The European Union's new labelling rules for genetically engineered food and feed

Implications for the market of GMO and non-GMO products

GREENPEACE

April 2004

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Introduction

The European Union is implementing new labelling and traceability legislation for genetically modified food, feed and ingredients, which will be the strictest world-wide. These new rules, which apply to the worlds largest single market, will have major repercussions on the future market of all genetically modified crops, vegetables, fruits and food and feed products derived from GMOs.

The two major changes to the previous labelling provisions, which will affect more than 90 percent of all GM imports to the European Union, are

1) The requirement to label genetically modified feed (so far labelling only applied to food)
2) The requirement all products derived from GM ingredients, irrespective whether they can be detected in the final product or not (so far labelling was only required where the DNA or protein of the GMO could be detected in the final product)

After years of public debate of the issue, European consumers in their large majority continue to have an adverse attitude to GMOs in food and the vast majority of retail-chains and food producers have a non-GM policy or at least avoid any GM labelling. With the new extension of labelling requirements the European market will be further closed to GM food imports. This not only applies to imports of bulk commodities such as soya and maize, but also to all processed food and food ingredients imported to the European Union.

40.000 ton freighters of soybean and maize will be equally affected as toppings on frozen pizzas, chocolate bars, canned tuna or sardines in oil, soft drinks containing glucose sweeteners, and all processed food containing emulsifiers (lecithin) or starch. Countries which export their goods to the European market will also be directly affected by the new labelling rules and may re-consider their import policies on GM commodities including oil, starch and corn derived sweeteners.

Also the European feed market, which is the largest in the world, is increasingly demanding non-GM supplies. While labelling of animal products will not be mandatory major European meat, milk and egg producers and retailers start to guarantee non-GM fed quality on a voluntary base. As GM labelling of all feed imports and preparations becomes mandatory, the differentiation of the feed market will accelerate.

These market restrictions are effective for end products from 18 April 2004. Around the same time the present EU moratorium on the formal approval of new GMOs, which is being challenged by the USA at the World Trade Organisations dispute settlement body, may be lifted - leaving the US case at the WTO idle, but European markets even more tightly closed to GM imports.

New labelling and traceability rules within the EU

The European Union's new Regulation on genetically modified (GM) food and feed[1] together with the regulation on traceability[2] were finally adopted on July 2nd 2003 by the European Parliament and entered into force in October 2003. From the day they are applicable on 18 April 2004, hese regulations will substantially change the rules and practicalities of labelling genetically modified organisms (GMOs) in products for human consumption and animal feed. This first comprehensive labelling regime also set global standards as they apply to the largest single market world-wide. The major changes are:

1. **All products containing or consisting of or derived from an ingredient, which contains more than 0,9% of GMO must be labelled "this product contains genetically modified organisms" or "this product is produced from genetically modified organisms".**
   Additional labelling may be required if the nutritional properties of the product are different from its natural counterparts or where the genetic modification may give raise to ethical or religious concerns.
2. **Labelling is also required where the specific DNA or protein of the GMO can no longer be identified in the final product.**
3. **GMO in animal feed and additives will also have to be labelled.**

Food and feed processors, trade and retailers have already begun to implement the new regulations and require their suppliers to comply with their subsequent private quality and traceability standards and certification schemes. This may also result in global certification standards and trade specifications for non-GMO commodities and other agricultural products, especially regarding maize, soya, rape seed (canola) and eventually wheat, should GM wheat varieties ever be commercialised in the USA, Canada or other countries.

New threshold: 0,9 % of any ingredient

The maximum threshold for GM contamination ("*adventitious or technically unavoidable presence*"), which is exempted from labelling requirements, has been lowered from 1% to 0,9%. This percentage refers to each individual ingredient in a product, e.g. 0,9% GM in the lecithin used in a chocolate bar triggers labelling of the whole bar, which itself may only contain 0,5% lecithin[3] It is also important to note that this level only applies if the operator can prove that he has taken all appropriate steps to avoid such contamination.[4]

The 0,9 % threshold only applies to GMOs which are approved under the Food and Feed Regulation and in accordance with Directive 2001/18 on the deliberate release of GMOs into the environment.[5] A three year transitional exemption is made for a few GMOs, which are not approved but have benefited from a favourable opinion of the EU Scientific Committee(s) before this regulation entered into force. Such GMOs may be accidentally present up to 0,5%.

Labelling of oil, starch, sugar etc.

Labelling of genetically modified food and feed shall also be required for products in which the DNA or specific protein of the GMO can no longer be detected, but which are produced from GMOs.[6] A distinction is made between products which are produced *from* GM materials and have to be labelled, and products which are produced *with* GMOs (e.g. enzymes, vitamins, GM processing aids and also products from animals fed with GMOs) and do not require labelling under this regulation.[7]

Products affected by this new definition, which did not have to be labelled before, include starch, oil, sugar, glucose and alcohol.

An estimated 90% of GM imports to the European Union are used as animal feed and for starch or oil production. These products now require, for the first time, labelling as genetically modified food or feed.

Examples of Labelling of GM-Food and GM-Feed

GMO-type	EXAMPLE	Labelling under new Regulation	Labelling under past Regulation
GM plant	Chicory	Yes	Yes
GM seed	Maize seeds	Yes	Yes
GM food	Maize, Soybean sprouts, Tomato	Yes	Yes
Food	Maize flour	Yes	Yes
produced	Highly refined maize oil, soybean oil, rape seed oil	**Yes**	No
from GMOs	Glucose syrup produced from maize starch	**Yes**	No
Food from animals fed on GM feed	Eggs, meat, milk	No	No
Food produced with the help of a GM enzyme	bakery products produced with the help of amylase	No	No
Food additive/flavouring produced from GMOs	Highly filtered lecithin extracted from GM soybeans used in chocolate	**Yes**	No
GM Feed	Maize	Yes	Yes
Feed produced from a GMO	Corn gluten feed, Soybean meal	**Yes**	No
Feed additive produced from a GMO	Vitamin B2 (riboflavin)	**Yes**	No

Source: European Commission, Questions and Answers on the regulation of GMOs in the EU[8]

What GMOs?

A total number of 18 GMOs were approved under Directive 90/220, (which has now been replaced by Directive 2001/18) prior to the establishment of a de facto moratorium for approvals of GMO commercialisation in 1998. These include four maize lines, Roundup Ready soybeans (not for planting but only for consumption) and three oilseed rape lines. However, in many cases approved varieties have later been banned in individual member states.[9] For others the final act of approval by the member state has been withheld. These approvals need to be re-evaluated under the new Directive over a transition period.

At present 24 new applications for the placing on the market of GMOs are pending (some for as long as six years). An updated list of all pending approvals is provided by the EU Joint Research Centre.[10] Some of them have already had a favourable assessment by national Competent Authorities, Scientific Committees of the EU or the European Food Safety Authority (EFSA). In many other cases national competent authorities have submitted questions and objections to the approval and in other cases the

competent authority in charge of the initial evaluation is still not satisfied with the information provided by the applicants and the quality of their assessment and documentation.

General traceability rules and concept

According to the European Commission "*traceability is defined as the ability to trace GMOs, and products produced from them, at all stages of their placing on the market throughout the production and distribution chains, facilitating control and also holding the potential to withdraw products if necessary. The obligation of traceability is designed to facilitate accurate labelling of the final product and to provide the means for inspection and control of labelling claims. It is a direct response to the voices of consumers who have made it clear that they want – and have a right – to make informed choices. This proposal places an obligation on all parts of the distribution chain to provide that information. It also builds on the current EU food-labelling scheme but adds additional provisions to allow for inspection and control of compliance with the current rules and reduces reliance on analytical methods to detect the presence of GMOs."*[11]

Operators placing on the market an authorised GMO are obliged to inform in writing receiving operators about the fact that the product contains or consists or is produced from GMOs, and of the unique identifiers assigned to these GMOs. This information must be transmitted to any subsequent operator receiving the product. Records of any such transactions must be kept by the operators for a period of five years.

This concept of "farm to fork" traceability not only relates to GMO ingredients, but is a general philosophy of the European Union's approach to food safety and consumer information, established in 2002 through a Community Regulation "laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety"[12] This regulation will be complemented by sectoral legislation, such as the GMO labelling regulation, and guides the further development of the food law within the EU and its newly established European Food Safety Authority, EFSA[13]. Other sectoral legislation underway is a regulation for feed hygiene, recently proposed by the Commission.[14]

As a prerequisite for its authorisation any GMO requires a "unique identifier", i.e. a method to identify and test for the specific GMO, which has to be submitted to the European Reference Laboratory by the applicant. Details of the concept of these unique identifiers have been established by the Commission[15]. Work related to GMO identification is carried out by the EU's Joint Research Laboratory and its European Network of GMO Laboratories, ENGL[16], and complemented by the European Committee For Standardisation, CEN.[17] International standardisation of unique identifiers for GMOs will be conducted within the framework of the International Biosafety Protocol. The European Union has adopted implementing legislation of the Biosafety Protocol[18] in June 2003, which also governs the terms of eventual exports of GMOs from the EU.

