

SCI/TECH

## New study reveals signs of toxicity of GE maize approved for human consumption

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Laboratory rats, fed with a genetically engineered (GE) maize produced by Monsanto, have shown signs of toxicity in kidney and liver, according to a new study. (1) This is the first time that a GE product which has been cleared for use as food for humans and animals has shown signs of toxic effects on internal organs.

The study, published today in the journal "Archives of Environmental Contamination and Toxicology", analysed results of safety tests submitted by Monsanto to the European Commission when the company was seeking authorisation to market its GE Maize variety MON863 in the EU. (2)

The data shows that MON863 has significant health risks associated with it; nonetheless, the European Commission granted licences to market the maize for consumption by both humans and animals. (3)

The incriminating evidence was obtained by Greenpeace following a court case (4), and passed on for evaluation by a team of experts headed by Professor Gilles Eric Séralini, a governmental expert in genetic engineering technology from the University of Caen. (5)

In a joint press conference with Greenpeace at Berlin, Professor Séralini said, "Monsanto's analyses do not stand up to rigorous scrutiny" to begin with, their statistical protocols are highly questionable. Worse, the company failed to run a sufficient analysis of the differences in animal weight. Crucial data from urine tests were concealed in the company's own publications."

Greenpeace is demanding the complete and immediate withdrawal of Monsanto's MON 863 maize from the global market and is calling upon governments to undertake an urgent reassessment of all other authorised GE products and a strict review of current testing methods.

"This is the final nail in the coffin for the credibility of the current authorisation system for GE products. Once it's known that a system designed to protect human and animal health has approved a high-risk product despite clear evidence of its dangers, we need to start "strip-searching" all GE products on the market, and immediately abort this flawed approval procedure," said Christophe Then, Genetic Engineer campaigner, Greenpeace International.

The data in question has been the subject of fierce debate since 2003, when significant changes were identified in the blood of tested animals fed on MON863. MON863 was approved by the European Commission, in spite of opposition by a majority of EU member states, who raised concerns over the safety of the maize. Professor Séralini's analysis now scientifically confirms these concerns.

As the study states, "with the present data, it cannot be concluded that GM corn MON863 is a safe product." And yet, MON863 has been authorised for markets in Australia, Canada, China, Japan, Mexico, the Phillipines, and USA, besides the EU.

"This is an international emergency alert, requiring a global response," concluded Then, "Only a complete withdrawal from all markets will curtail the possible damage."

### Notes:

1. The article is due to be published online (<http://www.springerlink.com/content/k=1432-0703>) by the American journal Archives of Environmental Contamination and Toxicology; it will be printed in May. A copy can be faxed on request. A Greenpeace briefing on the study is available at: [http://www.greenpeace.org/international/press/reports/gp\\_briefing\\_serolini\\_study](http://www.greenpeace.org/international/press/reports/gp_briefing_serolini_study)

2. The tested GE maize named MON 863 produces a new insecticide called "modified Cry3Bb1" able to kill a pest insect in the soil (*Diabrotica virgifera*). This GE maize also contains a gene coding for antibiotic resistance.

3. The European Commission granted a license for MON 863 to be used in feed in August 2005, and subsequently approved it for human consumption in January 2006.

4. For details, please refer to the Greenpeace paper: "The MON863 case -a chronicle of systematic deception" [http://www.greenpeace.org/international/press/reports/mon863\\_chronicle\\_of\\_deception](http://www.greenpeace.org/international/press/reports/mon863_chronicle_of_deception)

5. The analysis team was headed by Professor Séralini from the University of Caen and included experts from the French independent scientific organisation CRI IGEN.