



Monthly Bulletin
on Genetic Engineering
October 2008

For details:

South Against Genetic Engineering (SAGE)

101, Kishan Residency, Street no: 5, Begumpet, Hyderabad- 500016, A.P.

email: ddshyderabad@gmail.com

net edition: www.ddsindia.com



Contents

National News

1. Charles blames GM crops for farmers' suicides in India
2. Bt Cotton claims more victims in Vidharabha
3. Bt Cotton takes toll of cattle in Orissa
4. Kerala Agriculture University denies pact with Mahyco!
5. Do we need Bt Brinjal?

GE & Health

6. How About Nutritionally Enhanced Plants?
7. Prawns, GM canola and allergies? - MADGE report

GE Threats – Experts Opinion

8. GM seeds pose more problems than natural varieties!
9. GMOs Next Global Lightning Rod Issue!

Rough Weather for GE in its home land (USA)

10. Court upholds ban on GM alfalfa
11. Centre for Food safety response to FDA rules on genetically engineered animals

Concern over GM Crops - Worldwide

12. Genetically modified foods in Japan
13. Peru to be a “genetically modified free country”?
14. Poland’s Environment Ministry prepares bill on GMOs
15. Gulf nations draft new rules for GM foods
16. GM moratorium may be extended in Australia
17. GM food conference criticized by chefs in European Union

National News

1. Charles blames GM crops for farmers' suicides in India

<http://www.independent.co.uk/environment/green-living/charles-i—blame-gm-crops-for-farmers-suicides-951807.html>

GM crop failures have helped to cause a “truly appalling and tragic” number of suicides among poor farmers in India, Prince Charles has alleged in his most outspoken attack on the technology to date.

He called cultivating the modified crops “a global moral question” and “a wrong turning on the route to feeding the world”. **He associated the technology with “commerce without morality” and “science without humanity”.**

His words — in a lecture to a conference in New Delhi, organised by an anti-GM pressure group — are bound to create a row. They come just weeks after he was attacked by the Government for “overstepping the mark” and “ignoring” the needs of the hungry — and by leading scientists for “ranting” and being “shockingly ill-informed” - after warning in August that the technology could become an “environmental disaster”.

The biotech firm Monsanto, said: “Farmer suicides in India began long before the introduction of Bollgard (its GM cotton product) in 2002.”

2. Bt Cotton claims more victims in Vidharabha

Narendra Ch

<http://www.merineews.com/shareArticle.do?detail=Print&articleID=145093#>

19 October 2008, Sunday

THE KILLER Bt.cotton has once gain failed in the Vidarbha region in Maharashtra as 60 per cent of the standing crop which was earlier affected by the mealy bug has now been destroyed by a 'Lalya attack' that suddenly appeared in rain fed areas where standing Bt. cotton crop gets completely damaged.

The helpless farmers vexed with the government's lack of initiative are now threatening to go on a “fast unto death” agitation from October 26 demanding immediate action at least by opening centres for procurement to stop falling prices.

Meanwhile, nine more suicide by farmers has been reported in the last three days. This year the damage is much larger as areas under Bt.cotton cultivation is under more than 12 lakh hectares and losses are to the tune of Rs.2000 crores. All victims of farm suicides belong to backward, dalit and tribal families who were in debt and in acute financial crisis due to sudden crop failure.

Vidarbha Jan Andolan Samiti president, Kishor Tiwari said the government also failed to come to the rescue of the farmers by not providing remunerative price to their remaining crops. According to him, in the last fortnight cotton prices have fallen from Rs.3200 per quintal to Rs.2300 per quintal and local traders have started cotton procurement below the minimum support price, MSP.

He said the farmers are forced to sell cotton at throw-away prices in distress sales as the Maharashtra government failed to start its procurement centres on October 2 as announced earlier. In addition, there is no action at the level of the state run cotton marketing federation to start its centres before Diwali. He said that cotton growers will face huge losses resulting in more suicides in Vidarbha.

Aruna Rodrigues says that this has been the story of west Vidharabha, which has seen the worst suicides of Maharashtra — approx 80% of the whole. Since around 2000, the phenomenon of seed availability orchestrated by the industry and a compliant Regulator is that no non-Bt cotton seeds were available to farmers. Virtually all these farmers who committed suicide also farmed cotton which means they were Bt. cotton farmers. 20% of these suicides are attributable to only Bt cotton since it was virtually their only crop.

The Tata Institute of Social Sciences which was appointed as an expert by the Mumbai High Court (in a hearing of a Writ petition filed before it) has also attested to Bt cotton being a causative factor in farmer suicides due to higher input costs.

3. Bt Cotton takes toll of cattle in Orissa

Ashutosh Mishra

http://www.downtoearth.org.in/full16.asp?foldername=20080915&filename=news&sec_id=4&sid=4

Despite a ban, Bt cotton cultivation is widespread in Orissa

The recent death of 93 goats after grazing near a cotton field in Bolangir, a tribal-dominated district in Orissa, has put the authorities on alert. The field in Kuthurla village, Khaprakhol block, was reportedly under Bt cotton cultivation. The state government discourages cultivation of Bt cotton as a matter of policy.

