



MONTHLY BULLETIN
ON GENETIC ENGINEERING
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THE BIG STORY

1. India not enforcing safety norms for GM crops: UN study

Sydney - India faces a huge risk because safety norms on genetically modified crops are not being enforced, says a UN study, adding that it also makes the country vulnerable to bioterrorism attacks. The study's Melbourne-based lead author Sam Johnston told IANS from Bonn: "India still has a huge problem of biosafety enforcement. Many farmers are using genetically modified crops without government approval. For example, it was recently reported in The Hindu Business Line that 28 percent of the area in Gujarat was planted with illegal GM crops."

While India has been trying to live up to its international obligations laid out in the Cartagena Protocol on Biosafety (CPB) seriously, it does face big implementation problems, risking biosecurity, the study warns.

The study was released in Bonn Tuesday night during the ongoing summit of the UN Framework Convention on Biodiversity.

As many as 100 developing countries are unprepared to effectively manage and monitor the use of modern biotechnologies, exposing the world community to serious biosafety threats, cautions the two-year study of internationally funded training programmes in biotechnology and biosafety.

The study also warns that the lack of an effective biosafety regime undermines the potential for developing countries to consider the role of biotechnology in critical areas such as addressing climate change.

Citing the lack of technical, policy and enforcement capacities in developing countries as "a potentially contributing factor to the spread of bioterrorism" - the deliberate release of naturally-occurring or human-modified bacteria, viruses, toxins or other biological agents -- Johnston said: "If you don't have the ability to monitor technology, the technology can be used for bioterrorism as you are not bio-secure".

"Just rolling out the technology is not the answer as an enormous number of people are resistant to it. In the absence of a biosafety mechanism, people are justified in worrying about the impacts of genetically modified technologies," Johnston said.

Over the last 15 years nearly 5,000 biotech companies have been established worldwide, employing 200,000 people with an investment of \$63 billion in 2005, out of which some \$20 billion was spent on research and development.

"Food security is an enduring issue. Without an effective biosafety regime and with increasing use of genetically-modified crops in many developing countries, future trade bans and disruptions are inevitable. "There are many instances when export crops have been contaminated by genetically modified crops when they are not meant to be. For example, recently Japan has banned rice coming from the US and China," Johnston told IANS.

The report by the Yokohama-based United Nations University Institute of Advanced Studies (UNIAS) states that "there is no effective international system of biosafety at the moment" because of widespread training and management deficiencies in most countries of Africa, Central Asia, Oceania and the Caribbean.

The study also highlights the meager resources available, which are being further slashed, from developed countries for biosafety capacity building in developing countries.

In the past 15 years, only an estimated \$135 million have been invested globally by public and private sources from the developed world in capacity building in developing countries.

The findings raise fundamental questions about “the extent to which capacity deficits are undermining the promise that advances in biotechnology would directly address the needs of the poor,” said UNU-IAS Director A.H. Zakri in a statement.

The use of biotechnology in agriculture and other sectors will certainly increase. There is a global will towards biosafety measures to complement the development of biotechnology, which is manifested in widespread ratification of the CPB which came into force nearly five years ago on Sep 11, 2003.

However, the study emphasises that consequences of dysfunctional biosafety regimes need further examination

2. a. Lawyers promise to unite against G M Crops

Chennai, June 15: A legal luminary has warned that genetically modified food would place a big threat to the Indian Agriculture. Speaking at the Chennai workshop on *Genetic Engineering in Agriculture and the Indian Legal Scenario* Justice Ramasubramanian of the Chennai High Court also compared the increasing dominance of Indian seed market by the multinational biotech companies to the invasion of India by East India Company and the resultant loss of India’s independences for several centuries and asked the legal fraternity to gear up to fight this dangerous scenario.

Justice Ramasubramanian was addressing the workshop organized jointly by the *Lawyers for Human Rights and Environmental Justice, Chennai, South Against Genetic Engineering and the Deccan Development Society, Hyderabad*.

