

EU Parliament votes against the cultivation of genetically engineered maize

Reasons include the uncontrolled spread of teosinte, risks for protected species and the risk of resistance in pest insects

6 October 2016 / Today, the EU Parliament has adopted several resolutions tabled across the parties, and called for the EU Commission not to authorise genetically engineered maize for cultivation. The resolutions concerns three maize variants, all of which produce insecticides (MON810, Bt11 and Maize 1507); two are resistant to herbicides. So far, only one of these transgenic maize variants is allowed for cultivation in the EU (MON810). The vote is not legally binding but sends a strong signal to the EU Commission and the EU Member States not to allow the maize to be grown in the EU in 2017. Some of the most important reasons mentioned in the resolution are the spread of a new weed (teosinte) in Spain and France, insufficient protection measures for protected species and the risks of emerging resistance in the pest insects.

According to Testbiotech, there are indeed several good reasons not to not allow these plants to be grown in the EU:

1. The impact on the environment e.g. on non-target organisms, soil organisms and natural defence mechanisms is still a matter of considerable scientific debate. Many of the associated risks are still awaiting further in-depth research by independent scientists (1).
2. The genetic stability of the plants under changing environmental conditions such as climate change, has never been investigated (2).
3. The accumulated and combinatorial effects of growing the plants together in the fields and mixing them into feed have never been investigated, despite this requirement being set out in Directive 2001/18. In addition, several scientific papers have been published where researchers have found that the toxicity of Bt toxins is higher if combined with other compounds (3).
4. There are major problems with the monitoring of the plants: For several years Monsanto has failed to deliver monitoring reports sufficient to meet the standards required by EFSA. Furthermore, in 2012, the patent on MON810 expired. The company is now questioning whether any monitoring can be established at all on the basis that other companies might also introduce the seeds. As far as Testbiotech knows, patent protection on Bt11 and Maize 1507 has expired as well. As long as there is no clarity on how to carry out detailed monitoring of the impacts of these plants, they should not be cultivated (4).
5. Teosinte plants have been found growing in France and Spain – this is a new weed that can produce hybrids with genetically engineered maize, and therefore has the potential to become a new superweed, producing several Bt toxins as well as being resistant to herbicides. For several years, the appearance of teosinte was not reported by Monsanto, which again shows that the company is not willing to fulfil its legal obligations. Meanwhile, spread of teosinte officially concerns around 750 hectares in Spain, some of the teosinte plants were identified within the field where MON810 was cultivated. There is some likelihood that the transgenes can spread via teosinte into other fields and persist without control (5).

In the light of these risks and hazards for the environment and farmers, and also in regard to remaining uncertainties about the impact on human and animal health, Testbiotech recommends the EU Commission and the Member states to reject the authorisation for cultivation of the genetically engineered maize variants in the EU.

Several Member States have already prohibited the cultivation of these genetically engineered maize plants on their territory. However, these prohibitions have, so far, not been confirmed in a court ruling, therefore legal uncertainties remain for all EU Member States if the EU Commission now allows the cultivation of the genetically engineered maize. A debate between the EU Commission and the Member States is planned for mid-October (6).

Links

- (1) Hilbeck & Otto (2015) Specificity and Combinatorial Effects of Bacillus Thuringiensis Cry Toxins in the Context of GMO Environmental Risk Assessment,
<http://journal.frontiersin.org/article/10.3389/fenvs.2015.00071> [1]
- (2) Trtikova et al. (2015) Transgene Expression and Bt Protein Content in Transgenic Bt Maize (MON810) under optimal and stressful environmental conditions.
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123011> [2]
- (3) Bohn et al. (2016) Daphnia magna negatively affected by chronic exposure to purified Cry-toxins,
<http://www.sciencedirect.com/science/article/pii/S0278691516300722> [3]
- (4) Testbiotech press release: Time to stop the cultivation of genetically engineered maize MON810,
<https://www.testbiotech.org/en/node/1225> [4]
- (5) Testbiotech press release: Genetically engineered maize can give rise to superweeds,
<https://www.testbiotech.org/en/press-superweed-genetically-engineered-maize> [5]
- (6) Meeting of the Standing Committee „Genetically Modified Food and Feed and Environmental Risk“, 14 October 2016,
http://ec.europa.eu/food/plant/standing_committees/sc_modif_genet/index_... [6]

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- [1] <http://journal.frontiersin.org/article/10.3389/fenvs.2015.00071> [2]
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123011> [3]
<http://www.sciencedirect.com/science/article/pii/S0278691516300722> [4]
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