Following the incident, the police arrested one Shankar Deep from the village for allegedly poisoning the goats by sprinkling organophosphate pesticides, a potent neurotoxin, on the field.

While postmortem findings and lab reports of soil samples are still awaited, activists say the goats died after feeding on Bt cotton leaves. Officials do not rule out the possibility. "It's difficult to identify if the crop is Bt or non-Bt after it grows big.

But the genetically modified (gm) crop is no doubt being cultivated in some parts of the district," says Bolangir District Agriculture Officer Arun Kumar Choudhary. The incident has raised concern over extensive illegal cultivation of Bt cotton in the state.

Almost all companies trading in Bt cotton sell their seeds illegally in Orissa. Farmers in this area are aware that Bt cotton cultivation is illegal in Orissa. But they are left with little choice. Since the state government does not supply them cotton seeds, they have to depend on suppliers from neighbouring cotton-growing states—Andhra Pradesh and Maharashtra. "Of late, suppliers from these states have flooded the market with Bt cotton seeds...There is hardly any supply of non-Bt cotton seeds," says Suresh Kumar Jena, the district agriculture officer of Gunupur. This year, says Jena, about 60 per cent of Rayagada's cotton fields are under Bt cotton cultivation. Though his department has set up special squads to check the cultivation, they plead helplessness. "We can't take action against the farmers since they sow only what they get," says Jena.

Voice of concern

Activists of Living Farms, an organization campaigning for organic farming in the state, during their recent visit to Rayagada found that almost all

companies trading in Bt cotton seeds are illegally selling their seeds in the area. Farmers are extensively using brands such as Tulasi 4, Tulasi 117, Nuziveedu ncs 145, Nuziveedu Mallika (ncs 207), Bayer Surpass sp 504 (Dhanno), nusun Sigma of Vibha Agrotech, Swagath Seeds Brahmadev (nspl -999), Kaveri Bullet (kch -707) Varsha (Akansha- 999) and Ankur-Sita Akka. The activists also heard farm labourers complaining of physical discomforts like itching and rashes while plucking Bt cotton.

They are also concerned because farmers are not adhering to biosafety protocol, which is mandatory for any GM- crop cultivation. "Hardly any field under Bt cotton cultivation has a warning placard. Farmers neither plant non-Bt refugia—a must to prevent resistance among pests—on the field border nor maintain distance between the Bt and non-Bt crops grown in adjacent fields," says Jagannath Chatterjee of Living Farm.

The organization has written to Chief Minister Naveen Patnaik, demanding immediate measures.

4. Kerala Agriculture University denies pact with Mahyco!

http://www.thaindian.com/newsportal/uncategorized/kerala-agriculture-university-denies-pact-with-mahyco_100104245.html

Thrissur, Oct 6 (IANS) The Kerala Agriculture University (KAU) Monday denied reports that it has entered into an agreement with Maharashtra Hybrid Seed Co (Mahyco) to provide it with the germplasm of indigenous rice varieties. KAU director of research, D. Alexander told IANS: "Though the company has approached us for the germplasm, we did not provide it."

A television channel in Kerala reported that the rice research station has entered into an agreement with the Mahyco to supply around 50 varieties of seeds conserved at its Regional Agriculture Research Station at Pattambi near here without the knowledge of the state government. The research centre conserves a large variety of indigenous rice varieties.

The report added that KAU has agreed to make its fields available to experiment the 'terminator seeds' developed from the germplasm provided by the university. The state government has not yet reacted to the media report.

5. Do we need Bt Brinjal?

<http://www.deccanherald.com/Content/Sep232008/editpage2008092291476.asp>

After the rats, goats, sheep and cows, it is now your turn. In a few months from now, if the Genetic Engineering Approval Committee (GEAC) has its way, the first genetically modified food crop — Bt Brinjal — will be on your table.

Whether it is the laboratory rats or the higher mammals, the animals have been more discerning. Probably they have the sixth instinct, which the humans sadly lack. There is otherwise no explanation why the laboratory rats, for instance, should always be spurning the GM foods. And when force-fed, rats have invariably developed tumours and deformed body organs, including kidneys and liver, and have suffered from several serious diseases and ailments.

We have heard repeatedly of the death of sheep and goats when left to graze in the Bt cotton fields. First it was reported from Andhra Pradesh and now newspaper reports point to Orissa. Not much is however public about how the cattle react. Several farmers in Rajasthan, Madhya Pradesh and Haryana have told me that cows avoid the Bt cotton fields when left to openly graze. The Bt gene that has been infused in Bt cotton (or Bt corn on which most of the laboratory rats studies have been conducted) is no different from the same gene drawn from a soil bacterium — scientifically called Bt — that is now being incorporated in Brinjal. This gene releases a toxin within the plant that kills fruit-and-shoot borer insects. The Maharashtra Hybrid Seed Company (Mahyco), which is spearheading research on Bt Brinjal, claims that the genetically-modified Brinjal is safe for human consumption.

