

GENETICALLY MODIFIED (GM) FOOD – BITTER HARVEST

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Forget science fiction; science fact is far more unbelievable. At this moment scientists are busy developing salmon that grow four times faster than usual, double-muscled bulls and featherless chickens.

There are those who argue that genetic engineering equals progress. They say it's the way of the future; that its march is irresistible. Some claim that it will even save the planet.

But researching this article has left me in no doubt that the motivation behind such spin, the inadequate research on which these claims are based and the health and environmental consequences are, quite simply, alarming.

Let's start with something that concerns us all – the impact of GM technology on our health.

In the UK, after the introduction of GM soy, soy allergies skyrocketed. Here at home, MAdGE, not Dame Edna's harassed bridesmaid, but rather the influential advocacy group, Mothers Against Genetic Engineering, makes a strong case that humans are being treated as guinea pigs.

MAdGE argues that 'consumers are right to be cautious about GM food as there are no long term, peer reviewed, multigenerational feeding trials to show whether or not it is safe to eat.' The group concludes that the genetech industry has eschewed trials for one of two reasons - either they don't care about public opinion or they are afraid of the potential results.

And in fact some scientists are concerned, because genes from GM crops readily combine with our naturally-occurring intestinal flora, that it's only a matter of time before humans turn into 'living pesticide factories'. If that sounds extreme, listen to what's already happening to other species with which we share the planet.

Animals fed GM fodder have developed bleeding stomachs, damaged organs and compromised immune systems. Many have even died as a result. And in the United States, antibiotic-resistant genes from genetically modified crops, which proliferate there, are suspects in the recent decimation of the local honey bee population. America is now forced to spend millions of dollars every year importing bees from countries like Australia. The implications of this development can't be under-estimated, for as the great Albert Einstein explained many years ago:

'If the bees disappeared off the surface of the globe men would only have four years of life left, no more pollination, no more plants, no more animals, no more man.'

In this context our Federal government is pushing to introduce more GM crops into Australia while simultaneously reducing support for bee keepers. This seems like a no brainer.

Other environmental consequences of this technology are illustrated by an example from India, a country for which GM food was spruiked as the saviour. Angry farmers protesting recently in New Delhi under the banner 'Coalition for a GM-Free India' pointed out that despite all the claims for the potential yields

from Bt (genetically modified) cotton, after a mere 3 years, yields start to decline. Not long after that, the crops are not worth harvesting.

To add to the farmers' misery, existing pests develop resistance and new pests appear forcing farmers to spend money they don't have on pesticides. In addition, reduced soil quality means that the planting of other crops once the cotton has been harvested, a key survival strategy in a subsistence economy, is no longer possible. Meanwhile, on the health front, rural workers in these areas are beginning to develop numerous allergies. And the suicide rate for Bt cotton farmers has gone through the roof.

In stark contrast, an organic cotton project recently initiated in 33 villages in Maharashtra has literally been a life saver. Yields are up and farmers have been able to collect and re-use their best seeds, just as they had done for centuries.

Speaking of this tradition of seed saving, that is exactly what propelled farmer, Percy Schmeiser, of Saskatchewan Canada, into a head-to-head battle with the giant geneteck company, Monsanto. In over fifty years of farming on the southern plains Schmeiser had carefully selected out his best canola seeds and so had no use for Monsanto's GM canola. But when GM seeds from neighbouring farms blew over his fences and contaminated his crops and, instead of offering him compensation, the company presented him with a hefty bill for the use of their product, he was incensed.

Subsequently, in what has been described as the ultimate David versus Goliath contest, Schmeiser braved intimidation and used his life savings in lengthy court battles with the giant, which has an annual fund of \$10 million and 75 staff committed solely to handling recalcitrant farmers. In the end, David won

the day and in March the company agreed to pay all the clean-up costs of their product. Schmeiser, who attracted world-wide support for his heroic stand, hopes that this legal precedent will help other farmers across the globe when their crops are contaminated with GM plants.

Because contaminated they will be. Canola, for example, cross pollinates easily, and because GM canola is programmed to resist herbicides, it readily combines with existing weeds to produce super weeds. In addition, its pollen is transported effortlessly by bees or wind, so once it is established there is no turning back. In fact, in Canada, where GM canola was first introduced in 1995, organic canola farming is no longer possible.

Sadly, although all this has great relevance for Australia, to date our leaders seem blind to the implications. Despite the facts that the biggest study of its kind by the International Assessment of Agricultural Science and Technology for Development (IAASTD) concluded that there is no evidence that GM crops produce higher yields and that fifty-one per cent of Australian citizens would opt not to buy GM food if given the choice, Australian government is throwing in its lot with the biotechnology industry. As we know, in the face of wide-spread opposition, the ban on commercial genetically modified food crops has just been lifted in New South Wales and Victoria.

In May, Australia also chose not to join the 147 countries represented at the International United Nations Biosafety conference in Bonn. The avowed aim of this conference was the negotiation of protocols to protect the human race from the misuse of the new technology. But Australia aligned itself with the minority of abstainers - the United States, Canada and Argentina, all big

exporters of GM products. We can only conclude that our leaders have learned nothing from the debacle caused by our failure to sign the Kyoto Protocol and our alignment back then with the United States. Once again, politicians seem out of step with ordinary Australians.

Since we don't want GM foods, how can we ensure we are not inadvertently eating them? If we were Americans, we would have no option, because even though over half their population would also prefer not to buy GM food, the relevant labelling is non-existent there.

We are at least better off in that regard. Australia is one of a mere 40 countries world-wide with mandatory labelling, which means that all foods with GM proteins that are detectable in testing must be labelled. Nevertheless, our system is far from perfect. For example, once GM foods are assessed as safe, they can be utilised in the production of other foods without their presence being noted on labels. Thus, oil, flour and lecithin obtained from GM soy beans can be used unacknowledged in breads, pastries and snack foods. Some flavourings, processing aids and food additives are also passing below the radar.

In view of the fact that as far back as June 2005 twenty-five GM foods had already been approved in Australia and New Zealand, it seems timely to revisit the whole issue of labelling. And there are people like the staff at Pure Harvest, a major organic producer in West Gippsland, who are doing just that.

Pure Harvest has recently prepared a submission to the government requesting more rigour around labelling. And companies like this are far from alone in deciding to take action, because more and more people are becoming

convinced that as far as GM foods, our life choices and our health are concerned, it's now or never.

Given that it must be now, here are some suggestions for things you can do:

Host a 'True Food' party to raise awareness of GM issues. Party kits are available from the Greenpeace GE Team (www.truefood.aus.greenpeace.org).

Grow your own organic fruit and vegetables, especially heritage varieties, to promote bio-diversity.

Seek out, request and buy GM-free products.

Join MAdGE (www.madge.org.au).

Support Gene Ethics (www.geneethics.org).

Lobby your local council to become a GM-free Zone.

Patronise the increasing number of restaurants whose chefs have signed the *GM-Free Chefs' Charter*.

Write to politicians at all levels of government and to newspapers and magazines expressing your concerns.

I'm going to get involved because I want to live in a world where salmon mature at their natural pace, bulls aren't muscle-bound and chickens have feathers.