the scientific sessions, prominent international specialists demonstrated how modern gene-editing tools, especially CRISPR, are opening new pathways to address climate issues and agricultural productivity. Carlotta Ronda from the IGI presented cutting-edge tools for the genetic engineering of microorganisms and microbiomes. Spencer Diamond, also representing the IGI, showcased innovative strategies for modifying the ruminal microbiome to reduce livestock methane emissions. Additionally, Florencia Ercoli from the University of California, Riverside, shared her research on reducing methane emissions in rice systems through targeted plant-microorganism interactions, highlighting how biotechnology can directly mitigate greenhouse gases.

Following these presentations, Dr. Jennifer Doudna, the founder of the IGI and recipient of the 2020 Nobel Prize in Chemistry, delivered remarks emphasizing the immense potential of agricultural and environmental gene editing to deliver rapid, global solutions. She highlighted how the presented research proves that CRISPR can solve real-world environmental and production challenges. Dr. Doudna stressed that the extraordinary benefits of these technologies must not remain locked in laboratories, calling for clear, aligned regulatory roadmaps to ensure that these scientific advancements can be safely and widely accessed around the world.

The interactive breakout sessions allowed participants to examine real-world case studies, illustrating how differing national policies can either foster or severely hinder biotechnology innovation. Dr. Andrew Roberts, Chief Executive Officer of the Agriculture and Food Systems Institute (AFSI), moderated the final panel discussion, which explored practical pathways toward greater global regulatory alignment. Dr. Sarah Richards, Manager–Scientific Programs, AFSI and Dr. Vibha Ahuja, Senior Advisor, South Asia Biosafety Program and Technical Advisor, Biotech Consortium India Limited (BCIL), were also in attendance. The workshop ultimately concluded with a clear consensus on the critical need for ongoing, science-based international dialogue to harmonize global regulations while maintaining the highest safety standards for humans and the environment.

RESOURCE SPOTLIGHT

Reports on Genetically Modified Microorganisms by the Joint Research Centre of the European Commission

Dr. Vibha Ahuja, Senior Advisor, South Asia Biosafety Program (SABP) and Technical Advisor, Biotech Consortium India Limited (BCIL)

In December 2025, the European Commission introduced a legislative proposal to amend Directive 2001/18/EC as part of the *Biotech Act*, which specifically targets the placing on the market and intentional environmental release of Genetically Modified Microorganisms (GMMs). Historically, the use of GMMs has been strictly confined to "closed systems," such as contained industrial fermentation tanks for pharmaceuticals and specialized biotechnology. There is now interest at the global level to explore the deployment of GMMs in the open environment. The European Commission's Joint Research Centre (JRC) has published two comprehensive reports analyzing the market landscape and specific agricultural implications of GMMs to provide a rigorous, data-driven foundation for policy discussions. Below are some key points and associated links from the reports.

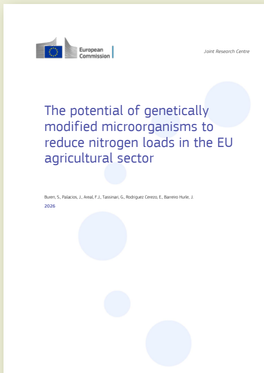
Current and Future Market Applications of Genetically Modified Microorganisms (GMMs) to be Placed on the Market or for Environmental Release

This report explores the technological and commercial ecosystems growing around GMMs intended for environmental release, explicitly excluding healthcare and pharmaceuticals. The report mapped the global startup and scaleup landscape to assess how close these innovations are to commercial deployment, revealing several critical insights:

- The JRC identified 23 startups and scaleups actively developing GMMs for open environmental release.
- The sector is remarkably young, with only three of these companies being over ten years old. The vast majority of these pioneering firms are currently concentrated in the United States. Only two were identified within the European Union.
- While agriculture is the primary focus, the report identified active innovation in several other sectors, such as bioremediation, biomining, food, and cosmetics.

