



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 9.3.2006  
SEC(2006) 313

**COMMISSION STAFF WORKING DOCUMENT**

**Annex to the**

**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE  
EUROPEAN PARLIAMENT**

**Report on the implementation of national measures on the coexistence  
of genetically modified crops with conventional and organic farming**

**{COM(2006) 104}**

## 1. INTRODUCTION

Co-existence refers to the ability of farmers to make a practical choice between conventional, organic and GM crop production, in compliance with the legal obligations for labelling and/or purity criteria. None of these types of agriculture should be excluded in the EU.

The possibility of adventitious presence of GM crops in non-GM crops can not be dismissed, and may have commercial implications for the farmers whose crops are affected. Consequently, suitable measures during cultivation, harvest, transport, storage, and processing may be necessary to ensure co-existence. Co-existence thus concerns only the economic implications of GMO admixture, the measures to achieve sufficient segregation between GM and non-GM production and as the costs of such measures.

Agriculture is an open process, which means that perfect segregation of the different agricultural production types is not possible in practice. Co-existence of these production types which will not lead to a systematic exclusion of one or more of them can only be ensured if the segregation measures are designed in a way that takes these limitations into account.

In the case of presence of material which contains, consists of or is produced from GMOs above specific tolerance levels the existing legal requirements for GMOs and GM food and feed apply also to conventional products. In particular, products consisting of or containing GMOs and food products produced from GMOs which have been lawfully placed on the market on the basis of the procedure under Directive 2001/18/EC<sup>1</sup> (part C) or Regulation (EC) No 1829/2003<sup>2</sup> are subject to traceability and labelling requirements pursuant to Regulations (EC) Nos 1829/2003, 1830/2003<sup>3</sup> and Directive 2001/18/EC. These two regulations establish a threshold for adventitious or technically unavoidable presence of material which contains, consists of or is produced from GMOs, below which food and feed do not require labelling or tracing. This threshold is set at a level of 0.9%.

Directive 2001/18/EC provides for the possibility to exempt seed lots from labelling if they contain traces of GM seeds authorised for cultivation in the EU that are below a certain threshold. No labelling thresholds have been defined yet, which means that seed lots containing detectable traces of GMOs have to be labelled as containing GMOs and the unique identifiers of the GMOs have to be mentioned on the label. The Commission is currently considering the possibility of proposing a Decision under Directive 2001/18/EC establishing seeds labelling thresholds provided that appropriate economic data are available in order to establish scientifically-based, feasible and economically sustainable threshold values. The same threshold values are intended to be taken over for corresponding Decisions under the seeds Directives.

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<sup>1</sup> 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 (OJ L 106, 17.4.2001, p. 1).

<sup>2</sup> Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed (OJ L 268, 18.10.2003, p. 1).

<sup>3</sup> 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 (OJ L 268, 18.10.2003, p. 24).

Regulation (EEC) No 2092/91 on organic farming<sup>4</sup> stipulates that GMOs may not be used in organic farming. The Regulation provides for a specific threshold for adventitious presence of GMOs in organic input materials, but no such thresholds have yet been set. In the absence of such a specific threshold, organic farmers may use materials which do not require labelling as GM as long as they comply with the other requirements of the Regulation.

In accordance with Action 12 of the 2004 European Action Plan for Organic Food and Farming the Commission adopted a proposal for a new Council regulation<sup>5</sup> on Organic Farming which will prohibit the labelling of a product as organic if it has to be labelled as GM according to Regulation (EC) No 1829/2003. The proposal furthermore states that farmers are required not to use GMOs or products produced from and with GMOs where they should have knowledge of their presence due to information on any label accompanying the product or from any other accompanying document. This means that material other than seeds containing adventitious or technically unavoidable traces of GMOs up to a threshold of 0.9% could be used in organic farming. However, if the farmer/producer is aware of the presence of GMOs in a raw material through a label or accompanying documentation it, must not be used in organic production.

Since only authorised GMOs can be grown in the EU, and the environmental and health aspects are already covered by Directive 2001/18/EC and Regulation (EC) No 1829/2003, the issues to be addressed in the context of co-existence concern only the possible economic consequences of admixture of GM and non-GM crops.

According to Article 26a of Directive 2001/18/EC Member States may take appropriate national measures on coexistence so as to avoid the unintended presence of GMOs in other products.

In their national approaches to co-existence Member States have to take into account those areas already harmonised under Community legislation. This means that national co-existence measures may not derogate from the harmonised measures, particularly those taken under Directive 2001/18/EC and Regulation (EC) No 1829/2003, under which GMOs may be authorised for use in the EU. As the effects of GMOs on the environment and human health are fully harmonised under this legislation, Member States may not introduce measures aiming at the protection of the environment or human health under Article 26a of Directive 2001/18/EC which would go beyond the provisions laid down in Community legislation.

Furthermore, Article 26a has to be seen in conjunction with Article 22 of the same Directive, which stipulates that (without prejudice to the safeguard provisions of the Directive) Member States may not prohibit, restrict or impede the placing on the market of GMOs that comply with the requirements of Directive 2001/18/EC. This provision means that national co-existence measures can not lead to restrictions of the marketing and cultivation of authorised GMOs that could not be defended on the basis of principles laid down in Community legislation.

On 23 July 2003 the Commission adopted Recommendation 2003/556/EC<sup>6</sup> 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, reaffirming that measures for co-existence should be developed by the Member States.

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<sup>4</sup> Council Regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs (OJ L 198, 22.7.1991, p. 1).

<sup>5</sup> Proposal for a Council Regulation on organic production and labelling of organic products. COM(2005) 671, adopted by the Commission on 21 December 2005.

<sup>6</sup> Commission Recommendation 2003/556/EC (OJ L 189, 29.7.2003, p. 36).

Recommendation 2003/556/EC is intended to help Member States develop national legislative or other strategies for co-existence. It contains a list of general principles to be taken into account when developing national approaches, as well as a list of technical measures.

In the Recommendation, the Commission announced that it will, based on information from Member States, report in 2005 to the Council and the European Parliament on the experience gained in the Member States concerning the implementation of measures to address co-existence, including, if appropriate, an evaluation and assessment of all possible and necessary steps to take.

The present report provides an overview of the state of implementation of national and regional co-existence measures, based on information provided by the Member States. It includes a review of specific co-existence legislation adopted by the Member States at national or regional level, and also draft measures, which have been notified to the Commission or which are currently being discussed in the Member States.

This implementation report provides factual grounds on which the Commission will base its assessment about the appropriate steps to take in the future.

The report is based on an overview of adopted legislation and draft legislation which has been formally notified to the Commission. Additional sources of information include a questionnaire which was circulated to the Permanent Representations of the Member States, as well as direct contacts with the competent authorities and information provided by the Member States in the framework of the activities of the coordination network on co-existence, COEX-NET.

It summarises the state of implementation of national co-existence measures based on information made available by the Member States up to the end of 2005.

## **2. STATE OF IMPLEMENTATION OF NATIONAL CO-EXISTENCE MEASURES**

Co-existence is still a regulatory novelty for the EU Member States, and this is even true on a global scale as very few countries have adopted labelling rules for GMOs. Since the Commission's adoption of its Recommendation on coexistence in 2003, only a few Member States have so far adopted co-existence legislation, and none have completed a regulatory framework that includes implementing measures at a technical level for all major crops currently in the authorisation process. This report is therefore aimed not only at providing an overview of the legislation in force but also at revising draft approaches still being discussed at the level of the Member States. Obviously, draft measures may be subject to change before adoption of the final legislation.

In some Member States competence for rules on co-existence lies at regional level (AT, BE, IT, and UK). In some Member States, for example ES, competence for co-existence rules lies with the federal government while certain responsibilities are regionalised, such as those for defining planting dates, monitoring and enforcement authorities etc.

Co-existence measures that have been notified under the relevant notification procedures as well as measures adopted outside notification procedures are listed below.

## Notification of national measures under Directive 98/34/EC<sup>7</sup>

In June 2004 the Commission informed the Member States of their obligation under Article 8 (1) of Directive 98/34/EC to notify draft measures on coexistence which contain technical regulations within the meaning of the Directive. (Generally these texts provide for mandatory production methods and processes and this aspect is covered by the notification procedure).

Directive 98/34/EC establishes a procedure to provide transparency in the field of standards and technical regulations relating to products and information society services. The purpose of the Directive is to avoid the creation of new barriers to the smooth functioning of the internal market. Following notification of a draft measure by a Member State, Article 9 of the Directive provides that the draft is subject to a three month standstill period, and so it may not be adopted within that period. During the three month standstill period the Commission and the Member States consider the draft. The Commission and (or) the Member States may decide that the measure does not introduce barriers to the single market and therefore make no particular comment. However, this would not preclude the Commission from challenging the national measure outside of the procedure of the Directive, if it is subsequently found to be contrary to the Treaty or secondary legislation. The Commission and (or) Member States may react in one of two ways; comments may be sent when the draft, although in accordance with Community law raises issues of interpretation, or there is a need for details of the arrangements relating to implementation. Alternatively, a Detailed Opinion may be issued if the draft measure appears to introduce factors which would hinder the operation of the internal market. In which case, the standstill period would be extended for a further three months to a total of six months. Member States are obliged to reply to a Detailed Opinion. One further option, which is only available to the Commission, is that the standstill period could extend to twelve months, if the proposed draft covers an area where the Commission proposes to legislate.

Notified legislation is translated into all Community languages and is publicly available on the following internet site: [www.europa.eu.int/comm/enterprise/tris](http://www.europa.eu.int/comm/enterprise/tris).

According to the case law of the Court of Justice (Case C-194/94 judgement of 30 April 1996 – CIA Security International SA v Signalson SA and Securitel SPRL), the court has held that Articles 8 and 9 of the Directive are precise and unconditional (to the effect that technical regulations must be notified and controlled at Community level before adoption) and must therefore be interpreted so that those provisions may be relied on by individuals before national courts. Consequently failure by a Member State to notify draft legislation containing technical regulations means that it cannot be invoked before national courts, and so, is unenforceable against individuals.

By the end of 2005, under the provisions of Directive 98/34/EC the Commission had received notifications from AT (concerning provincial draft legislation by eight Austrian Länder: Burgenland, Carinthia, Lower Austria, Salzburg, Styria, Tyrol, Upper Austria and Vienna), from AT at federal level, CZ, DK, DE, LU, HU and PT.

In response to the notification the Commission issued detailed opinions on the notifications from AT (concerning Burgenland, Carinthia, Lower Austria, Salzburg, Styria, Tyrol, and Vienna), DE and LU.

By the end of 2005 the notifications from CZ, HU and Upper Austria were still pending.

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<sup>7</sup> Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulation (OJ L 204, 21.7.1998, p. 37).

### Measures introducing a ban on GMO cultivation

In 2003, the Commission received two notifications under Article 95(5) from Salzburg and Upper Austria. Both measures were aimed at banning the use of GMOs on their territories. The Salzburg notification was later withdrawn and replaced by draft legislation notified under Directive 98/34/EC.

According to Article 95(5) of the Treaty, if after the adoption by the Council or by the Commission of a harmonisation measure, a Member State deems it necessary to introduce national provisions based on new scientific evidence relating to the protection of the environment or the working environment on grounds of a problem specific to that Member State arising after the adoption of the harmonisation measure, it shall notify the Commission of the envisaged provisions as well as the grounds for introducing them.

Thus, where a Member State considers introducing a complete ban of GMO crops, these provisions constitute a derogation from harmonisation and not a technical regulation within the meaning of Directive 98/34/EC. These measures must be notified under Article 95(5) of the Treaty. Measures in relation to co-existence could not be notified under Article 95(5) due to the fact that co-existence is an economic issue, which is not included in the scope of this provision of the Treaty.

After having consulted the European Food Safety Authority on the scientific information provided by Upper Austria, the Commission decided that the request made by Upper Austria did not fulfil the basic conditions set out in Article 95(5), since Upper Austria had not provided new scientific evidence relating to the protection of the environment or the working environment, and did not demonstrate that there is a specific problem within the territory of Upper Austria, which arose following the adoption of Directive 2001/18/EC<sup>8</sup>. The government of Upper Austria and the Republic of Austria challenged the Commission before the Court of First Instance<sup>9</sup>. On 5 October 2005 it decided in favour of the Commission and rejected the applications. Subsequently, Upper Austria notified to the Commission draft co-existence legislation under the provisions of Directive 98/34/EC. Furthermore, in December 2005, Upper Austria and the Republic of Austria appealed to the European Court of Justice against the decision by the Court of First Instance.

### Notification of national measures under Article 88 of the Treaty (State aids)

Article 87(1) of the EC Treaty states that any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market. According to Article 88(3) of the Treaty plans to grant new aid must be notified to the Commission in sufficient time by the Member State concerned, which is required to provide all necessary information to enable the Commission to take a decision.

This notification procedure is relevant, for instance, to financial aids in relation to compensation schemes for damages resulting from the presence of GMOs in other products.

In November 2005, the Commission accepted a notification by DK under the State aid procedure of a compensation scheme for economic losses due to presence of GMOs in conventional and organic crops (aid case N 568/04). The Danish compensation scheme institutes a compensation fund, wholly financed by the producers of GM crops with an annual

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<sup>8</sup> Commission Decision 2003/653/EC of 2 September 2003 (OJ L 230, 16.9.2003, p. 34).

<sup>9</sup> Case C-492/03.

parafiscal charge of DKR 100 per hectare of land cultivated with such crops. Compensation may be paid only to farmers and if the amount of GM material exceeds 0.9 % of the conventional or organic crop. The amount of compensation provided by the scheme is limited to the price difference (based on official market prices) between the GM crop and conventional or organic crops. The compensation fund will be replaced by private insurance as soon as it is available. In any event, the duration of the compensation scheme is limited to 5 years.

#### Notification of transposition measures of Community legislation

In November 2004 AT adopted an amendment of the Austrian national Law on Genetic Engineering, which introduces specific provisions on liability in the case of economic damage resulting from the cultivation or experimental release of GMOs on adjacent fields. This law was notified to the Commission as a measure transposing of Directives 90/219/EEC<sup>10</sup> and 2001/18/EC.

#### Measures adopted in the framework of national rural development programmes

SI made the participation of farmers in the agri-environment programme under its national rural development programme for the programming period of 2006-2008 dependent on abstaining from the use of GMOs. The Commission informed the Slovenian authorities that such restriction is not in line with Regulation (EC) No 1257/1999<sup>11</sup> as the use of GMOs has no demonstrable disadvantage for the environment if applied within the conditions of consent. The Slovenian authorities confirmed that for 2006 only certain measures will continue to be supported under the agri-environment scheme (organic farming and maintenance of grassland). Thus, measures in conventional crop production will be excluded from support, which could remove the disincentives to using GM crops under this support scheme.

CZ made complementary national direct payments in respect of the year 2005 conditional on co-existence requirements in maize cultivation. These measures include isolation distances and record keeping. The corresponding Government Decree (145/2005) was approved by the Commission under the Czech horizontal rural development plan.

#### Measures adopted by Member States without notification under the above-mentioned procedures at draft stage

The Commission is aware that some measures adopted by the Member States and concerning GMOs have not been notified at the draft stage under the procedures outlined above. Some of these texts provide for a total ban on GMO crops, which is not in compliance with Community legislation. Such measures should have been notified, where appropriate, under Article 95(5) of the Treaty. As mentioned above, according to case law of the European Court of Justice, failure to notify national measures under the appropriate procedure means that the measures cannot be invoked against third parties.

An Italian decree-law was adopted in November 2004 and later amended by a law in January 2005. It contains a total ban of GM crops in Italy until the adoption of co-existence measures by the Italian regions. In order to examine the Italian national law with respect to its

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<sup>10</sup> Council Directive 90/219/EEC of 23 April 1990 on the contained use of genetically modified micro-organisms (OJ L 117, 8.5.1990, p. 1).

<sup>11</sup> Council Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations (OJ L 160, 26.6.1999, p. 80).

compliance with Directive 2001/18/EC legislation the Commission requested further information from Italy in May and July 2005. Following Italy's failure to respond, in October 2005 the Commission sent Italy a written warning for breach of Article 10 of the Treaty.

Some Italian regions have taken further measures concerning GMOs. Generally, these measures involve a ban of GM products or crops and are at odds with Community legislation. They cannot therefore be considered legitimate co-existence measures under Article 26a of Directive 2001/18/EC. Most of these regional laws were adopted before the national law mentioned above was enacted.

#### Initiatives to set up "GMO-free" regions

A Charter on co-existence was signed by 20 regions of the Community on 4 February 2005 at Florence. Since then, further regions have joined the group of regions. This text encourages the creation of "GMO-free" areas, but does not constitute a legally binding text which would have had to be notified. Depending on the Member State they belong to, many of the regions that have joined the network do not have the jurisdiction to legislate on co-existence.

In addition, the Commission is aware of a number of municipalities and regions in various Member States that have declared themselves "GMO-free". As long as these declarations are a mere declaration of intent, a description of the status quo, or are based on voluntary agreements of all stakeholders concerned and do not imply a prohibition of the use of authorised products, they do not require notification by the Member State to the Commission. However, if those decisions are aimed at producing legal effects and result in a ban on the placing on the market of authorised GMOs, such measures might be in contradiction with Community legislation.

### **3. SUMMARY OF NATIONAL CO-EXISTENCE MEASURES**

This summary of national and regional co-existence measures is based on Member States who have so far adopted legislation, notified draft legislation or have proposals or draft legislation/measures available for assessment. These Member States are summarised in Table 1. A more detailed overview of the co-existence measures can be obtained from the Annexes to this report.

#### **3.1. Table 1 – Status of co-existence measures in advanced stages of development by the end of 2005**

<b>Adopted legislation</b>	<b>Notified draft legislation</b>	<b>Non-notified drafts</b>
AT (federal level and Lower Austria, Burgenland, Salzburg, Carinthia, Tyrol, Vienna), CZ (temporary rules for 2005), DK, DE, IT (Federal Framework Law), PT	AT (Styria, Upper Austria), CZ, HU, LU	BE, EE, ES, FI, LV, LT, NL, PL, SE, SK

By November 2005, only a limited number of Member States had completed the development of national co-existence strategies. In most Member States, preparatory discussions are still on-going. The first specific co-existence legislation was adopted by some Member States in 2004 (some Austrian Länder, DE, DK) and 2005 (CZ, PT, some Austrian Länder). Mandatory good farming practices have, so far, been adopted only by DK for certain crops (maize, sugar beet, potatoes) and, on a temporary basis for the cultivation of GM maize in 2005, by CZ.

In ES, GM (Bt-) maize has been grown commercially since 1998. Co-existence measures were based on voluntary industry guidelines on crop stewardship. In other Member States, including CZ, DE, FR, and PT, the cultivation of GM maize is limited to few hundred hectares each, and only began on a commercial scale in 2005 in most of these Member States.

Due to the limited progress in the development of the regulatory framework and the limited cultivation, there is little information available about the practical feasibility of the measures currently under discussion or adopted. Monitoring programmes established in ES show that under Spanish agricultural conditions Bt-maize cultivation has not led to significant negative economic consequences for non-GM crop growers. In ES the *Oficina Española de Variedades Vegetales* is in charge of the monitoring programme. Few cases of adventitious presence of GM maize were reported between 1998 and 2004. In 2004, in the course of the cultivation of GM maize on 58 000 hectares three cases of assumed adventitious presence of GM maize in organic maize harvests were investigated. In two of these cases GMO presence in the organic maize was not confirmed, and in the third case it could be demonstrated that the farmer had used seeds with a high content of GM maize.

