

Thin Ice



the GM Freeze Campaign newsletter

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No scientific “consensus” on GM safety

In October the European Network of Scientists for Social and Environmental Responsibility (ENSSER) issued a statement from 100 scientists, academics and physicians saying that scientific “consensus” on the safety of GMOs “does not exist”.

The Chair of ENSSER said, “Such claims may place human and environmental health at undue risk and create an atmosphere of complacency ... The statement draws attention to the diversity of opinion over GMOs in the scientific community and the often contradictory or inconclusive findings of studies on GMO safety.” Another ENSSER spokesperson said, “A substantial number of studies suggest that GM crops and foods can be toxic or allergenic. It is often claimed that millions of Americans eat GM foods with no ill effects, but as the US has no GMO labelling and no epidemiological studies have been carried out, there is no way

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of knowing whether the rising rates of chronic diseases seen in that country have anything to do with GM food consumption or not. Therefore this claim has no scientific basis.”

The biotech industry was quick to react, issuing an open letter to the Commission expressing “deep concern” about the effects of EU GM regulation. The Chair of the Agricultural Biotechnology Council (ABC) said there is an “overwhelming weight of evidence” pointing to the safety of GM crops, repeating the flawed argument that an estimated three trillion GM meals have

been eaten over 13 years “without a single substantiated case of ill-health”.

Worryingly the NFU, NFU Cymru, NFU Scotland and the Ulster Farmers’ Union signed the pro-GM letter, with an NFU spokesperson saying, “If the EU wants to make its farming more sustainable and be less dependent on import of agricultural products, then EU farmers will need to have access to crop varieties that are less dependent on pesticides, that produce more per hectare, that require less mechanical soil treatment, that can withstand the effects of climate change, etc... Developing such crop varieties cannot be done by conventional breeding alone.” Serious questions remain, including over the justification for increased expenditure on further GM research promising sustainable farming when GM has so far failed to deliver any of the promised benefits and why other successful, uncontroversial

GET ACTIVE

Less than a year after its approval GM canola had contaminated some two-thirds of Steve Marsh’s West Australia farm and cost him his organic status. [TI 20, 21, 23] Three years later he is still fighting, and as his legal case at Australia’s Supreme Court gears up to begin in February he needs support. Visit safefoodfoundation.org/what-we-do/help-this-farmer/ to see a short film from Steve, find ideas for actions and find information on how you can contribute to Steve’s fighting fund. Steve says: “We lost our certification. It’s had a dramatic impact on our financial situation. Nobody wants to take their neighbour to court...At the same time you have to protect yourself from the liability issues as well.” GM supporters are providing financial assistance to the neighbour whose GM crop contaminated Steve’s farm.



INTERNATIONAL ROUNDUP

Africa

Sudan

In January authorities seized an illegal shipment of GM soyabeans at Port Sudan. The source of the shipment was unclear at the time of writing.

Americas

Argentina

In October Testbiotech published test results for soyabean samples showing “alarmingly high” glyphosate residues. The tests, performed by a lab at the University of Buenos Aires, were conducted on samples shortly before harvest, suggesting that high residues in food may be more of a problem than previously thought.

Brazil

In October a judge blocked Monsanto’s attempt to force farmers to sign agreements waiving their rights to a refund of royalties collected illegally on Roundup Ready 1 (RR1) after the patent expired in 2010 as a precondition to purchasing to new RR2 seed. [T1 29] The judge said this would force farmers “to comply with clauses that are burdensome, if not illegal”.

Brazilian farmers faced with an escalating infestation of *Helicoverpa armigera* (corn earworm) resistant to GM Bt corn crops are now also faced with emerging glyphosate resistant corn volunteers in soya crops. Data from Embrapa suggests that 2-4 corn plants/meter square can cut soyabean productivity by as much as 50%, as well as causing problems at harvest – if the amount of corn in soya is too high it commands a lower price, including for farmers who do not plant RR crops but find the volunteers contaminating their fields. Monsanto’s proposed “solution” to the problem is additional chemical applications, which adds to the economic burden of GM cultivation. The company says the “higher productivity of RR corn compensates the farmer” for these additional costs, although some farmers are already opting instead for non-GM corn varieties.

