

Thin Ice



the GM Freeze Campaign newsletter

Issue 10, April 08

CONTENTS

1. Cloned Meat Coming to a Supermarket Near You?
2. Biotech Industry Takes Its Ball Home After Failure to Influence International Assessment
3. Government Science Advisor Misrepresents GM progress
4. Objecting to new application to grow GM spuds in the UK
5. Developments in Europe
6. Contaminations
7. Insect resistance to Bt pesticide in GM Cotton

1. Cloned Meat Coming to a Supermarket Near You?

In recent months the prospect of meat from cloned farm animals being sold in the UK has come a step nearer.

The majority of cloning research is carried out in the USA, underpinned by public money, driven by the desire to replicate high value animals and xenotransplantation to produce replacement organs and cheap pharmaceutical production (as in Dolly the sheep). Many people, even within the world of cloning, consider current moves to be uneconomic, and not viable as a commercial activity.

The US Food and Drug Administration undertook a huge review of the safety of food from cloned pigs, cows, sheep and goats. The European Commission also asked the European Food Safety Authority (EFSA) to conduct its own review, which included the impacts on animal welfare and the environment. Many clones will also be genetically modified to include the capacity to produce valuable products in their milk, for instance goats genetically

engineered to produce spider silk in their milk.

Both studies pronounced products from cloned animals and their offspring safe to eat. EFSA held a public consultation after their opinion was published.

However, the key question in the EU is whether or not cloning is ethically acceptable. In parallel to the EFSA review, The European Group on Ethics in Science and New Technologies, which reports to the European Commission, also looked at the ethical aspects of cloned animal products. They concluded, "*At present, the EGE does not see convincing arguments to justify the production of food from clones and their offspring.*" GM Freeze is working closely with Compassion in World Farming and the RSPCA on cloning of farm animals. Animal welfare is a major concern, as the record of even conventional animals breeders in this area is already very poor, e.g. producing calves too large to be born other than by caesarean section. Food safety and possible environmental impacts are also a worry.

GM Freeze is supporting calls for an immediate EU ban on the cloning of animals for food production within EU member states as well as an immediate EU ban on the sale of imported food products from cloned animals and their offspring. The EU should also require all animal food products from clones on sale within EU member states to be clearly labelled so that consumers are aware of the method of food production and can make an informed choice when buying meat and milk.

It is not expected that many products from cloned animals will be ready for market (even in the USA) in the near future. However, the US will now seek EU approval for them to be imported. The UK's Food Standards Agency

have indicated that products from cloned animals and their offspring will be considered as novel and therefore have to get approved via the EU's novel food regulations.

There is every chance that the EU v US trade disputes over GM food and crops, Monsanto's GM milk enhancing hormone BST and hormones in meat production could be replicated over imports of cloned animal products. GM Freeze will endeavour to keep you informed, and prime you to act, as the situation develops.

2. Biotech Industry Takes Its Ball Home After Failure to Influence International Assessment

The final drafts of a global assessment of the use of agricultural science and technology to aid development in the Global South did not please the biotech industry, so they pulled out of the process.

The International Assessment on Agricultural Science and Technology for Development (IAASTD) was one outcome of the 2002 World Summit in Johannesburg. In a process based on the Intergovernmental Panel on Climate Change model, scientists from around the world were brought together to assess the best way to address global food shortages and malnutrition. The final report will be agreed in South Africa in April, but without the presence of most biotech industry representatives.

CropLife International (the global lobby group for the biotech industry) did not find the drafts to their liking and wrote to the UN's Food and Agriculture Organisation last October saying they felt "*compelled to disassociate [themselves] from this assessment project... Biotechnology, crop protection chemistry, the importance of intellectual property, and the*

role of the private sector has been treated superficially and negatively, and we cannot endorse this."

In fact, the final draft of the IAASTD report adopts a very broad definition of biotechnology, including everything from traditional plant breeding to transgenic crops. The teams of academics and experts did not ignore GM crops, but they recognised their limited ability to tackle the problems of the poor in the Global South. This comes through strongly in the Global Summary of the report draft, which includes 21 recommendations to help take agricultural research and development in Africa, Asia and S American in new and more sustainable directions. These include:

"Biotechnologies should be used to maintain local expertise and germplasm so that the capacity for further research resides within the local community. Such R&D would put much needed emphasis onto participatory breeding projects and agro ecology."