The concept and the meaning of traceability of GMOs is also discussed at the WHO/FAOs joint *Codex Alimentarius*, where an *Ad Hoc Intergovernmental Task Force On Foods Derived From Biotechnology* had been established in 1999 and presented its recommendations to the Meeting of the Codex Plenary in Rome (June 30 - July 7th 2003).[19] No agreement has been reached so far on traceability, while an agreement on minimum standards for health risk assessment was adopted in Rome. These principles are to be based on pre-market assessment, performed on a case-by-case basis including an evaluation of both direct effects from the GMO and any unintended effects. Although these Codex principles would not have a binding effect on national legislation, they could be used as a reference in case of trade disputes. Present US regulations may not fully confirm with these standards, especially as regards pre-market testing.

New rules and procedures for approval of GMOs in food and feed

With the entering into force of the new labelling and traceability regulations new approvals for the commercial use of some GMOs can be expected within this year. A new approval procedure will apply, which will be executed by the European Unions newly establish European Food Safety Authority, EFSA.[20]

Approval can be sought for food and feed use of specific GMOs as well as for foods containing or consisting of specific GMOs. A detailed risk assessment regarding the safety for human and animal consumption and in cases where the GMO will also be released into the environment additional environmental risk assessment (which is detailed in EU Directive 2001/18[21]) will be required. These shall be carried out by the EFSA. The agency informs all national Competent Authorities and may seek their advise. In cases of applications for environmental releases EFSA is obliged to seek the advice of a national authority . An opinion of the EFSA regarding the safety of the product will then be published and the public will have the possibility to make comments. Having received this opinion the Commission shall submit a draft decision to the Standing Committee on the Food Chain and Animal Health composed of representatives of the member states.[22] The Commission may also take into account "other legitimate factors relevant to the matter", not directly referring to health and environmental risks. If the Committee approves the Commission's decision, the approval shall be granted or denied accordingly. Should the Committee not agree with the proposed decision by qualified majority, the decision will be submitted to the Council of Ministers, who are to decide with qualified majority.[23] The authorisation will be granted only for a limited time period of ten years, after which the approval needs to be reviewed or expires.

Market situation and impacts

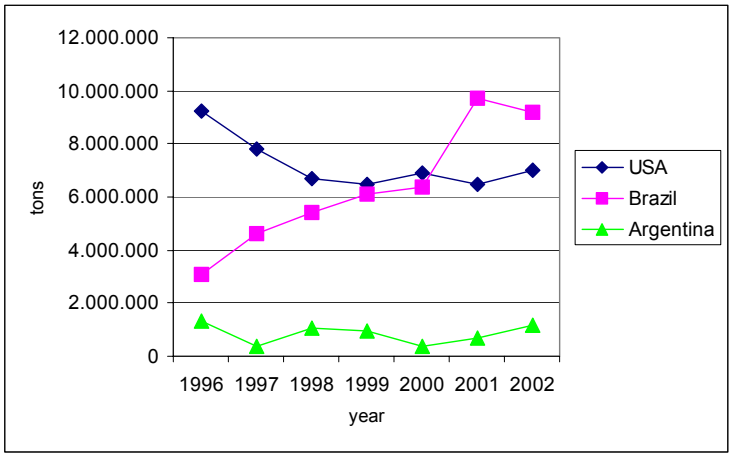
Food and feed ingredients presently affected by GM labelling are mainly soya and maize products. The introduction of GM wheat in the USA and Canada, which has been recently submitted for approval by Monsanto, could have equally massive implications for transatlantic and global commodity trade.[24]

Soybeans

Soybeans, which arrive in bulk carriers, are crushed in a few, centralised facilities into oil, protein preparations, lecithin and a diversity of other products (for a full list of soy products see Annex 1) as well as animal feed (soy meal and soy cake) which is also directly imported in large quantities.

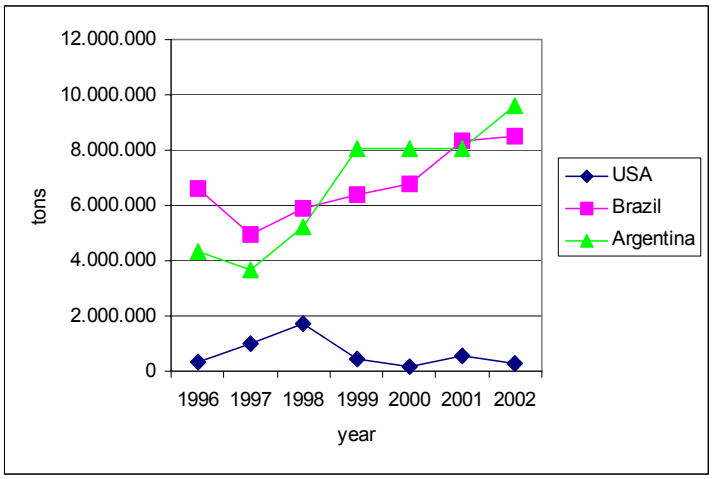
Import of soybeans to the EU in metric tons

Source: European Statistical Office



Import of soy meal and cake to the EU in metric tons

Source: European Statistical Office



Soybean imports are by far the most significant in terms of quantities and value. The EU is the largest import market for soybeans and meal in the world.[25] Soybeans account for over 40% of all EU feed imports[26] and for nearly a quarter of all US agricultural exports to the Community.Soya is also the most significant GM ingredient in terms of dispersion throughout the food chain (see Annex 1).

A single ingredient derived from soybeans - lecithin - which is used as an emulsifier, accounts for an estimated 80% of potential presence of GM material in products on supermarket shelves. It is yielded after crushing from a small fraction (0,5%) of the crude soya oil. 150.000 tonnes of lecithin are traded world-wide. Demand is increasing, also due to its health properties. Cleaning methods for lecithin are available, which prevent the detection of DNA in the product. However, with the new traceability regulation, detectability is no longer the decisive point for future labelling. Substantial impacts on this market can be expected.

As major oil and fat processors, such as Unilever, have requested a non-GM supply for EU production already over the past years, large quantities of the oil derived from GMOs was re-exported by European oil mills to Eastern European Countries. However, with the accession to the EU of Poland, Hungary, the Czech Republic and the Baltic States in 2004, labelling laws will also apply in these countries.

These factors, combined with increased demand for non-GMO feed is a strong incentive for oil mills to increase their non-GMO processing quantities. Many of them at present switch seasonally between US or Argentinean GM imports and Brazilian or other non-GM imports. Cleaning the facility to a degree that allows to stay below the 0,9% contamination threshold is costly and reduces the economic advantage of different sources of import. This may increase the pressure to entirely switch to non-GMO processing.

Maize (corn)

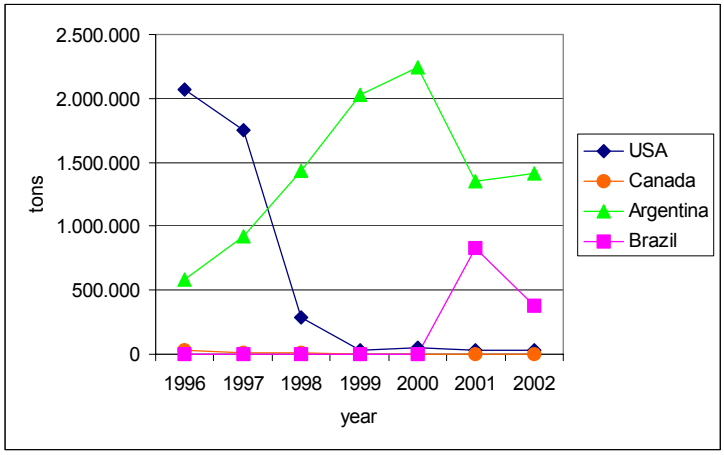
Kernel maize for feed and processing

The European Union allows the annual imports of maize at reduced duties into Spain (2 million tons) and Portugal (500.000 tons), which are regulated in specific legislation on the tariff quota and organised by a tendering procedure [27].

US imports of kernel maize under this regulation have collapsed to near zero since 1999, due to the fact that some GM varieties grown in the US are not approved for food or feed use within the EU. US officials claim that the 'de facto' moratorium translates into an annual loss of over 300 million US$ in maize exports for US farmers. This would be accurate, if the US could regain the entire market share it used to have in 1996.[28] However, price advantages of imports from Argentina (which only allows growing of EU approved GM varieties) and Brazil (no GM varieties approved) may cast some doubts on these figures.

Import of kernel maize to the EU in metric tons

Source: European Statistical Office



In addition the new labelling regulations require not only the labelling of GM maize, but also of starch and glucose produced from such maize. This will continue to be a major trade barrier for GM maize, even when approvals for additional GM maize varieties will be granted later this year.

