



Global GM Food Labelling Laws

Welcome to this edition of Agrifood Awareness Australia Limited's (AFAA) Biotech Bulletin. This edition of the Biotech Bulletin, entitled "Global GM food labelling laws" summarises GM labelling requirements around the world.

Introduction

Over the last six months Australia has become increasingly targeted by a global activist campaign against genetically modified (GM) animal feed, which to date has primarily focused on the poultry industry. Activities have included people dressed in chicken costumes demonstrating at poultry producer offices, ports and major supermarkets, individuals placing graffiti on ships and office buildings, and at the more resource-heavy end of the campaign, a visit to Australia by a large international shipping vessel.

Media statements by campaigners have suggested that by eating animals fed GM crops consumers are part of a "giant genetic experiment" that presents "environmental concerns". Sadly, they fail to acknowledge that over 140 animal feeding studies have been conducted around the world to assess the safety of GM animal feed (see www.animalbiotechnology.org/references.asp) with the broad consensus being that approved GM animal feed presents no risk over conventional feeds and has no impact on the end product, be that eggs, meat or milk. Australian-based campaigners have also failed to acknowledge that our own home grown GM animal feed derived from GM cotton, in its crop form, delivers significant environmental benefits.

In addition to the poultry campaign, a lobbying effort has been directed at changing Australia's GM food labelling laws which exclude eggs, meat and milk from labelling on the basis that the GM 'component' – found in the animal feed - is undetectable in the end product. Ironically, this has come at a time when Food Standards Australia New Zealand (FSANZ) has completed a review and found that Australia has "one of the most comprehensive labelling regimes for GM food in the world".

In particular, the review, commissioned by the Australian and New Zealand Food Regulation Ministerial Council found:

- Although Australia and New Zealand were among the first countries in the world to adopt mandatory GM food labelling, these requirements remain among the most comprehensive, both in scope and breadth of capture, of any country in the world.
- Two separate compliance surveys conducted by enforcement authorities in Australia and New Zealand and finalised in 2003 found a high level of industry compliance with the labelling requirements. Of the 168 products tested, all but one was considered to be compliant with labelling requirements. The non-compliant product was identified in the New Zealand survey and enforcement action was initiated with the product being recalled and the labelling rectified.
- The surveys demonstrate that the labelling requirements can be effectively enforced using strategies which examine compliance plans and documentation held by manufacturers, and supplemented by product testing where appropriate.

International rules for the labelling of GM foods vary considerably between nations. Some countries are in the process of discussing legislation, some have had mandatory laws in place for several years, and others such as Canada have opted for a voluntary labelling regime. This Biotech Bulletin highlights different systems in place around the world. Australia has taken a world-leading position in this area by implementing stringent, science-based regulation and being one of the first countries in the world to introduce labelling laws which are not about safety, but respect the right of consumers to make informed purchasing choices.

Paula Fitzgerald
Executive Director

The approaches taken in different countries towards GM food labelling differ greatly, as shown below.

	Labelling Scheme	% Threshold for Unintended GM Material	Are some biotech foods and processes exempt?
Australia & New Zealand	Mandatory	1%	Yes
European Union	Mandatory	0.9%	Yes
Indonesia	Mandatory	5%	Yes
Japan	Mandatory	5% ^a	Yes
Republic of Korea	Mandatory	3% ^a	Yes
Argentina	Voluntary	N/A	N/A
Canada	Voluntary standard	5%	N/A
United States	Voluntary	N/A	N/A

^a Top three ingredients in Japan and top five ingredients in South Korea.

Australia

Australia is a major exporter of a range of agricultural commodities including cereals (wheat, barley and oats), oilseeds (canola and cottonseed) and a range of food livestock products including dairy, beef, pig and poultry.

Food Standards Australia New Zealand (FSANZ) is responsible for carrying out safety assessments of GM foods on behalf of the Governments of Australia and New Zealand to ensure they are safe for consumption.

Food produced using gene technology is regulated by Standard 1.5.2 of the Australian Food Standards Code. Under this code GM foods undergo more rigorous testing than any other foods in Australia.

To allow consumers to identify foods with GM ingredients, a mandatory labelling regime for GM foods and ingredients where introduced DNA or protein is present in the final food, came into effect on 8 December 2001.

