

# The FOOD MAGAZINE

**Campaigning for safer, healthier food**

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## Nestlé pushes health claims to the limit — and beyond?

**T**rading standards officers are investigating whether Nestlé is breaking the law over claims made on special packs of Shredded Wheat promoting the company's Healthy Heart Campaign in support of the British Heart Foundation.

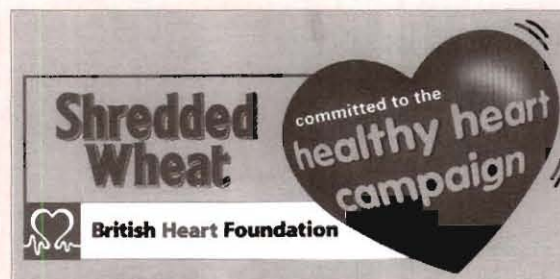
The Food Commission has complained that claims made on the packs are 'medicinal claims'. Such claims that a food can cure, treat or prevent a particular disease are not permitted. Yet the

special packs of Shredded Wheat mention coronary heart disease and CHD four times.

'In our view the wording of the statements on the packages may lead consumers to assume that eating Shredded Wheat would help reduce the risk of coronary heart disease,' says the Food Commission's letter of complaint.

In an apparent move to distance itself from the

complaints, the British Heart Foundation has issued a statement saying 'The British Heart Foundation does not endorse the Shredded Wheat product'. No doubt the British Heart Foundation, a national charity, would not wish to find itself embroiled in the same kind of accrimonious debate as surrounded the endorsement of Ribena Toothkind juice drinks by the British Dental Association last year (see *Food Magazine* 41).



## Zero tolerance for GM foods

'Zero tolerance' is a phrase we expect to hear from New York's Chief of Police. But now it's the rallying cry in the latest debate over genetically modified (GM) food — the debate over how much GM material companies can allow in non-GM foods. Exactly at what level such a 'tolerance' level should be set is being hotly debated by food companies, by European bureaucrats and now, by consumers.

Our exclusive survey found some supermarkets allow as much as 2% GM in food claiming to be non-GM, while others say they aim for zero tolerance levels. Meanwhile the European Union is expected to come up with its own proposals this autumn which are widely rumoured to include a tolerance level as high as 2-3%. We say that's unacceptable. Consumers searching out GM-free foods need to know that the strictest practical standards operate to keep GM contamination out of the entire foodchain.

What the supermarkets allow — pages 9-11.

**Get the facts with the Food Magazine**

The Food Magazine is published quarterly by The Food Commission, a national non-profit organisation campaigning for the right to safe, wholesome food. We rely entirely on our supporters, allowing us to be completely independent, taking no subsidy from the government, the food industry or advertising.

We aim to provide independently researched information on the food we eat to ensure good quality food for all.

The Food Commission Research Charity aims to relieve ill health and advance public education through research, education and the promotion of better quality food.

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# editorial

## Don't put your money on Monsanto

**T**here is a theorem in science (or there ought to be) which says that the longer and harder you look at something the greater your chance of noticing something you did not notice before.

With GM agricultural crops, every few weeks we hear more news of potential problems, from the destruction of benign insects (the Monarch butterfly) to long-distance pollen transfer. Monsanto has admitted for the first time that their GM plants may cross-breed with wild relatives, and, as we report on page 6, there is increasing evidence of significantly high levels of Monsanto's herbicide Roundup on their Roundup-Ready GM soya.

Nor is that Monsanto's only problem with Roundup-Ready soya. As we show on page 3 there is new evidence suggesting Roundup-Ready soya beans may be significantly different from regular soya in its chemical makeup. This throws into doubt the approval system for GM foods, especially in the US where the Food and Drug Administration has never required full safety evaluations, on the assumption that GM crops were 'substantially equivalent' to non-GM versions.

A lack of full safety testing opens up a further dimension to the trade disputes developing between the USA and Europe. As we argue on page 8, the row over the ban on US hormone-reared beef could be a prelude to a similar row over US-produced GM crops. In the case of beef, economic concerns to protect European cattle farmers from cheap US imports led the way, with the scientific justifications about animal and human health problems (see page 7) following behind. The same could happen with GM crops, where European farmers see their market threatened with cheaper imports and realise that their own interests could coincide with those of consumers calling for restrictions on the sale of GM products.

Certainly the retailers are moving away from GM foods. Their only problem lies in defining what 'GM Free' means — given that accurate tests may show GM contamination even at very low levels. We report on their dilemma in our special survey, pages 9-11.

Meanwhile, back to Monsanto. Perhaps they know that GM technology is only one of the ways to conquer the world. Already they are looking to the next opportunity in agriculture and life sciences: the control of water. Page 4 has the details.

Sue Dibb and Tim Lobstein

### Support the Food Commission's campaign for safer, healthier food

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**Turn to page 18 for subscription details.**

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# GM soya may not be 'substantially equivalent'

The whole basis on which Monsanto's herbicide-tolerant Roundup Ready soya gained approval is being challenged by new evidence about the levels of biologically-active phytoestrogens found in the genetically modified (GM) bean, reports Sue Dibb.

Researchers have found that levels of the biologically-active chemicals are 12-14% lower in the GM strains, raising questions as to whether the GM soya can be considered to be 'substantially equivalent' to conventional soya.

As the *Food Magazine* has often reported, phytoestrogens, which can mimic oestrogen and have other biological effects, are increasingly the focus of research into potential health benefits as well as risks to health, particularly to infants. In this new study, Mark Lappé and Britt Bailey from the Center for Ethics and Toxics in California analysed the phytoestrogen concentrations in two varieties of GM herbicide tolerant soybeans and their conventional counterparts grown under similar conditions. 'This data suggests genetically modified soybeans may

be less potent sources of clinically relevant phytoestrogens than their conventional precursors,' they conclude.

Monsanto's original tests on its Roundup Ready GM soya used beans that were grown without the application of Roundup, the weedkiller to which the soya has been engineered to be tolerant. When we previously reported this (FM40) we also raised concerns that levels of phytoestrogens may be significantly different in GM glyphosate-treated beans.

If the findings of this new research are borne out by tests on other soybean varieties, this would raise doubts about Monsanto's claims that GM soya can be considered to be 'substantially equivalent' to conventional soya — the basis on which it has been approved for use as a food worldwide.

■ Lappé, MA, Bailey EB, Childress C, Setchell, KDR, *Alternations in Clinically Important Phytoestrogens in Genetically Modified Herbicide-Tolerant Soybeans*, *Journal of Medicinal Food*, 1:4, 1999.

## GM land loses value

Farmers using GM crops may find the value of their farms falling, according to a survey by the Royal Institution of Chartered Surveyors. Over half of land managers surveyed believed that farms would be harder to sell if they had been used for GM production, and many thought that

growing modified crops may affect neighbouring land values, too.

The Institution advises farmers not to grow such crops. They have also been considering proposals to require tenants to notify their landlords if they intend growing GM crops, and to set up a register of all land used for such crops.

## Organic feed needs soar

A huge shortage of organic livestock feed is predicted, as more than 80% of farms currently converting to organic status are livestock units, according to Co-op Farms project

manager Alastair Leake. The demand for organic feed may suck in imports from Australia, Argentina, Canada and Denmark.

## GMOs: more suspect additives

Since we published our listing of additives that can be derived from GM crops (see *Food Magazine* 45, page 10, and our book *GM Free*) we have been alerted to other additives which should be included. The list is growing and so far includes:

E101 and E101a	riboflavin, a vitamin and colouring agent that can be made by GM organisms.
E150	caramel colouring from chemically treated sugars, which may be from GM maize.
E153	carbon black, a colouring from burnt vegetable matter possibly including GM crops.
E160d	lycopene, a red dye from tomato extracts, possibly including GM tomatoes.
E161c	cryptoxanthin, a yellow dye which may be obtained from GM maize.
E306-9	relatives of vitamin E which can be distilled from oil from GM soya.
E322	lecithin, an emulsifier usually made from soya, possibly including GM soya.
E270, E325, E326, E327	lactic acid compounds which can be based on starch from maize, including GM maize.
E415	xanthan gum, obtained from starch from maize, possibly including GM maize.
E460(a), E460(b), E461, E462, E463, E464, E465, E466	thickeners derived from plant cellulose, which could include GM-derived plant material
E471, E472a, E472(b), E473, E475, E476b, E477, E479a, E479b	thickeners and emulsifiers obtained from fats and oils, including GM soya and maize oils, or from lactic acid derived from starch, possibly including GM maize starch.
E570, E572, E573	anti-caking agents from fats or oils, possibly including GM soya and maize oils.
E620, E621, E622, E623, E624, E625	flavour enhancers made from fermenting vegetable protein, possibly including GM soya.
E951	artificial sweetener aspartame, which is apparently made using GM technology in the USA, but not in Europe.
E1404, E1410, E1412, E1413, E1414, E1420, E1422, E1440, E1442, E1450	thickeners made from starches derived from plant sources, potentially including GM maize.

Note: These are the 'E' numbered additives that could, potentially, be derived from GM crops. It does not cover the non 'E' additives such as flavourings, nor the processing aids, such as enzymes, solvents or oils.

# Monsanto aims to control world water supplies

According to environmental campaigners in India, the world's largest agro-biotech business is now moving into the control of water.