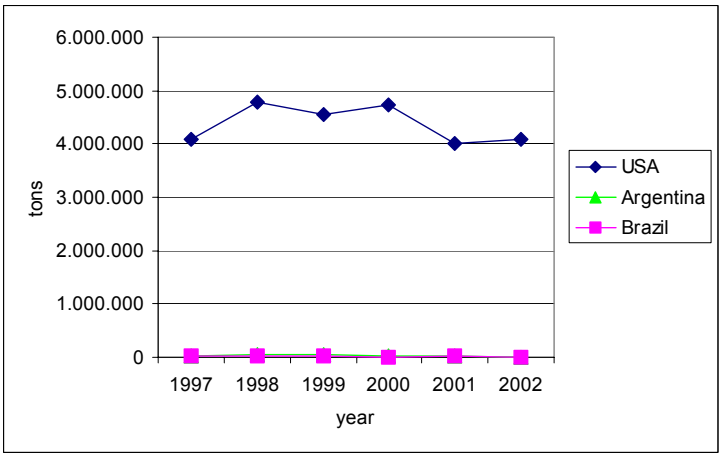
Some of these varieties which contain antibiotic markers and new proteins may also face opposition from national authorities. The use of antibiotic markers in GMOs is supposed to be phased out within the EU by the end of 2004.[29]

Maize gluten feed for animal feed

The remains of maize after milling and starch extraction are used as cheap sources of animal feed and account for about 10% of EU feed concentrates. Large quantities are being imported to the EU from the USA. While some disputes arose in the past, whether GM maize gluten feed was to be considered a live GMO (some viable kernel seeds usually remain in the mixtures), the new regulations will clearly require labelling of this product.

Import of maize gluten feed to the EU in metric tons

Source: European Statistical Office



Sweet maize for direct human consumption

Sweet maize, mainly canned, some also frozen, is produced by France (300.000 tons), Italy (40.000 t) and Spain (20.000 t). Imports from the US have decreased to around 1000 tons. Hungary, now accessing the EU Common Market, is a major exporter of sweet maize, competing with France. Consumption had dipped in 1998 due to consumer concerns linking maize to GMOs. [30] No GM sweet maize varieties are presently approved in the EU. However, Syngenta's GM variety Bt11 is a sweet maize variety and might be one of the first GM varieties to be approved, if the present moratorium is lifted. Even though it would have to be labelled, sweet maize producers in Europe are concerned about the potential impact on their products reputation.

"Masa", a special preparation for chip production

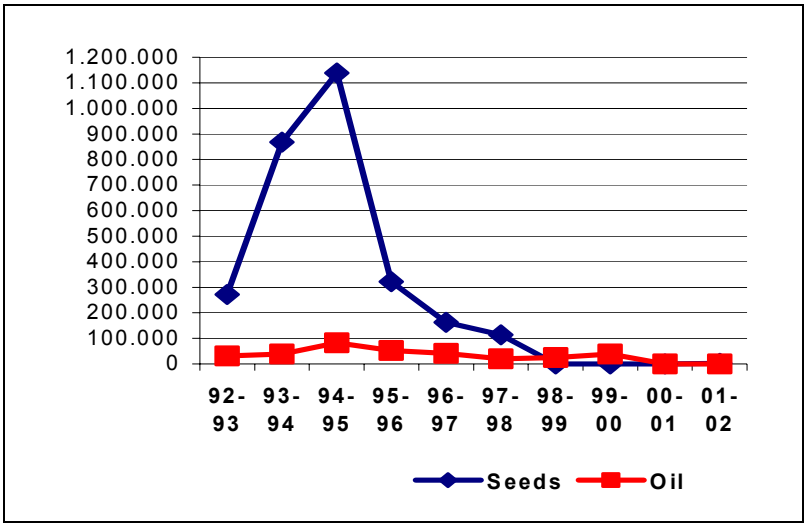
GMOs in maize chips have been one of the first consumer issues in Europe. The special preparation for their production is now available in non-GMO quality both from new European sources and from traditional suppliers in the USA and Mexico, who set up Identity Preservation (IP) systems for this purpose.[31]

Oilseed rape (Canola)

Canadian exports of canola have collapsed since the introduction of GM varieties in 1995/96.[32] The impacts of the new European labelling rules on other international canola markets can be expected, as avoiding the use of GM oil in processed foods imported to the EU (from cookies to canned fish and vegetables) will be crucial to prevent GM labelling.

Import of Canadian canola seeds and oil to the EU in metric tons

Source: Canola Council of Canada



Also affected by GM labelling requirements is Canadian honey, which increasingly contains GM pollen from canola and would therefore also be required to be labelled as genetically modified.[33]

Other GM crops

Other GM crops, which could be imported, but are of minor economic significance, are cotton oil and fresh or processed Papaya. Future applications could include potato, tomato (GM varieties of both had been commercialised in the US but were taken off the market again), wheat, beet, sunflower and eventually rice as well as fruits and vegetables.

Consumer attitudes

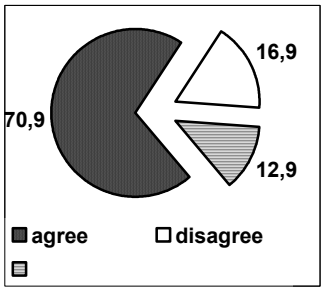
European consumers remain sceptical about GMOs, especially when it comes to their own foods. Continued surveys of the European Unions Eurobarometer and other sources show a constant rejection of GM foods, even though confidence in benefits arising from genetic engineering technologies seems to increase in other areas.

Public attention and sensitivity was especially high in 1996-99, when the first GMOs hit the European market. It has decreased since, after the 'de facto' moratorium on GMO approvals was established in 1998 and nearly all major supermarkets and food brands committed to a non GMO policy. So far, with negligible exemptions and attempts, no GM products appear on European supermarket shelves. As there are currently no GM products in the pipeline which would promise any specific consumer benefits, it is unlikely that this situation will change in the near future.

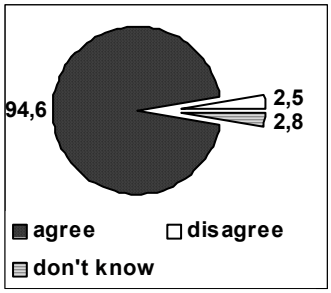
With the de facto moratorium possibly coming to an end and the US administration's recent aggressive policy on Europe's rejection of GM foods, the level of public awareness may increase and concerns about GMOs in food may rise again. Also, concerns about environmental impacts of GMOs appear to have increased in addition to initial concerns about food safety.

Recent political discussions focus more and more on the issue of whether or not GMOs should be planted within the EU at a commercial scale and how to secure European farmers ability to guarantee non-GM products for their customers in the future. While labelling of products seems to be resolved with the new Regulation, these issues of "co-existence" remain unresolved and fiercely disputed. A majority of Member States are not satisfied with the non-legally "guidelines" published by the Commission in July 2003, and demand instead the adoption of a EU legislation on "co-existence". Special concerns are raised by the organic sector, as its standards categorically exclude the use of GMOs. Cross pollination and seed contamination with GMOs could severely jeopardise the purity of non-GM and organic farm products. Local and regional initiatives to declare communities, counties and districts "GMO free zones" are widespread across Europe and frequently supported by the local authorities. Their number increases despite the fact that the EU Commission has recently stated that GMO free zones would only be acceptable on a voluntary basis.

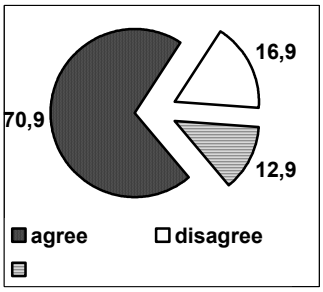
European consumer attitudes to GM food[34]



I don't want to eat this type of food: 70,9 %



I want to have the right to chose: 94,6 %



They could have negative effects on the environment: 59 %

Source: Eurobarometer 55.2, December 2001

Industry response

Supermarkets

Since 1999/2000 most European Supermarkets follow a non-GMO policy with regard to their own brand products and have not sold any products labelled as genetically modified. In June 2003 the British Retail Consortium, which represents 90 per cent of British Supermarkets, has sent an unequivocal warning to the Government that GM food is not commercially viable in the UK.

> **"The customer is where the real power lies. Supermarkets are not going to give shelf space to something that doesn't sell."**
>
> *David Southwell, British Retail Consortium*[35]

In 2001 the BRC had published a comprehensive "Technical Standard For the Supply of Identity Preserved Non-Genetically Modified Food Ingredients and Products"[36].

It can be anticipated that safety margins well below the allowable thresholds will be imposed on suppliers throughout the food chain by those players who have the market power to do so.

Some supermarket chains, such as Carrefour (EU's No.1), not only impose non-GMO requirements on their suppliers, but actively use their market influence to secure the necessary non-GMO supply in co-operation with their partners.[37]

Major Food producers

Most international and major national brands of food producers have made commitments to their customers not to use GM ingredients. Considerable efforts have been made over the past few years to avoid any necessity to label products as genetically modified. The new labelling rules will entail new challenges for food producers, especially with regard to starch and oil ingredients.

