European Court rules in favour of tough regulation for new GM techniques

There was cause for celebration in July, when the European Court of Justice (ECJ) ruled that controversial new genetic engineering techniques are GM and must be properly regulated.

Supporting the position taken by environmental campaigners, the judgement in Case C-528/16 (Confédération Paysanne and Others) stated that organisms obtained by mutagenesis are Genetically Modified Organisms (GMOs). In addition, it stated clearly that the only techniques that can escape full GMO regulation are those that already had a history of safe use in 2001. That means that genome editing and other genetic engineering techniques developed since the European Union started regulating GM in food and farming must be subjected to full risk assessments, case by case approval, traceability and labelling.

The French legal case was referred to the ECJ in 2016, after a group of farmers and environmental organisations called for crops created by these techniques to be treated as GMOs. As we reported in Thin Ice 47 the Advocate General’s Opinion on the case, issued in January 2018, offered more questions than answers. This clear-cut positive result came, therefore, as a very welcome surprise.

Commenting in the press, GM Freeze Director Liz O’Neill said: “This case was portrayed by industry as an argument about definition, but the court has seen sense and made it clear that what actually matters is how we regulate emerging technologies that have the potential to permanently alter the ecosystem. All genetic engineering techniques give rise to both unexpected changes and unpredictable real-world impacts. We are delighted that this ruling will ensure their use in our fields and our food will … continued on page 2

In the dark about latest fishy business

BBC outlets including the flagship Radio 4 Today programme, carried an “exclusive” story about a new GM feeding trial on 1 August. Curiously lacking in detail, the coverage celebrated a new study in which camelina that has been genetically modified to produce omega-3 “fish oils”, is apparently being fed to salmon on a fish farm in Scotland. It sounds familiar because Rothamsted Research has been growing trial crops of GM omega-3 camelina for several years. However, the conditions placed on those field trials do not allow the plants to be fed to animals.

GM Freeze Director Liz O’Neill took part in several broadcast interviews throughout the day but, despite probing for details, was unable to find any information on the source of the GM material being used in the trial, the process through which the trial was approved or the measures being taken to prevent GM material escaping into open water. The question of why the BBC gave so much air time to a story with no press release and about which its journalists seemed to know very little also remains unanswered. We are working with colleagues in GM Freeze member organisations to find out more and will share what we uncover.

Meanwhile, the US Department of Agriculture has approved the cultivation of a GM oil seed rape engineered to produce omega-3 oils. The plants can now be grown in the US but cannot be used for food, supplements or animal feed until the Food and Drug Administration grants its approval, which could happen next year.
be subject to detailed safety checks, monitoring and traceability.”

Not everyone welcomed the ruling, of course. The consistently pro-GM Science Media Centre supplied the press with quotes describing the ruling as “a disappointing setback” (Professor Wendy Harwood, John Innes Centre), “a sad day for European plant science” (Professor Sophien Kamoun, The Sainsbury Laboratory) and “the deathblow for plant biotech in Europe” (Professor Nigel Halford from Rothamsted Universität Düsseldorf). Professor Sophien Kamoun, The Sainsbury Laboratory (Dr Sarah Schmidt, Heinrich-Heine-Universität Düsseldorf). Professor Nigel Halford from Rothamsted Research even gave our European colleagues credit for the ruling, declaring that the court had “ignored the pleas of multiple agricultural biotech organisations and taken a decision to keep the NGOs sweet.”

Some industry voices suggested that they will now take their genome editing operations elsewhere, but a group of UK based scientists and industry representatives have already requested a meeting with Ministers to discuss relaxing the rules here after Brexit.

In the meantime, the ruling backed up our view that the current open-air field trial of GM camelina at Rothamsted Research is unlawful. GM Freeze joined forces with GeneWatch UK to write to Environment Secretary Michael Gove on 25 July, demanding a halt to the trial which includes plants genetically modified using genome editing techniques, but which were not subjected to the required environmental risk assessment and public consultation. At the time of writing, we are still waiting for a response.

New study backs up precautionary approach to gene editing

Adding weight to the importance of this ruling, a study published in the journal Nature Biotechnology earlier in July revealed that the high profile CRISPR/Cas9 genome editing technique can cause greater genetic damage than was previously thought. Although focused on medical applications, the conclusions of the research by scientists at the Wellcome Sanger Institute are also relevant for applications in plants.