Monsanto has its eyes on privatising the water supplies of India and Mexico. So claims Vandana Shiva, one of India's leading environmental campaigners. Writing in *The Hindu* (10/5/99), Ms Shiva quotes Monsanto as saying:

*'Since water is as central to food production as seed is, and without water life is not possible, Monsanto is now trying to establish its control over water. During 1999, Monsanto plans to launch a new water business, starting with India and Mexico since both these countries are facing water shortages.'*

She goes on to quote passages from Monsanto's own strategy papers:

*'First, we believe that discontinuities (either major policy changes or major trendline breaks in resource quality or quantity) are likely, particularly in the area of water and we will be well-positioned via these businesses to profit even more significantly when these discontinuities occur. Second, we are exploring the potential of non-conventional financing (NGOs, World Bank, USDA, etc.) that may lower our investment or provide local country business-building resources.'*

*'These are the markets that are most relevant to us as a life sciences company committed to delivering food, health and hope to the world, and there are markets in which there are predictable sustainability challenges and therefore opportunities to create business value.'*

By 2010, about 2.5 billion people in the world are projected to lack access to safe drinking water. At least 30 per cent of the population in China, India, Mexico and the U.S. is expected to face severe water stress.

Monsanto estimates that providing safe water is a several billion dollar market. Water supply activities are reported to be growing at 25 to 30 per

cent in rural communities, and is estimated to be worth \$300 million by 2000 in India and Mexico. This is the amount currently spent by NGOs for water development projects and local government water supply schemes. The Indian Government spent over \$1.2 billion between 1992 and 1997 for various water projects, while the World Bank spent \$900 million.

As a Monsanto document states:

*'We are particularly enthusiastic about the potential of partnering with the International Finance Corporation (IFC) of the World Bank to joint venture projects in developing markets. The IFC is eager to work with Monsanto to commercialise sustainability opportunities and would bring both*

*investment capital and on-the-ground capabilities to our efforts.'*

Monsanto, says Ms Shiva, would like to divert this public money from public supply of water to establishing the company's water monopoly. Since in rural areas the poor cannot pay, Monsanto will need to create service arrangements with local government and NGOs, and to develop charging mechanisms such as microcredit.

Monsanto's water business, like its seed business, is aimed at controlling the vital resources necessary for survival, converting them into a market and using public finances to underwrite the investments. A more efficient conversion of public goods into private profit would be difficult to find.

■ Vandana Shiva is Director of the Research Foundation for Science, Technology and Ecology, New Delhi, India.

## No agreement on GM terminators

The meeting of the 175-member UN Convention on Biological Diversity in Montreal last June, failed to agree on a resolution condemning the development of genetically modified (GM) terminator crops, despite pleas from environmental and third world groups.

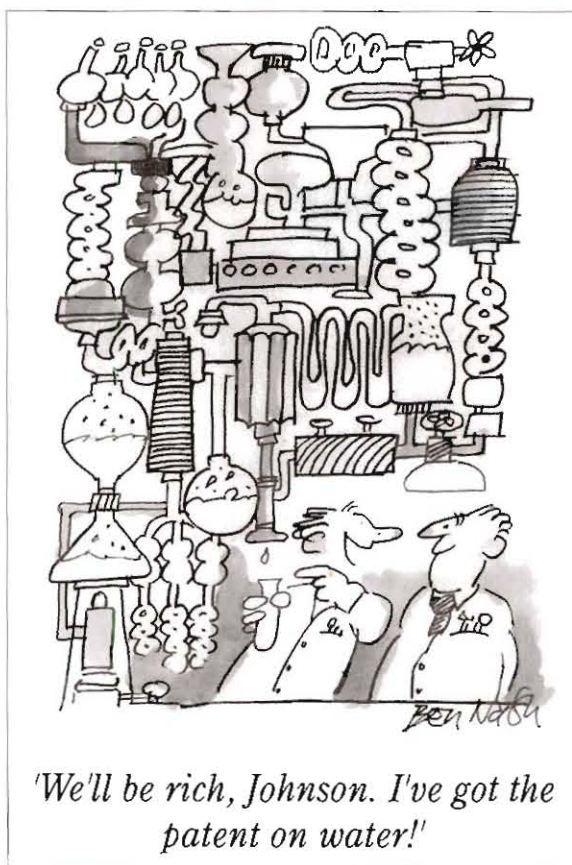
Terminator crops are bioengineered to ensure the seeds become sterile as they mature, thereby preventing farmers from using them the following season. There are mounting concerns that terminator genes could spread to wild varieties of crops, rendering them sterile, potentially causing a huge loss of biodiversity. Companies respond by saying that the spread of these genes is unlikely, and the problem is self-limiting as the affected wild plants will die out.

Farmers in developing countries may become locked into economic dependence on the biotech companies, worry some campaigners. Such countries may try to legislate to protect their farmers, but the US delegation in Montreal made it clear that countries trying to enact moratoriums against terminator technology will face economic and trade sanctions.

## Pesticides – the wheels of the EU go slow, slow, slow

Some good news from Europe. The European Union is drawing up a positive list of pesticides. So far it has taken eight years to give three pesticides the all clear and take seven off the market. The bad news is that there's a further 850 to go.

At the current rate of progress it should take another 680 years to consider the rest, so don't hold your breath, as they say.



# Dioxin: MAFF's advice leaves loopholes open

Advice issued by the UK Ministry of Agriculture, Fisheries and Food (MAFF) at the height of the Belgian dioxin affair appears to show little understanding of the problems faced by consumers.

The statement from MAFF issued to the national press about Belgian dioxin contamination said that exposure to an acute dose of high levels of dioxin should not be of concern as 'adverse effects in humans usually occur only after prolonged exposure to high levels of dioxins'.

The press release acknowledged that dietary exposure to dioxin from the Belgian contamination could be 100 times higher than would be normally found, although it did not say what the 'normal' level was. Dioxins act as potent carcinogens and as co-carcinogens, helping boost the carcinogenic effects of other toxins. Data from the US Environmental Protection Agency shows carcinogenic effects following long-term intakes at 1 picogram per gram (one part per trillion), the lowest level tested. At the dioxin-affected farms in Belgium,

chicken meat was found to be contaminated at the level of 2400 picograms of dioxin per gram.

But perhaps the most disturbing advice of all is the suggestion from MAFF that 'consumers who wish to take precautions are advised not to eat any pork, beef or poultry, or products derived from them (including dairy products) produced in Belgium.'

How did they expect us to do this? How can shoppers avoid Belgian meat and dairy products?

Last year we imported 150 million litres of milk from abroad, mostly from EU member states, plus 53 million kilograms of butter, 219 million kg cheese, 21 million kg milk powder, 176 million kg pork, 217 million kg poultry and over 700 million eggs, all from EU countries, and presumably this trade continued throughout this spring before the EU banned Belgian exports.

Much of this imported food went to the catering trade and much of the rest went to be processed into multi-ingredient processed foods. No processed foods packaged in Britain will tell you where each ingredient was sourced. Few if any caterers tell you where their supplies were produced. And the egg industry told the Food Commission that Lion-stamped eggs could technically be imported eggs re-packed in the UK, but in practice this does not happen.

It may be relatively easy to avoid Belgian pâté, chocolates or mayonnaise. But how do you know where the butter came from in a UK-made Danish pastry, croissant, or ice cream? Where did the salami come from in a frozen pizza, or the chicken in a baby food? Even raw ingredients may not indicate their origin — for example, few butchers display the source of their meat.

For once, MAFF's faith in 'consumer choice' falls foul of their own reluctance to improve the labelling of foods. But perhaps the real problem lies in MAFF's own inability to trace where all the potentially contaminated imports went to.

## Dioxins found in 1997 and 1998.

The contamination of food with dioxins revealed in Belgium in May 1999 is not the first of its kind. As the *Food Magazine* revealed last year, a survey by a French environmental organisation found 'high levels' of dioxins in samples of supermarket-bought meat. Samples of beef steak, minced beef and veal chops were found to contain levels which could push daily intake well above French food safety standard levels, according to a report by the National Centre for Independent Information on Wastes in 1998.

In 1997, tests by the French agriculture ministry found dioxins present in Brie, Camembert and butter sourced in northern France. According to *Le Monde*, experts of the Council of Europe advised that dairy products should not contain more than 1 picogram per gram of fat, but levels between 1.5 and 3.2 were found.

## Dog flesh in animal feed

The use of industrial waste oils in animal feed, the source of the dioxins in Belgium, is not the only alarming ingredient that finds its way into the diets of livestock.

In 1985, the pioneering book *Modern Meat* by Orville Schell gave examples of cattle in the USA being fed cement dust, newspapers and cardboard, and even described tests on the nutrient value of feeding cattle with pellets of their own manure.

In 1990, an outbreak of botulism in cattle in the UK was traced back to the use of chicken shed waste — including chicken manure, feathers and decomposing carcasses — being spread on cattle grazing land,

considered a common practice to fertilise the soil. The use of human sewage for fertilising grazing land is also commonplace since dumping at sea was banned.

And the dog flesh? The Department of Agriculture in Dublin, Ireland, admitted in June this year that dog carcasses were being used in feed for pigs and poultry. A 'small proportion' of the 30,000 stray and abandoned pets destroyed by local authorities each year were processed into meat and bone meal, a practice encouraged by the Department.