And:

"Successfully meeting development and sustainability goals and responding to new priorities and changing circumstances would require a fundamental shift in AKST, including science, technology, policies, institutions, capacity development and investment. Such a shift would recognize and give increased importance to the multifunctionality of agriculture, accounting for the complexity of agricultural systems within diverse social and ecological contexts."

It is no surprise that the drafts caused the biotech industry such discomfort when their raison d'être is to sell GM seeds and pesticides. Whether or not the IAASTD report produces a significant change in policy so that agricultural research and development serves the needs of the poor will depend, in the first instance, on how well civil society and enlightened scientists respond to the biotech industry's attempt to undermine the process.

3. Government Science Advisor Misrepresents GM progress

Outgoing Government Chief Scientist

Professor Sir David King was accused of being "demob happy" when he made grossly misleading statements about the benefits of GM crops on BBC's *Today* programme in November. His comments included attributing yield increases of up to 50% in Africa when the project in question is in fact an excellent example of a non-GM companion planting pest management scheme. Dr Richard Horton, the editor of medical journal *The Lancet*, said King was slipping into "the realms of totalitarian paranoia".

GM Freeze wrote to both the Government and the BBC to demand an apology, pointing out that if Africa is to become more self-reliant in food without locking farmers into very expensive GM seeds and chemicals, the Government needs to be funding more such projects. The Government replied that since King has retired, they "are no longer able to enter into correspondence on his behalf," and failed to answer any of our other points. The Director General of the BBC replied that, with hindsight, it might have been better if they journalist had queried King's claims. However he added that it is "not reasonable to expect a presenter to be aware of every crop project around the world," and that in any case there wouldn't have been enough time in the programme's line up to permit such rigour.

Perhaps, but King was Chief Scientific Advisor, and calling his comments an "honest mistake" King followed them up by telling the Government's Select Committee on Innovation, Universities and Skills that the UK's failure to invest in GM technology had cost the UK economy as much as £4billion. The Government Office for Science defended the comments saying: *"The costs to the UK are both direct, in terms of lost revenue, and indirect, for example, through specialist researchers moving abroad. [King] also believes that GM technology has the potential to deliver a range of benefits over the longer term, which could include making crop production more sustainable and helping to manage the effects of climate change.*

The figure quoted by Sir David and reported in the press was based on data which he had derived from a number of sources, as well as the size of the global GM market. [His] estimate was not based on the current market for GM crops, but was intended to reflect the potentially much larger European and global markets he considers would have existed had public concerns about the new technology been understood and addressed. Before hostility to GM crops, [the UK was] in a prime position to take full advantage of the opportunities offered by GM technologies and UK companies could have expected to take a significant share of the global market. This expertise, and the associated competitive advantage, has now been largely lost."

The Scottish Crop Research Institute estimates the entire worldwide GM industry to be worth £2.5billion.

4. Objecting to new application to grow GM spuds in the UK

Leeds University have applied for consent to field trial a new GM variety of potato in Yorkshire, and GM Freeze issued advice on how to object as well as submitting our own request that the application be refused.

The GM potatoes, designed to repel the major pest potato cyst nematode (PCN), are both unnecessary and potentially dangerous.

Unnecessary: potato cyst eelworm infestations can be detected and predicted by soil tests in advance of planting. Chemicals exuded from potato roots trigger PCN cyst hatching in the soil. PCN can be fooled into hatching using potato relatives as trap crops. Once hatching has taken place, the trap crop can be destroyed before PCN have a chance to breed and numbers of viable cysts decline. Proper cleaning of farm equipment and tyres to prevent cysts being moved from field to field, coupled with testing and long rotations, can do the job without GM.

Unsafe: The GM potatoes contain a marker gene for resistance to the antibiotic neomycin, which is used clinically. It is not needed for trials and should be removed. As worrying

is the applicants' failure to assess the allergenic potential of the GM proteins, which make them unfit for human consumption. There is little point in field-testing a crop only to find that it fails the risk assessment for food and feed safety during any application for commercial release.

Unsustainable: the GM potatoes could encourage farmers to grow crops in short rotation, which would increase the risk of soil erosion, reduce soil nutrients and increase the risk of other pests taking hold, thereby displacing or exaggerating more problems than it seeks to solve. Worse still, there have been no reported attempts to contain the risks of contamination, even though the variety used in this GM event are known to flower and set seed (berries) profusely increasing the changes of cross pollination crops. Small mammals could also remove GM material from the site.