Dr Nammalvar, President, Tamilnadu Natural Farming Association, emphasized the role of organic farming, and said that soil fertility had been going down because of unhealthy farm practices. He further said that several bird species were on their way out because of GM contamination. He pleaded for urgent initiatives to safeguard our food security.

Ms. Shalini Bhutani from Grain, informed the audience of the prevailing laws and their implications for agriculture. She also spoke about the different treaties, decrees, and the PILs relevant to GM products. Beginning 1999, she listed the milestones marking the development of agricultural policy in India:

- **Geographical Indications of Goods Act, 1999**
- **National Agriculture Policy, 2000**
- **PVP & Farmers’ Rights Act, 2001**
- **National Seeds Policy, 2002**
- **Seed Bill, 2004**
- **National Biotech Policy, 2007**
- **Draft NBRA Bill, 2008**

Mr. P.V.Satheesh, Convener, SAGE, traced a series of international agreements and their impact on the national legal scenario in India vis a vis Genetic Engineering in agriculture. He pointed to the National Biotechnology Regulatory Bill being drafted and described it as the most dangerous for the Indian food and farming futures. He requested the legal community to get ready to offer all available legal fights to nullify this Bill.

Mr. Vetri selvan from Lawyers for Human Rights & Environmental Justice, who spoke about Intellectual Property Rights promised that the legal fraternity would be at the forefront of this historic fight. .

2 b. Doctors express serious concern about GMs impact on health

Serious concern about the impact of the genetically engineered foods on human health was expressed by senior medical practitioners of Tamil Nadu in a workshop called **“Genetically Modified Seeds and Foods- An Achievement or a Threat?”** held at Madurai, Tamil Nadu on June 16, 2008

In a scathing attack on the lackadaisical attitude of the government on the issue of genetically engineered foods, Dr Deivanayagam, a Senior Chest Physician and Advisor- Scientific Committee, to the Health Ministry of the Government of India, described the health hazards of the GM products like rBGH, L-tryptophan and how they affect the consumers' health.

The workshop was organized by the Indian Medical Association, Madurai in collaboration with the Tamilnadu chapter of South Against Genetic Engineering [SAGE]. SAGE has been involved in involving a cross section of the society to debate the negative impacts of Genetic Engineering in agriculture. SAGE had earlier organized workshops for local governance bodies (panchayats), political parties, consumers and academicians.

Dr Deivanayagam's warning was amplified by Dr. Natarajan (General Physician) and Dr. Soundarpandian (Senior nephrologist) who discussed multiple aspects of Genetically Modified Crops and their hidden health hazards.

Dr Nammalvar, the President of the Tamilnadu Organic Agriculture Movement, while inaugurating the workshop, spoke about the implications of the Genetically Modified Crops in India such as emergence of the resistance to the pests, higher sucking pest incidence, skin allergies etc ,and urged the doctors to keep a watch on the skin allergies and their linkage with working in GM cotton fields.

Mr P V Satheesh, convener of SAGE explained the role of biodiversity in agriculture which hugely contributes to the health and nutritional well being of the food consumers. The absence of such diversity on agriculture fields would alarmingly diminish the availability of nutrition for people in general and the poor in particular, he warned.

Dr Vijayan, Chairman of the Kerala Biodiversity Board explained the impact of genetic engineering on agro biodiversity and as a consequence the deleterious impact on the health and well being of the consumers. He explained GM cotton's poor performance in India quoting various studies and debunked the claim of the biotech industry that Bt Cotton was very successful.

Ms Usha of TANAL explained the regulatory aspects of the GM crops to the Doctors.

3. Dr. Bhargava's letter exposes GEAC's irregularities

Last month's SAGE Bulletin carried a clipping from 'Times of India'. Here is the full text of the letter

May 14 2008

Dr R Warriar
Director & Member Secretary GEAC
Ministry of Environment and Forests
Paryavaran Bhavan
CGO Complex, Lodi Road
New Delhi 110 003

Dear Dr Warriar,

1. Thank you very much for your letter no. 13/07/2002-CS-II(GEAC) of the 1st May and its enclosures. I am most appreciative of your efficiency and concern.

