



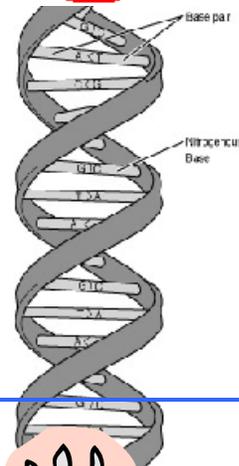
# POSITION PAPER



**Environmental Foundation Ltd.**

## Why we support Genetically Modified Food Ban in Sri Lanka ?

03, Campbell Terrace, Colombo 10,  
Sri Lanka.  
Tel: 0094-1-697226,  
Email: efl@ef.is.lk



# **EFL Position on Genetically Modified Food ban In Sri Lanka.**

Wednesday, August 01, 2001



## **GM Food Ban**

- ❑ Environmental Foundation is a non profit public interest environmental organization working for the conservation of environment through legal means. EFL has been participating in the Genetically Modified Food debate for the past one and a half years and has studied the pros and cons of the Genetically Modified food industry.
- ❑ As with many other decision makers and scientists, EFL takes the following position based on the secondary information available at present. However EFL believes that there is no way in which public can obtain first hand information a) since many of the research studies done in the area are incomplete; b) the research which shows the negative effects are being kept secret c) the food tests are taking a long time but there is no sufficient time between the creation of food and the release of them into the market.
- ❑ EFL appreciates the action taken by the Food Administration Unit of the Ministry of Health to regulate the GM food considering the precautionary approach. We further support this action since the action has been taken solely in the public interest. (However, in response to requests from the commercial sector, the government suspended the coming into effect date from May to September 1, 2001)
- ❑ The regulations went as far as to completely ban the import of certain foods without a certificate from an accredited laboratory ensuring that the foods are GM free. This list particularly hit at well-known GM foods such as Soya-based products and tomato-based products.
- ❑ The broad nature of the regulations earned both bouquets and brickbats from the local and international communities. The commercial sector bemoaned the restrictive nature of the regulations and warned of trade repercussions. Soon after, members of the WTO, questioned whether Sri Lanka had enough evidence to prove that GMFs were unsafe.
- ❑ Under the Sanitary-Phytosanitary agreement (one of a suite of agreements forming the WTO), parties are allowed to impose restrictions on the import of products if they have evidence that such products may be cause danger to human health, etc. However, these restrictions must be backed with enough scientific evidence to justify their imposition.
- ❑ However, as officials rightly pointed out, as a developing country, Sri Lanka can use the “precautionary principle” embodied in Principle 15 of the Rio Declaration. This principle forms the basis for the Cartagena Protocol on Biodiversity, which states that developing countries may enforce this principle to safeguard themselves from GMOs.

- ❑ The Cartagena Protocol is an addition to the Convention on Biological Diversity. It was the result of parties agreeing that while biotechnology was a useful tool to be exploited in the future, they had to be careful in the way it was used.
- ❑ As a protocol, it is more detailed and more importantly, more binding. The Protocol's main aim is to regulate the trans-boundary movement of living modified organisms. In its own words, it seeks *“to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements”* (Article 2).
- ❑ Principle 15 of the Rio Declaration state *“In order to protect the environment, a precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”*
- ❑ With this view, the Protocol embodies two important principles: the precautionary principle and the advanced informed agreement principle.
- ❑ The precautionary principle says that a State can take certain precautionary measures without having to back these up with scientific evidence. At first glance, it appears that this principle confers a privilege on technically disadvantaged countries. However, the Protocol goes one step further by saying that lack of scientific evidence should not be used as an excuse for avoiding taking measures to prevent environmental degradation.
- ❑ The other principle governs when a party may go ahead with the movement of such LMOs. Advanced informed agreement means exactly that - the party into which the LMOs are to be brought need to know well in advance the nature of the organism, the possible risks involved.
- ❑ Risk assessments - government decide whether or not to import LMOs on the basis of risk assessments, which have to be undertaken in a scientific manner based on recognized risk assessment techniques. However, where there is a lack of relevant information and knowledge, a country can apply the precautionary approach .
- ❑ Under the clearing-house mechanism of the Convention, the protocol has established a Biosafety Clearing-House. This aims to facilitate the exchange of scientific, technical, environmental and legal information on, and experience with LMOs and to assist Parties to implement the Protocol.
- ❑ **In this context Environmental Foundation believes that any WTO involvement in this ban cannot be justified and that it cannot become involved in this action of the Sri Lankan Government, which was totally taken to protect its consumers from possible negative impacts.**