In some Member States, the development of co-existence measures is fairly well advanced although not completed. The Commission received notifications of draft legislation from a total of seven Member States (AT at federal level, 8 Austrian Länder, CZ, DE, DK, HU, LU, and PT). Further legislation was adopted by AT concerning liability aspects in relation to economic damages resulting from the presence of GMOs in other products. IT adopted a framework law transferring competence for co-existence measures to the regional level. In NL guidelines endorsed by all stakeholders have been developed in the form of a code of good practice, which is to be backed up by legislation. Other Member States are preparing draft legislation on co-existence, which is currently in a review and consultation phase. These Member States (BE, EE, FI, FR, EL, LT, LV, SE, and UK) have indicated their intention to produce strategies/best practice guidelines by dates ranging from the end of 2005 to the end of 2008.

The limited availability of GM crops with approval for planting in the EU, or which are currently in the regulatory approval process means that, for many Member States the development of national co-existence strategies and best practices relates to a hypothetical (future) scenario. For some Member States (in particular countries in which grain maize is not generally grown, such as the UK, FI, SE, EE and MT), GM crops that would be relevant for cultivation on their territory have yet to become available. In these Member States, it is not surprising that progress on developing co-existence strategies has been limited.

#### *Competent authorities and advisory committees (Annex 2)*

All Member States have appointed Competent Authorities.

Competent Authorities and their contact details have been identified for all Member States. No information on Advisory Committees has been made available from LU, MT and PT.

#### *Level of legislative competence for co-existence measures (Annex 3)*

In AT, BE, IT and UK competence for co-existence lies at regional level. In all other Member States the competence for co-existence measures lies at national level. However, in some Member States, for example ES, certain responsibilities are regionalised, such as defining planting dates, monitoring and enforcement authorities.

### *Development of measures in accordance with the Commission's guidelines*

All recent co-existence approaches adopted by the Member States or proposals, which have been brought to the attention of the Commission, have certain central elements in common: generally, co-existence measures are designed to protect farmers of non-GM crops from possible economic consequences that may result from accidental admixture with GMOs. At the same time, GM crop cultivation should not be generally prohibited. The Member States have instead made an effort to allow the different production types- GM crop cultivation, conventional and organic - to co-exist within a region. Farmers cultivating GM crops have certain obligations to implement segregation measures, which are aimed at preventing the adverse economic consequences of GMO admixture. Thus, the obligation to implement measures to segregate GM and non-GM crop production has generally been placed on the growers of GM crops.

In Recommendation 2003/556/EC on guidelines for co-existence the Commission advises the Member States to take account of a number of general principles when developing national approaches to co-existence. The following sections it is analysed to which extent these principles have been followed by the Member States in their adopted and draft measures.

#### *Transparency and stakeholder involvement*

Most Member States reported that they have held wide stakeholder consultations, which points to a transparent procedure in the development of co-existence measures (AT, BE, CY, CZ, DK, EE, FI, FR, DE, HU, IE, LV, LT, NL, PL, PT, SK, ES, SE, and UK). In most cases a wide range of stakeholders was consulted, including government, seed producers, scientific sector, NGOs, farmers and industry sectors (see Annex 6). The methods used to consult varied, with public debates, workshops, seminars, written consultation packages being used to varying degrees.

No information was received from the remaining five Member States.

#### *Use of science-based decisions*

Most Member States have referred to the use of research, completed or planned, in drafting co-existence measures. Little detail has been provided to validate the concrete measures proposed. CY, HU, IT, LT, LU, MT, and PL made no reference to research- or science-based decision making in their responses.

The tables on completed and planned research (Annexes 4 and 5) contain information cited by the Member States in the questionnaire as being relevant for the development of their national approaches to co-existence.

#### *Building on existing methods and practices*

Given the limited practical experience of the commercial growing of GM crops few Member States appear to have built on existing methods or practices for GM crop production. Where such experience is reported, the rationale for developing co-existence measures has been mainly based on certified seed production techniques (DK, HU, and PL). Individual measures, such as isolation distances, have been partially modified to take account of differences between seed production and crop production. However, in some cases, recommended seed production distances have been taken over as co-existence measures. In ES, the proposed legislation has been further developed on the basis of the existing crop stewardship conditions and experience of segregation in agriculture. In NL, the approach is to have a system of self

regulation by the relevant stakeholders in accordance with relevant national and Community legislation. In ES the measures discussed seem to be based on segregation measures approved.

In relation to the various sources of admixture (e.g. pollen flow, seed shedding, volunteers, mixing during harvest, post-harvest operations, transport storage and handling) measures have been proposed which addressing various operations in the process of crop production. Such measures include training for operators, the dissemination of information about GM crop cultivation to neighbours, authorities and the general public, on-field segregation measures (isolation distances, border crops, volunteer or bolter control), as well as harvesting, transport and storage techniques.

Some of the measures proposed go beyond those generally used in existing segregation practices/methods, such as the handling of identity preserved crops or seed production practices. These measures include compulsory training courses for GM crop growers or all operators dealing with GMOs (DK, ES, HU, LV, LT, NL, PT, SK). Alternatively, GM crop growers have to be able to prove appropriate knowledge for GM crop cultivation (Carinthia, DE).

A case-by-case approval or notification procedure is required or will be required for each GM crop cultivation in certain Austrian Länder, HU, LV, and SK. In response to notifications by the Austrian Länder the Commission requested that such approval or notification procedures should not lead to a dual authorisation for the use of GM crops, which are authorised for cultivation at EU level under Community legislation.

The farm measures are summarised in Table 2 (see also Annexes 8-20, including additional measures not mentioned here).

**Table 2 – Summary of Farm Measures**

<b>Measure</b>	<b>Included by</b>	<b>Excluded by</b>
National register providing information on GM crop cultivation to the general public	All. Where specified, this register is open to the public. However, certain differences exist with respect to the degree of detail made available to the public	None
Compulsory training	DK (for all handlers), ES, FI (option), HU, LV, LT, NL, PT, SK	Austrian Länder, CZ, LU, PL
Licensing of grower	DK, HU, SK	Austrian Länder, CZ, DE, LU, NL, PL, PT, ES
Approval procedure for each field*	AT: all Länder except Tyrol, Upper Austria, HU, LV, SK	CZ, DK, DE, LU, LT, NL, PL, PT, ES
Notification procedure for each field*	AT: Tyrol, Upper Austria	
Duty of grower to inform neighbours	AT: all Länder except Salzburg, DK, EE, ES, FI, HU, NL, PL, PT	CZ, DE, LU, AT: Salzburg
Record keeping	CZ, DE, DK, ES, HU, IT, NL, PL, PT	AT, LU

\* Approval procedure for each field means that cultivation of GM crops is not allowed prior to receiving authorisation by a local authority following an application. In the case of a notification procedure cultivation of GM crops is allowed unless a local authority prohibits this within a specified time period.

The registration dates vary between 15 days (SK) and 6 months prior to sowing (Upper Austria). CZ, DK, NL and SK have opted for fixed registration dates (CZ: 1 March; DK: 1 July for winter planted crops and 1 February for spring planted crops; NL have not approved any winter crops, 1 February for spring planted crops; SK declaration at the same time as declarations for direct payments, by which time all plans for GMOs should be registered.

### *Proportionality*

In its guidelines the Commission advised that co-existence measures shall not go beyond what is necessary in order to ensure that adventitious traces of GMOs stay below the tolerance thresholds set out in Community legislation in order to avoid an unnecessary burden for the operators concerned. For organic and conventional crops the relevant tolerance threshold is the labelling threshold laid down in Regulation (EC) No 1829/2003 on GM food and feed. Article 21(3), inserted by Regulation (EC) No 1830/2003, sets a 0.9% threshold for "products intended for direct processing."

While this principle appears to have been taken into account in the legislation notified by CZ, DE, DK and PT, other Member States have decided to propose or adopt measures which seem to aim at reducing adventitious presence of GMOs beyond this level (Austrian Länder, HU, LU).

Concerns in relation to the proportionality of the proposed measures were included in the Commission's detailed opinions in response to draft legislation notified by AT (concerning the Austrian Länder), DE and LU.

None of the other Member States have yet proposed technical details for technical field measures, nor have they provided information about specific tolerance levels for admixture of GMOs in other crops as a basis for co-existence measures.

The Member States have to take into account local factors that have an impact on co-existence when developing their national or regional approaches. Appropriate measures for co-existence are conditioned by numerous factors that vary from one region to another. These factors include climatic conditions, soil conditions, structure of agricultural production (such as field sizes, dispersed nature of fields, terms of ownership), dominant crops grown in a region, etc.

While there is thus the need for a degree of flexibility with respect to segregation measures, it has to be noted that the segregation measures proposed or implemented differ greatly among the Member States. For instance, in some cases where separation distances are proposed they are substantially greater than those identified from scientific research studies in the EU covering a range of agricultural systems in different Member States (e.g. studies on co-existence in maize production from FR, DE, ES, and UK).

### *Appropriate scale*

The Commission recommended giving priority to farm-specific management measures and to measures aimed at coordination between neighbouring farms. Measures on a regional scale should only be considered if it can be demonstrated that sufficient levels of purity cannot otherwise be achieved.

Most Member States do not provide for regional measures but rather envisage or implement farm-scale measures. In some Member States, however, responsibility for co-existence lies at provincial or regional level (AT, BE, IT, and UK), which might lead to different regional approaches.

Where authorisation procedures for the cultivation of GMOs were made compulsory or proposed to be made compulsory it could not be ruled out that such authorisation may only be granted in certain regions.

A complete ban on the cultivation of GMOs was notified to the Commission by the Austrian Land of Upper Austria under Article 95(5) of the Treaty and initially by the Land Salzburg under Directive 98/34/EC. The notification by Salzburg was withdrawn and the one by Upper Austria was rejected by the Commission (see above) and replaced by a different approach by Upper Austria.

PT provides for the possibility to set up voluntary areas free from the cultivation of GM crops where growers all agree and which are approved by the authorities. Furthermore, the law makes it possible to prohibit the cultivation of GM crops in certain areas. LU provides for the possibility to prohibit the cultivation of GM crops in areas where co-existence can not be achieved by other means or in ecologically sensitive areas.

Some Member States propose to prohibit or restrict GM crop cultivation in protected or ecologically sensitive regions for reasons of environmental protection (several Austrian Länder, DE, HU, LV, LT, LU, PL, SK).

It should be noted that the environmental and health risk assessment of GMOs is fully covered by the consent and authorisation granted in accordance with the procedures of Directive 2001/18/EC and Regulation (EC) No. 1829/2003. According to Article 26a of Directive 2001/18/EC Member States may adopt national measures on coexistence to avoid the unintended presence of GMOs in other products, but these must target economic aspects and not duplicate the environmental risk assessment which is harmonised at EU level. This provision does not justify taking measures to prevent the presence of GMOs elsewhere in the environment if such presence is not related to a product.

Therefore, restrictions on the use of agricultural plant species, including GMOs, in certain regions on environmental grounds have to be justified on a case-by-case basis according to the relevant Community legislation, namely the Fauna-Flora-Habitat Directive (92/43/EEC) and the Bird Conservation Directive (79/409/EEC).

Article 19 of Directive 2001/18/EC provides that, where necessary, specific conditions for the placing on the market of a GMO or conditions for the protection of particular ecosystems/environments and/or geographical areas shall be specified in the written consent. Therefore, restrictions on the cultivation of GM crops in specific areas, on environmental grounds, can apply only to those GMOs for which such restrictions have been laid down in the final consent (this is without prejudice to any possible requirements under other Community legislation). As a result, implementation of specific environmental measures should be required only if the written consent for the authorisation of a particular type of GMO contains specific conditions for the protection of particular ecosystems/environments and/or geographical areas or if they are justified, on a case-by-case basis, in accordance with Directives 92/43/EEC and/or 79/409/EEC.

An overview of the regions where the cultivation of GM crops is restricted is given in Annex 21.

### *Specificity of measures*

The Commission recommended that best practices for coexistence should take into account the differences between crop species, crop varieties and product type (e.g. crop or seed production). Technical segregation measures have so far been developed by a few Member States (adopted: CZ, DK, PT; notified: CZ, HU, LU; drafts: ES, NL, PL, SE), and cover oilseed rape, maize, beet, and potatoes.

The crop specific isolation distances are summarised in Table 3. In addition, where good farming practices have been specified, these usually include segregation measures during harvest, post-harvest operations, transport and storage. Further crop specific measures are listed in Annexes 13-15.

**Table 3 – Summary of crop specific isolation distances**

crop	crop included by	Separation distances between GM crops and ...			crop not included by MS, which have laid down specific measures for other crops
		conventional	organic	seed	
Oilseed Rape	LU	3000m	3000m	3000m	CZ, DK, NL, PT, ES, HU, SE
	PL	500m	1000m	no details	
Maize	CZ	70m (1 row replaces 2m)	200m (1 row replaces 2m but min. 100m)	no details	
	DK	200m	200m	200m	
	HU	400-800m	400-800m	400-800m	
	LU	800m	800m	800m	
	NL	25m	250m	250m	
	PL	200m	300m	no details	
	PT	200m or 24 rows	300m or 24 rows	no details	
	ES	50m	50m	300m	
	SE	for single-gene constructs: 25m grain and sweet maize; 15m forage maize  for others: 50m grain and sweet maize; 30m forage maize	identical	no details	
Beet	DK	50m	50m	2000m	CZ, ES, HU, PT, SE
	LU	2000m	2000m	2000m	
	NL	1.5m	3m	no details	
	PL	100m	100m	2000m	
Potato	DK	20m	20m	20m	CZ, ES, HU, LU, PT
	NL	3m	10m	10m	
	PL	50m	50m	no details	
	SE	2m	2m	no details	

Some Member States proposed to provide for different isolation requirements between fields with GM and non-GM crops, depending on whether the non-GM crops are produced conventionally or organically (PT, drafts: CZ, PL for certain crops) or whether they are produced to non-GM standards (NL). Other Member States adopted (DK) or proposed identical segregation measures (ES, FI, LU, PL for certain crops).

SE proposed different isolation distances between GM and non-GM maize fields depending on the type of genetic modification of the GM maize. This proposal relates to the fact that GMO detection and quantification methods may give different results for single and multiple gene constructs, which means that rates of adventitious presence of the latter in non-GM harvest could be overestimated.

Furthermore, SE proposed different isolation distances between GM maize and non-GM grain and sweet maize vs. fodder maize.

Specific segregation measures to ensure co-existence with non-GM seed production have been proposed by DK, FI, LU, NL, and PL. Other Member States have not laid down specific rules for the segregation of GM crop/seed production and non-GM seed production. This could involve additional requirements for non-GM seed producers of those crops, where the isolation distances required to ensure the tolerance levels in seeds exceed both the mandatory distances to be respected by seed producers for other, conventional, crops of the same species and the isolation distances to be respected by GM crop growers with regard to other non-GM fields of the same species. In AT, enclosed seed production areas are a prerequisite for approval of seed production for several crop species if this is required in order to ensure appropriate seed quality. In such enclosed seed production areas, specific co-existence rules may be defined. While this is not yet the case in the other Austrian Länder, Upper Austria has notified draft legislation which provides for a complete ban of GMO cultivation in closed seed production areas.

#### *Implementation of measures*

The Member States have generally not followed the Commission Recommendation that during the phase of introduction of a new production type in a region, operators (farmers) who introduce the new production type should bear responsibility for implementing the farm management measures necessary to limit gene flow. They generally place this responsibility on farmers cultivating GM crops, whether they are newcomers or have already established GM crop cultivation prior to the introduction of non-GM crop cultivation in the neighbourhood. In practice this means that neighbouring non-GM crop growers do not have to change established conventional or organic farming techniques as a result of the cultivation of GM crops next to them. An exception to this principle may be granted in those Member States that have not proposed specific co-existence rules for seed production (see above), where conventional seed producers might have to change production practices following the introduction of GM crop cultivation in their immediate neighbourhood.

In most cases national draft legislation provides for the possibility that neighbouring farmers could, on a voluntary basis, decide amongst themselves not to segregate their production according to the general standards. The Commission requested in its detailed opinions to several Austrian Länder that segregation measures should not be made mandatory if neighbours agree that segregation is not required.

All Member States keep a national register of GM crop cultivation which is accessible to the public. Some differences exist with respect to the level of detail of information of GM crop cultivation made available to the public. In some cases, it is proposed that certain information (such as the name of a GM crop grower or the precise location of the field) be made available by the public authorities only to persons with a vested interest, such as neighbours. Most Member States also lay down a requirement to inform neighbouring farmers of an intention to grow GM crops. Consent of neighbouring farmers to the cultivation of GM crops is to be required by some Austrian Länder, BE, HU, and SK.

No Member State has yet proposed cross-border co-operation with neighbouring countries as a way of guaranteeing the effectiveness of co-existence measures in border areas. Some Austrian Länder provide for the consideration of neighbouring farmers in other Austrian Länder.

### *Policy Instruments*

Most of the Member States have adopted or are in the process of developing specific legislation on co-existence. In NL a voluntary code has been developed in a stakeholder-driven process. The code is to be backed up by statutory requirements. An overview of the type of instruments chosen by the Member States is given in Annex 7.

In CZ, co-existence requirements in maize cultivation have been a condition for complementary national direct payments for the year 2005 as part of the national rural development plan.

In ES, GM maize has been grown since 1998 under a non-binding code of good practice. ES is preparing co-existence legislation.

The Austrian Länder of Burgenland, Carinthia, Lower Austria, Salzburg, Tyrol and Vienna together with DK, DE, IT (Framework legislation without specific rules) and PT have adopted co-existence legislation. The Austrian Länder Upper Austria and Styria, CZ, HU, and LU have notified new legislation.

### *Liability*

Economic damage that may result from GMO admixture in non-GM crops is normally covered by national civil liability laws. It should be noted that this type of economic damage potentially affecting farmers is not covered by Directive 2004/35/EC on environmental liability<sup>12</sup>, as this does not apply to cases of personal injury, to damage to private property or to any economic loss and does not affect any right regarding these types of “traditional damage”. This Directive does not alter the competence of the Member States to maintain or introduce civil liability rules on traditional damage caused by GMOs.

In many cases admixture of GMOs to other crops could occur through various sources (e.g. via neighbouring activities, activities on the same field at an earlier time, or seed impurities, admixture during transport, harvesting and storage, etc.). Furthermore, GMO admixture may remain undetected in the early stages of the food or feed processing chain, which may make it difficult to establish a causal link between the damage and the operator responsible.

Due to the specific nature of this kind of economic damage, some Member States have decided to adopt or propose specific legislation for the case of economic damage resulting from GMO admixture in non-GM crops as a result of neighbouring GM crop cultivation (adopted: AT at federal level, supplemented at provincial level by some Austrian Länder, DE, DK, drafts: ES, HU, IT, LU, NL, PL). No specific liability measures have been proposed for economic damage resulting from seed impurities, or from admixture due to the use of shared harvesting or seeding machinery.

Where specified in the legislation, liability for economic damages resulting from GMO admixture has been generally placed on the GMO grower. There are differences between the

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<sup>12</sup> Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30.4.2004, p. 56).

different schemes. In some Member States liability is fault-based (e.g., DK, NL), which means that farmers growing GM crops can only be made liable if they have not complied with the legal requirements for GM crop cultivation. In other Member States strict liability applies (e.g. AT, DE, PL), which means that economic damage incurred by neighbouring farmers, which results from GM crop cultivation has to be compensated by the GMO grower regardless of whether fault could be proven.

Given that it may be difficult for non-GM crop growers to prove non-compliance by neighbouring GM crop growers, AT has introduced a reverse burden of proof for the case of GMO admixture.