Much of this is exported to other EU countries.



## Higher pesticide residues in GM soya undermines 'environmentally-friendly' claims

Monsanto has made a lot of noise about GM crops meaning less pesticide use. But the company has made a lot less noise about the way in which it has applied for, and been given, an increase in the amount of its weedkiller, glyphosate (trade name Roundup) permitted to remain as residues on soya beans. In the European Union this has meant a staggering 200 fold increase from the previously permitted limit of 0.1 mg/kg to 20 mg/kg.

In a BBC interview in June a spokesman for Sainsbury's confirmed that their tests were now finding residues of glyphosate on imported US soya, and the company has raised the issue with the Ministry of Agriculture, Fisheries and Food (MAFF). MAFF responded by saying that 'residues pose no identifiable risk to consumers'.

Readers may feel less than reassured by MAFF assurances that it is all perfectly safe. Glyphosate is now the world's most commonly used crop spray and its use is increasing rapidly

with GM glyphosate-tolerant crops. Despite the substantial increase granted to residues of glyphosate on soya MAFF has yet to publish any figures on residue levels of the herbicide in GM soya. And supermarkets, such as Sainsbury's are not making their results public.

UK approval of glyphosate is based on data submitted in the 1970s and MAFF has not reviewed the chemical to today's standards, as it has done for a number of other older pesticides. More recent data<sup>1</sup> has shown that glyphosate:

- is the third most commonly reported cause of pesticide-related illness among agricultural workers in California, the only state that collects such data. Symptoms include eye and skin irritation, cardiac depression and vomiting;
- can kill fish in concentrations as low as 10 parts per million (10mg/kg);

- reduces growth of earthworms and increases their mortality;
- is toxic to many of the beneficial mycorrhizal fungi which help plants to take up nutrients from the soil;

Furthermore researchers in Sweden<sup>2</sup> say non-Hodgkin's lymphoma, one of the most rapidly increasing cancers in the Western world, is probably caused by several commonly used crop sprays, including glyphosate. The chemicals, say the researchers, suppress the patient's immunity allowing viruses to trigger cancers. Swedish sufferers of the disease were 2-3 times more likely to have had contact with glyphosate.

<sup>1</sup> Quoted in Anderson, L (1999) *Genetic Engineering, Food, and our Environment*.

<sup>2</sup> Lennart Hardell & Michael Eriksson, A case control study of non-Hodgkin's lymphoma and exposure to pesticides, *Cancer*, Vol 85, 6, March 15, 1999.

## EU gives limited approval to food irradiation

Two European Directives (1999/2/EC and 1999/3/EC) have been agreed after the deliberations of the Conciliation Committee. As a result, from 20 September 2000 all member states will have to permit the trading of food irradiation initially limited to herbs and spices. By 31 December 2000 the Commission will have to submit a proposal to 'complete the positive list'.

We may be permitted three small cheers:

- The current situation in which there are differences between national laws, with some countries (including the UK) permitting the irradiation of many foods while others (including Germany) ban it, will cease;
- Despite the fact that there are alternatives to the irradiation of herbs and spices, the existing limited 'positive list' is recognition of the opposition to irradiated food;
- Labelling is comprehensive and will include having to declare irradiated ingredients of compound ingredients in food products (such as the herbs in a salami on a frozen pizza) even where they constitute less than 25% of the finished product.

## Sweeter sales

Since 1970, demand for sugar in Europe has fallen from 12m tonnes p.a. to 11.6m tonnes while demand for artificial sweeteners has risen from negligible levels to 1.6 million tonnes sugar-equivalent. This implies a net increase of 1.2m tonnes sugar-equivalent in the period, although population size differences are not stated.

■ A Schmitt, IPTS Report 23, 1998 (see [www.jrc.es/iptsreport/vol23](http://www.jrc.es/iptsreport/vol23)).

## Norwegians bring in human rights

An international network launched from Norway is working on promoting the concept that the right to safe and sustainably-produced food should be a fundamental human right.

Workers at the School of Nutrition in Oslo have taken the declaration of the World Food Summit, which gave everyone the right to have access to food, and to be free of food insecurity, and proposed that this can only be fulfilled through greater emphasis on sustainable food production. They suggest that such a right should be incorporated in human rights legislation, thereby linking food into the national declarations on human rights to which most countries are committed.

The research group is initiating a network for promoting human rights in food security.

■ For more details on this initiative contact W Barthe Eide, School of Nutrition, University of Oslo, PO Box 1046, Blindern, NO-0316, Oslo, Norway.

## Risk of allergies in new GM foods

An alarming gap in EU regulatory procedures has allowed field trials of genetically engineered crops, which produced a known allergen. The field trials in France and Belgium of oil seed rape genetically engineered with a brazil nut gene, may have endangered nut allergy sufferers says the Women's Environmental Network (WEN).

A 1996 study found that soya beans genetically engineered with the 2S albumin gene from Brazil nuts could trigger an allergic reaction in people eating the soya who suffer from an allergy to Brazil nuts. Since 1996 this study has become well-known and is often cited as one reasons why GM foods may increase the risk of allergies. As a result of this research, the soya in question was not marketed.

But despite the known risks, WEN has found that other GM crops, engineered to contain the same gene for Brazil nut protein (2S albumin), known as the BN2S gene, are still being commercially pursued by

biotech companies including Pioneer Hi-Bred, Plant Genetic Systems (now owned by AgrEvo) and DuPont. Crops that have been engineered with the gene include oilseed rape, tobacco, soya, french beans, potatoes, narbon beans, field beans and peas. The aim, say biotechnologists, is to increase the nutrient quality of crops for human consumption and animal feed.

Even if crops containing the BN2S gene are to be grown entirely for animal feed, WEN says there are severe risks to people with nut allergies through cross-pollination and contamination. And if the food is for human consumption, it would merely have to be labelled, not withdrawn. WEN says further development into GM foods which may cause allergies should be halted on the grounds of public safety.

■ For more information contact WEN at 87 Worship Street, London EC2A 2BE.

# US hormones: something to beef about

Six steroid hormones, which are used to promote growth in beef production in the US and Canada, pose a potential health risk to consumers, particularly young children, says an expert report from the European Union, reports Sue Dibb.

Use of these hormonal growth promoters, and the import of meat produced with their use, is illegal in the EU but this ruling is being strongly challenged by the US, through the World Trade Organisation. If the WTO has its way, the European Union will be forced to open its doors to hormone-reared meat. At the heart of the row, which threatens to spiral into an all out trade war, is the science behind the question of safety to consumers of the six steroid hormones and whether wider ethical issues, such as animal welfare, should be considered by decision-making bodies.

At the end of March, the EU's Scientific Committee on Veterinary Measures Relating to Public Health<sup>1</sup> identified a risk to the consumer from excess intake of hormone residues and their metabolites for the six hormones in question; three naturally occurring steroid hormones (17 $\beta$  oestradiol [oestrogen], testosterone, progesterone) and three synthetic compounds

(zeranol, trenbolone and melengesterol acetate). The Committee's report concludes that one of the hormones, 17 $\beta$  oestradiol, is a carcinogen and 'for all six hormones endocrine, developmental, immunological, neurobiological, immunotoxic, genotoxic and carcinogenic effects could be envisaged'.

Furthermore the Committee considers that children below the age of puberty would be most at risk and that no threshold levels can be set for any of the six substances, that is, no level below which there would be no effects.

UK Agriculture Minister, Nick Brown, is on record as saying 'the EU ban is not justified by science.' But a new report from the Food Ethics Council<sup>2</sup>, which believes that decision-making should be based on wider ethical issues as well as science, says that the ban should continue indefinitely. The Food Ethics Council says that hormone use for growth promotion compromises animal welfare, consumer choice and threatens human health.

Meanwhile Brussels is threatening an all out ban on US beef following the discovery of hormone residues in meat supposedly produced without the use of the hormones.

Of 200 samples examined by the European Commission between May and November last year, 12% were found to contain hormone residues.

**1 Assessment of potential risks to human health from hormone residues in bovine meat and meat products, Opinion of the Scientific Committee on Veterinary Measures Relating to Public Health, 30 April 1999.**

Available at [http://europa.eu.int/dg24/sc/ssc/index\\_en.html](http://europa.eu.int/dg24/sc/ssc/index_en.html)

**2 Food Ethics Council, Drug Use in Farm Animals, June 1999. Price £10 Tel: 01636 812622**

## BST update

At the end of June the Codex Alimentarius Commission, the UN's main food safety body, refused to set a Maximum Residue Level for the milk-boosting hormone, BST, thereby refusing to endorse its safety.

In our last issue (FM45) we reported on new evidence questioning the safety of BST both for animals injected with the drug and for humans drinking milk produced with it. The US, where BST is permitted, has been pushing for Codex to endorse the product's safety by setting a Maximum Residue Level for BST. Such a decision would have allowed the US to challenge the EU and other countries such as Canada which have banned the drug. But US delegates surprised the Codex meeting by backing off from confrontation with the EU. The decision was applauded by Consumers International, which represents 245 consumer organisations in 110 countries, 'as a victory for the health and safety of consumers'.

