

GM TERROR

GM Lobby Working Overtime

Bharat Dogra

[The many well established dangers of GMOs should serve as a wakeup call against their introduction into the food and farming systems.]

IN FEBRUARY 2010 MOST people heaved a sigh of relief when the then Environment Minister announced the moratorium on Bt brinjal on grounds of health, environment and safety. But this relief may be short-lived as the powerful GM lobby had immediately started high-power efforts to not only get this moratorium lifted but also to bring more and more crops in the realm of GM research and trials.

Since then several efforts have been made to take away decision making on GM crops from the Environment Ministry and concentrate it at places where the GM lobby has a stronger reach. Efforts were also made to bring in draconian legal provisions to threaten those who are opposed to GM crops from voicing their dissent. Very well-thought plans were made to penetrate some state governments, departments, agricultural universities and other critical official and semi-official places in such a way that it is possible to spread GM crops rapidly once sanction has been obtained. More and more research projects and field trials on GM crops were introduced often in gross violation of rules and norms. At last count, field trials are being held on about 14 crops, while other pre-field trial research is being conducted on as many as 74 crops, making India perhaps the biggest open laboratory for potentially the most dangerous experimentation on crops of critical importance, and that too in glaring violation of rules and norms.

It is time therefore to wake up to the well-established many-sided dangers of the GM crops.

An eminent group of scientists from various countries who constitute the *Independent Science Panel* have said in their conclusion after examining all aspects of GM crops: "GM crops have failed to deliver the promised benefits and are posing escalating problems on the farm. Transgenic contamination is now widely acknowledged to be unavoidable, and hence there can be no co-existence of GM and non-GM agriculture. Most important of all, GM crops have not been proven safe. On the contrary, sufficient evidence has emerged to raise serious safety concerns, that if ignored could result in irreversible damage to health and the environment. GM crops should be firmly rejected now."

Further this panel said, "GM crops have cost the United States (US) an estimated \$12 billion in farm subsidies, lost sales and product recalls due to transgenic contamination. ...The instability of transgenic lines has plagued the industry from the beginning, and this may be responsible for a string of major crop failures..... By far the most insidious dangers of genetic engineering are inherent to the process itself, which greatly enhances the scope and probability

of horizontal gene transfer and recombination, the main route to creating viruses and bacteria that cause disease epidemics.”

More recently 17 distinguished scientists from Europe, USA, Canada and “New Zealand wrote to the Prime Minister of India warning against “the unique risks (of GM crops) to food security, farming systems and biosafety impacts which are ultimately irreversible.” This letter adds, “The GM transformation process is highly mutagenic leading to disruptions to host plant genetic structure and function, which in turn leads to disturbances in the biochemistry of the plant. This can lead to novel toxin and allergen production as well as reduced/altered nutrition quality.”

Further these distinguished scientists wrote, “Numerous animal feeding studies demonstrate negative health impacts of GM feed on kidney, liver, gut, blood cells, blood biochemistry and the immune system. Of greatest concern is that studies show negative health effects with GM crops that have already been approved and which have been grown commercially for 10-13 years. This highlights the inadequacy of the original criteria and set of data on the basis of which marketing approval was and is still being granted.”

Several scientists involved in studying the implications and impacts of genetic engineering got together at the International Conference on ‘Redefining of Life Sciences’ organised in Penang, Malaysia, by the Third World Network. They issued the Penang Statement (PS) which stated: “Some GEOs (Genetically Engineered Organisms) have been made with virus or transposon vectors that have been artificially enhanced to become less species-specific. Since viruses and transposons can cause or induce mutations, there is the concern that enhanced vectors could be carcinogenic to humans, domestic animals and wild animals. Persons with allergies may have legitimate concerns that with genetic engineering, once-familiar foods may be made allergenic. Furthermore, they will not be able to protect themselves if the foods are not labelled to state that they have been produced from genetically engineered organisms.”

In his widely acclaimed book “Genetic Roulette”, Jeffrey M Smith has summarised the results of many research on the health hazards of GM crops/food, “Lab animals tested with GM foods had stunted growth, impaired immune systems, bleeding stomachs, abnormal and potentially precancerous cell growth in the intestines, impaired blood cell development, misshapen cell structures in the liver, pancreas, and testicles, altered gene expression and cell metabolism, liver and kidney lesions, partially atrophied livers, inflamed kidneys, less developed brains and testicles, enlarged livers, pancreases, and intestines, reduced digestive enzymes, higher blood sugar, inflamed lung tissue, increased death rates, and higher offspring mortality.”

Dr Sagari R Ramdas, co-director of *Anthra*, a veterinary research organisation, writes, “Since 2005, shepherds and farmers from different parts of India, particularly the states of Andhra Pradesh, Haryana, Karnataka and Maharashtra, have reported their cattle falling sick after it has grazed on genetically modified cotton or have been fed Bt cotton seeds and in some instances have died. Between 2005 and 2009 *Anthra* has been closely investigating the reported morbidity and mortality observed in sheep and goat flocks, which have been grazed

on harvested Bt cotton crop in Andhra Pradesh. Shepherds unambiguously declared that their animals, which had never died or fallen sick while being grazed on regular cotton fields since the past 10 years, began to exhibit morbid changes when grazed on the GM crop. In Haryana, there was a strong correlation between feeding Bt cotton seeds and cotton seed cake to milch animals, and drop in milk yield and several reproductive disorders such as prolapse of uterus, premature birth of calves, increase in the incidence of abortions and decrease in conception rate.”

This diversity of scientific opinion demands the urgent need of saving traditional food and farming system from the assault of GM lobby. □□□ –*TWNF*