Professor Allan Bradley said: “we found that changes in the DNA have been seriously underestimated before now.” Those changes included large genetic rearrangements such as DNA deletions and insertions that were too far away from the target site to be identified by the methods usually used to check for unexpected changes.

No deal, or no clue? Government guidance on Brexit and GMO says very little

The UK Government is publishing notices on how to prepare for the possibility of a ‘no deal’ Brexit and a guidance paper on GM was amongst the first group published, on 23 August.

Perhaps tellingly titled “Developing GMOs if there’s no Brexit deal”, the paper’s summary message was that “there would be no significant implications for UK stakeholders.” However, given the lack of detail on who will be responsible for risk-assessments, how Scotland, Wales and Northern Ireland’s rejection of GM will be upheld and whether or not GM labels will be protected, GM Freeze begs to differ! We have written to the relevant Ministers and will share any response we receive, at www.gmfreeze.org/brexit.

Do make sure you are signed up to our email list for news on key developments as things can change very quickly and we may need your help in making our voice heard at the right time. You can sign up at www.gmfreeze.org/emails.

Peter Melchett

We are sure that many GM Freeze members and supporters are, like the staff and management committee, deeply saddened by the death Peter Melchett, aged 70, on 29 August 2018. The many tributes and obituaries published in the press and online have rightly recognised Peter’s pivotal role in the early fight against genetically modified crops, including leading the group of protestors who destroyed a trial crop of GM maize in Norfolk in 1999. Charged (alongside 27 others) with theft and criminal damage, but then acquitted by a jury, Peter drew a line in the soil and spent much of the following almost twenty years working to promote more responsible and sustainable farming.

Peter wore many hats throughout his life: hereditary peer (voting to remove his like from the House of Lords); Labour whip and junior minister for environment, industry and then Northern Ireland; Chair and Executive Director of Greenpeace UK; council member of the RSPB; trustee of WWF UK; organic farmer and, since 2002, Policy Director of the Soil Association (to name just a few). He was a great friend to GM Freeze, offering invaluable support, advice and – when he felt necessary – challenge. Peter leaves the world a much better place than it would have been without him and we will miss him terribly. A special website has been set up to allow people to share their thoughts and memories at celebratingpeter.wordpress.com.
Our year, in brief

The year from April 2017 to March 2018 saw GM Freeze rising to new challenges on several fronts. Our annual report and accounts for the year are published on the GM Freeze website and will be discussed at the AGM, but here we share a summary of what your support has helped us to achieve in the past year.

Protecting our food and our farms after Brexit

In May 2017 we published a manifesto for the snap general election to help our supporters and their prospective MPs understand that GM is a Brexit issue. We then went on to secure funding from the Patagonia Environmental Grants Fund of Tides Foundation and the Andrew Wainwright Reform Trust which, when combined with core funding from JMG Foundation, Sheepdrove Trust and your regular subscriptions and donations, allowed us to create a project focusing on the impact of Brexit on GM in food and farming.

To do that we produced an easy-read briefing and submitted evidence to the House of Commons Environment, Food and Rural Affairs Select Committee’s inquiry into Brexit and trade in food. We also created two separate campaigns. Safeguard our Farms focuses on regulation of GM crops and imports as well as protection from contamination, while Don’t Hide What’s Inside makes the case for GM labelling. Both campaigns can be found online at www.gmfreeze.org/brexit.

Feed me the Truth about hidden GM in the food chain

Our Feed me the Truth campaign www.feedmethetruth.org ran throughout 2017/18, thanks to project funding from the Polden-Puckham Charitable Foundation. The campaign highlighted poor performance by the UK’s top ten supermarkets and reached over 30,000 people with 4,740 people engaged directly with the campaign across our online platforms.

Communicating our concerns about GM in food and farming

Our redeveloped website went live at www.gmfreeze.org on 30 August 2017 thanks to a grant received in 2016 from Lush Charity Pot (for non-staff costs). The new site has now been running successfully for over a year and we always welcome your suggestions for improvements.

In November 2017, an academic paper co-authored by GM Freeze Director Liz O’Neill was published in the peer-reviewed journal EMBO Reports. The paper, Why are NGOs sceptical of genome editing?, was the culmination of work with social and political scientists at the Universities of Nottingham, Exeter and Sheffield. It challenges the idea that safety is the only legitimate reason to object to the use of biotechnology in agriculture and the notion that NGO opposition to GM is based on emotion or dogma.

