



GM Freeze Briefing

GM Labelling and Traceability Enforcing Enforcement

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This briefing sets out the legal requirements for the labelling and traceability of GM ingredients in food and feed and reviews current enforcement activity in the UK. It then suggests some ideas for actions groups and individuals could take to improve the level of enforcement to help ensure consumer and farmer choice is maintained and the chances of unauthorised GM materials entering the UK greatly reduced.

The GMO Traceability and Labelling Regulations

These regulations were enacted in the UK in 2004 and 2005 following the introduction of EU Regulation 1831/2003.¹ They require that all ingredients in food and animal feed from a GM crop have to be labelled regardless of whether there is detectable GM protein or DNA present. Thus heavily processed ingredients manufactured from GM crops, such as vegetable oil, starch and lecithin, now have to be labelled whereas under the previous regulations (*The Food Labelling (Amendment) Regulations 1999*) they did not.

Meat, dairy products, eggs and poultry produced from animals and birds fed on GM feed do not have to be labelled.

Processing aids which are made using genetically modified micro-organisms, such as rennet used in cheese making and enzymes, which are not in the final product, do not have to be labelled. However, some companies voluntarily label cheeses produced as using non-GM rennet.

The 0.9% Threshold

GM ingredients have to be labelled if their GM content exceeds 0.9% in the final food or feed sold to consumers. Below this threshold the GM content does not have to be labelled providing the presence can be shown to be "adventitious or technically unavoidable". Thus to avoid the need to label ingredients as GM, food and feed manufacturers have to provide evidence that they have taken all reasonable measures to avoid the presence of GM thus proving that any presence between zero and 0.9% is truly "adventitious" or accidental.

For ingredients from which GM DNA or proteins are not normally present, the proof has to come from the company's traceability paper work back to the original crop from which the ingredient was derived backed with analytical information about the GM content of that crop or raw material.

Unapproved GMOs

The 0.9% threshold only applies to genetically modified organisms (GMOs) which have been approved for import and commercial sale in the EU. There is an exception for GMOs which are already in the EU's regulatory process and have already received a favourable assessment in their risk assessment by the European Food Safety Agency. In this case a threshold of 0.5% applies and products could enter the market unlabelled. Above 0.5% they would not be authorised. The sale of any unauthorised GMOs is illegal.

Testing

An important part of traceability systems is that batches of raw or processed ingredients can be traced back along the supply chain to a point where the GM content has been tested for and quantified. There are simple strip tests available for individual GMOs, such as Monsanto's Round Up Ready Soya, but these cannot be used to determine whether or not the 0.9% threshold has been exceeded because they are not accurate enough. To achieve this level of accuracy an analytical technique called Polymerase Chain Reaction or PCR is used. This can confirm the presence or absence of GM down to a limit of detection of less than 0.1% and identify particular GMOs providing the lab has the necessary reference sample for that particular GMO (not always the case for experimental or unapproved GMOs).

GM Imports

GM crops can be imported as whole grains, processed products or in manufactured food or feed ready for sale to consumers and farmers.

In the UK, the policy of supermarkets and manufacturers to avoid GM content in human foods means very few manufactured products containing GM ingredients enter the country. GM imports therefore are mainly imported as bulk commodity crops or products such as soya beans, soya meal or maize gluten used in animal feed. A number of UK ports are equipped to handle the huge vessels involved, for example, Liverpool, Glasgow, Tilbury, Bristol and Southampton. Some smaller ports may receive crops destined for animal feed sometimes transhipped from other EU ports, such as Rotterdam.

The most effective point in the supply chain to verify the GM content of a product is when it first arrives at a UK port and before it is split into hundreds of different loads going to different manufacturers. At this stage it is essential that several samples are taken to ensure that the GM content of each cargo is accurately assessed. GM content of one part of the cargo can be quite different than another. For instance, samples from a barge of soya destined for Swiss manufacturers were found to vary in GM content from zero to 1.2%.²

Who Enforces the GMO Traceability and Labelling Regulations?

The enforcement of the Traceability and Labelling Regulation is carried out by a number of local authority departments and one government department. The national authority is the Food Standards Agency. The table (*over*) shows how responsibilities are divided across the UK.