- ❑ **Furthermore EFL believes that the threat of Mr. Beegly, US Trade Secretary, who criticised the regulation, is out of hand and that the United States should not interfere in matters related to sovereignty of the Sri Lankan nation.**



### **Laws that control...**

- ❑ Because of the novelty of the issue of GMFs, there are no specific laws to deal with GMOs, LMOs, or for that matter, biotechnology in Sri Lanka. However, in the absence of such concrete legislation, there are others whose broad language can be used to control or even ban such organisms. These laws can be used for both the farmers' and the consumers' benefit.
- ❑ The Plant Protection Act No.35 of 1999 is an act “to [inter alia] make provision against the introduction into Sri Lanka and the spreading therein of any organism harmful to, or injurious to or destructive of, plants, and for the sanitation of plants in Sri Lanka”. This Act repealed an older act that was rather incomprehensive. The new act includes definitions of genetically modified organisms as well as living modified organisms that are included in the general definition of “organism”.
- ❑ In addition, the Minister has wide powers to make regulations with regard to certain areas. That includes prevention of introduction into Sri Lanka, or for the eradicating, or for the preventing of spreading therein of, pests, and for the export of plants, plant products or organisms from Sri Lanka;
- ❑ Unlike the older piece of legislation, this new Act includes the definition of LMOs and GMOs. This means that it is within the Minister's powers to restrict or prohibit the entry of such organisms. This is particularly relevant to the introduction of crops and plants, which by virtue of herbicide-resistance and insecticide-resistance traits, could become or create “superweeds”.
- ❑ Already, the act deals with prohibition and restriction of import of certain prescribed fauna. However, import may be accomplished under the authority of an issued permit. It is suggested that an approach similar to that taken by the food regulatory authorities be taken here.
- ❑ Most of the existing GMOs, by nature of the technology used to create them, are patented by their creators. For example, most multinationals own terminator seed technology, as well as seeds modified to have certain traits. The Food Act is an act to, inter alia, “regulate and control the manufacture, importation, sale and distribution of food, to establish a food advisory committee”

- ❑ Section 2 prohibits the manufacture, import, sale or distribution of any food that, inter alia, is unfit for human consumption, is adulterated or is in contravention of the provisions of this Act or any regulation made there under.
- ❑ It is unlikely that the first section could be used any time soon because there is yet no concrete scientific information to prove that such food is unfit for human consumption. However, GMFs could be banned under Sec.2 (d), which refers to adulterated food. “Adulterated” is defined as “the addition of a substance as an ingredient in the preparation for food or subtraction of any constituent from such food or subjection of such food to any other process or any other treatment so as to- render the food injurious to health, or affect its character, value, composition, merit or safety
- ❑ Under the third section, the Department of Health has already promulgated regulations to restrict and in some cases ban the entry of GMFs
- ❑ The Food Act also has provisions relating to the labeling of foods. Section 3(1) says that “no person shall label, package, treat, process, sell or advertise any food in a manner that is false, misleading, deceptive or likely to create an erroneous impression, regarding its character, value, quality, composition, merit or safety.



## **GMOs to water**

- ❑ However, the introduction of GM organisms into Sri Lanka may not be limited to Genetically Modified Foods and crops.
- ❑ Recently there were reports that the Ministry of Fisheries and Aquatic Resources were planning to introduce Tilapia modified by human genes into the mountainous streams.
- ❑ The Tilapia is by nature a voracious and invasive type of fish. Experience in the Bundala wetlands has shown that it can take over a habitat, driving other existing species out. The effects of modification in the fish are not known, nor do there appear to be any studies of it. Any mutation could make this invader even more dangerous.
- ❑ Another danger is that the Tilapia will enter the consumer stream through mainstream fishing. Again, there is no telling what the effects of such modified species will be on the consumer.
- ❑ Environmentalists were protesting the move, saying that this would endanger both the fish species, as well as create potential dangers to consumers of the fish. There is a similar criticism over the introduction of Salmon in developed countries.
- ❑ The Fisheries and Aquatics Resources Act provides for the management, regulation, conservation and development of fisheries and aquatic resources in Sri Lanka. Certified in 1996, it does not specifically mention GM organisms, nor does the scope of the act appear generally even to consider such a possibility.