In DE, strict and joint liability applies to GM crop growers neighbouring a field where damage occurs. In its response to the notification by Germany the Commission suggested not establishing different procedures for compensation for different operators that could have caused the damage. For instance, the presence of GMOs in non-GM crops could be caused by inappropriate application of segregation measures by neighbouring farmers, as well as by impurities in the seeds. It should be ensured that there is no discrimination between different types of operator related to a particular source of admixture.

Conditions for receiving compensation in cases of GMO admixture vary from one Member State to another. In some cases, compensation is only awarded in cases of non-compliance with legal thresholds for GMO presence, such as GMO labelling thresholds or GMO tolerance thresholds linked to food and feed labels (DE, DK, ES). In NL, non-compliance with private contractual obligations could also lead to compensation claims. In other Member States, conditions for receiving compensation are less clearly defined.

Claims sometimes have to be made within a limited period after the damage occurs or is noticed. This period is 14 days in DK and two months in some Austrian Länder (Burgenland, Carinthia, Tyrol, Upper Austria).

Moreover, in AT (federal level) compensation is limited to cases where the impact of cultivating GM crops on the neighbourhood exceeds the local standards.

In DK in order to obtain compensation, the GMO content in the damaged product must exceed 0.9%. Furthermore, GMOs of the same (or related) crop must have been cultivated in the same season within a distance of 150% of the mandatory isolation distance.

In DE compensation is limited to cases where there is significant damage to the product in which admixture is found. This is the case if the product damaged as a result of GMO presence can no longer be marketed, or has to be labelled as GM, or cannot be labelled as organic or as “produced without genetic engineering” (a national label). In all cases, a threshold of 0.9% has to be exceeded.

In ES a threshold of 0.9% must be exceeded for compensation to be granted.

Some Member States are considering the implementation of a compensation scheme (DK, HU, NL, PT). In November 2005, the Commission approved the compensation scheme notified by DK under the State Aid procedure. The Danish compensation fund covers economic damage resulting from GMO admixture. Compensation is limited to cases where the legal thresholds for GMO labelling are exceeded, and where GMO cultivation has occurred within a specified perimeter around the damaged field. It is financed by a levy on the cultivation of GM crops. In NL the establishment of a compensation fund without statutory backing was also agreed in a stakeholder-driven process but financial details remain open.

Others encourage or require GM crop growers to take out third party insurance (some Austrian Länder, LU). Currently, insurance cover for economic damage resulting from

adventitious GMO presence is not available in the EU. This lack of insurance is due at least in part to the limited information available about the expected frequency of economic damage. The frequency of expected damage depends on the national regulatory frameworks for co-existence. In particular, it depends on the stringency of mandatory co-existence measures, which are still to be implemented in most Member States.

Where some Member States proposed to make insurance cover mandatory, the Commission pointed out to the Member States concerned that the lack of insurances for this kind of damage must not prevent the cultivation of GM crops.

Several Austrian Länder have introduced a legal requirement for non-GM crop growers to report adventitious presence in non-GM products.

Commercial cultivation of GM maize has taken place in ES under the general civil legislation in the absence of specific rules on co-existence. No specific liability provisions are envisaged in ES for the near future in relation to co-existence.

The national liability provisions are summarised in Table 4.

**Table 4 – Summary of liability provisions**

<b>Liability provision</b>	<b>Included</b>	<b>Excluded</b>
Liable Party in cases of economic damage resulting from GMO admixture: Individual GMO grower Joint and several liability by GMO growers in the neighbourhood	AT, BE, CZ, DK, HU, IT, LT, LU, NL, PL DE, (PL with respect to the environment)	
Strict liability for GMO growers	AT, DE, PL	DK, ES, NL, PT
Burden of proof lies with GMO growers	AT, DE (following proof by the claimant that damage could have been caused by GMO grower)	DK, ES, NL, PT
Insurance Requirement	AT: Burgenland – but only if a suitable provider is available; AT: Salzburg – may be a condition of licence; LU – compulsory	AT Länder except Burgenland and Salzburg DE, DK (optional), IT, NL, PT, ES
Compensation Fund	AT: Burgenland – for contaminated soil products DK: Covers economic damage resulting from GMO admixture, where no fault by GMO growers can be proven. Compensation is limited to cases where the legal thresholds for GMO labelling are exceeded, and where GMO cultivation occurred within a specified perimeter around the damaged field. Financed by a levy of DK 100/ha of GM crops. HU – funded by a levy on GM crop cultivation NL – funded by stakeholders PT – funded by stakeholders	AT except Burgenland, CZ, DE, IT, LU, ES, SK

A more detailed list of national provisions on liability is provided in Annex 17.

### *Monitoring and evaluation*

All Member States have identified their enforcement and monitoring authorities and given them powers to access fields, records and take samples where necessary (Annexes 19 and 20). The Austrian Länder and DK have also identified powers of restoration and defined who is responsible for the action to be taken.

However, given the limited cultivation of GM crops in most Member States, monitoring and evaluation programmes have not been implemented in practice in most Member States.

In ES, most of the feed production, which is based on maize, has not been segregated with respect to genetic modification throughout the feed processing chain. This has prompted some

limited efforts by farmers to segregate GM and non-GM maize production for feed uses at the farm level. Co-existence measures have been implemented, on a voluntary basis, in areas where maize is also grown for food and starch production. Few complaints by non-GM maize growers concerning adventitious presence of GM maize in their produce were reported between 1998 and 2004. In 2004, during the cultivation of GM maize on 58000 hectares three cases of assumed adventitious presence of GM maize in organic maize harvests were investigated.

#### *Provision and exchange of information at the EU level*

By Decision 2005/463/EC<sup>13</sup> the Commission established a coordination network (COEX-NET) to facilitate the exchange of information supplied by the Member States on measures, experiences and best practices relating to the co-existence of genetically modified (GM), conventional and organic crops. COEX-NET provides a forum in which Member States can present and discuss national or regional approaches to co-existence. It allows Member States and the Commission to obtain an overview of best practices developed in other Member States and to be informed about the results of monitoring programmes concerning the practicability and cost-effectiveness of the measures taken. The first meeting of the network took place on 22 September 2005.

#### *Research and sharing of research results*

Numerous research projects have been and continue to be conducted in a large number of Member States. These research efforts at national level are complemented by activities under the sixth framework programme of the European Community for research, technological development and demonstration activities (FP6). Following on from several research activities under the previous programme, FP5, three large research projects are funded under FP6: “Sustainable introduction of GM crops into European Agriculture and the food chain (SIGMEA)”, “GM and Non-GM supply chains: The co-existence and traceability of GMO ingredients along the food and feed chain (CO-EXTRA)”, and “Developing efficient and stable biological containment systems for genetically modified plants (TRANSCONTAINER)”. These three research projects receive funding of € 20 Mio from the EU budget.

In addition, the Commission’s Joint Research Centre (JRC) conducted an initial study on co-existence in 2002<sup>14</sup>. Further work on co-existence, focusing particularly on the socio-economic implications of co-existence measures in crop and seed production is due to be published at the beginning of 2006.

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<sup>13</sup> Commission Decision of 21 June 2005 establishing a network group for the exchange and coordination of information concerning coexistence of genetically modified, conventional and organic crops (OJ L 164, 24.6.2005, p. 50).

<sup>14</sup> Scenarios for co-existence of genetically modified, conventional and organic crops in European Agriculture. (2002) DG JRC-IPTS-ESTO Technical Report. European Commission (EUR 20394 EN).

## ANNEXES

### INVENTORY ORGANISATION

Title	Content	Annex Number
Summary Stage of Co-existence Measures	State of development of measures, number and date of notification under Directive 98/34/EC	Annex 1
List of Competent Authorities and List of Advisory Committees	A list of Competent Authorities, Advisory Committees and their primary contact details.	Annex 2
Level of legislative competence for co-existence measures (national or regional, with Regions where applicable)	Details of regional/provincial areas that are developing co-existence legislation	Annex 3
Supporting research for national development of co-existence measures	Summary of research cited by Member States as influential in the decision making process.	Annex 4
Planned Research	Summary of research cited by Member States on coexistence currently underway or planned.	Annex 5
Consultation activities	Details of stakeholder consultation arrangements.	Annex 6
Type of measures and time scale	Overview of type of measures being taken or proposed and an intended start date.	Annex 7
Farm Measures	Registers and training National Register/Licence/Authorisation requirements for GM crop growers Duty to inform Technical segregation measures I Technical segregation measures I	Annex 8 Annex 9 Annex 10 Annex 11 Annex 12
Crop Specific Application	Oilseed Rape Maize Sugar Beet Potatoes	Annex 13 Annex 14 Annex 15 Annex 16
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Penalties	Penalties in case of non-compliance with co-existence rules	Annex 18
Enforcement	Authority and powers	Annex 19
Monitoring	Details of monitoring arrangements for co-existence measures.	Annex 20
Areas, where the cultivation of GM crops is restricted	Details of specified protected areas.	Annex 21

## ANNEX 1 – SUMMARY STAGE OF CO-EXISTENCE MEASURES

\*: proposed                      \*\*: in progress                      \*\*\*: completed                      –: no details available

	Member State / Region	Scientific Working Group	Consultation	Developing Legislation	Draft Legislation	Notified under Directive 98/34/EC	Adoption (if in brackets indicative date)	Monitoring/ Evaluation
1	Austria: Federal level (liability provisions)	***	***	***	***	–	Dec 2004	–
	Specific rules for closed seed production zones	***	***	***	***	2005/012/A	May 2005	–
	Federal level (technical co-existence measures)	**	**	**	*	–	–	–
	Upper Austria	***	***	***	***	(2003/81/A) 2005/610/A	replaced –	–
	Carinthia	***	***	***	***	2003/200/A	Nov 2004	–
	Salzburg	***	***	***	***	(2003/327/A) 2003/475/A	replaced Aug 2004	–
	Tyrol	***	***	***	***	2004/311/A	July 2005	–
	Burgenland	***	***	***	***	2004/459/A	May 2005	–
	Vienna	***	***	***	***	2004/538/A	Sep 2005	–
	Lower Austria	***	***	***	***	2005/005/A	June 2005	–
	Styria	***	***	***	***	2005/297/A	–	–
Vorarlberg	***	***	***	**	–	–	–	
2	Belgium: Wallonia	***	***	**	–	–	(2006)	–
	Flanders	***	**	**	–	–	(2006)	–
3	Cyprus	***	*	*	*	–	(2006)	–
4	Czech Republic	***	***	** *	***	2005/687/CZ	Rules for Bt maize cultivation adopted for 2005	–
5	Denmark	***	***	***	***	2004/546/DK 2004/393/DK	June 2004	–
6	Estonia	***	**	**	*	–	Early 2006	–
7	Finland	***	**	*	–	–	–	–
8	France	***	**	*	–	–	–	–
9	Germany	***	***	***	***	(2004/133/D) 2004/241/D	Dec 2004 parts still missing	–
10	Greece	***	**	**	*	–	–	–
11	Hungary	***	***	***	***	2005/635/HU 2005/637/HU	–	–
12	Ireland	***	***	**	*	–	–	–
13	Italy	***	***	***	***	–	(Dec 2005)	–
14	Latvia	***	***	***	**	–	–	–
15	Lithuania	***	***	**	**	–	–	–
16	Luxembourg	***	***	***	***	2004/426/L	(2005)	–

	Member State / Region	Scientific Working Group	Consultation	Developing Legislation	Draft Legislation	Notified under Directive 98/34/EC	Adoption (if in brackets indicative date)	Monitoring/Evaluation
17	Malta	–	–	–	–	–	–	–
18	Netherlands	***	***	***	**	–	–	–
19	Poland	***	**	**	**	–	(2006)	–
20	Portugal	***	***	***	***	2005/271/P	Sep 2005	–
21	Slovak Republic	***	**	**	**	–	(2006)	–
22	Slovenia	–	*	*	–	–	(2006)	–
23	Spain	***	***	***	***	–	(2006)	–
24	Sweden	***	**	**	**	–	–	–
25	Un. Kingdom:							
	England	***	**	*	*	–	(2008)	–
	Scotland	***	**	*	*	–	(2008)	–
	N. Ireland	***	**	*	*	–	(2008)	–
	Wales	***	**	*	*	–	(2008)	–

## ANNEX 2A – LIST OF COMPETENT AUTHORITIES

	Member State	Competent Authority	Contact Details	Email	Address 1	Address 2	Address 3	Telephone
1	Austria	Federal Ministry for Health and Women Austrian Agency for Health and Food Safety	Manuela Wammeri Leopold Girsch	Manuela.wammeri@bmgf.gv.at leopold.girsch@ages.at	Federal Ministry for Health and Women Austrian Agency for Health and Food Safety	Radetzkystrasse 2 Spargelfeldstrasse 191	1031 Vienna A-1226 Vienna	T:+43 1 71100 4844 F:+43 1 715 2405 T: +43 50 55534000 F: +43 50 55534808
2	Belgium: Wallonia  Flanders	Institute of Public Health Ministère de la Région Wallonne, Direction générale de l'Agriculture, Division Recherche, Développement et Qualité Ministerie van de Vlaamse Gemeenschap	Damien Winandy Directeur Dominique Perreaux Gilbert Crauwels	d.winandy@mrw.wallonie.be d.perreaux@mrw.wallonie.be gilbert.crauwels@ewbl.vlaanderen.be	Chaussée de Louvain, 14 Chaussée de Louvain, 14 WTC III 1 2 verdieping, Simon Bolivarlaan 30		B-5000 Namur B-5000 Namur B-1000 Brussels	T+32 81 649 617 T:+32 81 649 611 F:+32 81 649 655 T:+02 208 41 47 F:+02 208 41 84
3	Cyprus	Ministry of Agriculture, Natural Resources and the Environment	Eleni Stylianopoulou	Estylianopoulou@environment.moa.gov.cy	Department of Environment Service	Louki Akrita 1411	Nicosia	T:+357 22303865
4	Czech Republic	Ministry of Agriculture	Marie Cerovska	Marie.cerovska@mze.cz	Department of Plant Commodities	Tesnov 17	117 05 Praha	T:+221 812 527 F:+221 812 705
5	Denmark	Ministry of Food, Agriculture and Fisheries	Svend Pedersen	svp@pdir.dk	Danish Plant Directorate	Skovbrynet 20	DK-2800 Kgs. Lyngby	T:+45 4526 3772 F:+45 4526 3610
6	Estonia	Ministry of the Environment Ministry of Agriculture	Lilika Kais Andres Ounmaa	Lilika.kais@ekm.envir.ee Andres.ounmaa@agri.ee	Nature Protection Department Ministry of Agriculture	Narva mnt 7a Lai Street 39/41	Tallinn 15172 Tallinn 15056	T:+372 6262877 F:+372 6262901 T:+372 6256139 F:+372 6256200
7	Finland	Ministry of Agriculture and Forestry	Mr. Tero Tolonen	tero.tolonen@mmm.fi	Ministry of Agriculture and Forestry	P.O. Box 30	FIN-000230 Government	T:+358 916053405 F:+358 916052443
8	France	Ministry of Agriculture	DGAL/SDQPV	–	251 Rue de Vaugirad	FR-75732 Paris Cedex 15		T:+33 1 49555928 F:+33 1 49554961
9	Germany	Federal Ministry of Food, Agriculture and Consumer Protection	Wolfgang Koehler	222@bmvel.bund.de	Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz Federal Ministry of Food, Agriculture and Consumer Protection	Rochusstr. 1	53123 Bonn	T:+491888 5293356 F:+491888 5293743

	Member State	Competent Authority	Contact Details	Email	Address 1	Address 2	Address 3	Telephone
10	Greece	Ministry of Agriculture, Rural Development and Food	Antonopoulos Dimitrios	ax2u017@minagric.gr	Ministry of Rural Development and Food	2 Acharnon Str	10176 Athens	T: +30 210 2124199 F: +30 210 2124137
11	Hungary	Ministry of Environment and Water	Hajnalka Homoki	Homoki@mail.kvvm.hu	Ministry of Environment and Water	H-1121 Budapest	Kolto u. 21	T: +361 3911778 F: +361 2754505
12	Ireland	Department of Agriculture and Food	Gerry Lohan	gerry.lohan@agriculture.gov.ie	Department of Agriculture and Food	Backweston Farm, Leixlip	Co. Kildare	T: +353 1 6302900 F: +353 1 6280634
13	Italy: Regions SGP	Ministry of Agriculture and Forestry	Aldo Cosentino	Scn-dg@minambiente.it	Ministry of Environment	IT-00154 Roma		T: +3906 5722 8512 F: +3906 5722 8707
14	Latvia	Ministry of Agriculture	Iveta Ozolina	Iveta.ozolina@zm.gov.lv	Ministry of Agriculture	Republikas lauk 2	Riga	T: +371 702 7258
15	Lithuania	Ministry of Environment	Danius Lygis Head of GMO Division	d.lygis@am.lt	Ministry of Environment	Jaksto 4/9	LT-2694 Vilinius	T: +370 52 663562 F: +370 52 663668
16	Luxembourg	Ministry of Agriculture, Viticulture and Rural Development / Administration des Services techniques de l'Agriculture (ASTA)	Marc Weyland	marc.weyland@asta.etat.lu	Administration des Services Techniques de l'Agriculture	1904 L	1019 Luxembourg	T: +352-457172234 F: 1352-457172341
17	Malta	Environment and Planning Authority	George Carbone	Bcc.notifications@mepa.org.mt	Environment Protection Directorate	St Francis Ravelin	MT-Valletta CMR01	T: +356 2290 6009 F: +356 2290 1585
18	Netherlands	Ministry of Housing, Spatial Planning and the Environment  Ministry of Agriculture, Nature and Food Quality	Hinse Boonstra  J.H. Satter	Hinse.Boonstra@minvrom.nl  j.h.satter@minlnv.nl	Rijnstraat 8	P.O. Box 30945  P.O. Box 20401	NL-2500 GX The Hague  NL-2500 EK The Hague	T: +31 70 3395389 F: +31 70 3391316  T +31 70 3786519 F +31 70 3786156
19	Poland	Ministry of the Environment  Ministry of Agriculture and Rural Development	Dr.Agnieszka Dalbiak  Dr.Marta Czarnak-Klos	Agnieszka.dalbiak@mos.gov.pl  Marta.czarnak@mos.gov.pl	Ministry of the Environment  Ministry of Agriculture and Rural Development	Ul. Wawelska 52/54  Uk. Wspolna 30	00-922 Warsaw  00-930 Warsaw	T: +48 22 579 2538 F: +48 22 579 2555  T: +48 22 623 2166 F: +48 22 623 1781
20	Portugal	Ministry of Agriculture	Direcção-Geral de Protecção das Culturas (DGPC)	direccao@dgpc.min-agricultura.pt	Quinta do Marques	2780-155	Oeiras	T: +351 214464000 F: +351 21 4464099
21	Slovak Republic	Ministry of Agriculture  Central Control and Testing Institute of Agriculture	Adriana Varinska  Dr. Lubomir Horvath	Adriana.varinska@land.gov.sk  l.horvath@uksup.sk	Department of Plant Commodities (Secretariat)  Department of molecular biology	Dobrovicova 12  Hanulova 9/A	812 66 Bratislava  841 01 Bratislava	T: +42 12 59266360 F: +42 12 5  T: +421 2 64462089 F: +421 2 64462089



