

*Genetically modified food labelling
in the European Union and selected places*

19 November 2007

Prepared by

Diana WONG

**Research and Library Services Division
Legislative Council Secretariat**

5th Floor, Citibank Tower, 3 Garden Road, Central, Hong Kong

Telephone : (852) 2869 9372

Facsimile : (852) 2509 9268

Website : <http://www.legco.gov.hk>

E-mail : library@legco.gov.hk

Contents

	<i>Page</i>
Executive Summary	
Chapter 1 – Introduction	1
Background	1
Selection of places studied	1
Scope of research	2
Research method	2
Chapter 2 – The European Union	3
Background	3
Regulatory authority	3
Regulatory framework	3
<i>Directive 2001/18/EC</i>	4
<i>Regulation (EC) No. 1829/2003</i>	5
<i>Regulation (EC) No. 1830/2003</i>	5
<i>Regulation (EC) No. 65/2004</i>	5
<i>Regulation (EC) No. 641/2004</i>	5
Labelling of products containing genetically modified organisms	6
<i>Exemption from the traceability and labelling requirements</i>	6
<i>Negative labelling</i>	7
Traceability requirement	7
Co-existence	8
Enforcement	10
<i>Authorization of the placement of genetically modified organisms on the market</i>	10
<i>GM food labelling and traceability</i>	11
Public views	11
Chapter 3 – The United Kingdom	13
Background	13
Regulatory authorities	13
GM food labelling	14
<i>Negative labelling</i>	15
Traceability requirement	15
Co-existence	16
Enforcement	17
<i>Code of Practice</i>	18
<i>Framework Agreement on Local Authority Food Law Enforcement</i>	18
<i>Results of inspection</i>	18
<i>Penalty</i>	19
Public views	21

Chapter 4 – Denmark	23
Background	23
Regulatory authorities	23
GM food labelling and traceability requirement	23
<i>Negative labelling</i>	24
Co-existence	24
Enforcement	25
<i>Results of inspection</i>	25
<i>Penalty</i>	26
Public views	26
Chapter 5 – France	27
Background	27
Regulatory authorities	28
GM food labelling and traceability requirements	28
<i>Negative labelling</i>	28
Co-existence	29
Enforcement	29
<i>Penalty</i>	30
Public views	30
Chapter 6 – Analysis	31
Introduction	31
Regulatory authority	31
Labelling and traceability requirement	32
Negative labelling	32
Co-existence	33
Enforcement	34
Public views	34
Appendix	36
References	41

Research reports are compiled for Members and Committees of the Legislative Council. They are not legal or other professional advice and shall not be relied on as such. Research reports are subject to copyright owned by the Legislative Council Commission (the Commission). The Commission permits accurate reproduction of the research reports for non-commercial use in a manner not adversely affecting the Legislative Council, provided that acknowledgement is made stating the Research and Library Services Division of the Legislative Council Secretariat as the source and one copy of the reproduction is sent to the Legislative Council Library.

Executive summary

1. This report studies the policy on genetically modified (GM) food labelling in the European Union (EU) and three selected places, namely the United Kingdom (UK), Denmark and France.
2. The European Commission (Commission) is responsible for establishing rules for the assessment and authorization of genetically modified organisms (GMOs) and GM food in the EU. The Commission sets the policies and the EU Directive and Regulations for GM food labelling and traceability (including those for negative labelling, threshold requirements and exemptions), co-existence of GM and non-GM crops, and authorization of the placement of GMOs on the market, amongst others. The responsibilities for adopting, implementing and enforcing the GM food related legislation fall on the governing authorities of the individual Member States.
3. In the UK, policy making and legislation on GM food labelling are the responsibilities of the central government. Within the UK, the devolved administrations in England, Scotland, Wales and Northern Ireland have local responsibilities for enforcing the relevant policy and legislation. For instance, England has enacted a set of domestic legislation to adopt the EU Directive and Regulations on GM food labelling and traceability. To provide guidance to the local authorities, the Food Standards Agency has published documents detailing the implementation procedure relating to enforcement. As regards co-existence, the Department for Environment, Food and Rural Affairs issued a consultation paper to seek the stakeholders' views on the proposed co-existence measures for England in 2006 and the Department is in the process of reviewing and analyzing the responses.
4. Similar to the UK, Denmark has adopted the EU Directive and Regulations on GM food labelling into national legislation. The regional veterinary and food administration centres under the Danish Veterinary and Food Administration are responsible for the inspection of food operators and enforcement of policies relating to GM food labelling. Denmark has also taken national measures to set rules on the co-existence of GM and non-GM crops. The requirements stipulated under the co-existence legislation include maintaining minimum separation distances between farmers of GM crops and farmers of non-GM crops, as well as compensating producers of non-GM crops who believe their production has been damaged by a genetic drift from a GM field.
5. France has recently adopted the EU Directive on the deliberate release of GMOs. The relevant national legislation was passed by the French Senate in March 2006 and transposed into French law in March 2007. The co-existence measures in France have also been enacted, requiring farmers of GM crops to set up a 50 m buffer zone between GM and non-GM crops. With regard to negative labelling, among the places studied, France is the only place which has established a statutory list of requirements for food operators who wish to adopt negative labelling on food products.

Genetically modified food labelling in the European Union and selected places

Chapter 1 – Introduction

1.1 Background

1.1.1 The purpose of this research paper is to provide the Panel on Food Safety and Environmental Hygiene with information on the policy of genetically modified (GM) food labelling in the European Union (EU) and selected places to facilitate the Panel's deliberation on GM food labelling in the Hong Kong Special Administrative Region.

1.2 Selection of places studied

1.2.1 At the Panel meeting on 11 July 2006, the Research and Library Services Division (RLSD) proposed to study the following places:

- (a) The United Kingdom (UK);
- (b) Ireland;
- (c) Denmark; and
- (d) France.

1.2.2 After a preliminary research, the policy of GM food labelling in Ireland was found to be very similar to that of the UK. Henceforth, RLSD substituted the EU for Ireland so that a comprehensive overview of the policy framework in the top European level could be examined.

1.3 Scope of research

1.3.1 The scope of research covers the following aspects of GM food labelling in the EU, the UK, Denmark and France:

- (a) regulatory authorities involved in GM food labelling;
- (b) legislation on GM food labelling;
- (c) labelling requirements, including labelling threshold, negative labelling and exemptions;
- (d) traceability requirements;
- (e) co-existence¹ of GM and non-GM crops;
- (f) enforcement measures; and
- (g) public views.

1.4 Research method

1.4.1 This research adopts a desk research method, which involves literature review, documentation analysis, Internet search and correspondence with relevant authorities overseas.

¹ Co-existence refers to the ability of farmers to make a practical choice among conventional, organic and GM crop production, in compliance with the legal obligations for labelling and/or purity standards.

Chapter 2 – The European Union

2.1 Background

2.1.1 In the European Union (EU), the regulation of the testing, production and marketing of genetically modified organisms (GMOs)² have been in existence for over 10 years. Under Council Directive 90/220/EEC issued in 1990, the Member States³ were initially required to take all appropriate measures to avoid any adverse effects on human health and the environment that might arise from the release and marketing of GMOs. Since then, the regulatory framework has been extended and refined. Genetically modified (GM) food labelling was made mandatory to indicate the presence of GMOs in a food product in 1997. In April 2001, the EU adopted a revised Directive 2001/18/EC on Deliberate Release of GMOs, which provided for a more comprehensive authorization procedure for GMOs. In 2004, the traceability and labelling regulations on GM food products also came into force.

2.2 Regulatory authority

2.2.1 The European Commission (Commission) is the body responsible for establishing rules for the assessment and authorization of GMOs and GM food in the EU. Meanwhile, the responsibilities for adopting, implementing and enforcing the related legislation fall on the governing authorities of the individual Member States.

2.3 Regulatory framework

2.3.1 The approval and use of GM products are regulated by a set of the EU legislation listed hereunder.

² GMOs are organisms in which the genetic material has been altered in a way that does not occur naturally by mating or natural recombination.

³ Arranged in accordance with the date that the respective country joined the EU, the Member States are Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Denmark, Ireland, the United Kingdom, Greece, Portugal, Spain, Austria, Finland, Sweden, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria and Romania.

Directive 2001/18/EC

2.3.2 The legislation on the release and marketing of GMOs is enacted under Directive 2001/18/EC which repeals Council Directive 90/220/EEC. Specifically, the new Directive introduces:

- (a) principles for environmental risk assessment;
- (b) mandatory post-market monitoring requirements, including measures for monitoring the long-term effects associated with the interaction of a particular GMO with other GMOs and the environment;
- (c) mandatory information to the public;
- (d) requirement for the Member States to ensure labelling and traceability at all stages for the placement of GMOs on the market;
- (e) information to allow the identification and detection of GMOs to facilitate post-market inspection and control;
- (f) first approvals for the release of GMOs to be limited to a maximum of 10 years;
- (g) consultation of the European Food Safety Authority (EFSA)⁴ to be obligatory;
- (h) obligation to inform the European Parliament on decisions to authorize the release of GMOs; and
- (i) possibility for the Council of Ministers to adopt or reject a Commission proposal for authorization of a GMO by qualified majority.

⁴ EFSA was established by the European Parliament in 2002 to provide risk assessment on food and to ensure that all stakeholders and the public receive the resulting information on a timely and reliable manner.

Regulation (EC) No. 1829/2003

2.3.3 Since 18 April 2004, GM food and feed have been regulated in the European Community under Regulation (EC) No. 1829/2003. This Regulation provides for a single procedure for the new authorization of all food and feed derived from a GMO and of the GMO itself as a food or as a feed, and of food or feed containing the GMO. Regulation (EC) No. 1829/2003 requires labelling of all GM food and feed, which:

- (a) contain or consist of GMOs, e.g. GM Soya;
- (b) are produced from GMOs, e.g. glucose syrup from maize starch; or
- (c) contain ingredients produced from GMOs, e.g. GM tomato paste, and lecithin from GM Soya for use as an emulsifier in chocolate bars.

Regulation (EC) No. 1830/2003

2.3.4 Regulation (EC) No. 1830/2003 was drafted alongside Regulation (EC) No. 1829/2003 and also came into force in April 2004. This Regulation not only covers the traceability requirements on all GMOs that have received the EU authorization for their placement on the market, it also sets out labelling requirements for GM products. It establishes a documentation system to account for and identify products throughout the supply chain, with the objective of facilitating accurate labelling. For certain products, a system of unique identifier codes is used to allow access to specific information on GMOs.