Download at: https://publications.jrc.ec.europa.eu/repository/handle/JRC147414

The Potential of Genetically Modified Microorganisms to Reduce Nitrogen Loads in the EU Agricultural Sector



This report evaluates the potential of GMMs designed for Biological Nitrogen Fixation (BNF) to replace synthetic chemical fertilizers. Excess synthetic nitrogen is an ecological hazard affecting water quality, degrading biodiversity, and threatening public health. Recognizing the need for affordable and highly effective alternatives to sustain crop yields, this report provides a holistic, assessment blending traditional literature reviews with price-risk modelling and a CAPRI simulation analysis.

- The report compares emerging GMM inoculants with conventional nitrogen-reduction technologies, including precision fertilizer placement, nitrification and urease inhibitors, and cover crop/legume-based rotations.
- The report provides a detailed evidence base to weigh the complex trade-offs between agronomic performance, farmer profitability, and environmental safety before deploying GMMs for biological nitrogen fixation.

Download at: https://publications.jrc.ec.europa.eu/repository/handle/JRC147146

Brainstorming Session on Potential and Policies for Genetically Engineered and Gene-Edited Microorganisms for Use as Biologicals in Agriculture

Dr. Vibha Ahuja, Senior Advisor, South Asia Biosafety Program (SABP) and Technical Advisor, Biotech Consortium India Limited (BCIL)

Participants at the Brainstorming Session on Potential and Policies for Genetically Engineered and Gene-Edited Microorganisms for Use as Biologicals in Agriculture (3 July 2026).

The National Academy of Agricultural Sciences (NAAS) organized a brainstorming session on "Potential and Policies for Genetically Engineered and Gene-Edited Microorganisms for Use as Biologicals in Agriculture" on 3 July 2026. Organized as a hybrid event, the session was chaired by Dr. M.L. Jat, President, NAAS, and co-chaired by Prof. N.K Singh, former National Professor, Dr. B.P. Pal Chair, at the Indian Agricultural Research Institute (IARI), Indian Council of Agricultural Research National Institute for Plant Biotechnology (ICAR-NIPB).

Dr. Rajesh S. Gokhale, Secretary, Department of Biotechnology (DBT), Government of India, graced the occasion as Special Invitee. The session was convened by Dr. R.C. Bhattacharya, Director, ICAR-NIPB, and Dr. Debasis Pattanayak, Principal Scientist, ICAR-NIPB, and co-convened by Dr. Vibha Ahuja, former Chief General Manager, Biotech Consortium India Limited (BCIL).

"Dr. M.L. Jat, NAAS President [...] stressed that the importance of microbes can no longer be undermined and ignored."

Dr. Rajesh S. Gokhale, in his opening remarks, reiterated the importance of microbial biologicals in different fields, including agriculture, and underscored the need for an ecosystem that includes policy guidelines to harness the potential of agriculturally important microbes. In his opening remarks, Dr. M.L. Jat, NAAS President, DARE Secretary, and ICAR Director General, stressed that the importance of microbes can no longer be undermined and ignored. He also emphasized that sustenance of soil health is important and microbes have a big role to play in India's self-reliance and development. He proposed ICAR and DBT coming together to formulate a plan for joint research funding to address all the aspects related to the utilization of microbial biologicals.

Later, there were four technical sessions, featuring esteemed experts from the National Agricultural Research and Education System (NARES), ICAR institutes, ministries/departments (MoEF&CC, DBT, BIRAC, and CIBR&C), and industries, as well as policy experts from different countries, namely the USA, Australia, the UK, and Brazil. The panelists deliberated on the need for guidelines for the benefit of the farming community that would utilize genetically engineered and gene-edited agri-biologicals to meet the challenges of agriculture in a changing climate.