- ❑ However, Section 30 empowers the Minister, in consultation with the Minister of Trade, to prohibit or regulate the export from or import into Sri Lanka of any species of fish, including live fish or any eggs, roe or spawn or any products prepared from such fish, eggs, roe or spawn or other aquatic resources.
- ❑ This Act is not so relevant to the impact of GMOs on consumers, since its main object is to protect the fisheries resources. However, it can be used to stop the bringing in of any GM fish other aquatic life form that could threaten local species. Consumers are indirectly protected since by prohibiting the import of such species, especially those that are eatable, their known or inadvertent entry into the food chain is stopped.
- ❑ **In this situation we oppose any attempt by the Department of Fisheries to introduce genetically modified fish into the local waters and to the food chain**



## Other possibilities

- ❑ The Animals Diseases Act (No.59 of 1992) provides for the control and prevention of contagious diseases in animals, the control of import and export of animals, animal products, drugs and biologicals, semen and embryos, and other related matters.
- ❑ The Act also deals with the import by prohibiting import without permit, vesting powers in relevant persons to notify ports as infected and powers to refuse the entry of infected vessels, requiring permission for landing and quarantine, and the aspect of issuing permission based on health concerns.
- ❑ In addition, the act prohibits the manufacture of any veterinary drug or veterinary biological product except under the authority of a license issued by the Director. "Veterinary biological product" is defined as including vaccines, sera, microorganisms, whether living or dead, and their extracts or by-products intended for use in the diagnosis, treatment or prevention of disease in animals.
- ❑ At a recent Ministry meeting to determine legal gaps relating to GMOs, a representative of the Department of Animal Production and Health pointed out areas in this Act, which could be of some assistance.
- ❑ Representatives of the Department suggested the following in relation to the Animals Act No.29 of 1958 Part V, which deals with providing measures for the improvement of the breed of animals.
- ❑ It was suggested that there was a need to develop this section to accommodate control of introducing breeding materials, including GMOs and LMOs, and the need to provide statutory status to the "National Animal Breeding Policy Committee"
- ❑ **In this context we strongly believe that there are many ways in which GM foods could be introduced into the Sri Lankan food chain and therefore all the precautions should be taken through all other possible laws to protect the**

**consumers from the gene modification industry and from the negative effects to wildlife and plant life and the livestock and agriculture in Sri Lanka.**



## **Worldwide concerns**

- ❑ Sri Lanka is not the only country that has taken the precautionary approach to protect the consumers from GMOs. Japan, South Korea, UK, Belgium, Luxemburg, France, Germany Australia and New Zealand etc have taken steps towards these regulations.
- ❑ The EU has already stopped buying American corn resulting in a trade loss to the US of over \$200 million last year. In June 1999, environment ministers for the 15 EU Member States agreed to a de facto moratorium on importing GMOs until new rules regulating them have been established -- possibly as late as 2002.
- ❑ Of the 15 EU Member States, only France, Germany, the Netherlands, and the UK have approved GMO foods. While some countries regulate GM foods other countries promote labeling of GM foods.
- ❑ On September 1, 1998, a European Council Regulation establishing detailed rules for the mandatory labeling of ingredients derived from GM Soya and maize went into effect. The regulation also specifies that any new packaging manufactured for a product containing GM Soya and maize will have to be clearly marked with 'genetically modified.'
- ❑ Proponents of mandatory labeling who say the regulation is not inclusive have criticized the EU regulation. Mandatory labeling does not cover food additives (dietary supplements), flavorings, or extraction solvents. The EU says these products are covered under other legislation but groups like Greenpeace, GeneWatch, etc say no regulations exist to ensure these products are labeled.
- ❑ Labeling is only required on GMOs in the US if the product contains a known allergen or the nutritional content of the food is changed. FDA considers voluntary labeling that a product is not genetically engineered as misleading unless it is accompanied by a statement that there is no difference in healthfulness between a genetically engineered product and a non-genetically engineered product
- ❑ In May 1999, European preliminary studies submitted to the European Union found that estradiol could have cancerous effects. An EU press release reported that, "As a residue in meat it can both provoke cancer and make existing cases worse, even in small quantities. The five other hormones could also have carcinogenic effects, although there is insufficient proof at present to arrive at a quantitative estimate of the risk." Risks to women and children for immune, endocrinal, and neurobiological disorders were also cited.