Throughout the year we also made the case against GM through media coverage including stories in the Daily Mail, the Telegraph, the Times, interviews on Farming Today and a head to head debate with Mark Lynas on BBC Radio 4’s Today programme.

Saying no, because you said yes

GM Freeze has always led responses to UK GM field trials but when a new trial application was announced in February 2018 we simply didn’t have the resources to react effectively in the very tight timescale allowed by the statutory consultation process. We turned to you, our supporters, who chipped in over £1,000 in less than two weeks. As a result, in March 2018 GM Freeze submitted a detailed, fully referenced objection to Rothamsted Research’s application for a new open-air field trial of highly experimental GM camelina plants, on behalf of twenty-six different organisations. We also prepared a “plain English” explanation of our concerns about this trial to help you to make your own voices heard.

Our finances 2017/18

Income

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<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Membership fees (organisations)</td>
<td>£3,720</td>
<td>6%</td>
</tr>
<tr>
<td>Supporter fees and donations (individuals)</td>
<td>£7,887</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>£11,607</td>
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Expenditure

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<th>Description</th>
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<tr>
<td>Grants</td>
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<tr>
<td>Campaigns, press, media and website</td>
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<tr>
<td>Office costs</td>
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<td>Other staff costs</td>
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<td>OTHER COSTS</td>
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</tr>
<tr>
<td>TOTAL</td>
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</tr>
</tbody>
</table>

£782 of project related grant income received in previous years was brought forward into 2017/18. £3,268 of project related grant income received in 2017/18 was carried forward into 2018/19 for ongoing work.
INTERNATIONAL NEWS

Canada
Mystery surrounds the discovery, back in 2017 but only made public in June 2018, of GM wheat growing wild in Alberta. A small quantity of the glyphosate tolerant GM wheat was found growing in a ditch and later matched to a strain developed by Monsanto and trialled some 300km away in the early 2000s. The Canadian Food Inspection Agency has not found any evidence of the GM wheat growing elsewhere but neither has it come up with an explanation of where it came from or how it came to be growing in this particular ditch. Japan and South Korea imposed bans on Canadian wheat and flour imports in response and although the bans have now been lifted, concern about the large number of GM wheat contamination incidents is growing.

Ireland
The Irish Cabinet has approved a measure to allow individual GM crops to be effectively banned from cultivation in the republic. Transposing the 2015 European Union (EU) directive that permits EU countries and some regions to opt out of GM crop approvals for cultivation will give Ireland the option to prevent the farming of GM crops that are allowed to be grown elsewhere in the EU. The legislative move opens the way for Ireland to follow Scotland, Wales and Northern Ireland, seventeen other countries, and the Wallonia region of Belgium, in formalising a bar on both the one GM crop currently authorised for cultivation in the EU and a group of others that have been in the approval “pipeline” for several years, as reported in Thin Ice 38.

Japan
In contrast to the recent European Court of Justice ruling (see page 1), a Japanese Government panel has recommended regulating only those GMOs that are created through the permanent insertion of genes from another species. If the government follows through on this position, both gene editing and cisgenesis (in which genes from the same or closely related species are inserted), will escape proper regulation. The panel recommends that researchers and businesses can simply register their modifications with the government.

Substantial non-equivalence

A new study from Mexico has revealed extensive differences between GM plants and the non-GM versions to which they are allegedly “substantially equivalent”. Analysing rice, oil seed rape, maize, sunflower and pumpkin, the researchers studied differences in the characteristics of wild, non-GM cultivated varieties, and GM plants. The GMOs are supposed to differ from their nearest non-GM relatives only in the ways intended by the genetic engineers who produced them. However, the study found wide variation in the number of days taken to flower, the number of seeds/fruits produced, plant height, and pollen viability.

GM Freeze is working to help create a world in which our food is produced responsibly, fairly and sustainably. We consider and raise the profile of concerns about the impact of genetic modification. We inform, inspire, represent and support those who share our concerns. We campaign for a moratorium on GM food and farming in the UK. We oppose the patenting of genetic resources.

A referenced version of this newsletter is available online – www.gmfreeze.org/thinice

GM Freeze, Open Space Co-operative, Unit 1, 41 Old Birley Street, Hulme, Manchester, M15 5RF. info@gmfreeze.org 0845 217 8992

We use an 0845 phone number to protect the privacy of our staff, who work from home. Calls to this number will cost 3p per minute plus your telephone company’s Access Charge.

www.gmfreeze.org