In closing, Prof. N. K. Singh underscored the need for simultaneous efforts to develop both the regulation and infrastructure. Dr A. K. Singh, NAAS Secretary, suggested having separate guidelines for genetically engineered and genome-edited microbes. The meeting concluded with a Vote of Thanks by Dr. B.S. Dwivedi, NAAS Secretary.

Additional Details: https://naas.org.in/page.php?pageid=228

Participants at the Brainstorming Session on Potential and Policies for Genetically Engineered and Gene-Edited Microorganisms for Use as Biologicals in Agriculture (3 July 2026).

BANGLADESH

Can AI Revolutionize Genome Editing? Designing the Future of Genetic Engineering

Debosmita Dey and Subhadeep Chowdhury Antu, Department of Biotechnology, School of Life Sciences, BRAC University

STUDENT SHOWCASE

To encourage written discourse on topics related to biosafety and biotechnology among the younger generation, the *SABP Newsletter* dedicates space in select issues to spotlight pieces written by students residing in South Asia. Since articles with the "Student Showcase" tag are meant to reflect the actual views and capabilities of the author(s), they are not revised for content and only lightly edited to conform with the newsletter's style guide.

Rice seedlings growing in flooded paddy fields under a misty morning sky in India. © Anoydas | Dreamstime.com

CRISPR-Cas9 is a significant tool in genetic engineering to edit DNA with high precision. It acts like a molecular scissor that is used for cutting and modifying genes of any organism. CRISPR is an acronym for **C**lustered **R**egularly **I**nterspaced **S**hort **P**alindromic **R**epeats—here, CRISPR is basically a guide RNA system that helps the Cas9 protein navigate the target sequences that need to be cut, and Cas9 refers to a kind of protein that acts like a scissor to cut the DNA sequences. CRISPR-Cas9 is a system found inside bacteria as a part of their immune system that cuts the gene sequence of any foreign virus that enters the bacterial body. Scientists use this technology to cut and modify genes in different organisms. It has a wide range of applications, including research in agriculture, medicine development, therapeutics, and tackling environmental challenges.

However, the issue with CRISPR-Cas9 technology is that the naturally occurring nuclease enzymes, such as Cas9, IscB, and TnpB, come from bacteria, and they often do not work efficiently in eukaryotes, including higher plants, animals, and humans. Therefore, they may occasionally perform unintended cuts in the genome, and they can only target DNA regions located near specific PAM sequences. Furthermore, the use of Cas9/Cas12 is influenced by complex intellectual property (IP) restrictions and licensing requirements, which limit their accessibility. To overcome these limitations, Ruffolo et al. (2025) used artificial intelligence to design an entirely new CRISPR-associated nuclease named OpenCRISPR-1 (OC1) through computational modeling of CRISPR-Cas protein sequences.

"To overcome these limitations, Ruffolo et al. (2025) used artificial intelligence to design an entirely new CRISPR-associated nuclease named OpenCRISPR-1 (OC1) through computational modeling of CRISPR-Cas protein sequences."

Building upon this breakthrough, Dr. Kutubuddin Ali Molla and his team at the Indian Council of Agricultural Research Central Rice Research Institute (ICAR-CRRI) demonstrated pioneering work on AI-mediated base editing and prime editing in rice. They adapted the OC1 platform for plant genome engineering by developing the Plant OpenCRISPR-1 (POC1) system and demonstrated its applications in gene knockout, base editing, and prime editing in rice. This landmark achievement not only redefines crop biotechnology but also signals the dawn of a new era in genome engineering, where artificial intelligence can help scientists create more efficient, precise, and versatile gene-editing tools than ever before.

