



Monthly Bulletin
on **Genetic Engineering**
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GE National News

1. February to Reveal the Answers

http://www.downtoearth.org.in/full6.asp?foldername=20091115&filename=news&sid=1&page=2&sec_id=4
<http://indiatoday.intoday.in/site/Story/67422/GM+food:+How+safe+is+it.html?complete=1>

Bt brinjal is a step away from becoming India's first genetically modified food crop. Whether it will enter our kitchens, now depends on the Union environment ministry.

On October 14, the Genetic Engineering Approval Committee (GEAC, the clearing house for all genetically modified crops in India) gave it environmental clearance. The final decision from the environment ministry is expected in February 2010.

The reports that paved the way for the environmental clearance have been put up on the ministry's website, and would be open to public comment till December 31, 2009

Jairam Ramesh, minister of state for environment and forests, at a public meeting in June had said: "GM food is not okay." If he overrules GEAC's decision, nothing much changes. If he does not, it might raise hopes for 56 other GM crops, including okra, rice, mustard, cauliflower, tomato, which are in various stages of trial in the country.

The GM crops that are being tested in India for release

CAULIFLOWER: Sungro Seeds and Nunhems India.

RICE: Bayer Bioscience, Avesthagen, Mahyco and Metahelix Life Science.

TOMATO: Avesthagen, IARI and Mahyco.

GROUNDNUT: ICRISAT

CABBAGE: Nunhems

POTATO: Central Potato Research Institute

CORN: Monsanto, Pioneer Overseas and Dow Agrosiences

SORGHUM: National Research Centre for Sorghum

OKRA: Mahyco

BRINJAL: Mahyco, Bejo Sheetal Seeds, Sungro Seeds, University of Agricultural Sciences and the Tamil Nadu Agricultural Univ.

MUSTARD: Delhi University

2. Why the US is So Keen to Sell Bt Brinjal to India!

<http://business.rediff.com/column/2009/nov/19/why-the-us-is-so-keen-to-sell-bt-brinjal-to-india.htm>

The conversion of Indian farmers from traditional varieties and public hybrids to commercial hybrids and GM seeds could create a market larger than China, notes Bhavdeep Kang

A fortnight ago, the Bharatiya Janata Party headquarters in Delhi received a visit from a representative of a US-based multinational seed subsidiary. His mission: To convince party opinion-makers that Bt brinjal was as swadeshi as baingan ka bharta and should therefore receive their endorsement.

That American agri-companies have intensified lobbying with Indian political parties is not surprising, for two reasons. First, the Indian government has yet to greenlight the commercialisation of Bt brinjal — crucial for the future of these 'Bt brand' companies — even after a thumbs up from the Genetic Engineering Approval Committee (GEAC).

Second, the winter session of Parliament is to take up two crucial pieces of legislation: The Seed Bill and the National Biotechnology Regulatory Authority Bill. Both will profoundly impact the agri-business environment in India for agri-MNCs, by facilitating market access.

3. Who owns the eggplant?

<http://www.business-standard.com/india/news/latha-jishnu-who-ownseggplant/379041/>

Indians call it the brinjal. Other countries know it as the eggplant or aubergine. It is widely used the world over and every cuisine from the Chinese to the African has an encyclopaedia of recipes that establishes its popularity as a vegetable of daily use. And no vegetable has hogged the headlines as much as the brinjal in recent years — ever since Mahyco, the Indian partner of the biotech giant Monsanto, began its experiments to turn this commonly used vegetable into the genetically modified Bt brinjal. In recent months, it has seldom been out of the news in this country because of the controversy surrounding questionable procedures for testing and approval, and a high-profile case in the Supreme Court.

Almost forgotten in this tumult is the work of several public institutions, primarily the Tamil Nadu Agricultural University (TNAU) in Coimbatore and the University of Agricultural Sciences (UAS), Dharwad, in genetically modifying the open pollinated varieties (OPV) of brinjal whereas Mahyco is focused on doing it with hybrids. Of course, both institutions have been working with Mahyco on the project in what is described as a public private partnership (PPP), spearheaded by Cornell University of the US as the ABSPII project. Funding for the project comes from the Ford Foundation and USAID.

A copy of the Material Transfer Agreement signed between TNAU and Monsanto in March 2005 reveals some interesting facts. The university says it has supplied to Mahyco “eggplant germplasm developed by, owned, controlled and/or licensed-in by TNAU”. But can the university claim ownership of the

original germplasm which would have come from the farming community? Was their permission sought and granted when such an agreement was being drawn up? And would the benefits, if any, be shared with this community when commercialisation takes place?

