

6 reasons to ban GM plant cultivation in the EU

On Friday 14 October, the EU Commission will probably submit to the Standing Committee on plants, animals, food and feed three draft regulations aimed at renewal of the authorisation of cultivation in the EU of three GM maize varieties: Monsanto's infamous maize Mon810 (resistant to the corn borer), Syngenta's maize BT11 (producing the *Bacillus thuringiensis* toxin against the corn borer and resistant to a group of herbicides) and Dupont's maize TC1507 (resistant to the corn borer and to a group of herbicides). In previous years, no debate on GMO cultivation in the Standing committee has ever gathered a qualified majority in favour of a new authorisation or renewal of authorisation for cultivation of a GM plant. But last year the situation changed, as the so-called "opt-out" regulation entered into force. It allows an individual Member states to ban the cultivation of a GM plant on its territory even if it is approved at the EU level; it has been predicted (including by the biotech industry) that this would lead those Member States which are against GMO cultivation to be much more "flexible" when it comes to voting to allow cultivation at the EU level. But if these Member states refuse the cultivation of GMOs on their own soil, the very good reasons they have to do so will not suddenly disappear at their borders: therefore, they should defend the same ban at the EU level. It would be a major mistake to renew the authorisation of these GM plants. Here is why!



1 - EU citizens don't want GMOs

The [last EU barometer survey on Biotechnology](#) shows clearly that a majority of EU citizens reject GMOs. 54% of EU citizens think GMOs are not safe for them and their family (only 30% think they are safe). This alone should be enough to ban GMOs in the EU, both from the field and food. Citizens have the right to decide what technologies are used in their own society. The difference between countries is often put forward as a good reason not to ban GMOs completely in the EU: "if some countries want GMOs, let them have them!" Except that there isn't a single EU country with a higher percentage of citizens confident that

GMOs are safe compared with those who are mistrustful. Even in Spain, where 90% of the EU's surface area of GMO cultivation is now located, 15% more citizens want to do without GMOs than the "yes" group. It is the EU's role to protect the environment and EU citizens' health; the Commission and the Member States should remember that.

2 - Biotechnologies allow privatisation of Life

Trans-genesis and most modern biotechnologies allow the resultant modified plant variety to be patented. This means the GM plants cultivated in our fields, their seeds, and the resultant food or feed products are covered by patents owned by agroindustry giants such as Monsanto, Syngenta and Dupont. This allows the privatisation of life and the monopolization of nature itself by a handful of global agrochemical companies, but also the privatisation of food by private interests, a dangerous trend in terms of food sovereignty. Patents mean higher prices and further concentration [of an already highly concentrated market](#). They also constrain further breeding and seed reproduction and particularly disadvantage small-scale seed-breeding businesses and farmers.

3 - Coexistence between GMO crops and non-GMO crops is not possible

It is essential for farmers to be able to choose not to grow GMOs. This is especially important for organic farmers (an important and growing sector in the EU), for whom GMO contamination can lead to decertification (not being able to sell their products as organic). But pollen does not stop at the border of a field (or of a country!). The EU-funded scientific Co-extra programme proved in 2009 that it was impossible to avoid gene flow from a GM plant to non-GM plants of the same species cultivated in the same geographic area^[1]. This means cultivation of a GM maize in a region effectively prevents organic farmers and conventional farmers growing non GM maize in the same zone. This is both unfair and economically unsound, as the EU is benefiting from its statute of "non GMO" food and feed provider for the whole world.

4 - GMO cultivation means pesticides in our environment

The three GMOs proposed for re-authorisation all produce their own pesticide (Bt toxin) against the corn borer. So no need to spray them but all insects will still be exposed to it as it is expressed constantly within the plant, and thus spreads throughout the ecosystem. Organic farming uses the Bt toxin but it is not constantly in the environment, meaning that resistance to it does not build up. If pests are constantly exposed to Bt, especially in year-on-year monocultures common to industrial farming, then resistance to the Bt toxin will develop, leaving the GM crops useless and organic farmers without a pest control method. Two of the GMOs concerned by the possible re-authorisation are also resistant to a group of herbicides (including glufosinate), which means they are designed to be used with one or several of these chemicals. It has been proven that cultivation of herbicide-resistant GM plants actually globally increases the use of herbicides^[2]. Allowing the cultivation of these GM maize in EU fields means more chemical hazardous products in our soils, air and water in the wider scale and longer term.

5 - They are creating "superweeds by breeding with wild plants"

We have evidence of superweeds originating from GM herbicide resistant plants that have bred with their wild relatives, leading to hybrids that are also herbicide resistant, so that tougher, more dangerous pesticides are used to control them chemically. One of the key arguments for allowing the cultivation of GM maize in the EU was the absence of wild native plants able to breed with, thus limiting the risk of gene flow in the wild environment. There is now evidence that teosinte, the ancestor of cultivated maize, has been present [in Spain](#) since 2009. It is widely known that the teosinte populations might become recipients for transgenic DNA stemming from genetically engineered maize MON810, which is cultivated in Spain in some of the regions where teosinte has become a problem. Geneflow may cross to teosinte, causing it to produce Bt toxin, and confer higher fitness to the hybrids of maize and teosinte in comparison to the native teosinte plants. This is a scenario carrying major risks for farmers and the environment. For a start, this

modified gene is turning teosinte into a “superweed” much more resistant than its “natural” version, and thus much more difficult for farmers to manage.

6 - There are alternatives!

These three GMO plants do not fundamentally, give any advantage to consumers: they are not healthier, nor even cheaper. The claim is that farmers growing them are able to simplify their farming practices, but GMOs actually destroy soil fertility and biodiversity in the long run. Efficient alternatives to herbicide use exist and have been described at length during the debate on the reauthorisation of glyphosate. They include combinations of mechanical, physical and biological techniques - notably used in organic farming - such as appropriate crop rotations, stale bed techniques, mulching, intercropping or nurse crops, shallow ploughing, use of rotary hoe and thermal treatment[3]. To protect maize against the corn-borer, long, appropriate rotations are the best tool, a method more efficient than chemical pesticides[4]. Natural insecticides (as the non-modified *Bacillus thuringiensis* for example) or low risk natural substances can also be used with satisfying results. _____ [1] Genetically modified and non-genetically modified food supply chains - Co-existence and traceability, 2013, Yves Bertheau [2] Genetically Modified Herbicide-Tolerant Crops, Weeds, and Herbicides: Overview and Impact, 2016, Sylvie Bonny [3] As developed [in a letter](#) signed by 70 MEPs from all Groups [4] Bianchi et al, 2006, Sustainable pest regulation in agricultural landscapes: a review on landscape composition, biodiversity and natural pest control, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1634792/> also <http://theconversation.com/as-biodiversity-declines-on-corn-farms-pest-problems-grow-45477> also <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1634792/>

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