



Co-existence of GM and non-GM crops in the EU: a proven and recognised reality

Developments in plant biotechnology offer significant opportunities to improve the productivity of agriculture whilst reducing its negative impacts on the environment. In this way, growing GM crops will be a key tool for the future in helping to feed an expanding global population, using fewer resources in an increasingly unpredictable climate. The advantages and potential are already in clear evidence around the world where GM crops are now grown on some 125 million hectares a year in 25 different countries.

However, in order for Europe's farmers to share these benefits, it is crucial that the EU and individual Member States establish arrangements which enable different agricultural production systems to co-exist.

Coexistence is not a new concept – it is a practical reality in all forms of agriculture. Because farming takes place in the open air, 100% purity has never been achievable in any production system, but very high levels of purity and integrity are delivered by applying sensible management practices on-farm and within the supply chain.

Coexistence allows farmers to make a clear choice between growing conventional, organic and GM crops, in line with the legal requirements for labelling. Within the EU, the labelling threshold for GM presence has been set at 0.9%. Coexistence arrangements between GM and non-GM crop production must therefore safeguard a farmer's ability to produce non-GM crops below the 0.9% threshold. At the same time, they must also protect a farmer's right to choose to produce EU-approved GM crops if this meets their needs.

In farming, thresholds are routinely used to define a crop's end-use quality and value. Well-established practices are in place to deliver coexistence, including neighbour-to-neighbour communication, physical separation between crops, and careful segregation during harvest, storage and transport. This is the proven basis on which the successful co-existence of GM and non-GM crops can be delivered. It also reflects the guidance from the European Commission to Member States on the development of coexistence rules¹, which states that:

- Farmers' freedom to choose GM, non-GM or organic must not be denied
- GM labelling threshold (0.9%) is the basis for coexistence measures
- Non-discriminatory practical measures, specific to crop type and relevant to local conditions, should be developed at Member State or regional level in compliance with existing EU legislation

- Measures should build on existing segregation practices and available agricultural experience
- Measures should be cost-effective, proportionate and based on the best available scientific evidence

EuropaBio supports this approach, and believes that effective coexistence between GM and non-GM crops in the EU is achievable without adopting further prescriptive legislation at EU or national level.



Over the past two decades, plant scientists from private and public institutions have conducted more than 1,500 GM crop field trials in the EU, including large-scale field trials in France, Germany, Spain and the UK. In addition, farmers in six EU Member States – the Czech Republic, Spain, Portugal, Romania, Slovakia and Poland – are now commercially growing GM insect-resistant maize. The area seeded to this crop in 2008 was around 100,000 hectares or 1.2 percent of the EU's total maize production (though in Spain it was over 20%).

Many more farmers would like the choice to cultivate GM crops even in countries where this is rendered impossible (six EU Member States are currently imposing illegal cultivation bans) and where the destruction of GM crop trials is widespread.

¹ European Commission guidelines for the development of national strategies and best practices to ensure the coexistence of genetically modified crops with conventional and organic farming – 23 July 2003
http://ec.europa.eu/agriculture/publi/reports/coexistence2/guide_en.pdf

Eight Key Facts on Coexistence

1. Coexistence is about allowing farmers to choose

Farmers have practised coexistence for generations so as to capture the economic value associated with different product types and to meet demand for them. Stewardship through "Good Agricultural Practices", active dialogue and information among neighbouring farmers and supply-chain stakeholders enables coexistence to function efficiently. This allows for quality standards to be met in different ways in the varied agricultural environments in different parts of Europe.

2. Coexistence is not about issues of safety.

GM crops available to European farmers have to pass the world's most stringent, science-based food, feed and environmental safety standards prior to their approval for placing on the market. They are therefore at least as safe, if not safer, than their traditionally developed counterparts.

3. Any national or regional coexistence measures must be consistent with other EU legislation.

The objective of any national or regional coexistence rules must be to allow different producers to use the cropping system and agricultural techniques they choose. Coexistence measures must be proportionate and non-discriminatory and must not contravene other EU legislation. In particular, Directive 2001/18 requires that Member States do not prohibit, restrict or impede the marketing of EU-authorized GM products.