You can read the full GM Freeze briefing at www.gmfreeze.org/page.asp?id=256&iType=1084 under the section headed GM Freeze Responses to Consultations.

5. Developments in Europe

Iceland increases resistance to GM imports

The Government is tightening regulations on GM food and feed to meet public concern. The Consumers' Association of Iceland points out that they are the only country in the EU not to require GM food to be labelled, despite the fact that Iceland imports a large quantity of food from the US. They say they have worked with the last three Environment Ministers to secure new rules without success. New regulations based on the Cartagena Protocol have now been drafted and were due to be implemented in February. There is also pressure to label GM animal feed and control pharma crops.

Poland sued by EU over GM ban

In January EU regulators initiated legal proceedings against Poland's ban on GM. Concerned about effects on markets and its standing in the WTO, the European Commission (EC) said it had "no alternative" to taking a case to the European Court of Justice unless restrictions are based on "science" and crop-specific.

The Polish authorities are standing firm in their belief. However in February they also announced a halt in plans to ease the strict new law banning use of GMOs in livestock fodder due to come into force later this year. Poland permits the import of GMOs for human consumption if they are labelled and cannot be used in other foods.

French reject GM

Two surveys put French consumer rejection of GM food at over two thirds, with some 77% approving of their Government's moves to suspend marketing of MON810 maize, the only GM crop authorised for commercial growing before the Government-imposed moratorium and review of the technology. Released on the eve of the Parliamentary debate on France's GM policy, the surveys also showed that 71% support GM-Free labels meaning there is absolutely no trace of GM in the product.

The Minister for Ecology said, "If the Parliament once again calls into question the transparency of the growing of genetically modified crops, responsibility in the event of contamination and the principles guaranteeing people the right to produce crops and consume foods that are GMO-free, the government will oppose it."

EU must listen to evidence

French and German Environment Ministers said at their annual meeting said the EU must pay more attention to evidence submitted by Member States about applications to grow GM. They added that approval procedures for GM crops should be more transparent, including ensuring that concerns raised by member states are "thoroughly analysed". Their positions challenge the reliance the European Commission places on the opinions of the European Food Safety Agency (EFSA), which was widely criticised in the past for failing to adopt a precautionary approach when scientific evidence is inconclusive on safety issues.

Euorpabio admit increased chemical to fight superweeds

In an article in February's edition of *Ethical Corporation* magazine included were a number of welcome admissions and clarifications from the GM lobby group EuropBio. A representative of

the group acknowledged increased application of RoundUp herbicide, saying, "farmers have rotated RR crops, usually soya and maize, to the point that the weeds themselves are now Roundup resistant, which has resulted in much higher applications of Roundup along with a host of other chemicals".

The article also included the illuminating excerpt: "Neither Monsanto nor Bayer LifeSciences was willing to provide any documentation to support their claims to drought-resistant crop strains. Nor were [lobby groups] BIO and EuropaBio forthcoming with any evidence substantiating drought resistance in crops."

Germans loosen GM labelling and planting rules

In January the ruling coalition announced the easing of GM regulations, angering both greens and biotech giant Monsanto. New legislation overturned and eight-month moratorium on MON810. The Government said they put safety and consumer opinion above economic concerns, but that the move was designed to help the country's biotech industry "catch up" with competitors. Yeta Monsanto spokesperson declared the new rules "very disappointing" for not going far enough to support the expansion of the crop, presumably because of the 150-meter separation distance required (300 meters from organic crop).

Meanwhile the Government also announced plans to encourage use of non-GM labels by permitting them on foods containing some GM additives if there is "no alternative". The move eases previous strenuous requirements for demonstrating non-GM status, permitting food producers to label their items as non-GM and hopefully drive up demand. A spokesperson for the German food industry said he believed the change would mislead consumers. "If you say a product is without GM explicitly then it should have no GM," he said. Others welcomed the move, as it is hoped to encourage farmers to make the extra effort to use non-GM animal feed.

6. Contaminations

Thailand: In December, amid Agriculture

Ministry pressure to lift Thailand's ban on GM field trials, pressure group Biothai found GM maize contaminating two samples taken from a farm near Monsanto's research facility. Thailand only permits experimental cultivation of GM maize in laboratories or contained greenhouses. Biothai called for urgent clean up and containment measures, noting that maize is one of the country's top exports, including to the EU. Results from further samples are expected shortly.