## ANNEX 2B – LIST OF ADVISORY COMMITTEES

	Member State	Advisory Committee	Contact Details	Email	Address 1	Address 2	Address 3	Telephone/Fax
1	Austria	Bund-Länder working group on gene technology  Working group on Guidelines for co-existence: Provinces-Chamber of Agriculture, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austrian Agency for Health and Food Safety	Manuela Wammeri  Heinz-Peter Zach  Leopold Girsch	<a href="mailto:manuela.wammeri@bmgf.gv.at">manuela.wammeri@bmgf.gv.at</a>  <a href="mailto:Heinz-Peter.ZACH@lebensministerium.at">Heinz-Peter.ZACH@lebensministerium.at</a>  <a href="mailto:leopold.girsch@ages.at">leopold.girsch@ages.at</a>	Federal Ministry for Health and Women  Federal Ministry for Agriculture, Forestry, Environment and Water Management  Austrian Agency for Health and Food Safety	Radetzkystrasse 2  Stubenring 12  Spargelfeldstrasse 191	1031 Wien  1010 Wien  A-1226 Wien	T:+43 1 711004844 F:+43 1 7152405  T: +43 1 711002795 F: +43 1 5138722  T: +43 50555 34000 F: +43 50555 34 808
2	Belgium: Wallonia  Flanders	To be established by the legislation  Ministerie van de Vlaamse Gemeenschap	–  Gilbert Crauwels	–  <a href="mailto:Gilbert.crauwels@ewbl.vlaanderen.be">Gilbert.crauwels@ewbl.vlaanderen.be</a>	–  WTC III 12 verdieping	–  Simon Bolivarlaan 30	–  B-1000 Brussels	–  T:02 208 41 47 F:02 208 41 84
3	Cyprus	Scientific Committee under the law 160(I)2003 harmonising Directive 2001/18/EC	Eleni Stylianopoulou	<a href="mailto:Estylianopoulou@environment.moa.gov.cy">Estylianopoulou@environment.moa.gov.cy</a>	Department of Environment Service	Louki Akrita 1411	Nicosia	T:+357 22303865
4	Czech Republic	Working Group on Co-existence	Marie Cerovska	<a href="mailto:Marie.cerovska@mze.cz">Marie.cerovska@mze.cz</a>	Department of Plant Commodities	Tesnov 17	117 05 Praha	T:+221 812 527 F:+221 812 705
5	Denmark	Scientific working group on co-existence between genetically modified, conventional and organic crops	Birte Boelt	<a href="mailto:Birte.Boelt@agrsci.dk">Birte.Boelt@agrsci.dk</a>	Danish Institute of Agricultural Sciences	Research Centre Flakkebjerg	DK-4200 Slagelse	Tel:+45 89993625 Fax:+45 89993501
6	Estonia	Advisory Committee on Genetic Modification (deliberate release of GMOs into the environment and marketing)	Lilika Kais  Andres Ounmaa	<a href="mailto:Lilika.kais@ekm.envir.ee">Lilika.kais@ekm.envir.ee</a>  <a href="mailto:Andres.ounmaa@agri.ee">Andres.ounmaa@agri.ee</a>	Nature Protection Department  Ministry of Agriculture	Narva mnt 7a  Lai Street 39/41	Tallinn 15172  Tallinn 15056	T:+372 6262877 F:+372 6262901  T:+372 6256139 F:+372 6256200
7	Finland	Finnish National Advisory Board for Biotechnology	Dr.Leena Hommo  Dr. Jussi Tammissola	<a href="mailto:Leena.hommo@mmm.fi">Leena.hommo@mmm.fi</a>  <a href="mailto:jussi.tammissola@mmm.fi">jussi.tammissola@mmm.fi</a>	Ministry of Agriculture and Forestry  Ministry of Agriculture and Forestry	P.O. Box 30  P.O. Box 30	FIN-000230 Government  FIN-00023 Government	T:+358 916052919 T:+358 916052913

	Member State	Advisory Committee	Contact Details	Email	Address 1	Address 2	Address 3	Telephone/Fax
8	France	Commission du génie biomoléculaire – comité de biovigilance	–	–	Ministry of Agriculture	251 rue de Vaugirard	75732 Paris Cedex 15	T:+33 1 49555928 F:+33 1 49554961
9	Germany	Advisory Committee	Dr. Gerhard Rühl	Gerhard.Ruehl@fal.de	Bundesforschungsanstalt für Landwirtschaft (Federal Agricultural Research Centre)	Bundesallee 50	38116 Braunschweig	T:+49 531 596 2345 F:+49 531 596 2399
10	Greece	Working Group on Co-existence	Antonopoulos Dimitrios	ax2u017@minagric.gr	Ministry of Rural Development and Food	2 Acharnon Str	10176 Athens	T: +30 210 2124199 F: +30 210 2124137
11	Hungary	Working Group on Co-existence	Hajnalka Homoki	<a href="mailto:Homoki@mail.kvvm.hu">Homoki@mail.kvvm.hu</a>	Ministry of Environment and Water		H-1121 Budapest	T:+3613911778 F:+3612754505
12	Ireland	Working Group on Co-existence	Gerry Lohan	Gerry.lohan@agriculture.gov.ie	National Crop Testing Centre	Backweston Farm	Leixlip, County Kildare	T: +353 1 6302900 F: +353 1 6280634
13	Italy: Regions Self Governing Provinces	Committee for the Co-existence of Transgenic, Conventional and Organic Farming						
14	Latvia	Inter-Ministerial Working Group	Iveta Ozolina	<a href="mailto:Iveta.ozolina@zm.gov.lv">Iveta.ozolina@zm.gov.lv</a>	Ministry of Agriculture	Republikas lauk 2	Riga	T:+371 702 7258
15	Lithuania	Advisory Committee on Genetic Modification (deliberate release of GMOs into the environment and marketing)  Working group on drafting of the rules on the coexistence	Danius Lygis  Neringa Šarkauskienė  Oksana Ivascenko	d.lygis@am.lt  n.sarkauskiene@am.lt  oksana@zum.lt	Ministry of Environment  Ministry of Agriculture	Jaksto g. 4/9  Gedimino av. 19	LT- 01105 Vilnius  LT-01105 Vilnius	T. +370 5 266 35 62 F. +370 5 266 36 63  T: +370 5 2391 143 F: +370 5 239 12 12
16	Luxembourg	No response						
17	Malta	No response						
18	Netherlands	Committee for co-existence in the Primary Sector Mar 04–Nov 04  Committee for the Implementation of the co-existence agreement (to be established)	Dr. A.D. Hartkamp		The Hague			T:+31 70 3708392
19	Poland	GMO Commission	Prof. Andrzej Aniol	<a href="mailto:a.aniol@ihar.pl">a.aniol@ihar.pl</a>	Plant Breeding and Acclimatisation Inst.	05-870 Radzikow	K/Blonia	T:+48 22 725 4711 F:+48 22 725 4714

	Member State	Advisory Committee	Contact Details	Email	Address 1	Address 2	Address 3	Telephone/Fax
20	Portugal	No details						
21	Slovak Republic	Commission for genetically modified plants	Dr.Lubimor Horvath	<a href="mailto:Lubomirhorvath@pobox.sk">Lubomirhorvath@pobox.sk</a>	CCTIA, Department of molecular biology	Hanulova 9/A	841 01 Bratislava	T:+421 2 64462089 F:+421 2 64462089
22	Slovenia	Scientific committee for deliberate release and placing GMO on the market	Prof. dr. Branka Javornik Dr. Martin Batič	<a href="mailto:Branka.Javornik@bf.uni-lj.si">Branka.Javornik@bf.uni-lj.si</a>	Ministry of Environment and Spatial Planning	Dunajska 48	1000 Ljubljana	T:+386 14787 402 F:+386 14787 420
23	Spain	Comisión Nacional de Biovigilancia	D. Ricardo Lopez de Haro Wood	<a href="mailto:Lopezdeharo@mapya.es">Lopezdeharo@mapya.es</a>	OEVV	C/Alfonso XII	62 28014 Madrid	T:+91 3476593 F:+91 3476703
24	Sweden	National Board of Agriculture	Anna-Clara Sjöström Staffan Eklöf	<a href="mailto:anna-clara.sjostrom@sjv.se">anna-clara.sjostrom@sjv.se</a> <a href="mailto:staffan.eklof@sjv.se">staffan.eklof@sjv.se</a>	Vallgatan 8	SE-551 82 Jönköping		T: +46 36 15 50 00
25	United Kingdom: all regions	No specific advisory committee						

**ANNEX 3 – LEVEL OF LEGISLATIVE COMPETENCE FOR CO-EXISTENCE MEASURES  
(NATIONAL OR REGIONAL, WITH REGIONS WHERE APPLICABLE)**

	Member State	Level of competence	Regions						
1	Austria	regional (9) national	Lower Austrian Styria –	Vienna Vorarlberg	Burgenland	Salzburg	Carinthia	Upper Austria	Tyrol
2	Belgium	regional (2)	Flanders	Wallonia					
3	Cyprus	national	–						
4	Czech Republic	national	–						
5	Denmark	national	–						
6	Estonia	national	–						
7	Finland	national	–						
8	France	national							
9	Germany	national	–						
10	Greece	national	–						
11	Hungary	national	–						
12	Ireland	national	–						
13	Italy	regional (22)	Abruzzo Latium Sicily Bolzano (SGP)	Apulia Liguria Trenton-Alto Adige	Basilicata Lombardy Tuscany	Calabria Marches Umbria	Campania Molise Valle d’Aosta	Emilia-Romagna Piedmont Veneto	Friuli-Venezia Giulia Sardinia Trento (SGP)
14	Latvia	national	–						
15	Lithuania	national	–						
16	Luxembourg	national	–						
17	Malta	national	–						
18	Netherlands	national	–						
19	Poland	national	–						
20	Portugal	national	–						
21	Slovak Republic	national	–						
22	Slovenia	national	–						
23	Spain	national (but autonomous communities may modify technical segregation measures)	–						
24	Sweden	national	–						
25	United Kingdom	regional (4)	England	Scotland	Northern Ireland	Wales			

#### ANNEX 4 – SUPPORTING RESEARCH FOR NATIONAL DEVELOPMENT OF CO-EXISTENCE MEASURES

This table summarises the research stated by Competent Authorities and/or national members of COEX-NET in correspondence or in the questionnaire in response to the question: ‘In support of GM crop co-existence measures being developed in your country/region, have you drawn on any commercial experience, research findings or economic studies from any source?’

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
1	Austria (federal level)	Literature study	Inst. of Ecology of the University of Vienna	Ministry for Health and Women	April 2005	Assess possibility of co-existence of GMO, conventional and organic farming in Austria from the ecological point of view
		Biodiversity hotspots of the agricultural landscape as corner stones for risk assessment and monitoring		Ministry for Health and Women	Not published	Brings together existing data (inventories, surveys, registers, mapping, studies) into a database from which GIS based maps can be created identifying areas in the agricultural landscape with a high proportion of ecological protection targets
		GM-free areas of farming: conception and analysis of scenarios and conversion steps	Dipl.-Ing. Werner Müller	Upper Austria Provincial Government and Federal Ministry of Social Security and Generations	No details	Concluded that it is practically impossible for organic and conventional GM-free crop production to co-exist alongside a large GMO cultivation. The extensive use of GM seed and planting material in crop production would first interfere with and then displace organic and conventional GM-free production. Given that the proportion of organic farmers is particularly high in Upper Austria (around 7%) hardly any areas would be available for GMO cultivation if the intention was to safeguard the organic production of agricultural products by establishing a protection zone of 4 km radius.
		Elaboration of a model for GMO cultivation in Austria under Austrian regional and structural conditions by means of a so-called co-existence index	AGES (Austrian Agency for Health and Food Safety)	Federal Ministry of Agriculture, Forestry, Environment and Water Management	In progress	
		The production of seed in defined production processes to avoid a contamination with genetically modified organisms in context with co-existence of conventional agriculture with or without GMO and organic farming	AGES (Austrian Agency for Health and Food Safety)	Federal Ministry of Agriculture, Forestry, Environment and Water Management	May 2004	Co-existence management is based in principle on a case-by- case evaluation; this means an individual evaluation of the conditions whether or not the cultivation of GMO crops next to non-GMO crops satisfies the co-existence requirements. To avoid unintentional gene transfer during crop production (including seed) which meets the requirements of the relevant EC legislation for food and feed as well as for seeds, and to avoid the products having to be labelled as GMO-products, under the Austrian structural and environmental production conditions, it is necessary 1) to create “geographically closed seed production areas or regions” and “defined closed production processes” for the species Corn ( <i>Zea mays</i> ), Oilseed rape ( <i>Brassica napus</i> ) and Sugar beet ( <i>Beta vulgaris</i> ) and 2) to create “defined closed production processes” for the species Soybean ( <i>Glycine max</i> ) and Potato ( <i>Solanum tuberosum</i> ).
		Detection of maximum rate of foreign pollination in maize production fields on to consideration of the environments in the main production areas in Austria	AGES (Austrian Agency for Health and Food Safety)	Federal Ministry of Agriculture, Forestry, Environment and Water Management	In progress	–

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
	Upper Austria	GM-free areas of farming: conception and analysis of scenarios and conversion steps  Scenarios of co-existence of GM, conventional and organic crops in European Agriculture	Werner Müller  Joint Research Centre	Upper Austria Provincial Govt., Federal Ministry of Social Security and Generations	No details	See above.  It would no longer be possible to draw a clear distinction between GM and unmodified seed and harvested crops once GM crops cover approximately 10% of European land used for agriculture and continue to spread. Contaminated seed, pollen, seed dispersion and technical impurities are the sources of genetic contamination. As a result, organic and conventional GM-free farmers would have to resort to expensive protective measures entailing considerable additional costs in order to prevent such contamination
2	Belgium  Wallonia Flanders	Developing a methodology for the evaluation of the possible agricultural and socio-economic impact of transgenic cultures on agricultural systems and the food chain  Developing a methodology for the study and evaluation of environmental risks related to hybridisation between GMOs and the endemic flora in Belgium and of the feasibility of such studies taking the example of oilseed rape  No details.  GMOs in Flanders : Co-existence between different agricultural systems  Dutch report on co-existence in the primary sector  Developing a methodology for the evaluation of the possible agricultural and socio-economic impact of transgenic cultures on agricultural systems and the food chain  Developing a methodology for the study and evaluation of environmental risks related to hybridisation between GMOs and the endemic flora in Belgium and of the feasibility of such studies taking the example of oilseed rape	Stakeholder group in the Netherlands	Federal Ministry of Public Health  Federal Ministry of Public Health  Ministry of the Flemish Community  Federal Ministry of Public Health  Federal Ministry of Public Health	Dec 2003– Apr 2004  Mar 2004 – Oct 2004  Dec 2003– Apr 2004  Mar 2004 – Oct 2004	Co-existence concerns the prevention of contamination with GMOs and its economic impact. Measures need to be taken at farm level. Study on European legislation. The mechanisms of seed dispersion. Costs and liability in co-existence issues. Point of view stakeholders in Flanders. Point of view other Member States <a href="http://www2.vlaanderen.be/ned/sites/landbouw/publicaties/volt/15.html">http://www2.vlaanderen.be/ned/sites/landbouw/publicaties/volt/15.html</a>  Possible consequences of co-existence, costs and potential damage. Legal basis for liability. Measures per crop. Co-existence monitoring. Recommendations of working group <a href="http://www.projectgroepbiotechnologie.nl/actueel/03112004a.html">http://www.projectgroepbiotechnologie.nl/actueel/03112004a.html</a>

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
3	Cyprus	No details.				
4	Czech Republic	<p>Study of selected factors influencing adventitious presence of GMO and biodiversity in the context of co-existence of GM, conventional and ecological crops</p> <p>Evaluation and prevention of environmental and ecological risks related to the introduction of GM crops in the Czech Republic</p> <p>Participation in SIGMEA</p> <p>Monitoring of the fields with GM rape grown in 1999–2001 and their neighbouring sites</p> <p>Efficiency evaluating methods of crop protection tools using genetically-modified organisms and risk assessment while implementing</p>	<p>Research Inst. of Crop Production</p> <p>Czech Univ. of Agriculture, Prague</p> <p>Czech Univ. of Agriculture, Prague; Univ. of S. Bohemia, České Budějovice</p> <p>Research Inst. for Fodder Crops, Troubsko; Univ. of South Bohemia, České Budějovice</p> <p>Research Institute of Crop Production in Prague, Czech Univ. of Agriculture, Prague</p>	<p>Ministry of Agriculture</p> <p>European Community Framework Programme 6</p> <p>Ministry of Environment</p> <p>Ministry of Agriculture</p>	<p>2004–2007</p> <p>2002–2005</p> <p>2002–2004</p>	<p>No details</p> <p>Ecological aspects of GM crop growing</p>
5	Denmark	<p>Co-existence of GM crops with conventional and organic crops under Danish growing conditions</p> <p>Participation in SIGMEA</p>	<p>Danish Research Inst. of Food Economics; Danish Inst. of Agricultural Sciences; National Environmental</p>	<p>Danish Scientific Working Group</p> <p>European Community Framework Programme 6</p>	<p>2004</p>	<p>Working Group conclusions: Co-existence will require care during production and specific control measures in addition to good farming practice. Co-existence is possible at stipulated or threshold values with moderate levels of GM crops by using recommended control measures. Co-existence of maize, beet, potatoes, main cereal, lupines, field peas and beans can be ensured at the existing threshold. If GMOs are grown more widely further measures may be required. For a low GM threshold of &lt;0.1% for organic production further measures are required. More rigorous measures are required for OSR, grass and clover due to cross-pollination and long seed survival. Cost of compliance varies widely. For maize, potatoes, cereals, peas, beans and lupines, the extra cost is 0–2% for conventional and organic. For OSR, beet and grassland the extra cost is between 3 and 9% for conventional and between 8 and 21% for organic.</p> <p>Some of these costs will be incurred due to new EU labelling regulations. Working Group report: <a href="http://web.agrsci.dk/djfpublikation/djfpdf/djfm94.pdf">http://web.agrsci.dk/djfpublikation/djfpdf/djfm94.pdf</a></p> <p>No details</p>

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
		Participation in CO-EXTRA	Research Inst.; Risø National Laboratory Dan. Research Inst. of Food Economics	EC Framework Programme 6		No details
6	Estonia	No details				
7	Finland	Report on the co-existence measures of GM- conventional and organic agriculture in Finland.  Research on the costs of co-existence measures between GM- and conventional potatoes  Memo on co-existence of GMO, non-GMO and organic production  Measuring gene flow in the cultivation of transgenic barley	Ministry of Agriculture and Forestry  Agrifood Res. Finland, MTT  Ritala A., Nuttala AM., Aikasalo R., Kauppinen V., Tammisola J.	Ministry of Agriculture and Forestry  Finnish Advisory Board on Biotechnology	Dec 2005  2005  Dec 2004  2002	Several agronomic and legal recommendations. <a href="http://www.mmm.fi">www.mmm.fi</a>  Prepared by a working group with representation from major stakeholders <a href="http://www.biotekniikanneuvottelukunta.fi/rinnelo.htm">www.biotekniikanneuvottelukunta.fi/rinnelo.htm</a>  Gene flow in barley cultivation is very low.
8	France	Relevance and feasibility of a non-GM maize and soja production chain	FNSEA, INRA, ACTA, INP Grenoble		Feb 1999 – Nov 2000	Study of the feasibility of segregating GM and conventional crop production in different threshold conditions.
9	Germany	Study of the worldwide available relevant literature, especially in maize, oilseed rape, potato, and sugar beet  Establishment of a working group for the assessment of different crops in respect to cross fertilisation, co-existence measures, and ecological risks  Experimental cultivation of Bt-maize 2004 and 2005: Bt-maize and co-existence  Research programme for securing co-existence of GM-free and GM-using agriculture as well as for protection of biodiversity  Participation in SIGMEA  Participation in CO-EXTRA	Various  Various  Innoplanta e.V.  Various  Federal Biological Research Centre  Federal Biological	Federal Ministry of Food, Agriculture and Consumer Protection  Federal Ministry of Food, Agriculture and Consumer Protection  Federal Ministry of Food, Agriculture and Consumer Protection  Federal Ministry of Food, Agriculture and Consumer Protection	2005  2003  2004, 2005  2005	Identification of reliable measures that ensure the co-existence of GM maize and non-GM maize <a href="http://www.innoplanta.com/eng/start/engl.html">http://www.innoplanta.com/eng/start/engl.html</a>  Identification of sustainable co-existence measures and of long-term impacts of GM maize on biological diversity

