EFSA and industry united in ‘EFSI’

New publication reveals close and ongoing collaboration between experts of EFSA and the biotech industry

24 April 2018 / A new publication discusses the risks of the uncontrolled spread of transgenes from genetically engineered maize grown in Spain. The paper is the result of close and ongoing collaboration between experts of EFSA (European Food Safety Authority) and the biotech industry: The main author, Yann Devos works for EFSA; one of the co-authors, Alan Raybould, works for Syngenta, which wants to sell its genetically engineered seeds for cultivation in Spain. Other EFSA experts were also involved in preparing the paper, including Elisabeth Waigmann, head of the GMO department at EFSA. Testbiotech has suggested naming this collaboration the “European Food Safety Industry” (EFSI) in order to highlight the unacceptable nature of such collusion.

Monsanto, DuPont and Syngenta have all filed EU applications for the cultivation of transgenic maize. The maize produces insecticidal toxins (MON810, Bt11 and Maize 1507) and / or is resistant to the herbicide glyphosate (GA21) and glufosinate (Bt11 and Maize 1507).

Spain is the main area for cultivation of the maize in the EU. Teosinte, a wild relative of maize and widely seen as its ancestor, has for several years unexpectedly been found growing in Spain. In 2017, a paper published by researchers at the ETH Zürich reported that hybridisation between the teosinte growing in Spain and some maize plants had already happened in the past. It is likely that the transgenic maize cultivated in Spain will be able to pass its transgenic DNA on to teosinte plants. Consequently, a 'super weed' could emerge that is resistant to herbicides and also produces insecticides. The transgenes could then be passed back to the fields where the maize is being cultivated.

The authors of 'EFSI' consider these risks to be of only minor relevance, and assume that the transgenes, once they have spread to teosinte, would only show the originally intended biological traits. They consider the transgene to be a kind of inert 'BioBrick' that can be inserted or removed without its function being influenced by other genes or the environment. This is wrong. It is, for example, known that the enzyme EPSPS produced in the transgenic plants to make them resistant to glyphosate can confer increased biological fitness. Consequently, if there is gene flow from the plants into the natural populations, the offspring can spread their transgenic DNA more rapidly into the environment than before. This effect is solely dependent on the additionally inserted gene, and not on the application of glyphosate. The effect can be enhanced by specific stressors such as drought and heat.

“EFSI is completely ignoring the fact that potential teosinte × GM maize hybrids need to be seen as new transgenic plants that have never been tested for risks. Therefore, their spread into the environment absolutely cannot be allowed. It does not matter whether these plants grow in or outside the fields,” says Christoph Then.

Currently, there are neither EFSA guidelines nor methods for making detailed assessments of the risks associated with genetically engineered plants emerging from unintended spontaneous crossings. Current risk assessment of genetically engineered plants mostly concentrates on plants that are grown for just one season and are re-sown each year.

“Hybridisation may lead to the uncontrolled spread of transgenes and enhanced weediness, which can severely impact farmers and the environment,” Christoph Then from Testbiotech explains. “So far, EFSA has failed to deal with this problem in any detail. If EFSA is now acting in league with industry, who can be asked to assess these risks independently?”

Testbiotech has further criticised a general problem with EFSA independence. Thus far, EFSA has not managed to develop robust standards to protect its independence from being compromised by close cooperation with academics allied with the interests industry.

This problem is exemplified by the current case: the 'EFSI' paper was originally drawn up in 2017 at a conference - the “International Symposium on the Biosafety of Genetically Modified Organisms”. The conference was organised by the “International Society for Biosafety Research” (ISBR). There is only very little information available on the funding of the ISBR. It is, however, known that its conferences are regularly sponsored by biotech corporations such as Monsanto, Bayer, Dow AgroSciences, DuPont and Syngenta as well as the international federation of the genetic engineering industry, CropLife International. Further, the ISBR management board consists mainly of representatives from the biotech industry. In 2016, Yann Devos, an EFSA employee, joined the ISBR board as program director. It is obvious that there are no sufficient restrictions in place on close collaboration between EFSA employees and representatives of regulated industries.

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