Highly refined products such as oils, foods containing GM flavourings or less than 0.1 per cent of the food content, and food intended for immediate consumption (for example restaurants, take-away outlets and caterers) does not have to be labelled. This rule exists for a number of reasons – for example, in the case of oil, much of the DNA or genetic material is removed in the refining process, meaning that oil from a GM plant is indistinguishable from oil from a non-GM plant.

A one percent threshold exists for the unintended presence of GM material in non-GM foods.

For further information:

Food Standards Australia New Zealand: <http://www.foodstandards.gov.au>;

'GM Foods and the Consumer', ANZFA Occasional Paper Series No 1:

http://www.foodstandards.gov.au/srcfiles/gm_and_consumer_pub02_00.pdf.

Argentina

Argentina is a major exporter of a range of grains, particularly maize, sorghum, soybeans and wheat. Genetically modified varieties make up virtually all of Argentina's soybeans and around 30 per cent of its maize.

Argentina was one of the first countries to establish a regulatory system for genetically modified organisms (GMOs). Recommendations are made to the Secretary of Agriculture from the various regulatory agencies, prior to a final release decision.

Genetically modified foods are regulated by the National Agrifood Health and Quality Service, determining if they are safe for consumption. There are no specific labelling requirements for GM products in Argentina.

Brazil

Brazil is now the world's ninth largest food exporting country. In terms of grains, Brazil is the world's leading exporter of soybeans and a major exporter of maize. The Ministry of Agriculture and Food Supply provides authorisation, following recommendations of the safety assessments from the National Technical Commission on Biosafety prior to any commercial release of a GMO into the environment.

The Brazilian government in 2001 introduced a law that products with more than four per cent GM ingredients should be labelled, with this limit reduced to one per cent in April 2003, however both of these laws were ever put into practice. New labelling laws come into force in April 2004 requiring all human and animal feed containing more than one per cent GM ingredients to be labelled.

Canada

Canada is a major grain exporter of canola, oats, barley, pulses and wheat. Canada also imports, mainly from the United States, large quantities of maize for its intensive livestock industries.

Canada grows a significant amount of GM crops. The GM crop area of canola, maize and soybean grew 26 per cent between 2002 and 2003 to reach 4.4 million hectares with increases totalling almost one million hectares.

Two Canadian government agencies regulate the arrangements for GM products and GMOs in Canada - the Canadian Food Inspection Agency (CFIA) and Health Canada. The CFIA assesses the potential risk to the environment, whilst Health Canada is responsible for assessing the human health safety of products derived through biotechnology including foods.

Health Canada is responsible for setting food labelling policies with respect to health and safety matters (ie nutritional content, special dietary needs etc). This applies to all foods including foods that have been derived through gene technology.

While mandatory labelling is required for GM products which have a significant health, safety or compositional change, the government identified the consumer's desire for more non-safety related information. To facilitate the use of voluntary labelling, the Canadian government supported the development of a national standard for the voluntary labelling of foods derived from biotechnology. In April 2004, the Canadian Government announced the official adoption by the Standards Council of Canada, of the [Standard for Voluntary Labelling and Advertising of Foods That Are and Are Not Products of Genetic Engineering](#), as a National Standard of Canada. This means that Canadian consumers may start to see more labels on some food ingredients and food items indicating whether or not they are a product of genetic modification. This Standard applies to the labelling and advertising of all food sold pre-packaged or in bulk, as well as food prepared at the point of sale.

China

China is a major importer of barley, canola and soybean and a major exporter of maize, rice and wheat. The only GM grain crop grown in China is insect resistant cotton, making up half of the total cotton plantings. China's GM regulatory policies are still developing.

In 2001, China issued regulations for agricultural GMOs, making it clear that risk assessments and labelling would be required for GM crops, although the government agreed to allow trade to continue until the new regulations were finalised.

In 2003, regulations were announced that required safety assessments and labelling of all food products that contain GMOs or “GM expressed product”.

European Union

Currently in Europe, 20,000 hectares of GM crops are commercially grown each year in the form of insect-resistant maize in Spain. Europe also imports GM soybean in bulk, primarily for animal feed.