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
			Research Centre			
10	Greece	Research from other member states – no details				
11	Hungary	No details				
12	Ireland	<p>Review of worldwide literature and studies, any published co-existence reports:</p> <p>European report from JRC/IPTS</p> <p>European Environment Agency report (Eastham and Sweet 2002)</p> <p>Report of the Danish working group on co-existence</p> <p>GM crops co-existence and liability Farm Scale Evaluation Study</p> <p>Report of the Netherlands working group on co-existence</p> <p>Meetings and conferences e.g. Round-table Meeting on Co-existence in Brussels</p> <p>GMCC03 Conference in Denmark</p> <p>COPA/COGECA Meeting Symposium on Co-existence</p>	<p>JRC/IPTS</p> <p>EEA (Eastham and Sweet)</p> <p>DIAS</p> <p>AEBC</p>	<p>Eur. Commission</p> <p>Denmark</p> <p>UK</p> <p>UK</p> <p>Netherlands</p>	<p>2002</p> <p>2002</p> <p>2003</p> <p>2004</p> <p>2003</p> <p>2003</p> <p>2003</p> <p>2005</p>	
13	Italy	No details				
14	Latvia	Modelling of dissemination of GM plants	University of Agriculture; Technical University	Latvian Council of Science	Jan 2004 – Dec 2004	There are no regions in Latvia without bee-hives therefore the growing of GM rape is problematic in Latvia. There are no sound arguments for the need to grow maize or rape seed in Latvia – traditionally maize is not treated with insecticides traditionally therefore Bt maize is not necessary in Latvia. Increased risk of fungal infections in cultivation of GM rape seed tolerant to glyphosate.
15	Lithuania	No details				
16	Luxembourg	No details				
17	Malta	No details				
18	Netherlands	<p>Inventory of current knowledge on out-crossing in maize, oilseed rape, potato and sugar beet crops for the co-existence consultations in 2004</p> <p>Co-existence in the primary sector</p>	Plant Research International, Wageningen UR	Temporary committee	<p>2004</p> <p>Nov 2004</p>	Update on current co-existence in Europe; main findings concern maize, sugar beet, potatoes; main topic – separation distances, also referring to UK, French and Spanish trials to recommend separation distances of >25 m plus a safety margin for smaller fields

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
19	Poland	No details				
20	Portugal	Impact of GM maize on agronomic ecosystems	DGPC/ISA/ESAS	DGPC	Dec 2001 – Dec 2004	<a href="http://www.dgpc.min-agricultura.pt">www.dgpc.min-agricultura.pt</a>
21	Slovak Republic	State research project RVT 27-11	Central Control and Testing Institute of Agriculture	Ministry of Agriculture	1999–2002	Development, standardisation and introduction of testing procedures for detecting GMOs in plant commodities, feed and foodstuffs
22	Slovenia	Preparation of groundwork for national strategy on co-existence	Agriculture Institute of Slovenia		2003–2004	Main parameters influencing the possibility of introducing co-existence schemes given the specific situation within Slovenia were determined. Certain calculations were made of additional costs due to co-existence measures.
23	Spain	Studies on the co-existence of GM and conventional maize	Oficina Española de Variedades Vegetales; Molecular Biology Inst.; Agro-food Research and Technology; National Inst.; Agro-food; Provincial Technical Inst.; Monsanto; Pioneer Hi-bred; Nickersons Sur	Oficina Española de Variedades Vegetales	May 2003 – Feb 2004	In very large plots (>5ha) no row would have to be eliminated as the entire harvest would be under the 0.9% GMO threshold. The highest concentration of cross-pollination was recorded on the first two rows of the neighbouring field, from which point there was an exponential decrease. For plots smaller than 5ha, between 4 and 8 of the first rows next to the GMO variety would have to be eliminated, depending on the circumstances. After a distance of 10 to 12 metres from the pollen source, almost none of the remaining plot contained more than 0.9% GMOs; therefore, this remaining harvest could be sold as non-transgenic material. According to the studies undertaken, the % of GMO presence dropped rapidly over the first few metres around the transgenic crop. GMO presence in conventional maize crops depends on the size of the pollen source; the size of the non-GMO plot; direction of the prevailing wind; distance to the pollen source; and the sowing date of both crops.
		Analysis of adventitious GMO presence in conventional maize for human consumption	Oficina Española de Variedades Vegetales	Oficina Española de Variedades Vegetales	Sep 2004 – 2005	Study focussed on situation in Extremadura, where GM maize is grown next to maize for human consumption. Field controls to inspect compliance with segregation measures. Of 192 samples studied, 8 contained detectable presence of GMOs, all below 0.9%. Average GM content: 0.015%.
24	Sweden	Literature studies Swedish research	National Board of Agriculture	Ministry of Agriculture	Report 16 Dec 2005	An Ordinance on GMO cropping in spring 2006. Commission to analyse the civil law and the liability when growing GMO crops. Report in Dec 2006 and possible new law on liability Jan 2008.

	Member State	Research	Carried out by	Commissioned by	Date	Outline (provided by Member States)
25	United Kingdom	Gene Flow Monitoring from the GM Crop Farm-Scale Evaluation Sites: Monitoring Gene Flow from the GM Crop to Non-GM Equivalent Crops in the Vicinity		DEFRA	2000–2005	Monitored gene flow from GM crops to adjacent non-GM equivalent crops. Two parts, on forage maize and oilseed rape. <a href="http://www.defra.gov.uk/environment/gm/research/epg-1-5-138.htm">http://www.defra.gov.uk/environment/gm/research/epg-1-5-138.htm</a> (paper on oilseed rape results published in <i>Transgenic Research</i> , Volume 14, Number 5, October 2005)
		Consequences for Agriculture of the introduction of GM Crops	SCRI, CSL	DEFRA	2000–2003	<a href="http://www.defra.gov.uk/environment(gm/research/pdf/epg_rg0114.pdf">http://www.defra.gov.uk/environment(gm/research/pdf/epg_rg0114.pdf</a>
		Gene Flow Monitoring from the GM Crop Farm-Scale Evaluation Sites: Monitoring Gene Flow from the GM Crop to Non-GM Equivalent Crops in the Vicinity		DEFRA	1997–2003	Aimed at monitoring gene flow from GM crops to adjacent non-GM equivalent crops. Results showed a rapid decrease in the rate of cross-pollination within the first 20 m from the donor crop and beyond this distance the rate of decrease was much slower. Results from individual fields were related to wind direction during flowering, synchrony of flowering and separation distances. Evidence of low-level gene flow was detected, beyond both the 80 m and 200 m separation distances recommended by SCIMAC for forage maize and sweetcorn respectively. The report concludes that a separation distance of 24.5m would be required to meet the 0.9% threshold recommended by the EU, and that 80 m separation distance would be sufficient to ensure that cross-pollination levels were below 0.3%.
		Consequences for Agriculture of the introduction of GM Crops	SCRI, CSL	DEFRA	2000–2003	<a href="http://www.defra.gov.uk/environment(gm/research/pdf/epg_rg0114.pdf">http://www.defra.gov.uk/environment(gm/research/pdf/epg_rg0114.pdf</a>

## ANNEX 5 – PLANNED RESEARCH

This is the information provided by the Competent Authorities and/or national members of COEX-NET through correspondence or in response to the questionnaire question ‘ Is any co-existence research currently taking place or planned?’.

	Member State	Research	Commissioned by	Date	Main Objectives
1	Austria	Establishing Technical Guidelines  Detection of maximum rate of foreign pollination in maize production fields on to consideration of the environments in the main production areas in Austria	Federal Ministry of Agriculture, Forestry, Environment and Water Management  Federal Ministry of Agriculture, Forestry, Environment and Water Management	since 2004, in progress  since 2005, in progress	Establish technical guidelines for co-existence, but awaiting EU thresholds for GMOs in conventional seeds.  The effective pollination from surrounding maize fields into neutered ones should be assured, i.e. the usual neighbourly growing conditions are prevailing. New scientific and representative conclusions concerning co-existence management (primarily minimum isolation distances), taking into account the different agricultural structures in Austria.
2	Belgium	No details			
3	Cyprus	No details			
4	Czech Republic	Study of selected factors influencing adventitious presence of GMO and biodiversity in the context of co-existence of GM, conventional and ecological crops  Evaluation and prevention of environmental and ecological risks related to the introduction of GM crops in the Czech Republic  Proposed measures and guidelines for co-existence of GM and non-GM crops (sugar beet, oilseed rape)	Ministry of Agriculture  Ministry of Agriculture  Ministry of Agriculture	since 2005  since 2005  since 2006	Conducted by the Research Institute of Crop Production in Prague, Czech Univ. of Agriculture, Prague  Conducted by the Czech Univ. of Agriculture, Prague  Conducted by the Czech Univ. of Agriculture, Prague; Univ. of South Bohemia, České Budějovice
5	Denmark	No details			
6	Estonia	EU transition facility programme on GM co-existence	Ministry of Agriculture	Oct 2005 – Oct 2006	Set up a system of procedures and inspections for use of GMOs in Estonia in accordance with EU regulations/recommendations. Aims to assist Estonia in the implementation of EU regulations on GMO and develop a strategy for co-existence of GM, conventional and organic crops

	Member State	Research	Commissioned by	Date	Main Objectives
7	Finland	Gene flow from <i>Brassica campestris</i> to nearby fields of cultivated <i>B. rapa</i> in Finnish conditions.	Agrifood Res. Finland MTT	June 2004 – Dec 2006	
		Research Programme on Environmental, Societal and Health Effects of Genetically Modified Organisms (ESGEMO)	Academy of Finland, Ministry of Agriculture and Forestry, Ministry of Environment	2004–2007	10 research projects on subjects such as: Create new knowledge on environmental and health effects and potential risks of GMOs. Develop novel tools for research and assessment of the potential impacts of GMOs on nature. Evaluate the socio-economic and technological impacts of the use of GMOs, including ethical considerations and public acceptance of novel biotechnology. Research Themes. Ecological and health impacts of GMOs. Gene flow and interactions. Ethical and socio-economic aspects related to the development and application of GMOs in nature. Risk assessment and management of GMOs. <a href="http://www.honeybee.helsinki.fi/esgemo/eng/">www.honeybee.helsinki.fi/esgemo/eng/</a>
8	France	Operational programme for the evaluation of GM crop cultivation (POECB)  Maize production	ARVALIS	since 2002 ongoing	Condition for co-existence of GM and conventional maize. Collection of scientific data with the aim of assessing traceability from the field to feed production.  Study on benefits generated from Bt corn and support to the implementation of the national programme on biovigilance.
9	Germany	Experimental cultivation of Bt-maize 2005:	Federal Ministry of Food, Agriculture and Consumer Protection	2004, 2005	
10	Greece	No details			
11	Hungary	No details			
12	Ireland	Environmental Risk Assessment of GM crops; the use of SSRs to trace insect and wind dispersal of <i>Brassica napus</i> pollen  Gene flow from cultivated grasses and cereals to wild relatives  Developing a methodology to assess the economic and environmental impact of cultivating GM crops in Ireland  Introduction of GM potato crop in Ireland: environmental risk assessment to study the potential impact of co-existence  Investigate the effectiveness of co-existence guidelines to restrict flow from a GM OSR crop		ongoing	Identify and evaluate the issues and implications for crop production in Ireland arising from the cultivation of GM crops. Develop proposals for a national strategy and best practice to ensure the co-existence of GM crops with conventional and organic farming. Ireland is investing in facilities, equipment and staff to further develop its research in plant biotechnology. This research is being carried out by Teagasc and at a number of universities  Studying the issues related to the co-existence of GM and non-GM crops

	Member State	Research	Commissioned by	Date	Main Objectives
		Economic evaluation of the cost/benefits to the Irish agri-food industry from the use of GM's in crop and livestock production	Department of Agriculture and Food	Jan 2005	
13	Italy	No details			
14	Latvia	No details			
15	Lithuania	No details			
16	Luxembourg	No details			
17	Malta	No details			
18	Netherlands	Large scale testing of isolation distances maize  Risk analysis/assessment for use while establishing damage fund	Department of Agriculture, Nature and Food Quality	2006–2007	
19	Poland	Participation by Warsaw Agricultural University in CO-EXTRA	European Community Framework Programme 6	2005–2008	Multi-faceted scientific research directed at solving contemporary problems of the national economy especially in the agriculture and related areas.
20	Portugal	Co-existence of GM crops and other crop production systems	DGPC	Apr 2005 – Dec 2007	Portuguese farm-scale evaluations of measures on co-existence of maize
21	Slovak Republic	State research project APVV	Central Control and Testing Institute of Agriculture, APVV Slovak Ministry of Education	2006–2008	Model systems, verification and analysis of the level of co-existence between GM crops and conventional and ecological farming
22	Slovenia	Study funded by EU done by some national NGOs supported by Ministry of Agriculture to provide statistical data  Strategy of GMO crops, co-existence with conventional and organic farming, establishment of the gene resource register  Participation in CO-Extra project  Research project about Co-existence founded by Ministry of Higher Education, Science and Technology	National NGO  National Inst. of Biology  National Institute of Slovenia; Agricultural Institute of Slovenia  Agricultural Institute of Slovenia	2004–2005  2004–2005  2005–2008  2005–2008	The focus of the study is on determining the extent of the conflict between GMO growers and non-GMO growers taking into account the current agricultural situation in Slovenia. Concept of study is based on actual geographical situation in the certain parts of Slovenia  Comprehensive survey will be made of literature, scientific background and trial results, together with experiences and examples from other countries of co-existence legislation in order to define basic principles of national co-existence strategy. In the second part the possibilities and financial framework for establishing national gene resources will be studied.  Traceability of genetically modified crops in the food and feed production. The field experiment on gene flow with maize is included.

	Member State	Research	Commissioned by	Date	Main Objectives
23	Spain	<p>Study on the Co-existence of GM maize and conventional maize</p> <p>Monitoring plan of co-existence of organic production of maize with conventional and transgenic maize</p> <p>Study of the co-existence of GM and conventional cotton</p> <p>Monitoring plan on herbicide tolerant maize cultivation</p> <p>Monitoring plan on GM cotton cultivation</p>	<p>Oficina Española de Variedades Vegetales; Agro-food Research and Technology National Inst.</p> <p>Oficina Española de Variedades Vegetales</p> <p>Oficina Española de Variedades Vegetales; Agro-food Research and Technology National Inst.</p> <p>Dirección General de Calidad y Evaluación Ambiental; Oficina Española de Variedades Vegetales; Agro-food Research and Technology National Inst.</p> <p>Dirección General de Calidad y Evaluación Ambiental; Oficina Española de Variedades Vegetales; Agro-food Research and Technology National Inst.</p>	<p>April 2005</p> <p>None given</p> <p>None given</p> <p>2005–2010</p> <p>2006</p>	<p>To study the adventitious presence of GMOs in conventional maize when there is an isolation distance of 25m and 50m.</p> <p>To study whether the co-existence of organic maize and conventional and transgenic maize is possible in a region where there is a large production of organic maize.</p> <p>To study the co-existence between GM and conventional cotton</p> <p>Scientific assessment of ecological impact on biodiversity of HT maize and gene flow between HT maize and non-GM maize</p> <p>Scientific assessment of ecological impact on biodiversity of GM cotton and gene flow between GM cotton and non-GM cotton.</p>
24	Sweden	<p>Research within the Research Council for Environment, Agricultural Sciences and Spatial Planning</p>			<p>Examples:</p> <p><b>Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, Formas</b></p> <p>Risks and risk assessment-research – transgenic organisms and biological control –</p> <ul style="list-style-type: none"> <li>• Risk assessment in using transgenic insect-resistant oilseed crops: advantages, gene dispersal and effects on non-target organisms. (Project budget: MEuro 0.5) Project manager: Barbara Ekbom, SLU, Entomology, <a href="mailto:barbara.ekbom@entom.slu.se">barbara.ekbom@entom.slu.se</a></li> <li>• Impact assessment growing of GM crops (Project budget: MEuro 0.33) Project manager: Håkan Fogelfors, SLU, Ecology and Crop Production Science, <a href="mailto:hakan.fogelfors@evp.slu.se">hakan.fogelfors@evp.slu.se</a></li> <li>• Ecological risks in using transgenic trees (Project budget: MEuro 0.3) Project manager: Joakim Hjältén, SLU, Animal Ecology,</li> </ul>

	Member State	Research	Commissioned by	Date	Main Objectives
					<p>joakim.hjalten@szoock.slu.se</p> <ul style="list-style-type: none"> <li>Genetic dynamics during hybridisation and dispersal of foreign genes (Project budget: MEuro 0.18) Project manager: Linda Laikre, University of Stockholm linda.laikre@popgen.su.se</li> <li>... and several other projects supported by others, e.g. <ul style="list-style-type: none"> <li>Effects of using gene modified fungi and microorganisms</li> <li>Organic farming, gene modified crops and co-existence (report and conference) (Swedish University of Agricultural Sciences)</li> </ul> </li> </ul>
25	United Kingdom	<p>Factors affecting rates of cross-pollination in maize growing under typical UK conditions</p> <p>Factors affecting cross-pollination in oilseed rape varieties, particularly of low fertility, growing under typical UK conditions</p> <p>Assessment of the distribution of GM Material in kernel lots</p> <p>Monitoring movement of herbicide resistant genes from Farm Scale Evaluation Field Sites to populations of wild crop relatives.</p> <p>Monitoring of occurrence of oilseed rape volunteers in subsequent oilseed rape crops at FSE sites</p> <p>Review of separation distances and buffer crops for co-existence</p> <p>Participation in CO-EXTRA</p> <p>Participation in SIGMEA</p> <p>Statistical theory and analysis of GMO enforcement</p>	<p>DEFRA</p> <p>DEFRA</p> <p>DEFRA</p> <p>DEFRA</p> <p>DEFRA</p> <p>DEFRA</p> <p>European Community Framework Programme 6</p> <p>European Community Framework Programme 6</p> <p>DEFRA</p>	<p>2003–2008</p> <p>2003–2006</p> <p>2005</p> <p>2005</p> <p>2006</p> <p>since 2000</p> <p>2005–2009</p> <p>2004–2007</p> <p>2004–2005</p>	<p>To develop a robust model of pollen movement in maize under UK conditions, based on molecular tracking of marker genes in the field, and to use the model to make recommendations on cultivation practice that will prevent cross-contamination. <a href="http://www.defra.gov.uk/environment/gm/research/epg-1-5-210.htm">http://www.defra.gov.uk/environment/gm/research/epg-1-5-210.htm</a></p> <p>There is little information on the comparative value for partly fertile varieties (e.g. partially restored hybrids and varietal associations), but early trials and theoretical estimates indicate a much higher crossing percentage to these varieties. Given the need to ensure high purity of a crop type at harvest, this research will estimate whole-field cross fertilisation in these varieties. <a href="http://www.defra.gov.uk/environment/gm/research/epg-1-5-216.htm">http://www.defra.gov.uk/environment/gm/research/epg-1-5-216.htm</a></p> <p>The EU Joint Research Centre (JRC) have initiated a project (Kernel Lot Distribution Assessment (KeLDA)) to assess the distribution of GM in kernel lots, evaluate currently used sampling strategies and provide future recommendations for implementing sampling strategies</p> <p>The objectives of this project were to monitor gene flow from the GM crop to non-GM equivalent crops in the vicinity; monitor gene flow from the GM crop to wild relatives; monitor the occurrence and persistence of GM volunteers in following crops; monitor the persistence of GM hybrids with wild relatives if located.</p> <p>The aim of this research is to collect data that will allow the validity of published models on the persistence of oilseed rape seed, and occurrence of oilseed rape volunteers in subsequent oilseed rape crops, to be tested. <a href="http://www.defra.gov.uk/environment/gm/research/epg-cpec23.htm">http://www.defra.gov.uk/environment/gm/research/epg-cpec23.htm</a></p> <p>Aim is to devise a model to propose separation distances for maize and oilseed rape derived from gene flow data gained as part of the farm-scale evaluations.</p> <p>Specific project conducted by CSL will participate in work packages on supply chain analysis, description and modelling; development of testing and sampling approaches; and development and integration of analytical traceability tools.</p> <p>Specific project by CSL will work on the socio-economic dimension of adopting GM crops and their co-existence with other crop systems and the detection of adventitious GM presence.</p> <p>This project seeks to investigate the theory and practice of GM sampling and detection in order to enhance current understanding of statistical confidence in the results of seed and grain testing for GM presence. The project aims to produce a concise report on procedures and statistical theory for an integrated view of the uncertainties in the testing and enforcement process. <a href="http://www.defra.gov.uk/environment/gm/research/epg-cpec19.htm">http://www.defra.gov.uk/environment/gm/research/epg-cpec19.htm</a></p>