So far, you have been made to believe that by proper washing of the Brinjal veggies you could get rid of the harmful pesticide residues. That may not hold true anymore. You will not be able to wash the toxins once the Bt Brinjal arrives in your kitchen. No, I am not talking of the pesticide coating on the outer skin. The toxin will now be within the Bt Brinjal itself.

And if you don't believe me, let us listen to **Prof Dave Schubert of the Salk Institute for Biological Studies in California: "The Bt toxin is 1,000 times more concentrated than in Bt sprays, which do not themselves have a history of safe use."** (See abstract below) In simple words, what Dr Schubert says is that genetically modified Bt plants, and that includes Bt Brinjal, carry a toxin that is a thousand times more potent than what is used to kill insects. Spine chilling, isn't it?

Bt Brinjal is not a spray. It is a transgenic plant. The problem is that once Bt Brinjal enters the market, there is no way you can distinguish it from the normal ones. Your vegetable vendor will never be able to sell you the normal brinjal that you are so used to buying. Moreover, once the genie is out, there is no way to call it back. If ever Bt Brinjal turns out to be a health hazard, like the mad cow disease in the UK, the only way the nation can stop it from being cultivated and eaten, would be to ban its production.

Imagine, banning its cultivation in a country from where it originated. To make matters worse, the GEAC has given permission to conduct multi-location trials on Karnataka's famed traditional Brinjal varieties — Udupi Gulla. Cultivated for its special taste and unique flavour in the Udupi district of Karnataka, these strains are tied in such strong socio-cultural traditions that even today the Gulla Brinjal variety is offered to Lord Krishna on festive paryaya ceremonies.

Tracing the antiquity of the cultivation and use of brinjal in India, Ramesh Bhat of the Centre for Science, Society and Culture, Hyderabad, writes in a detailed paper in the journal *Asian Agri-History* that Gulla varieties (especially Mattu Gulla) are a perfect example of 'plant-god-science' relationship. "The example of Mattu Gulla shows how local farmers can choose a variety that meets their local needs and preferences, and is best suited to their specific local ecosystems. The practices adopted by farmers of Udupi have a scientific basis — both traditional and modern."

Realising the uniqueness of the Mattu Gulla Brinjal, the Karnataka State Department of Horticulture is trying to preserve the genetic wealth by seeking a geographical indication on the Gulla strains. Ironically, the same variety for which GI is being sought by the Karnataka government is now ready for genetic plunder. The GVK University of Agricultural Science and Technology, Bangalore, is trying to introduce a Bt gene into the Gulla strains thereby contaminating the genetic make-up of the traditional variety. The uniqueness of the Gulla varieties, preserved for over four thousand years by local farmers, awaits erosion at the hands of agricultural biotechnologists.

Why worry about this Bt Brinjal, some might say. Isn't it necessary for improving production and productivity, some might argue. First of all, let me assure you that there is no shortage of brinjal. Nor do the Bt Brinjal increases productivity and production. But what Bt Brinjal does for sure is to bring India's first genetically altered food crop onto your dining table. It is time you woke up before it is too late. It is high time you knew what is being served to you at dinner.

GE & HEALTH

6. How About Nutritionally Enhanced Plants?

David R. Schubert

Cellular Neurobiology Laboratory, The Salk Institute for Biological Studies, La Jolla, California
JOURNAL OF MEDICINAL FOOD J Med Food
11 (4) 2008, 000–000

Among the next generation of genetically modified (GM) plants are those that are engineered to produce elevated levels of nutritional molecules such as vitamins, omega-3 fatty acids, and amino acids. Based upon the U.S. current regulatory scheme, the plants and their products may enter our food supply without any required safety testing. The potential risks of this type of GM plant are discussed in the context of human health, and it is argued that there should be very careful safety testing of plants designed to produce biologically active molecules before they are commercially grown and consumed. This will require a mandatory, scientifically rigorous review process.

The author concludes that, (1) Compounds structurally related to a common small molecule can have a lethal effect when present as even a minor contaminant in a food supplement. (2) The GM enhancement of a metabolic pathway by the overexpression of genes for that pathway can have unpredictable consequences in the form of synthesizing a toxin. (3) Finally, in the case of golden rice, it is argued that biologically active compounds derived from aberrant plant carotenoid synthesis could have profound effects on human development. Similar arguments can be made for NEP-derived fatty acids that are directly incorporated into brain lipids and about NEPs overproducing vitamin E. Aberrant fatty acid composition of brain lipids is implicated in Alzheimer's disease, and vitamin E has a role similar to RA in mammalian development. The excess consumption of a nutrient can also have negative effects. For example, a clinical trial with vitamin E supplementation showed that a relatively small dose increased the risk of heart failure, and smokers who supplemented their diet with carotene had an increased risk of lung cancer. Therefore, there is a potential for nutrient toxicity in NEPs because upper tolerable levels of many

nutrients are not well established, and are likely to vary between individuals and lifestyles.