Current Levels of Enforcement

In 2005, GM Freeze carried out a survey of local authorities in England, Wales, Scotland and Northern Ireland³ to ascertain the level of enforcement activity for the GMO Traceability and Labelling Regulations. They found that the number of samples of food /or feed taken in one year averaged 6 per authority. Forty four percent of local authorities took no samples of human food and only one fifth of Port Health

Local Authority Departments Responsible for the Enforcement of the Genetically Modified Organisms (Traceability and Labelling) Regulations 2004

Country	Food imports	Feed imports	Animal feed on sale	Human food on sale (including restaurants etc)
England	PHA/Trading Standards/EH	PHA/Trading Standards	Trading Standards	Trading Standards/EH
Wales	PHA/Trading Standards/EH	PHA/Trading Standards	Trading Standards	Trading Standards/EH
Scotland	EH	Trading Standards	Trading Standards	EH
N.Ireland	EH	PHA/DARDNI	DARDNI	EH

PHA- Port Health Authority EH - Environmental Health Departments DARDNI – Department of Agriculture and Rural Development Northern Ireland

Authorities took any samples at all. The main reasons behind this poor performance was the lack of staff time to cover all statutory responsibilities, shortage of money and lack of motivation from the FSA. The FSA funded some national samples through the local authorities in 2005 when 60 samples of food ingredients were tested for GM presence – none was detected.⁴ The average cost of the basic PCR test to confirm the presence of GM but not quantify it was £136. Analytical costs for samples needed to mount prosecutions were even more.

The Risks of Under Enforcement

During 2005 it was revealed that an unauthorised GM Maize Bt10⁵ had been imported into the EU from the USA for four years without it being detected. It was estimated that 1000 tonnes had come in mixed with other GM maize.⁶ It took several weeks from the announcement before a test for Bt10 was developed by Syngenta, the biotech company which was responsible, and six months before the first samples of maize cargoes destined for animal feed manufacture were taken in the UK. The genetic modification to Bt10 included an ampicillin resistant marker gene which is one of a group of antibiotic resistance genes banned by the EU. There was concern that such genes could move (a process known as horizontal gene transfer) from feed in the guts of animals into the pathogenic bacteria adding to the prevalence of diseases with resistance to important antibiotics in human and veterinary medicine.

The Bt10 case illustrates how easy it would be for unapproved GMOs to enter the UK food chain and remain undetected. In the future crops modified to produce pharmaceuticals could accidentally (like Bt10) be co-mingled with food or feed crops. Only vigorous testing of all imports at ports can have any hope of preventing such a health threatening event.

Testing of all incoming cargoes at risk of GM-contamination at ports by the Port Health Authorities would greatly reduce the chances of unauthorised GMOs entering the food chain. It would also check levels of contamination of approved GMOs in non-GM cargoes so that labeling of products produced from the batches was reliable and consumers would have clear and reliable information.

To provide such a public service the PHAs would require additional funds and staff but this expenditure would reduce the chances of hugely expensive GM contamination incidents such as occurred in the USA in 2000 when a GM Maize known as Starlink, approved for animal feed only, was mixed with maize destined for human food.⁷ As GM pharmaceutical crops and industrial crops are increasing trialed and grown commercially in the USA, there is also a real risk that potentially very harmful GMOs could contaminate the food chain in the future. The accidental contamination of a soya crop with a maize modified to produce pharmaceuticals by Prodigen in 2003 provides a clear

warning of accidents that might happen more frequently in the future.⁸

Keeping the Enforcer Up to Scratch

Although the present enforcement arrangements are far from satisfactory it is important that regulators are kept on their toes otherwise the levels of enforcement could decline still further. Citizens can help do this by monitoring what is happening in their area. Information gathered locally can be compiled nationally to give an overall picture of enforcement activity and whether contamination is occurring, giving the opportunity to campaign for a better system.

One way to do this is to use our freedom of information rights provided by the Environmental Information Regulations 2004. Under this law any individual can request to see copies of any information or data held by public bodies, such as local authorities. It should be possible to request a copy of the results of all sampling data and details of other enforcement activity undertaken by a local authority under the GMO Traceability and Labelling Regulations.