## ANNEX 6 – CONSULTATION ACTIVITIES

	Member State	Public Debate	Consultation with Stakeholders – workshops/seminars	Written Consultation	Other	Government	Seed sector	Scientific sector	NGOs	Farm sector	Industry
1	Austria		No details		Working group at level of federal and provincial Ministry level from 2003 on						
2	Belgium Wallonia Flanders	– –	– Dec 2003 – Apr 2004	– –	Technical working group in 2004 – 2005 Administrative working group Dec 2003 – June 2005 Technical working group Mar 2005 (ongoing)	Yes Yes	Yes –	Yes Yes	Yes Yes	Yes Yes	Yes –
3	Cyprus		2006	–		Yes			Yes		
4	Czech Republic		Apr 2005	–	Working group for GMOs of the Ministry of Agriculture – Nov 2004, Aug 2005	Yes	Yes	Yes	Yes	Yes	–
5	Denmark		January 2003	–		Yes	Yes	Yes	Yes	Yes	Yes
6	Estonia	2004/2005	2004	–	Baltic-Nordic Co-operation  EU Transition Facility Programme on co-existence	Yes	Yes	Yes	Yes	Yes	
7	Finland		Nov 2004; Nov 2005	Dec 2004; Dec 2005		Yes	Yes	Yes	Yes	Yes	Yes
8	France		2003–2005	–	–	Yes	Yes	Yes	Yes	Yes	Yes
9	Germany		2005	–	–	Yes	Yes	Yes	Yes	Yes	Yes
10	Greece		–								
11	Hungary		2005			Yes	Yes	Yes	Yes	Yes	yes
12	Ireland		Dec 2003 –Dec 2004			Yes	Yes	Yes	Yes	Yes	yes
13	Italy: Regions and Self Governing Provinces		No details								
14	Latvia	–	Jan – May 2005			Yes	Yes	Yes	Yes	Yes	Yes

	Member State	Public Debate	Consultation with Stakeholders – workshops/seminars	Written Consultation	Other	Government	Seed sector	Scientific sector	NGOs	Farm sector	Industry
15	Lithuania		Consultations in frames of GMO management supervision Committee Sept 2005	2003–2005		Yes	Yes	Yes	Yes	Yes	Yes
16	Luxembourg		No details								
17	Malta		No details								
18	Netherlands	2002	October 2003	Mar 2004–Nov 2004		Yes	Yes	Yes	Yes	Yes	
19	Poland		Sept– Oct 2004	Jan – Mar 2005		Yes	Yes	Yes	Yes	Yes	
20	Portugal		Oct–Dec 2004 Workshops June 2005 Training Jun–Dec 2005	Jul – Dec 2004		Yes	Yes	Yes	Yes	Yes	
21	Slovak Republic		Workshop May 2005 Seminars 2005–2006			Yes	Yes	Yes	Yes	Yes	
22	Slovenia		No details	Planned		Yes	Yes	Yes	Yes	Yes	
23	Spain		February 2004 November 2005	No		Yes	Yes	Yes	Yes	Yes	Yes
24	Sweden	June 2003	June 2003, seminar Dec 2004, hearing Dec 2005, hearing			Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	
25	United Kingdom	2003	Workshops Aug–Oct 2004	To be issued in 2006		Yes	Yes	Yes	Yes	Yes	Yes

## ANNEX 7 – TYPE OF MEASURE AND TIME SCALE

	Member State	Type of measures	Legislation name	Current status	Notified to the Commission under Directive 98/34/EC	Adoption date (indicative if in brackets)
1	Austria:	Amended legislation	Genetic Engineering Act, Federal law Gazette No 126/2004	adopted	–	Nov 2004
	Lower Austria	New legislation	Lower Austrian Genetic Engineering Precautionary Measures (GEPM) Act	adopted	2005/5/A	June 2005
	Vienna	New legislation	Viennese GEPM Act	adopted	2004/538/A	Sep 2005
	Burgenland	New legislation	Burgenland GEPM Act	adopted	2004/459/A	May 2005
	Salzburg	New legislation	Salzburg GEPM Act	adopted	2003/475/A	Aug 2004
	Carinthia	New legislation	Carinthian GEPM Act	adopted	2003/200/A	Nov 2004
	Upper Austria	New legislation	Upper Austrian GEPM Act	notified	2005/610/A	–
	Tyrol	New legislation	Tyrol GEPM Act	adopted	2004/311/A	July 2005
	Styria	New legislation	Styria GEPM Act	notified	2005/297/A	–
	Vorarlberg	no details	–	–	–	–
2	Belgium:					
	Wallonia	New legislation	–	To be submitted to parliament	–	(2006)
	Flanders	New legislation	–	Treated internally by the cabinet, authorised for agriculture	–	–
3	Cyprus	Amended legislation	–	Consultation	–	(2006)
4	Czech Republic	New legislation	Government Decree No 145/2005 laying down conditions for complementary national direct payments in respect of the year 2005 (Co-existence rules for maize cultivation in 2005)	adopted	–	Apr 2005 (only for GM maize growing in 2005)
		Amended legislation	General Act on agriculture No 252/1997 (amended by amendatory Act No 441/2005) (includes coexistence rules for approved GM crops)	adopted	–	Oct 2005
			Public notice that is following general Act on Agriculture – DL (consultation)	notified	2005/687/CZ	(2006)
5	Denmark	New legislation	Act on Cultivation etc. of Genetically Modified Crops	adopted	2004/393/DK	Jun 2004
			Ministerial order on cultivation	adopted	2004/546/DK	Mar 2005
			Ministerial order on compensation	adopted		
6	Estonia	New legislation	–	Consultation	–	(Early 2006)
7	Finland	To be decided	–	–	–	–
8	France	To be decided		–	–	
9	Germany	New legislation	Draft Regulations on good agricultural practices regarding the cultivation of GM crops	Consultation	–	(2006)
		Amended legislation	Amendment of Genetic Engineering Act	adopted	2004/241/D 2004/133/D	Feb 2005

	Member State	Type of measures	Legislation name	Current status	Notified to the Commission under Directive 98/34/EC	Adoption date (indicative if in brackets)
10	Greece	New legislation	–	Consultation	–	–
11	Hungary	Amended legislation New legislation	Amendment of Law XXII of 1998 on gene technology Act of the Ministry of Agriculture and Rural Development on the co-existence of the cultivation of GM crops with conventional and organic crops	Notified Notified	2005/634/HU 2005/637/HU	– –
12	Ireland	To be decided	–	Consultation	–	–
13	Italy:  Regions and self-governing provinces	New legislation	Urgent provisions for the co-existence of transgenic, conventional and Organic Farming	adopted	No – awaiting co-existence agreements from regions and SGPs Regions intend to notify separately	(Dec 2005)
14	Latvia	New legislation	On contained use, deliberate release into the environment and placing on the market of GMO and procedure for monitoring of GMO	Consultation	–	(2006)
15	Lithuania	New legislation	Order of the Minister of Agriculture of the Republic of Lithuania and of the Minister of the Environment of the Republic of Lithuania on Approval of Rules on Co-existence of GM Crops with Conventional and Organic farming	Consultation preparation for and the notification	–	(2006)
16	Luxembourg	New legislation	Act Regulating the trade in seeds and plants and on the cultivation of GM seeds and plant and draft Grand-Ducal Regulations implementing the draft Act	Consultation	2004/426/L	(2006)
17	Malta	To be decided	–	–	–	–
18	Netherlands	Amendment to existing legislation Voluntary codes of practice and farm assurance schemes	A ruling of the Product Board of Arable crops is designed (December 2005) to confirm the Co-existence Agreement	Consultation Consultation	– –	(2006) –
19	Poland	Incorporate into existing legislation	–	Consultation	–	(2006)
20	Portugal	New legislation	Decree law regulating the GM varieties cultivation in order to ensure the co-existence with different types of crop production	adopted	2005/271/P	Sep 2005
21	Slovak Republic	New legislation	Act on Cultivation of Genetically Modified Plants	Consultation	–	(2006)
22	Slovenia	New legislation	–	Consultation	–	(2006)
23	Spain	New legislation	Royal Decree on the co-existence regulations of GM crops with conventional and organic crops	Draft	–	(2006)
24	Sweden	New legislation	Measures go achieve co-existence	Draft	–	(Ordinance in spring 2006)

	Member State	Type of measures	Legislation name	Current status	Notified to the Commission under Directive 98/34/EC	Adoption date (indicative if in brackets)
		To be decided	Strict liability	Commission starts in Jan 2006		(Ev. new legislation 2008)
25	United Kingdom	New legislation	–	Consultation	–	(2007)

## REGULATORY STATUS KEY FOR ANNEXES 8–20

Stage of development	<i>DL Draft Legislation or Measures</i>	NL Notified Legislation	<b>AL Adopted Legislation</b>	No information available
Regulatory Status Key	M Mandatory	GP Good Practice	O Options for authorities to specify	A Can be amended locally by agreement

## ANNEX 8 – FARM MEASURES – REGISTERS AND TRAINING

	Member State	National /regional Register		Registration / Notification date (time period before cultivation or fixed date)		Public Access to register		Compulsory Training		General License of grower		Case by case approval for each field cultivation		3 <sup>rd</sup> party rights to consultation (e.g. neighbours consent required)	
1	Austria:														
	Lower Austria	Yes	M	Not specified		Yes	M	–		–		Yes	M	–	
	Vienna	Yes	M	3 months	M	Yes	M	–		–		Yes	M	–	
	Burgenland	Yes	M	3 months	M	Yes	M	–		–		Yes	M	–	
	Salzburg	Yes	M	not specified		possible		–		–		Yes	M	–	
	Carinthia	Yes	M	3 months		Yes	M	No but GMO grower must declare appropriate knowledge		–		Yes	M	–	
	Tyrol	Yes	M	3 months	M	Yes	M	–		–		notification	M	–	
	Austria:														
	Upper Austria	Yes	M	6 months	M	Yes	M	–		–		notification	M	Yes	M
	Styria	Yes	M	not specified	M	Yes	M	–		–		Yes	M	Yes: neighbours and Environment Counsellor	M
	Austria:														
	Vorarlberg	No details		No details		No details		No details		No details		No details		No details	
2	Belgium:														
	Wallonia	No details		No details		No details		No details		No details		No details	M	No details	M
	Flanders	No details		No details		No details		No details		No details		No details	M	No details	M

	Member State	National /regional Register		Registration / Notification date (time period before cultivation or fixed date)		Public Access to register		Compulsory Training		General License of grower		Case by case approval for each field cultivation		3 <sup>rd</sup> party rights to consultation (e.g. neighbours consent required)	
3	Cyprus	No details		No details		No details		No details		No details		No details		No details	
4	Czech Republic:	2005 rules	Yes	M	by 15 May	M	No – only neighbours	M	–	–	–	–	–	–	
		from 2006 on	Yes	M	by 1 March	M	Under discussion		–	–	–	–	–	–	
5	Denmark	Yes	M	21 April	M	Yes	M	Yes for all handlers	M	Yes	M	–	–	–	
6	Estonia	Yes	M	No details		Yes	M	No details	M	No details	M	No details		No details	
7	Finland	No details		No details		No details		No details		No details		No details		No details	
8	France	No details		No details		No details		No details		No details		No details		No details	
9	Germany	Yes	M	9–3 months	M	Yes	M	No, but GMO grower must be able to proof appropriate knowledge and skills	M	–		–		–	
10	Greece	No details		No details		No details		No details		No details		No details		No details	
11	Hungary	Yes	M	120 days	M	No details		Yes, GMO grower must submit certificates	M	Yes		Yes, subject to a fee	M	Yes, consent of neighbours within isolation distances required	
12	Ireland	No details		No details		No details		No details		No details		No details		No details	
13	Italy: Regions Self Governing Provinces	Yes	M	Regional co-existence plans: No details		Regional co-existence plans: No details		No details		No details		No details		No details	
14	Latvia	Yes		4 months		Yes		Yes		No details		Yes		No details	
15	Lithuania	No		Declaration at the same time as declarations for	M	No		Yes	M	No		No		No	

	Member State	National /regional Register		Registration / Notification date (time period before cultivation or fixed date)		Public Access to register		Compulsory Training		General License of grower		Case by case approval for each field cultivation		3 <sup>rd</sup> party rights to consultation (e.g. neighbours consent required)	
				<i>direct payments</i>											
15	Lithuania	No details		No details		No details		No details		No details		No details		No details	
16	Luxembourg	Yes	M	2 months	M	Yes	M	–		–		–		–	
17	Malta	No details		No details		No details		No details		No details		No details		No details	
18	Netherlands	Yes	GP	1 February	GP	No details		Yes	GP	–		–		–	
19	Poland	Yes	M	1 month	M	Yes	M	No		–		–		–	
<b>20</b>	<b>Portugal</b>	<b>Yes</b>	<b>M</b>	<b>20 days</b>	<b>M</b>	<b>Yes</b>	<b>M</b>	<b>Yes</b>	<b>M</b>	–		–		–	
21	Slovak Republic	Yes	M	15 days	M	Yes	M	Yes	M	Yes	GP	Yes	M	Yes	A
22	Slovenia	No details		No details		No details		No details		No details		No details		No details	
23	Spain	Yes		No details		No details		Yes		–		–		–	
24	Sweden	Yes		Not yet decided	M	Not decided		Not yet decided		–		–		–	
25	United Kingdom: England	No details		No details		No details		No details		No details		No details		No details	

## ANNEX 9 – FARM MEASURES – NATIONAL REGISTER/LICENCE/AUTHORISATION REQUIREMENTS FOR GM CROP GROWERS

This table lists the type of information which has to be provided by GM crop growers to national or regional authorities.

	Member State	Parcel ID	Proof of ownership/entitlement to use land	Landowners consent	Details of adjacent land and cropping	Size and location	Identification of GMO	Proof of GMO approval and conditions	Details of growing <sup>1</sup>	Details of precautionary measures	Details of possible environmental effects
<b>1</b>	<b>Austria:</b>										
	<b>Lower Austria</b>	Yes	Yes	Yes	–	Yes	Yes	–	Yes	–	–
	<b>Vienna</b>	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	Yes	–
	<b>Burgenland</b>	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	Yes	–
	<b>Salzburg</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	<b>Carinthia</b>	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	Yes	Yes <sup>2</sup>
	<b>Tyrol</b>	Yes	Yes	Yes	–	Yes	Yes	–	Yes	Yes	–
	Austria: Upper Austria	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	Yes	Yes <sup>3</sup>
	Styria	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–
	Austria: Vorarlberg	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
<b>2</b>	Belgium: <i>Wallonia</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
	<i>Flanders</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>3</b>	Cyprus	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
<b>4</b>	<b>Czech Republic</b>	Yes	–	–	–	Yes	Yes	–	<b>in the frame of record keeping on the farm</b>	–	–

<sup>1</sup> For instance, intended purpose, schedule of application, method of application number of GMOs methods of disposal or destruction of the GMOs and secondary growth

<sup>2</sup> If the boundaries of the land parcel are within an area protected under nature conservation law, within an area of protected natural monument, in Alpine region, in region of glaciers, on march and swampland, reed and reed bed stands and lowland riparian and fenwood forest, in an area with agreed management measures or within a 500 m radius of any of these areas then supplementary proof is required that no harm will be done.

<sup>3</sup> Special permit required for certain nature protection areas

	Member State	Parcel ID	Proof of ownership/entitlement to use land	Landowners consent	Details of adjacent land and cropping	Size and location	Identification of GMO	Proof of GMO approval and conditions	Details of growing <sup>1</sup>	Details of precautionary measures	Details of possible environmental effects
5	<b>Denmark</b>	<b>Yes</b>	–	–	–	<b>Yes</b>	<b>Yes</b>	–	–	–	–
6	<i>Estonia</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
7	<i>Finland</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
8	France	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
9	<b>Germany</b>	<b>Yes</b>	–	–	–	<b>Yes</b>	<b>Yes</b>	–	–	–	–
10	Greece	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
11	Hungary	Yes	–	Yes	Yes	Yes	Yes	–	–	–	Factors that may influence pollen spread
12	Ireland	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>	<b>No details</b>
14	<i>Latvia</i>	–	<i>Yes</i>	<i>Yes</i>	–	<i>Yes</i>	<i>Yes</i>	–	–	–	–
15	<i>Lithuania</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
16	Luxembourg	Yes	Yes	Yes	–	–	Yes	–	–	–	–
17	Malta	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
18	<i>Netherlands</i>	<i>Yes</i>	–	–	–	<i>Yes</i>	–	–	–	–	–
19	<i>Poland</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
20	<b>Portugal</b>	<b>Yes</b>	–	–	–	<b>Yes</b>	<b>Yes</b>	–	–	<b>Yes</b>	–
21	<i>Slovak Republic</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>	–	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
22	Slovenia	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
23	<i>Spain</i>	<i>Yes</i>	<i>Yes</i>	–	–	<i>Yes</i>	<i>Yes</i>	–	–	<i>Yes</i>	–
24	<i>Sweden</i>	<i>No details</i>	–	–	–	<i>Yes</i>	<i>Yes</i>	–	<i>Date of sowing / planting</i>	–	–
25	United Kingdom: England	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details

**ANNEX 10 – FARM MEASURES – DUTY TO INFORM**

	Member State	Duty of grower to inform neighbours		Duty of grower to inform landowner		Duty of grower to inform purchaser if land is sold		Duty of grower to publish information		Duty of non-GMO users to report adventitious presence		Record keeping
1	Austria:											<b>No details</b>
	Lower Austria	Yes	M	Yes		–		–		–		
	Vienna	Yes	M	Yes		–		–		–		
	Burgenland	Yes	M	Yes		–		Yes	M	Yes	M	
	Salzburg	–	–	Yes		–		–		–	–	
	Carinthia	Yes	M	Yes		–		Yes	M	Yes	M	
	Tyrol	Yes	M	Yes		–		–		Yes	M	
	Austria:											
	Upper Austria	Yes	M	Yes		–		–		–		
	Styria	Yes	M	Yes		–		–		–		
	Austria:	No details								–		No details
	Vorarlberg											
2	Belgium:											
	Wallonia	No details	M	No details		No details		No details		No details		No details
	Flanders	No details	M	No details		No details		No details		No details		No details
3	Cyprus	No details		No details		No details		No details		No details		No details
4	Czech Republic	–		–		–		–		–		<b>No details</b>
5	Denmark	Yes within crop specific distances (maize 300 m, seed beet 3 km, beet 75 m, potatoes nearest neighbours)	M	–		Yes	M	–		–		<b>5 years</b>
6	Estonia	Yes	M	No details		No details		No details		No details		No details
7	Finland	No details		No details		No details		No details		No details		No details
8	France	No details		No details		No details		No details		No details		No details
9	Germany	–		–		–		–		–		<b>No details</b>
10	Greece	No details		No details		No details		No details		No details		No details
11	Hungary	Yes	M	Yes	M	No details		No details		No details		5 years

	Member State	Duty of grower to inform neighbours		Duty of grower to inform landowner		Duty of grower to inform purchaser if land is sold		Duty of grower to publish information		Duty of non-GMO users to report adventitious presence		Record keeping	
12	Ireland	No details		No details		No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>Yes</b>	
14	Latvia	Yes		Yes		–		–		–		6 years	
15	<i>Lithuania</i>	<i>Yes</i>	<i>M</i>	<i>No</i>		<i>No</i>		<i>No</i>		<i>No</i>		<i>Yes</i>	<i>M</i>
16	Luxembourg	–		Yes	<i>M</i>	–		–		–		–	
17	Malta	No details		No details		No details		No details		No details		No details	
18	<i>Netherlands</i>	<i>Yes</i>	<i>GP</i>	–		–		–		–		<i>Yes</i>	<i>GP</i>
19	<i>Poland</i>	<i>Yes</i>	<i>M</i>	<i>Yes</i>	<i>M</i>	<i>Yes</i>	<i>M</i>	–		–		<i>Yes</i>	<i>M</i>
20	<b>Portugal</b>	<b>Yes</b>	<b>M</b>	–		–		–		–		<b>Yes</b>	<b>M</b>
21	<i>Slovak Republic</i>	<i>Yes</i>	<i>M</i>	–		–		<i>Yes</i>	<i>M</i>	–		<i>5 years</i>	<i>M</i>
22	Slovenia	No details		No details		No details		No details		No details			
23	<i>Spain</i>	<i>Yes</i>	<i>M</i>	–		–		–		–		<i>5 years</i>	
24	<i>Sweden</i>	<i>Yes</i>	<i>M</i>	–		–		–		–		–	
25	United Kingdom: England	Yes		No details		No details		No details		No details			

## ANNEX 11 – TECHNICAL SEGREGATION MEASURES I

Where Member States listed technical segregation measures as optional without having fixed mandatory good farming practices, measures mentioned are marked as O for options.