.But the question of who owns the products is as important as the question of who owns the germplasm. We are waiting for TNAU to clear the air.

4. Biocon Initiative to Con Consumers on GM Food!

Bhaskar Goswami
d-sector, 18 Nov 2009
<http://www.d-sector.org/article-det.asp?id=611>

Amidst increasing discomfort among people about long term health and environment impact of GM food, the biotech industry has now resorted to launch its own ‘technology ambassadors’ to deceive the unsuspecting consumers.

After scientists and politicians, it is now the turn of biotech pharmaceutical industry to stand up in defence of genetically modified (GM) crops and foods. Kiran Mazumdar-Shaw, Chairman and Managing Director of Biocon, is the latest to board the bandwagon. In an interview to the Bangalore Mirror (October 20, 2009), she has offered a six-course feast on how the pro-biotech propaganda works at its best - a bundle of unscientific assertions.

Donning the cap of a scaremongering activist, Mazumdar-Shaw raises the bogey of doubling agriculture production to meet the food requirements of the nation by 2050. She believes that increasing food production is THE problem and not crop management. As a way out, she asserts that production can be increased through the application of

GM technologies. Further, pest-resistant GM crops will reduce the application of pesticide and thereby would be less stressful on the ecosystem.

5. Udipi Brinjal in Trouble!

<http://timesofindia.indiatimes.com/city/bangalore/Udipi-brinjal-up-for-GI-status/articleshow/5341288.cms>

BANGALORE: Is the humble Udipi gulla (a brinjal variety) going to bask in the same fame as Nagpur oranges or Darjeeling tea? What makes these goods famous is their place of origin and unique taste.

The horticulture department will apply for the GI (Geographic Indication) status of Mattu gulla or Udipi gulla brinjal, a variety that originated in Dakshina Kannada and is grown only in that region. Strangely, it happens to be one of the six varieties that has been genetically modified by inserting the Bt gene, at the yards of the University of Agricultural Sciences (UAS), Dharwad.

H M Krishnamurthy, deputy director, horticulture department, said that any introduction of high-yielding varieties is a threat to local crops as farmers prefer cultivating only those varieties and ignore local bio-diversity. "Any high-yielding hybrid variety, not just Bt, is a threat to local varieties. We are not sure about the contamination problem and we'll look into this issue of cross-pollination from Bt brinjals to original natural brinjals, before submitting our opinion to the Centre."

However, associate professor, department of biotechnology, UAS, Dharwad, Dr B Fakruddin said six local varieties, including the Udipi gulla, Manjuri gota, Malapur local — which are widely eaten by people in North Karnataka, South Maharashtra and Goa — have already been modified with the Bt gene. The seeds will be offered to farmers as soon as the Centre gives the go-ahead for commercialization. For additional information on Bt brinjal, visit the following links:

- <http://ibnlive.in.com/videos/106477/bt-brinjal-tests-inadequate-how-safe-is-it.html>
<http://bit.ly/6z1Wca>
- <http://ibnlive.in.com/news/controversy-continues-over-bt-brinjal-approval/106190-3.html>

<http://ibnlive.in.com/videos/106477/bt-brinjal-tests-inadequate-how-safe-is-it.html>
<http://bit.ly/6z1Wca>

6. Organic Farmers to Mobilise Opinion against Bt Brinjal!

BS Reporter / Chennai/ Mysore November 04, 2009, 0:13 IST

<http://www.business-standard.com/india/news/organic-farmers-to-mobilise-opinion-against-bt-brinjal/375208/>

Organic farmers from the Mysore region have launched a programme to create public awareness on the harmful effects of the bio-tech food and vegetables and mobilise their voice against the introduction of Bt brinjal into the market. "We plan to distribute handbills and pamphlets warning farmers and the general public of risks to come from genetically-modified organisms in our food," State Organic Farming Mission member Vivek Cariappa said here in Mysore.

7. Protests Take On Patriotic Flavour!

http://epaper.hindustantimes.com/artMailDisp.aspx?article=10_11_2009_193_015&typ=1&pub=722

9th October 2009

Ludhiana, November 9th, 2009: It felt like the beginning of a zealous freedom movement — hundreds of eminent citizens and activists of Punjab assembled in Ludhiana today to press the Punjab state government to ban Bt Brinjal in the state, following the decision of other state governments to do so. Adding patriotic flavour to the protest, songs of freedom struggle were

made into theme songs. Large number of consumers, farmers, doctors and students, including women and children, with banners and placards denouncing GM crops and foods gathered under the aegis of 'Alliance for GM Free and Safe Food Punjab' and demanded an immediate ban on the release of Bt Brinjal.