Regulation (EC) No. 65/2004

2.3.5 Regulation (EC) No. 65/2004 establishes a system for the development and assignment of unique identifiers for GMOs.

Regulation (EC) No. 641/2004

2.3.6 Regulation (EC) No. 641/2004 sets out the detailed rules for the implementation of Regulation (EC) No. 1829/2003 as regards the application for the authorization of new GM food and feed, and the notification of existing products with adventitious or technically unavoidable presence of GM material which has benefited from a favourable scientific assessment, but has not been formally approved by the Scientific Committees under EFSA. These committees have to indicate that such GMOs do not pose a danger to the environment and health, even though their final approvals are still pending, before they can be placed on the market.

2.4 Labelling of products containing genetically modified organisms

2.4.1 For all pre-packaged products containing or consisting of GMOs, Regulation (EC) No. 1830/2003 requires the operators to indicate on a label: "This product contains genetically modified organisms" or "This product contains genetically modified [(name of organism(s))]. For non pre-packaged products offered to the final consumers or to mass caterers (e.g. restaurants, hospitals, canteens and similar caterers), these words must appear on, or in connection with, the display of the products.

Exemption from the traceability and labelling requirements

2.4.2 Under Regulation (EC) No. 1829/2003, labelling is required regardless of whether deoxyribonucleic acids (DNAs) or proteins derived from genetic modification are contained in the final product or not. The labelling requirement also applies to highly refined products, such as oil obtained from genetically modified maize. Nonetheless, exemption does exist for the following products:

- (a) products which are "contaminated" by authorized GMOs are not subject to traceability and labelling requirements if they contain traces of these GMOs below a limit of 0.9%, provided that the presence of these materials is adventitious or technically unavoidable. Such is the case when the operators demonstrate to the regulatory authorities that they have taken adequate measures to avoid the presence of the materials; and
- (b) for products with the presence of traces of GM materials which have received a favourable scientific assessment, the rules allow the presence of these GMOs in a food or feed up to a maximum of 0.5%, below which labelling and traceability will not be enforced, provided that the presence is adventitious or technically unavoidable. If the presence of GMOs is above 0.5%, the product is prohibited to be placed on the market. The Regulation limits the application of this threshold to three years (until 2007) and provides that a detection method must be publicly available.

Negative labelling

2.4.3 With regard to practices relating to labelling food or feed products as "GM-free", Regulation (EC) No. 1829/2003 provides that any labelling rules must indicate the presence of GMO. However, it does not forbid additional labelling practices that aim to inform consumers that, in addition to what is prescribed by the EU legislation, specific measures have been taken to strictly exclude the presence or the use of GMO in some food or feed products.

2.4.4 According to the Commission, for food categories that have not been genetically modified, labelling these food products as "GM-free" is suggesting that they possess a special characteristic when in fact all similar food products possess the same characteristic, which is considered misleading under Article 2(1)(a)(iii) of Directive 2000/13/EC.

2.5 Traceability requirement

2.5.1 On traceability, the Member States have to provide means to trace GM food products through the production and distribution chains, with the objectives to facilitate:

- (a) control and verification of labelling claims;
- (b) targeted monitoring of the potential effects on health and the environment, where appropriate; and
- (c) withdrawal of products that contain or consist of GMOs where an unforeseen risk to human health or the environment is established.

2.5.2 Regulation (EC) No. 1831/2003 requires the operators within the EU to be able to identify the suppliers and companies to which the product has been supplied. Products which contain or consist of GMOs, and products which are produced from GMOs, are subject to the following traceability requirements:

- (a) for a product containing or consisting of GMOs, the operator placing the product on the market must transmit in writing to the operator receiving the product:
 - (i) an indication that the product, or some of its ingredients, contains or consists of GMOs; and
 - (ii) the unique identifiers assigned to those GMOs; and

- (b) for a product produced from GMOs, the operator placing the product on the market must transmit in writing to the operator receiving the product:
 - (i) an indication of each of the food ingredients which are produced from GMOs;
 - (ii) an indication of each of the feed materials or additives which are produced from GMOs; and
 - (iii) in the case of a product for which no list of ingredients exists, an indication that the product is produced from GMOs.

2.5.3 For a product in either category, the operators must keep the information relating to each transaction of the product and be able to identify by whom and to whom the product has been made available for a period of five years. Each operator must keep records and make the information available to the public authorities on demand. According to the Commission, transmission and record-keeping of such information would reduce the need for sampling and testing of products conducted by the individual Member States.

2.6 Co-existence

2.6.1 The cultivation of GMOs in the EU has given rise to implications for the organization of agricultural production. The possibility of the adventitious presence of GM crops among non-GM crops, and vice versa, raises the question of how to ensure that non-GM crops are not contaminated by GM crops. In addition, to provide consumers in the EU with a real choice between GM and non-GM food products, not only a proper traceability and labelling system is required, but there should also be an agricultural sector that can provide the two types of products. The ability of the food industry to deliver a high degree of consumer choices goes hand in hand with the ability of the agricultural sector to maintain separate production systems.

2.6.2 In view of the diverse operating conditions of farmers across Member States in the EU, the Commission announced on 5 March 2003 that it should be up to the Member States to develop and implement management measures concerning co-existence, in accordance with the subsidiarity principle⁵. The role of the Commission would include gathering and co-ordinating the relevant information based on on-going studies at the community and national levels, offering advice and issuing guidelines, thereby assisting the Member States in establishing best practices for co-existence.

2.6.3 The guidelines for the development of national strategies and best practices issued by the Commission on 23 July 2003 aim to guarantee the co-existence of GM crops with conventional and organic farming. The guidelines take the form of non-binding recommendations addressed to the Member States and provide the following general principles which the Member States are advised to adopt:

- (a) transparency and stakeholder involvement;
- (b) science-based decisions;
- (c) building on existing segregation methods/practices;
- (d) proportionality of efforts among farmers, seed producers, co-operatives, etc.;
- (e) appropriate scale of implementation on the community or regional level;
- (f) specificity of the measures taken;
- (g) implementation of measures;
- (h) policy instruments, such as voluntary agreements and legislation;
- (i) liability rules;
- (j) monitoring and evaluation;

⁵ The subsidiarity principle is the principle whereby the EU does not take action (except in the areas which fall within its exclusive competence) unless it is more effective than action taken at the national, regional or local level. The principle is intended to ensure that decisions are taken as closely as possible to the citizens and that constant checks are made as to whether action at the community level is justified in the light of the possibilities available at the national, regional or local level.

- (k) provision and exchange of information at the EU level; and
- (l) research and sharing of research results.

2.7 Enforcement

Authorization of the placement of genetically modified organisms on the market

2.7.1 Under Directive 2001/18/EC, there is a centralized procedure where an operator can file one single application to place a GMO on the market. The application (also known as "notification") is first submitted to the competent authority of the relevant EU Member State. The notification must include a full evaluation of the potential environmental risks involved. Having received the notification, the competent authority must issue an opinion which takes the form of an "assessment report".

2.7.2 The assessment report can be favourable or unfavourable. In the event of an unfavourable report, the operator may submit a new notification for the same GMO to the competent authority of another Member State, which can issue a different report from the previous competent authority which has evaluated the GMO unfavourably.

2.7.3 In the event of a favourable opinion for the placement of the GMO on the market, the Member State, after having received the notification and produced the assessment report, should inform the other Member States via the Commission. The other Member States and the Commission will examine the assessment report and may issue observations and objections. If there is no objection by the other Member States and by the Commission, the competent authority which carried out the original assessment will then authorize the placement of the product on the market. The authorized product may be placed on the market throughout the EU in conformity with any conditions set out in the authorization. The authorization has a maximum duration of 10 years and may be renewed, provided that certain conditions are met (for example, on the basis of the results of the post-market monitoring programme).

2.7.4 If objections are raised, the procedure provides for a conciliation phase among the Member States, the Commission and the notifier. If at the end of the conciliation phase, the objections are maintained, a decision must be taken at the EU level. In the circumstances, the Commission first consults EFSA, which is composed of independent scientists highly qualified in the fields associated with medicine, nutrition, toxicology, biology, chemistry and other similar disciplines. The Commission then presents a draft decision to the Regulatory Committee, a committee comprising representatives of the Member States, for an opinion. If the Committee gives a favourable opinion by qualified majority, the Commission adopts the decision. If not, the draft decision will be submitted to the Council of Ministers for adoption or rejection by qualified majority. If the Council does not act within three months, the Commission shall adopt the decision.

2.7.5 During the notification process, the public is informed of the notification and has access to the relevant data on the Internet, such as the summary notification format, the assessment reports of the competent authorities, and the opinion of EFSA. The public can provide comments on the summary notification and the assessment report to EFSA or the competent authorities of the Member States.

GM food labelling and traceability

2.7.6 While the Commission establishes Directive and Regulations on GM food labelling and traceability, the enforcement of such requirements is the responsibility of the individual Member States. For example, under Directive 2001/18/EC, each Member State determines the penalties applicable to breaches of the national provisions adopted pursuant to the Directive, and the penalties are to be effective, proportionate and dissuasive.

2.8 Public views

2.8.1 Across Member States in the EU, consumers reject GM food products in general, and public concern over these products remains substantial. The Eurobarometer opinion poll published by the Commission in December 2001 showed that 94.6% of the EU citizens wanted the right to choose, 85.9% wanted to know more before eating food containing GMOs, and 70.9% simply did not want GM food. In the Eurobarometer opinion poll conducted in April 2005, nine out of 10 people said that decision makers should pay as much attention to environmental considerations as to economic and social factors as regards GM food.

2.8.2 On the labelling front, many of the EU citizens, as well as environmental and consumer organizations, welcome the fact that the new GM food and feed regulations impose more stringent procedures for approving GMOs in food. In particular, the extension of the new labelling rules to cover all GMO derivatives, such as oils and other products which previously did not need to be labelled because DNA/foreign protein from GMOs could not be detected after processing, are welcomed by the public.

2.8.3 Nevertheless, some aspects of the new regulations are considered negative by the public. According to Friends of the Earth, a global environmental campaign group, Regulation (EC) No. 1830/2003 effectively "legalizes" contamination by setting a threshold of 0.9% for adventitious or technically unavoidable presence of GMOs. Under Regulation (EC) No. 1829/2003, the presence of unapproved GMOs is now tolerated, provided that such GMOs have been given a favourable risk evaluation by EFSA, regardless of the fact that they have not been authorized under the EU legislation. These measures are viewed as effectively opening the door for contamination of the food and feed chain by unauthorized GMOs.