	Member State	Isolation distances to non-GM crops of the same species (or related)		Barriers / pollen traps		Buffer Zones		Use of hybrids/sterility with reduced outcrossing potential		Production planning		Seed handling and/or storage	
1	<b>Austria:</b>												
	Lower Austria	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
	Vienna	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
	Burgenland	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
	Salzburg	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
	Carinthia	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
	Tyrol	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O
Austria:													
Upper Austria	No details		No details		No details		No details		No details		No details		
Styria	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	Yes	O	
Austria:													
Vorarlberg	No details		No details		No details		No details		No details		No details		
2	<i>Belgium:</i>												
Wallonia	No details		No details		No details		No details		No details		No details		
Flanders	No details		No details		No details		No details		No details		No details		
3	Cyprus	No details		No details		No details		No details		No details		No details	
4	<b>Czech Republic<sup>1</sup></b>	<b>Yes</b>	<b>M</b>	–	–	<b>Yes, could substitute or reduce isolation distance in maize</b>	<b>O</b>	–		–		–	
5	<b>Denmark</b>	<b>Yes</b>	<b>M/A</b>	–	–	–	–	–	–	–	–	<b>Yes</b>	<b>M</b>
6	<i>Estonia</i>	<i>Yes</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	

<sup>1</sup> In 2005 only for maize, after 2006 crop specific rules covering several crops.

	Member State	Isolation distances to non-GM crops of the same species (or related)		Barriers / pollen traps		Buffer Zones		Use of hybrids/sterility with reduced outcrossing potential		Production planning		Seed handling and/or storage	
7	Finland	No details		No details		No details		No details		No details		No details	
8	France	No details		No details		No details		No details		No details		No details	
9	Germany	Yes	O	Yes	O	–		–		–		Yes	M
10	Greece	No details		No details		No details		No details		No details		No details	
11	Hungary	Yes	M	No details		No details		No details		No details		No details	
12	Ireland	No details		No details		No details		No details		No details		No details	
13	Italy	No details		No details		No details		No details		No details		No details	
14	Latvia	Yes		–		–		–		–		Yes	
15	Lithuania	Yes	M	No		Yes	M	No		No		Yes	M
16	Luxembourg	Yes, also isolation distances to all organic crops required irrespective of outcrossing potential and distances to protected areas	M	–		–		–		–		–	
17	Malta	No details		No details		No details		No details		No details		No details	
18	Netherlands	Yes	M/A	Yes or detassle maize (maize only)	O	Yes (maize only)	O	–	O	Yes	O	Yes	M/GP
19	Poland	Yes	M	Yes	GP	Yes	GP	–		Yes	M	Yes	M
20	Portugal	Yes	M/A	Yes	M/A	Yes	M/A	–	–	Yes	M/A	Yes	M/A
21	Slovak Republic	Yes	M/O	Yes	O	Yes	O	–		Yes	O	Yes	M/O
22	Slovenia	No details		No details		No details		No details		No details		No details	
23	Spain	Yes	M	Yes	GP	Yes 4 rows of conventional maize	M	Use only certified seed		Yes		Yes	GP
24	Sweden	Yes	M	–		–		–		–		Yes	
25	United Kingdom: England	Yes		No details		No details		No details		No details		No details	

Notes:

Isolation distances: Use of a set distance between the GM crop and those with non-GM crops of the same species or genus, or protected areas  
Pollen barrier/traps: Use of non-GM crop or other method of reducing the movement of pollen from the GM crop

Buffer Zones: Method of controlling the spread of GM material by planting and harvesting non-GM crop as GM  
Hybrid varieties: Use of varieties with reduced pollen production or sterile male varieties  
Production planning: Planning production with different flower or harvesting periods  
Seed handling: Careful handling of seed, cleaning of drills, sharing of equipment only if same production system,  
Cultivation and tillage: Optimum sowing times and appropriate tillage during and after harvest

## ANNEX 12 – TECHNICAL SEGREGATION MEASURES II

	Member State	Segregation in transport and handling (e.g. cleaning of machinery)		Cultivation intervals		Control of volunteers		Separate field and margin harvesting	
1	<b>Austria: Vienna</b>	<b>Yes</b>	<b>O</b>	–		–		–	
2	<i>Belgium: Wallonia Flanders</i>	<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>	
3	Cyprus	No details		No details		No details		No details	
4	Czech Republic	–		–		–		–	
5	<b>Denmark</b>	<b>Yes</b>	<b>M</b>	<b>Yes</b>	<b>M</b>	<b>Yes</b>	<b>M</b>	–	
6	<i>Estonia</i>	<i>No details</i>		<i>Yes</i>		<i>No details</i>		<i>No details</i>	
7	<i>Finland</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
8	France	No details		No details		No details		No details	
9	<b>Germany</b>	<b>Yes</b>	<b>M</b>	<b>No details</b>		<b>Yes</b>	<b>O</b>	<b>No details</b>	
10	Greece	No details		No details		No details		No details	
11	Hungary	No details		No details		No details		No details	
12	Ireland	No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
14	<i>Latvia</i>	<i>Yes</i>		–		<i>Yes</i>		–	
15	<i>Lithuania</i>	<i>Yes</i>	<i>M</i>	<i>Yes</i>	<i>M</i>	<i>No</i>		<i>No</i>	
16	Luxembourg	No details		No details		No details		No details	
17	Malta	No details		No details		No details		No details	
18	<i>Netherlands</i>	<i>Yes</i>	<i>GP</i>	–		<i>Yes</i>	<i>GP</i>	<i>For maize only</i>	<i>O</i>
19	<i>Poland</i>	<i>Yes</i>	<i>M</i>	–		<i>Yes</i>	<i>M</i>	–	
20	<b>Portugal</b>	<b>Yes</b>	<b>M</b>	–		–		<b>Yes</b>	<b>M</b>
21	<i>Slovak Republic</i>	<i>Yes</i>	<i>M</i>	–		<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>M</i>
22	Slovenia	No details		No details		No details		No details	
23	<i>Spain</i>	<i>– (maize only)</i>		<i>– (maize only)</i>		<i>– (maize only)</i>		<i>– (maize only)</i>	
24	<i>Sweden</i>	<i>Yes</i>	<i>M</i>	<i>– (maize and potatoes only)</i>		<i>– (maize and potatoes only)</i>		–	
25	United Kingdom All regions	No details		No details		No details		No details	

### ANNEX 13 – CROP SPECIFIC SEGREGATION MEASURES: OILSEED RAPE

	Member State	Separation Distance conventional		Separation distance organic		Separation distance seed production		Cultivation interval		Volunteer management	
1	<b>Austria: all provinces</b>	No details		No details		No details		No details		No details	
2	<i>Belgium: Wallonia Flanders</i>	<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>	
3	Cyprus	No details		No details		No details		No details		No details	
4	<b>Czech Republic</b>	No details		No details		No details		No details		No details	
5	<b>Denmark</b>	No details		No details		No details		No details		No details	
6	<i>Estonia</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
7	<i>Finland</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
8	France	No details		No details		No details		No details		No details	
9	<b>Germany</b>	No details		No details		No details		No details		No details	
10	Greece	No details		No details		No details		No details		No details	
11	Hungary	No details		No details		No details		No details		No details	
12	Ireland	No details		No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	No details		No details		No details		No details		No details	
14	<i>Latvia</i>	<i>4000 m</i>		<i>6000 m</i>		<i>4000 m</i>		<i>3 years (5 years for seed production)</i>		<i>General control</i>	
15	<i>Lithuania</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
16	Luxembourg	3000 m	M	3000 m	M	3000 m	M	–		–	
17	Malta	No details		No details		No details		No details		No details	
18	<i>Netherlands</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
19	<i>Poland</i>	<i>500 m</i>	<i>M</i>	<i>1000 m</i>	<i>M</i>	–		<i>6 years</i>		<i>Monitor for 2 years</i>	<i>M</i>
20	<b>Portugal</b>	No details		No details		No details		No details		No details	
21	<i>Slovak Republic</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Monitor for 2 years</i>	<i>M</i>
22	Slovenia	No details		No details		No details		No details		No details	

	Member State	Separation Distance conventional		Separation distance organic		Separation distance seed production		Cultivation interval		Volunteer management	
23	Spain	No details		No details		No details		No details		No details	
24	Sweden	No details		No details		No details		No details		No details	
25	United Kingdom: All regions	No details		No details		No details		No details		No details	

## ANNEX 14 – CROP SPECIFIC SEGREGATION MEASURES: MAIZE

	Member State	Separation distance – conventional		Separation distance – organic		Separation distance – seed production		Cultivation interval		Volunteer management	
1	<b>Austria: all provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
2	<i>Belgium: Wallonia Flanders</i>	<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>	
3	Cyprus	No details		No details		No details		No details		No details	
4	<b>Czech Republic 2005 only  from 2006 on</b>	<b>100 m or 50 m + 6 rows  70 m or substitution of 2 m isolation distance per row of 0.7 m</b>	<b>M</b>	<b>600 m or 300 m + 6 rows  200 m, maximal substitution of 100 m by rows</b>	<b>M</b>	– –		– –		– –	
5	<b>Denmark</b>	<b>200 m</b>	<b>M</b>	<b>200 m</b>	<b>M</b>	–	–	–	–	–	–
6	<i>Estonia</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
7	<i>Finland</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
8	France	No details		No details		No details		No details		No details	
9	<b>Germany</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
10	Greece	No details		No details		No details		No details		No details	
11	Hungary	400 – max. 800 m		400 – max. 800 m		No details		No details		No details	
12	Ireland	No details		No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
14	Latvia	200 m		400 m		–		–		General control	
15	Lithuania	200 m		200 m		200 m		2 years	M	No	
16	Luxembourg	800 m	M	800 m	M	800 m	M	–		–	
17	Malta	No details		No details		No details		No details		No details	
18	Netherlands	25m	M	250 m (to 'GM-free' production including organic)	M	250 m	M	–		–	

	Member State	Separation distance – conventional		Separation distance – organic		Separation distance – seed production		Cultivation interval		Volunteer management	
19	Poland	200 m	M	300 m	M	–		1 year		Monitor for 2 years	
20	Portugal	200 m	M/A	300 m	M/A	–		–		–	
21	Slovak Republic	Yes	O	Yes	O	Yes	O	Yes	O	Monitor for 2 years	M
22	Slovenia	No details		No details		No details		No details		No details	
23	Spain	50 m	M	50 m	M	300 m	M	–		–	
24	Sweden	For maize varieties with 1 gene construct: 25 m for grain or sweet maize; 15 m for forage maize For other maize varieties: 50 m for grain or sweet maize; 30 m for forage maize		Identical		Identical		–		–	
25	United Kingdom: England	80 m	M	No details		No details		No details		No details	

**ANNEX 15 – CROP SPECIFIC SEGREGATION MEASURES: SUGAR BEET**

	Member State	Separation distance: conventional		Separation distance: organic		Separation distance: seed production		Cultivation interval		Bolter management	
1	<b>Austria: all provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
2	<i>Belgium: Wallonia Flanders</i>	<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>		<i>No details No details</i>	
3	Cyprus	No details		No details		No details		No details		No details	
4	<b>Czech Republic</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
5	<b>Denmark</b>	<b>50 m</b>	<b>M</b>	<b>50 m</b>	<b>M</b>	<b>2000 m</b>	<b>M</b>	<b>3 years (8 years for seed production)</b>	<b>M</b>	<b>Control bolters before flowering</b>	<b>M</b>
6	<i>Estonia</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
7	<i>Finland</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
8	France	No details		No details		No details		No details		No details	
9	<b>Germany</b>	<b>No details</b>	<b>GP</b>	<b>No details</b>	<b>GP</b>	<b>No details</b>	<b>GP</b>	<b>No details</b>	<b>GP</b>	<b>No details</b>	<b>GP</b>
10	Greece	No details		No details		No details		No details		No details	
11	Hungary	No details		No details		No details		No details		No details	
12	Ireland	No details		No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
14	<i>Latvia</i>	<i>100 m</i>		<i>100 m</i>		<i>300 m</i>		<i>3 years (6 years for seed production)</i>		–	
15	<i>Lithuania</i>	<i>50 m</i>	<i>M</i>	<i>50 m</i>	<i>M</i>	<i>No details</i>		<i>4 years</i>	<i>M</i>	<i>No details</i>	
16	Luxembourg	2000 m	M	2000 m	M	2000 m	M	–		–	
17	Malta	No details		No details		No details		No details		No details	
18	<i>Netherlands</i>	<i>1.5m</i>	<i>M</i>	<i>3m (to ‘GM-free’ production including organic)</i>	<i>M</i>	–	<i>M</i>	–		<i>Prevent bolters</i>	<i>GP</i>
19	<i>Poland</i>	<i>100 m</i>	<i>M</i>	<i>100 m</i>	<i>M</i>	<i>2000 m</i>	<i>M</i>	<i>4 years (8 years for seed production)</i>		<i>Monitor for 2 years</i>	<i>M</i>
20	<b>Portugal</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
21	<i>Slovak Republic</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Yes</i>	<i>O</i>	<i>Monitor for 2 years</i>	<i>M</i>
22	Slovenia	No details		No details		No details		No details		No details	
23	<i>Spain</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
24	<i>Sweden</i>	<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>		<i>No details</i>	
25	United Kingdom: All regions	No details		No details		No details		No details		No details	

## ANNEX 16 – CROP SPECIFIC SEGREGATION MEASURES: POTATOES

	Member State	Separation distance: conventional		Separation distance: organic		Separation distance: seed production		Cultivation interval		Volunteer management	
1	<b>Austria: all provinces</b>	No details		No details		No details		No details		No details	
2	<i>Belgium: Wallonia Flanders</i>	No details No details		No details No details		No details No details		No details No details		No details No details	
3	Cyprus	No details		No details		No details		No details		No details	
4	<b>Czech Republic</b>	<b>3 m between rows, 10 m at the vertical direction to the rows (where the machine rotates)</b>		<b>20 m</b>		–		–		–	
5	<b>Denmark</b>	<b>20 m (if non-flowering or male sterile 2m)</b>	<b>M</b>	<b>20 m (if non-flowering or male sterile 2m)</b>	<b>M</b>	<b>20 m (if non-flowering or male sterile 15m)</b>	<b>M</b>	<b>3 years (8 years for seed production)</b>	<b>M</b>	<b>In field</b>	<b>M</b>
6	<i>Estonia</i>	No details		No details		No details		No details		No details	
7	<i>Finland</i>	No details		No details		No details		No details		No details	
8	France	No details		No details		No details		No details		No details	
9	<b>Germany</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
10	Greece	No details		No details		No details		No details		No details	
11	Hungary	No details		No details		No details		No details		No details	
12	Ireland	No details		No details		No details		No details		No details	
13	<b>Italy: Regions Self Governing Provinces</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
14	<i>Latvia</i>	20 m		100 m		20 m		3 years (4 years for seed production)		General control	
15	<i>Lithuania</i>	20 m	M	20 m	M	20 m	M	4 years	M	No details	
16	Luxembourg	No details		No details		No details		No details		No details	
17	Malta	No details		No details		No details		No details		No details	
18	<i>Netherlands</i>	3 m	M	10 m (to 'GM-free' production including organic)	M	10 m	M	–		Destroy volunteers	
19	<i>Poland</i>	50 m	M	50 m	M	–		4 years	M	–	
20	<b>Portugal</b>	<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>		<b>No details</b>	
21	<i>Slovak Republic</i>	Yes	O	Yes	O	Yes	O	Yes	O	Monitor for 2 years	
22	Slovenia	No details		No details		No details		No details		No details	
23	<i>Spain</i>	No details		No details		No details		No details		No details	
24	<i>Sweden</i>	2 m	M	2 m	M	2 m	M	–		–	
25	United Kingdom: All regions	No details		No details		No details		No details		No details	