A survey conducted in 2003 by Greenpeace in Germany reveals, however, that the large majority of the food industry has already prepared systems to comply with these challenges and does not intend to put any products on the market which are labelled as genetically modified. More than half a year ago, companies who had already done their "homework" included Apollinaris-Schweppes, Coca Cola, Barilla, Campbells, Frosta, General Mills, Karlsberg, Kraft Jacobs Suchard, Procter & Gamble, Unilever. Many others responded to Greenpeace's inquiries that they were presently organising the transition with regard to the new ingredients requiring labelling.[38]

Animal Feed producers

While GM animal feed now has to be labelled, consumer products derived from the use of this feed, such as meat, eggs and milk do not require labelling. Therefore the impact of the new labelling regime on the market remains to be seen. The trend to increase non-GMO imports of soybeans will continue, provided supply, especially from Brazil, remains stable and reliable. Other sources of non-GM soybeans are Canada, India, Paraguay and potentially China.

In addition there are moves within the European Community to partially replace imported soya with other sources of protein that can also be grown domestically as the "Blairhouse Agreement" between the EU and the USA, which put tight restrictions on EU oilseed subsidies is presently expiring. In this context it is noteworthy that the EU Commission recently decided to open an examination procedure in response to a complaint by the European Oilseed Alliance (EOA) about US soybean subsidies.[39] The Commission is collecting evidence on the negative impact of the US oilseed subsidies on prices and will present a report no later than the end of 2005[40].

Meat, milk and egg producers

Major meat producers, but also some milk and egg producers in Europe have already started voluntary schemes to guarantee non-GMO feeding[41]. Also, some exporters, such as the major Brazilian poultry producers Sadia and Perdigão, have started non-GM programmes.[42]

The BSE crisis and subsequent feed contamination scandals have made animal feed an extremely sensitive issue in the European public. The Commission is presently preparing additional legislation regarding lists of permissible ingredients and HACCP (Hazard Analysis and Critical Control Points) systems for feed producers. Various national and regional voluntary quality programmes attempt to regain consumer confidence. One of the bigger programmes, QS ("Qualität und Sicherheit") in Germany, at present does not exclude GM feed. Criticised by consumer organisations the organising industries argued that the lack of labelling made it too difficult for producers to comply with such a standard. This will change now.

Selected list of major food companies with a non-GM policy, representing total revenues in excess of 450 billion $ annually.
Source: Innovest

Aldi	Coca Cola	Findus	McDonald's	Superquinn
Alpro Soya	Colruyt	Friki	Migros	Tegel
Amadori	Coop	FujiOil	Nestlé	Tengelmann
Asahi	Corona	Gerber	Nutricia	Tesco
ASDA	Danone	Heinz	ParknShop	Trader Joe's
Barilla	Delhaize Le Lion	Hipp	Perdigao	Unilever
Ben & Jerry's	DUC	Kirin	Sadia	VitaSoy
Burger King	Edeka	Kraft Jacobs	Safeway	Waitrose
Cadbury's	Esselunga	Marks&Spencer	Soya Hellas	Wiesenhof

Carrefour	Ferrero	McCain	Spar	Wimpy Fast Foods

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Stringent demands for non-GM ingredients also come from the pet food industry.

The WTO case against the EU's de facto moratorium

In May 2003 the US administration took formal steps against the European Union's "de facto moratorium" on the approval of GMOs and a number of national marketing and import bans of member states. These steps were supported by similar requests of Canada and Argentina.[44] After bilateral talks in Geneva collapsed the US requested the establishment of a dispute settlement panel, which was eventually appointed on 4 March 2004. The panel has six to nine months to judge whether the EU moratorium was or is in breach of WTO rules. The panels decision can be appealed again by the defendant. A final result may be expected sometime during 2005.

The moratorium is based on unilateral declarations of member states that they will not follow the present rules of GMO approvals until substantial improvements are made regarding the risk assessment, labelling and traceability and liability issues. With the adoption of the new Release Directive 2001/18/EC (which still needs to be implemented by most member states) and the Food and Feed and Traceability Regulations, many of the initial demands of these member states appear to be satisfied. However, liability rules and anti-contamination measures regarding the commercial release of GMOs are still missing. The European Commission argues that the moratorium is about to be lifted or even no longer exists.

The present moratorium is not the major and persistent stumbling block for GMO imports to the EU. Ironically it will be the Food and Feed Labelling and Traceability Regulations designed to finally lift this moratorium, that will prevent marketability of GM products within the EU as it enables consumers to effectively reject these products on the market.

Whether the US will also take the new European labelling and traceability rules to a WTO dispute settlement, remains to be seen. This would be a serious global precedence and a severe challenge of the EU's sovereignty and ability to protect and inform their citizens.

In recent years the USA has threatened countries establishing restrictive GMO legislation with the argument that these contravened WTO rules, usually combined with direct economic and political pressure. [45] A recently passed US bill even goes as far as directly linking aid on combating AIDS/HIV with the requirement that beneficiary nations should accept GM food aid.[46]

The European Union has strong means to counter such pressure. They include two recent decisions by the WTO allowing the EU to impose penalty tariffs up to four billion US $ to retaliate against unfair US practices in the FSC case[47] and an impending penalty of 2,2 billion US $ in the case of US steel subsidies violating WTO rules.[48] The first option has not been used so far. The EU decided, in the case of hormone treated beef, to pay penalties imposed rather than respect a WTO decision it does not accept.[49] Continued US pressure on China about its restrictions of GM soybean imports has also yielded no results so far. It was met with firm rejection of the Chinese government, which has adopted labelling rules very similar to the European standards. Smaller and more dependent nations, however, do not have such options.

"The US action in the WTO was clearly timed to preempt the final ratification of the Protocol. The US agenda is to assert the predominance of the WTO over the Protocol by defining GMO restrictions as 'trade barriers', and by doing so seeks to block further progress in the implementation of the Protocol. By using the WTO to undermine the new global consensus on biosafety, the US is targeting the countries in the South."[50]

The Cartagena Protocol on Biosafety

The International Cartagena Protocol on Biosafety under the Convention on Biological Diversity[51] entered into force on September 11th 2003, while the negotiations at the WTO ministerial meeting in Cancun were collapsing. This international agreement sets up minimum safety standards regarding the transboundary movement of GMOs.

The Protocol, *inter alia*, requires an advance informed agreement for the import of GMOs from one country to another, environmental risk assessments and explicitly establishes the right of member states to refuse such agreement also on the basis of the precautionary principle. This means that the lack of scientific certainty regarding the safety of GMOs for human health and the environment, is accepted as legal grounds to refuse their import.

A major dispute during the negotiations of the Protocol was about whether the Protocol supersedes WTO provisions or vice versa. The final text put both agreements on equal level, which could put the UN system of multilateral environmental agreements in direct conflict with the WTO system. The WTO however could also decide to accept the Biosafety Protocol as a reference agreement for their own decisions, as it has done with the Codex Alimentarius and other international agreements. The US case against the EU moratorium is mainly a political move to undermine the "right to say no" enshrined in the Protocol in the run-up to its entering into force. It is seen to aim at many less powerful nations, which have also imposed moratoria and other restrictions on GMO imports.

The signatory states of the Protocol have agreed to extend the provisions of the agreement to labelling and liability issues within two years after its entering into force. These negotiations have become another "battleground" between the different approaches of the USA and the European Union. However, despite massive opposition and obstruction tactics from the USA, the Parties to the Protocol, at their first Meeting held in Kuala Lumpur on 23-27th February 2004, already adopted more detailed requirements on the documentation and labelling of « Living Modified Organisms », including those intended for food, feed or processing. The documentation accompanying transboundary movements of living GMOs will have to include the « common, scientific and commercial names » of the GMOs present in the shipment, as well as their « transformation event codes » or, where available, their « unique identifier codes »[52]. A Biosafety Clearinghouse, which will collect all information on transboundary movements of GMOs and which will also provide a database for unique identifiers of individual GMO events, has already been set up in Montreal.

The US has neither ratified the Biosafety Protocol nor the Convention on Biological Diversity and has strongly criticised the precautionary principle, which is also enshrined in the Treaty of the European Union. The Bush administration could be heading for a conflict which appears hard to win, especially after the international community has shown a strong consensus to move forward with the implementation of the Protocol. Forcing products upon unwilling countries and their citizens may resonate with some domestic agricultural constituencies in the short run. It is certainly not a smart and promising way to win markets, as long as these are free.