The information presented here shows that not only the potential harm of the product should be considered for risk assessment, but the GM process itself. The data clearly invalidate the argument that "the regulatory trigger for risk assessment should be based upon the physical features of the product rather than the process by which the product was generated." While it is true that traditional breeding methods can give rise to potentially hazardous products, the most recent assessment of GM food safety by the National Research Council stated that GM "has a higher probability of producing unanticipated changes than some genetic modification methods"

7. Prawns, GM canola and allergies? - MADGE report

MADGE has been doing groundbreaking research into GM. Read Madeleine's fantastic expose of how GM food may be causing allergies.

<http://www.madge.org.au/Docs/allergy-report.pdf>

Just a few items she and fellow researcher Rachel have unearthed are:

One study predicts that Monsanto's Roundup Ready canola (GM) could prove allergic to people with sensitivities to red shellfish (prawns, shrimp and lobster). Our food regulator FSANZ does no monitoring of the health effects of GM foods once they are on supermarket shelves. Instead FSANZ expects the companies that developed the GM foods to monitor for adverse effects and inform government regulatory authorities of any issues. Public protest meant UK supermarkets removed most GM food from sale in 1999. The rapid increase in anaphylaxis (severe allergy) in children aged 0-4 stabilised.

Norway has very restrictive policies on GM. The Australian rate of severe reactions to food in 0-4 year olds may be nine times that of Norway

Read the full report here.

<http://www.madge.org.au/Docs/allergy-report.pdf>

GE Threats – Experts Opinion

8. GM seeds pose more problems than natural varieties!

http://www.bdafrica.com/index.php?option=com_content&task=view&id=9638&Itemid=5821

Throughout the 20th century, the so-called Green Revolution has entered people's lives with promises of abundant and cheap food. This has been the case especially since the end of the Second World War, with proponents basing their claims on three pillars: the first is chemical fertilizers to "improve" the availability of nutrients in the soil; the second is Pesticides and herbicides to fight plant diseases and weeds; and the third is Genetic improvement of food crops while moving towards better varieties and hybrids. This article will focus on the last of the three.

The processes of hybridization involving repeated combinations of genetic material were limited for a long time by the fact that natural reproduction only takes place between plants of the same species. But Genetic Engineering took off with the unraveling of the full structure of the DNA twenty years ago. It became possible to insert a gene of one species into the DNA of another, thus offering immense agricultural possibilities. Some examples include the modification of plants that fix the nitrogen of the air without belonging to the leguminous family, plants resistant to certain diseases or to dry environments; the possibility of producing drugs and vaccines by genetically modifying bacteria, and many others.

Farmers were thus promised higher incomes; traders were promised lower costs of production and better quality of produce; and the companies producing such foods saw huge profits appearing on the horizon through monopolies and patents of such modified 'foods.' Naturally, their 'research' showed that there was no difference between the natural and engineered 'foods,' that these were safe, and that they would solve the problem of famine in the world. But if GM foods were all that their producers claimed them to be, why was the process conducted by stealth and sprung on the public without notice? This policy of the fait accompli began with the US government, which neither informed nor consulted its citizens about GM crops nor, worse still, did it require GM foods to be labeled, so as to give the public the democratic choice of whether to buy or not. After this, GM foods were imposed on one country after another, in the same utterly undemocratic atmosphere of secrecy.

For a full understanding of the import of GM foods, two sets of results need to be considered: social results on the countries that have adopted them and biological results of the genetically modified foods. Further, GM foods must be analysed as part and parcel of the much touted 'globalization,' to which we now turn.

Rules of robbery

Dr Vandana Shiva is an Indian physicist, founder and president of the Research Foundation for Science Technology and Ecology, and one of India's leading activists. She describes in one of her papers how the transformation of peasant agriculture in India to a globally industrialized model, which has GM foods as a supporting pillar, has reduced food security, threatened local businesses and biodiversity, driven farmers off their lands, and opened the door for global corporations to take over the nation's food processing. The common claim by globalization enthusiasts is that it is natural, inevitable, and evolutionary. Dr Shiva sees it otherwise. Globalization is not a natural process of inclusion. It is a planned project of exclusion that has siphoned the resources and knowledge of the poor of India onto the global marketplace, stripping people of their life-support systems, livelihoods, and lifestyles.

Global trade rules, as enshrined in the World Trade Organization (WTO) Agreement on Agriculture (AOA) and in the Trade Related Intellectual Property Rights (TRIPs) agreement, are primarily camouflaged rules of robbery. The WTO's overall goal of promoting "market competition" serves two purposes. First, it transforms culture, biodiversity, food, water, livelihoods, needs, and rights into commodities for sale to be conveyed to markets. Second, it justifies the destruction of nature, culture, and livelihoods in terms of 'rules of competition.'

