Deregulation plan derailed for now...

However, the danger remains even as evidence mounts on both how and why we need strict controls on the use of gene editing

At the end of July, the House of Lords debated an amendment to the Agriculture Bill that would have given the Environment Minister the power to decide what does, and does not, count in English law as a GMO. The agri-tech lobby had been trying to persuade the Government to adopt the proposal, designed to lead to the deregulation of gene editing techniques, since the Spring (Thin Ice 55). However, late in the evening of the last day before Parliament’s summer recess, Amendment 275 was withdrawn.

GM Freeze worked in partnership with Beyond GM and GM Watch to demonstrate to Ministers that British people want proper safeguards, not an open door for new kinds of GMO. Many of our members and supporters wrote to Ministers and their own MPs and your voices made a real difference – thank you for stepping up when it was needed. However, this was just the first stage in what could be a long and difficult fight to safeguard our food and our farms. The Agriculture Bill has a long way to go before becoming law and it is possible that other damaging amendments will be proposed.

Weedkillers in the spotlight

The last few months have brought bad news for herbicides, as several studies revealed yet more ways that these powerful chemicals are causing harm.

A new study published in Environmental Sciences Europe in July found that, while glyphosate tolerant GM soya plants can withstand repeated spraying with the popular weedkiller, they nonetheless suffer harm. Eight hours after spraying with a dose of glyphosate-based weedkiller legally permitted in Brazil, the researchers from Norway and Brazil observed changes in the biochemistry and metabolism of the GM plants. GM glyphosate tolerant soya is widely grown in Brazil and imported into Europe for use in food and animal feed while glyphosate itself is judged by the World Health Organisation to probably cause cancer in humans.

The first national glyphosate ban in the EU came a step closer in August when the European Commission waived its right to make a “detailed statement” objecting to plans for a ban in Austria. The commission is still critical of the plan but, by submitting a lower level “comment”, has communicated that such a ban “appears to be in accordance with European Union law”. The Czech Republic has issued a “detailed statement” of its own, describing the proposed ban as an obstacle to the free movement of goods, but it is anticipated that the Austrian federal
Regardless of the Bill, Lord Gardiner of Kimble (who is a junior minister in the Department for the Environment, Food and Rural Affairs – Defra), announced during the debate that a public consultation on the status of gene editing will be launched in the autumn.

There needs to be much more public discussion about just what gene (or genome) editing is and how its use could impact our food, our farms, and the natural environment. However, no details are available yet on the format or scope of the planned consultation so it is hard to know whether it will actually consider our concerns in a meaningful way. The debate in the House of Lords revealed a great deal of support for high tech approaches to farming and a scathing attitude towards those of us who recognise that GM has no place in a responsible, fair and sustainable food system. Whatever happens next, GM Freeze will be ready to swing into action. We will offer suggestions and advice for having your say but we may need to move quickly so please ensure you are signed up for our email alerts at www.gmfreeze.org/emails or are following us on twitter @gmfreeze or facebook /GMFreezeUK.

More evidence boosts the case against gene editing

The risks of using gene editing to produce our food are well understood by those who have been watching developments, but new studies are always helpful in demonstrating just why this new form of GM needs to very tightly regulated. In July the well-respected scientific journal Nature ran a news story with the headline “CRISPR editing wreaks chromosomal mayhem in human embryos”. Highlighting new research showing that the most high profile gene editing method can cause large unwanted changes to DNA, the article said that three new studies “heighten safety concerns about heritable genome editing”. The research was focused specifically on embryos but we hope that those claiming that gene editing is precise and predictable will take on board the words of a genome editing specialist quoted in the article: “This is something that all of us in the scientific community will, starting immediately, take more seriously than we already have.”

In August, the journal Environmental Services Europe published a scientific paper highlighting a wide range of errors associated with genome editing. The paper states that “genetic errors, caused by the genome editing process, have potential implications for food, animal feed and environmental safety” and that genome editing should not be used in agriculture unless there is a robust, expanded GMO risk assessment that includes protocols to identify genetic errors and how they could impact on safety. Two interesting findings of the study are that significant changes can be made without the addition of new genes and that, rather than replacing older GM techniques, the production of many genome-edited plants actually incorporates older techniques as part of the process.

