

Labelling of Genetically Modified (GM)Food

Centre for Food Safety
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Background

- ❑ Genetically modified (GM) food:
 - Any food or food ingredient that is, or is derived from, an organism in which the genetic material has been modified using modern biotechnology
- ❑ GM products that are currently on the international market have all passed safety assessments conducted by national authorities
- ❑ Labelling of GM food can allow consumers to make an informed choice

International scenario

- ❑ Codex (2011) stated that governments are free to decide on whether to label foods derived from modern biotechnology, including foods containing GM organisms
 - labelling should be carried out in conformity with the texts approved by Codex to avoid potential trade issues

- ❑ Many overseas countries have introduced their own GM food labelling requirements

Voluntary and mandatory labelling systems

- “Voluntary” labelling approach
 - only GM foods that are significantly different from their conventional counterpart, in terms of composition, nutritional value and allergenicity, need to be labelled

- Mandatory labelling approach
 - "pan-labelling"
 - Any food contain GM materials exceeding a threshold value or have significantly different characteristics as a result of genetic modification
 - "labelling for designated products only"
 - only the designated products which are genetically modified need to be labelled

International practice on GM food labelling

- “Voluntary”
 - USA
 - Canada
- Mandatory: “designated products”
 - Japan
 - Taiwan
 - Mainland
- Mandatory: “pan-labelling”
 - European Union (0.9%)
 - Australia (1%)
 - New Zealand (1%)
 - Korea (3%)

GM food labelling in Hong Kong

- ❑ Regulatory impact assessment on implementation of mandatory GM food labelling scheme (2002)
 - Significant cost implications to small and medium enterprises
 - Withdrawal of products from market

- ❑ Issue the “**Guidelines on Voluntary Labelling of Genetically Modified (GM) Food**” in 2006
 - Enhance consumers’ knowledge and right to make an informed choice of GM food
 - Support the local trade’s initiative in setting up a voluntary labelling system for GM food

Guidelines on Voluntary Labelling of Genetically Modified (GM) Food

~~ The Guidelines ~~

The Guidelines – advisory in nature

□ Purposes

- Set out principles underlying the recommended labelling approaches for GM food
- Provide reference for the trade to make truthful and informative labels in a consumer-friendly manner

□ Scope

- Applicable to **prepackaged food** that contains food or food ingredients known to have a GM counterpart

Relevant regulations

- ❑ Section 61 of the Public Health and Municipal Services Ordinance (Cap. 132) stipulated that no person shall give any food sold by him or display with any food exposed for sale by him, a label, which falsely describes the food
- ❑ The Food and Drugs (Composition and Labelling) Regulations require that any prepackaged food shall be marked and labelled in the prescribed manner

Recommended practice for GM food labelling (I)

- Positive GM food labelling
 - Food items with 5% or more GM materials in their respective ingredient(s) should be labelled as “genetically modified”

Example 1 (For whole food or food with single ingredient)



List of Ingredients:
Corn (genetically modified)

Recommended practice for GM food labelling (II)

Example 2 (For processed food)



OR

List of Ingredients:
flour, corn (genetically modified),
water...

List of Ingredients:
flour, corn*, water...
*genetically modified

Recommended practice for GM food labelling (III)

□ Exemption

- Food products that do not contain detectable DNA or protein
- Highly refined food e.g. sugar, oil
- Highly processed food

Recommended practice for GM food labelling (IV)

- Additional declaration on label when –
 - Compositional or nutritional value significantly different from conventional counterpart
 - Level of anti-nutritional factors or natural toxicants significantly different from conventional counterpart
 - Presence of new allergen
 - Change in intended use of the food
 - An animal gene has been introduced

Recommended practice for GM food labelling (V)

□ Example (*For processed food*):



List of Ingredients:
water, soya bean (genetically modified to contain high oleic acid)...

OR

List of Ingredients:
water, soya bean*....

*genetically modified to contain high oleic acid

Recommended practice for GM food labelling (VI)

- ❑ Negative GM food labelling
 - Not recommended for food without GM counterparts e.g. orange, water, salt
 - Not recommended to indicate or imply food as a whole is from non-GM source
 - Absolute terms e.g. “GM free” is not recommended
 - Negative GM food labelling should be supported by documentations

Previous studies showed there is room for improvement

□ Study in 2008

- Among the 46 samples tested, 1 sample was found to contain more than 5% GM material but with no GM food label

□ Study in 2013

- Among the 49 corn-based sample tested, 5 samples were found to contain more than 5% GM materials but with no GM food label

Key points to note

- ❑ Follow the Guidelines to make truthful and informative labels in a consumer-friendly manner
- ❑ Positive GM food labelling
 - food items with 5% or more GM materials in their respective ingredient(s)
 - with significant modifications
- ❑ Negative GM food labelling
 - should be supported by documentation

~END~