2. As regards the three documents you sent to me regarding the mortality of sheep in certain districts of Andhra Pradesh, may I make the following comments:

In item 4.1.6 of the minutes of the 83rd meeting of GEAC held on 2.4.08 you had mentioned: "that the GEAC had given an opportunity to NGOs to present their views/evidence regarding sheep death in Andhra Pradesh. The matter has also been examined by the State Government and report received from Directorate of Animal Husbandry, Hyderabad, Indian Veterinary Research Institute, Izatnagar, U.P indicate that the sheep deaths might be due to high content of Nitrates/Nitrites, residues of hydrocyanide (HCN) and organophosphates which are common constituents of pesticides used during cotton cultivation and not that of Bt toxin. It was further informed that data on toxicity of Bt protein to higher mammals is extensively available as Bt cotton was released globally about a decade ago. Further, prior to release of Bt cotton in India a battery of studies to assess the safety of Bt toxin to the environment and animals have been conducted."

I had requested for a copy of the minutes of the meeting with the NGOs, which I have not yet received.) The three documents you sent, contradict the above statement unequivocally. For example, the letter from the Department of Animal Husbandry, Government of Andhra Pradesh, dated 9th May 2007, says "The gathering observed that the biosafety studies were not taken up in sheep and also trials did not include continuous grazing / feeding of complete Bt cotton plants to animals. It was opined that biosafety studies should be on applied aspects like continuous grazing of animals on harvested or intact Bt cotton plants and the quantitative analysis of Bt protein and Gossypol in different stages i.e. even after harvesting." The above letter also says that, in 2007, the samples were "negative for HCN, Nitrates, Nitrites, Alkaloids and Glycoside". The letter further adds that "the department has issued guidelines to the staff to create awareness among the shepherds and to advise them not to graze their animals in harvested Bt cotton fields till the definite cause is established", to prevent "economic loss to farmers" that occurred in 2007, apparently on account of Bt cotton. The Joint Director of IVRI, Izatnagar, also says in his letter of 18th June 2007 to you, "Bt Cotton samples tested in the Toxicology Laboratory of this Centre, showed absence of HCN, Nitrate/Nitrite, Alkaloids and Glycosides". In the third letter you sent, the Associate Dean of S V University says, "The biosafety studies on grazing Bt cotton

crop by sheep are lacking". In fact, the three letters taken together, strongly suggest the possibility (even the probability) of the death of sheep being due to Bt cotton.

They also underscore the fact that no serious studies to rule this out have been done so far. This would be a major argument to suspend all cultivation of Bt Cotton until we have definitive data on the toxicity of Bt plants to animals on the field. Incidentally, contrary to what has been stated in the minutes of the 83rd meeting, HCN is not a "common constituent" of any pesticide.

3. As regards the document, "Assessment of in vitro digestibility of CP4EPSPS (protein)", firstly the study has been done by Monsanto/Mahyco which is an interested party. It has not been confirmed by any independent investigation. In fact, in footnote 2, it is stated that "this article must, therefore, be hereby marked "advertisement". I have also noted that there was a nine-and-a-half months delay between submission of the manuscript and its acceptance by the Journal of Nutrition which is one of the best-known journals in the field. This clearly indicates that there were, perhaps, notable comments from the referees. The document, therefore, has no value. I am also intrigued by the fact that this paper which is in the public domain has been marked "confidential".

4. As regards the document you sent on "Bioinformatics evaluation of CP4EPSPS protein", the main technical problem with the study is that there could have been other changes in the protein make-up of the organism after genetic engineering, generating new allergens! This can only be found out by proteomics analysis and cataloguing of all qualitative changes in the protein profile after genetic engineering of the organism. It is also noteworthy that, according to Monsanto's own statement, "This project does not meet the US EPA Good Laboratory Practice requirements". Further, it is stated very clearly by Monsanto that "no claim of confidentiality is made for any information contained in this study". Why is it then marked confidential? It is also not clear whether the investigators ensured that the sequence of the protein as produced in the plant was identical with the sequence of the normal protein. What has been studied is the normal protein.