■ For further information see Consumers International website: [www.consumersinternational.org/campaigns/food](http://www.consumersinternational.org/campaigns/food)

## Partial victory on lindane

The government has responded to years of campaigning to have the toxic pesticide, lindane, banned, by instituting only a partial ban. In June Food Safety Minister, Jeff Rooker announced that the use of lindane would be banned as a seed treatment because of risks to those treating seed.

As we reported in our last issue (Food Magazine 45) a leaked confidential report from the EU confirms the chemical's harmful effects including damage to the nervous and immune systems, hormone disruption, birth defects and breast cancer.

However, its use as a spray on apples, wheat, maize and other crops, in timber treatment and for domestic pest control will be allowed to continue, despite the chemical being banned in many countries including Denmark, Germany, Netherlands and Sweden.

The Food Commission is calling for a complete ban on lindane. To add your support write to your MP at the House of Commons, London SW1A 0AA.

## Spot the lindane

Nobody knows how much lindane is being used as a domestic pesticide – not even the government. Now UNISON and the Pesticides Trust want to show the government how easy it is for us to get hold of lindane, pollute the environment and risk our health.

They are asking everyone to go into their local garden centre or DIY store and search out ant or insect powder, flea killers or other insect sprays and fumigants as well as wood preservatives on sale to the general public which contain lindane or 'gamma HCH' as it is also known. Don't buy the product but send UNISON details of the product, its size and weight, price and details of where and when it was on sale, by 30 October 1999.

■ Lindane Campaign, UNISON, 15 Castle Gate, Nottingham NG1 6BY.



*Steroids: US goes for bigger beefcake.*

# GMOs may follow hormones into the trade wars

To protect the European market the EU slapped a ban on US hormone-reared beef. Now they might want to do the same to US-grown genetically modified (GM) crops, suggests Tim Lobstein.

Ten years ago, when the EU banned all imports of hormone-treated beef, it offered no scientific basis for the ban. And it offered no scientific evidence for maintaining the ban in 1996 when the United States and Canada filed a complaint with the World Trade Organization (WTO) claiming that Europe's action was just a ruse to protect European beef farmers from foreign imports.

Only this spring after long delays did the European Commission produce a report identifying some human health risks that might result from the consumption of hormone-reared beef (see page 7). The data are hotly contested.

Protecting the European market for European farmers flies in the face of free trade agreements and the WTO. But the European Commission is reluctant to remove Common Agricultural Policy (CAP) support and leave farmers exposed to foreign competition.

The largest slice of CAP support goes to farmers producing grain for animal feed. The biggest threat to these farmers is therefore the grain and soya crops grown in the prairies of the USA, Canada, South America and Australia. World prices already undercut EU farmers, and the potential for GM crops to push prices further down is worrying many of the EU's 'barley barons'.

The battle is looming. The Deputy Secretary of the United States Treasury, Stewart Eisenstat, has announced that within five years, 100% of US agricultural products will be genetically modified. And, he adds, Europe's resistance to GMOs is the biggest threat to trade that the US faces.

European farmers can choose to go down one of two paths. They can try to hold off the outsiders beating at their doors for as long as possible, while they get their own GM productivity up to competitive levels. This means strong internal investment in the technology, a fast-track trial and approval system, and the creation of strong consumer demand to keep the market intact. Clearly there are problems in making this option work, as consumers are increasingly wary of GM trials and resistant to GM products.

So the other option might be tried instead. This is the 'beef hormone' option — i.e. to look for valid reasons for keeping outsiders' products outside. It means moving away from GM production, just as Europe has moved away from hormone-reared beef production. And it may mean finding scientific reasons for keeping the US products out.

Scientific reasons may not be so difficult to find. Environmental problems are emerging from field trials, including long-distance cross pollination, and the damaging effect of the pollen on benign insect life. There may also be a host of hidden human health problems, and the USA is especially open to being upstaged on this.

Surprisingly, the US approval system for GM food products requires little demonstration of safety. The Food and Drug Administration took a tolerant view in 1992 towards GM food which it regarded as essentially similar to non-modified products — food defined as having 'substantial equivalence'. The FDA re-iterated its position this January: 'FDA has

*not found it necessary to conduct comprehensive scientific reviews of foods derived from bio-engineered plants ... consistent with its 1992 policy'.<sup>1</sup>*

Given the Americans' lack of data to show safety, it might not be so difficult for the European Commission and its advisory committees to find some good reasons for stopping the USA's GM crops entering the EU. We report one piece of evidence on page 3.

For consumers, there is for once a possible agreement between what our farmers need to do to protect their markets and what consumers want. Public opposition to new technology is normally ignored by policy makers in Europe's agriculture ministries, but this time public opposition might be rather useful to them.

This may seem cynical, but farmers and consumers may well agree that declaring Europe a GM-free zone could be the answer. If this is, indeed, the strategy to be followed by farmers and the European Commission, then watch out for more scientific evidence of health hazards from GM crops, officially sanctioned by the EC's advisory committees. And watch for a furious US response.

1 FDA statement cited in *The Lancet* 353, 29/5/99.

## FDA ignored GM warnings

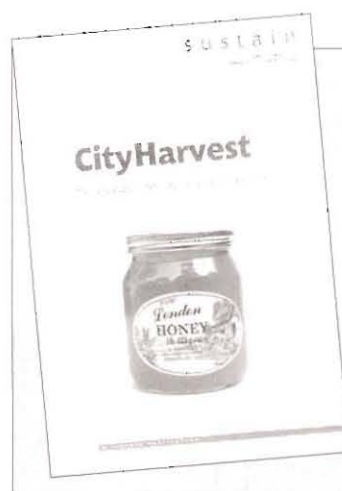
The US Food and Drug Administration (FDA) has ignored warnings from its own scientists that its approval process for GM foods was inadequate, according to evidence released under the Freedom of Information Act.

Internal reports and memos obtained in a lawsuit being filed by consumer groups against the US government reveal that the FDA's claim in 1992 — that it was 'not aware of any information showing that foods derived by these new (biotech) methods differ from other foods in any meaningful or uniform way' — was not true. It's own staff scientists had warned that foods produced using recombinant DNA technology entail different risks than do conventionally produced counterparts.

FDA compliance officer, Dr Linda Kayl, said that she and other scientists had recommended that genetically engineered foods undergo special testing, but to no avail. In assuming there were no substantial differences in foods produced from GM crops, the FDA 'were trying to fit a round peg in a square hole,' she said.

Dr Louis Priybl, of the FDA's Microbiology Group, warned of the profound differences between the types of unexpected effects that might be found using conventional breeding and genetic engineering, which he said had been inadequately addressed in the FDA's 1992 policy papers.

■ See Mokhiber and Wiseman, *Focus on the Corporation*, June 1999.



Urban agriculture: not a contradiction in terms but a practical reality, says this report from the CityHarvest project. Full of valuable ideas, typical projects and case studies, guidance for local authorities, voluntary organisations and anyone interested in food production in city areas, this report covers the range. 160 fact-packed pages, £30 inc. from Sustain, 94 White Lion St, London N1 9PF (tel 0171 837 1228, fax 0171 837 1141).

# CHECKOUT

We investigate food company policies on GM tolerance levels

## GM-free or not GM-free? – that is the question

**Virtually all UK retailers and major food manufacturers are now committed to removing genetically modified (GM) ingredients from their foods. But given the possibility of some cross-contamination, what exactly should GM-free mean?**

**B**efore we all relax and think the battle to keep GM off our supermarket shelves has been won, there's a new debate raging over exactly what GM-free should mean. Should it mean exactly what it says, to be completely free of all traces of GM crops or ingredients, or should food companies be allowed to accept a trace of GM soya or maize and still be permitted to call their products 'free from genetically modified ingredients'?

It might sound technical but it is far from academic. Behind the closed doors of bodies like the British Retail Consortium, which represents the retailers, and the Food and Drink Federation, whose members are food manufacturers, discussions on 'tolerance levels' are continuing, about what is technically possible, what they think consumers will accept and the kind of leeway companies want in order to protect themselves legally, if despite their best endeavours to keep GM ingredients out, contamination

accidentally occurs. This amount of leeway is known as a 'tolerance' level. And the reason these discussions are hotting up is that everyone is waiting for the EU to set a legal tolerance limit. It is likely that an announcement will be made this autumn and rumours put the likely EU proposal on a tolerance level being somewhere around 2-3%.

