

Risk assessment of GE plants in the EU: Taking a look at the ‘dark side of the moon’

New report provides evidence that EFSA systematically ignores specific risks

21 January 2021 / Testbiotech has published a new report providing evidence that the European Food Safety Authority (EFSA) is intentionally keeping significant risks related to genetically engineered (GE) plants ‘in the dark’. While EFSA is aware that the data compiled by industry are insufficient to demonstrate the safety of the plants, it has nevertheless failed to take action to solve the problems. On the contrary, the authority has for years defended assumptions even if they are in contradiction to the facts. In addition, EFSA is intentionally trying to distract awareness away from the ‘dark’ sides of its risk assessment.

During the first 20 years of its existence, EFSA published more than 100 opinions on the risk assessment of GE crops, but was nevertheless unable to present sufficiently robust criteria and methods. The report published today reveals major gaps in risk assessment which can no longer be disputed. Moreover, the report also shows that specific areas of risk assessment are intentionally ignored .

“We need science more than ever to stop dangers such as climate change and pandemics. Science also has to be impartial, transparent and reliable when it comes to assessment of risky technologies and their profitable products. However, in the case of genetically engineered plants, the trade interests of industry are given priority when it comes to decision-making in the face of uncertainties,” Christoph Then states for Testbiotech, an institute which is independent of the interests of biotech industry. Testbiotech has for more than ten years analysed the risks of genetically engineered organisms with a view to protecting health and the environment.

Testbiotech is accusing EFSA of a systematic failure to request sufficiently reliable data from industry. These problems concern, for example, field trials with genetically engineered herbicide-resistant plants that are sprayed with much lower rates of herbicide applications compared to current agricultural practice. Furthermore, the regions in which the field trials are carried out do not represent the bioclimatic conditions under which the GE plants are to be cultivated.

For the assessment of insecticidal Bt toxins produced in the plants, EFSA accepts experiments with toxins produced by bacteria. However, it is known that the toxins produced in the plants must be assumed to be much more toxic since plant constituents can multiply their toxicity. Furthermore, most of the approved GE plants carry a combination of (several) Bt toxins and (several) herbicide resistances. Nevertheless, EFSA does not request any empirical data on mixed toxicity or immunogenicity of the compounds present in the harvest.

At the same time, in regard to the potential spread of GE plants, EFSA makes assumptions that are outdated and therefore underestimates the actual risks. From a legal point of view, it also seems to

be questionable that EFSA, in a self-assigned task, adopted a new guidance in 2015 allowing it to evade legally binding EU Commission standards in field trial assessments.

In conclusion, evidence has been provided to show that the genetic engineering of food plants has layers of complexity that go far beyond what can be assessed by current standards of risk assessment. The safety of the plants is claimed on basis of approval processes that only consider risks that are easiest to assess.

The Testbiotech analysis of the work of EFSA is also based on the outcomes of the RAGES (Risk Assessment of genetically engineered organisms in the EU and Switzerland) project. The RAGES project started in 2016 and ended in 2020; the outcomes were subsequently assessed by EFSA in June 2020.

Testbiotech is now urging the EU Commission to take action because the political responsibility for setting the standards in the risk assessment of GE organisms lies with the Commission.

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Further Information:

The new report:

www.testbiotech.org/content/risk-assessment-ge-plants-eu-taking-look-dark-side-moon

The results of RAGES: www.testbiotech.org/en/content/research-project-rages

Reaction of EFSA on RAGES: <https://efsa.onlinelibrary.wiley.com/doi/10.2903/sp.efsa.2020.EN-1890>