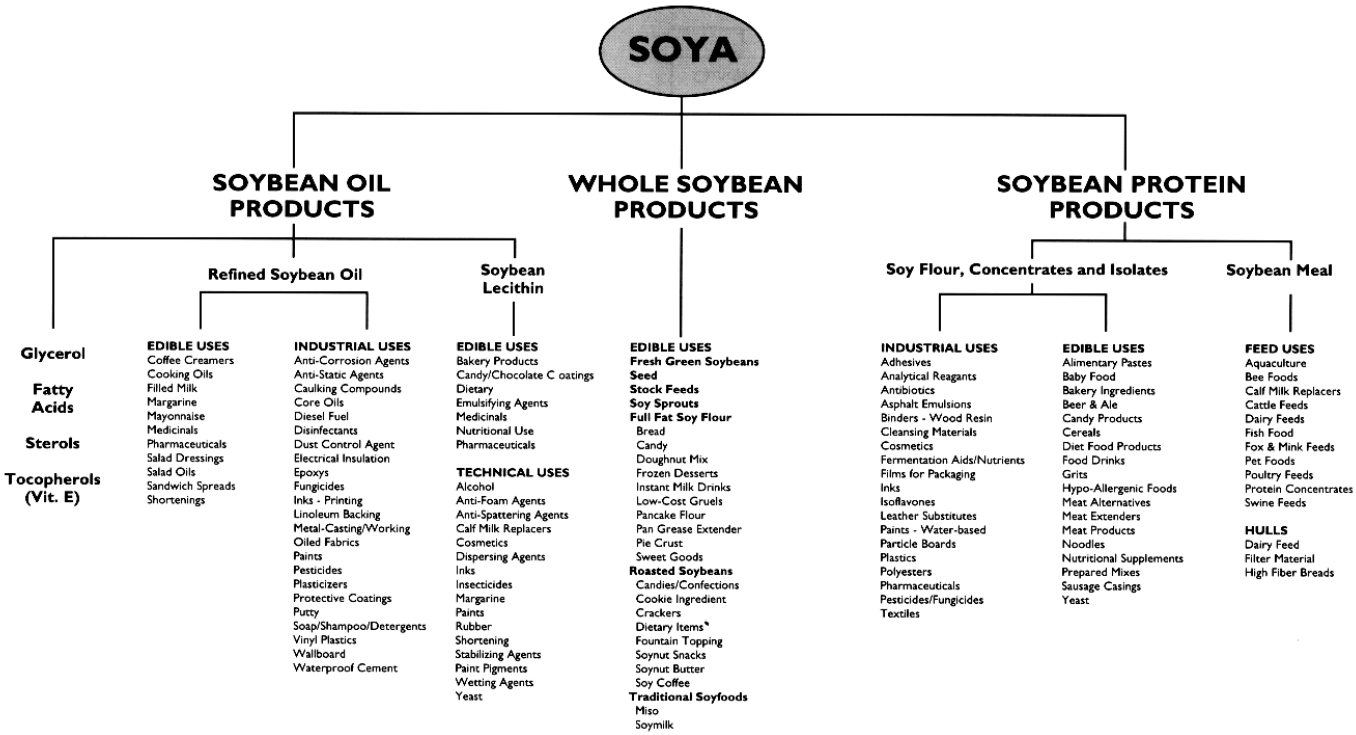
New Codex Alimentarius guidelines

In July 2003 the Codex Alimentarius Commission adopted two new guidelines regarding the safety of foods derived from genetically modified organisms: "Principles for the Risk Analysis of Foods Derived from Modern Biotechnology" and "Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants".[53]. These documents represent an important step forward in defining at an international level the acceptable procedures for evaluating the safety of genetically engineered foods. Notably, the guidelines serve to highlight the inadequacies and lack of scientific rigor used in the approval process in the United States, where the bulk of the genetically modified varieties are developed and grown. The US process is seen as sorely inadequate in comparison to the new guidelines; in fact, the US Food and Drug Administration (FDA) does not have its own detailed safety standard or testing guidelines.[54]

Annex 1: Soya Processing and Soya Products

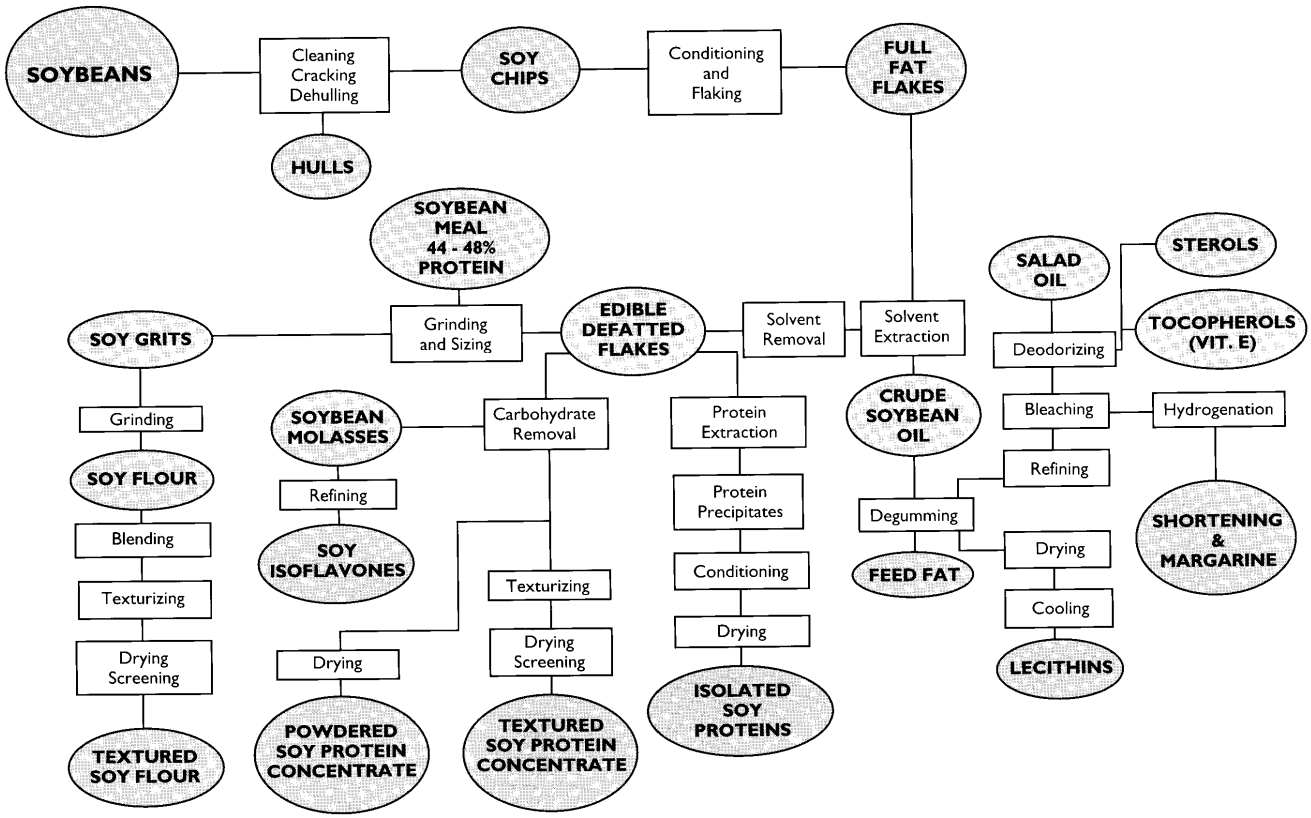
Source: Soyatech, 2002 Soya and Oilseed Bluebook

Soya Products and Uses



Soya Processing

with solvent extraction



II) Pending GMO product notifications received by the Commission under Directive 2001/18/EC

As of 26 June 2003

Product notification details	Company
1. Oil seed rape herbicide resistant GT 73 **Received by the Netherlands** (C/NL/98/11) under Dir 90/220/EC. **Received by the Commission** under Dir 2001/18 : **16/1/03** Uses: import and uses in feed and industrial processing, not for cultivation.	**Monsanto**
2. Maize Roundup Ready NK603, **tolerant to glyphosate herbicide Received by Spain** (C/ES/00/01) under Dir 90/220 : 21/12/2000 **Received by the Commission** under Dir 2001/18 : **17/01/03** Uses: import and use in feed and industrial processing, not for cultivation.	**Monsanto**
3. Maize hybrid MON810 x NK603 (glyphosate-tolerant and containing Bt toxin) **Received by UK** under Dir 90/220/EC. (C/GB/02/M3/03) **Received by the Commission** under Dir 2001/18 : **15/01/03** Uses: import and use in feed and industrial processing, not for cultivation.	**Monsanto**
4. Potato with altered starch composition from Sweden (C/SE/96/3501) **Received by the Commission** under Dir 90/220: 20.05.98 Favourable opinion of EU Scientific Committee 18.07.02 **Received by the Commission** under Dir 2001/18/EC: **24/01/03** Uses: for cultivation and production of starch, not for use as human food.	**Amylogene** **HB**
5. Oilseed rape (Ms8, Rf3) from Belgium (C/BE/96/01) **Received by the Commission**: under Dir 90/220 16.01.97 Favourable opinion of EU Scientific Committee 19.05.98 **Received by the Commission** under Dir 2001/18: **5/02/03** Uses: import and cultivation in the EU, uses in feed and industrial processing.	**Bayer CropScience**
6. Soybeans Glufosinate tolerant (Events A 2704-12 and A 5547-127) from Belgium (C/BE/98/01) **Received by the Commission** under Dir 2001/18: 5/02/03 Uses: import only	**Bayer CropScience**
7. Roundup Ready sugar beet (event T9100152), glyphosate tolerant from Belgium C/BE/99/01 **Received by the Commission** under Dir 2001/18: **5/02/03** Uses: for cultivation and use in animal feed, processing of sugar and other products.	**Monsanto/ Syngenta**

