International Workshop

on the consequences of the ECJ judgement on GM pollen in honey for GM crop releases and cultivation in Germany and the EU

Berlin, December 13-14, 2011

Session 1: General Issues
European measures on coexistence and experiences with their implementation

Joachim Schiemann

International workshop on the consequences of the ECJ judgement on GM pollen in honey for GM crop releases and cultivation in Germany and the EU
Berlin, December 13-14, 2011
Developing technical solutions for coexistence in the EU agriculture

The European Coexistence Bureau

Dr. Emilio Rodriguez-Cerezo
European Commission JRC – IPTS October 2011
GMCC-11 Vancouver Canada

Acknowledgement

Information on the ECB is based on a talk provided by Emilio Rodriguez-Cerezo
Coexistence debate in Europe – a bit history

- **May 2002**, JRC/IPTS: Scenarios for co-existence of genetically modified, conventional and organic crops in European agriculture
- **January 2003**, Denmark: Report from the Danish Working Group on the co-existence of genetically modified crops with conventional and organic crops

**Principles of Coexistence**

- Economic problem, **not** safety problem
- Basis: threshold for labelling (0.9%) approved events

Source: obst-gemuese.bitpalast.net/mais.html
Source: putzlowitsch.de/2009/03/08/kartoffeln-und-kunst
Commission Recommendation (July 2003)

Commission Recommendation on guidelines for the development of national strategies and best practices to ensure the coexistence of genetically modified crops with conventional and organic farming

“No form of agriculture ... should be excluded in the European Union.”

“The issue of coexistence ... concerns the potential economic loss and impact of the admixture of GM and non-GM crops, and the most appropriate management measures that can be taken to minimise admixture.”

“The European Commission considers that measures for coexistence should be developed and implemented by the Member States.”
Recent Developments

PI 13 July 2010: GMOs: Member States to be given full responsibility on cultivation in their territories

- Communication from the Commission to the European Parliament, the Council, the Economics and Social Committee and the Committee of the Regions on the freedom for Member States to decide on the cultivation of genetically modified crops

- Proposal for a Regulation of the European Parliament and of the Council amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of GMOs in their territory

- Commission Recommendation of 13 July 2010 on guidelines for the development of national co-existence measures to avoid the unintended presence of GMOs in conventional and organic crops
Commission Recommendation (July 2010)

Commission Recommendation on guidelines for the development of national co-existence measures to avoid the unintended presence of GMOs in conventional and organic crops

„The objective of co-existence measures in areas where GMOs are cultivated is to avoid unintended presence of GMOs in other products, preventing the potential economic loss and impact of the admixture of GM and non-GM crops.”

“Therefore it is appropriate that measures to avoid the unintended presence of GMOs in conventional and organic crops should be developed at national and sometimes regional or local level.”

“Under certain economic and natural conditions, Member States should consider the possibility to exclude GMO cultivation from large areas of their territory …”
The EU Legislation on GMOs

An overview

Damien Plan, Guy Van den Eede
EU-27 Coexistence policy principles and roles

- “Subsidiary”: Responsibility to develop laws/strategies for coexistence at EU Member States level (regional)

- European Commission retains roles on:
  - General policy guidelines (updated 2010)
  - Formal exchange of information
  - Offering technical advice and developing best practice documents (European Coexistence Bureau)
General EC policy guidelines (EC, 2010)

- Design of technical measures: target EU legal thresholds for labelling (0.9%) - but also special cases of private standards
- Prioritize solutions at individual farmer level - but if landscape difficult: regional measures (GM-free, GM zone)
- Transparency, involvement of stakeholders
- Financial compensation & liability for economic damage are exclusively competence of Member States
State of the art of EU technical coexistence measures

- Most EU Member States have developed laws with technical coexistence measures…but
- Practical application, efficiency, costs at farm level remain largely theoretical issues due to extremely limited adoption of GM