OC1, the AI-designed protein, has been demonstrated to be different from the natural Cas-9 protein by 403 amino acid mutations (Ruffolo et al., 2025). Yet, OC1 exhibited efficient genome editing in human cells. Moreover, OC1 was released as an open-source nuclease and has been proposed to be freely available for licensing for academic research and commercial development, which overcomes the limitations pertaining to IP and licensing. In fact, its increased range of efficiency and precision has marked it as a lucrative alternative to the commonly used

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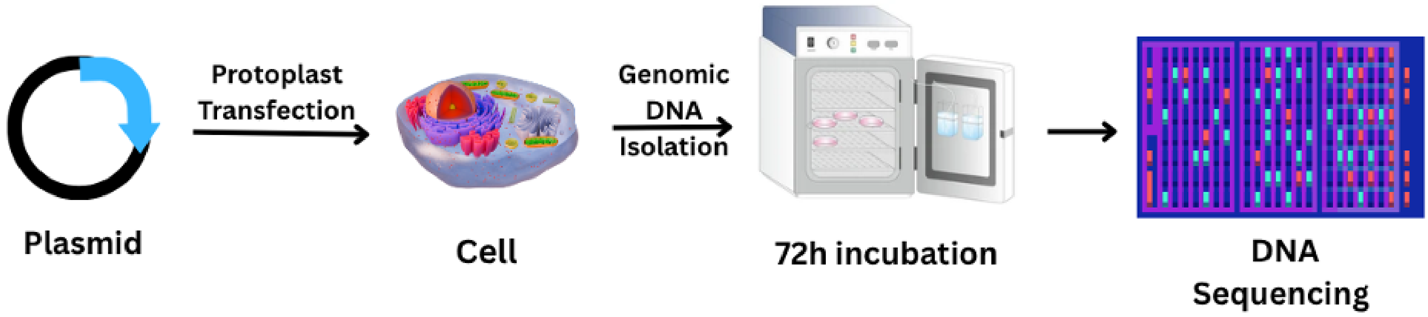

Figure 1.1: Overview of the protoplast-based assay used to evaluate genome editing activities. Following protoplast transfection with plasmid constructs, cells were incubated for 72 hours to allow genome editing and reporter gene expression. Subsequently, genomic DNA was isolated for sequencing analysis to determine editing efficiency, while reporter gene expression was evaluated by fluorescence imaging. (Here, plasmid modifications were done in four different ways—gene knockout, adenine base editor, cytosine base editor, and prime editor).

SpCas9 protein. The AI-designed OC1 system, after codon optimization, was validated for use in rice. Dr. Molla's team performed three types of experiments—gene knockout, base editing, and prime editing—and the experimental results demonstrated that POC1 can efficiently edit the genomes of regenerated rice plants and has strong potential as a genome-editing tool for plant biotechnology.

"Dr. Kutubuddin Ali Molla and his team at the Indian Council of Agricultural Research Central Rice Research Institute (ICAR-CRRI) demonstrated pioneering work on AI-mediated base editing and prime editing in rice."

Firstly, the gene knockout efficiency of the novel POC1 system was evaluated in rice cells. To make the OC1 enzyme functional for rice, researchers codon-optimized the OC1 and replaced the traditional SpCas9 gene in a plant CRISPR vector to create the POC1 expression vector. The researchers inserted the traditional SpCas9 plasmid and the AI-designed POC1 plasmid into rice protoplasts. Following a 72-hour incubation period, genomic DNA was isolated from the cells, and deep sequencing was performed to determine the amount of DNA sequences successfully edited by the POC1 system. Reporter gene expression indicated a consistent 80% or above protoplast transfection efficiency.

Additionally, in order to test whether POC1 could generate double-stranded breaks (DSBs) in plant DNA, two guide RNAs were designed that targeted two regions of the target rice gene spaced 573 bp apart. These guide RNAs were placed in a polycistronic tRNA-gRNA cassette, so both gRNAs could be expressed from a single construct, allowing editing of multiple DNA targets at once and simplifying vector construction while reducing the need for multiple promoters. Later, PCR and gel electrophoresis results showed a DNA fragment that was ≅570 bp shorter than normal, indicating that POC1 had successfully cut at both target sites and removed the DNA region between them. Further, Sanger sequencing verified that the anticipated deletion had taken place. Following that, POC1 was tested in three more rice genes. Sequencing also revealed desired insertion and deletion (indel) changes.