2.8.4 With regard to co-existence, both Greenpeace and Friends of the Earth have warned that food and farming in Europe would be widely contaminated if GM crops are grown in the EU. One of such warnings came at the end of a Commission conference in April 2006, which, according to Greenpeace, failed to resolve any of the problems of growing GM crops. A coalition of farming and environmental organizations has issued a statement further calling for a Europe-wide debate open to all citizens and questioning whether co-existence is possible without widespread contamination of organic and conventional food and agriculture by GMOs.

Chapter 3 – The United Kingdom

3.1 Background

3.1.1 In the UK, policy making and legislation on GM food are the responsibility of the central government, while the enforcement of the legislation is the responsibility of the local governments. Since 1990, there have been strict regulations controlling the deliberate release and marketing of GMOs in the UK. The regulatory regime has two objectives:

- (a) to protect human health and the environment; and
- (b) to ensure consumer choice.

3.2 Regulatory authorities

3.2.1 At the national level, the responsibilities for GM food policies are divided among several government departments and advisory bodies:

- (a) the Food Standards Agency (FSA) is responsible for:
 - (i) controlling the assessment of GM food for human consumption;
 - (ii) setting standards for food enforcement authorities and auditing their performance; and
 - (iii) taking the lead on the enforcement of traceability and labelling;
- (b) the Advisory Committee on Releases to the Environment is responsible for offering statutory advice to the UK government on the risks to human health and the environment from the release and marketing of GMOs; and
- (c) the Health and Safety Executive is responsible for regulating GMOs in contained uses, e.g. in a laboratory.

3.2.2 In England, the devolved administration for enforcing GM food policies is the GM Policy, Science and Regulation Unit of the Department for Environment, Food and Rural Affairs (Defra). It is responsible for:

- (a) controlling the deliberate release of GMOs in England, including traceability and labelling;
- (b) developing the national GM food policies and turning the EU directive into national law;
- (c) representing the UK in the EU and international negotiations on the environmental safety of GMOs;
- (d) commissioning and disseminating scientific research on environmental aspects of GMOs; and
- (e) assessing the environmental risk of the contained use of GMOs.

3.3 GM food labelling

3.3.1 Regulation (EC) No. 1829/2003 on GM food and feed, which came into force on 18 April 2004, provides a procedure for the scientific assessment and authorization of GM food and feed through EFSA. Enforcement of this regulation is implemented in England of the UK by way of the Genetically Modified Food (England) Regulations 2004 (Food Regulations) and the Genetically Modified Animal Feed (England) Regulations 2004 (Food and Feed Regulations)⁶, both of which became effective on 4 October 2004.

3.3.2 Similar to Regulation (EC) No. 1829/2003, under the Food and Feed Regulations, products or individual food ingredients must be traced and labelled if they intentionally consist of GMOs (however small the amount), or are derived from a GMO. The Regulations also set a threshold of 0.9% for the adventitious and technically unavoidable presence of authorized GM materials in any non-GM food or feed product, above which the product must be labelled. There is another threshold of 0.5% for GM materials not yet authorized but is given a favourable assessment from EFSA. This latter threshold is for a transitional period of three years until 2007.

⁶ Similar regulations have been implemented in Scotland, Wales and Northern Ireland.

3.3.3 Applications for food or feed containing or consisting of GMOs must include the relevant information required under Directive 2001/18/EC. In line with the related provisions of the Directive, the Food Regulations:

- (a) formally designate FSA as the competent authority to receive applications for the authorization of new GMOs for food use, food containing or consisting of GMOs, and food produced from or containing ingredients produced from GMOs;
- (b) provide for the local authorities to enforce the provisions of the Food Regulations; and
- (c) establish penalties for failing to comply with the Food Regulations.

Negative labelling

3.3.4 In England, there is no legal basis for the use of "GM-free" or "non-GM", although these terms can be lawfully used on a voluntary basis for a particular product. Nevertheless, any food for sale with a "GM-free" label is subject to the general requirements of the food law, in particular the Food Safety Act 1990 and the Trade Descriptions Act 1968.

3.3.5 The Food Safety Act 1990 makes it an offence to sell food that is not of the nature, substance or quality demanded by consumers or that is falsely or misleadingly described or labelled. Additionally, the Trade Descriptions Act 1968 makes it an offence for a trader to supply food to which a false trade description has been applied, or to which a trade description has been applied but is misleading to a material degree.

3.4 Traceability requirement

3.4.1 The enforcement of Regulation (EC) No. 1831/2003 is implemented in England by way of the Genetically Modified Organisms (Traceability and Labelling) (England) Regulations 2004 (Traceability and Labelling Regulations)⁷, which provide for:

- (a) local authorities to enforce the provisions of the Traceability and Labelling Regulations;
- (b) appointment of inspectors by local authorities;

⁷ Similar regulations have been implemented in Scotland, Wales and Northern Ireland.

-
-
- (c) power of entry, including the power to carry out tests and inspections, and to take samples;
 - (d) inspectors to obtain information; and
 - (e) penalties for failing to comply with the Traceability and Labelling Regulations.

3.5 Co-existence

3.5.1 According to the UK government, there is no scientific case for a blanket ban on the cultivation of GM crops in the UK, but any proposed uses need to be assessed for safety on a case-by-case basis. The government takes a precautionary approach and only agrees to the commercial release of a GM crop if the evidence shows that it does not pose any unacceptable risk to human health and the environment.

3.5.2 Under Directive 2001/18/EC, a GM crop can only be approved for commercial use if a specific risk assessment confirms that it is safe for human health and the environment. Strictly speaking, there is currently no GM crop being grown in the UK, and no commercial cultivation is expected before 2009 at the earliest, although GM crops have been grown for research and development purposes at a number of sites. A notable example for such purposes was the Farm Scale Evaluation GM crop trials, a four-year programme of research conducted by independent researchers aiming at measuring the impact on farmland wildlife of the herbicide use associated with four GM herbicide-tolerant crops, as compared to the herbicide use with the equivalent conventional crops. The four experimented crops were spring-sown oilseed rape, maize, beet, and autumn-sown oilseed rape.

3.5.3 To prepare for the co-existence of GM and non-GM crops, Defra has issued a consultation paper to seek the stakeholders' views on the proposed co-existence measures for England and related issues. The aim of the consultation paper is to explore ways of minimizing unwanted mixing of GM and non-GM crops, thereby ensuring that producers and consumers can choose among GM, conventional and organic products. The consultation paper seeks views on the following issues relating to the co-existence of GM and non-GM crops⁸:

- (a) Defra's planned co-existence measures applicable to England⁹;

⁸ In the consultation paper, "Non-GM" refers to both conventional and organic crops.

⁹ The consultation paper relates to England only. Co-existence is a devolved matter and the authorities in Scotland, Wales and Northern Ireland are responsible for developing the policy applicable to their areas respectively.

- (b) whether a threshold for a GM presence below 0.9% or stricter process-based standard should apply specifically for the co-existence of GM and organic crops. In particular, views are being solicited regarding the likely practical constraint of operating against a 0.1% (limit of detection) threshold, and the alternative of a threshold/standard somewhere between 0.1% and 0.9%;
- (c) possible options for redressing any financial losses that non-GM farmers might face, if their crops have a GM presence above the EU 0.9% threshold through no fault of their own. This leads to the possibility of leaving claims for redress to be resolved under existing law, having an industry-led (voluntary) redress mechanism, or establishing a statutory redress scheme;
- (d) pros and cons of establishing a detailed public register giving the precise location of all commercial GM crops; and
- (e) possible guidance to farmers who may be interested in establishing a voluntary "GM-free" zone.

3.5.4 When the consultation exercise ended on 20 October 2006, over 10 000 responses were received from stakeholder organizations and the public. Defra is in the process of reviewing and analyzing the responses, and will publish the summary when available.

3.6 Enforcement

3.6.1 The inspection and enforcement of GM food traceability and labelling are undertaken by the local authorities. The food enforcement duties of each local authority vary, depending on the type of local authorities. To provide guidance for the local authorities, FSA has published two documents detailing the implementation of the enforcement, namely the Code of Practice and the Framework Agreement on Local Authority Food Law Enforcement.

Code of Practice

3.6.2 The Code of Practice issued under the Food Safety Act 1990 emphasizes that effective routine sampling is an essential part of enforcement. Henceforth, the local food authorities are advised to prepare and publish a food sampling policy and programme, covering all types of sampling work undertaken, whether for surveillance or for possible enforcement action. The food sampling policy details the intended food sampling priorities and the factors which are taken into account in formulating the sampling programme. The programme, in turn, considers the number, type and risk ratings of the food businesses and the type of food produced in the area when carrying out the sampling activities.

Framework Agreement on Local Authority Food Law Enforcement

3.6.3 The Framework Agreement on Local Authority Food Law Enforcement issued by FSA gives guidance to the local authorities on the structure and content of enforcement plans. The Agreement highlights the obligations on food law enforcement actions arising from existing legislation and specifies the arrangements to be put in place for a local authority to carry out enforcement of all aspects of food standards legislation. For example, a local authority shall carry out food standards inspections of premises in its area at a frequency which is not less than that determined under the inspection rating system set out in the Code of Practice and the relevant legislation.

Results of inspection

3.6.4 According to FSA, the agency does not keep the information on the inspection carried out by the local authorities.

Penalty

3.6.5 Under the Food Regulations, anyone who contravenes or fails to comply with the prohibition on marketing a food product referred to in Article 3.1 of Regulation (EC) No. 1829/2003 (unless the product is covered by an authorization and satisfies the relevant conditions of the authorization)¹⁰ is guilty and liable:

- (a) on summary conviction to imprisonment for a term not exceeding six months or to a fine not exceeding the statutory maximum (which is currently £5,000 (HK\$77,800)¹¹); or
- (b) on conviction to imprisonment for a term not exceeding two years or to a fine or to both.

3.6.6 The Food Regulations also state that an individual is guilty of an offence and liable on summary conviction to imprisonment for a term not exceeding six months or to a fine not exceeding level five on the standard scale (which is currently £5,000 (HK\$77,800)), or to both if he/she contravenes or fails to comply with:

- (a) withdrawal requirement of products listed under Regulation (EC) No. 1829/2003;
- (b) post-market monitoring requirement, and the conditions or restrictions which have been imposed in an authorization;
- (c) requirement that an authorization holder informs the Commission of any new scientific or technical information relating to a product, which might influence the evaluation of the safety in use of the food or any prohibition or restriction on the food by the competent authority of any Member State; or
- (d) requirement of the labelling indication listed under Regulation (EC) No. 1829/2003.

¹⁰ Part I of the Schedule of the Food Regulations.

¹¹ The average exchange rate of £ to HK\$ in May 2007 was £1 = HK\$15.56.