- **Although many developed countries have suggested labeling, EFL strongly believes that labeling is not a good option for Sri Lanka since Sri Lankan society is not accustomed to reading the labels before buying products. Also the uncontrolled, injurious, and irresponsible media publicity has taken away the decision-making ability of the society and therefore labeling will not provide any protection.**



### **GM Untested! We are the subjects?**

- Supporters say that it is the answer to the world's food problem. Grow better-growing, better problem resistant food at a cheaper price.
- Opponents say it is tampering with something we don't know enough about, that we need to know all the pros and cons of something, which after all, we're going to ingest inside of us.
- It has become such a bone of contention that many countries are taking a precautionary approach to it, preferring either to ban it from their territories altogether, or to require that the foods be labeled.
- Supermarkets around the world, particularly in developed countries, quickly pulled foods off their shelves that were even remotely related to anything genetically modified, while declaring that they will remain GM free. Even royalty got into the act, when Prince Charles announced that not one morsel of genetically modified foods would pass his lips.
- But does anyone really know all the ramifications of GMFs? No. That's why it is such a big issue and why people are taking such drastic measures. The saying is, after all, "Better safe than sorry."
- Why should a country like Sri Lanka be worried about what appears to be just a trade and politically correctness tussle between big players? Because Sri Lanka is a developing country, a country where foods make up a large part of her imports.
- Sri Lanka is a small country, and has been, and probably for a long time will be a dumping ground along with countries like her. With the European market placing a big barrier against such foods, and imposing so much regulations that the market can be nothing but unprofitable, it's almost as if Sri Lanka has a red light over her head saying, "Dump here!" We're hungry, we won't make a fuss.
- However, strong moves by the country's Health Department brought howls from the trading community as regulations were proposed to ban the import of such foods altogether. The regulations went so far as to stop certain types of food altogether, unless the importers produced a certificate authenticating the food as GM-free.
- Even so, it has not become an issue here. Most people are unaware that there are such foods, or that they may already be eating them. As an agricultural country, Sri Lanka has

other worries - the GM seeds, particularly the terminator seeds that will not produce seed the next year.



## Health Risks

- ❑ Whilst you happily munch away at an apple, you are unaware that it contains a fish gene. You have now satisfied two of your food group requirements in one sitting.
- ❑ All humor aside, GMOs pose incredible health risks for everyone and anyone who consumes any sort of produce, whether it is fruit and vegetables, a T-bone steak or even a serving of the humble soy.
- ❑ So why are genetically engineered (GE) foods so hazardous? For the most part the greatest danger lies in the fact that the scientists (in conjunction with their corporate powers) who create these GEs, cannot predict the horrendous side effects of these 'superior foods' and for the most part neither do they care. These side effects include unanticipated mutations within the GE food that create extremely toxic contaminants and unknown allergens.
- ❑ Under normal circumstances, a plant can only acquire genetic material from other plants of the same or closely related species. This great mechanism does not allow the existence of life forms that are not suitable for the natural conditions. People as well as other life forms have the chance to decide which is suitable for them as foods, medicines etc. In the natural evolutionary mechanism there is no way to mix the genes of a Halibut fish species with a strawberry plant. Genetic engineering has created such a variety to protect strawberries from the cold.
- ❑ With genetic engineering, scientists can exchange genetic material from trees, bacteria, fish, pigs, and even humans between species. Any plant or animal food to which genes have been added from a source other than the species to which the food belongs, should be required to be labeled, to tell the consumer that this has been done. Genetically Engineered Food Can Cause Toxic Effects.
- ❑ The fact that genetic engineering can go seriously wrong was shown by one of the very first products introduced into the market. In 1989 a new GE dietary supplement known as L-tryptophan was released into the market. The dietary supplement literally took a life of its own and created extremely high concentrations of toxic contaminations within itself. It resulted in 1,511 non-fatal cases of EMS (eosinophilia-myalgia syndrome and killed 37 innocent people.
- ❑ There are also no laws stating that GMO must undergo mandatory pre-market safety tests, or any laws stating compulsory labeling of foods, which have or are Genetically Engineered products. Perhaps if there were laws, not only would the consumers be

informed of what they are eating but also perhaps the above death toll could have been avoided.