Most importantly, POC1's performance was similar to that of the counterpart SpCas9 system, and no significant variations in efficiency were observed. Also, the researchers used three distinct tracrRNA variants at three target locations in rice genes to compare between POC1 and SpCas9 systems. Results indicated that the type of tracrRNA used had a significant impact on gene editing efficiency. Some tracrRNA designs reduced editing activity, but others made it possible for the POC1 system to function similarly to the conventional SpCas9 system.

Afterward, the compatibility of the AI-engineered POC1 was evaluated in the case of base editor development. The base editor is used to perform single-nucleotide substitution without any kind of DSBs. The ABE base editor substituted A-T by G-C, and the CBE base editor mediated C-G to T-A substitutions. These base editors were fused with the Cas9 protein and POC1 to assess the base-editing efficiency of both. AI-engineered POC1 was found to be 15% more efficient than the Cas9 base editor. Finally, it was inferred from the results that POC1 could function effectively with both ABEs and CBEs and supports precise-level base editing as well.

Butterfly on a green rice plant. © Worawan Konped | Dreamstime.com

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Along with the base editing proficiency of POC1, the prime editing (PE) efficiency was also evaluated through experimentation. PE is an advanced genome-editing technique that enables the introduction of precise DNA changes, such as DNA insertions, deletions, and base substitutions, without creating DSBs in the DNA and without the need for a donor template. To determine whether POC1 could be adapted for PE, the researchers engineered a modified version of the enzyme called POC1-PE. The prime editors were constructed by fusion of POC1 nickase and Cas9 nickase with a specific reverse transcriptase enzyme. They checked prime editing for three distinct edits at three different loci that were a CG-to-GC substitution, a CG-to-AT substitution, and a GC-to-CG substitution. Results demonstrated POC1-PE exhibited higher substitution efficiency at one locus and lower at the other two loci compared to Cas9-PE.

Moreover, the researchers examined if POC1 could effectively modify an endogenous target gene in a regenerated plant. For that, an Agrobacterium-mediated transformation technique was used to insert the POC1 vector. Then, for selection of successfully transformed cells, they were grown on hygromycin antibiotic containing medium. Researchers were able to identify transformed plants because only cells successfully transformed contained the hygromycin resistant gene and were able to survive and grow on the media. Further, Sanger sequencing findings demonstrated that a significant percentage of regenerated plant cells had mutations caused by POC1.

In conclusion, this research work developed POC1-mediated versatile genome editing platforms that exhibited high efficiency in gene knockout, prime editing, and base editing in rice. POC1 demonstrates the potential for developing nutrient-enriched, high-yielding, and climate-adapted crops. Furthermore, because POC1 (Das et al., 2026) is developed from the open-source nuclease OC1 (Ruffolo et al., 2025;), it may potentially decrease the licensing and IP limitations that come with traditional CRISPR-Cas9 systems. This could facilitate innovations without the burden of expensive license fees by making advanced genome-editing tools more accessible to researchers in developing countries. This breakthrough in crop biotechnology will open up new opportunities in agricultural development. We believe that this addition will contribute to the improvement of crops supporting sustainable agriculture and strengthen global food security in the future.

"Because POC1 [...] is developed from the open-source nuclease OC1 [...], it may potentially decrease the licensing and IP limitations that come with traditional CRISPR-Cas9 systems."

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RESOURCE SPOTLIGHT

Global GM Crop Area Review 2026

Dr. Arlene Asthana Ali, Senior Project Executive, Biotech Consortium India Limited (BCIL)

AgbioInvestor's *GM Monitor* provides updates regarding the cultivation of genetically modified (GM) crops globally. The information is provided on planted area, percentage of total area, production, trade, and approval status of various GM crops. **An update was released in May 2026 and can be accessed at: https://gm.agbioinvestor.com/downloads**

The global area under GM crops (11 crops) in 2025 has been reported to be 216.0 million hectares, with cultivation in 30 countries. Soybean is the most widely planted GM crop at 106.2 million hectares, followed by maize at 74.6 million hectares, and cotton at 22.6 million hectares.