3.6.7 Under the Traceability and Labelling Regulations, an individual is guilty of an offence and is liable on summary conviction to a fine not exceeding level five on the standard scale (which is currently £5,000 (HK\$77,800)), or to imprisonment for a term not exceeding three months, or to both if he/she:

- (a) contravenes or fails to comply with Regulation (EC) No. 1830/2003;
- (b) obstructs an inspector in the exercise of power;
- (c) without reasonable excuse fails to comply with the requirement of the inspector;
- (d) without reasonable excuse fails to comply with the request made by the inspector or fails to provide information demanded by the local authority or the Secretary of State;
- (e) without reasonable excuse fails to comply with the requirement of a notice issued with regard to incorrectly labelled products;
- (f) knowingly or recklessly makes a statement or furnishes any information that is false or misleading; or
- (g) intentionally makes a false entry in any record required to be kept under Regulation (EC) No. 1830/2003.

3.6.8 In general, the local authorities will not necessarily prosecute every single case of breach of law. In fact, it is more likely that they decide not to prosecute cases involving a first offence and a minor/accidental breach of law. Instead of prosecution, they may offer an offender the option of accepting a formal caution. Although there will be no legal action, the fact of the offender's commission of an offence is kept on record and can be brought up in future if he/she commits a similar offence (thus increasing the gravity of the subsequent offence in the eyes of the court).

3.6.9 Alternatively, a local authority may decide that it is not appropriate to take any enforcement action in relation to a minor and accidental breach and just give the offender advice on his/her future conduct.

3.7 Public views

3.7.1 In the UK, the public view on biotechnology is largely negative. Under such circumstances, the major supermarkets and big food manufacturers have reformulated their food products to remove GM ingredients. This effectively meant that no GM-labelled products were found on the store shelves in the past. With the enforcement of the Traceability and Labelling Regulations, GM-labelled products have started to appear, but the number remains very limited.¹²

3.7.2 According to Friends of the Earth, companies failing to obey tougher rules requiring them to label products that contain GM ingredients are unlikely to be caught because the local authorities do not have enough money to carry out sufficient monitoring. While the UK government indicated in the Regulatory Impact Assessment report published in 2004 that £400,000 (HK\$6,224,000) per year would be allocated to enforcement in relation to GM products sold to consumers, that amount is considered to be very small by Friends of the Earth. As such, according to the Health Food Business magazine, only foods claimed to be "GM-free" are likely to be targeted for testing.

3.7.3 In this connection, the Trading Standards Institute¹³ has responded that some cash-strapped local authorities may not be able to carry out sufficient monitoring due to other priorities. The Trading Standards Institute Chief Executive Ron Gainsford stated, "we take the monitoring of labelling laws seriously but different authorities will have different local priorities and the strain on resources becomes more and more demanding as the trading standards remit continues to grow. There will always be a need for a balancing of resources."

3.7.4 With regard to co-existence, a survey done by NOP World¹⁴ in July 2004 revealed that two-thirds of the UK population supported new laws to prevent the contamination of GM crops on food and farming. In another survey conducted in September 2004 by the Consumers' Association, a consumer rights organization in the UK, fewer respondents (one-quarter) stated that they supported GM crops compared to a similar representative sample (one-third) questioned two years before. Six out of 10 respondents expressed concerns about the use of genetic modification in food production and wanted to avoid GM food.

¹² See United States Department of Agriculture, Foreign Agricultural Service (2005).

¹³ The Trading Standards Institute is a professional association with the goal to promote and protect the success of a modern vibrant economy, and to safeguard the health, safety and well-being of the UK citizens by enhancing the professionalism of members in support of empowering consumers, encouraging honest business and targeting rogue traders.

¹⁴ NOP World is an international organization which conducts primary custom and syndicated research for marketers, advertising agencies and media. Since May 2006, NOP World has merged with the GfK Group to form GfK NOP which is a leading research agency in the UK.

3.7.5 From the perspective of a non-profit organization, GeneWatch UK¹⁵, Dr Sue Mayer, the Director of the group, has commented on the present situation of GM crops and GM food, "even the Prime Minister's closest advisers haven't been able to come up with a convincing economic case for GM crops in Britain. The only benefit seems to be making it easier to apply chemical herbicides, but consumers would pick up the bill for keeping GM crops separate by having to pay higher costs for non-GM food."

¹⁵ GeneWatch UK is a non-profit group that monitors developments in genetic technologies from a public interest, environmental protection and animal welfare perspective. The group believes that the public should have a voice in whether or how these technologies are used, and it campaigns for safeguarding people, animals and the environment.

Chapter 4 – Denmark

4.1 Background

4.1.1 All along, Denmark has taken part in the EU policy discussions and decision making processes regarding the regulation and approval of GM food, with the labelling of GM food being currently in force in the country. The Danish Act on Environment and Genetic Engineering is the national implementation of Directive 2001/18/EC on the deliberate release of GMOs. Denmark has also adopted the provisions of Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003 regarding GM food labelling and traceability into national legislation since 2004.

4.2 Regulatory authorities

4.2.1 In Denmark, the Ministry of Family and Consumer Affairs is responsible for GM food policies, including policies for GM food labelling. Specifically, the Danish Veterinary and Food Administration (DVFA) under the Ministry of Family and Consumer Affairs is responsible for administering Danish food legislation and protecting consumers against false information on food-related matters. Under DVFA, the regional veterinary and food administration centres are in charge of providing food information to consumers and enterprises and enforcing food-related legislation within each centre's respective region. One of the duties of the regional centres is to carry out inspection of food companies with respect to their internal control programmes, hygiene and food labelling.

4.2.2 In addition to the Ministry of Family and Consumer Affairs, the Ministry of Food, Agriculture and Fisheries and the Ministry of Environment are also involved in the GMO approval process in Denmark.

4.3 GM food labelling and traceability requirement

4.3.1 The Danish Statutory Order No. 1308 of 14 December 2005 provides for the labelling of general food products, including that of GM food products. Specifically, the Statutory Order stipulates that marketing and labelling of GM food products have to be in agreement with Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003. Should non-compliance be observed, a fine will be imposed on those who fail to comply.

Negative labelling

4.3.2 According to DVFA, all food products which are not GM-labelled are to be regarded as "non-GM" or "GM-free" even without the negative labels. However, to explicitly place a negative label on a food product as "non-GM" or "GM-free", such product should have characteristics which differentiate it from similar types of products. Under Statutory Order No. 1308, an operator is prohibited to market food product with such a claim, if it gives the impression that the product has a special characteristic when similar types of products do not have such a claim.

4.3.3 DVFA recommends companies which plan to market products labelled with "non-GM" or similar wordings to contact the regional veterinary and food administration centres. Only when the regional centres agree with the wordings and DVFA considers such labelling to be not misleading will the products be placed on the market. In the case where companies do not contact the regional centres and the labels are found to be misleading, the companies would have to change the labels or withdraw the products from the market.

4.4 Co-existence

4.4.1 In the spring of 2002, the Minister for Food, Agriculture and Fisheries initiated a strategic project on the cultivation of authorized GM crops in Danish agriculture. The aim of the project was to produce a Danish model for the co-existence of GM, conventional and organic crops that would support the development of both new crop technology and existing production methods, allowing free choices for consumers.

4.4.2 In June 2004, the Danish Parliament passed the legislation on the co-existence of GM and non-GM crops (including organic agriculture). With the exception of the liability provisions of the law which have been pending the Commission's approval, the law entered into force in April 2005.

4.4.3 Under the law, growers of GM crops are responsible for maintaining their crops at proper distances from those of conventional or organic producers. Producers of conventional or organic crops who believe that their production has been damaged by genetic drift from a GM field may apply to the government for compensation, provided that they have a minimum loss of DKK 5,000 (HK\$7,050)¹⁶. Compensation will be financed by a fund, partly based on taxes paid by farmers of GM crops and partly by a tax of DKK 60 (HK\$85) per hectare on GM crop plantings.

¹⁶ The exchange rate of DKK to HK\$ as at 18 June 2007 was DKK 1 = HK\$1.41.

4.4.4 The co-existence legislation requires that farmers who want to plant GM crops on a commercial scale must:

- (a) pass a training course and obtain a permit;
- (b) give prior notice to neighbouring farmers of their intention to plant GM crops;
- (c) ensure that the minimum separation distances are maintained;
- (d) inform the Danish Plant Directorate¹⁷ of the GM crop plantings¹⁸;
- (e) inform other co-operative partners, such as commercial harvesting operators and transportation companies, of the GM crop plantings; and
- (f) adhere to cropping intervals determined by the Ministry of Food, Agriculture and Fisheries.

4.5 Enforcement

4.5.1 The inspection and enforcement of GM food traceability and labelling are carried out by the regional veterinary and food administration centres under DVFA. To provide guidance to the regional centres and food operators, DVFA has issued a guideline, entitled "Guidance on Genetically Modified Food", explaining the provisions of Regulation (EC) No. 1829/2003 in detail.

Results of inspection

4.5.2 Out of the 221 inspections carried out by DVFA on food labelling in 2004, two violations on GM food labelling were found. Both violations were related to illegal negative labelling.¹⁹

¹⁷ The Danish Plant Directorate is a government institution under the Ministry of Food, Agriculture and Fisheries. The Directorate aims to create a framework for development-oriented business activities relating to plants, seed, feeding stuff and organics.

¹⁸ The Danish Plant Directorate provides on its Danish language webpage a map showing the exact locations of fields planted with GM crops. See *Ministry of Food, Agriculture and Fisheries, the Danish Plant Directorate* (2007).

¹⁹ Information provided by DVFA.

Penalty

4.5.3 In general, the penalties for false labelling, misleading labelling and traceability violations are at least DKK 5,000 (HK\$7,050) and/or imprisonment of up to two years. Nevertheless, the penalties could be higher, depending on the severity of violation in each case.²⁰

4.6 Public views

4.6.1 The implementation of the EU traceability and labelling requirements for GM food has been carried out smoothly in Denmark. Nevertheless, there are virtually no GM-labelled products on food store shelves.²¹ Although, in principle, the Danish government is positive towards the introduction of biotechnology, it has voted consistently against the approval of new biotechnology applications within the Commission. Consumer scepticism about GM products, combined with opposition to biotechnology by a majority of the members of the Danish Parliament, makes it difficult for the government to take a more proactive position.