- ❑ A further problem of GM foods is that new unknown allergens are also created within the organisms along with toxins. For example imagine that you are allergic to fish, and that for various religious reason you do not eat meat. You go out to dinner to a restaurant and you an order a nutritious, non-animal based Soy and tomato salad. Unknown to you, the tomato was spliced with certain fish genes, and the soy had a sprinkling of pork genes. The genes within the tomato are now a hybrid fishy-tomato gene, which has created a new more potent allergen, which you are allergic to. And you have for the first time in your whole life consumed a meat product, against your religious beliefs.
- ❑ For those with allergies, for those who are vegetarian or do not eat certain foods (e.g. meat) for various religious or medical reasons, GMOs are probably the greatest risk that they face. The lack of labeling means that vegetarians are unknowingly feasting upon fruit with spliced fish, plants with a dash of animal fat, a pinch of insect gene in the veggies, fish with a twining of poultry genes and here's one for all the cannibals, meat with a dose of human gene.
- ❑ Besides these obvious ethical and safety implications there are also several startling medical issues that have risen. A particular tomato variety known as *Flavr Savr*, owned by the Calgene Company was one of the first GE fruits and vegetables that were released into the market. (Unknown to the consumers of course.) It was also one of the first GE products to contain *gene kanamycin*. Gene kanamycin is a gene which is resistant to anti-biotics, and which is present in *every* single cell of the plant. This gene is also being used in many other varieties of produce such as squash, berries and melons.
- ❑ Environmentalists and health experts have warned that continuous consumption of the Flavr Savr tomato could result in the creation of a super bacterium within our immune system that is resistant to antibiotics, in particular to *kanamyan* and *neomycin*, two very widely used antibiotics. If we were to suddenly become immune to such beneficial medicines, the health of the public would be greatly compromised. In the end not only will we all be ridden with diseases, we will have no cure either.
- ❑ With so many known dangers and so many *unknown* dangers, the steps we take into the world of Genetically Modified Organisms, should be small, cautious, well documented, well researched, well briefed steps. Unfortunately we seem to be leaping about in colossal leaps and bounds. If we aren't careful we may end up in a giant Venus fly trap.
- ❑ There are many ways besides this in which genetic engineering could go awry and result in hazardous toxins in food. Many common plant foods such as tomatoes and potatoes produce highly toxic chemicals in their leaves, for example. Any responsible company working with such plants would check for changes in toxin levels. But not all companies are equally responsible.

- ❑ Government agencies cannot be counted on to prevent unexpected problems. Worldwide, government premarket safety reviews of genetically engineered products range from relatively thorough in the European Union to no review at all in much of the world. In the United States, premarket safety reviews are voluntary.
- ❑ Scientist predict that genetic engineering can transfer allergies from foods to which people know they are allergic, to foods that they think is safe. To protect consumer health from the effects of unrecognized or uncommon allergens, all genetically engineered food must be labeled. Otherwise there will be no way for sensitive individuals to distinguish foods that cause them problems from ones that do not. This need is particularly urgent, since one of the potential consequences is sudden death, and children are part of the population most at risk.
- ❑ Widespread use of antibiotic resistance marker genes could contribute to the problem of antibiotic resistance. The genes may move from a crop into bacteria in the environment, and since bacteria readily exchange antibiotic resistance genes, move into disease-causing bacteria and make them resistant too. Antibiotic resistance genes could even be transferred in the digestive tract to bacteria.
- ❑ But there are already foods in the market made using plants with antibiotic resistance marker genes. If these products are not labeled the consumers cannot choose not to buy them.
- ❑ **We believe that the consumers have a fundamental right to know what they are eating, whether it is safe for human consumption. Consumers want to know what they are eating both as a matter of taste and preference, and for many health-related reasons.**
- ❑ **Most developed countries have adopted laws that reflect this view, requiring labeling, showing ingredients, processing, conformance to standards of identity, and additives. Some countries require fat, protein, carbohydrate and vitamin content of food to be labeled as well. Consumers also have a right to know if food is genetically engineered.**