The number of countries cultivating GM crops has varied since the first introduction of GM varieties in 1996, due in part to several European countries ceasing the cultivation of GM maize, as well as the end of planting of GM cotton in Burkina Faso. 30 countries cultivated GM crops in 2025, with Ghana being the most recent addition, having begun cultivating GM cowpea in 2025.

The table below shows the rate of global adoption of major crops. GM Cotton is the most widely cultivated at 76.7% of the world's total cotton area, followed by soybean at 73.9%, maize at 35.8% and canola at 24.4%.

Table 1: *Global adoption of GM crops in 2025.*

Crop	GM Area (Ha m.)	Total Area (Ha m.)	GM % Share
Cotton	22.6	29.5	76.7
Soybean	106.2	143.7	73.9
Maize	75.2	210.4	35.8
Canola	10.8	43.6	24.8
Sugar beet	0.4	4.7	9.7
Alfalfa	1.1	35.0	3.1
Cowpea	0.1	15.8	0.48
Sugarcane	0.1	26.7	0.33
Brinjal	0.002	3.2	0.06
Wheat	0.055	219.6	0.03
Beans	0.005	33.7	0.01
Total	**216.0**	**765.9**	**28.2**

EVENT	ORGANIZED BY	DATE	WEBSITE
INDIA			
Hands-on Training in CRISPR/Cas9-Based Genome Editing in Crop Plants - 2026	Tamil Nadu Agricultural University (TNAU)	4-7 August 2026 Coimbatore	https://tnau.ac.in/site/cpmb/hands-on-training-in-crispr-case-9-based-genome-editing-in-crop-plants-2026/
UPDA NextGen Distillery Summit 2026	UP Distillers Association (UPDA)	21 August 2026 New Delhi	https://updaindia.com/portfolio-items/upda-nextgen-distillery-summit-2026/
Hands-on Workshop on CRISPR-Based Genome Editing: Practical Training Across Diverse Biological Systems	Tata Institute for Genetics and Society (TIGS) and National Centre for Biological Sciences (NCBS)	27-28 August 2026 Bengaluru	https://tigs.res.in/hands-on-workshop-on-crispr-based-genome-editing-practical-training-across-diverse-biological-systems/
International Conference on Environment, Agriculture, Horticulture & Life Sciences (ICEAHLS)	International Association for Innovation and Scientific Research (IAISR)	27-28 August 2026 Madurai	https://iaisr.com/envi_agni_conference/
Genomics India Conference (GIC) 2026	Genotypic Technology, University of Agricultural Sciences (UAS), Indian Institute of Science (IISc), National Centre for Biological Sciences (NCBS), and Tata Institute for Genetics and Society (TIGS)	2-3 September 2026 Bengaluru	https://genomicsindia.co.in/ https://tigs.res.in/genomics-india-conference-2026/
Dryland Congress 2026: Transforming Dryland Agriculture through South–South Cooperation,	The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)	10-12 September 2026 New Delhi	https://drylandcongress.icrisat.org/
National Symposium on Harnessing PGR of Peninsular India (NSPPI)	Trust for Advancement of Agricultural Sciences (TAAS), with the Indian Society of Plant Genetic Resources (ISPGR) and ICAR-Indian Institute of Horticultural Research (IIHR)	17-19 September 2026 Bengaluru	https://www.taas.in/ForthcomingEvents.aspx?id=116
Hands-on Training Programme on Next Generation Sequencing Data Analysis - 2026	Tamil Nadu Agricultural University (TNAU)	22-25 September 2026 Coimbatore	https://tnau.ac.in/news-2/ https://tnau.ac.in/site/cpmb/next-generation-sequencing-data-analysis-2026/
Training Course on Biotechnology Innovation and Biosecurity	The International Centre for Genetic Engineering and Biotechnology (ICGEB) and the Biological Weapons Convention Implementation Support Unit	12-16 October 2026 New Delhi	https://www.icgeb.org/meeting-and-courses/
1st International Maize Conference 2026 – Next-Generation Maize: Security Pathways for 4F with Environmental Sustainability	Maize Technologists Association of India (MTAI), Indian Council of Agricultural Research (ICAR), Professor Jayashankar Telangana Agricultural University (PJTAU), ICAR-Indian Institute of Maize Research (ICAR-IIMR), and International Maize and Wheat Improvement Center (CIMMYT)	26-28 October 2026 Hyderabad	https://docs.google.com/forms/d/e/1FAIpQLSfslHiMhcgrPdo5a2TFRnPIBfHxhAZ8K9u0oJlItjYN4T1dcA/viewform
Hands-on Training on Molecular Breeding for Crop Improvement - 2026	Tamil Nadu Agricultural University (TNAU)	28-29 October 2026 Coimbatore	https://tnau.ac.in/news-2/ https://tnau.ac.in/site/cpmb/hands-on-training-on-molecular-breeding-for-crop-improvement-2026/
4th International Weed Conference (IWC)	Indian Society of Weed Science, Punjab Agricultural University, ICAR–Directorate of Weed Research, Indian Council of Agricultural Research (ICAR)	18-21 November 2026 Ludhiana	https://pau.edu/index.php?_act=manageBanner&DO=viewUcEventsDetail&intID=7268