4.6.2 There are different views regarding the marketing of GM food in Denmark. For Danish farmer organizations and the food industry, they would like a more rapid and less controversial introduction of GM crops and food. They view the advantages much like the producers in the United States – the development of greater production efficiencies through the introduction of plant traits such as herbicide tolerance and insect resistance. Both Danish farmers and the food industry see biotechnology as a key factor in maintaining their competitiveness and technological edge. However, their hands remain tied at present because consumers are unconvinced of the benefits, non-governmental organizations continue to actively oppose biotechnology, and Danish food retailers are not interested in marketing GM-labelled food.

4.6.3 A poll conducted in January 2003 on Danish consumer attitudes towards GM food revealed that Danish consumers were unwilling to accept GM food and were willing to pay up to 10% more for non-GM food. Over 60% of the 1 184 persons interviewed responded "no" to the question on whether they were willing to buy GM food. Such sentiment remained virtually unchanged from a 1997 survey as more than 68% responded that they were willing to pay more for non-GM food compared to 61% in 1997. The poll also demonstrated that there was no connection between the amount of GM information disseminated to the public and consumer reaction towards GM food.

²⁰ Information provided by DVFA.

²¹ See United States Department of Agriculture, Foreign Agricultural Service (2005c).

Chapter 5 – France

5.1 Background

5.1.1 As one of the EU Member States, France has taken part in the implementation of the EU Directive and Regulations on GM food labelling and traceability. The French government adopted Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003 on GM food labelling and traceability by way of the enactment of French decree 2004-1058 in 2004.

5.1.2 As regards Directive 2001/18/EC, the Biotech Bill was voted and passed by the French Senate in March 2006. The French government subsequently transposed the Directive into French law on 20 March 2007. Specifically, the French decrees 2007-357, 2007-358 and 2007-359 are created to:

- (a) streamline the French procedure for the evaluation of GM food products;
- (b) disseminate information relating to GM food products; and
- (c) create a public register of GM plots.

5.1.3 With these new decrees in place, the French government hopes to end a legal conflict with the European Court of Justice (ECJ), which was asked by the Commission to fine France for not implementing the Directive on the release of GMOs by the October 2006 deadline. The fines have been accumulated to more than €42 million (HK\$444 million)²², and the case is still pending in ECJ.

²² The average exchange rate of €to HK\$ in May 2007 was €1 = HK\$10.57.

5.2 Regulatory authorities

5.2.1 In France, the responsibilities for GM food policies are divided among several government departments:

- (a) the Fraud Control Office of the Ministry of Economy, Finance and Industry (DGCCRF) is the authority enforcing the compliance with the regulation on labelling and traceability on GM food;
- (b) the Ministry of Agriculture is in charge of the co-existence policies; and
- (c) the French Food Safety Agency is the authority that assesses risks of GMOs to human health.

5.3 GM food labelling and traceability requirements

5.3.1 French decree 2004-1058 is the primary statutory document providing for the labelling and traceability on GM food products. It states that the French government shall adopt the provisions of Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003, specifically with regard to:

- (a) labelling, authorization and supervision of GM food;
- (b) traceability and labelling requirements for products containing or consisting of GMOs; and
- (c) traceability requirements for food and feed produced from GMOs.

Negative labelling

5.3.2 DGCCRF has established a list of rules for food operators who wish to adopt negative labelling on food products. For a food product to bear labels such as "non-GM" or "GM-free", it needs to fulfil the following requirements:

- (a) the product cannot contain any biotechnology, or anything above the detection threshold of 0.1% instead of the 0.9% threshold used in the EU Regulations for positive labelling;
- (b) no GMO, or any product derived from GMO or obtained with the help of a GMO (such as amino acids, vitamins or enzymes) can be used at any processing step of the product;

- (c) when negative labelling is used in one ingredient of a final product, the whole product must not be stated as GM-free to avoid being misleading;
- (d) negative labelling cannot be used if a product may potentially contain GM material. However, general statements such as "no genetically modified wheat is authorized in Europe" are permitted;
- (e) negative labelling indicating "derived from non-GM seeds" is considered misleading if the final product may contain adventitious biotechnology material; and
- (f) organic products cannot be labelled as "GM-free" only because they are organic. Negative labelling can only be used if the GM content of an organic product is lower than the threshold of 0.1%; so is the case for non-organic products.

5.4 Co-existence

5.4.1 Provisions as to the co-existence of GM and non-GM crops are set out in the decrees adopted by the Ministry of Agriculture in March 2007. GM crop producers are required to set up a 50 m buffer zone between GM and non-GM crops, doubling the distance recommended by the General Association of the Corn Producers (AGPM²³). A follow-up study will be carried out by the French government to evaluate the effectiveness of the new standard of isolation distance.

5.4.2 According to the decrees, GM crop producers must provide details of their GM cultivation for data collection purpose of the public register. The precise location of the cultivation sites, nevertheless, will remain confidential in order to protect farmers from having their fields damaged by protesters opposing GMOs.

5.5 Enforcement

5.5.1 Sampling and testing of food products are performed by DGCCRF according to the guidelines proposed by the Commission. DGCCRF has a laboratory in Strasbourg which samples and tests food products, including GM food products.

²³ AGPM (known as L'Association Générale des Producteurs de Maïs in French) is an association which represents and protects corn producers in France.

Penalty

5.5.2 Fines and penalties for non-compliance with Regulation (EC) No. 1829/2003 are similar to those for non-compliance with other food labelling regulations. If DGCCRF finds a product not complying with the Regulation, a warning is given to the operator, who is asked to comply. DGCCRF follows up with additional controls on the same product to confirm compliance. If the operator still does not comply, he/she may be charged with publishing misleading information and sentenced to a maximum of two years in prison and a fine of €37,500 (HK\$396,375). Alternatively, the operator may be asked to pay fines of up to €450 (HK\$4,757) for each label that does not conform to the Regulation.

5.5.3 In the event of any serious or immediate danger, the Minister of Economy, Finance and Industry may impose an emergency measure to suspend the marketing of a food product or order the withdrawal of the product from the market.

5.6 Public views

5.6.1 In France, there is a significant problem of market acceptance of GM agricultural products. This is illustrated by actions carried out by anti-GM protest groups, mainly Greenpeace, Friends of the Earth and Confederation Paysanne (one of France's largest farmers' union), and by the absence of GM-labelled products on supermarket shelves. Most visible actions by the anti-GM groups are the many test plot destructions (e.g. 50% were destroyed in 2005), discouraging private companies and public research organizations from developing open field test plots.

5.6.2 A less visible to the public, but even more effective strategy adopted by the anti-GM groups is the pressure imposed by them on the food industry and retailers. For example, the Greenpeace website "blacklists" any GM food products marketed in France. The publicity generated around such products found in supermarkets is usually so negative that the distributor would take the products off its shelves. Subject to the hostile publicity directed at biotechnology, the anti-GM lobbying by the environmental groups, and the lack of political willpower to support agricultural biotechnology, it is inevitable that the French public is hostile to the idea of GM foods.

5.6.3 On the other hand, several hundred corn growers openly expressed their support for biotechnology in the annual conference held by AGPM, following the disclosure by the French newspaper "Le Figaro" that up to 1 000 hectares of biotechnology corn were planted in France in 2005. The President of AGPM called for the transposition of Directive 2001/18/EC into French law, emphasizing that the farmers had already developed expertise regarding the management of the co-existence of GM and non-GM crops. With the enactment of the related decrees, farmers in France plan to increase their planting of GM corn from 5 200 hectares in 2006 to around 30 000 to 50 000 hectares in 2007.

Chapter 6 – Analysis

6.1 Introduction

6.1.1 The various features of measures on genetically modified (GM) food labelling implemented in the European Union (EU), the United Kingdom (UK), Denmark and France are summarized in the Appendix. Based on the findings in this study, this chapter highlights the following issues for Members' consideration when deliberating the policy on GM food labelling in Hong Kong:

- (a) regulatory authority;
- (b) labelling and traceability requirements;
- (c) negative labelling;
- (d) co-existence;
- (e) enforcement; and
- (f) public views;

6.2 Regulatory authority

6.2.1 The European Commission (Commission) is the body responsible for establishing rules for the assessment and authorization of genetically modified organisms (GMOs) and GM food in the EU. The responsibilities for adopting, implementing and enforcing the related legislation, however, fall on the governing authorities of the individual Member States.

6.2.2 In the UK, policy making and legislation on GM food labelling are the responsibilities of the central government. Within the UK, the devolved administrations in England, Scotland, Wales and Northern Ireland have local responsibilities for enforcing the policy and legislation. Where a co-ordinated UK policy is required in the devolved areas (for example, when dealing with the EU), the relevant central government departments take the lead, in full consultation with the devolved administrations.

6.2.3 In both Denmark and France, the making and enforcement of GM food policies are performed at the central government level.

6.3 Labelling and traceability requirement

6.3.1 All three places studied have adopted the EU Directive 2001/18/EC on the release and marketing of GMOs, and Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003 on GM food labelling and traceability. These Directive and Regulations include, amongst other:

- (a) traceability and labelling of food ingredients if the food product intentionally consists of GMOs;
- (b) establishment of a documentation system to account for and identify GM food products throughout the supply chain; and
- (c) exemption for food products which contain:
 - (i) authorized GMOs below a threshold of 0.9%, provided that the presence of these materials is adventitious or technically unavoidable; or
 - (ii) GMOs that have received a favourable scientific assessment, provided that they contain traces of these GMOs below a threshold of 0.5% and the presence is adventitious and technically unavoidable. If the presence of such GMOs is above 0.5%, the products are prohibited to be placed on the market.

6.3.2 The domestic legislation enacted corresponding to the EU Regulations is the Genetically Modified Food (England) Regulations 2004 and the Genetically Modified Organisms (Traceability and Labelling) (England) Regulations 2004 in England of the UK, the Danish Statutory Order No. 1308 of 14 December 2005 in Denmark, and the French decree 2004-1058 in France respectively.

6.4 Negative labelling

6.4.1 The present EU Regulations do not forbid additional labelling practices which would inform consumers that, in addition to what is prescribed by the EU legislation, specific measures are taken to strictly exclude the presence or the use of GMOs in food or feed products. For food products which have not been genetically modified, however, the Commission considers the practice of labelling such products as "GM-free" misleading.

6.4.2 Among the places studied, France is the only place which has established a statutory list of requirements for food operators who wish to adopt negative labelling on food products. In both Denmark and the UK, there is no legal basis for the use of "GM-free" or "non-GM". In the UK, such terms can be lawfully used on a voluntary basis as long as the food product is subject to the general requirement of the food law. In Denmark, the Danish Veterinary and Food Administration (DVFA) recommends companies which plan to market products with negative labelling to consult the regional veterinary and food administration centres. Only when the regional centres agree with the wordings and DVFA considers such labelling to be not misleading will the products be placed on the market.