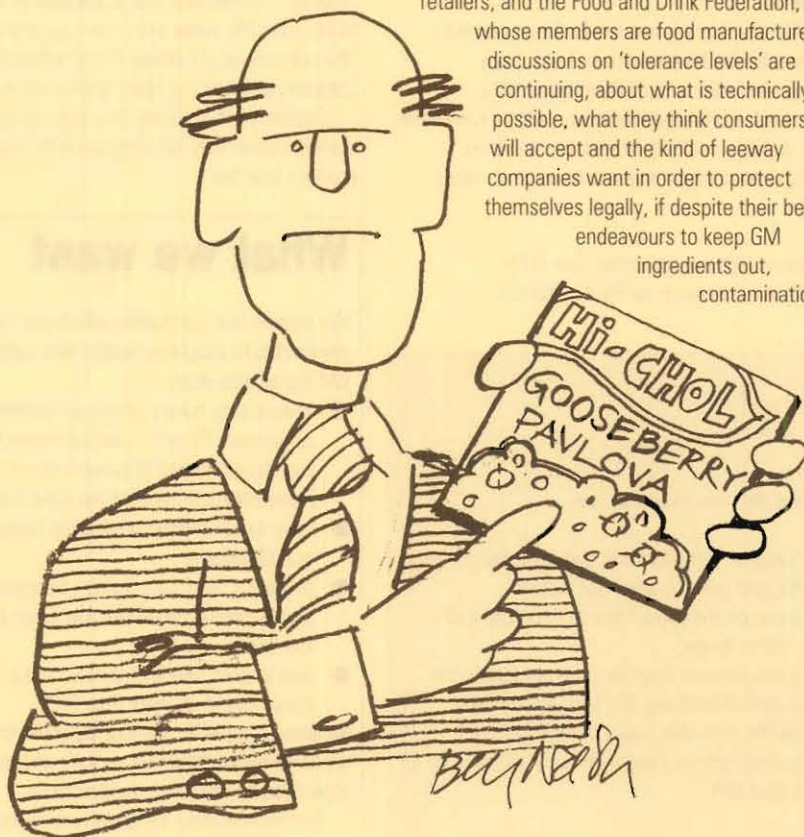
We say that's unacceptably high. Furthermore, as our exclusive survey of food retailers over the page reveals, such a figure is far higher than many companies are already achieving.

### What is a tolerance level?

The amount of GM material that is allowed to contaminate non-GM crops, foods or ingredients is known as a 'tolerance' or 'threshold' level. While many companies say they are already operating at zero or as near to zero as 0.1% (equivalent to one soya bean in 1,000), it is thought that the EU is likely to propose a standard as high as 2-3% (equivalent to twenty to thirty soya beans in 1,000).

Tolerance levels are used for other food standards. For example, durum wheat is allowed to contain up to 3% non-durum wheat and still call its self 100% durum wheat. Whether you think this sounds like a cheat or a pragmatic solution to a practical problem of obtaining pure seed probably depends on whether you are a consumer or a producer.

The other level that is currently under discussion is what is known as the *de minimis* threshold. This is the level at which companies have to decide whether an ingredient has to be declared as GM for labelling purposes. EU proposals of 0.01% would mean that ingredients which make up less than 0.01% of the final food (eg flavourings, colourings or processing aids) will be exempt from having to declare whether or not they are 'products of genetic modification' on the label.



*'...and the company is 97% certain that this product is almost GM-free, at least in parts'*

# CHECKOUT

## What should we tolerate?

**F**or those who have been campaigning to keep our food GM-free, any kind of tolerance level seems an anathema. It will be hard enough for consumers to accept that non-GM might mean, 'non-GM as far as we can be sure' let alone 'significantly non-GM-free'.

We are told that even if companies put in place strict 'identity preserved' (IP) systems it will be impossible to prevent all genetic pollution and contamination. It's a depressing realisation that even if seed supplies can be kept pure, even if separate silos are used to store crops, even if lorries, ships and containers are thoroughly cleaned, even if factories use separate facilities for making non-GM foods, even if..... it is still not possible to guarantee absolutely 100% that no traces of cross contamination will occur and that there won't be accidents and human mistakes or even worse fraudulent practices somewhere along the line.

Furthermore, even though laboratory testing for GM is now extremely sensitive, it still can't guarantee the result below a limit of detection. While detection may be as low as 0.01%, tests still can't say for sure what's in that tiny fraction smaller than 0.01%. 0.01% might sound infinitesimally small, but think of a container load of soya and 0.01% is quite a hill of beans.

The debate over 'tolerance levels' is making all of us, consumers as well as food producers, face up to the stark reality of a GM world. It

seems that unless the market for GM crops is halted completely, consumers of conventionally produced foods will be faced with the prospect of having to accept the possibility of some, possibly very small, levels of contamination, but possible contamination nonetheless.

Organic producers, on the other hand believe, that the separate supply chain already in place for organic foods can preserve the non-GM status of organic produce. This, though, depends on sufficient controls being placed on the growing of GM crops to prevent the genetic pollution of organic crops by cross-pollination (see box below).

So what is an acceptable GM tolerance level? Set levels too high and consumers will feel cheated and their trust in company claims to be 'non-GM' will quickly evaporate. Set a limit too low, says the industry, and it will be virtually impossible (and certainly more expensive) to achieve.

We say if levels are set to those currently achievable by best practice – and many companies told us that their aim is zero tolerance – then there is every reason to believe that within a realistic timescale, the food industry as a whole can achieve these levels.

*Written and researched by Sue Dibb.  
Additional research by Rachel Sutton.*

### What we found

We asked the major retailers and trade bodies for their policies on GM tolerance levels. Tesco, Safeway, Marks & Spencer and Budgen told us that they aim for zero tolerance although they did not say what is the highest level they will accept if this aim is not met. Sainsbury's was more specific. The company says it is achieving its maximum limit of 0.1%. Furthermore, it is committed to reducing this to 'even lower levels'. This is the same commitment that the wholefood trade is working towards, says Genetix Food Alert.

Other companies, though, are working to higher tolerance levels. ASDA says it operates a tolerance level of 1% – ten times higher than Sainsbury's, although it says it normally achieves 0.5%. Iceland says it allows up to 1% but is aiming for 0.1%.

Meanwhile the Co-op says a 2% level is 'realistic'. Somerfield says it 'capable of doing better than 2%', while Waitrose says it is awaiting 'the outcome of EU deliberations' which the company believes it is likely 'will be set at 1-2%'.

Organic producers say they will not accept a standard other than zero tolerance for organic produce (see box).

### What we want

We believe that companies which say they are committed to supplying foods made with non-GM ingredients must:

- ensure they have in place an identity preserved (IP) system which meets the highest standards to prevent cross contamination throughout the food chain;
- have separate food production facilities for non-GM foods;
- provide a time commitment to ensuring animal feed is non-GM if this is not already the case;
- aim for zero tolerance and accept a maximum of no more than 0.1%.

As some companies are already achieving this we believe that these are realistic and achievable objectives for the whole food industry.

Furthermore there should be restrictions on the growing of GM crops to ensure no cross contamination of organic crops to guarantee that organic producers can maintain zero tolerance levels.

### Organic standards

The Soil Association is opposed to any GM contamination of organic food. 'When consumers say they want GM-free food, they don't mean food contaminated up to a threshold of 0.1%, 1% or 2%. GM free should mean 100% GM free and it is the government's responsibility to uphold this choice,' says the organisation.

A recent MORI poll found that 74% of consumers say they would be concerned if organic standards could include organic crops that have been cross pollinated with GMOs.

In response to fears of GM contamination of organic crops, the Soil Association has introduced stricter standards to minimize the risk of cross-contamination.

Among the new measures are:

- five year ban on conversion to organic farming for land used to grow GM crops;
- a ban on the same farm growing GM and organic crops;
- a requirement that SA licensees inform the organisation if any GM test sites appear within a six mile radius of their farms – considered the maximum likely distance for pollen drift.

For more information: Soil Association  
0117 929 0661

# CHECKOUT

## What the companies say:

### **ASDA**

'ASDA operates to a tolerance level of 1%. In actual fact our tests show that 0.5% is the most common tolerance level and rarely rises occasionally to 1% so we are well under the 2% which is being mooted as a possible EU directive on tolerance levels.'

### **Budgens**

'We require from our suppliers a zero tolerance, which may mean that our suppliers will have to replace GM soya or maize with alternatives to achieve this tolerance level.'

### **Co-op, CWS**

The Co-op wants levels to be 'as low as realistic for compliance purposes' and believes a 2% level is realistic.

### **Iceland**

The company says its 'target tolerance level is 0.1%'. The maximum it currently accepts is 1%, although it rarely finds this level. The company's *de minimis* threshold is 0.01%.

### **Marks & Spencer**

'We require all our food products to be made from non-GM ingredients. We do not specify a tolerance level. We expect our suppliers to take every precaution, at all stages of food production, to prevent the accidental mixing of GM and non-GM ingredients.'

### **Safeway**

'Safeway's aim is one of 0% tolerance with regard to the amount of GM material in non-GM soya or maize.'

### **Sainsbury's**

'Despite the most rigorous controls in place, the whole of the food industry may be affected by adventitious contamination eg cross-pollination. Because of this a maximum limit of contamination is set by the industry. This maximum limit is usually 3%.'

'Through the work Sainsbury's has done to source non-GM ingredients and the stringent verification programme Sainsbury's have put into place, a tighter maximum limit of 0.1% can now be achieved. Customers should note that even while working to this 0.1% limit Sainsbury's will continue to refine farming and processing practices to reduce this to even lower levels.'

### **Somerfield**

'In the case of soya and maize purchased as identity preserved crops then the proposed legally permitted allowance of up to 2% tolerance will be accepted'... although this 'is the worst case scenario. We are easily capable of doing better than 2% and believe we will do even better in the future.'

'In the case of ingredients, additives and processing aids we will not declare genetic modification where the ingredient, additive or processing aid is present in the final product at less than 0.01% on a weight by weight basis.'

'We have made considerable progress over the last 3 months and believe that we will have completed all our modifications on own label products to comply with this policy by the middle of July.'

### **Tesco**

'In line with our "honesty in labelling" campaign it is our intention to have a zero tolerance for GM ingredients in Tesco own brand products.'

