Half a dozen insecticidal toxins in genetically engineered maize

Food market to be flooded with products not tested for health risks
Thursday, 4 November 2010
Munich-Parma

European Food Safety Agency EFSA has given a positive opinion on the authorisation of genetically engineered maize that inherits eight technically inserted gene sequences. The maize (corn) with brand name SmartStax, will be authorised for use in food and feed within the EU. It produces six different insecticidal Bt-proteins and is tolerant to two herbicides. Monsanto and Dow AgroSciences developed the plants, which are derived from crosses between several genetically engineered plants. Plants produced like this are called 'stacked events'. SmartStax is already authorised for cultivation in the US and Canada.

EFSA did not request any tests for health risks resulting from plants with this specific combination of gene sequences. It relied essentially upon the previous testing of the maize lines used to produce Smartstax, all of which had undergone separate assessment and had individual approval. Testbiotech believes that the EFSA's opinion is unacceptable: It is known that insecticidal Bt proteins can show largely enhanced toxicity when they are combined with each other or come into contact with other co-factors.

Christoph Then of Testbiotech warns that, "More and more plants are being grown that have more than one technically derived gene function. EFSA generally favours market authorisation of these plants with 'stacked events', without actually investigating the plants with the specific gene combination for potential health effects. The EU regulated market is at risk of being flooded with genetically engineered plants that have never been tested for health risks".

Testbiotech believes that plants with stacked events must be checked thoroughly for health risks because combinatorial effects cannot be predicted simply by assessing the individual compounds. In addition to the six insecticidal toxins produced by SmartStax, residues from the two herbicides that can be used on the plants have to be taken into account. However, EFSA did not request specific health tests, and was satisfied with a 42 day feeding trial with broiler chickens, testing only the nutritional quality of SmartStax. Testbiotech urges the EU Commission and the EU member states to reject the opinion of EFSA and push for a higher standard in risk assessment.

A recent GMO panel statement shows the extent to which the EFSA´s opinions lack scientific scrutiny and credibility: A report of Testbiotech in April 2010 describes some serious deficiencies in the EFSA´s risk assessment of maize 1507. The EU Commission asked EFSA to review the arguments provided by Testbiotech. In its recent statement, EFSA is eager to defend its previous opinions but fails to address some the most relevant points such as adverse effects in relevant test organism. Maize 1507 is one of those plants being used in the production of SmartStax.

Contact:
For further questions please contact Christoph Then 0049 (0) 151 54638040

Institute for Independent Impact Assessment in Biotechnology
Frohschammerstr. 14,
80807 München
info@testbiotech.org [1]
www.testbiotech.org [2]

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