6.5 Co-existence

6.5.1 As the farming conditions vary among the EU Member States, the Commission has delegated the individual Member States to develop and implement their respective management measures concerning co-existence in accordance with the subsidiarity principle. To assist the Member States in establishing best practices for co-existence, the Commission issued guidelines in 2003 for the development of national strategies to ensure successful implementation of measures relating to the co-existence of GM and non-GM crops.

6.5.2 Both France and Denmark have taken national measures to set rules on the co-existence of GM and non-GM crops. In France, GM crop producers are required to set up a buffer zone between GM and non-GM crops. Similarly in Denmark, the requirements stipulated under the co-existence legislation include maintaining minimum separation distances between farmers who want to plant GM crops and farmers of non-GM crops, as well as compensating producers of non-GM crops who believe that their production has been damaged by a genetic drift from a GM field.

6.5.3 In the UK, the co-existence measures are in the consultation stage. There is no commercial cultivation of GM crops in the country although there have been a number of experimental GM crop trials for research and development purposes. In 2006, the Department for Environment, Food and Rural Affairs (Defra) issued a consultation paper to seek the stakeholders' views on the proposed co-existence measures for England. The consultation exercise has since ended and Defra is in the process of reviewing and analyzing the responses.

6.6 Enforcement

6.6.1 While the Commission has established Directive and Regulations on GM food labelling and traceability, the enforcement of such requirements is the responsibilities of the individual Member States. All three places studied have formulated their respective policies to enforce the EU legislation.

6.6.2 In the UK, the inspection and enforcement of GM food labelling and traceability is a devolved matter and the local authorities in England, Scotland, Wales and Northern Ireland are responsible for developing the policy applicable to their respective areas. To provide guidance to the local authorities, the Food Standards Agency has published documents detailing the implementation of the enforcement. In England, for instance, anyone who fails to comply with the labelling or traceability regulations is liable to imprisonment for a term not exceeding either three or six months, and/or to a fine not exceeding £5,000 (HK\$77,800).

6.6.3 In Denmark, the regional veterinary and food administration centres under DVFA are responsible for the inspection and enforcement of GM food labelling and traceability. DVFA has also published guidelines explaining the provisions of the EU Regulations in detail. In general, anyone who fails to comply with the labelling or traceability regulations may be subject to a fine of at least DKK 5,000 (HK\$7,050), and/or imprisonment of up to two years.

6.6.4 In France, the sampling and testing of food products are performed by the Fraud Control Office of the Ministry of Economy, Finance and Industry. If the food operator is found to be non-compliant with the labelling and traceability regulations, he/she may be sentenced to a maximum of two years in prison and a fine of €37,500 (HK\$396,375). Alternatively, the operator may be asked to pay fines of up to €450 (HK\$4,757) for each label that does not conform to the regulations.

6.7 Public views

6.7.1 Across the EU, consumers are critical of GM food products in general. Most of the EU citizens welcome the EU Directive and Regulations on GM food labelling and traceability, as the new laws impose more stringent procedures for approving GMOs in food. In the UK, GM-labelled products have started to appear on store shelves, but the number remains very limited due to the negative publicity associated with GM food products. Similarly in Denmark and France, the combination of consumer scepticism about GM products, anti-GM campaigns by lobbying groups such as Greenpeace and Friends of the Earth, and the lack of political willpower to support agricultural biotechnology, makes it difficult for the respective governments to take a more proactive stance.

6.7.2 Nevertheless, farmers are generally in support of biotechnology. In Denmark, for instance, farmer organizations are lobbying for a more rapid and less controversial introduction of GM crops and food products. With greater production efficiencies, they view biotechnology as a key factor in maintaining their technical edge and competitiveness. In France, the corn growers openly express their support for biotechnology with the President of the General Association of the Corn Producers calling for the transposition of Directive 2001/18/EC into French law, emphasizing that farmers have already developed expertise regarding the management of the co-existence of GM and non-GM crops.

Appendix

Comparison of the main features of genetically modified food labelling in the European Union and selected places

	The European Union	The United Kingdom	Denmark	France
Regulatory authority	<ul style="list-style-type: none"> The European Commission (Commission) is responsible for establishing rules; and Governing authorities of the individual Member States are responsible for implementing and enforcing the related legislation. 	<ul style="list-style-type: none"> The central government, i.e. the Food Standards Agency (FSA), is responsible for setting the policies and legislation; and The devolved administration is responsible for enforcing the legislation, e.g. the Department for Environment, Food and Rural Affairs (Defra) in England. 	<ul style="list-style-type: none"> The Danish Veterinary and Food Administration (DVFA) under the Ministry of Family and Consumer Affairs is responsible for administering the food legislation; The Ministry of Food, Agriculture and Fisheries is involved in the genetically modified organism (GMO) approval process; and The Ministry of Environment is also involved in the GMO approval process. 	<ul style="list-style-type: none"> The Fraud Control Office of the Ministry of Economy, Finance and Industry (DGCCRF) is responsible for enforcing the compliance with the regulation on labelling and traceability on genetically modified (GM) food; The Ministry of Agriculture is responsible for the co-existence policies; and The French Food Safety Agency is responsible for assessing risks of GMOs to human health.

Appendix (cont'd)

Comparison of the main features of genetically modified food labelling in the European Union and selected places

	The European Union	The United Kingdom	Denmark	France
Underpinned legislation	<ul style="list-style-type: none"> • Directive 2001/18/EC; • Regulation (EC) No. 1829/2003; • Regulation (EC) No. 1830/2003; • Regulation (EC) No. 65/2004; and • Regulation (EC) No. 641/2004. 	<p>In England:</p> <ul style="list-style-type: none"> • Genetically Modified Organisms (Deliberate Release) Regulations 2002 which implement Directive 2001/18/EC; • Genetically Modified Food (England) Regulations 2004 which implement Regulation (EC) No. 1829/2003; and • Genetically Modified Organisms (Traceability and Labelling) (England) Regulations 2004 which implement Regulation (EC) No. 1830/2003. 	<ul style="list-style-type: none"> • The Danish Act on Environment and Genetic Engineering which implements Directive 2001/18/EC; and • Statutory Order No. 1308 of 14 December 2005 which implements both Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003. 	<ul style="list-style-type: none"> • Decrees 2007-357, 2007-358 and 2007-359 which implement Directive 2001/18/EC; and • Decree 2004-1058 which implements both Regulation (EC) No. 1829/2003 and Regulation (EC) No. 1830/2003.

Appendix (cont'd)

Comparison of the main features of genetically modified food labelling in the European Union and selected places

	The European Union	The United Kingdom	Denmark	France
Threshold for labelling and traceability requirements	<ul style="list-style-type: none"> • Products which contain authorized GMOs are not subject to traceability and labelling requirements if they contain traces of such GMOs below a threshold of 0.9%, provided that the presence of these materials is adventitious or technically unavoidable; and • Products which contain GMOs that have received a favourable scientific assessment, are not subject to traceability and labelling requirements if they contain traces of such GMOs below a threshold of 0.5%, provided that the presence is adventitious or technically unavoidable. If the presence of such GMOs is above 0.5%, the products are prohibited to be placed on the market. 	<ul style="list-style-type: none"> • Same as that of the European Union (EU). 	<ul style="list-style-type: none"> • Same as that of the EU. 	<ul style="list-style-type: none"> • Same as that of the EU.

Appendix (cont'd)

Comparison of the main features of genetically modified food labelling in the European Union and selected places

	The European Union	The United Kingdom	Denmark	France
Negative labelling	<ul style="list-style-type: none"> There is no legal basis for the use of negative labelling, but the EU legislation does not prohibit such practice. 	<ul style="list-style-type: none"> There is no legal basis for the use of negative labelling but such practice can be used on a voluntary basis as long as the food product is subject to the general requirement of the food law. 	<ul style="list-style-type: none"> There is no legal basis for the use of negative labelling but DVFA recommends companies which plan to market products with negative labelling to consult the regional veterinary and food administration centres prior to placing them on the market. 	<ul style="list-style-type: none"> DGCCRF has established a statutory list of requirements for food operators who wish to adopt negative labelling.
Legislation on co-existence	<ul style="list-style-type: none"> The Commission has delegated the individual Member States to develop and implement management measures concerning co-existence in accordance with the subsidiarity principle. 	<ul style="list-style-type: none"> Not yet enacted. At present, there is no commercial cultivation of GM crops in the UK; and In 2006, Defra issued a consultation paper to seek the stakeholders' views on the proposed co-existence measures in England. The Department is in the process of reviewing and analyzing the responses. 	<ul style="list-style-type: none"> Enacted. In 2004, Denmark passed the legislation on co-existence. 	<ul style="list-style-type: none"> Enacted. In March 2007, France passed the legislation on co-existence.

Appendix (cont'd)

Comparison of the main features of genetically modified food labelling in the European Union and selected places

	The European Union	The United Kingdom	Denmark	France
Enforcement	<ul style="list-style-type: none"> The individual Member States are responsible for enforcing the relevant legislation. 	<ul style="list-style-type: none"> Local authorities are responsible for enforcing the relevant legislation; and Non-compliance may result in fines not exceeding £5,000 (HK\$77,800), and/or imprisonment not exceeding either three or six months. 	<ul style="list-style-type: none"> The regional veterinary and food administration centres under DVFA are responsible for enforcing the relevant legislation; and Non-compliance may result in fines of at least DKK 5,000 (HK\$7,050), and/or imprisonment of up to two years. 	<ul style="list-style-type: none"> DGCCRF is responsible for enforcing the relevant legislation; and Non-compliance may result in fines of €37,500 (HK\$396,375), and/or imprisonment of up to two years.

