

Database on the risks of genetically engineered crop plants

Testbiotech offers overview of EU authorisations

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Munich

Testbiotech is today publishing a database designed to give an overview of the risks associated with genetically engineered plants allowed for marketing in the European Union, or being about to be authorised soon. The current version of the database, called PlantGeneRisk, gives an overview of thirteen genetically engineered crops, four soy plants and nine maize plants. Ten of these plants already have EU authorisation for use, import and usage in food and feed, one of them is also allowed for cultivation. The plants produce insecticides or are tolerant to herbicides, and many also have a combination of both. So far, thirty eight genetically engineered crops have been authorised within the EU for use in food and feed, but no public database is available giving an overview of their risks. In the existing databases provided by state authorities or by institutions which have a close affiliation with industry, the actual risks are mostly marginalized.

“Genetically engineered plants raise similar problems to the finance sector: Everybody is concerned by the problems, but hardly anybody has an overview of the actual risks,” says Christoph Then from Testbiotech. “So far, most information comes from industry. By establishing this new database we are offering some much needed counter-expertise.”

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 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. In 2012, further initiatives will be started such as workshops with scientists to further develop the content and structure of the database.

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Further information: [Link zur Datenbank](#) [2]

[Further database on genetically engineered trees](#) [3]

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