Its officials attack ethical and ecological rules that sustain and promote life, dubbing them as "protectionist" barriers to trade. Globalized food and agriculture in effect, means the corporate takeover of the food chain, the erosion of food rights, the destruction of the cultural diversity of food and the biological diversity of crops, and the displacement of millions from land-based, rural livelihoods.

This process surreptitiously began in Kenya in colonial times, with disparaging remarks aimed at 'subsistence agriculture' and accolades for 'cash crops' that would make farmers rich. It

had begun in Europe towards the end of the 19th century, with the result that very few Europeans today would know what to do if thrown onto their own agricultural land. Kenyans would do well to verify the impact of the above policies on India, learning from her experience. In India export-oriented policies have made the country shift from producing food crops to producing commodities for export, such as cotton. Its cultivation was expanded to semi-arid areas such as Warangal in Andhra Pradesh, where farmers traditionally grew paddy, pulses, millets, oil-seed and vegetables. Enticed by promises that cotton would be like “white gold,” yielding high profits, Warangal farmers nearly tripled the amount of land under cotton in the past decade, while slashing production of traditional food grains like jawar and bajra.

As trade liberalization has also caused the drying up of low-interest credit, peasants have had to take high-interest loans from the same companies that sell them hybrid seeds and pesticides. Thus, the corporations have become money lenders, extension agents, seed suppliers, and pesticide salesmen all rolled into one.

US soybeans and oil are cheap not because of low costs of production but because of subsidies. The price of \$155 a ton is possible because the US government pays \$193 a ton to US soybean farmers, who would not otherwise be able to stay in business. But this subsidy helps not so much the farmers as the corporations, which then dump soybeans on the countries of the South. As heavily subsidized soybeans flooded India’s domestic market, prices crashed by more than two thirds. The local mills, from small-scale “ghanis” to larger ones, started to close down. Domestic oilseed production declined, and domestic edible oil prices crashed. Some farmers protesting against the collapse of their markets were shot and killed.

The TRIPs agreement, introduced during the Uruguay Round of GATT, set enforceable global rules on patents, copyrights, and trademarks. TRIPs rules extend to living resources: genes, cells, plants, seeds, and animals can now be patented and “owned” as intellectual property. The US made use of the Round to insert its patent system into the WTO, thus imposing it on the rest of the world. By extending the rules to living resources, self-reproducing forms were redefined as machines, as if made and invented by the corporation patentee. A seed corporation thus enjoys a monopoly that prevents others from making, using, or selling seeds. Seed saving by farmers has been criminalized as stealing

“property,” according to Article 27.3 (b) of the TRIPs agreement.

Chemical companies have bought up seed and biotechnology companies, reorganizing themselves as Life Science corporations, claiming patents on genes, seeds, plants and animals.

Ciba Geigy and Sandoz have combined to form Novartis; Hoechst has joined with Rhone Poulenc to form Aventis; Zeneca has merged with Astia; Dupont has bought up Pioneer HiBred; and Monsanto now owns Cargill seeds, DeKalb, Calgene, Agracetus, Delta and Pine Land, Holden, and Asgrow. Thus 80 per cent of all GM seeds planted are Monsanto’s “intellectual property.”

And Monsanto owns broad species patents on cotton, mustard, and soybean — crops that were not “invented” or “created” by Monsanto but evolved over centuries of innovation by farmers working in partnership with nature.

Recently the US government granted a patent for the anti-diabetic properties of karela, jamun, and brinjal to two nonresident Indians and a foreigner. That these substances control diabetes is common knowledge in India. Their medical use is documented in authoritative treatises like *Wealth of India*, *Compendium of Indian Medicinal Plants* and *Treatise on Indian Medicinal Plants*.

One, or two, cases of such false claims to ‘invention’ could be called ‘errors.’ But they are legion. Herbs and spices like Neem, haldi, pepper, harar, bahera, amla, mustard, basmati, ginger, castor, jaramla, amaltas, new karela and jamun have all been ‘patented.’

Costs of biopiracy

Suggestions that piracy happens because Indian knowledge is not documented are the exact opposite of the truth. Indigenous knowledge in India, in fact, is so systematically documented as to have made piracy a lot easier. Even folk knowledge orally held by local communities deserves to be recognized as collective, cumulative innovation. The social costs of biopiracy to the poor of the South are very high, since two thirds of the people there depend on free access to biodiversity for their lives and needs. A full 70 per cent of healing, for instance, is performed with indigenous herbal medicine. A patent system that instead of rewarding inventiveness and creativity systematically rewards piracy should be immediately stopped and reviewed.