5. As regards the detailed information you sent on "Acute oral toxicity study in albino mice" of the CP4EPSPS protein used to confer resistance to weedicide glyphosate, again the entire study has been done by Monsanto/Mahyco and has not been confirmed by anyone else. The samples were not even double blinded. Indeed, how do we know that both the experimental and the control groups did not receive just a placebo? Further, only acute toxicity has been looked at. What about chronic toxicity, as in the case of aflatoxin or many carcinogens? In view of these lacunae, the study is of no value and as good as not having been done.

6. As regards the report you sent on "Bollgard II Roundup Ready Flex Cotton", the pollen flow studies, the seed germination study, and the soil microbial studies have all been done by Monsanto/Mahyco and not confirmed by anyone else. The pollen flow studies actually show pollen flow upto 10 metres. This means that in a two hectare farm, approximately one-third of the land will not be available for plantation. We should remind ourselves that in our country, small and marginal farmers with holdings of two to four hectares and less than two hectares, respectively, represent 84 percent of our farming community. This alone, even on the basis of unconfirmed studies of Mahyco on pollen flow should rule out the use of Bt cotton by small and marginal farmers. In the soil microbial studies, even if we assume that they are reliable (for which there is no evidence whatsoever); it is not enough to have the total number of organisms determined. What about the bacterial profile which is far more important? What about the effect on soil micronutrients? Further, on page 2 of the Executive Summary, it is mentioned that the Bt cotton hybrids under trial have potential for higher seed cotton

yield in comparison to the conventional (non-Bt) hybrids. This is surely a misleading statement, for it is not the production that may be affected by the Bt-gene but the destruction by pests.

I have been appreciative of your putting the minutes of the GEAC meeting on your website and thus in the public domain. It would, therefore, be fair to put the comments you receive on the minutes or on matters arising out of minutes, also in the public domain. The above comments may also be kindly circulated to GEAC members and put up for discussion at the 28th May meeting of the GEAC.

With warm personal regards,

Yours sincerely,

(P M Bhargava)

4. Call for regulatory body to regulate GM Organisms

R. Sairam

Transgenic cotton seeds introduce new disease in soil: expert

MADURAI: A strong regulatory body was needed to control the release of genetically-modified organisms (GMO) and protect the nation's interests from powerful international biotech lobbies, said P.V. Satheesh, Director of Deccan Development Society (DDS), on Monday.

A Hyderabad-based non-governmental organisation, it is working in about 75 villages with women's sangams in Andhra Pradesh and is also conducting research in GMO. Talking to *The Hindu* here, he said that the present regulator, the Genetic Engineering Approval Committee (GEAC), would address the concerns on the impact that genetically-modified foods and genetically-engineered crops would have on the environment as it worked under the Union Ministry of Environment and Forests.

However, the new regulator being proposed — National Biotechnology Regulatory Authority (NBRA) — would be a part of the Centre's Department of Biotechnology that was in favour of introducing these crops.

"If the Department controlling NBRA has already taken a stance, how objective would a regulator be," wondered Mr. Satheesh. He was in the city to take part in a seminar on genetically-modified food and seed organised by the Indian Medical Association and South Against Genetic Engineering.

Root rot disease

He alleged that Bt Cotton seeds sowed in Andhra Pradesh affected the soil and led to a new disease called 'Root rot disease.' When the transgenic cotton seeds were first introduced in 2002, the disease was first found in 2 per cent of the soil and by 2007, it had spread to 40 per cent, infecting soil where normal crops were being grown.

In 2005, around 2,500 sheep died after grazing these crops. However, it was explained away as a coincidence. "We conducted experiments on sheep and found that Bt Cotton caused death in them," he said.

“All these findings had been submitted to the Central Government to consider the implications of GMOs,” said Mr. Satheesh.

Storing these genetically-engineered crops posed health problems as it caused asthma and other breathing problems. Those handling the crops got skin allergies. “The Centre must reconstitute the regulatory body and give equal representation to Government and independent scientists, farmers and the civil society.”

5. GEAC’s poor record of regulation

<http://www.indiatogether.org/2007/aug/agr-geac.htm>

The Genetic Engineering Approval Committee, says Bhaskar Goswami, itself needs to be regulated to ensure it plays a balanced role.