Product notification details	Company
8. Oilseed rape tolerant for glufosinate-ammonium herbicides. (FALCON GS40/90pHoe6/Ac) from Germany (C/DE/96/5) **Received by the Commission** under Dir 90/220: 25.11.96 Opinion of EU Scientific Committee 27.07.98 **Received by the Commission** under Dir 2001/18: **7/02/03** Uses: for import and cultivation	**Bayer CropScience**
9. Oilseed rape tolerant for glufosinate-ammonium (Liberator pHoe6/Ac) from Germany (C/DE/98/6) **Received by the Commission** under Dir 90/220: 29.10.98 Favourable opinion of EU Scientific Committee 30.11.00 **Received by the Commission** under Dir 2001/18: **7/02/03** Uses: for import and cultivation	**Bayer CropScience**
10. Roundup Ready Sugar Beet event H7-1 (tolerant to glyphosate) from Germany C/DE/00/8 **Received by the Commission** under Dir 2001/18**: 7/02/03** Uses: for cultivation and use in processing of sugar and other processed products.	**KWS SAAT AG/Monsanto**
11. Maize MON 863 X MON 810 (protection against certain insect pests) from Germany C/DE/02/9 (6788-01-09) **Received by the Commission** under Dir 2001/18**: 7/02/03** Uses:, for import and use of grain and grain products.	**Monsanto**
12. Oilseed rape (event T45) tolerant for glufosinate-ammonium herbicide from UK C/GB/99/M5/2 **Received by the Commission** under Dir 2001/18**: 10/02/03** Uses: import and use in feed and industrial processing.	**Bayer CropScience**
13. Maize herbicide and insect resistant (line 1507 -- CRY1F) **received by** the Netherlands (C/NL/00/10) under Dir 90/220/EC. **Received by the Commission** under Dir 2001/18 : **12/02/03** Uses: import and processing, not for cultivation	**Pioneer/ Mycogen Seeds**

Product notification details	Company
14. Insect-protected Cotton expressing the Bt *cryIA(c)* gene (line 531) from Spain (C/ES/96/02) **(Received by the Commission under Dir 90/220: 24.11.97** Favourable opinion of EU Scientific Committee 14.07.98) **Received by the Commission** under Dir 2001/18**: 12/2/03** Uses: for import, processing and cultivation	**Monsanto**
15. Roundup Ready Cotton tolerant to herbicide (line 1445) from Spain (C/ES/97/01) **(Received by the Commission under Dir 90/220: 24.11.97** Favourable opinion of EU Scientific Committee 14.07.98) **Received by the Commission** under Dir 2001/18**: 12/2/03** Uses: for import, processing and cultivation	**Monsanto**
16. Roundup Ready Maize tolerant to glyphosate (GA21) from Spain (C/ES/98/01) **Received by the Commission under Dir 90/220: 20.05.99** Favourable opinion of EU Scientific Committee 22.09.00 **Received by the Commission** under Dir 2001/18**: 13/2/03** Uses: use in feed and industrial processing	**Monsanto**
17. Maize MaisGard/Roundup Ready (derived from MON 810 and GA21). Tolerance to glyphosate and Cry1Ab protein derived from Bt. **Received by** Spain (C/ES/99/02) 3/9/1999 under Dir 90/220/EC. **Received by the Commission** under Dir 2001/18**: 13/2/03** Uses: import and use in feed and industrial processing, not for cultivation.	**Monsanto**
18. Maize 1507 (or Bt Cry1F 1507) **Received by** Spain (C/ES/01/01) 11/7/2001 under Dir 90/220/EC. **Received by the Commission** under Dir 2001/18**: 13/2/03** Uses: import, feed and industrial processing, and cultivation	**Pioneer Hi-Bred /Mycogen Seeds**

Product notification details	Company
19. Roundup Ready Fodder beet (line A5/15) from Denmark (C/DK/97/01) **Received by the Commission** under Dir 90/220: 09.10.97 Favourable opinion of EU Scientific Committee 23.06.98 **Received by the Commission** under Dir 2001/18/EC: **26/02/03** Uses: for *cultivation* and animal feed	**DLF-Trifolium, Monsanto and Danisco Seed**
20. Maize tolerant to glufosinate ammonium and expressing the Bt *cryIA(b)* gene (Bt-11) from France (C/F/96/05-10) **Received by the Commission** under Dir 90/220: 12.04.99 and 03.05.99 respectively Favourable opinion of EU Scientific Committee 30.11.00 **Received by the Commission** under Dir 2001/18/EC**: 16.6.2003** Uses : for *cultivation*, feed and industrial processing	**Syngenta Seeds SAS**

III) Pending applications under Regulation (EC) N° 258/97 of the European Parliament and of the Council

	Applicant	Description of Food or Food Ingredient	Initial Assessment Carried out by	Application Date	Status By June 2002
1	Bejo-Zaden P.O.Box 50 NL - 1749 Warmenhuizen	Transgenic *Radicchio rosso* with male sterility	The Provisional Committee for the safety evaluation of novel foods (VcVnv) (NL)	8 April 1998	Under assessment by the Scientific Committee on Food (SCF).
2	Bejo-Zaden P.O.Box 50 NL - 1749 Warmenhuizen	Transgenic Green hearted Chicoree with male sterility	The Provisional Committee for the safety evaluation of novel foods (VcVnv) (NL)	8 April 1998	Under assessment by the SCF
3	Monsanto Services International S.A. Avenue de Tervueren 270-272 B - 1150 Bruxelles	Roundup Ready Maize line GA21	The Provisional Committee for the safety evaluation of novel foods (VcVnv)	24 July 1998	SCF opinion of 27 February 2002
4	Plant Genetic Systems N.V. Jozef Plateaustraat 22 B - 9000 Gent	Liberty Link Soybean by AgrEvo	Bioveiligheidsraad (B)	2 February 1999	Initial assessment report pending.
5	Novartis Seeds AG Basel CH - 4002 Basel	Bt11 sweet maize	Gezondheidsraad (NL)	11 February 1999	SCF opinion of 13 March 2002
6	Monsanto Services International S.A. Avenue de Tervueren 270-272 B - 1150 Belgium	MaisGard/RoundupReady	Gezondheidsraad (NL)	16 March 2000	Initial assessment report pending

	Applicant	Description of Food or Food Ingredient	Initial Assessment Carried out by	Application Date	Status By June 2002
7	Monsanto Europe S.A. Avenue de Tervueren 270-272 B - 1150 Brussels and; Novartis Seeds AB, Box 302 S - 261 23 Landskrona	Foods and food ingredients derived from Roundup Ready Sugar Beet	Gezondheidsraad (NL)		Initial assessment report pending
8	Pioneer Overseas Corporation Avenue Tedesco 7 B - 1160 Brussels	Food products of genetically modified *B.t.* CRY1F Maize line 1507	Gezondheidsraad (NL)	26 February 2001	Initial assessment report pending
9	Monsanto Services International S.A. Avenue de Tervueren 270272 B - 1150 Bruxelles	Roundup Ready maize line NK603	Gezondheidsraad (NL)	June 2001	Initial assessment report
10	Monsanto Services International S.A. Avenue de Tervueren 270-272 B - 1150 Bruxelles	Insect protected maize line MON 863 and maize hybrid MON 863 X MON 810	Robert Koch Institut (D)	28 August 2002	Initial assessment report pending

Footnotes and References

1 Regulation (EC)No 1829/2003 of the European Parliament and of the Council of 22 September 2003on genetically modified food and feed.

http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_268/l_26820031018en00010023.pdfHereafter referred to as ***F&F Regulation***

2 Regulation (EC) No 1830/2003 of the European Parliament and 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
http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_268/l_26820031018en00240028.pdfHereafter referred to as ***Traceability Regulation***

3 F&F Regulation, Section 2, Article 12. 2."*This Section shall not apply to foods containing material which contains, consists of or is produced from GMOs in a proportion no higher than 0,9 %of the food ingredients considered individually or food consisting of a single ingredient, provided that this presence is adventitious or technically unavoidable. to be easily identified and read.*"

4 F&F Regulation, consideration (28) "*In order to establish that the presence of this material is adventitious or technically unavoidable, operators must be in a position to demonstrate to the competent authorities that they have taken appropriate steps to avoid the presence of the genetically modified food or feed.*"

5 Directive 2001/18/EC of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC http://biotech.jrc.it/doc/2001-18-EC.pdf

6 F&F Regulation Section 2 Art. 12, 1.*"This Section shall apply to foods which are to be delivered as such to the final consumer or mass caterers in the Community and which:*

(a)contain or consist of GMOs, or

(b)are produced from or contain ingredients produced from GMOs."