Europe has developed the most stringent legislation in the world in relation to GM food and feed regulation and the labelling and traceability of GM foods and feed through the supply chain, and as a result GM products are once again moving through the approval process.

On 18 April 2004 new European Union (EU) legislation came into place for GM products, requiring the mandatory labelling of:

1. all foods produced from GMOs irrespective of whether there is DNA or protein of GM origin in the final product (eg highly refined oils produced from GM crops);
2. all GM animal feed.

Post market requirement also came into place which include:

- Labelling and traceability through the supply chain
- Monitoring by authorities to confirm that risk management findings were adequate at the time approval was given
- Approvals limited for a period of 10 years
- Thresholds have been set for the accidental presence of approved GM products in products not labelled as GM.

A 0.9 per cent threshold exists for the unintended presence of GM material in conventional foods where it can be shown to be technically unavoidable.

The EU has also implemented an unintended presence threshold of 0.5 per cent for unauthorised GM material in food or feed where the GMO in question has received a favourable EU scientific risk assessment, limited to three years.

For further information about the situation in Europe, see:

http://www.europa.eu.int/comm/food/food/biotechnology/index_en.htm

Hong Kong

With Hong Kong's tiny agricultural sector they rely heavily on agricultural imports. Fish dominates Hong Kong's imports, followed by fruits, vegetables and meats. Hong Kong's agricultural exports, although not as large as its imports, are still sizable, with its main export commodities being tobacco, vegetables, processed grain products and fish.

In February 2001 the Hong Kong government proposed that food containing more than five per cent GM materials should be labelled on a voluntary basis, or the government would implement mandatory labelling. To date this has not progressed further.

For further details: <http://www.fas.usda.gov/gainfiles/200011/55678674.pdf>

India

The first GM crop commercialised in India, insect resistant (Bt) cotton, was approved in April 2002 for a three year period.

In India, foods, ingredients and additives including processing aids, containing or consisting of GMOs or cells cannot be produced, sold, imported or used in India except with the approval of the Genetic Engineering Approval Committee (GEAC) that comes under the Ministry of Environment and Forests.

At present in India, there is no requirement to label products derived from GMOs. However, since the commercial release of GM cotton, this is being discussed.

Japan

Japan is heavily dependent on food and feed imports as a result of its limited agricultural resources and population size. Australia is its largest supplier of products.

Japan has approved a number of GMOs for food use and field trials. The Ministry of Agriculture, Forestry and Fisheries (MAFF) is responsible for environmental safety assessments which commenced in April 2003.

Food safety is regulated under the Food Sanitation Law, administered by the Ministry of Health, Labour and Welfare (MHLW), with a new advisory body, the Food Safety Commission which commenced in April 2003.

Foods cannot be imported into Japan that contain unapproved GM varieties. Since April 2001, labelling has been mandatory in Japan if modified DNA or protein can be detected in the finished food products, but only if the GM content exceeds five per cent or more of the total weight in the top three raw ingredients. It also permits non-GM labels at the same tolerance level, if produced with identity preservation.

For further information go to: <http://www.fas.usda.gov/gainfiles/200203/135683696.pdf>

Republic of Korea

The Korea Food and Drug Administration (KFDA) regulates the arrangements for labelling of GM products in Korea. From 2001 foods that use GM soybean, corn or soybean sprout require labelling, however it is only required if the foods listed are among the top five ingredients of the processed food product. Some minor ingredients are exempt from labelling requirements including soy sauce and edible oils.

The unintentional presence threshold of a GMO in GM soybean, corn or soybean sprout is three per cent.

Products derived from GM crops other than the corn or soybeans, and crops that are genetically modified through processes other than recombinant DNA technologies, are exempt from labelling requirements.

For more details: <http://www.fas.usda.gov/gainfiles/200108/125681734.pdf>

Malaysia

There is currently no legislation for the labelling of GM foods in Malaysia. The Food Quality Control (FQC) Division within the Ministry of Health Malaysia is the main governing body that controls the regulatory framework of GM foods.

The FQC has prepared draft guidelines for the regulation of GM food that proposes mandatory labelling of any food containing more than three per cent GM materials.