Many GEAC members, who are expected to take objective decisions, are themselves developers of GM crops and members of bodies sponsored by the biotech industry. A media advisory from the Centre for Sustainable Agriculture earlier this year noted many conflicts of interest.

Dr. C D Mayee, co-Chair of the GEAC and the DBT nominee, is also a Board member of ISAAA an international network funded by biotech majors such as Monsanto, Bayer and Dupont. Dr T V Ramanaiah, Ex-Member-Secretary, Review Committee on Genetic Manipulation, had personally approved hundreds of GM crop field trials that have happened in India so far. He has quit his post in the DBT and has joined Pioneer HiBred International as their Biotech Regulatory Affairs Manager.

Dr Deepak Penthal (University of Delhi), Dr Akhilesh Tyagi (UD-South Campus), Dr B M Khadi (CICR), Dr P Anand Kumar (National Research Centre of Plant Biotechnology) and Dr Rakesh Tuli (National Botanical Research Institute) were others identified as holding (or having held) regulatory roles despite a personal interest in the development of GM varieties.

6. Gene Campaign criticises India’s ‘silence’ at global bio-safety meet

<http://www.hindu.com/2008/05/23/stories/2008052362121600.htm>

NEW DELHI: India’s role at the recently held fourth Meeting of Parties at Bonn on the Cartagena Protocol on Bio-safety for developing a global Liability and Redress regime on Genetically Engineered Organisms (GEOs) has been severely criticised by the Gene Campaign which participated in the event.

Suman Sahai of the Gene Campaign, who participated as an “accredited NGO,” was disappointed that India played “no role” at this crucial meeting. She charged India with “falsely” attempting to show at the international meet that it had fully complied with the requirements of the Bio-safety Protocol on compulsory compliance standards for dealing with GEOs such as transgenic plants.

“It is sad India does not go prepared to such crucial negotiations. For a country that has so many aspirations to engage in this technology (genetic engineering), it is scary that it should have such disregard for bio-safety,” she said.

“At the negotiations, there was a heated debate when the developing countries proposed a compulsory liability regime that is legally binding on all countries.. Unfortunately, India was a silent spectator during the entire debate, disappointing many that had hoped to see India in a leadership role

At one point it appeared as though the talks would break down but the Malaysian delegation saved the day and as a compromise it was decided to continue the talks in early 2009.

7. Is India ready for genetically modified food?

<http://www.ibnlive.com/news/is-india-ready-for-genetically-modified-food/65538-19.html>

New Delhi: **Debate over the genetically modified food** has been raised time and again.

The question that surfaces is whether India is ready for genetically modified food in India.

Experts say the systems to monitor and test GM food are grossly inadequate in India. However, if granted approval by the Genetic Engineering Approval Committee, Bt brinjal [eggplant/aubergine] would be the first genetically modified vegetable anywhere in the world.

"India is ignoring the precautionary principle," says activist, Greenpeace, Rajesh Krishnan.

However, these are not the only issues and it is not just activists who are protesting. Dr Pushpa Bhargava, who is a special invitee by the Supreme Court to the GEAC to lend transparency to the functioning, has shot off a stinging letter to the GEAC. The letter says, "There is enormous evidence which calls for a total review of India's experience with Bt cotton."

8. Few checks to prevent entry of GM food

<http://www.hindu.com/2008/05/23/stories/2008052359971300.htm>

CHENNAI: Ports in India face an enormous burden in scientifically analyzing products from countries growing genetically modified crops.

No GM organisms can be imported unless sanctioned by the Genetic Engineering Approval Committee, the nodal agency that functions under the Ministry of Environments and Forests.

An independent German laboratory found Mon 863 (for pest tolerance) and NK603 (for herbicide tolerance) in a sample picked up by Greenpeace from Delhi. The U.S.-based manufacturer PepsiCo says that it does not market the product in India and has not exported it directly.

The supermarket is believed to have acquired it through an independent importer via Mumbai Sources in the Health Ministry said that samples of all food imports are tested for safety. But tests for GM strains are not performed on a regular basis. Not all ports have facilities to detect genetic engineering, Manufacturers, do not test for GM strains because they say it would increase the price of the food items and pass the burden to the consumer.