## ANNEX 17 – LIABILITY PROVISIONS

	Member State	Procedure for compensation of damages	Condition of compensation	Amount of compensation
	<p><b>Austria:</b></p> <p><b>Federal law</b></p> <p><b>Lower Austria</b></p> <p><b>Burgenland, Carinthia, Tyrol</b></p> <p><b>Vienna, Salzburg, Styria</b></p>	<p>Competence for civil liability lies at federal level. There is a general obligation for all operators placing products on the market to segregate GM and non-GM products. Otherwise GMO growers are liable for any damage produced. The compensation is split between neighbours jointly responsible. Burden of proof lies with GMO growers.</p> <p>GM crop cultivation only with authorisation by local authority. In case of non-compliance with requirements included in authorisation the authority can ask for the previous situation to be restored or conditions in accordance with the authorisation to be ensured. Measures can be implemented by the provincial government in the case of immediate danger or if measures can not be implemented by GMO grower. Costs have to be covered by GMO grower. Insurance may be required if a suitable provider is available; otherwise authority can prescribe alternative cover.</p> <p>Cultivation of GMOs only following notification and non-prohibition by local authority. If necessary measures are not taken, the local authority can request implementation of necessary measures to remove plants.</p> <p>Burgenland and Carinthia only: Alternatively, the authority will implement measures at the expense of the GMO grower if outcrossing may occur.</p> <p>Burgenland only: Insurance may be required as a condition of licence.</p> <p>GM crop cultivation only with authorisation by local authority. In the case of cultivation without authorisation authority can request cessation of cultivation and reconstitution of previous condition..</p> <p>Salzburg and Styria only: In case of illegal GMO cultivation damage has to be compensated</p> <p>Styria: Co-existence measures have to prevent GMO contamination, which is defined as presence of GMOs above 0.1%</p>	<p>For the cultivation of GM crops the impact on neighbouring fields shall neither exceed the local standard nor have a negative impact on the neighbouring area.</p> <p>Not specified.</p> <p>Damage to the ground, non-harvested materials, cultivation and crops. Claims have to be made within 2 months.</p> <p>Burgenland only: The provincial government compensates damages to products from areas contaminated by GMOs, where the guilty party can not be found.</p> <p>Not specified.</p>	<p>Not specified.</p> <p>Not specified.</p> <p>Where damage occurs to non-harvested materials the value of the harvested crops has to be taken into account diminished by costs that would have occurred during cultivation.</p> <p>Burgenland and Carinthia only: where pre-harvested materials can still be used, their value has to be deducted. Additional damage that may have resulted, mainly for climatic reasons, has to be deducted. If the damage is so extensive that without re-cultivation no gain can be expected, costs for re-cultivation have to be covered.</p> <p>Not specified.</p>

	Member State	Procedure for compensation of damages	Condition of compensation	Amount of compensation
	Austria: Upper Austria  Styria	Cultivation of GMOs only following notification and non-prohibition by local authority. If necessary measures are not taken, the local authority can request implementation of necessary measures to remove plants. If fields of third parties are affected by safety measures, the costs will be covered by Upper Austria  GM crop cultivation only with authorisation by local authority. In case of cultivation without authorisation authority can request stop of cultivation and reconstitution of previous condition. In case of illegal GMO cultivation damages has to be compensated. Co-existence measures have to prevent GMO contamination, which is defined as presence of GMOs above 0.1%	Damage to the ground, non-harvested materials, cultivation and crops. Claims have to be made within 2 months.  Not specified.	Where damage occurs to non-harvested materials the value of the harvested crops has to be taken into account diminished by costs that would have occurred during cultivation.  Not specified.
	Austria: Vorarlberg	No details	No details	No details
2	Belgium: Wallonia Flanders	No details No details	No details No details	No details No details
3	Cyprus	No details	No details	No details
4	Czech Republic	<b>Liability based on civil code. GMO farmer is responsible for following the mandatory coexistence measures. If not so, he pays penalties. No compensation fund.</b>	No details	No details
5	Denmark	<b>GMO growers are liable for economic damages resulting from non-compliance with mandatory co-existence measures. Economic damage that may result even though all rules have been followed will be compensated by a fund, which is financed by a levy on GM crop cultivation (100 DKK per ha of GM crop). The fund is administered by the Danish Plant Directorate. The payment of compensation does not free the GM farmer from any civil or criminal liability under Danish law. The Danish authorities will take action to recover the compensation paid from the farmer from whose fields the GM material has spread in all cases where the rules have not been followed.</b>	<b>Compensation by the fund can be granted for economic damage resulting from presence of GMOs in non-GM crops on conditions that the GMO content exceeds 0.9%, GMOs of the same (or related) crop are cultivated in the same season within a distance of 150% of the mandatory isolation distance. Application for damages has to take place within 14 days.</b>	<b>Limited to the price difference between the market price of a crop that has to be labelled as GM material and conventional/organic crops. In case of organic farming compensation may be given for the conversion periods until the production can again be sold as organic. If the producer has a contract to deliver free of GM material at a certain price the basis of the compensation would be the difference between that price and the market price. Nevertheless, the compensation would be paid only for the part of the product where the GM material content is over 0.9 percent regardless of what proportion of maximum GM material content the producer and buyer have agreed. If compensation is granted, testing costs also have to be compensated.</b>
6	Estonia	No details	No details	No details
7	Finland	No details	No details	No details
8	France	No details	No details	No details

	Member State	Procedure for compensation of damages	Condition of compensation	Amount of compensation
9	Germany	GMO growers have obligation to prevent significant impairment of neighbouring production. Strict liability applies, i.e. compensation is not dependent on fault by GMO grower. Where several neighbours could be responsible for the damages, each of them is liable for the damage (joint and several liability). The claimant has to prove that one of the neighbouring GMO growers could have caused the damage. The onus lies then with the GMO grower to disprove the claim.	Condition of a significant impairment is fulfilled if the damaged product as a result of GMO presence can no longer be marketed, or has to be labelled as GM, or can not be labelled as organic or as “produced without genetic engineering” (a national label). In all cases, a threshold of 0.9% has to be exceeded.	Not specified.
10	Greece	No details	No details	No details
11	Hungary	General provisions of the Civil Code regarding liability for damages resulting from a hazardous activity apply.	No details	No details
12	Ireland	No details	No details	No details
13	Italy	Liability lies with party responsible for adopting segregation measures.	No details	No details
14	Latvia	No details	No details	No details
15	Lithuania	Civil liability for negative and proved consequences of damage of co-existence rules lies with GMO grower.	Not specified	Not specified
16	Luxembourg	GMO grower has to sign insurance contract covering all economic damage that the cultivation of GM seeds and plants could cause to neighbouring, non-GM, crops	Not specified	Not specified
17	Malta	No details	No details	No details
18	Netherlands	GMO growers have obligation to follow good farming practices. Fault based liability applies, i.e. limited to non-compliance with co-existence rules. In cases, where damage can be demonstrated but no fault established, a crop specific compensation fund covers the damage. The fund will be financed by the government, GMO and non-GMO growers as well as other stakeholders (financial details not decided yet).	Not specified	Direct economic damage plus additional testing costs Damage to the image of the product cannot be claimed.
19	Poland	Liability lies with GMO grower/user if identifiable. Collective responsibility for environmental damage.	No details	No details
20	Portugal	The Government will, through a specific law, create a compensation fund to cover any economic damage caused by accidental contamination from the cultivation of GM varieties, to be financed by producers and bodies involved in the respective production process.	No details	No details
21	Slovak Republic	Liability will be based on civil code. No compensation fund envisaged.	Not specified	Not specified
22	Slovenia	No details	No details	No details

	<b>Member State</b>	<b>Procedure for compensation of damages</b>	<b>Condition of compensation</b>	<b>Amount of compensation</b>
23	<i>Spain</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
24	<i>Sweden</i>	<i>Liability is based on present civil law. A commission to analyse the need for strict liability will start in Jan 2006.</i>	<i>A fund system will be analysed in the Commission referred to</i>	<i>No details</i>
25	U. Kingdom: All regions	No details	No details	No details

## ANNEX 18 – PENALTIES IN CASE OF NON-COMPLIANCE WITH CO-EXISTENCE RULES

	Member State	Penalties payable	Fines – administrative infringement	Fines – aggravating circumstances
<b>1</b>	<b>Austria:</b>			
	<b>Lower Austria</b>	<b>Yes</b>	<b>EUR 15 000</b>	<b>EUR 30 000</b>
	<b>Vienna</b>	<b>Yes</b>	<b>EUR 15 000</b>	<b>EUR 30 000</b>
	<b>Burgenland</b>	<b>Yes</b>	<b>EUR 5 000</b>	<b>EUR 10 000</b>
	<b>Salzburg</b>	<b>Yes</b>	<b>EUR 15 000</b>	<b>EUR 30 000</b>
	<b>Carinthia</b>	<b>Yes</b>	<b>EUR 3 630</b>	<b>EUR 7 260</b>
	<b>Tyrol</b>	<b>Yes</b>	<b>EUR 4 000 for GMO grower EUR 2 000 for landowner or neighbour</b>	<b>EUR 8 000</b>
	Austria:			
	Upper Austria	Yes	EUR 1 000–15 000	EUR 30 000
	Styria	Yes	Max. EUR 15 000	EUR 30 000
	Vorarlberg	No details	No details	No details
<b>2</b>	<i>Belgium:</i>			
	<i>Wallonia</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
	<i>Flanders</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>3</b>	Cyprus	No details	No details	No details
<b>4</b>	<b>Czech Republic</b>	<b>Yes</b>	<b>Up to CZK 500 000.00</b>	<b>No details</b>
<b>5</b>	<b>Denmark</b>	<b>Yes</b>	<b>Not defined</b>	<b>Not defined</b>
<b>6</b>	<i>Estonia</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>7</b>	<i>Finland</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>8</b>	France	No details	No details	No details
<b>9</b>	<b>Germany</b>	<b>None stated</b>		
<b>10</b>	Greece	No details	No details	No details
<b>11</b>	Hungary	No details	No details	No details
<b>12</b>	Ireland	No details	No details	No details
<b>13</b>	<b>Italy</b>	<b>Yes</b>	<b>EUR 5 000</b>	<b>EUR 50 000</b>
<b>14</b>	<i>Latvia</i>	<i>Yes</i>	<i>LVL 50 – 500</i>	<i>LVL 500 – 5000</i>
<b>15</b>	<i>Lithuania</i>	<i>Yes (currently only in a draft legal act)</i>	<i>Specific legal act that is currently only a draft</i>	<i>Particular legal act on that is currently only a draft</i>
<b>16</b>	Luxembourg	Yes	EUR 251	EUR 750 000
<b>17</b>	Malta	No details	No details	No details
<b>18</b>	<i>Netherlands</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>19</b>	<i>Poland</i>	<i>Yes</i>	<i>Fines e.g. Failing to register GMO crop: PLZ 2000/ha</i>	<i>Fine or up to 3 years imprisonment</i>
<b>20</b>	<b>Portugal</b>	<b>Yes</b>	<b>EUR 250 for individuals EUR 2 500 for legal entity</b>	<b>EUR 3 700 for individuals EUR 44 800 for legal entity</b>
<b>21</b>	<i>Slovak Republic</i>	<i>Yes</i>	<i>EUR 250 for individuals EUR 5000 for legal entity</i>	<i>EUR 250 for individuals EUR 25 000 for legal entity</i>
<b>22</b>	Slovenia	No details	No details	No details
<b>23</b>	<i>Spain</i>	<i>Yes</i>	<i>No details</i>	<i>No details</i>
<b>24</b>	<i>Sweden</i>	<i>No details</i>	<i>No details</i>	<i>No details</i>
<b>25</b>	United Kingdom: All regions	No details	No details	No details

## ANNEX 19 – ENFORCEMENT

	Member State	Enforcement	Access by Authority			Costs		Action to be taken	Responsibility for action (Numbering indicates sequence of responsibility)
			Field	Records	Samples	Monitoring	Compensation claim		
1	<b>Austria:</b>								
	<b>Lower Austria</b>	<b>Provincial government</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>			<b>Restore land; establish lawful condition or establish best possible condition</b> <b>Restore land; establish the condition laid down by ruling or establish best possible condition</b> <b>Restore land; or establish lawful condition or establish best possible condition</b> <b>Measures necessary to prevention or removal</b> <b>Defensive and corrective measures</b>	<b>All Länder:</b> <b>1. land user</b> <b>2. landowner if permission was given to grow GMOs</b> <b>3. provincial government</b>
	<b>Vienna</b>	<b>Municipal Council</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>				
	<b>Burgenland</b>	<b>Provincial government</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>				
	<b>Salzburg</b>	<b>District administrative authority</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>				
	<b>Carinthia</b>	<b>Provincial government</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>				
<b>Tyrol</b>	<b>Provincial government</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>					
	Austria:								
	Upper Austria	District administrative authority	Yes	Yes	Yes			Safe removal of seed and crop if GMO >0.1%	1. land user 2. land owner 3. authority
	Styria	Provincial government	Yes	Yes	Yes			Discontinue further implementation and restore to previous state	1. land user 2. land owner if permission was given to grow GMOs 3. authority
	Vorarlberg	No details							
2	<i>Belgium:</i>								
	<i>Wallonia</i>	<i>No details</i>						<i>No details</i>	<i>No details</i>
	<i>Flanders</i>	<i>Regional government</i>						<i>No details</i>	<i>No details</i>
3	Cyprus	No details							
4	<b>Czech Republic</b>	<b>Agriculture Agencies</b>	-	-	-			-	-

5	Denmark	Danish Plant Directorate	Yes	Yes	Yes	Authority	Claimant but reimbursed if successful	Bans and orders deemed necessary to comply with the Act	1. GMO user 2. Danish authority
6	Estonia	No details							
7	Finland	No details							
8	France	No details							
9	Germany	Provincial governments	–	–	–		–	Not specified	Not specified
10	Greece	No details						No details	No details
11	Hungary	No details						No details	No details
12	Ireland	No details						No details	No details
13	Italy	Regional	–	–	–			Not specified	Not specified
14	Latvia	State Plant Protection Service	Yes	Yes	Yes				GMO grower
15	Lithuania	Ministry of Agriculture and Ministry of Environment	Yes	Yes	Yes			Not specified	No details
16	Luxembourg	Agricultural Technical Services Administration	Yes	Yes	Yes			Not specified	Not specified
17	Malta	No details							
18	Netherlands	Product Board						Not specified	Not specified
19	Poland	Plant and Seeds Inspectorate						Not specified	Not specified
20	Portugal	Directorate General for Plant Protection (DGPC)	Yes	Yes	Yes	Authority		Not specified	Not specified
21	Slovak Republic	Ministry of Agriculture Central Control and Testing Inst.	Yes	Yes	Yes	–	–	No details	1. GMO user 2. Slovak authority
22	Slovenia	No details						No details	No details
23	Spain	Autonomous regional authorities reporting to Ministry of Agriculture	Yes	Yes	Yes			Not specified	Not specified
24	Sweden	No details						No details	No details
25	United Kingdom: All regions	No details						No details	No details

## ANNEX 20 – MONITORING

	Member State	Monitor Authority
1	<b>Austria:</b>	
	<b>Lower Austria</b>	<b>Provincial Government</b>
	<b>Vienna</b>	<b>Provincial Government</b>
	<b>Burgenland</b>	<b>Provincial Government</b>
	<b>Salzburg</b>	<b>Provincial Government</b>
	<b>Carinthia</b>	<b>Provincial Government</b>
	<b>Tyrol</b>	<b>Provincial Government</b>
	Austria: Upper Austria Styria	Provincial Government Provincial Government
	Vorarlberg	No details
2	<i>Belgium:</i>	
	<i>Wallonia</i>	<i>No details</i>
	<i>Flanders</i>	<i>Regional Government</i>
3	Cyprus	No details
4	<b>Czech Republic</b>	<b>Ministry of Agriculture (regional agriculture agencies)</b>
5	<b>Denmark</b>	<b>Danish Plant Directorate</b>
6	<i>Estonia</i>	<i>No details</i>
7	<i>Finland</i>	<i>No details</i>
8	France	No details
9	<b>Germany</b>	<b>Provincial Governments</b>
10	Greece	No details
11	Hungary	No details
12	Ireland	No details
13	<b>Italy</b>	<b>Committee for the Co-existence of Transgenic, Conventional and Organic Farming</b>

	<b>Member State</b>	<b>Monitor Authority</b>
14	<i>Latvia</i>	<i>State Plant Protection Service</i>
15	<i>Lithuania</i>	<i>State Plant Protection Service and State Seed and Grains Service under the Ministry of Agriculture of the Republic of Lithuania</i>
16	<b>Luxembourg</b>	<b>Agricultural Technical Services Administration</b>
17	Malta	No details
18	<i>Netherlands</i>	<i>Ministry of Agriculture</i>
19	<i>Poland</i>	<i>Ministry of Agriculture</i>
20	<b>Portugal</b>	<b>Directorate General for Plant Protection (DGPC) in cooperation with regional agricultural authorities</b>
21	<i>Slovak Republic</i>	<i>Ministry of Environment, Central Control and Testing Inst.</i>
22	Slovenia	No details
23	<i>Spain</i>	<i>Autonomous regional authorities reporting to Ministry of Agriculture</i>
24	<i>Sweden</i>	<i>National Board of Agriculture</i>
25	United Kingdom: All regions	No details

## ANNEX 21 – AREAS WHERE THE CULTIVATION OF GM CROPS IS RESTRICTED

	Member State	Restricted Areas
1	<b>Austria:</b> Lower Austria Vienna Burgenland Salzburg Carinthia Tyrol	– European Protected Areas (Viennese Nature Conservation Act 92/2001): cultivation of GMOs can only be authorised if the area is not negatively affected with respect to environmental protection European conservation areas; Nature conservation areas; National Parks; Natural monuments: GMOs may only be cultivated if wild animal and plant species and natural environments are not negatively affected or (in the case of European protected areas) protection aims are not affected. European conservation areas; European Hunting Conservation Areas: Cultivation of GMOs only if the protected area is not negatively affected (environmental impact assessment needed) nature reserves; European protected areas; national park; natural monument; alpine region; glaciers and their drainage; marsh and swampland; contractual nature conservation areas: GMOs may only be cultivated if wild animal and plant species and natural environments are not negatively affected or (in the case of European protected areas) protection aims are not affected. National Parks; Nature Conservation Areas; Special Protection areas; Near natural monument; Mountain pastures; Glaciers and their drainage; Lowland forests or wetlands; Nature conservation agreements; Natura 2000 areas Areas protected under nature conservation laws: GMOs may only be cultivated if wild animal and plant species and natural environments are not negatively affected.
	Austria: Upper Austria Styria	Cultivation depends on special permit in National Park Upper Austrian Kalkalpen, European conservation areas, and nature reserves. No cultivation possible in organic areas, closed seed production areas and areas, where outcrossing could occur as recognised in GMO authorisation consent. In or outside nature protection areas: GMOs may only be cultivated if wild animal and plant species and natural environments are not adversely affected.
	Vorarlberg	No details
2	<i>Belgium</i>	<i>No details</i>
3	Cyprus	No details
4	<b>Czech Republic</b>	–
5	<b>Denmark</b>	–
6	<i>Estonia</i>	<i>No details</i>
7	<i>Finland</i>	<i>No details</i>
8	France	No details
9	<b>Germany</b>	<b>Areas specified under the Federal Nature Conservation Act; Natura 2000</b>
10	Greece	No details
11	Hungary	Prohibition of GM crop cultivation in nature conservation areas, sensitive areas, and Natura 2000 areas.
12	Ireland	No details
13	<b>Italy:</b> <b>Regions</b> <b>Self Governing</b> <b>Provinces</b>	<b>No details</b>
14	<i>Latvia</i>	<i>European Protected Areas (Natura 2000)</i>
15	<i>Lithuania</i>	<i>Cultivation of GM crops is not allowed in protected areas and their protective zones</i>
16	Luxembourg	Prohibition of GM crop cultivation in protected area of Community and national interest and in national parks. Isolation distances to protected areas have to be respected. Separate Grand-Ducal Regulation may prohibit, for a given plant species, the cultivation of GM varieties, if, for the plant species in question, accidental proliferation of genetically modified seeds or plants among conventional crops cannot be avoided by other means or in areas that are particularly sensitive in terms of the natural environment.
17	Malta	–
18	<i>Netherlands</i>	–
19	<i>Poland</i>	<i>National parks</i>

	Member State	Restricted Areas
20	Portugal	Areas free from the cultivation of GM varieties will be subject to regulation through a joint order of the Minister for Agriculture, Rural Development and Fisheries and the Minister for the Environment, Land Management and Regional Development.
21	<i>Slovak Republic</i>	<i>Protected areas</i>
22	Slovenia	No details
23	<i>Spain</i>	–
24	<i>Sweden</i>	–
25	United Kingdom: All regions	No details