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**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**

{SEC(2006) 313}

## 1. INTRODUCTION

Coexistence refers to the ability of farmers to make a practical choice between conventional, organic and genetically modified (GM) crop production. It is also a precondition for consumer choice. The Commission firmly believes that consumers and producers should have a real choice with respect to the type of agricultural products and the type of production they prefer. National coexistence legislation should allow market forces to operate freely in compliance with Community legislation.

Since farming takes place in an open environment, the possibility of adventitious presence of GM crops in non-GM crops cannot be dismissed, and it can have economic implications where the two types of crops have different values on the market. This means there is a need for feasible and cost-effective coexistence measures, which should guarantee that GM and non-GM crop production can take place in compliance with the legal standards applicable at Community level.

Since only authorised genetically modified organisms (GMOs) can be cultivated in the EU, and the environmental and health aspects are already covered by Community legislation, in particular Directive 2001/18/EC on the deliberate release into the environment of genetically modified organisms<sup>1</sup> and Regulation (EC) No 1829/2003 on genetically modified food and feed<sup>2</sup>, the issues to be addressed in the context of coexistence concern only the *economic* aspects of the admixture of GM and non-GM crops, and the appropriate measures to prevent admixture.

Article 26a of Directive 2001/18/EC calls on Member States to take appropriate national measures on coexistence in order to avoid the unintended presence of GMOs in other products, without, however, establishing an obligation for Member States to take action. This Article has to be seen in conjunction with other provisions in Community legislation and the Treaty. In particular, according to Article 22 of Directive 2001/18/EC, Member States may generally not prohibit, restrict or impede the placing on the market of authorised GMOs.

On 23 July 2003 the Commission adopted Recommendation 2003/556/EC on guidelines for the development of national strategies and best practices to ensure the coexistence of genetically modified crops with conventional and organic farming<sup>3</sup>, which is intended to help Member States develop national legislative or other strategies for coexistence. It contains a list of general principles to be taken into account when developing national approaches, and a list of technical measures.

Appropriate measures for coexistence are conditioned by numerous factors that vary from one region to another, including climatic and soil conditions, the size and dispersion of fields, cropping patterns and crop rotations, etc. The subsidiarity-based approach to coexistence allows Member States to tailor coexistence measures to the needs of their local conditions.

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<sup>1</sup> OJ L 106, 17.4.2001, p. 1, amended by Regulation (EC) No 1829/2003 (OJ L 268, 18.10.2003, p. 1).

<sup>2</sup> OJ L 268, 18.10.2003, p. 1.

<sup>3</sup> OJ L 189, 29.7.2003, p. 36.

## **2. EXPERIENCE OF GM CROP CULTIVATION**

Commercial cultivation of GM crops in the EU has so far been limited to two events of GM maize (Bt176 and MON810).

In ES, cultivation of Bt-maize was 58 000 ha in 2004, which was equivalent to about 12% of the Spanish area under maize. In other Member States, GM maize cultivation is limited to a few hundred hectares. Therefore, the experience with the cultivation of GM crops in the EU remains very limited.

## **3. LEGISLATIVE APPROACHES IN THE MEMBER STATES**

This report is based on three main sources of information: adopted national legislation and draft national legislation notified to the Commission; information provided in reply to a questionnaire circulated to the national competent authorities; and information provided by national experts through the coordination network on coexistence (COEX-NET).

By the end of 2005, specific coexistence legislation had been adopted in four Member States (DE, DK, PT, and six of the Austrian Länder; see Annex). In the great majority of the other Member States, only draft coexistence measures had been developed. In some Member States coexistence legislation has been or is being developed at the regional level.

By the end of 2005, 20 items of draft legislation from seven Member States had been notified under Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations. In 10 of these cases the Commission considered that the notified measures could create obstacles to the free movement of goods; in four cases it raised no such objections. Two notifications have been withdrawn and four others were still pending at the end of 2005.

The dialogue between the Commission and the notifying authorities under the notification procedure has contributed to a substantial improvement of the proposed coexistence measures even though the Commission's comments have not always been completely implemented in the adopted legislation.