Jeffrey M. Smith, the author of *Seeds of Deception*, a book packed with information about GM foods, concludes that they are inherently unsafe. Many assumptions by biotechnology companies used to back up their safety claims are either untested, or have been proved wrong by independent labs, with dangerously few safety tests on GM 'foods.' The GM's Industry safety tests are typically rigged to avoid finding problems even after independent in-depth studies have shown serious damage to lab animals.

Sadly, many scientists, both in the public and private sector, who discover these dangers or express concern, have been attacked and silenced.

To impose the technology on Kenya, GM companies, US agents and their Kenyan accomplices, took care of 'briefing' the legislators, with methods unknown but easily imaginable. Providentially, President Kibaki dissolved Parliament one day before they were slated to pass the Bill, which could have made GM foods all the more accessible.

9. GMOs Next Global Lightning Rod Issue!

Our ability to tinker with nature has outstripped our ability to regulate what we create, says Yves Tiberghien, a political scientist who specializes in global regulatory mechanisms for technology and trade.

<http://www.sciencedaily.com/releases/2007/07/070722164235.htm>

Consider that almost 70 per cent of the products we buy at the grocery store contain genetically engineered food. Yet we don't know their long-term impact on our health, the environment, or how they may tip the future balance of power in the global economy.

"Corn and soy are the two main culprits since nearly all processed foods uses ingredients such as corn syrup, corn starch or soy lecithin," says Tiberghien.

GMO corn and soy first entered into the human food supply in 1996. "It's a very big experiment — 11 years of genetically engineered corn and soy thus far," observes Tiberghien. "What does this mean? No one really knows."

Asst. Prof. Tiberghien teaches in the Dept. of Political Science and also heads a Liu Institute for Global Issues research initiative that looks at the global battle over the governance of genetically

modified organisms (GMOs). Between 2004 and 2006, he conducted 200 interviews with policy makers in Europe, Japan, Korea, and international organization bureaucrats. With further funding from the Social Sciences and Humanities Research Council of Canada, Tiberghien is extending this research to Canada and China.

To date, studies conducted on GMOs have found no proof of harm, but the amount of independent data is extremely limited. Tiberghien explains that GMO toxicology testing is carried out by industry, which generally does only what is required to get approval. Overseeing the companies and labs that produce GMO seeds are national regulatory agencies and international bodies such as the World Trade Organization, the UN, the Codex Alimentarius Commission and the Organization for Economic Co-operation and Development (OECD).

The present framework is outmoded and rickety, says Tiberghien, with a decision-making process that's "essentially dominated by industry, the bureaucratic elite and scientific experts without citizens' participation."

He says as a society we are making decisions that are irreversible and far reaching, and we are doing it in a way that weakens democracy rather than strengthens it.

"Yes, we want wealth," says Tiberghien, "but not at any cost. We don't want to cross red lines where we endanger our health or the environment forever. We also want transparency and accountability."

Other common GMO foods found at North American stores include canola oil, papayas and soon, rice. But even the most conscientious label-reading shopper wouldn't be able to detect GMO products. Seed producers argued against mandatory labeling, insisting there was "substantial equivalence," which means that GMOs provide the same nutrients as conventional crops and shouldn't be treated differently.

"Industry pushed for this and governments acquiesced," says Tiberghien.

Since then, civil society mobilization has forced the European Union and Japan to enact more stringent measures, including additional testing and mandatory labeling of GMOs. In turn, the EU seeks to sway other countries to do the same.

Overall, says Tiberghien, tensions are rife between global coalitions and nations, which themselves are fragmented vertically and horizontally over the issue of "frankenfoods."

“The legitimacy of international and national regulatory bodies is in question. For example, Australia on a national level is pro GMO, yet nine of its 10 states are rabidly anti-GMO and have passed a moratorium on growing GMO crops.”

Tiberghien says India and China are shaping up as the two largest future GMO battlefronts. China, for example, has the second largest GMO research next to the U.S. But bowing to public outcry, both countries now require mandatory labeling for GMOs, while at the same time are pouring millions of dollars into research and development in a bid for technological advances that could alleviate poverty.

“It’s a very unstable situation,” says Tiberghien. “On any given day, there are dozens of confrontations over GMOs taking place around the world.”

By contrast, Canada is relatively quiet with very little media attention on the topic. Compared to 29 OECD countries, Canadians see the least amount of media reporting on GMOs.

“Canadians place a higher trust in the governmental regulatory agencies, which for GMOs is Health Canada.”

He warns, however, that Canada is vulnerable to a backlash that would then catapult the issue into news headlines. Already, public opinion polls in B.C. and Quebec show that 85 per cent of the population support mandatory labeling of GMOs.

“These polls highlight the gap between between citizens’ preferences and existing regulatory outcomes, offering room for groups or individuals to gain political mileage.”

Tiberghien says GMOs could easily become the next climate change, a lightning rod that unites a broad spectrum of protestors as diverse as the anti-globalization movement, organic farmers, Greenpeace supporters, consumer organizations and the Council of Canadians.