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CALENDAR OF EVENTS

3rd International Symposium of ISCAR on Climate Smart, Digital and Green Technologies for Transforming Coastal and Allied Agro-Ecosystems	Indian Society of Coastal Agricultural Research (ISCAR), Dr. B.S. Kondal Krishi Vidyapeeth, Dapoli Chapter of the Indian Society of Coastal Agricultural Research, and the ICAR-Central Soil Salinity Research Institute	19-22 November 2026 Sindhudurg	https://www.dbskkv.org/
Indian Seed Congress 2027	National Seed Association of India	3-5 February 2027 Hyderabad	https://isc.nsai.co.in/
INTERNATIONAL			
Twenty-eighth Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)	CBD Secretariat	27 July-1 August 2026 Nairobi, Kenya	https://www.cbd.int/meetings?thm=CPB
9th Asian Short Course on Agribiotechnology, Biosafety Regulation, and Communication (ASCA2026)	International Service for the Acquisition of Agri-biotech Applications (ISAAA), Inc.	1-4 September 2026 Selangor, Malaysia	https://www.isaaa.org/asca/2026/
Biosafety Clearing-House and Risk Assessment Training Workshop	CBD Secretariat	17-18 October 2026 Yerevan, Armenia	https://www.cbd.int/meetings?thm=CPB
Twelfth Meeting of the Conference of the Parties serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety	CBD Secretariat	19-30 October 2026 Yerevan, Armenia	https://www.cbd.int/meetings?thm=CPB
Asian Seed Congress 2026	Asia and Pacific Seed Association (APSA)	1-5 December 2026 Antalya, Türkiye	https://apsaseed.org/asian-seed-congress/
3rd Global Congress on New and Emerging Genetic Biocontrol Technologies on New and Emerging Genetic Biocontrol Technologies	African Genetic Biocontrol Consortium	15-18 March 2027 Nairobi, Kenya	https://conference2027.genbioconsortium.africa/

SOUTH ASIA BIOSAFETY PROGRAM

The South Asia Biosafety Program (SABP) is an international development program implemented in India and Bangladesh by the Agriculture & Food Systems Institute (AFSI). 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.

Agriculture & Food Systems Institute

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