CZ notified provisional coexistence measures for GM maize cultivation for the year 2005 in the context of its rural development programme.

In addition to the above-mentioned coexistence measures, further actions have been taken by Member States and regional governments, which have an impact on GM crop cultivation. Upper Austria and Salzburg had recourse to Article 95(5) of the EC Treaty and notified to the Commission draft legislation which imposed a total ban on GM crops in those regions, thereby derogating from the harmonised rules laid down in Directive 2001/18/EC. Salzburg later withdrew its notification. The Commission rejected the notification by Upper Austria, arguing that the conditions set out under Article 95(5) were not satisfied. This decision was upheld in October 2005 by a ruling of the Court of First Instance<sup>4</sup>. In December 2005, Upper Austria and the Republic of Austria appealed to the European Court of Justice against the ruling.

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<sup>4</sup> Joined Cases T-366/03 and T-235/04, Judgment of 5.10.2005 - Land Oberösterreich and Austria v. Commission

SI made the participation of farmers in agri-environmental measures under its rural development programme for the programming period of 2004-2006 conditional on them refraining from the use of GMOs. The Commission informed the Slovenian authorities that such a restriction is not in line with Regulation (EC) No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations<sup>5</sup>, as the use of GMOs has no demonstrable disadvantage for the environment if they are applied within the conditions of their consent. The Slovenian authorities confirmed that the non-use of GMOs will no longer be a condition for support under the agri-environment scheme in conventional crop production.

Some measures adopted by the Member States and concerning GMOs have not been notified. Generally, national measures are not enforceable against individuals if they were adopted without the appropriate notification procedures according to the jurisprudence of the Court of Justice. Where such measures provide for a total ban of GM crops, they are in conflict with Community legislation and cannot be considered legitimate coexistence measures under Article 26a of Directive 2001/18/EC.

An Italian decree-law adopted in November 2004 and amended in January 2005 imposes a total ban on GM crops in Italy until coexistence measures are adopted by the Italian regions. Prior to the adoption of the national law, several Italian regions had established bans on the use of GMOs on their territories. In order to examine the Italian law with respect to its compliance with Directive 2001/18/EC the Commission requested further information from Italy. As a consequence of Italy's failure to respond, the Commission sent Italy a written warning in October 2005 for breach of Article 10 of the Treaty.

In February 2005, 20 regions from different Member States, which in many cases do not have the competence to legislate on coexistence, signed a charter in Florence expressing their opposition to the cultivation of GM crops on their territory. Since then, further regions have joined the network.

### **Overview of national coexistence measures**

The overview of the measures implemented or proposed by the Member States or regions is structured with respect to the general principles contained in Recommendation 2003/556/EC.

#### *Economic aspects of coexistence versus environmental and health aspects*

While most Member States make a clear distinction between the economic aspects of coexistence and the environmental and health aspects dealt with in the context of the GMO authorisation procedure, others have proposed to include specific provisions in national coexistence legislation on environmental protection. In particular, some Member States have proposed to prohibit or restrict GM crop cultivation in protected or ecologically sensitive regions. In these cases the Commission made it clear that national coexistence measures cannot introduce requirements to protect the environment which go beyond the provisions laid down in Community legislation.

#### *Transparency and stakeholder involvement*

Most Member States have had extensive consultations with a wide range of stakeholders, which indicates a transparent procedure in the development of coexistence measures.

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<sup>5</sup> OJ L 160, 26.6.1999, p. 80.

### *Science-based decisions*

Most Member States have reported the research activities, completed or planned, which they are using in developing coexistence measures.

### *Building on existing segregation methods/practices*

Given the limited practical experience with GM crops, few Member States appear to have built on existing methods or practices for GM crop production. Where reported, the rationale for specific coexistence measures was mainly based on techniques for certified seed production, which have been partly modified to take account of differences between seed production and crop production or, in other cases, have been taken over as coexistence measures.