An alternative to these pitched battles would be a more democratic process, says Tiberghien, pointing to a citizens assembly as one possible model.

“Imagine 400 citizens who are trained, know the issues and they’re able to give input on regulatory design of GMOs.”

Rough Weather for GE in its home land (USA)

10. Court upholds ban on GM alfalfa

http://www.centerforfoodsafety.org/AlfalfaPR9_2_08.cfm

In a recent decision, the US Court of Appeals for the Ninth Circuit has upheld a nationwide ban on the planting of GM Roundup Ready alfalfa pending a full Environmental Impact Statement. The Court ruled that the planting of GM alfalfa can result in potentially irreversible harm to organic and conventional varieties of crops, damage to the environment, and economic harm to farmers. The Circuit Judge concluded that the harm to growers and consumers who wanted non-GM alfalfa outweighed the financial hardships to Monsanto and Forage Genetics (who were respondents in the case) and their growers. Civil society groups term this ruling a major victory for consumers, organic and conventional farmers.

11. Center for Food Safety responds to FDA rules on genetically engineered animals

<http://wistechology.com/articles/5041/>

Washington, D.C. - The Center for Food Safety issued a statement in response to the Food and Drug Administration’s (FDA) release of a draft guidance outlining the approval process for genetically engineered (GE) animals. Jaydee Hanson, Policy Analyst on cloning and genetics for the Center for Food Safety, reacted to the FDA draft of the GE animal approval process, issued by the agency today:

“The FDA draft guidance released this morning would treat genetically engineered animals under its new animal drug provisions. While the new guidance would require a long-overdue mandatory review process, the proposed FDA rules are seriously flawed.

“At a time when the FDA has inadequate resources to protect the food system and is reeling under allegations of conflicts of interest, this new proposal uses a secret approval process wherein no one

other than FDA reviewers can see the data submitted before final approval. And, unlike drugs which can be recalled because they are labeled, FDA maintains that genetically engineered animals should not be labeled.

“Under this draft, the public cannot know if the review of a product met the highest scientific standards until after its approval, and then they cannot avoid the product in the marketplace because it is not labeled. The FDA feels it deserves the public’s trust, but refuses to give us the tools to verify that it is doing its job fairly and adequately.

“While we support many features of the new animal drug process; it has major deficiencies for reviewing a technology as new as GE animals. Secret approval and lack of labeling indicates a complete lack of transparency and the potential conflicts of interest in an industry as small as the cloning/GE animal business cannot be reviewed without an open process. The FDA needs to request Congress to amend the new animal drug law so that the process is transparent AND it needs to require labeling so that the public can report any problems they discover with the product.”

In 2001, the Center petitioned the FDA to regulate GE salmon as a new animal drug (the application is still pending) and also petitioned four other agencies to regulate environmental aspects of GE salmon. In 2002, the National Academy of Sciences issued a report saying that GE fish could cause significant environmental problems. CFS has worked with many states to pass laws and regulations on GE fish: California, Washington, Oregon, Maryland, Michigan, Florida and Alaska have all passed laws or rules regulating GE salmon, and Alaska requires labeling for any GE fish product.

Additionally, the Center for Food Safety has consistently advocated in its comments on animal cloning and in a legal petition to the FDA that animal cloning should also be covered by the new animal drug rubric.

About the Center for Food Safety

The Center for Food Safety is national, non-profit, membership organization founded in 1997 to protect human health and the environment by curbing the use of harmful food production technologies and by promoting organic and other forms of sustainable agriculture.

Concern over G.M crops – Worldwide

12. Genetically modified foods in Japan

Martin Frid at greenz.jp Business & Politics (news), 3 October 2008

<http://www.treehugger.com/files/2008/10/saying-no-to-gm-foods.php>

No genetically modified crops are grown commercially in Japan, perhaps one of the countries in the world with the strongest consumer opposition to “unnatural” GM foods. Yet, Monsanto and the US government continue their shameless push for the stuff. Again and again, imported foods have been found to be contaminated with illegal GM varieties, including the infamous Starlink corn, that had not been approved in the US either (it was recalled and never heard from again).

Now, a US government official is visiting Tokyo to seek Japan’s “help to promote the safety of genetically modified crops among Japanese consumers,” as a way to “ease the global food crisis,” notes NHK World.

Dr. Nina Fedoroff, the Science and Technology Adviser to Secretary of State Condoleezza Rice, was interviewed by NHK in Tokyo on Thursday, and said “the planting of genetically modified crops

has been spreading rapidly in the United States and stressed the need to spread this kind of crop globally to cope with the food crisis.”

Food crisis? This summer, what did Monsanto do? With US corn, 60 percent is GM — and nearly all of it contains Monsanto’s genes. During this global food crisis, Monsanto just raised the price of its corn seed \$100 a bag. Talk about a novel way to solve the food crisis.