Also of considerable concern are moves at the end of 2013 aiming to approve Genetic Use Restriction Technology (GURTs, also known as Terminator Technology). Terminator Technology prevents seeds germinating and is claimed by some to “answer” the problem of GM contamination,

“I hear leading researchers say the only route to boost food production is with genetic modification. It’s not. I’m sorry if I sound angry – I am ... We’re just waiting for the rest of the world to catch up ...”

Kenyan crop protection developer Louise Labuschagne.

Listen again on BBC iPlayer at www.bbc.co.uk/programmes/b03m3j70

“It goes from a few plants to Armageddon in a couple years.”

Weed scientist with Ohio State University Extension on glyphosate resistant Palmer amaranth, which can grow up to three inches per day.

including in trees, which is a problem because of their long lives and very long pollen dispersal. GM Freeze believes Terminator Technology is completely unacceptable for precisely these reasons.

Mexico

In October a judge in the Twelfth Federal District Court ordered the Secretaries for Agriculture and the Environment to “suspend all activities involving the planting of transgenic corn in the country and end the

granting of permission for experimental and pilot commercial plantings” citing “the risk of imminent harm to the environment” posed by the crop and opening the possibility of criminal charges for violations. Monsanto, controversial winner of the 2013 World Food Prize, said it will seek to overturn the ban. An AgroBio Mexico spokeswoman said farmers are keen to use the crops they see used in the US, adding, “I’m not an agronomist, but I don’t think the pollen can fly from Chihuahua to Chiapas.” As US oilseed rape (canola)

GM SALMON UPDATE

In December the Canadian Government approved commercial production of AquaBounty’s GM salmon eggs on Prince Edward Island. The company intends to ship the eggs and raise the GM fish in Panamanian facilities. CBAN condemned the move saying, “It’s unacceptable that this incredibly important decision was made in total secrecy and without any public consultation.”

In January a coalition of groups filed a lawsuit contesting the approval on the grounds the decision failed to gather all the information required by law for such applications and approved “unassessed uses” of the GM product. A coalition spokesperson said, “Canadians expect their Government to implement, not ignore, the laws that protect our ecosystems from harm. By granting approval for this GM species without obtaining all the legally required information, the Government has once again failed the environment and Canadians.”

US approval of the GM fish as food is still pending. The number of pledges from major retailers against selling it is growing.

AquaBounty’s CEO condemns his skeptics saying, “What we’ve been seeing for a long time is dishonesty, fabrication and malicious acts from these groups ... What these groups are trying to do is prevent people from having the right to choose.” If consumer choice is the aim, putting a clear GM label on the product would assist the market in operating properly and prevent interference with international markets, a logic echoed in December by no less an authority on farmed fish than Norway’s Marine Harvest. The company’s Global Director of Communications said, “A possible introduction of GM salmon is controversial and might weaken the salmon brand. Marine Harvest does not support the introduction of GM salmon. If the GM salmon is to be approved for consumption, Marine Harvest asks for it to be specifically labelled.”

growers are beginning realise, birds can fly, and they spread GM contamination very long distances.

US

GM sweetcorn does not appear to be widely available to US consumers, who do not have GM labels to help them see where GM is at the time of purchase. Friends of the Earth US tested 71 samples over four months, but only two samples tested positive for Monsanto's GM sweetcorn, prompting FOE to call it "a big flop". Unfortunately a similar series of tests conducted by the Canadian Biotechnology Action Network (CBAN) on 43 sweetcorn samples from Canadian shops revealed 15 GM products, including some purchased from farmers' markets. CBAN said it is "shocked that Canada could actually be a source of GM sweet corn to US consumers".

In November a University of Illinois study showed non-GM corn hybrid varieties perform as well or better than GM varieties, with one variety producing 3-10 more bushes/hectare than GM counterparts. The study adds to the growing body of evidence that the extra expense and agronomic problems caused by GM maize can be avoided by growing non-GM instead without sacrificing profitability.