China: The contamination of Chinese food products with the unauthorised GM rice Bt63 rumbles on. The EU have finally decided to issue an Emergency Decision, but it won't come into force until mid April – more than 18 months after the contamination for first discovered in imported foods on sale in the EU and nearly six months since further contaminated foods were discovered in Germany, proving that the measures taken by the Chinese authorities to contain the incident were not working. The FSA say they delayed action to permit time to allow EU members States to prepare. The FSA has named 23 categories of foods, from rice to rice paper to muesli that could contain the tainted rice.

7. Insect resistance to Bt pesticide in GM Cotton

First it was resistance to herbicides driving up chemical use on superweeds in GM crops. Now bollworm, an insect pest of cotton, has also developed resistance to the insecticide built in to GM crops.

The development is a potentially major blow to the GM industry's case on the safety and sustainability of their Bt crops. The resistant insects were found by a University of Arizona research team in more than a dozen crop fields in Mississippi and Arkansas between 2003 and 2006. The team believe this new resistance is due to a recently developed ability of the insects to break down the Bt toxin.

To prevent such resistance developing, non-Bt crops must be grown in "refuges" among Bt crops. Resistant insects remain in the minority, so they are likely to mate with non-resistant individuals, resulting in non-resistant offspring. Resistance develops fastest in areas with fewest refuges. But the

team say that the huge areas covered by Bt crops without such refuges are "generating one of the largest selections for insect resistance ever known."

The team, supported in other research by Monsanto, say the next step is to find out how resistance is inherited and develop new toxins to kill resistant individuals. They point out that new GM varieties engineered with several types of Bt already "overcome" the resistance to one version of the toxic chemical. Thus even when non-GM crops are required to eliminate the current problem, the research authors conclude that the solution is more GM. It may be relevant to note that one of the authors of this research is co-author of a patent application on engineering Bt toxins into plants.

TAKE ACTION

As reported in Issue 6 of *Thin Ice* (See www.gmfreeze.org/uploads/AB4_Freeze_Jan07.pdf), the Co-op supermarkets are selling GM vegetable oil. Pride Oil is labelled "derived from a GM source", so there is no question of the legality of the sales. However, continuing to sell a GM product does seem to be at odds with aspects of the Cooperative Group's ethical policy.

The food section of their website says:

"Our business proposition rests on a strong position in the convenience and top-up market - with modern, innovative stores and ranges - complemented by an emphasis on responsible retailing which both creates an obvious point of difference with competitors, and addresses key interests and concerns held by our members. We believe that business activities should take account of a wider social agenda, and that consumers increasingly look to see their values expressed in the food and goods they buy." (See www2.co-operative.com/CSR2004/2_co-op_group_at_a_glance.asp)

The food ethics pages are more specific:

"The Co-operative Food Ethical Policy is our commitment to improve our ethical and environmental performance in line with our members' expectations.... Going forward, our commitment to audit and report (warts and all) on our

Ethical Policy performance is also what differentiates our approach from that of other retailers." (See www.cooperative.co.uk/en/food/ethics/) And that they commit to:

*continue to be the UK's leading retailer in the removal of substances of concern, particularly additives and pesticides;
* continue to oppose the adoption of genetically modified organisms or nanotechnology in circumstances, which risk damaging the environment or compromising human health." (See www.co-operative.co.uk/en/food/ethics/foodquality/)

While many aspects of the Co-op's policy and practice are innovative and heading in the right direction, we think it's time to ask their corporate social responsibility manager how selling GM vegetable oil fits in with these commitments. You can write with your questions to: Corporate Responsibility Manager, The Co-operative Group, New Century House, Manchester M60 4ES or email csrreport@co-op.co.uk

Please let us know if you receive any replies

STAY IN TOUCH

If you don't normally receive this quarterly newsletter and would like to, please send £5 (to cover costs), made payable to GM Freeze at the address below:

GM Freeze, 94 White Lion Street, London N1 9PF

Tel: 020 7837 0642

Email: enquiry@gmfreeze.org

Web: www.gmfreeze.org

The GM Freeze campaign is calling on the Government for a Freeze on:

The growing of genetically modified plants and the production of genetically modified farm animals for any commercial purpose.

Imports of genetically modified foods, plants, farm crops and farm animals, and produce from genetically modified plants and animals.

The patenting of genetic resources for food and farm crops.