The Food Safety and Standards Act, 2006, entrusted a regulatory body under the Ministry of Health and Family Welfare with the responsibility for GM foods. The body, known as the Food Safety Standard Authority, together with the scientific panel for genetically modified organisms the Act recommended, has not yet become functional.

9. Andhra Pradesh Govt. may develop Bt Cotton seeds

<http://www.commodityonline.com/news/topstory/newsdetails.php?id=8896>

29-05-08

HYDERABAD: After months of war with the multinational company Monsanto over the Bt Cotton seed prices, the Andhra Pradesh government has decided to find a domestic solution to the problem by developing its own Bt Cottons seeds.

According to officials, the Andhra Pradesh State Seeds Development Corporation Limited (APSDC) has started the initial steps in this regard. The purpose of the move is to provide Bt Cotton seeds to farmers at reasonable prices. On several occasions, the Andhra Pradesh government had in the past crossed swords with Monsanto over the pricing of the Bt Cotton seeds.

The government had restrained the company from increasing the Bt Cotton prices saying that it will affect the cotton farmers in the state. Another purpose of the move is to ensure enough stocks of the seeds when the farmers need it.

The APSDC is in the process of identifying companies which have the seed stock to partner with it. APSDC will buy the parent lines from these companies, which would be raised in lands belonging to individual farmers.

Once the companies are identified, the corporation will conduct field visits around June. The samples would be drawn around January. They would be subjected for trait purity tests and sent for a genetic purity test.

APSDC plans to prepare about 500,000 packets including BG I and BG II varieties in the first year of production. The BG I variety is known to be resistant to bollworm while BG II is claimed to be resistant to spodoptera too.

GM AND HEALTH

10. GM food and feed inherently hazardous to health

<http://www.twinside.org.sg/title2/resurgence/212/cover09.doc>

Here are some highlights from the 'GM Science Exposed' dossier on the hazards of GM food and feed. Dr. Irina Ermakova of the Russian Academy of Sciences showed how GM soya made female rats give birth to severely stunted and abnormal litters, with more than half dying in three weeks, and those remaining are sterile. Hundreds of villagers and Bt cotton handlers in India suffered allergy-like symptoms, thousands of sheep died after grazing on the Bt cotton residues, and animal illnesses and deaths continue to be reported. A

harmless bean protein transferred to pea, when tested on mice, caused severe inflammation in the lungs and provoked generalized food sensitivities. Dozens of villagers in the south of the Philippines fell ill when neighbouring GM maize fields came into flower in 2003, five have died and some remain ill to this day. A dozen cows died having eaten GM maize in Hesse, Germany and more in the herd had to be slaughtered. Different animals and human beings exposed to a variety of transgenic crops with different traits either fall ill or die. The evidence compels us to consider the possibility that the hazards of GMOs may be inherent to the technology, as I suggested more than 10 years ago.

11. GM brinjal can be as toxic as Cholera toxin

<http://www.thehindubusinessline.com/2008/05/22/stories/2008052250440800.htm>

In a Letter to the Editor, Business Line, Mr K. P. Prabhakaran Nair asks the question “are the Indian consumers ready to eat Bt toxin which is as potent as the Cholera toxin in their *Baingan Bharta*?”

This refers to the editorial "Bt brinjal on trial" (Business Line, May 19). There are certain scientific facts concerning the subject, which are mentioned here. There is a Public Interest Litigation on genetically modified (GM) crops currently before the Supreme Court. In September 2006, the former Chief Justice of India, Mr. Sabharwal, passed an order that the entire issue of the GM crops should be examined by "competent, knowledgeable and committed independent scientists".

In response to the above order, a five-member independent expert committee was set up in mid-September 2006. The panel had two leading toxicologists from the National Institute of Nutrition, Hyderabad, an eminent entomologist, the former Director of the Tobacco Research Institute, Rajahmundry, a well-known economist, who was a former Dean, and a renowned plant physiologist. The Chairman himself is an international authority on soils and agronomy.