Australasia

Bangladesh

In December 100 organisations wrote to the Government expressing "serious concerns" about the announced commercialisation of Bt brinjal (aubergine) and calling for a suspension of all GM brinjal cultivation. The groups cited, among other things, a lack of public consultation over a crop that poses clear threats to food safety and local biodiversity. GM Freeze wrote to a variety of Bangladeshi authorities and food exporters reminding them that since some 40% (or around US\$31.18 million) of Bangladeshi fresh vegetable exports come to UK markets, and in the absence of any information about proper coexistence or segregation protocols to keep the GM variety out of exports, the GM crop poses a serious threat to Bangladeshi export markets because it is not authorised for sale in the EU.

China

In November and December authorities rejected US corn shipments because they contained Syngenta's unapproved GM MIR162 variety. By January US shipments totalling 601,000 tonnes had been rejected and alternative imports began to arrive from Ukraine. The Product Safety Agency called on the US to tighten controls and ensure unapproved GMOs are not sent to China.

CLONING UPDATE

In December the Commission proposed draft laws banning cloning of farm animals, the import of such clones and the sale of food from cloned animals, but no law is expected to be enacted before 2016. While any move to ban clones for food is welcome, the Commission's proposal fails even to mention the far more difficult issue of food from the offspring of clones, which is much more likely as clones themselves are too valuable to slaughter.

Defra responded to the Commission proposals saying, "The UK Government believes these controls are unnecessary... We will be making these points forcibly when the proposals are discussed in Brussels in due course."

As long ago as 2008 69% of the EU Parliament voted that the Commission should bring forward the necessary proposals for a complete ban on cloning for food (including farming clones, selling food from clones and their offspring, and the import of material for or food from clones). Negotiations with the Commission over how to achieve the ban broke down in 2011 when the Commission declined both to bring forward the necessary legislative proposals and to accept the Parliament's compromise that without a ban all food from clones or their offspring must be labelled. In January 2014 a vote in EU Parliament again called on the Commission "to develop a method of tracing and identifying meat from cloned animals".

Only one UK MEP voted against the 2008 motion, yet Defra maintains that labelling food from clones is impossible and that controls on clones themselves are "unnecessary". While clones themselves would require pre-market approval as food (no EU application has been made to sell food from clones), the political impasse means we do not know the degree to which clone offspring may be involved in our food production because it is not illegal to import or sell the products involved and there is no official tracing mechanism in place. GM Freeze agrees with the EU Group on Ethics in Science and New Technologies that the suffering of clones and dams means cloning for food cannot be justified. Since clone offspring are not possible without clones both should be banned in the food chain.

Europe

In December the General Court annulled the controversial cultivation authorisation of BASF's GM industrial starch potato Amflora. The EU's second highest Court said the Commission "significantly failed to fulfil its procedural obligations" when it authorised the crop because relevant Committees had not been properly included in the process.

The decision has implications for the authorisation process handling the cultivation application for the GM maize Pioneer1507, also under the scrutiny of the General Court, which was ongoing at the time of writing.

Also in December the President of the European Natural Soyfood Manufacturers Association (ENSA) called on the EU to improve labelling to ensure consumers can find non-GM products, saying, "Current EU policy does not sufficiently support the cultivation of GMO-free soy products, despite a clear demand for GMO-free food by the consumer."

Russia

In December the National Association for Genetic Safety called for a 10-year moratorium on GM production in order to take time to study effects of GMOs on the human body. A new registration system for

GMOs will go into effect in July 2014, but the Agriculture Ministry warned companies to "act very conservatively" in introducing GMOs into their products.

Serbia

In October a survey revealed that 82.9% of the public support a complete ban on GMOs. Campaigners point out that so far more than 80 municipalities have declared themselves to be GM-free zones.

Spain

In December GeneWatch UK reported that UK company Oxitec had withdrawn its application to release millions of GM olive flies in Spain after regulators asked for further information about the human and environmental safety of the project. GeneWatch UK Director Dr Helen Wallace said, "Oxitec has pulled its application because it does not have the answers to these questions." Oxitec's other experiments include GM mosquitoes, which have been released amid much controversy in the Cayman Islands, Brazil and Malaysia; GM Diamondback Moths, for which an application for release in the UK was withdrawn after Defra raised safety concerns; and GM fruit flies, for which an application for release in Brazil is pending.

