

**EFSA Conference
September 2009**

**The European Food Safety Authority and
GMO Risk Assessment in the EU:**

An environmental NGO perspective

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- Federation of 70 national autonomous organisations, including FoE US
- Campaigning for social and environmental justice
- Over 5000 grassroots groups worldwide
- 31 organisations in the European network
- European secretariat in Brussels with @ 30 staff



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- campaign on GMOs for 10+ years
- member of EFSA stakeholder platform
- speaking today as a non-scientist
- NGO meeting at EFSA to discuss GMO issues in October 2009



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Introduction

- **EFSA GMO panel has been source of controversy with criticism from various sources (NGOs, scientists, member states)**
- **December 2008 Environment Council Conclusions (16882/08 ENV 961):**
 - “necessary to look for improvement of the implementation of [GMO] legal framework”
 - signal to EFSA and to the Commission for the risk assessment review



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Issues since EFSA established

○ EFSA GMO Panel since it was established

- Does not ask biotech companies to submit evidence of long term impact assessments
- Has shown little or no evidence of taking Member States' divergent opinions into account
- Has shown no evidence of taking areas of scientific uncertainty into account
- No acknowledgement of scientific controversy either in terms of risk assessment protocols or of impacts
- Poor in expertise on ecology
- Evidence of poor quality work



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○ FoE Europe research into EFSA GMO panel (2004):

- One member direct financial links with the biotech industry and others had indirect links
- Two members appeared in promotional videos produced by the biotech industry.
- Several members of the Panel, including the chair were involved with an EU-funded project which aimed to agree safety assessment, risk management and risk communication procedures to “*facilitate market introduction of GMO’s in Europe, and therefore bring the European industry in a competitive position.*”
- The EFSA chair sat on a working group that also included staff from Monsanto, Bayer Cropscience and Syngenta.
- One of the first experts used by the GMO Panel was a well known advocate of GM technology who had previously undertaken research for both Monsanto and Bayer CropScience.

NB panel has since been renewed twice in accordance with EFSA rules



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- **There have been some improvements at EFSA**
- **Review process is welcome, but real change needed**
- **Two examples:**
 - A recent EFSA opinion
 - Approach taken to herbicide resistant (HT) crops



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GM Maize MON810

- **EFSA Opinion issued end June 2009**
- **Analysis commissioned by Friends of the Earth Europe and Greenpeace, published July 2009**



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○ Environmental Safety

- Non-target organisms: lack of key laboratory studies on European species
- This critical issue has been raised by Member States
- Rather than admitting this area of uncertainty, EFSA established a non peer-reviewed model
- Recommends “management measures in order to mitigate the possible exposure of these species to MON810 pollen”
- Reminder: environmental risk assessment of “potential effects of genetically modified plants on non-target organisms “specifically mentioned in Council Conclusions

○ Human Safety

- EFSA acknowledges that there are new unknown fragments of genetic material in plant cells derived partly from the inserted MON810 genes and the maize genome Have potential to produce new unknown proteins
- BUT instead of requesting that the applicant (Monsanto) assess toxicology properties, EFSA assumes they are safe without any further scientific studies or reference to peer-reviewed literature
- Issue of unknown fragments of genetic material was looked at in NK603 but not in MON810
- Silence “not justified and of poor scientific standard”

○ Human Safety

- EFSA accepts that applicant (Monsanto) did not update its information on details of genetic sequence inserted into MON810
- Because of RNA and DNA fragments around inserted genetic material, this is a cause for concern (fragments have been detected in blood of animals)
- EFSA sees shortcomings in scientific articles raising potential risks but accepts all articles to the contrary including ones where MS have raised shortcomings
- Omission of studies (easily identified in scientific databases) that point to a risk or that demand further evaluation



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- **Overall conclusion is that the EFSA opinion is not to good scientific standard**
- **On key issue (Non Target Organisms) there is simply a “management measures” proposal**
- **In addition, Opinion was given to Monsanto before publicly made available**
 - Monsanto put out a press release
 - EFSA policy
 - Inappropriate for a supposedly independent agency



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EFSA on Herbicide Tolerant (HT) Crops