- ❑ Some food producers' claim that genetically engineered food is basically the same ('substantially equivalent' is the description used) as conventionally produced food. But this is not the case; some individuals can have unpredictable mild to severe allergic reactions; it can have unanticipated toxic effects; and it can change the nutrition in food. In addition consumers express a wide variety of religious, ethical and environmental preferences in their food choices, and they cannot do this without comprehensive labeling.
- ❑ The countries of the European Union have recognized this, and have introduced regulations requiring labeling of all genetically engineered food. In the United States,

where genetically engineered corn, soybeans and potatoes are being commercially grown, no requirements for labeling were enforced. Being a third world country, Sri Lanka has become a dumping ground for lot of GM foods. However still there is no law that requires that such foods should be mandatory labeled.

- ❑ Codex Alimentarius is Latin for " food law". The Codex Alimentarius Commission is the Rome-based Body established in 1962 jointly by the World Health Organization and the U.N food and Agriculture Organization ' to facilitate the world trade in foods (through) international accepted standards". The Codex Alimentarius Commission has been considering whether to adopt a guideline recommending that all countries require labeling of genetically engineered food. Codex guidelines are not binding, but are often adopted by developing countries and can be used to settle trade disputes (if a country adopts a Codex standard, that standard cannot be challenged as protectionist).
- ❑ **In this context the information available shows that the Genetically Modified food is not proven for the safe human consumption.**
- ❑ **Furthermore the multinational corporations and the GM developers are using the developing nation as the laboratory animals for testing such food items.**
- ❑ **While we oppose the act of GMO developers, we strongly support the Government action to ban GM food to protect the consumers from possible negative impacts.**



## Bio Pollution

- ❑ For an agriculturally based country like Sri Lanka, the advent of Genetically Modified crops and their impacts is an important issue. The farmer's main concern is to produce as much crop as possible at the lowest cost to sell at the highest price. For many, this is an uphill task, and many find it hard to grow enough crops to live on.
- ❑ In recent years, Sri Lankan food imports has gone up, with even basic crops like rice and wheat having to be imported to meet requirement levels.
- ❑ Most developing countries are faced with this problem, and it has created a challenge for philanthropists and businessmen alike. While those concerned with eliminating world hunger are attempting to develop food technologies that could produce enough yields for global consumption, multinational corporations are trying to find out ways of profiting from this technology.
- ❑ Many leading multinational companies are investing in the grain market and are designing genetically modified seeds. According to their information, their seeds will yield higher quantities of crops, assisted by the fact that these seeds are modified to tolerate herbicide or resist insects and other pests. The net result: farmers have to depend on these seeds, which though high-yielding is necessarily sterile. In addition, there are problems associated with the new traits being introduced of which farmers may not be aware.

- ❑ The monarch butterfly is one of the most well known victims of genetically modified crops. The culprit was the Bt corn, a corn variety genetically modified to produce a toxin to kill crop-preying insects. The toxin - which is produced by a bacterium known as the *Bacillus thuringiensis* - was hailed a “perfect pesticide” because it could target certain pests without harming other non-target species. It was used mostly in organic farming, and was a good model in the race to phase out chemical pesticides.
- ❑ However, the corn engineered to produce it itself, backfired. Milkweed, which grow alongside crop fields, were dusted with altered pollen through wind transfer. Monarch butterflies feed on milkweed. And scientists found that pollen from Bt corn killed the butterflies.
- ❑ In a study by Cornell University, researchers found that half of the caterpillars fed on milkweed dusted with altered pollen, die; the remaining half only grew to half their normal size.