13. Peru to be a “genetically modified free country”?

<http://goodluckchuck.wordpress.com/2008/09/18/peru-to-be-a-genetically-modified-free-country/>

Antonio Brack, Peru’s minister of environment, seems ready to throw his weight behind a declaration of Peru as a “pais libre de transgenicos”, that is, a country without genetically modified produce.

El Comercio reports* that Brack informed the Peruvian Congress that he will “evaluate quite objectively” the possibility of blocking the introduction of genetically engineered foods in the country while warning against the risks of such products.

<http://www.elcomercio.com.pe/ediciononline/HTML/2008-09-17/el-ministro-ambiente-evalua-declarar-peru-pais-libre-transgenicos.html>

The minister believes that the “free country” distinction would ensure that Peru conserves the genetic makeup of its agricultural products, which include “3,000 varieties of potato, 55 of corn and 1,500 of sweet potato”, that have been engineering naturally for millennia. Organic farming earns Peru about \$160 million in exports, and it appears that Brack thinks that such trade potential will outweigh the proponents of bioengineering in Peru.

14. Poland’s Environment Ministry prepares bill on GMOs

http://www.polskieradio.pl/zagranica/news/artykul89962_Environment_Ministry_preparesbill_onGMOs.html

Poland’s Ministry for the Environment has prepared a draft bill on GMOs, allowing the creation of GMO-free zones in this country and introducing close monitoring of GM plantations. According to the Environment Minister the draft is an attempt to reconcile liberal EU legislation with Polish scepticism towards GMOs.

15. Gulf nations draft new rules for GM foods

http://greenbio.checkbiotech.org/news/2008-08-27/GCC_to_draft_new_rules_for_GM_foods

The Gulf countries are drafting rules to govern foods containing GM ingredients, marking their first attempt to regulate the industry. In a recent meeting of a GCC sub-committee, delegates set the agenda for the drafting of regulations to control the testing, production and entry into the region of GM foods. The Gulf States are expected to endorse the rules by late 2009, including one that would require supermarkets and grocery shops to label any foods containing GM ingredients.

16. GM moratorium may be extended in Australia

<http://www.greenleft.org.au/2008/764/39452>

PERTH - With a state election set in September, the WA [West Australian] Labor government last week pledged a four-year extension of the current moratorium on GM (genetically modified) crops and a limit on GM canola trials to 10 hectares.

The Liberal Party has promised large-scale GM trials and the introduction of GM cotton. The Greens and the Socialist Alliance have stated their complete opposition to GM crops.

The Say No to GMO campaign has given a voice to public concern about the potential health and environmental risks of GM technology, and has been pushing for a 10-year extension of the moratorium, which is due to end this year.

Janet Grogan from the Network of Concerned Consumers told Green Left Weekly, “There has been a massive push to get GM cotton introduced into the Ord region and at one stage it looked likely that the [Alan] Carpenter government would make it an exemption to the moratorium. The decision to ban all GM crops is great news.”

17. GM food conference criticized by chefs in European Union

<http://www.irishtimes.com/newspaper/ireland/2008/0823/1219416998929.html>

GROUPS OPPOSED to the growing of genetically modified food have criticised the Government for allowing Teagasc to sponsor a major biotechnology conference which opens in Cork tomorrow.

The chefs’ group Euro-Toques Ireland has called on the Government to reaffirm its promise to negotiate to keep Ireland free of GM crops.

Euro-Toques claims the conference, entitled Agricultural Biotechnology for a Competitive and Sustainable Future, will promote GM algae, crops, trees, fish and livestock as a solution to rising food prices and climate change.

Lorcan Cribbin, commissioner general of Euro-Toques Ireland and head chef of Dublin’s Bang Cafe, said Irish chefs have an obligation to source the safe, healthy, fresh, local, quality food which the majority of EU consumers demand.

“Any release of GM crops will contaminate our food chain, and destroy the brand reputation of ‘Ireland: The Food Island’ which benefits our food, farm and tourist sectors,” he said.

When Fianna Fáil entered coalition with the Green Party last year, part of their programme for Government was “to negotiate for the whole island of Ireland to become a GMO-free zone”, he said.

He pointed out that Teagasc, the agriculture and food development authority, was the lead sponsor of this event and other sponsors included Enterprise Ireland, the Food Safety Authority, Science Foundation Ireland and the Marine Institute, as well as biotech lobby groups and biotech groups such as Monsanto.

“The bottom line is, once this technology is released it cannot be recalled, and the results are unknown. GM technology hands over control of our food chain to huge corporations who care only for profit,” he said.

“The Government has made no effort to hold an open debate on this issue, and now it is providing a platform for promoters of the technology. Why is

taxpayers’ money being used to fund the promotion of technologies which consumers reject and which is acknowledged by the programme for Government as being bad for Ireland?” he asked.

Groups opposed to GM crops being grown here will hold a press conference in Cork tomorrow to demand that the Government fund a conference to highlight the dangers of GM production.

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.