### **Waitrose**

'For those ingredients which require GM labelling we have specified that any soya or maize must be derived from conventionally grown sources and that a traceability system is in place. For those ingredients (such as additives and oil) which do not require GM labelling we are working with our suppliers to source any soya or maize component from conventional crops, or amend the recipe.'

'It is likely the level for "adventitious contamination" of crops will be set by the EU at 1-2%. We are still awaiting the outcome of those deliberations.'

Regarding a *de minimis* threshold, the company says 'we are using 0.01% of the material which may contain GM element (for example soya lecithin). Work in this area continues.'

### **British Retail Consortium**

(represents retailers)

The BRC told us that its members were working towards a target of zero. 'Bearing in mind the expectations of consumers together with the current lack of activity in Brussels on tolerances, BRC members have decided to approach the problem on the basis of *de-minimis* rather than setting a specific tolerance. Specifications will be set for non-gm product.'

### **Food and Drink Federation**

(represents food manufacturers)

'In the absence of EU legislation specifying a threshold, companies are seeking to comply with current EU requirements on GM soya and maize and will label products in accordance with these requirements. We look forward to seeing EU clarification of this issue.'

## Linda McCartney foods kick out soya

When tests on Linda McCartney's products found 0.5% contamination with GM soya earlier this year, the company decided to re-formulate. Out are all soya ingredients, as the company says that these cannot be guaranteed GM-free, and instead the vegetarian foods will be made with wheat and other protein sources.

More recently Tesco was similarly caught out when tests for *BBC News* found GM soya, at levels thought to be around 4% in Tesco pizza, supposedly made with non-GM soya.



## Loopy labels

Continuing our look at the loopy world of labelling, sent by our eagle-eyed readers from around the world.

### Literary culture

French again (see right), this time with a bio-yoghurt made in France but sold in the UK.

The makers, Danone, clearly had a little problem about the definition of 'Bio'. The French for 'organic' is 'biologique', and to be quite sure they didn't mislead a French tourist in Britain they have added a statement on the pot. It tells us — and this must be a first in the world — that the product is definitely not an organic one.

One little problem they overlooked is that you couldn't possibly read this until you had bought the four-pack and opened the wrapping.



### French flavour

These peanuts are packed in France but have 3-language labelling. Intriguingly, what we would normally call 'flavour enhancer E621' the French company have called '*exhausteur de gout E621*'. We couldn't find the word *exhausteur* in our dictionary, but it gives the impression of depleting rather than enhancing the flavour.

To set the record right, though, the packet goes on to give the ingredients in English. This time we are told the additive is '*exaltation of flavour E621*'.



### Toothless smiles

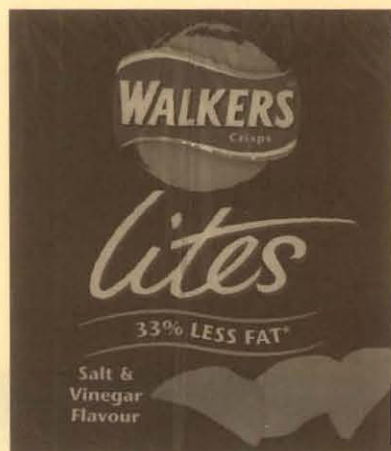
Danone again (see left), through their subsidiary group Jacob's Bakery. On the back of this pack of biscuits a suitably toothless-looking youth tells us about the nutritional merits of these jam biscuits. A raspberry logo tells us that the products are 'nutritious snacks — real fruit'. And a caption tells parents how the products are 'snacking choices that are tasty and wholesome'.

We are sceptical. Jacob's is making a product which contains more than 50% fat and sugar (by weight and by calories) and less than 4% fruit (as raspberry jam). The recipe includes a sprinkling of



vitamin powder, allowing the company to tell us how much of our daily recommended needs the biscuits will fulfil.

Sorry Danone. Vitamin deficiencies are not the major nutritional problem in our children today, whereas obesity and tooth decay remain rampant. (For more on vitamin fortification, see page 16.)



The winner of our competition for the highest fat levels in a product boasting '70% fat-free' (see last issue's Loopy Labels) has been won by our sharp-eyed reader Vivien Lund.

She found a pack of Walkers Lites crisps claiming in the small print 70% fat free!

In fact the product says it is 23% fat, so Walkers could have claimed a higher fat-free content. But that's their loss, and Ms Lund's gain.

The month after we published our criticism of the 'fat free' claims, the government's Food Advisory Committee — the most senior body advising ministers on food legislation — announced

that 'Percent fat free' claims should not be made.

Guidance to industry will be issued by MAFF, but is unlikely to come into effect for two years.



# Japan's organic future

Japan, for twenty-five years a leading supporter of community-farming links, is now developing professional organic distributions systems to complement the smaller, local initiatives. Kathy Adams reports.

**F**arm box schemes have been a fast growing phenomenon of the 1990s in the UK, but in Japan they have been a familiar part of the social culture for over 25 years. But now Japan is moving on. Their box schemes appear to have reached their peak of popularity, and are being supplemented by larger distribution schemes run on commercial lines.

The idea of linking a local group, such as a tenants' association or residents group, to a nearby farm in order to buy freshly-grown foods at lower cost, has an attraction in any country. In Japan, the development of *teikei* ('agreement') co-operatives was a natural extension of the neighbourhood groups, largely women-based, which have long been

a feature of urban and village culture. *Teikei* groups developed rapidly in the 1970s, at a time when the intensification of Japanese agriculture and the growth in the use of agrochemicals in an already densely populated country was leading to concerns about pollution and contaminated food supplies, and the impact of rapid industrialisation on the environment. The Japanese Organic Agriculture Association (JOAA) was also founded in the early 1970s, and one of its main principles is to foster *teikei* groups.

A 1990 survey of *teikei* groups found 238 co-operatives, involving over 40,000 households. Some of these had existed in the late 1960s, but 135 were formed in the 1970s, and a further 73 in the 1980s.



Low-tech inputs and crop rotation ensure that farming methods are meeting the principles agreed by the *teikei* group.



sett  
certific  
organic  
behind



The Aihara family, whose one hectare smallholding supplies weekly vegetable boxes for a *teikei* neighbourhood group.

Europe in its national enforcement of organic standards.

The popularity of OFDSs will no doubt force change. The various parts of the organic movement may need to reach agreement that a range of organic distribution methods can be developed in synchrony, with *teikei* seen as a niche sector of the wider co-operative movement and a specialist part of organic food distribution.

For more details see the following (available in the Food Commission library):

- *Alternative Distribution Systems for Organic Produce in Japan*, Natsuko Kumasawa, Masters thesis, Dalhousie University, Halifax, Nova Scotia, 1998;
- 'The Production and Marketing of Organic Produce in Japan: Practice, Problems and Potential', Saleem Ahmed, *East West Centre Working Papers*, 40, 1995;
- 'Success of the 'Teikei' Movement and Future Challenge' in *Diversifying Organic Food Distribution in Japan*, Toshiko Musagata and Hiroko Kubota, Japan Consumer Information Centre, 1992.

The author is very grateful to the Japan Offspring Fund for their support in supplying information and organising a farm visit.



## Organic distribution schemes compared

	Teikei	OFDS	Retailer
<b>Farmer:</b>			
Guarantees farming methods and practices	yes	yes	not necessarily
Delivers to homes/clubs on fixed schedules	yes	yes	no
Discusses farming with customers	yes	maybe	no
<b>Customer:</b>			
Accepts whatever quality/quantity is delivered	yes	no	no
Distributes produce among neighbours	yes	no	no
Helps farmers with weeding etc.	yes	no	no
Helps agree produce prices for a year	yes	no	no
Helps farmer financially	yes	no	no
Knows farmer who grows their produce	yes	maybe	no
Can visit farm	yes	maybe	no
Can influence what farmer grows each year	yes	maybe	no
Pays membership fee to farmer/co-op/distributor	yes	maybe	no
Has choice in product selection each week	no	yes	yes
Can change distributor from week to week	no	no	yes
Can buy produce whenever needed	no	no	yes
Degree of choice of produce available	limited	large	unlimited

Source: adapted from S Ahmed 1995.



The fixed price, variable quantity box from a *teikei* farm. The produce is fresh and from a known source.

# Vitamin wars

## How manufacturers love to add vitamins! But do we want fortified junk?

**W**alk around the supermarket and you can find fortified tinned pasta, fortified soft drinks such as Sunny Delight, and fortified sweet biscuits such as Happy Faces (see page 12).

Britain has some of the weakest regulations regarding fortification of foods in Western Europe. Scandinavian countries have the toughest, refusing to let manufacturers add extra nutrients to virtually all foods, and even then only a narrow range of vitamins is allowed.

Manufacturers love to fortify. The extra ingredients are a huge marketing opportunity for claiming the foods are valuable sources of essential nutrients. Children's products are especially targeted, as a dose of vitamins can help put a parent's mind at rest while the child scoffs the product.

Manufacturers can also get a double benefit. Some additives, such as vitamin C, act as antioxidants within the food — helping to reduce

the rate at which the fats become rancid or the added colourings fade. Vitamin C added to meat products such as sausages helps keep the fat fresh and helps keep the added dye bright red, making the fat look like lean meat for as long as the sausage sits on the shelf.