How to Make a Formal Request for Information

Requests for information can be made in any format – email, letter or in person. In the case of a request for GM monitoring data, it is best to put the request in writing (email or letter) and retain a copy. Local authorities will usually have a designated person to deal with requests for information and to avoid your request being "lost in the system" it would be best to direct your letter to this designated person who will pass it on to the appropriate section of the council. If you are already in contact with the team responsible for GM issues then it will be easier to send it directly to them.

Requests have to be responded to within 20 working days. Local authorities have a duty to provide advice and assistance and to release the information you request in a format you request (for instance electronic or paper). There are exceptions which allow authorities to withhold information but these should not apply to requests about monitoring for GM content of food and feed. There is a "presumption in favour of disclosure" so local authorities need a good reason refuse your request.

Charges

Some local authorities may attempt to charge for providing information including staff time and this needs to be challenged. Charges have to be reasonable - for example photocopying should not be more than 10p per sheet (and should be free if sent to you by email). If you encounter problems with excessive charging or getting access to this information generally please contact GM Freeze immediately. It is possible to visit council officers to make long-hand copies of the information provided.

Draft Letter

Here is a suggested wording for your request for information.
Note the additional paragraph if you have a port in your area.

To the Officer Responsible for Freedom of Information Requests

Dear

Request for Information under the Environmental Information Regulations 2003

Please could you supply me with all the reports of monitoring and enforcement carried out by your authority (by Trading Standards or Environmental Health Departments) in the course of enforcing the Genetically Modified Organisms (Traceability and Labelling) Regulations (England/Wales)[delete as appropriate] 2004 or Genetically Modified Organisms (Traceability and Labelling) Regulations (Scotland/ Northern Ireland)[delete as appropriate] 2005 for the period 4th April 2005 to 31st March 2006.

Please also give full details of all legal proceedings or legal investigations undertaken as a result of a breach of the above regulations.

Optional paragraph if there's a port.

Please also include the same information for the Port Health Authority.

Please supply the information on paper, floppy disk, CD or by email [delete as appropriate].

I look forward to receiving your reply. Please inform me in advance if any charge will be made for supplying this information before sending it.

Yours sincerely,

National Data Base and Campaigning

One of the benefits of individuals making requests for information is that the data can all be pooled to give a national or regional picture which backs up the survey carried out by GM Freeze in 2005. Remember in this case no information may be as significant as a lot. Once we have accumulated sufficient data, we can assess the best campaigning options to ensure that the right to choose GM-free food and feed is upheld and to protect against the illegal import of potentially dangerous unapproved GMOs. Information gathered locally can also be used for local media work.

Please send any replies in full to:
Pete Riley, GM Freeze,
94, White Lion Street,
London N1 9PF.
or email to pete@gmfreeze.org.
Telephone: 020 7837 0642

¹ Genetically Modified Organisms (Traceability and Labelling) (England) Regulations 2004 SI 2335

Genetically Modified Organisms (Traceability and Labelling) (Scotland) Regulations 2004 SSI 438

Genetically Modified Organisms (Traceability and Labelling) (Wales) Regulations 2005 SI1914 (W157)

Genetically Modified Organisms (Traceability and Labelling) (Northern Ireland) Regulations 2005 SI 271.

² Kemenz, P (2005). *Perspectives of a Swiss feed producer and experiences with importing and handling non-GM soy meal*. Presentation at the Non-GM Soya Summit, Brussels 28-29th June 2005

<http://www.avantel.de/acm/1269/download/getfiles1.php>

³ GM Freeze, 2005. *GM Food and Crops: Maintaining Consumer Choice. A Report of a Survey on the Enforcement of the EU GM Traceability and Labelling Regulations*. Available from:

http://www.gmfreeze.org/admin/uploads/report_doc.pdf

⁴ <http://www.foodstandards.gov.uk/science/surveillance/fsisbranch2006/fsis0506>

⁵ <http://www.nature.com/news/2005/050321/full/nature03570.htm>

⁶ Letter from DG Sanco to the US Mission in Brussels 01.04.2005

⁷ Schuff, S. 2001. *Major seed companies say they have StarLink isolated. 12 March*. Feedstuffs

⁸ <http://www.aphis.usda.gov/lpa/news/2002/11/prodigene.html>