The task of the independent expert committee was to critically examine the data of the field trials on Bt brinjal conducted by the Indian subsidiary of the MNC involved in the propagation of Bt brinjal. The expert committee found several instances where the bio-safety norms, prescribed by the Department of Biotechnology, were not followed and recommended that the entire question of Bt brinjal should be re-examined.

Data on field trial results were not properly and statistically analysed.

Surprisingly, despite these observations, sporadic trials have been going on in India, in particular in Tamil Nadu. The official report of the committee was submitted to the Supreme Court in mid-October, 2006.

There is no attempt to "torpedo" genuine science. At the same time, one must be very wary when it comes to biotechnology. Whether it be Bt cotton or Bt brinjal, one is playing around with just a single gene.

There is also an enormous lack of knowledge as to what happens in a soil system when a Bt crop is grown.

The comparison between Bt cotton and Bt brinjal is both irrelevant and misconceived. It is well worth remembering that the Bt toxin (originating from the soil-borne bacterium *Bacillus thuringiensis*) is as potent as the cholera toxin.

Would the brinjal-lovers of India, the crop being one of the most popular vegetables in the country, having

originated in the Indian sub continent, risk poisoning the next time they savour the mouth-watering kathirikai poriyal or baingan ki bharta?

12. GM "Miracle": Hype vs Reality.

When the journalist Rikki Stancich asked Monsanto and Bayer to provide documentation to support their claims to drought-resistant crop strains, they failed to provide any supporting documentation. <http://www.ethicalcorp.com/content.asp?ContentID=5684>

As Prof. Tim Flowers of the School of Life Sciences at the University of Sussex has noted, "Biotechnologists have reasons for exaggerating their abilities to manipulate plants." And the reality of GM "tolerant" crops may, in his view and that of many other experts, "still be decades from commercial availability". <http://www.field.org.uk/PDF/IDS%20biotech%20conference%20summary.pdf>

Even a spokesman for Monsanto has admitted that drought-resistant seeds won't be available for developing countries any time soon - for at least eight to 10 years. <http://www.lobbywatch.org/archive2.asp?arcid=6190>

Meanwhile non-GM breakthroughs in this area continue apace and are already heading into farmers' fields.

Flood-tolerant rice which is obtained through cross breeding technique as the G. M technique is complicated http://www.bdafrica.com/index.php?option=com_content&task=view&id=7876&Itemid=5822

"We now have a fairly big programme in India and Bangladesh to multiply the seed," David Mackill, programme leader for rain-fed environments at the International Rice Research Institute (IRRI) in the Philippines, told Reuters yesterday. "It would survive for about two weeks under water."

"The variety that has this gene still performs as well as the original without submergence," said Mackill. "It's like an insurance policy."

The flood-tolerant gene is introduced to existing rice varieties through normal cross-breeding techniques and not via genetic modification.

Mackill said Indonesia was likely to be the first country in Southeast Asia to introduce the flood-tolerant rice and China had also expressed interest in working with it.

"What we would like to do is to transfer the Sub1 gene into a larger number of varieties that would mean the technology would be available to farmers in wider areas."

IRRI, which started a Green Revolution in the 1960s and 1970s with the development of high-yielding rice seeds, is also working on drought-resistant varieties of the grain to deal with a world beset by global warming.

Mackill said it could take up to 5 years before such varieties, which would have similar yield advantages as the flood-tolerant seeds, would be ready for commercial production.

"We are doing a lot of work," he said. "But genetically it's more complicated."

GM news across the world

13. Australian Premier urges halt to GM food approvals

<http://news.smh.com.au/national/premier-urges-halt-to-gm-food-approvals-20080602-2krv.html>

West Australian Premier Alan Carpenter has called for an immediate halt to the approval of all genetically-modified (GM) foods in Australia. Mr. Carpenter also is asking for federal government support to enforce better labelling of foods containing GM ingredients.

He wants Australia's national food regulator, Food Standards Australia New Zealand, to stop approving any more GM foods for human consumption until independent scientific trials prove their safety.

