

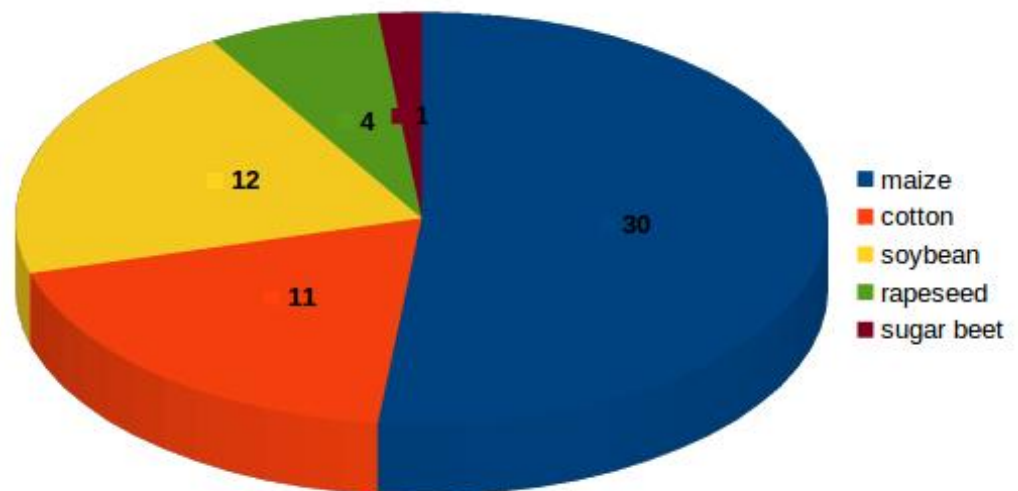
## PlantGeneRisk

### Database on the authorisation of genetically engineered plants in the European Union

This database gives an overview of the authorisation of genetically engineered plants in the European Union. Special attention is given to the work of the European Food Safety Authority (EFSA). Each plant listed in the database is portrayed in a short summary, followed by a list that gives an overview of some specific known risks. These risks are contrasted with gaps in the EFSA risk assessment. High standards for the protection of consumers and the environment are set by EU regulations 178/2002, 1829/2003 and 2001/18. The purpose of this database is to enforce the implementation of those legal standards in the authorisation process of genetically engineered plants.

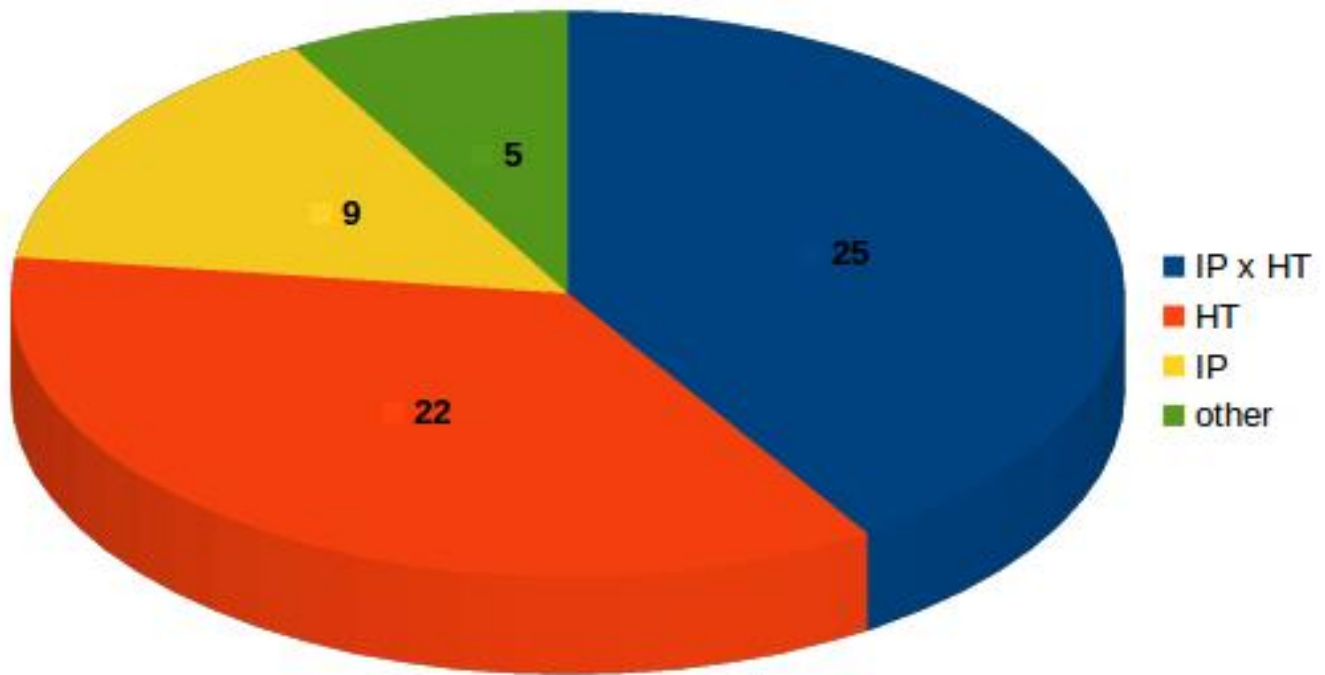
#### Overview of genetically engineered plants authorised for the EU market