- **2008 EFSA working document**
- **USA: “continuous and repeated application of glyphosate is causing changes in weed flora and development of more resistant weeds”**
“This is resulting in changes to herbicide programmes and hence additional adverse environmental consequences”



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Herbicide Tolerant Crops and pesticide use in the US

- **1994-2005: 15-fold increase** in the use of glyphosate on soybeans, maize and cotton. In 2006, glyphosate use on soybeans jumped by **28%**.
- an epidemic of glyphosate-resistant weeds, and rising use of other herbicides to control them: the amount of **2,4-D** (a component of Agent Orange) applied to U.S. soybeans **more than doubled** from 2002 to 2006.
- The use of **atrazine** (banned in the EU due to links to health problems) on corn/maize increased by **12%** between 2002 and 2005.



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Herbicide Tolerant crops in Brazil

- Brazilian government authorities have documented an **76.9%** increase in glyphosate use from **2000 to 2005**, together with the rapid emergence of weeds that are resistant to the chemical.



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Weed resistance and Herbicide Tolerant crops in Argentina: Johnsongrass

- Considered to be one of the worst weeds in the world
- In 2007, reported in 6 provinces in Argentina
- Recommendation to control resistant weeds is to use a cocktail of herbicides including some of the most toxic.
- Estimations are that additional 25 million litres of such herbicides will be needed each year



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- Estimation that herbicide costs will double in affected areas
- Increase in production costs expected
- Bill drafted by Argentinean Congressman in 2007
 - Acknowledges that “***market forces cannot control this pest***” and that a special fund is needed to fund eradication measures. Fund would include taxpayers money, and contributions for International organisations



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Herbicide Tolerant crops

- Promise of GMHT crops reducing pesticide use has not delivered

Syngenta Crop Science CEO:

“[Weed] Resistance is actually quite healthy for our markets, because we have to innovate” (source: ETC)

- 62% of field trials in the US are for Roundup Ready crops
- Roundup Ready Flex cotton (to withstand higher applications of Roundup)
- Monsanto developing “Dicamba” resistant crops (same class as 2,4 D), partnership with BASF
- Other HT GM crops for ex by DuPont Pioneer

EFSA and GMHT crops

- ***“The EFSA GMO panel recommends that monitoring of the herbicides is conducted as part of the stewardship of the herbicides by the agrochemical companies involved, under the auspices of the pesticide regulatory systems operating in MS ...”***
- Point of comparison is intensive conventional farming, not modern ecological farming (in context of climate change, IAASTD)
- Fails to admit the scale of the problem and avoids the issue and ignores future problems
- Again, this issue was specifically raised by Environmental Ministers in December 2008

Conclusions

- Review of risk assessment is much needed and welcome initiative
- Improvements can be seen over past few years
- BUT, need for real change not window dressing: this is the only way to start getting public credibility
- Recent work still inadequate which is cause for concern
- Pushing the problem onto management and monitoring is not enough



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- **Independent research and input from wide range of scientists**
- **End privileged access for biotech companies**
- **Open up input from stakeholders prior to publication**
- **Sound risk management from the European Commission is urgently needed**
- **Wider context: sustainable and competitive farming in Europe**



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Thank you

GMOs and pesticide use

http://www.foeeurope.org/GMOs/Who_Benefits/FULL_REPORT_FINAL_FEB08.pdf

http://www.foeeurope.org/GMOs/Who_Benefits/QA_FINAL_FEB08.pdf

Who Benefits from GM crops in a food price crisis?

http://www.foeeurope.org/GMOs/Who_Benefits/full_report_2009.pdf

GMO crops in the EU, factsheet 2008

http://www.foeeurope.org/GMOs/Who_Benefits/EU_briefing_2009.pdf

Animal feed price increase and GMOs (« zero tolerance »)

http://www.foeeurope.org/GMOs/animal_feed/Briefing_animal_feed_GMOs_May_2008.pdf

http://www.foeeurope.org/GMOs/ZERO_TOLERANCE_Campaigner_briefing_FINAL.pdf

Jobs and competitiveness

http://www.foeeurope.org/publications/2007/FoEE_biotech_MTR_midlifecrisis_March07.pdf



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