Since 1998: 6 EU countries growing Bt maize (total < 0.1 M ha)

2010: Am potato (few hundred ha)

Source: obst-gemuese.bitpalast.net/mais.html
Source: putzlowitsch.de/2009/03/08/kartoffeln-und-kunst
Comparative analysis of Coexistence in EU-27

2009: Comparative analysis of Coexistence in EU-27

- 15 countries legislated
- In all cases measures must be taken by GMO growers
- Otherwise, heterogeneity in
  - Administrative measures: information, compulsory registration, training
  - Technical measures (separation distances for maize can vary between 25 m to 600 m)
- 0.9% (legal labelling thresholds) and lower (private standards)
- Legal issues: specific compensation funds, not specified (common law)
Comparative analysis of Coexistence in EU-27

- Liability is a case of civil law (MS)
- All national jurisdictions foresee a minimum protection under regular conditions of tort law (but heterogeneity)
- No court cases recorded (limited experience)
- No specific insurance products in the market
- Some MS have established “compensation funds” with a levy for GM crop cultivators (never used)
- No cross-border issues between states recorded
The **European Coexistence Bureau** organises the exchange of technical-scientific information on best agricultural management practices for coexistence. On this basis, it develops consensus agreed crop-specific guidelines for coexistence measures.

Coexistence refers to the ability of farmers to choose between the cultivation of genetically modified (GM) and non-GM crops, in compliance with the relevant legislation on labelling rules for GM organisms (GMOs), food and feed and/or purity standards.

**Technical Working Groups: TGW-Maize**

http://ecob.jrc.ec.europa.eu/

Source: obst-gemuese.bitpalast.net/mais.html
European Coexistence Bureau

http://ecob.jrc.ec.europa.eu/
- 2005: COMMISSION DECISION - establishing a network group for the exchange and coordination of information concerning coexistence of genetically modified, conventional and organic crops
- 2006: JRC/IPTS - New case studies on the coexistence of GM and non-GM crops in European agriculture
- 2009: REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT on the coexistence of genetically modified crops with conventional and organic farming
- 2010: European Coexistence Bureau (ECoB) Best Practice Documents for coexistence of genetically modified crops with conventional and organic farming: 1. Maize crop production
European Coexistence Bureau

ECOB Mission

Develop, with MS and stakeholders, technical guidance and consensus on crop-specific best practice for coexistence

ECOB Scope

Technical agricultural management practices for coexistence

- Crop production: from sowing up to first point of sale
- GM crops authorised for cultivation in the EU
- Seed production not yet covered
- Not included: administrative measures, liability/insurance measures

ECOB Structure

EU Member States experts organised in Technical Working Groups managed by a scientific secretariat of the JRC-IPTS

Technical Working Group on Maize: 19 Member States, start October 2008
Conventional or organic EU farmers

- Not obliged to implement coexistence at farm level (obligation relies on GM farmers) but may lose certain markets if coexistence measures prove inefficient (low thresholds)

- EU labelling threshold is legally 0.9% but.....

- Food industry in EU when sourcing domestic ingredients looks for non-GM (usually operating 0.1 or 0.3 % standards)

- EU Organic food processors look for even lower standards (0.1% or less)
Conclusions