Certain measures go beyond those generally used in existing agricultural segregation practices. Such measures include case-by-case farm-level approval or notification procedures for GM crop cultivation, which could lead to duplication of authorisation for the use of GM crops that have been authorised for cultivation under Community legislation.

### *Proportionality*

Commission Recommendation 2003/556/EC states that coexistence measures should not go beyond what is necessary in order to ensure that adventitious traces of GMOs stay below the labelling threshold laid down in Regulation (EC) No 1829/2003 and Directive 2001/18/EC in order to avoid any unnecessary burden for the operators concerned.

While some Member States have taken this advice into account, others have decided to propose or adopt measures that aim to reduce adventitious presence of GMOs below this level. In some cases, proposed measures, such as isolation distances between GM and non-GM fields, appear to entail greater efforts for GM crop growers than necessary, which raises questions about the proportionality of certain measures.

Some Member States have proposed different isolation requirements between fields with GM and non-GM crops, depending on whether the non-GM crops are produced conventionally or organically or if they are produced to non-GM standards, even though the same labelling thresholds for adventitious GMO presence apply in conventional and organic farming. Others have proposed or adopted identical segregation measures.

Given that the majority of Member States have not yet proposed technical field measures for coexistence, and that little practical experience is available, a full evaluation of such measures has not yet been possible.

While the Commission recognises the legitimate right to regulate the cultivation of GM crops in order to achieve coexistence, it stresses that any approach needs to be proportionate to the aim of achieving coexistence. The coexistence measures adopted or proposed by the Member States need to be monitored with respect to their feasibility and efficiency, and adapted on the basis of the future results of monitoring programmes.

### *Appropriate scale*

In line with the Commission Recommendation, most Member States have based their coexistence approaches on management measures that are applicable at the level of individual farms or in coordination between neighbouring farms. The Member States have made no specific proposals for regional measures.

PT and LU have made it possible to define regions where the cultivation of certain types of GMOs would not be allowed, if this is the only way that coexistence can be achieved.

#### *Specificity of the measures*

In the few cases where Member States have developed technical segregation measures, these measures are crop-specific. The crops covered include maize, oilseed rape, beet and potatoes.

In some cases, separate segregation measures have been developed in relation to seed production.

#### *Implementation of measures*

Member States have generally placed responsibility for implementing coexistence measures on the farmers who grow GM crops. This means that farmers engaged in non-GM crop production do not have to change established farming techniques following the introduction of GM crops.

In most cases, national draft legislation allows neighbouring farmers, on a voluntary basis, to decide amongst themselves not to segregate GM and non-GM production, which means that non-GM production would have to be labelled as GM. This is in line with the Commission recommendation that segregation measures should not be made mandatory if neighbours agree that segregation is not required.

All Member States have set up a national register of GM crop cultivation which is accessible to the public, although there are differences in the level of detail of the information on GM crop cultivation made publicly available. Most Member States also require GM crop growers to inform neighbouring farmers of their intention to grow GM crops.

No Member State has yet proposed cross-border co-operation with neighbouring countries to address coexistence in border areas.

#### *Policy instruments*

The majority of the Member States have opted for a legislative approach to coexistence. In ES, GM maize has been grown since 1998 under a non-binding code of good practice.

#### *Liability rules*

Economic damage that may result from GMO admixture in non-GM products normally falls within the scope of national civil liability laws. Due to the specific nature of such damage, some Member States have decided to develop specific legislation.

Some Member States are considering implementing a compensation scheme. In November 2005, the Commission approved, under EU State aid rules, the notification by DK of a compensation scheme for economic damage resulting from GMO admixture, which is financed by a levy on GM crop cultivation<sup>6</sup>.

Others encourage or require GM crop growers to obtain third party insurance. Currently, insurance cover for economic damage resulting from adventitious presence is not available in the EU. It should therefore not be made mandatory as the lack of a corresponding insurance market would make the cultivation of GM crops impossible.

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<sup>6</sup> State aid case N 568/2004.

In ES, commercial cultivation of GM maize has taken place under the general civil liability legislation, in the absence of specific rules for liability related to coexistence.

