



The Right of Cultivation Choice

Ivo Brants, Green Biotechnology Europe, EuropaBio

The Right of Cultivation Choice

Agenda

- **Basics of coexistence**
- **Guidelines of coexistence**
- **Management of coexistence**
 - **Isolation and GAP**
 - **Public Register**
 - **Liability**



“Coexistence”

**Opportunity to Cooperate
in a responsible fashion**

Facts in the EU today

GM in Agriculture

- **Biotech regulatory framework** in place
 - Directive 2001/18/EC
 - Regulations (EC) Nos 1829 & 1830/2003
- **Labelling and traceability provide EU citizens with choice**
(the European Co-Decision procedure)
 - *0.9% community labelling threshold*
- **Import** of millions of tonnes of EU approved GM product for several years
- **Discussion around management measures required for cultivation of biotech crops as to provide choice = Coexistence**
 - Commission's 2003 *Guidelines* on coexistence
 - Member States developing *Rules* (legally binding, or guidelines)

Coexistence - The Basics

Commission's Guidelines, July 2003


Co-existence as an issue relates to 'the *economic consequences* of adventitious presence of material from one crop in another and the principle that farmers should be able to cultivate freely the agricultural crops they choose, be it **GM crops, conventional or organic crops'**

The environmental and health aspects are already covered
by Directive 2001/18/EC

“This is not about a safety issue”

Coexistence - Guidelines

- The EU gives countries the possibility (not obligation) to develop their own guidelines with regard to coexistence
- “In principle, farmers should be able to cultivate the types of agricultural crops they choose - **be it GM crops, conventional or organic crops. None of these forms of agriculture should be excluded in the EU**”
- Management measures for co-existence should reflect the best available **scientific evidence** on the probability and sources of admixture between GM and non-GM crops. They should permit the cultivation of GM and non-GM crops, whilst ensuring that non-GM crops remain below the legal thresholds for labelling and purity standards with respect to genetically modified food and feed, and seeds, as defined by Community legislation.
- National strategies for co-existence should ensure an **equitable balance between the interests of farmers of all production types**. Cooperation between farmers should be encouraged.



**Our reflections are about
“science” and “choice”**

Commission Recommendation 2003/556/EC



A catalogue of measures
from which to pick or
combine

Isolation
distances

Buffer
zones

Cleaning of
equipment

Pollen
traps

Informing
neighbours

Voluntary
clustering

Land
registers

Good Agricultural Practices

Pollen mediated gene flow
Is much more informative

Scientific data

Many studies* available on outcrossing in maize with rather consistent outcomes:

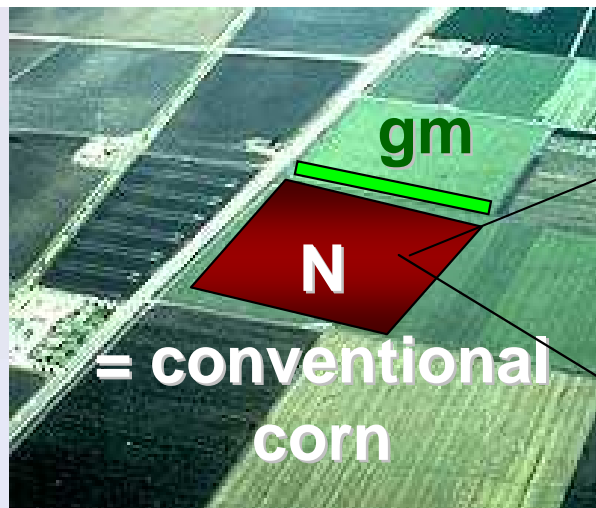
- Maize pollen is heavy and does not travel far
- % outcrossing varies between studies but is depending on environmental conditions, experimental setup, analysis methodology
- Experimental studies do often encourage worst case scenario's

*** IRTA in Spain, AGPM in France and Prof. Weber in Germany**

*** Reviews by Brookes, Devos, others**

0.9% labeling threshold tolerance for food and feed

GMO detection analysis: standards/accreditation
Already provided by Dr. Sofia Ben Tahar



or



corn *grain*





on-farm use
as *silage*



Coexistence - Guidelines

- **Measures for co-existence should be efficient and cost-effective, and proportionate.** They 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. **They should avoid any unnecessary burden** for farmers, seed producers, cooperatives and other actors associated with any production type.
- **Proportionate?** – taking into account:
 - existing non-GM coexistence practices
 - safe, fully approved products
 - Directive 2001/18/EC – Deliberate Release
 - Regulation (EC) No 1829/2003 –GM Food & Feed
 - community 0.9% labelling threshold through the “Co-Decision procedure”
- Several countries have finalized or are developing their own guidelines but the resulting legislation is not entirely science-based. It's science plus “politics”: **huge safety margins are added**

Coexistence Rules

-  Countries with coexistence rules
-  Countries with draft coexistence rules



Country	Distance to conventional maize		Distance to organic maize	
	Separation distance (m)	Buffer rows	Separation distance (m)	Buffer rows
Denmark	200	-	-	-
Netherlands	25	-	250	-
Portugal	200	-	300	-
	-	24	50	28
Czec. Rep.	70	-	200	-
	-	35	100	50
		2m bare = 1 row	-	-
Slovakia	200	-	-	-
	-	2m bare = 1 row	-	-
Hungary	400	-	-	-
Spain	50	-	-	-
	-	4		
France	25	-	-	-
	-	12		
Germany	-	-	-	-
Poland	200	-	300	-
UK	80/130	-	-	-
Italy	ns	ns	ns	ns
Sweden	50	-	-	-

Commission Recommendation 2003/556/EC



**A catalogue of measures
from which to pick or
combine**

Isolation
distances

Buffer
zones

Cleaning of
equipment

Pollen
traps

Informing
neighbours

Voluntary
clustering

Land
registers

Public Register

Public Register

- Data on farmers and locations should not be made public to the point of identifying individual farmers or planting sites. Art.31 of Directive 2001/18 does not require such unrestricted publication of personal data.
At minimum full information should be kept confidential by the authorities
- Experience shows that **information** that is made public about individuals and sites can be **misused** by a small group of “radical opponents” to intimidate farmers.

Coexistence - Liability

- **Science, practical experience and legal considerations all speak in favor of dealing with biotech through the general rules of **civil liability** that exist in literally every jurisdiction**

Agriculture and the Future



Fields of *Brassica* (oilseed rape) co-existing

Different species(?), crop types(?)

Agriculture and the Future

Renewable resource policies:

- Numerous European initiatives around renewable materials and energy from crops and biomass
- Crops as the providers of the basic raw materials
- Increasing competition for arable land
- Diversification of crops types – need for innovation in plant breeding

▶ **“Coexistence” will become the norm**