4. Coexistence should be based on the EU GM labelling threshold (0.9%).

The European Commission has confirmed that the EU labelling threshold of 0.9% for adventitious GM presence is the basis for coexistence measures in respect of both non-GM and organic production. EuropaBio considers that growers who opt for a more stringent labelling standard than 0.9% must therefore do so at their own responsibility and cost.

5. Member State laws already provide for recourse to address coexistence related liabilities, whether GM or non-GM related.

EuropaBio believes that existing national laws on civil liability already provide the necessary mechanisms to determine fault and assess liability and any need for compensation. Additional EU or Member State liability legislation or funds that single out GMOs are not necessary, and would thus be disproportionate and discriminatory. It should also be considered that, if guidelines for Good Agricultural Practices are not followed, damages may equally well be experienced by farmers cultivating higher value GM crops should they become "contaminated" by neighbouring conventional or organic fields.

6. A pragmatic and flexible approach taking into account Europe's varied agroecologies is needed – not a set of prescriptive, inflexible rules.

Flexible, pragmatic coexistence schemes based on good agricultural practices can already be achieved without developing additional Member State or EU legislation. EuropaBio supports the Commission's approach published in the July 2003 guidelines. These provide for a general framework, built on existing agricultural practices, thus recognising the different needs of different agricultural regions while respecting the principle of "proportionality" in relation to the desired objective – that is, to allow conventional and organically grown produce to meet the Community labelling standard with GM presence levels below 0.9%. Such an approach will allow for local measures to be adapted to local conditions on a case-by-case basis. This will require collaboration between farmers and other operators in the supply

chain so that freedom of choice is available for all European farmers and consumers.

7. Thresholds for "Adventitious or Technically Unavoidable Presence" of GM in seed.

The issue of coexistence of different production systems is closely linked to the 0.9% labelling threshold for "adventitious or technically unavoidable presence" of GM material in non-GM products. In view of the fact that seeds are the first product in the food/feed supply chain, it is particularly important to establish practical thresholds for adventitious presence of GM seed in non-GM seed. These thresholds should fulfil the objective of providing informed consumer choice but must not impose disproportionate, unfair and unworkable conditions on seed producers.

8. EU farmers and citizens must be allowed to share in the proven benefits of GM crops.

Today, genetically modified crop varieties are grown by more than 13 million farmers on more than 125 million hectares around the world. The use of GM crops can²:

- increase yields by 6% - 30% on the same amount of land, thereby avoiding the need to plough up land that is currently a haven for biodiversity and used for conservation;
- offer efficient protection against insect damage to crops resulting in a significant reduction in spraying;
- result in permanent reductions in fuel use and CO₂ emissions due to less tillage; in 2007 this led to global emissions reductions of 14.2 billion kg of CO₂, equivalent to 6.3 million fewer cars on the road for one year;
- produce better, safer and healthier food and feedstuffs, including crops with an altered oil content and composition;
- produce food and feed containing fewer cancer-causing natural toxins such as mycotoxins;
- increase the economic viability of biofuels by reducing production costs of raw materials;
- mitigate the impact of climate change by enabling farmers to grow more food, more reliably, in harsher climatic conditions;
- help to meet the Millennium Development Goals on reducing poverty - 90%, or 12.3 million farmers cultivating GM crops in 2008 were small and resource-poor farmers in developing countries;
- protect soils from erosion and compaction through less ploughing, with a concomitant conservation of soil moisture;
- contribute to sustainable economic benefits; farmers around the world earned an extra €34 billion from 1996 to 2007, 44% of which resulted from substantial yield gains and 56% from a reduction in production costs;
- increase the efficiency of water usage. Field trials have shown that drought-tolerant crops can yield up to 20% more than their non-GM counterparts.

Agricultural biotechnology offers tremendous opportunities across key European public policy goals including sustainability, CO₂ emissions reductions, energy efficiency, innovation, health and development. It is high time that European farmers and consumers be allowed the choice to experience these same benefits by ensuring that GM crops become one of a range of options available to them.

² International Service for the Acquisition of Agri-Biotech Applications (ISAAA) Executive Summary 2008 <http://www.isaaa.org/resources/publications/briefs/39/executive-summary/default.html>

EuropaBio's mission is to promote an innovative and dynamic biotechnology-based industry in Europe.

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The European Association for Bioindustries