

## Genetically engineered maize can give rise to superweeds

EFSA publishes hastily drawn up opinion to downplay the risks

**3 October 2016 / The European Food Safety Authority (EFSA) is backing Monsanto, Dupont and Syngenta plans to extend the cultivation of genetically engineered maize in the EU. So far, only one transgenic maize is allowed for cultivation in the EU. The companies are waiting for a decision that would allow them to sell seeds for three variants of genetically engineered maize in 2017. These maize plants all produce insecticides, and two of them are resistant to herbicides. New environmental risks are emerging with the cultivation of the transgenic plants, in particular from teosinte. Teosinte is an alien plant originating in Central America, which has been spreading in Spain and France for several years. It can be found growing in fields alongside maize. Maize and teosinte together can produce viable offspring. The risk: By crossing with transgenic maize, teosinte can become a new superweed, producing insecticides and becoming resistant to herbicides. Driven by an urgent request from the EU Commission, EFSA has now published a hastily drawn up opinion downplaying these risks.**

Teosinte at least has been spreading in Spain since 2009, this is where most genetically engineered maize plants are grown in the EU. In 2015, there was official confirmation that around 750 hectares of maize fields in several regions were affected, but it is likely that many fields remained undetected. Some of the teosinte plants were found in the fields where transgenic maize is grown. It is not known, whether transgenic hybrids of teosinte already exist, but their occurrence only seems to be a matter of time.

As the EFSA opinion shows, data crucial for risk assessment are largely missing: (1) Some of the various species and subspecies of teosinte produce many more hybrids than others, thus increasing the risk of gene flow. However, it is not known which species and subspecies are spreading in the fields. (2) The biological activity of the transgenes is dependent on the plants overall genome. Consequently, hybrids from maize and teosinte could, for example, produce a lot more insecticidal toxins in comparison to the original maize plants. But this risk was never investigated. (3) The assumptions made by EFSA on how to control teosinte are not sufficiently based on data: The data available show a strong increase in the number of fields affected from 2014 and 2015, despite control measures already being in place.

Therefore, much more data would be needed before any conclusions can be drawn on the actual risks. But instead of requesting more data, EFSA simply concluded safety.

“According to its own guidance, EFSA is obliged to take into account worst case scenarios. However, the EFSA opinion is mostly based on biased assumptions that do not reflect the true dimension of risks”, says Christoph Then for Testbiotech. “Whatever the case, risk assessment cannot be concluded before further more detailed investigations are conducted.”

EFSA can require companies to deliver more data, however no request was made in this case. Apparently, there was some undue time pressure created by the EU Commission, which requested the EFSA report to be prepared quickly. The reason: The Commission wants to make a decision allowing genetically engineered maize plants Bt 11 (Syngenta) and maize 1507 (DuPont) to be cultivated in the EU for the first time. In addition, the authorisation for cultivation of MON810 (Monsanto) is about to be renewed. A first vote of Member States could take place in mid-October.

Testbiotech is concerned that the vote of the Member States will be vastly influenced by this flawed EFSA opinion. In this context, Testbiotech is also warning about severe conflicts of interest at EFSA: The leading author of the opinion on teosinte, Yann Devos, is known to have a leading position in an organisation called the “International Society for Biosafety Research” (ISBR), which is largely funded by industry.

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**Further information:**

The opinion of EFSA: [www.efsa.europa.eu/en/supporting/pub/1094e](http://www.efsa.europa.eu/en/supporting/pub/1094e)

Earlier communication on teosinte in Spain: [www.testbiotech.org/en/node/1676](http://www.testbiotech.org/en/node/1676)

Letter to EFSA about conflicts of interest: [www.testbiotech.org/en/node/1666](http://www.testbiotech.org/en/node/1666)