By May 2015, 58 events had been authorised for usage in food and feed within European Union. Most of them were for import and processing, one event was authorised for cultivation: Monsanto's Maize MON810. The 48 events included the following species: 30 maize, 11 cotton, 12 soybeans, 4 rapeseed, 1 sugar beet.



The events can be divided in four groups of technical traits:

- 9 events producing insecticidal toxins (IP),
- 22 events tolerant to herbicides (HT),
- 25 events a combination of insecticidal and herbicide tolerant plants (IPxHT)
- others: 4 soybean events with changed oil composition, 1 rapeseed producing infertile pollen.



## Specific risks of genetically engineered plants

Looking at the existing data it is evident that there are major gaps in current risk assessment:

- Interaction between genetically engineered plants and the environment are only poorly investigated. Due to the invasive methods used for genetic engineering, genetically engineered plants very often show different reactions to environmental stress when compared to plants derived from conventional breeding. This can also cause unexpected changes in their compositions and risks to the consumers.
- The mode of action of the insecticides produced by the plants is not known in complete detail. This leaves major uncertainties about risks for humans and the environment. All together, the plants already authorised in the EU produce ten different insecticidal toxins. These toxins can also be found in food and feed products in varying concentrations, and also can show unexpected combinatorial effects. A lack of sufficiently standardised methods means that the insecticide content in the plants cannot be reliably determined.
- Despite the fact that most genetically engineered plants are tolerant to herbicides, there are hardly any data available on the actual amounts of herbicide residues that they contain after spraying with herbicides such as Roundup.
- Feeding trials with plants to examine effects on health are not mandatory and there is an almost complete lack of long-term investigations.
- Possible accumulated effects emerging from cultivation of different genetically engineered plants in one region or from mixing them in food and feed are not investigated despite this being required by EU regulations.
- The post marketing monitoring of potential effects on health as foreseen by EU regulations is not implemented.


This pilot version of the database was initiated with funds from the Gregor Louisoder Environmental Foundation and Hermesen Foundation.

Attachment

Size

 [database1\\_en.jpg](#) [1]

10.36 KB

 [database2\\_en.jpg](#) [2]

9.68 KB

---

**Source URL:**<https://www.testbiotech.org/en/news/plantgenerisk>

### Links

[1] [https://www.testbiotech.org/sites/default/files/database1\\_en.jpg](https://www.testbiotech.org/sites/default/files/database1_en.jpg) [2]  
[https://www.testbiotech.org/sites/default/files/database2\\_en.jpg](https://www.testbiotech.org/sites/default/files/database2_en.jpg)