For further information see the Malaysia Biotechnology Information centre: www.bic.org.my

Philippines

The Philippines is an important market for Australian food exports, importing significant amounts of rice, dairy products and meat and live animals (mainly cattle), as well as large quantities of soybeans, wheat and maize.

The Philippines, the first Asian country to authorise the commercial production of a GM food crop, (insect resistant maize) has yet to pass labelling laws covering biotechnology products and at this stage labelling is voluntary.

Russia

In Russia, all foods containing 0.9 per cent or more GM material must be clearly labelled. This rule also applies to foods made of GM products that do not contain protein or DNA. The new legislation, effective from 1 June, is designed to bring Russia in line with the current EU standards.

Saudi Arabia

Due to Saudi Arabia's limited rainfall and ground use, they rely heavily on imports. The main commodity imports are barley (all for feed purposes), maize and rice.

Imports of GM products to Saudi Arabia are regulated by the Ministry of Commerce (MOC). Each shipment of GM products exported to Saudi Arabia must be accompanied by a health certificate stating that the GM ingredient(s) have been approved in the country of origin for consumption.

Labelling has been mandatory on all imported and locally produced processed products that contain GM ingredients since December 2001. There appears to be a one per cent threshold for unintended presence of GM ingredients before labelling is required.

In March 2003, the Ministry of Agriculture (MOA) extended the labelling requirements to all imported and locally produced GM animal feed, planting seed, fruit, vegetables and other products under its authority, with a 12 month waiver period to enable compliance.

Taiwan

The Chinese (Taiwanese) Department of Health (DOH) announced in August 2003 that all foods or beverages made from GM soybeans and corn must be labelled clearly from the beginning of 2004.

The new rules, which apply to products containing five per cent or more GM ingredients, will be implemented over a few years. Mandatory labelling for corn and soybeans products in the raw agricultural form, including flour, began in January 2003. Over the following two phases of the implementation process (1 January 2004 and 1 January 2005) processed corn and soybean products will be added.

The mandatory labelling does not apply to highly processed items such as soy sauce, soyoil, corn oil, corn syrup and starch.

Thailand

From May 2003, Thailand's Food and Drug Administration requires that food products that contain a GM ingredient as one of the top three ingredients, must be labelled. The rule applies only when the GM content is greater than five per cent of the total product.

United States of America

The United States of America (USA) dominates world markets for most agricultural commodities. The USA is one of the six principal countries responsible for growing GM crops, with 42.8 million hectares grown in 2003.

The agencies primarily responsible for regulating biotechnology in the United States are the US Department of Agriculture (USDA), the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA). Products are regulated according to their intended use, with some products regulated under more than one agency.

Ensuring the safety of GMOs for the environment in the USA is the responsibility of the Animal and Plant Health Inspection Service (APHIS) of the USDA. The Environment Protection agency has a joint responsibility with the APHIS for the release of crops that have been genetically modified to contain in-built pest protection, such as insect resistant cotton.

A statement released in January 2004, by the USDA Agriculture Secretary, announced USDA's intention to update and strengthen its biotechnology regulation for the importation, movement and environmental release of certain GMOs, to ensure their regulatory framework remains both rigorous and flexible and based on sound science. A comprehensive environmental impact statement will be the first process of the update.

The FDA assesses all food safety issues in the USA. The assessment is essentially based on the concept of 'substantial equivalence'. The labelling of food, including GM foods, is not required if the FDA establishes substantial equivalence. A label is required if consumers are to be alerted to any safety issues (ie special dietary needs).

For further information see:

United States Department of Agriculture: <http://www.aphis.usda.gov/brs/index.html>

Animal Plant Health Inspection Service (APHIS): <http://www.aphis.usda.gov>

For further information:

Agbios: www.agbios.com

Food Standards Australia New Zealand: www.foodstandards.gov.au

Global Knowledge Centre on Crop Biotechnology: <http://www.isaaa.org/kc/>

Market Access Issues for GM Products – implications for Australia – ABARE publication: <http://abareonlineshop.com/product.asp?prodid=12559>

United States Department of Agriculture Foreign Agricultural Service: www.fas.usda.gov

We look forward to your feedback on this newsletter.

For further information, please contact the AFAA office on (02) 6273 9535 or via email – info@afaa.com.au

June 2004

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