#### *Monitoring and evaluation*

Given the limited cultivation of GM crops in the EU, monitoring and evaluation programmes have not yet been put into practice in most Member States.

In ES, farmers frequently supply GM and non-GM feed production to the same market. This has led to limited incentives for farmers to segregate GM and non-GM maize production for feed use at the farm level. Where coexistence measures have been implemented few complaints have been reported concerning adverse economic implications resulting from the adventitious presence of GM maize in non-GM maize.

#### *Provision and exchange of information at European level*

By Decision 2005/463/EC<sup>7</sup> the Commission established a network group for the exchange and coordination of information concerning coexistence of genetically modified, conventional and organic crops (COEX-NET). At its first meeting, in September 2005, Member States welcomed this coordination activity, which allows them to gain an overview of best practices developed in other Member States, and pointed to the need for increased co-operation in the development of technical coexistence measures.

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

Numerous research projects have been and continue to be conducted at national level. These research efforts are complemented by actions under the Sixth Framework Programme of Community Research (FP6), as well as by direct research activities carried out by the Joint Research Centre of the Commission. The more recent research activities have focused increasingly on the economic aspects of coexistence.

### **Concluding observations**

Experience with GM crop cultivation in the Member States is still very limited and confined to certain regions of the Community, with the notable exception of ES. In most Member States, the regulatory framework for coexistence is still under development, although draft legislation has in many cases already been prepared. So far, actual cultivation of GM crops under the new coexistence legislation adopted by the first pioneer Member States (AT, DE, DK and PT) has been insignificant. Monitoring programmes still have to be set up and implemented in order to verify the effectiveness and economic feasibility of the measures taken.

All coexistence measures adopted or proposed by the Member States have certain central elements in common: They are designed to protect farmers of non-GM crops from the possible economic consequences of accidental admixture with GMOs. At the same time, GM crop cultivation is not prohibited. While differences in the stringency of the approaches can not be denied, Member States have generally made an effort to allow the different production types - conventional, organic and GM crop cultivation - to coexist within a region.

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<sup>7</sup> OJ L 164, 24.6.2005, p. 50.

The onus of implementing segregation measures between GM and non-GM crop production has generally been placed on GM crop growers.

There are important differences between the various national approaches. First of all, these concern the question of liability in the case of economic damage from adventitious presence of GMOs in other crops. Some Member States have not proposed specific legislation on this matter, which means that the general civil liability codes apply. Since civil liability lies in the competence of the Member States, it can be expected that there will be certain differences in the rules applying to coexistence, in the same way as there are differences in relation to other activities. Other Member States are proposing to establish specific liability provisions and/or compensation schemes.

There are also differences with respect to the level of segregation to be achieved. In some Member States coexistence measures are aimed at ensuring that Community labelling thresholds are not exceeded, which is in line with the Commission Recommendation. Others either make no clear reference as to which levels of GMO admixture are tolerated, or they set target levels which are below the Community labelling thresholds.

The introduction of GM crop production has not always been followed by mandatory rules or coexistence measures. In the Spanish case this has not been seen as necessary, as the market does not require the segregation of GM and non-GM maize for feed use.

While the process of setting up general legislative frameworks for coexistence is comparatively more advanced, crop-specific field measures are much less developed and, in most cases, are confined to a few crops.

This is due to the fact that the scientific knowledge base for coexistence measures is not developed to the same extent for the different crops. For maize, which is currently the only GM crop authorised for cultivation, a substantial amount of scientific knowledge and practical experience is available. It indicates that the segregation of GM and non-GM maize production can be achieved with technical measures that are applicable at the level of individual farms or in coordination between neighbouring farms.

However, the conditions under which European farmers work are very diverse, as regards farm and field sizes, production systems, crop rotations and cropping patterns, and also natural conditions. This variability may have an impact on the cost-effectiveness of the segregation measures, which therefore need to be adapted to the local conditions.

Given that the adoption of GM crops is at an early stage, and given the limited overall information on the feasibility and the cost-benefit ratio of practical coexistence measures, it remains imperative to maintain a maximum degree of flexibility for the Member States to develop specific solutions to achieve coexistence.