And Consideration (22) "*The labelling should include objective information to the effect that a food or feed consists of, contains or is produced from GMOs. Clear labelling, irrespective of the detectability of DNA or protein resulting from the genetic modification in the final product, meets the demands expressed in numerous surveys by a large majority of consumers, facilitates informed choice and precludes the potential misleading of consumers as regards methods of manufacture or production.*"

7 *F&F Regulation,* Consideration (17) *"This Regulation should cover food and feed produced 'from 'a GMO but not food and feed 'with 'a GMO. The determining criterion is whether or not material derived from the genetically modified source material is present in the food or in the feed. Processing aids which are only used during the food or feed production process are not covered by the definition of food or feed and, therefore, are not included in the scope of this Regulation. Nor are food and feed which are manufactured with the help of a genetically modified processing aid included in the scope of this Regulation. Thus, products obtained from animals fed with genetically modified feed or treated with genetically modified medicinal products will be subject neither to the authorisation requirements nor to the labelling requirements referred to in this Regulation."*

8Also available in French and German
http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=MEMO/02/160|0|AGED&lg=EN&display=

9 e.g. Austria, Germany and Luxembourg have imposed a ban on Syngenta's "Bt-176" maize, Austria and Italy have imposed a ban on Monsanto's "MON-810" maize

10 http://gmoinfo.jrc.it/default.asp

11 "GM food and feed: A new regulatory framework ahead on authorisation, labelling and traceability", Consumer Voice, Special edition 1, April 2003, From the European Commission's Health and Consumer Protection DG
http://europa.eu.int/comm/dgs/health_consumer/newsletter/200305/consumervoice_en.pdf

12 Regulation (EC)No 178/2002, laying down the general principles and requirements of food law, establishing the European Food SafetyAuthority and laying down procedures in matters of food safety
http://www.efsa.eu.int/pdf/En_Base.pdf

13 For an overview see http://europa.eu.int/pol/food/print_overview_en.htm

14 Proposal for a Regulation of the European Parliament and of the Council laying down requirements for feed hygiene and traceability, /* COM/2003/0180 final - COD 2003/0071
http://wwwdb.europarl.eu.int/oeil/oeil_ViewDNL.ProcViewCTX?lang=2&procid=6998&HighlighType=1&Highlight_Text=feed

15 Commission Regulation (EC) No 65/2004 of 14 January 2004 establishing a system for the development and assignment of unique identifiers for genetically modified organisms
http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_010/l_01020040116en00050010.pdf

16 ENGL, The European Network of GMO Laboratories, has been established in December 2002 by the European Commission. Details can be found on their web-site http://engl.jrc.it
http://www.jrc.cec.eu.int/download/press/releases/gmomemo.pdf
An outline of their tasks can be found at: http://eoi.cordis.lu/docs/int_36630.doc
Methods for assured and reliable traceability of all genetic modifications elaborates especially on the task of detecting unapproved GMO varieties in the furture:
http://eoi.cordis.lu/docs/int_28502.doc

The predecessor project QPCRGMOFOOD is present on the web at
http://www.entransfood.com/RTDprojects/qpcrgmofood/Qpcrgmofood.html

17 European food standardization: Elements for a CEN strategy and action plan-Annex I reference to the CEN standards on GMO testing under development in CEN TC 275 WG11 - Genetically modified foodstuffs- Six projects are currently under development.
http://www.cenorm.be/sectors/food/resources/food_strat.pdf

18 Regulation of the European Parliament and of the Council on transboundary movements of genetically modified organisms
http://wwwdb.europarl.eu.int/oeil/oeil_ViewDNL.ProcViewCTX?lang=2&procid=5973&HighlighType=1&Highlight_Text=Cartagena

19 Report Of The Fourth Session Of The Codex *Ad Hoc* Intergovernmental Task Force On Foods Derived From Biotechnology, *Yokohama, Japan 11-14 March 2003*
ftp://ftp.fao.org/docrep/fao/meeting/006/y9220e.pdf

General information on the 26th Session of the Codex Alimentarius: http://www.codexalimentarius.net/session_26.stm

20 www.efsa.eu.int

21 For the state of the art of risk assessment see guidance document for the risk assessment of genetically modified plants and derived food and feed, March 2003, Prepared for the Scientific Steering Committee by The Joint Working Group on Novel Foods and GMOs Composed of members of the Scientific Committees on Plants, Food and Animal Nutrition http://europa.eu.int/comm/food/fs/sc/ssc/out327_en.pdf

22 The Committee is composed of competent representatives of all Member States, who vote with qualified majority. Until 1 November 2004, the date of the entry into force of the provisions in the Nice Treaty the qualified majority is set at 62 votes out of 87 (71%). Member States' votes are as follows: France, Germany, Italy and United Kingdom 10 votes each; Spain 8 votes; Belgium, Greece, the Netherlands and Portugal 5 votes each; Austria and Sweden 4 votes each; Denmark, Ireland and Finland 3 votes each; Luxembourg 2 votes.

For details about the Standing Committee on the Food Chain see their homepage: http://europa.eu.int/comm/food/fs/rc/scfcah/index_en.html

23 For details about this "Commitology Procedure" see 1999/468/EC: Council Decision of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission, Official Journal L 184 , 17/07/1999 P. 0023 - 0026
http://europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_184/l_18419990717en00230026.pdf

24 The EU while a net exporter of wheat also imports between 3,5 and 5,5 mio tons of wheat annually. See
http://www.fas.usda.gov/grain/circular/2001/12-01/graintoc.htm

25 SEAFOOD.COM NEWS, February 13, 2003, World soybean consumption rises rapidly as demand for animal and fish feed grows

26 USDA, July 2002, Livestock feeding and feed imports in the European Union – A decade of change
http://www.ers.usda.gov/publications/fds/july02/fds0602-01/

27 Commission Regulation (EC)No 1839/95 of 26 July 1995 laying down detailed rules for the application of tariff quotas for imports of maize and sorghum into Spain and imports of maize into Portugal, (OJ L 177,28.7.1995,p.4)
http://europa.eu.int/eur-lex/en/consleg/pdf/1995/en_1995R1839_do_001.pdf

28 The value of US maize exports to the European Union dropped from US$ 305.1 mio in 1996 to US$ 2.6 mio in 2002
USDA Foreign Agriculture Service, BIOC Export Commodity database, http://www.fas.usda.gov/ustrade/USTExBico.asp

29 Directive 2001/18/EC of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC http://biotech.jrc.it/doc/2001-18-EC.pdf

30 See GAIN Report #FR2054, 7/31/2002
"France Processed Sweet Corn French Sweet Corn Jeopardized by Biotech and Hungarian Sweet Corn 2002"
http://www.fas.usda.gov/gainfiles/200207/145783462.pdf

31 In November 2002 Cargill opened £3.85 million state-of-the-art masa flour plant at its Seaforth site in Liverpool, which exclusively provides non-GMO masa for the European market.

32 For details see http://www.canola-council.org/markets/markets.html

33For falling honey imports to the EU see USDA's GAIN Report #CA2140 Canada Honey Production and Trade Update 2002
http://www.fas.usda.gov/gainfiles/200212/145784870.pdf

34 All Eurobarometers on the public opinion within the European Union can be found at:
http://europa.eu.int/comm/public_opinion/index.htm

35 The Observer, June 8 2003, "Supermarkets tell Blair: We won't stock GM"
http://observer.guardian.co.uk/politics/story/0,6903,972904,00.html

36 BRC/FDF Technical Standard For the Supply of Identity Preserved Non-Genetically Modified Food Ingredients and Products
http://www.tso.co.uk/bookshop/bookstore.asp?AF=A10096&FO=38383&Action=Book&ProductID=0117028495

37 For an example see See Carrefour Sustainability report 2002 at http://www.carrefour.com/docs/carrefour_rapport_en.pdf

38 For details see www.greenpeace.de

39 On March 12, 2003, the European Commission adopted a Decision to open an examination procedure in response to a complaint by the European Oilseed Alliance (EOA) about US soybean subsidies. After the Commission will have completed its report in 2005, further action could then be taken, including bilateral negotiations or WTO consultations. Full details can be found in Council Regulation 3286/1994.

http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=31994R3286&model=guichett

40 http://europa.eu.int/comm/trade/issues/respectrules/tbr/cases/usa_oil.htm

41 Some prominent representatives are "Wiesenhof", Germanys leading chicken producer, Carrefour and its suppliers Cooperl (Frances leading pork producers), Duc-Bourgoin and La Cana, Zaffini and LDC; Danpo, Denmarks biggest chicken producer and Danish Crown, a world leading pork producer.

42 In 2002, Sadia and Perdigão announced that they will eliminate GM ingredients from all their food products, including meat, and introduce additional mechanisms to ensure its supplies are not genetically contaminated. The companies rank among the largest food companies in Brazil and are also respectively Brazil’s first and second largest processors and exporters of poultry meat. In 2000, Sadia and Perdigão together accounted for over 20% of the Brazilian broiler production and 50% of Brazilian broiler exports
http://www.fas.usda.gov/gainfiles/200104/90680478.pdf

Agência Estado, Brazil, September 13, 2002, "Perdigão se compromete a não usar transgênicos"

43 Innovest Strategic Market Advisors, Monsanto and Genetic Engineering. Risks for Investors, April 2003,can be downloaded at www.innovestgroup.com, (publications)

44 Excerpts from the requests of United States, Canada and Argentina (original documents are searchable as WT/DS291/1, WT/DS292/1 and WT/DS293/1 at http://docsonline.wto.org):

WTO, WT/DS291/1, 20 May 2003: EUROPEAN COMMUNITIES - MEASURES AFFECTING THE APPROVAL AND MARKETING OF BIOTECH PRODUCTS. Request for Consultations by the United States, dated 13 May 2003.