14. Exploring the complex GMO

<http://lakeconews.com/content/view/4284/770/>

"I have not yet seen anyone glow green from eating GM tomatoes from the local supermarket," Supervisor Rob Brown said, responding to a caller on the GMO issue while being interviewed on KPFZ's Future Knowledge 20th evening.

This offhand response toward the end of the interview seems an appropriate representation of the extent of research some politicians, local or otherwise; undertake to make important, public policy decisions ... in the context of a strong antagonism towards anything that does not seem to fit their narrow ideology or interests rather than through actual analysis.

Since we now know that objectivity regarding this topic is lost in at least one corner of the Board of Supervisors chamber, let's restore it here and look at the biotech industry objectively, particularly at some very critical, crucial, undisputable facts.:

When Monsanto and others claimed that their foods were safe, the FDA had no further questions, having being reduced to nothing more than an impotent rubber stamp bureaucracy at the service of dominant corporate interests by the Bush administration.

Of course the FDA decision was an outright lie from the top. The consistent denials and cover-ups about the health risks of GM foods are very similar to what went on with the tobacco and particularly the cigarette industry, as researches by the industry are rigged to guarantee conclusions of safety, the GM industry meticulously designing their so called studies to avoid finding problems.

Most people do not realize that there have not been extensive and independent tests on GM foods.

Most people do not even know what GMO means, yet they ingest an unproven, experimental, highly controversial, untested, revolutionary "Frankenstein" food that could have devastating consequences for their health and particularly that of their children.

Beyond health and environmental concerns, and contrary to industry propaganda, GE crops do not significantly increase yields, but rather force farmers to stop saving their seeds and instead buy toxic chemicals and highly priced patented seeds from biotech companies such as Monsanto, Syngenta, Bayer, Dupont, Dow's and BASF. Once they do, they no longer have a choice, as their fields are contaminated at the DNA level and will remain so forever.

15. French assembly rejects proposal on GM crops

http://www.checkbiotech.org/green_News_Genetics.aspx?infoId=17888

(AFP) - The Government's law proposal on GM crops was rejected by the French Assembly. French PM François Fillon has appointed a commission of deputies and senators to find a consensus and put the proposal back on the table. **Opinion polls show a vast majority of French people are opposed to GM crops because they have not seen enough proof that such crops pose no risk to consumers and the environment.**

16. Small farmers slam 'empty policies' ahead of FAO food summit

AFP, 2 June 2008

http://afp.google.com/article/ALeqM5jFGOdTX-P_10hBLR8SMnZ8Pjpy9Q

ROME - Dozens of farmers' groups kicked off a forum in Rome on Sunday to coincide with the UN food agency's summit on food security with an impassioned plea for an overhaul of world agricultural policies.

"We have empty plates and we have empty policies," said Paul Nicholson of La Via Campesina, an international small farmers' movement.

"Let us protect and defend a farming system that feeds the world and cools the planet," he told a news conference held across the street from the Rome headquarters of the UN Food and Agriculture Organization.

The FAO is holding a summit from Tuesday to Thursday at which world leaders will discuss food security following runaway prices sparking riots across the world.

17. Anti-GM protest in Melbourne

Courtesy: Concerned Consumers Group, 21 May 2008

ANTI-GM protesters marched on the streets of Melbourne, Australia this week to protest about the lack of scientific testing on Genetically Modified food and the non-labeling of GM contaminants.

More than 200 people attended the rally, marching from the State Library representing the font of knowledge to parliament house steps representing the government, voicing their concerns that they want a choice to avoid GM food which would be impossible due to contamination.

18. Top chefs cook up plan to boycott GM dining

The Age, May 24 2008

<http://www.theage.com.au/news/national/top-chefs-cook-up-plan-to-boycott-gm-dining/2008/05/23/1211183108492.html>

THE head chef of one of Melbourne's best-known restaurants has called on consumers to boycott establishments that don't commit to being GM-free.

"I know it sounds scary ... but unless a massive amount of people go against (GM), nothing is going to be done to stop it," Geraud Fabre, head chef of France-Soir restaurant in South Yarra, says. "

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 education.