## **Super Weed?**

- ❑ It is believed that there could be bio-pollution by planting GM crops in the local fields. Bio-pollution occurs when the gene is transferred through normal pollination processes such as wind pollination, animal carriers to non-GM plants or weeds. Several problems can arise from such pollination.
- ❑ Super-weeds – if the herbicide resistant gene is transferred to genes, these weeds could then develop herbicide resistance, which would mean that the use of herbicide becomes redundant. In this scenario, there are two options: to use more herbicide, or to change the herbicide to one for which there is no resistance, in which case the status of the crop is itself back at square one.
- ❑ Volunteer crops – these are the remnants of previous crops grown in the same field; volunteer GM crops would have a negative effect where a farmer chooses not to grow GM crops the next year. The pollen of the volunteer GM crop could carry to the non-GM crop, or the crop itself would become a weed.
- ❑ Invasives – the pollen of GM crops could carry to neighbouring fields of farmers who do not grow GM crops, saddling them with an unwanted pest.
- ❑ In effect, unwanted transfer of the trait could result in either indestructible weeds or crops that can become such weeds. This could lead to further problems of herbicide use, as well as an exacerbated problem of weeds.
- ❑ Soybeans and canola oil now in our stores have been genetically engineered to be resistant to herbicides. This means that farmers can spray with higher levels of herbicides

without damaging crops. The result: increased contamination of food, soil, and water, toxicity to animals and plants, and reduced soil fertility, in addition to the unknown effects of gene pollution.

- ❑ Plants with the insecticide-resistant this trait produce a toxin poisonous to insects - an in-built insecticide, which kills plants feeding on the crops. The advantages of this trait are similar to the ones seen in crops with herbicide tolerance genes. In addition, it is expected to reduce fungal contamination because of lowered insect damage.
- ❑ The effects of bio-pollution of insecticide-resistant crops are almost similar to those of herbicide-resistant crops.
- ❑ In addition, it could create super-insects – the spread of this gene through the crop and through “polluted” plants such as weeds and non-GM crops to which the gene has been involuntarily transferred can increase the exposure of the toxin. The expected effect is that gradually insects will develop a resistance to the gene, thereby nullifying the effect of the crop.
- ❑ In most of the developed world, the major crops species have been introduced from elsewhere, but many developing countries are the centers of origin, or centers of diversity, of these same crops. The risk of introducing alien genes into wild relatives may be, therefore, somewhat higher in developing countries.



- ❑ **In these circumstance bio-pollution is very possible in Sri Lanka. It can destroy the original genetic diversity and can cause hunger rather than solving the hunger problem in the future.**
- ❑ **While we appreciate the initiative taken by the Food administration Committee of the Ministry of Health we believe that the government should take more precautionary action to stop field tests and farming and introducing such GMOs to the agriculture, livestock sectors to stop possible bio pollution.**
- ❑ **We further believe that the Sri Lankan consumers are not aware of the negative impacts of GM foods and that the media has a responsibility to make the public aware of these impacts.**
- ❑ **We further believe that local researchers should disclose their research so that the Government or Scientific community can draw up guidelines for such research activities.**
- ❑ **We also believe that the Sri Lankan economy cannot meet the costs of health problems which could arise a result of consuming GMFs, or of any research, or of**

**controlling cost in bio pollution and therefore we should take the precautionary approach before we face such a problem. However we should not forget these products are available at the market.**

- ❑ We further believe that the introduction of food that include animal genes is highly unethical in Sri Lanka, which is home to several religions whose devotees practice vegetarianism, as well as those who choose to do so on moral or health reasons.**
- ❑ We further believe that the US Government or WTO should not impose any conditions on or institute legal actions against Sri Lanka for the action taken for the best interest of the people in Sri Lanka.**
- ❑ We strongly believe that there is a possibility that the foods that are imported from certain developed countries including food aid are contaminated with GMF. Therefore all necessary tests should be done and the government should provide necessary testing facilities for the authorities as well as for the people to ease any doubts.**
- ❑ We further believe only true foods are free from GM contamination and therefore we should take the effort to convert our food habits to depend on true foods until supermarkets and all food importers ensure us that there is no contamination of GM. These practices should be continued until it is proven that GM food is safe for human consumption.**



This document was created with Win2PDF available at <http://www.daneprairie.com>.  
The unregistered version of Win2PDF is for evaluation or non-commercial use only.