References

European Union

1. Commission of the European Communities. (2003) *Commission Recommendation of 23 July 2003 on Guidelines for the Development of National Strategies and Best Practices to Ensure the Co-existence of Genetically Modified Crops with Conventional and Organic Farming.*
2. Commission of the European Communities. (2006) *Report from the Commission to the Council and the European Parliament on the Implementation of Regulation (EC) No. 1829/2003 of the European Parliament and of the Council on Genetically Modified Food and Feed.*
3. European Commission. (2006) *Questions and Answers on the Regulation of GMOs in the European Union.* Available from: http://ec.europa.eu/food/food/biotechnology/gmfood/qanda_en.htm [Accessed June 2007].
4. *European Food Safety Authority.* (2007) Available from: <http://www.efsa.europa.eu/en.html> [Accessed June 2007].
5. *Friends of the Earth Europe.* (2007) Available from: <http://www.foeeurope.org> [Accessed June 2007].
6. GeneWatch UK and Greenpeace International. (2005) *GM Contamination Report 2005.* Available from: http://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/gm_contamination_report.pdf [Accessed June 2007].
7. *GM Watch.* (2007) Available from: <http://www.gmwatch.org> [Accessed June 2007].
8. Greenpeace. (2004) *The European Union's New Labelling Rules for Genetically Engineered Food and Feed.* Available from: <http://www.greenpeace.org/raw/content/usa/press/reports/the-european-union-s-new-label.pdf> [Accessed June 2007].
9. Official Journal of the European Communities. (2001) *Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the Deliberate Release into the Environment of Genetically Modified Organisms and Repealing Council Directive 90/220/EEC.*
10. Official Journal of the European Union. (2003a) *Regulation (EC) No. 1829/2003 of the European Parliament and of the Council of 22 September 2003 on Genetically Modified Food and Feed.*

-
11. Official Journal of the European Union. (2003b) *Regulation (EC) No. 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the Traceability and Labelling of Genetically Modified Organisms and the Traceability of Food and Feed Products Produced from Genetically Modified Organisms and Amending Directive 2001/18/EC.*
 12. United States Department of Agriculture, Foreign Agricultural Service. (2004a) Gain Report Number: E24045. *"Safe as Conventional Rapeseed"*. Available from: <http://www.fas.usda.gov/gainfiles/200403/146105653.pdf> [Accessed June 2007].
 13. United States Department of Agriculture, Foreign Agricultural Service. (2004b) Gain Report Number: E24069. *Antibiotic Resistance Marker Genes*. Available from: <http://www.fas.usda.gov/gainfiles/200404/146106107.pdf> [Accessed June 2007].
 14. United States Department of Agriculture, Foreign Agricultural Service. (2004c) Gain Report Number: E34009. *Update on the EU's Biotech Approval Process*. Available from: <http://www.fas.usda.gov/gainfiles/200405/146106255.pdf> [Accessed June 2007].
 15. United States Department of Agriculture, Foreign Agricultural Service. (2004d) Gain Report Number: E34057. *Mon 810 Biotech Corn Enters EU Common Catalogue of Seed Varieties*. Available from: <http://www.fas.usda.gov/gainfiles/200409/146107461.pdf> [Accessed June 2007].
 16. United States Department of Agriculture, Foreign Agricultural Service. (2004e) Gain Report Number: E34079. *EU Commission Approves Monsanto's Biotech Corn, NK603*. Available from: <http://www.fas.usda.gov/gainfiles/200410/146117899.pdf> [Accessed June 2007].
 17. United States Department of Agriculture, Foreign Agricultural Service. (2004f) Gain Report Number: E34096. *The EU Biotech Regulatory Process – A New Tower of Babel*. Available from: <http://www.fas.usda.gov/gainfiles/200412/146118210.pdf> [Accessed June 2007].
 18. United States Department of Agriculture, Foreign Agricultural Service. (2005a) Gain Report Number: E35008. *The EU's Biotech Regulatory System – Who's Being Protected?* Available from: <http://www.fas.usda.gov/gainfiles/200501/146118478.pdf> [Accessed June 2007].
 19. United States Department of Agriculture, Foreign Agricultural Service. (2005b) Gain Report Number: E35026. *Twenty EU Regions Defend Right to Ban Biotech Production*. Available from: <http://www.fas.usda.gov/gainfiles/200502/146118774.pdf> [Accessed June 2007].

-
20. United States Department of Agriculture, Foreign Agricultural Service. (2005c) Gain Report Number: E35044. *Recent Biotech Developments in the EU*. Available from: <http://www.fas.usda.gov/gainfiles/200503/146118982.pdf> [Accessed June 2007].
 21. United States Department of Agriculture, Foreign Agricultural Service. (2005d) Gain Report Number: E35074. *Register of Existing GM Food and Feed Products Published by the Commission*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130469.pdf> [Accessed June 2007].
 22. United States Department of Agriculture, Foreign Agricultural Service. (2005e) Gain Report Number: E35091. *Annual Agricultural Biotechnology Report*. Available from: <http://www.fas.usda.gov/gainfiles/200506/146129925.pdf> [Accessed June 2007].
 23. United States Department of Agriculture, Foreign Agricultural Service. (2005f) Gain Report Number: E35126. *Environment Council Votes No to Lifting Biotech Bans*. Available from: <http://www.fas.usda.gov/gainfiles/200506/146130137.pdf> [Accessed June 2007].
 24. United States Department of Agriculture, Foreign Agricultural Service. (2005g) Gain Report Number: E35152. *EFSA Launches Public Consultation on Post-Market Environmental Monitoring*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130475.pdf> [Accessed June 2007].
 25. United States Department of Agriculture, Foreign Agricultural Service. (2005h) Gain Report Number: E35154. *EFSA Says GM Maize Hybrids are Safe, MON863 Dossier Passed to Council*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130476.pdf> [Accessed June 2007].
 26. United States Department of Agriculture, Foreign Agricultural Service. (2005i) Gain Report Number: E35158. *GMO Warnings Issued to Three Member States*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130503.pdf> [Accessed June 2007].
 27. United States Department of Agriculture, Foreign Agricultural Service. (2005j) Gain Report Number: E35183. *GMO Trials on Grape Wine Given Go-Ahead in France*. Available from: <http://www.fas.usda.gov/gainfiles/200509/146130907.pdf> [Accessed June 2007].
 28. United States Department of Agriculture, Foreign Agricultural Service. (2006a) Gain Report Number: E36050. *European Commission Report on Coexistence*. Available from: <http://www.fas.usda.gov/gainfiles/200603/146187203.pdf> [Accessed June 2007].

-
29. United States Department of Agriculture, Foreign Agricultural Service. (2006b) Gain Report Number: E36080. *Annual Agricultural Biotechnology Report*. Available from: <http://www.fas.usda.gov/gainfiles/200605/146187745.pdf> [Accessed June 2007].
 30. United States Department of Agriculture, Foreign Agricultural Service. (2007) *Biotechnology*. Available from: <http://useu.usmission.gov/agri/GMOs.html> [Accessed June 2007].

United Kingdom

31. Food Standards Agency. (2007) *GM and Novel Foods*. Available from: <http://www.food.gov.uk/gmfoods/> [Accessed June 2007].
32. Office of Public Sector Information. (2002) *Statutory Instrument 2002 No. 2443. Genetically Modified Organisms (Deliberate Release) Regulations 2002*. Available from: <http://www.opsi.gov.uk/si/si2002/20022443.htm> [Accessed June 2007].
33. Office of Public Sector Information. (2004a) *Statutory Instrument 2004 No. 2335. The Genetically Modified Food (England) Regulations 2004*. Available from: <http://www.opsi.gov.uk/si/si2004/20042335.htm> [Accessed June 2007].
34. Office of Public Sector Information. (2004b) *Statutory Instrument 2004 No. 2412. The Genetically Modified Organisms (Traceability and Labelling) (England) Regulations 2004*. Available from: <http://www.opsi.gov.uk/si/si2004/20042412.htm> [Accessed June 2007].
35. The Department for Environment, Food and Rural Affairs. (2004) *The GM Public Debate: Lessons Learned from the Process*. Available from: <http://www.defra.gov.uk/environment/gm/crops/debate/pdf/gmdebate-lessons.pdf> [Accessed June 2007].
36. The Department for Environment, Food and Rural Affairs. (2006) *Consultation on Proposals for Managing the Coexistence of GM, Conventional and Organic Crops*. Available from: <http://www.defra.gov.uk/corporate/consult/gmnongm-coexist/consultdoc.pdf> [Accessed June 2007].
37. The Department for Environment, Food and Rural Affairs. (2007) *Genetic Modification*. Available from: <http://www.defra.gov.uk/environment/gm/index.htm> [Accessed June 2007].

-
38. United States Department of Agriculture, Foreign Agricultural Service. (2003a) Gain Report Number: #UK3017. *UK Debate: First Major Report on Economic Costs, Benefits of Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200307/145985448.pdf> [Accessed June 2007].
 39. United States Department of Agriculture, Foreign Agricultural Service. (2003b) Gain Report Number: #UK3021. *UK Biotech Debate: Scientific Review*. Available from: <http://www.fas.usda.gov/gainfiles/200307/145985536.pdf> [Accessed June 2007].
 40. United States Department of Agriculture, Foreign Agricultural Service. (2004) Gain Report Number: UK4025. *Four Year UK Study Finds Benefits in Biotech Crops*. Available from: <http://www.fas.usda.gov/gainfiles/200412/146118318.pdf> [Accessed June 2007].
 41. United States Department of Agriculture, Foreign Agricultural Service. (2005) Gain Report Number: UK5013. *Agricultural Biotechnology Report*. Available from: <http://www.fas.usda.gov/gainfiles/200507/146130275.pdf> [Accessed June 2007].

Denmark

42. Danish Parliament. (2002a) *Statutory Order No. 829 of 3 October 2002. Statutory Order on the Approval of Production using Genetically Modified Plants and Animals*.
43. Danish Parliament. (2002b) *Statutory Order No. 830 of 3 October 2002. Statutory Order on the Approval of Production using Genetically Modified Micro-organisms*.
44. Danish Parliament. (2002c) *Statutory Order No. 831 of 3 October 2002. Statutory Order on the Deliberate Release into the Environment of Genetically Modified Organisms*.
45. *European Commission*. (2005) *National Report. Denmark*. Available from: http://foodqualityschemes.jrc.es/en/documents/NationalreportDK_001.pdf [Accessed June 2007].
46. Ministry of Family and Consumer Affairs, Danish Veterinary and Food Administration. (2004) *Vejledning om Genetisk Modificerede Fødevarer*. Available from: <http://www.foedevarestyrelsen.dk/NR/rdonlyres/etjd2buyusooetyc6w2slzhnf432fqzx4ocems7jqedw2ntui6hbtgturbg5da7iqzbx2ncsso2lcjrgutafwh3fvbh/Gmovejledning0205041.pdf> [Accessed June 2007].