Led by Prof Jagmohan Singh, nephew of Shaheed Bhagat Singh, Bharat Bhushan Thapar, the grandson of Shaheed Sukhdev and Dr L S Chawla, former Vice Chancellor of Baba Farid University of Health Sciences and National President of Doctors for Peace & Development, a large number of protesters took an oath to start another independence movement against colonization of food by MNCs under the guise of GM food. Beginning from Shaheed Memorial at Jagroan Bridge, a Mashaal March went up to Sarabha Nagar Market where the rally was converted into a candlelight vigil.

8. Soil Degrades in Wardha!

http://www.dnaindia.com/mumbai/report_soil-in-wardha-district-deficient-in-18-micronutrients-study_1320504

Mumbai: From a corner of his farm in Jhamkola, Daulat Mahure, 45, could see what Laxman Chelpelwar, 55, must have

seen on his own field, some miles away in Mukutban village: stunted and wilting cotton plants, leaves red as dried blood, and hardly any cotton bolls. The two farmers were from South Yavatmal villages in the Painganga river basin along the Andhra border.

On November 16, Chelpelwar went out, apparently to inspect what must have looked to him a forlorn six-acre crop-less farm. According to his wife Pochubai, he returned home four hours later, and lay down on his bed without uttering a word. Minutes later he began to convulse violently.

"I was alone, I was frightened, and cried for help," she remembers. By the time her sons and some neighbours arrived, it was over. The post-mortem report revealed that Chelpelwar had consumed Endosulfan, a pesticide.

Mahure's death left a trail of unanswered questions. The answers, like in Chelpelwar's case, lie buried in his seven-acre field where the cotton plants are drooping, and many are yet to find roots. The soil, says his farmer friend Datta Upre, has nothing in it to feed the plant. Scientists say that the reasons swirl around Bt boom!

GE Global

9. Zero Tolerance for GM Foods in Europe!

<http://www.thehindubusinessline.com/2009/11/02/stories/2009110250300900.htm>

Food is to European culture what free speech is to American culture. There may not always be a good scientific reason for concern, but to consider eating something that has resulted from some laboratory manoeuvring is felt by many Europeans as a kind of refutation of the true self.

Whether judiciously or not, most Europeans are frightened to death of genetically modified food. And, this is not entirely a matter of

Europeans' falling victim to protectionist propaganda or frenzy. Trying to force genetically modified food down European throats is the surest way to guarantee that they swallow neither the potatoes nor a lot of the tactics to dump GM foods.

More than ever today, Europeans are talking about where their food comes from. Food scares push people towards farmers' markets and more home-cooked fare made with fresh ingredients.

The Atharva Veda 12:1:62, says
O Mother Earth,
Let thy bosom be free
From sickness and decay

May we through long life
 Be active and vigilant
 And serve thee with devotion
 In most of Europe, this Atharva Veda concept of manipulation-free, local-food movement has been gaining momentum in recent years. For Europeans, genetic engineering of plant life is 'sinful' Europeans believe that the science of genetic engineering is unpredictable and that this 'Golden Goose' of industry is laying some stale, mouldy, rotten eggs.

10. Turkey Bans Imports of Biotech Products!

<http://www.wisconsinagconnection.com/story-national.php?id=2256&yr=2009>

Turkey, the 27th largest export market for all U.S. goods, issued a new regulation placing additional requirements on all food and feed products containing genetically enhanced components. This new regulation essentially came without warning, according to U.S. Grains Council Regional Director in the Middle East and Subcontinent Joe O'Brien.

"This ban came at us pretty much out of the blue," he said. "This regulation impacts everything from a bag of potato chips to grains and co-products."

11. Biotech crops cause big jump in pesticide use: report

<http://www.reuters.com/article/environment/News/id USTRE5AG0QY20091117>

KANSAS CITY - The rapid adoption by U.S. farmers of genetically engineered corn, soybeans and cotton has promoted increased use of pesticides, an epidemic of herbicide-resistant weeds and more chemical residues in foods, according to a report issued Tuesday by health and environmental protection groups.

The groups said research showed that herbicide use grew by 383 million pounds from 1996 to 2008, with 46 percent of the total increase occurring in 2007 and 2008.

The report was released by nonprofits The Organic Center (TOC), the Union for Concerned Scientists (UCS) and the Center for Food Safety (CFS).