- Coexistence laws with technical and administrative obligations for GM farmers exist in most EU MS and show heterogeneity.
- Implementation, efficacy and costs of these policies at farm level: very limited experience.
- The ECOB provides the basis for best practice on technical measures in EU.
- Costs and administrative measures for GM farmers may be a disincentive to GM adoption, unless benefits of GM varieties are very clear.
- Although official labeling threshold is 0.9%, food industry and organic processors demand lower standards - this will impact the discussion on what coexistence measures should aim at and its costs.
§ 1
Zweck des Gesetzes
Zweck dieses Gesetzes ist,
(Schutzzweck) 1. unter Berücksichtigung ethischer Werte, Leben und Gesundheit von Menschen, die Umwelt in ihrem Wirkungsgefüge, Tiere, Pflanzen und Sachgüter vor schädlichen Auswirkungen gentechnischer Verfahren und Produkte zu schützen und Vorsorge gegen das Entstehen solcher Gefahren zu treffen,
(Koexistenzzweck) 2. die Möglichkeit zu gewährleisten, dass Produkte, insbesondere Lebens- und Futtermittel, konventionell, ökologisch oder unter Einsatz gentechnisch veränderter Organismen erzeugt und in den Verkehr gebracht werden können,
(Förderungszweck) 3. den rechtlichen Rahmen für die Erforschung, Entwicklung, Nutzung und Förderung der wissenschaftlichen, technischen und wirtschaftlichen Möglichkeiten der Gentechnik zu schaffen.
Statutory Order on the Production of GM Plants

Verordnung über die gute fachliche Praxis bei der Erzeugung gentechnisch veränderter Pflanzen (Gentechnik-Pflanzenerzeugungsverordnung, GenTPfIEV), 2008

This Statutory Order regulates the basic principles of a good professional practice for commercial cultivation of GM plants.

- Obligation to notify
- Obligation for adaptation
- Obligation for query
- Storage
- Transport
- Agricultural management
- Machinery
- Volunteers
- Deposition of substances
- Record keeping

Groß Lüsewitz (JKI, ZL), Foto: H. Pienz, 2007
Plant-specific parameters - Maize

Adjacent fields
within a distance of 300 m

**Minimal distance**
conventional non-GM maize: 150 m
organic non-GM maize: 300 m

**Other measures**
official experiments: distance reduction; other measures

**Monitoring & elimination of volunteers**
after harvest; following year; extension, if …

**Crop rotation**
non-GM maize cultivation 2. year; extension in case of volunteers

Source: obst-gemuese.bitpalast.net/mais.html
Conference of Agriculture Ministers (October 2011) & Environment Ministers (November 2011):

Request - Adaptation of the Statutory Order on the Production of Genetically Modified Plants in order to protect apiculture in view of the ruling by the European Court of Justice

1. take the view that the distances between fields with GM plants and those with conventional or organic production (maintenance of co-existence) and beehives respectively (prevention of the presence of genetically modified pollen in apiculture products) should be re-examined

2. request the Federal Government to present specific co-existence rules governing honey production

3. urge the Federal Government to press for the creation of clear and feasible rules for the importation of honey at all levels without delay in order to meet the requirements set by the ECJ
Conference of Agriculture Ministers (October 2011) & Environment Ministers (November 2011)

2. request the Federal Government to present specific co-existence rules governing honey production:

- Separate provisions should be adopted into the legislation governing genetic engineering, notably into the Statutory Order on Good Professional Practice in the Production of Genetically Modified Plants (Statutory Order on the Production of Genetically Modified Plants), that give due regard to the concerns of apiculture in the production of genetically modified plants.

- We request the Federal Government to consider with which measures the prevention of the presence in honey of genetically modified pollen that is unapproved in the EU could be ensured in experimental releases.

- We request the Federal Government to report on this matter on the occasion of the forthcoming Conference of Agriculture Ministers.
European Research Projects on Coexistence

SIGMEA
Sustainable Introduction of GM crops into European Agriculture

CO-EXTRA
GM and non-GM Supply Chains: Their Co-existence and Traceability

PRICE
PRactical Implementation of Coexistence in Europe
International Symposia on Coexistence

- European Conference on the Co-existence of Genetically Modified Crops with Conventional and Organic Crops
- International Conference on Coexistence between Genetically Modified (GM) and non-GM based Agricultural Supply Chains

GMCC-03  Denmark       GMCC-05  France       GMCC-07  Spain
GMCC-09  Australia      GMCC-11  Canada      GMCC-13  Portugal

Source: http://gmcc-11.com/hostcity
Those who want the world to continue as it is, do not want the world to continue.

Thank you for your attention.