-
-
47. Ministry of Family and Consumer Affairs, Danish Veterinary and Food Administration. (2005) *Bekendtgørelse nr. 1308 af 14. December 2005 om Mærkning m.v. af Fødevarer*. Available from: http://147.29.40.91/_GETDOC_/B20050130805-REGL [Accessed June 2007].
 48. Ministry of Family and Consumer Affairs, Danish Veterinary and Food Administration. (2007) Available from: <http://www.uk.foedevarestyrelsen.dk/Forside.htm> [Accessed June 2007].
 49. Ministry of Food, Agriculture and Fisheries, the Danish Plant Directorate. (2007) Available from: <http://www.pdir.dk/Default.asp?ID=7335> [Accessed June 2007].
 50. Ministry of the Environment. (2007) Available from: <http://www.mim.dk/eng/> [Accessed June 2007].
 51. Nielsen, C. P. et al. (2001) *Consumer Attitudes Towards Genetically Modified Foods. The Modelling of Preference Changes*. The Danish Ministry of Food, Agriculture and Fisheries.
 52. Nordic Council of Ministers. (2005) *Assessing Options for Nordic-Baltic Co-operation in Biosafety*. Available from: <http://www.norden.org/pub/miljo/miljo/sk/TN2005565.pdf> [Accessed June 2007].
 53. United States Department of Agriculture, Foreign Agricultural Service. (2003) Gain Report Number: #DA3006. *Danish Government Actions Seek to Counter Negative Consumer Opinions*. Available from: <http://www.fas.usda.gov/gainfiles/200303/145885054.pdf> [Accessed June 2007].
 54. United States Department of Agriculture, Foreign Agricultural Service. (2004) Gain Report Number: DA4001. *Proposed Danish Legislation for GM Co-existence*. Available from: <http://www.fas.usda.gov/gainfiles/200403/146105616.pdf> [Accessed June 2007].
 55. United States Department of Agriculture, Foreign Agricultural Service. (2005a) Gain Report Number: DA5002. *Danish Advisory Committee Call for Consumer Acceptance of Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130597.pdf> [Accessed June 2007].
 56. United States Department of Agriculture, Foreign Agricultural Service. (2005b) Gain Report Number: DA5006. *Food and Agricultural Import Regulations and Standards – Country Report*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130577.pdf> [Accessed June 2007].
 57. United States Department of Agriculture, Foreign Agricultural Service. (2005c) Gain Report Number: DA5007. *Annual 2005*. Available from: <http://www.fas.usda.gov/gainfiles/200508/146130597.pdf> [Accessed June 2007].
-
-

-
-
58. United States Department of Agriculture, Foreign Agricultural Service. (2005d) Gain Report Number: DA5010. *Denmark Expected to Vote for Approval of GM Corn Event*. Available from: <http://www.fas.usda.gov/gainfiles/200509/146130941.pdf> [Accessed June 2007].
 59. United States Department of Agriculture, Foreign Agricultural Service. (2006a) Gain Report Number: DA6008. *Annual 2006*. Available from: <http://www.fas.usda.gov/gainfiles/200608/146208711.pdf> [Accessed June 2007].
 60. United States Department of Agriculture, Foreign Agricultural Service. (2006b) Gain Report Number: DA6009. *Food and Agricultural Import Regulations and Standards – Country Report*. Available from: <http://www.fas.usda.gov/gainfiles/200608/146208639.pdf> [Accessed June 2007].

France

61. La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes. (2007a) *OGM: Étiquetage*. Available from: http://www.minefi.gouv.fr/DGCCRF/04_dossiers/consommation/ficonso/ogm.htm [Accessed June 2007].
62. La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes. (2007b) *Étiquetage des denrées alimentaires*. Available from: http://www.minefi.gouv.fr/DGCCRF/04_dossiers/consommation/ficonso/c01.htm [Accessed June 2007].
63. La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes. (2007c) *L'action de la DGCCRF*. Available from: http://www.minefi.gouv.fr/DGCCRF/04_dossiers/consommation/contrôles_alimentaires/actiondgccrf.htm [Accessed June 2007].
64. La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes. (2007d) *OGM - Étiquetage des denrées alimentaires et aliments pour animaux contenant des organismes génétiquement modifiés ou produits à partir de tels organismes (règlement (CE) n°1829/2003)*. Available from: http://www.minefi.gouv.fr/DGCCRF/04_dossiers/consommation/alimentaire/ogm/ogm04b.htm [Accessed June 2007].
65. La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes. (2007e) *OGM - Traçabilité des organismes génétiquement modifiés et de leurs dérivés alimentaires (règlement (CE) n°1830/2003)*. Available from: http://www.minefi.gouv.fr/DGCCRF/04_dossiers/consommation/alimentaire/ogm/ogm04a.htm [Accessed June 2007].

-
-
66. *L'Agence Française de Sécurité Sanitaire des Aliments*. (2007) Available from: [http:// www.afssa.fr](http://www.afssa.fr) [Accessed June 2007].
 67. *MaizEurop*. (2007) Available from: <http://www.agpm.com/maizeurope/index.php> [Accessed June 2007].
 68. Site interministériel sur les OGM. (2006) *Le contrôle des OGM par les Pouvoirs Publics*. Available from: http://www.ogm.gouv.fr/savoir_plus/fiches/fiche4.htm [Accessed June 2007].
 69. United States Department of Agriculture, Foreign Agricultural Service. (2003) Gain Report Number: FR3052. *French Corn Growers and Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200309/145986128.pdf> [Accessed June 2007].
 70. United States Department of Agriculture, Foreign Agricultural Service. (2004a) Gain Report Number: FR4033. *French Food Safety Agency Reports Benefits of Biotech to Human Health*. Available from: <http://www.fas.usda.gov/gainfiles/200408/146107029.pdf> [Accessed June 2007].
 71. United States Department of Agriculture, Foreign Agricultural Service. (2004b) Gain Report Number: FR4041. *French Biotech Supporters Try to Defend Test Plots from Destruction*. Available from: <http://www.fas.usda.gov/gainfiles/200408/146107273.pdf> [Accessed June 2007].
 72. United States Department of Agriculture, Foreign Agricultural Service. (2004c) Gain Report Number: FR4057. *French President Announces Framework Law on Biotech Crops*. Available from: <http://www.fas.usda.gov/gainfiles/200410/146117879.pdf> [Accessed June 2007].
 73. United States Department of Agriculture, Foreign Agricultural Service. (2004d) Gain Report Number: FR4062. *Implementation of NF/NF and T&L Regulations in France*. Available from: <http://www.fas.usda.gov/gainfiles/200411/146118022.pdf> [Accessed June 2007].
 74. United States Department of Agriculture, Foreign Agricultural Service. (2005a) Gain Report Number: FR5014. *Biodiversity and Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200502/146118874.pdf> [Accessed June 2007].
 75. United States Department of Agriculture, Foreign Agricultural Service. (2005b) Gain Report Number: FR5023. *French Parliamentarians Debate Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200503/146119134.pdf> [Accessed June 2007].
 76. United States Department of Agriculture, Foreign Agricultural Service. (2005c) Gain Report Number: FR5030. *Primary Conclusions of French Parliamentary Working Group on Biotech*. Available from: <http://www.fas.usda.gov/gainfiles/200504/146119429.pdf> [Accessed June 2007].
-
-

-
-
77. United States Department of Agriculture, Foreign Agricultural Service. (2005d) *Gain Report Number: FR5037. ASA Delegation Meets with French Industry on T&L.* Available from: <http://www.fas.usda.gov/gainfiles/200506/146129895.pdf> [Accessed June 2007].
 78. United States Department of Agriculture, Foreign Agricultural Service. (2005e) *Gain Report Number: FR5041. Biotech Test Plots in Danger – U.S. Companies Getting Ready.* Available from: <http://www.fas.usda.gov/gainfiles/200506/146129974.pdf> [Accessed June 2007].
 79. United States Department of Agriculture, Foreign Agricultural Service. (2005f) *Gain Report Number: FR5045. Test Plot Destructions Stopped, Activists Change Tactics.* Available from: <http://www.fas.usda.gov/gainfiles/200506/146130077.pdf> [Accessed June 2007].
 80. United States Department of Agriculture, Foreign Agricultural Service. (2005g) *Gain Report Number: FR5051. Annual 2005.* Available from: <http://www.fas.usda.gov/gainfiles/200507/146130344.pdf> [Accessed June 2007].
 81. United States Department of Agriculture, Foreign Agricultural Service. (2005h) *Gain Report Number: FR5060. 500 to 1,000 ha of GM corn in France in 2005.* Available from: <http://www.fas.usda.gov/gainfiles/200509/146130886.pdf> [Accessed June 2007].
 82. United States Department of Agriculture, Foreign Agricultural Service. (2005i) *Gain Report Number: FR5061. French Corn Growers Show Strong Support for Biotech Crops.* Available from: <http://www.fas.usda.gov/gainfiles/200509/146130961.pdf> [Accessed June 2007].
 83. United States Department of Agriculture, Foreign Agricultural Service. (2005j) *Gain Report Number: FR5066. José Bové Running for President?* Available from: <http://www.fas.usda.gov/gainfiles/200510/146131192.pdf> [Accessed June 2007].
 84. United States Department of Agriculture, Foreign Agricultural Service. (2005k) *Gain Report Number: FR5084. Exploring Coexistence.* Available from: <http://www.fas.usda.gov/gainfiles/200512/146131663.pdf> [Accessed June 2007].
 85. United States Department of Agriculture, Foreign Agricultural Service. (2005l) *Gain Report Number: FR5088. Despite Obstacles French Corn Growers Will Plan Biotech Corn.* Available from: <http://www.fas.usda.gov/gainfiles/200512/146131769.pdf> [Accessed June 2007].
 86. United States Department of Agriculture, Foreign Agricultural Service. (2006a) *Gain Report Number: FR6008. French Biotech Bill Progresses.* Available from: <http://www.fas.usda.gov/gainfiles/200601/146176631.pdf> [Accessed June 2007].
-
-

87. United States Department of Agriculture, Foreign Agricultural Service. (2006b) Gain Report Number: FR6012. *French Reactions to WTO Preliminary Conclusions on Ag Biotechnology*. Available from: <http://www.fas.usda.gov/gainfiles/200602/146176846.pdf> [Accessed June 2007].
88. United States Department of Agriculture, Foreign Agricultural Service. (2006c) Gain Report Number: FR6037. *Significant Increase in GM Corn Planting in 2006*. Available from: <http://www.fas.usda.gov/gainfiles/200607/146208209.pdf> [Accessed June 2007].
89. United States Department of Agriculture, Foreign Agricultural Service. (2006d) Gain Report Number: FR6039. *Annual 2006*. Available from: <http://www.fas.usda.gov/gainfiles/200608/146208565.pdf> [Accessed June 2007].
90. United States Department of Agriculture, Foreign Agricultural Service. (2006e) Gain Report Number: FR6040. *Judicial Decisions Favorable to Biotech Cultivation*. Available from: <http://www.fas.usda.gov/gainfiles/200607/146208485.pdf> [Accessed June 2007].