12. Strengthen GMO detection capacity, SADC urged

http://greenbio.checkbiotech.org/news/strengthen_gmo_detection_capacity_sadc_urged

SADC (Southern African Development Community) must support and strengthen genetically modified organism detection laboratories to curb the influx of undesirable GMO products and enhance the capacity of the region to verify the GM content of food imports and exports, scientists said yesterday.

Top scientific experts from nine SADC countries said this at the start of a three-day workshop titled: 'GMO Detection: Current Capacities, Needs and Gaps in Southern Africa.'

"At the SADC regional level such competencies are essential to deter any unjustified inflows and exports of GMOs that are deemed undesirable for any use," said Mr Andrew Mushita, the board chairperson of the Regional Agricultural and Environmental Initiatives Network.

Prof Chris Viljoen of the University of Free State said the capacity of the SADC region to detect GMO was still very weak and governments must move with speed to support GMO detection laboratories within the region.

“We need to develop our own mechanisms to validate GMO detection methods. Africa must not be a follower but also become a leader in GMO detection,” said Prof Viljoen.

In the SADC region, only South Africa has commercialised the production of GMO crops. Scientists say there is a growing influx of GMO products in the region from South Africa and industrialised nations such as the United States, Canada and other western countries which often donate food aid to drought prone parts of the region.

Participants were drawn from Botswana, Malawi, Mozambique, Namibia, Swaziland, Tanzania, South Africa, Zambia and Zimbabwe.

13. Science Favours ‘Emotional’ GM Opponents

Geoffrey Lean

Daily Telegraph, November 26 2009

<http://blogs.telegraph.co.uk/news/geoffreylean/100018049/science-favours-emotional-gm-opponents/>

Trust the Food Standards Agency. Charged with conducting a national debate on GM food and crops, it starts out by denigrating opponents to them as governed by emotion and ideology rather than reason. So the official line that the exercise is about promoting a balanced dialogue – rather than, say, using it as a way to persuade a reluctant public to embrace the stuff – is blown from the very beginning.

It is true that emotion and ideology do guide some opponents – but they are exploited just as much by supporters of the technology. Many exhibit a truly ideological intolerance of anyone who disagrees with them. And what else but an appeal to emotion is the constantly repeated claim that GM is needed to feed the world, when the world’s biggest study into the issue – endorsed by many governments including our own - concluded that it is not?

In fact the cold, unemotional science favours the protesters, at least over the environmental effects. A painstaking government study, conducted through real field trials over several years found that growing GM crops was more damaging to wildlife than conventional agriculture, even though it was widely expected (some would say was designed to) exonerate them. And it is well established that genes escaping from them will contaminate other crops and plants, creating superweeds. The evidence on possible effects on health is not clear either way; shamefully very few good, independent and peer-reviewed studies have been carried out.

At least the Food Standards Agency is running true to form. Four and a half years ago its own performance review called on it to review its policies on GM and organic agriculture saying that the “vast majority” of its “stakeholders” believed it had “deviated from its normal stance of making statements based solely on scientific evidence, to giving the impression of speaking against organic food and for GM food”. But it has carried on regardless, in defiance of its supposed role as an impartial, unideological arbiter.

Research & Publications

14. Pesticides and GM Crops: A Study

Author(s): Charles Benbrook, Ph.D. Chief Scientist, The Organic Center

GE crops are pushing pesticide use upward at a rapidly accelerating pace. In 2008, GE crop acres required over 26% more pounds of pesticides per acre than acres planted to conventional varieties. The report projects that this trend will continue as a result of the rapid spread of glyphosate-resistant weeds.

The full report is 69 pages, and is accessible below. The Executive Summary is posted separately (15 pages). The Supplemental Tables listed in the report's Table of Contents are also posted below.

http://www.organic-center.org/reportfiles/EXSUM_13Years20091116.pdf

“Executive Summary” (1.44 MBs, 15 pages)

“Impacts of Genetically Engineered Crops on Pesticide Use: The First Thirteen Years” (3.68 MBs, 69 pages)

<http://www.organic-center.org/reportfiles/13Years20091116.pdf>

Supplemental Tables

<http://www.organic-center.org/reportfiles/SupplementalTablesV2.pdf>

This monthly bulletin is brought out by South Against Genetic Engineering (SAGE), a coalition of civil society activists, farmers, scientists, academicians, and consumer groups of four Southern States of India, viz., Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. SAGE has been waging a concerted battle against genetic engineering through a series of activities that involve public protests, media actions, seminars, consultations and publication of a series of educational materials.