But many nutritionists are wary of fortified foods. They worry that the foods may be of poor nutritional quality apart from the added ingredients, and that the sales gimmicks

encourage a poorly-balanced diet. They say that adding vitamins to 'junk' food items does little to promote good health, as most dietary problems in Europe are a result of too much fat and sugar, too little fibre, and too few fruits and vegetables. Vitamin deficiencies are rare and not a justification for fortification, with the possible exception of folic acid. Adding a narrow range of specific nutrients to foods that are otherwise of low nutrient quality, they argue, is not an adequate response to poor dietary health.

Harmonisation of European markets means that, gradually, the members of the European Union should unify their laws, and moves have been afoot for some time to get harmonisation on the fortification laws. As the table shows (see below) the laws at present vary considerably from one member state to another.

Draft proposals are expected to be agreed during the year 2000, which would permit a list of nutrients that can be used, and the minimum (and possibly the maximum) levels allowed. There appear to be no proposals to restrict the type of foods that can receive these added nutrients.

Taking a strong lead on the issue is Kellogg's. The company has been busy this summer producing pro-fortification material, and lobbying nutritionists and policy makers. In the name of 'reducing the limits to consumer choice', it wants the freedom to market fortified products across Europe.

Ironically, Kellogg's themselves do not offer such consumer choice. In the UK, all their cereals

**Produktbeskrivelse:**  
Sprø, ristede maistflak  
**Ingredienser:** Mais, sukker, maltekstrakt, salt

Nærings- innhold ca.:	Pr. 100 g Kellogg's CORN FLAKES
Energi	1550 kJ 370 kcal
Protein	7 g
Karbohydrat herav:	83 g
- sukkerarter	8 g
- stivelse	75 g
Fett herav:	0,8 g
- mettede fettsyrer	0,2 g
Kostfiber	2,5 g
Natrium	1,1 g

INGREDIENTES	
MAIZ, AZÚCAR, EXTRACTO DE MALTA, SAL, NIACINA, HIERRO, VITAMINA B1, RIBOFLAVINA (B2), TIAMINA (B3), ÁCIDO FOLICO Y VITAMINA B12.	
INFORMACIÓN NUTRICIONAL	
Valor energético	Pr 100 g
Proteínas	1550 kJ 370 kcal
Hidratos de carbono de los cuales:	83 g
- Almidón:	8 g
- Azúcar:	75 g
Grasas de las cuales:	0,8 g
- Saturadas:	0,2 g
- Colesterol:	0 mg
Fibra alimentaria	2,5 g
Sodio	1,1 g
VITAMINAS	
Niacina	15 mg
Vitamina B1	1,7 mg
Riboflavina (B2)	1,2 mg
Tiamina (B3)	1,2 mg
Ácido Fólico	330 µg
Vitamina B12	0,8 µg
HIERRO	7,9 mg

Fortification is not permitted in Danish cornflakes (left), but it is allowed in several countries, such as in these cornflakes from Spain (right).

are fortified, as are virtually all other brands, while in Denmark there are no fortified cornflakes on sale as all such products are prohibited by law.

Consumer groups need to think carefully what their position should be. Some might prefer to opt for a compromise position allowing the restitution of nutrients lost during processing. This would require a list of specified foods and a list of the specified nutrients allowed in them.

The Food Commission is aiming to produce a report in the autumn on food fortification, and we would greatly appreciate readers' comments and views on the issue. Organic regulations, for example, prohibit the addition of vitamins and minerals except those required by law (e.g. in margarine). Is this what we want?



**Weaning onto sugared food.** In Spain, Kellogg's shows how you should add milk and a good dose of sugar.

## Fortification rules in Europe differ from state to state

	Allowed in...	Which nutrients?
UK	nearly all foods	no restriction
Belgium	all foods	list of those allowed
Germany	all foods	list of those allowed
Italy	only dietetic foods	no restriction
France	only dietetic foods	list of those allowed
Netherlands	all foods	list of those prohibited
Finland	restricted food categories	list of those allowed
Sweden	restricted food categories	no restriction
Denmark	restricted food categories	short list of those allowed
Norway	very restricted food categories	short list of those allowed

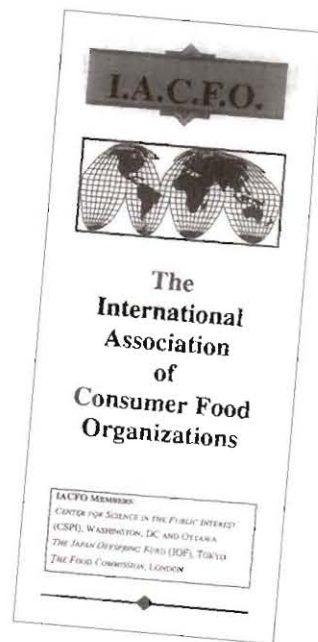
Source: Industry briefing to nutritionists

## Consumers get a new voice at Codex

The newly-formed International Association of Consumer Food Organisations (IACFO) has participated in all three Codex meetings held since IACFO's acceptance as an official Codex observer last April.

IACFO, whose current membership includes the Food Commission, the Washington-based Center for Science in the Public Interest, and the Tokyo-based Japan Offspring Fund, has made submissions urging Codex:

- to continue to ensure all irradiated foods are fully labelled;
- to maintain transparency in all Codex proceedings;
- to have a written commitment to the precautionary principle in risk evaluation;
- to allow certain food standards to be set locally rather than by Codex — e.g. on pasteurisation of milk and cheese;
- to ensure that Codex standards on food additives do not undermine higher national standards;
- similarly, to ensure that Codex standards for contamination of mineral water do not undermine higher national standards;
- to improve the quantitative labelling of foods — such as the fish content of breaded or battered fish products;
- to strengthen the requirement to label the nutrient content of foods, whether or not they make nutritional claims;
- and to further increase consumer representation within Codex meetings.



■ For further details on IACFO activities contact the Food Commission.

## School milk — good for whom?

The European Commission announced in June that they would continue the scheme for subsidising milk provided to school children. Currently 1 million UK primary children benefit from the scheme which refunds local authorities up to 12 pence per pint from Community funds. Farm ministers argued that the scheme was expensive, but agreed to continue until there was better evidence on the role it played in promoting the health of young people.

The UK's agriculture minister Nick Brown strongly supported the scheme's retention. His decision may have been influenced by a publicity campaign costing a reported £300,000, conducted by an organisation called the Association for British Nutrition. This previously unknown organisation appears to ignore arguments that fresh fruit might be a healthier food for schoolchildren than milk — especially the full fat milk which receives the most subsidy. The Association spokesperson, Alastair Crofts, instead suggested that if children drank less milk they would be drinking more unhealthy sugared fizzy drinks.

Challenged on Radio 4's *Farming Today* about what his real interests were, Mr Crofts admitted that he

actually worked for an animal feed company. 'If there is no dairy industry because consumers are not drinking milk, then we do not benefit and nor does the dairy industry,' he said. It seems that Association for British Nutrition is a grouping of large animal feed companies who depend on the dairy industry buying their products.

Readers may also want to keep an eye out for the School Milk Research Project — a scheme set up by the Milk Development Council and dairy producer interests.

■ A group of researchers in Sweden have called for increased health education on cutting dietary fat for children and adolescents. They found that at least a fifth of children regularly consumed full-fat milk, and that they (and their parents) believed it was the healthier choice. (C Berg et al, 8th European Nutrition Conference, Lillehammer, June 1999.)

### Not so fat

A study of adolescent girls in Finland found that one in three girls of normal weight thought that they were overweight or very overweight. Worse, 52% of underweight girls also thought they were overweight. The figures for boys were less dramatic, although one in five underweight boys thought of themselves as overweight. (V Mikkilä et al, 8th European Nutrition Conference, Lillehammer, June 1999.)

## WHO calls for sustainable food production

A set of draft proposals from the European Regional Office of the World Health Organisation argues that a safe, healthy diet can promote a sustainable environment, but that Europe needs a food policy that highlights the importance of health.

A set of specific proposals include the setting up of Food and Nutrition Councils in each country (though they may have other names, such as Food Standards Agency) that would help to ensure that health is taken into account in national food policies. It also calls for:

- policies to increase access to fruits and vegetables, especially for low income households;
- legislation to control advertising of high-fat, energy-dense foods to children;
- improved maternal and child nutrition, including breast feeding promotion;

- attendance of public health specialists at Codex and EU meetings;
- training for primary health providers in diet and physical activity techniques;
- greater support for farmers using environmentally sustainable techniques;
- a strengthening of the public's right to participate in decision-making on food production methods and access to safe, healthy food.



The plan aims to 'create a European movement to promote a safe and healthy variety of nutritious foods for all age groups. In addition to reducing levels of disease, protecting and promoting health, it has the benefit of protecting the environment and stimulating socio-economic and sustainable development.'

■ For more details, contact Aileen Robertson, WHO Europe, Copenhagen — email: aro@who.dk

# marketplace

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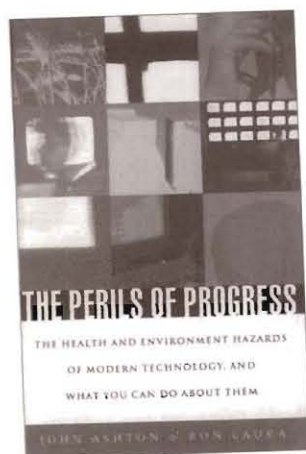
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## The Perils of Progress:

The health and environmental hazards of modern technology, and what you can do about them

John Ashton & Ron Laura, Zed Books, 7 Cynthia Street, London N1 9JF, 1999, ISBN 1 85649 697 X, £14.95.