No consensus

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high-tech plant breeding techniques like Marker Assisted Selection do not attract such vocal support. Why farming representatives are so keen to promote crops for which there is little or no consumer market also remains a mystery.

By December the number of signatures on the ENSSER statement had nearly tripled to 297, including endorsements from Dr Hans Herren, winner of the 1995 World Food Prize and 2013 Alternative Nobel Prize laureate, and Dr Pushpa Bhargava, known as the father of modern biotechnology in India. [TI 11, 17, 22] Even a supporter of the early GM product Flavr Savr tomato said, "I wholeheartedly support this thorough, thoughtful and professional statement describing the lack of scientific consensus on the safety of GM crops and other GM organisms. Society's debate over how best to utilize the powerful technology of genetic engineering is clearly not over. For its supporters to assume it is, is little more than wishful thinking."

Concerns include the impartiality of advice on GMOs given by the Commission's Chief Scientific Advisor Anne Glover. An ENSSER Board member said, "It seems that Anne Glover chooses to listen to one side of the scientific community only – the circle of GMO producers and their allied scientists – and ignores the other. Thus she is giving biased advice to the EU Commission. For a science adviser, this is irresponsible and unethical."

Another signatory from the Portuguese Catholic University said, "Even if researchers did largely agree on GMO safety, that doesn't make them correct. To paraphrase Albert Einstein, it only takes one study to prove a whole theory wrong – no matter how many scientists believed in it. In addition research has been mostly financed by the very companies that depend on positive outcomes for their business, and we now know that where money flows, influence grows. The few independent academics left must work double shift to address the vast array of unanswered questions and red flags that keep piling up."

ROUNDUP *continued from p3*

UK

In November the Government admitted it is actively intervening in a key EU court case about inadequate risk assessments for Monsanto's "stacked" GMO (ie, multiple GM traits in one crop) Intacta Roundup Ready 2 soya. In a response to a Parliamentary Question, Parliamentary Under-Secretary of State for the Department of Health said, "The United Kingdom has a strong interest in the science-based system underpinning GM product applications and so has applied to intervene in this case."

The UK's interest in the science of increased food production is revealing: UK agriculture R&D spend is 15% on GM crops, 11% on organic, 1% on agroecology. Yet in UK agriculture GM crops are on zero hectares of agricultural land while organic crops are on 560,000 hectares. (Eurostat 2012) A search on the Gov.uk website for "agroecology" yielded zero results despite a 2011 study on 12 million hectares in 20 countries showing average yield increase of 113% using the approach.

"[T]he decision to retract the paper was mine alone, made by me exclusively and not by a vote of the editorial board ... The data is inconclusive, therefore the claim (ie, conclusion) that Roundup Ready maize NK603 and/or the Roundup herbicide have a link to cancer is unreliable. Dr Séralini deserves the benefit of the doubt that this unreliable conclusion was reached in honest error. The review of the data made it clear that there was no misconduct. However, to be very clear, it is the entire paper, with the claim that there is a definitive link between GMO and cancer that is being retracted."

A Wallace Hayes, PhD, DABT, FATS, FIBiol, FACFE, ERT, Editor-in-Chief Food and Chemical Toxicology, on his November 2013 retraction of the CRIIGEN study on GM-fed rats (NB: The CRIIGEN chronic toxicity study reported, as study protocol requires, unexpected tumours. It did not draw any conclusions about cancer.)

"We maintain our conclusions."

Professor Seralini, CRIIGEN

The GM Freeze Campaign is calling on the Government for a Freeze on:

- The growing of genetically modified plants and the production of genetically modified farm animals for any commercial purpose.
- Imports of genetically modified foods, plants, farm crops and farm animals, and produce from genetically modified plants and animals.
- The patenting of genetic resources for food and farm crops.

GM Freeze Campaign, 50 South Yorkshire Buildings, Silkstone Common, Barnsley S75 4RJ. Tel: 0845 217 8992 Email: info@gmfreeze.org

www.gmfreeze.org