"Since October 1998, the EC has applied a moratorium on the approval of biotech products. The EC has suspended consideration of applications for, or granting of, approval of biotech products under the EC approval system. A number of applications for placing biotech products on the market have been blocked in the approval process under EC legislation and have never been considered for final approval. The approvals moratorium has restricted imports of agricultural and food products from the United States. Moreover, the member States maintain a number of national marketing and import bans on biotech products even though those products have already been approved by the EC for import and marketing in the EC. The national marketing and import bans have restricted imports of agricultural and food products from the United States." (...)

These measures appear to be inconsistent with the SPS Agreement, the GATT 1994, the Agriculture Agreement and the TBT Agreement, including but not limited to the following provisions:

(1) SPS Agreement, Articles 2, 5, 7 and 8, and Annexes B and C;

(2) GATT 1994, Articles I, III, X and XI;

(3) Agriculture Agreement, Article 4; and

(4) TBT Agreement, Articles 2 and 5."

WTO, WT/DS292/1, 20 May 2003: EUROPEAN COMMUNITIES - MEASURES AFFECTING THE APPROVAL AND MARKETING OF BIOTECH PRODUCTS. Request for Consultations by Canada, dated 13 May 2003.

„The Government of Canada hereby requests consultations with the European Communities ("EC") ... concerning measures affecting the approval and marketing of products that contain, consist of, or are produced from, genetically modified organisms ("GM products"). As a result of measures taken by EC Member States, including Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, the Netherlands, and Sweden, since 1998, the EC has maintained a de facto moratorium on the approval of GM products. The moratorium prevents GM products from accessing or proceeding through the EC's approvals process. As a consequence of the moratorium, Canadian GM products have been blocked at various stages of the EC's approval process.

In addition, some EC Member States, including Austria, France, Greece, and Italy have prohibited the importation and marketing of GM products despite those products having been approved by the EC for importation and marketing.

These measures appear to be inconsistent with the SPS Agreement, the TBT Agreement, the GATT 1994, and the Agreement on Agriculture. The provisions of these Agreements with which the measures appear to be inconsistent include the following:

- SPS Agreement: Articles 2.2, 2.3, 5.1, 5.5, 5.6, 7, 8 and Annexes B and C;
- TBT Agreement: Articles 2.1, 2.2, 2.8, 5.1 and 5.2;
- GATT 1994: Articles I:1, III:4, X:1 and XI:1;
- Agreement on Agriculture: Article 4.2."

WTO, WT/DS293/1, 21 May 2003: EUROPEAN COMMUNITIES - MEASURES AFFECTING THE APPROVAL AND MARKETING OF BIOTECH PRODUCTS. Request for Consultations by Argentina, dated 14 May 2003.

„Since 1998, the European Communities has suspended consideration of applications for approval of biotechnology products. In addition, some of their member States have introduced prohibitions, even infringing Community rules for biotechnology products. In effect, Argentina indicates that the action by the European Communities is detrimental to international trade in biotechnology products, as can be seen from the following: (a) de facto measures leading to the suspension of consideration or the non-consideration of various applications without sufficient scientific evidence or a proper risk assessment; and (b) undue delay in finalizing consideration of various applications for approval of biotechnology products submitted by various WTO Members. This action affects biotechnology products approved for marketing in Argentina and those still being considered, prior to approval, as indicated in Annex I. Furthermore, Argentina challenges the specific prohibitions introduced by the member States of the European Communities, which infringe Community legislation and affect, inter alia, biotechnology products approved for marketing in Argentina, as indicated in Annex II.

The relevant measures by the European Communities and some of their member States infringe the following provisions of the WTO Agreements:

(a) Inter alia, but not exclusively, Articles 2, 5, 7, 8, 10 and Annexes B and C of the Agreement on the Application of Sanitary and Phytosanitary Measures;

(b) Article 4 of the Agreement on Agriculture;

(c) inter alia, but not exclusively, Articles I, III, X and XI of the GATT 1994; and

inter alia, but not exclusively, Articles 2, 5 and 12 of the Agreement on Technical Barriers to Trade."

45 States which have been under US pressure because of their GMO policies include Egypt, Bolivia, Sri Lanka, Thailand, South Korea, Croatia. For a full assessment of the US strategy also see the briefing "The US war on Biosafety" published by Greenpeace International in June 2003.
http://www.greenpeace.org/international_en/reports/?campaign%5fid=3942

46 *"(...) Sense of Congress relating to food assistance for individuals living with HIV/AIDS. (...) (C) Although the United States is willing to provide food assistance to these countries in need, a few of the countries object to part or all of the assistance because of fears of benign genetic modifications to the foods. (...) 2) Sense of Congress - It is therefore the sense of Congress that United States food assistance should be accepted by countries with large populations of individuals infected or living with HIV/AIDS, particularly African countries, in order to help feed such individuals."*

Bill Number H.R.1298 for the 108th Congress (May 15, 2003) United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 (Enrolled as Agreed to or Passed by Both House and Senate)
http://thomas.loc.gov/cgi-bin/query/F?c108:5:./temp/~c108JRD6En:e56633:

47 FINANCIAL TIMES: Brussels sets ultimatum in trade dispute with US (b Tobias Buck in Brussels). May 7 2003: „The European Union on Wednesday dramatically raised the stakes in the biggest trade dispute ever to hit the World Trade Organisation, when it issued an ultimatum to the US over a long-running battle over corporate tax breaks.Brussels is giving US Congress until the end of September to repeal the Foreign Sales Corporations provision, which benefits large exporters such as Microsoft and Boeing, or face sanctions worth $4bn - the largest retaliation package in the history of the WTO.The deadline was announced hours before the WTO in Geneva gave ist final approval to the list of 1,800 US products targeted by the EU, which means Brussels now only needs the approval of EU member states to impose the sanctions."

48 See The International Herald Tribune July 12, 2003: U.S. tariffs on steel are illegal; Europe and others are widely expected to impose sanctions (by Paul Meller, The New York Times): „U.S. import tariffs on steel products imposed in the spring of 2002 were deemed illegal Friday by the World Trade Organization, raising the likelihood that the EuropeanUnion and others will retaliate with sanctions on American exports... Richard Mills, spokesman for the U.S. trade representative, said the United States would appeal the decision...If the appeal fails to reverse Friday's decision, then the European Union will impose sanctions on American imports worth up to $2.2 billion almost immediately, the European Commission spokeswoman on trade issues, Arancha Gonzalez, said."

49 In 1998 a WTO dispute settlement body decided that the EU ban on beef treated with hormones to speed up growth was lacking scientific evidence of detrimental health effects and therefor was an unfair trade barrier. A penalty fee of US$ 116.8 million and additional Canadian $ 11,3 million was imposed on the EU by the WTO on 15 July 1999 allowing the US and Canada to impose 100 percent tariffs on selected European goods. Still the EU ban is not lifted but confirmed by the COMMISSION PROPOSAL AMENDING DIRECTIVE 96/22/EC CONCERNING THE PROHIBITION ON THE USE IN STOCK-FARMING OF CERTAIN SUBSTANCES HAVING A HORMONAL OR THYROSTATIC ACTION AND BETA-AGONISTS and by scientific findings. See: Growth promoting hormones pose health risk to consumers, confirms EU Scientific Committee, Press relase IP/02/604 , 23/04/2002: „The EU Scientific Committee on Veterinary Measures relating to Public Health (SCVPH) confirmed today (23 April 2002) that the use of hormones as growth promoters for cattle poses a potential health risk to consumers, following a review of 17 studies and other recent scientific data. Publishing its third opinion on the risks to human health from hormone residues in beef products, the SCVPH found no reason to change its previous opinions of 1999 and 2000.The final opinion of the SCVPH "Review of previous SCVPH opinions of 30 April 1999 and 3 May 2000 on the potential risks to human health from hormones residues in bovine meat and meat products" is available on the Internet at: http://europa.eu.int/comm/food/fs/sc/scv/outcome_en.html . For further background information on the "hormone-case", go to: http://europa.eu.int/comm/food/fs/him/him_index_en.html. For the WTO case see: http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm#bkmk63

50 Taken from the briefing "The US war on Biosafety" published by Greenpeace International in June 2003. See note 44 or http://www.greenpeace.org/international_en/reports/?campaign%5fid=3942.

51 The Cartagena Protocol on Biosafety homepage can be found at: http://www.biodiv.org/biosafety
The protocol text can be downloaded at http://www.biodiv.org/biosafety/protocol.asp.

52 www.biodiv.org, UNEP/CBD/BS/COP-MOP/1/WG.1/CRP.3/Rev.1

53 Both documents can be found in the report of the third session of the Codex Ad Hoc Intergovernmental Task Force on Foods Derived from Biotechnology. Available from the Codex web site: ftp://ftp.fao.org/codex/alinorm03/Al03_34e.pdf. Accessed 30 June 2003.

54 Taken from Doreens's report: New Codex Alimentarius guidelines show how out of step the United States is from world scientific opinion.