

New Scientific Paper Shows Approval Of Monsanto's GM Corn Questioned 11-23-4

<http://www.foe.org/new/releases/1104gmcrops.html>

<http://www.rense.com/general59/cchm.htm>

WASHINGTON DC, BRUSSELS and LONDON - A peer-reviewed scientific paper published today in *Biotechnology and Genetic Engineering Reviews* debunks the myth that genetically modified (GM) crops are thoroughly tested, regulated and proven safe.

The paper, 'Safety Testing and Regulation of Genetically Engineered Foods' [1], reveals fundamental flaws in how biotech companies test and the U.S. government regulates GM crops. The paper thus raises serious questions about whether GM foods, which have been on the market since 1994, are in fact safe, as claimed by the biotech industry and U.S. regulators. [2]

The scientific paper includes a comprehensive case study of two types of insecticide-producing GM corn (chiefly the MON810 variety of biotech giant Monsanto Co.), showing how flawed testing and regulation permitted these varieties onto world markets despite evidence that they could cause food allergies. The European Union recently approved 17 corn hybrids derived from MON810 over the objections of several member states.

Authors Dr. David Schubert (cell biologist and medical researcher at California's Salk Institute) and William Freese (research analyst with Friends of the Earth U.S) base their meticulously documented, 25-page paper on nearly 100 sources, including little-known U.S. regulatory documents and unpublished studies by biotech companies. [3]

"One thing that surprised us is that U.S. regulators rely almost exclusively on information provided by the biotech crop developer, and those data are not published in journals or subjected to peer review," said co-author Schubert.

Added Freese: "In one case, the U.S. Environmental Protection Agency ignored a published study by an Food and Drug Administration (FDA) scientist suggesting that GM corn could cause food allergies, and instead asked Monsanto and Syngenta to essentially re-do FDA's analysis."

The US is the world's largest exporter of GM crops and accounts for nearly two-thirds of all biotech crops planted globally. GM soy and GM corn account for 83 percent of all GM crops planted on the planet.

"The picture that emerges from our study of U.S. regulation of GM foods is a rubber-stamp 'approval process' designed to increase public confidence in, but not ensure the safety of, genetically engineered foods," said Schubert.

"GM food regulation in the U.S. bears as little relation to good science as the typical used car ad to the true state of the automobile. Both are designed to sell a product," added Freese.

"We outline a testing scheme that would be a first step toward putting regulation of GM foods on a scientific footing," said Schubert. "Quite similar to science-based testing recommended by several European teams," he added.

See 'Key Findings' below for more information on the paper,

NOTES TO EDITORS

[1] E-mail one of the contacts below for a copy of the article, which forms part of Volume 21 of *Biotechnology and Genetic Engineering Reviews* .

[2] An independent study by UK-based Econexus released in October has come to very similar conclusions regarding the safety of existing GM crops; see “Genome Scrambling - Myth or Reality?” The major GM food crops on the market are varieties of soybeans, corn and canola.

[3] About the authors:

David Schubert, Ph.D is on the faculty of the Salk Institute of Biological Studies in San Diego , California , where he is head of the Cellular Neurobiology Laboratory. He has a B.A. in chemistry and a Ph.D. in cell biology. Dr. Schubert's fields of scientific expertise are molecular genetics, cell biology, and protein chemistry. He has published over 200 reviewed manuscripts in these areas and has written and lectured on the potential health hazards associated with genetically modified crops.

William Freese has worked as research analyst with Friends of the Earth since July 2000. He was part of the team that discovered GM StarLink corn, unapproved for human consumption, in the food supply. He has helped inform the public and the food industry about the irresponsible practice of 'biopharming' (www.foe.org/biopharm), and has written and lectured on many aspects of GM crops and their regulation. Freese has a B.A. in chemistry from Grinnell College .

[4] In the U.S. regulatory system, the EPA, not the FDA, has primary responsibility for GM plants that produce insecticides.

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KEY FINDINGS

'Safety Testing and Regulation of Genetically Engineered Foods'

By William Freese & David Schubert

Deficiencies in U.S. government regulation:

- The U.S. Food and Drug Administration (FDA) does not require testing of GM foods, but rather has a 'voluntary consultatio' process. Companies that voluntarily consult with the FDA sometimes fail to respond to FDA requests for additional information. FDA reviews 'summary data' not full studies, making a critical review impossible. FDA does not approve GM crops as safe; instead, the GM crop developer is made responsible for the safety of its product.
- The U.S. Environmental Protection Agency (EPA) regulates insecticide-producing GM plants. EPA often fails to collect data for review of potential human health impacts and accepts substandard testing by biotech companies. EPA has ignored evidence from independent researchers that conflicts with company-provided information. EPA raises the maximum permissible levels of herbicide residues on crops to facilitate introduction of herbicide-tolerant GM crops.
- The U.S. Dept. of Agriculture (USDA) has not established rigorous rules to prevent GM crops from contaminating conventional crops, even when the contamination could lead to creation of difficult to control 'superweeds.' USDA permits cultivation of GM pharmaceutical crops, despite two contamination incidents necessitating destruction of large quantities of corn and soybeans. The USDA does not test neighboring fields for GM contamination or require companies to supply test kits.

Flaws in biotech company testing practices:

- The use of surrogate GM proteins for testing rather than the GM plant-produced proteins that people actually consume
- The failure of companies to test for most possible unintended effects of the unpredictable genetic engineering process; in particular, there is a lack of long-term animal feeding studies
- The tendency of companies to manipulate test conditions to get the desired results, facilitated by the failure of regulatory agencies to establish test protocols

Case study of GM corn

- Evidence that insecticide-producing GM corn may cause food allergies has been ignored by the EPA
- Increased lignin levels in some GM corn varieties was not detected before commercial sale and has still not been explained (lignin is the woody substance in stalks)
- FDA has fundamentally flawed molecular information on Monsanto's MON810 corn, reflecting the weakness of its voluntary consultation process

Outline of science-based testing scheme:

Long-term animal feeding trials with the whole GE crop to test for carcinogenic, reproductive and other adverse effects

- Test for potential of GM crop compounds to cause mutations
- Test for full range of unintended effects with metabolic profiling
- Test for allergenic potential according to strict, internationally accepted protocol