## Real Food for a Change.

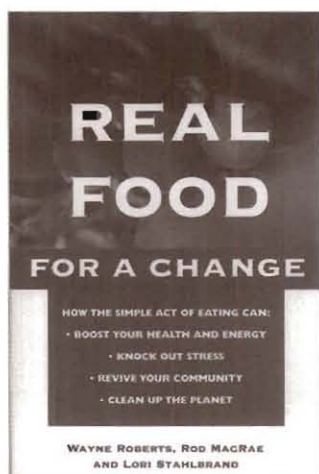
How the simple act of eating can boost your health and energy, knock out stress, revive your community, clean up the planet.

Wayne Roberts, Rod MacRae and Lori Stahlbrand, Random House of Canada, 1999, ISBN 0 679 30973 X, \$21.

There are plenty of books telling us how we can improve our lives, but that doesn't stop publishers and authors conspiring to add at least two more to their number.

One of the books, *The Perils of Progress*, even has sections at the end of every chapter called 'What you can do'. Sadly, the recommendations say little or nothing about getting active in local organisations, or joining national groups campaigning on relevant issues, or even subscribing to journals like the *Food Magazine*.

And there lies the problem with a book like *Perils of Progress*, which shows how terrible is the effect of commercial interests upon our food supply — it finds it hard to formulate a coherent solution. The book stays clear of recommending political



action, certainly of party-political activity, and confines its recommendations to an individualistic mode ('buy organic', 'recycle your packaging', 'support your local farm') which anyone likely to be buying a book with this title probably knew already.

Furthermore, although published in London by Zed Books, the authors make little reference to UK material in their evidence of food concerns. A chapter on food irradiation makes no reference to any European activity on the issue, let alone the excellent work in the UK by Tim Lang and Tony Webb during the late 1980s (or in Australia by Tony Webb subsequently). It is too US-oriented, and too remote from real campaigning. The authors look as if they are good at library research, but there's little sign that they have ever spent their Sundays stuffing envelopes.

*Real Food for a Change* on the other hand does not attempt to add lists of 'correct' activity to the end of a chapter, but instead gives its prescriptive recommendations as part of its main text.

It is a cheerful and witty book, starting off with ten reasons to eat organic ('Number 1: Organic food is anxiety-light') and carrying on in the same good humour through to a chapter called Avoid Gassy Food — which turns out to be about food miles and the need to source our food from local suppliers. And it has the good sense to finish with a list of 29 groups and organisations offering opportunities to get active. The problem is that all these groups are in Canada, as that is the book's provenance.

But the text and the arguments — and the style — can be appreciated internationally.

## Letters

### Kosher call

Please inform your readers that the NOAH project, a Jewish environmental group, is calling for GM food to be described as non-kosher.

Jews, Muslims (they can eat kosher) and those who want to eat kosher food should be able to get guaranteed GM-free products.

Details from Roz Salik, phone 0181 780 7335.

### Novartis regrets

'All the companies, we all owe the public a *mea culpa*. We have not listened carefully enough.'

Willy De Greef, Head of Regulatory and Government Affairs  
Novartis AG, Switzerland

(No, this isn't a letter to the *Food Magazine*, though it ought to have been. But it is a genuine quotation from a Novartis senior executive, reported by Reuters, Washington, 19 4 99.)

### GM-free sugar

I was disappointed to see sugar listed with a number of other foodstuffs as possibly derived from GM sources (*Food Magazine* 45). We

can categorically state that sugar (sucrose) derived from UK-grown sugar beet is NOT genetically modified and consumers need have no concerns.

Geoff Lancaster  
British Sugar  
Peterborough, Cambs

*Our concerns were with the sugars derived primarily from starches such as maize starch: these can include glucose syrup and fructose. We are pleased that British Sugar, which controls most of British sugar-beet production, is eschewing GM technology for commercial crops. The company had previously acknowledged that it was developing GM sugar beet strains in the laboratory.*



## Genetic Engineering, Food and Our Environment,

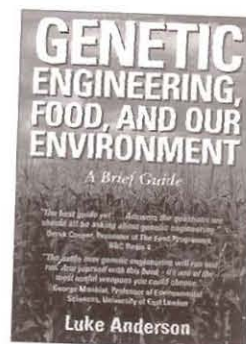
A Brief Guide

Luke Anderson  
ISBN 1 8798 78 1, £3.95.  
Green Books, Foxhole, Dartington, Totnes, Devon TQ9 6EB (tel 01803 863260)

Luke Anderson is a campaigner on genetic engineering issues and a consultant to the Soil Association's genetic engineering campaign. He has put together an excellent, well

referenced guide which is strong on the potential environmental impact of genetically engineered crops and its impact on farming both in the developed and the developing world.

There is a chapter looking at patenting life, one looking at BST as a case study and a resources section including international contacts.



## New Labour, New Wal-Mart

In Downing Street this spring, Wal-Mart executives shared a glass of sherry with our Prime Minister. A couple of months later two Wal-Mart executives arrived in the UK on a Monday and left two days later, having snapped up the ASDA chain for £6.7 billion.

The connection? We may never know, but it is likely that Wal-Mart was checking how its presence in the UK might be viewed by UK authorities which, in John Major's time imposed planning restrictions on supermarkets' new out-of-town developments, and under Blair have brought in the Office for Fair Trading to examine supermarket prices.

The PM clearly gave Wal-Mart a positive reply. And there may be more behind Blair's approval than mere servitude to American economic expansion. It is possible that Downing Street believes Wal-Mart can deliver Labour's anti-poverty strategy.

Wal-Mart promises cut-price goods in giant warehouses. Savings of 20% or more can be yours. Food will be cheaper than ever. If poor families need better access to low-cost food — give them a Wal-Mart!

Besides the need for a car, there are several other flies in the ointment. (1) Wal-Mart may demand some out-of-town development sites, which Labour will have to spin as providing a local social service. (2) As we have shown in this magazine before, cutting food prices does little to help those relying on price-linked benefits, including many single parent families and many pensioners, as a fall in average prices is matched by a corresponding tightening of benefit levels. And (3) if we thought that the likes of Tesco and Sainsbury were screwing UK farmers to the floor with their cut-throat contracts, wait till Wal-Mart enters the ring.



*'You're in luck — it's specially for large, low-income families'*

## Legal, decent, thick-skinned and...

If you don't fancy the job of being chair of the new Food Standards Agency (3-4 days/week, £60,000-£80,000 pa) then there is always the director generalship of the Advertising Standards Authority (full time, £80,000-£90,000 pa).

The ASA is looking for a replacement for Matti Alderson who is leaving in mid-2000. 'She/he will remain calm, clear-headed

and decisive under pressure' says the job description. 'She/he will have good intellectual skills ... diplomatic skills ... relevant experience...'

She/he will have to 'withstand occasional criticism of the ASA's work' and 'will have the judgement to head the consumer protection arm of a self-regulatory system while maintaining the confidence of the advertising industry.' And public confidence?



## Fish meal

Talking of the Food Standards Agency, the Bill setting up the FSA is now working its way through the Committee stage before its Third Reading.

We were pleased to see that our predecessor, the London Food Commission, now has its place in its history. *Hansard* records MP John McDonnell stating in the Second Reading of the Bill that he had been a GLC councillor in the early 1980s when 'I funded the London Food Commission. At that time it was described as a loony left project, but it promoted many of the objectives of the Bill.'

Not everything reported in *Hansard* is so accurate, though. In the Committee stage, one MP, Owen Paterson, got very excited over the remit of the Agency, and its need to cover on-farm issues, such as the use of sewage sludge. 'It is bizarre,'

he said, 'that we have stopped dumping sewage in the sea, which means that fish do not have enough to eat, yet we are now dumping it on the land...'

How marine life survived and evolved without a human sewage supply, we may never know.

A few hours later, Mr Paterson was on his feet again, commenting on the relative importance of public health versus private profit in the control of the new Food Standards Agency:

*'If the producers are not well represented, the food industry may well view the agency as the poodle of public health interest groups. That would be disastrous — there would be no co-operation [from industry]. It is vital that the agency is respected as much by the food industry as by the public and interest groups.'*

## Wise move?

The most senior nutritionist in the country, Dr Martin Wiseman at the Department of Health, is apparently leaving his job.

Where does a man with such a wealth of inside information about government food policy go? To the public relations industry of course. There is a rumour from usually reliable sources that Dr Wiseman has accepted a post with Burson-Marsteller, the agency which dealt with the Bhopal disaster, and which

advised Monsanto not to engage with environmental groups on factual issues.

We can only speculate on which food companies might be queuing at B-M's door to gain access to their new man. Or perhaps the forthcoming Food Standards Agency has a few quid to throw at a public relations company, and will be wanting a familiar face where it counts.

There once was a time when only a few Portuguese peasants knew what Monsanto meant. Perhaps this small hill-top village should consider litigation to defend the integrity of its good name ... or better still, it could start issuing press releases against GMOs, artificial sweeteners and BST — and completely confuse everybody!