The national or regional approaches to coexistence have to be in full compliance with Community legislation, which rules out a general prohibition of GMOs in a region, as well as overly restrictive measures that go beyond the objective of ensuring coexistence, and which may make the cultivation of GM crops practically impossible. The Commission will take the necessary steps to ensure that Community legislation is respected in national or regional coexistence legislation.

The Spanish experience has shown that even in a Member State, where the same coexistence rules apply throughout the territory, the uptake of GM crops is unevenly distributed across the regions due to, for instance, differences in agricultural conditions or local preference of the operators concerned. An uneven adoption rate of GM crop cultivation across Member States and regions does, therefore, not necessarily imply a distortion of the market. At present, the



impact of differences in the approaches to coexistence on the internal market can not be sufficiently assessed.

The challenge for the Member States is to develop economically sustainable coexistence measures. In this regard, it will be necessary to adapt the technical rules for field measures in a flexible way according to the results of monitoring programmes. While the Commission acknowledges the need to tailor coexistence measures to the specific conditions prevailing at national or regional level, these measures have to be based on sound science taking into account the best available research results and field experience. Much of the research on coexistence has been conducted at national level, and is fragmented and not necessarily available to all regulatory authorities.

### **The way ahead**

On the basis of the above conclusions, the Commission sees a need for further experience to be gathered on the implementation of national coexistence measures. At the same time, the Commission sees a need for a more active cooperation with the Member States in order to ensure coexistence. The limited experience and the need to conclude the process of implementing national coexistence measures do not seem to justify the development of a dedicated harmonized legislative approach at the present time. However, before taking any decision, the consultative process with stakeholders should be completed. The conference on coexistence in Vienna, on 4-6 April 2006, will provide for such an occasion.

In the meanwhile, the Commission proposes that the following actions be taken:

- the Commission proposes to strengthen its efforts to make existing information available to all Member States and to support research activities that fill significant gaps in our knowledge on coexistence. The positive co-operation with the Member States already established in the context of COEX-NET provides a suitable basis for further activities in this regard;
- the Commission proposes to review and analyse the latest scientific and economic information available, on segregation measures in crop and seed production and their costs. This assessment should also take into account the market demand for segregation and the relative share of food and feed use in different regions;
- starting in 2006, the Commission proposes to work jointly with the Member States and stakeholders on the development of best practices for technical segregation measures, leading to crop-specific recommendations. The practical experience with the commercial cultivation of GM crops in Spain and other Member States will be of particular importance in this process. Consideration will be given to the impact of local factors (e.g. average field sizes, share of different crops, etc.) affecting the applicability of general consensus measures in the Member States;
- the Commission intends to obtain more information about the existing national civil liability systems in view of the national rules applying to the admixture of GM crops to non-GM crops. This information will contribute to assessing the effectiveness and potential impact of diverging rules on liability and compensation schemes with respect to coexistence;
- in 2008, the Commission will report to the Council and the European Parliament on the progress made in relation to the above-mentioned activities, including an update on the development and implementation of national coexistence measures.

## ANNEX: OVERVIEW OF NATIONAL COEXISTENCE MEASURES

AT <sup>8</sup>	BE	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	SE	SI	SK	UK
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### Coexistence legislation:

Adopted	x			x	x								x <sup>9</sup>							x				
Drafts notified under Directive 98/34/EC	x		x								x				x									
Drafts in advanced stage		x				x		x	x					x		x		x	x		x		x	

### Specific liability provisions in relation to coexistence, including compensation schemes or insurance requirements:

Adopted	x			x	x																			
Drafts in advanced stage or notified											x			x	x			x	x	x				

### Crop specific field measures:

Adopted					x															x				
Drafts in advanced stage or notified			x					x			x			x	x	x		x	x		x			x

<sup>8</sup> Legislation has been developed by the federal State and the Bundesländer.

<sup>9</sup> Framework law transferring the responsibility for coexistence measures to regional level.