New test means gene edited oilseed rape has nowhere to hide

In September, a group of NGOs and associations including Greenpeace and the International Federation of Organic Agriculture Movements (IFOAM) published details of a new detection method for the first gene-edited crop being grown at scale – SU Canola (an oilseed rape engineered by US company Cibus to withstand spraying with certain herbicides). Peer-reviewed and validated as meeting the appropriate EU legal standards, the new test is open-source so is not controlled by the company that produces the GM crop. SU Canola is not authorised for import into Europe but, as it is not treated as GM in the countries where it is grown (the US and Canada), testing is urgently required to ensure that it is kept out of our food chain. With the GM industry dragging its heels on detection the new test is an important step towards the overdue proper regulation of gene edited GMOs.

Greenpeace EU food policy director Franziska Achterberg said: “Some have claimed that gene-edited crops cannot be found and therefore cannot be regulated under the EU’s GMO regime. We have shown that GM crops created with gene editing can be detected. There are no more excuses for failing to apply existing GMO safety and labelling requirements to these new GMOs.”

Attempts to deregulate gene editing via an amendment to the Agriculture Bill (see page 1) led to a flurry of media discussion about new forms of GM and their role in food and farming. Many articles lacked balance, but GM Freeze Director Liz O’Neill was interviewed on BBC Radio Ulster and Radio 4’s Farming Today and we also had comments included in several online articles. We list press coverage mentioning or featuring GM Freeze in the News section of our website www.gmfreeze.org/news, with links to interviews that can be accessed online.

CAN YOU HELP?

GM Freeze is looking for a new treasurer to join the volunteer Management Committee and take a particular interest in our finances. To take on the role you need to be confident reading financial spreadsheets and able to join meetings (currently held online) around six times a year.

We are particularly keen to hear from people of colour, disabled people and men, who are all under-represented in the GM Freeze team. If you are interested but wouldn’t normally put yourself forward for this kind of role please do get in touch – we need your skills and a wider range of people to help create a responsible, fair and sustainable food system.

Find out more at: www.gmfreeze.org/join-the-team or contact us via the usual details shown at the bottom of page 4.
Our year: 2019/20

GM Freeze's Annual Report and Accounts for the year from April 2019 to March 2020 are published in full on the GM Freeze website and will be discussed at the AGM. This page offers a user-friendly summary of key developments and financial results for the year.

Objecting to GM field trials
A rush of new GM field trial applications in early 2019 continued into April when we submitted a detailed objection to The Sainsbury Laboratory’s plans for an open field trial of experimental GM potatoes. The trial went ahead but official papers suggested that our objection (signed by 31 different organisations) and the submissions from many of our supporters raised questions that will be considered in a lot more depth if there is any attempt to allow GM potatoes into the UK food chain.

Protecting our food and our farms after Brexit
We had a busy time taking our Don’t Hide What’s Inside and Safeguard our Farms campaigns to summer festivals and the March for Farming, Food, and Climate Justice. Later in the year we held a workshop with key people in food and farming to wrestle with the difficult question of what good GM regulation would actually look like. The answers weren’t simple but are feeding into much of our ongoing work.

Influencing public policy
We submitted evidence to the Nuffield Council on Bioethics inquiry on genome editing and farmed animals in September 2019 and the National Food Strategy in October, before publishing the GM Freeze manifesto for a responsible, fair and sustainable food system in November to help our members and supporters discuss GM with candidates in the December General Election. Thanks to the generosity of the Esmée Fairbairn Foundation, which awarded GM Freeze a new grant this year, we also began a project exploring the feasibility of creating a new coalition for robust regulation of genetic engineering in UK food and farming. This is very much a “behind the scenes” project but it will help us to plan and work much more effectively with others in the coming months and years.

Difficult times
Financially the year to March 2020 was very challenging as shifting funder interests and competing demands have left GM Freeze with just one regular core grant funder – Sheepdrove Trust, to whom we extend our sincere gratitude. Project grants allow us to deliver important work but we cannot continue to employ staff and operate fully without a more solid income base and, reluctantly, the GM Freeze Management Committee decided in March 2020 that we could not keep going. That all changed when we reached out to you – our members and supporters – early in the new financial year, as reported in Thin Ice 55. We still need a more sustainable plan for the future but, thanks to your generosity, we have the time to think more creatively about just what that plan should be.

Our finances 2019/20

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<thead>
<tr>
<th>Income</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td>Supports fees</td>
<td>Thin Ice</td>
</tr>
<tr>
<td>(organisations)</td>
<td>£1,234</td>
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<tr>
<td>£4,329</td>
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<tr>
<td>Supporter fees</td>
<td>Other costs</td>
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<tr>
<td>(individuals)</td>
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<tr>
<td>£5,386</td>
<td>£1,234</td>
</tr>
<tr>
<td>10%</td>
<td>2%</td>
</tr>
</tbody>
</table>

£4,584 of grant income received in previous years was brought forward to spend in 2019/20
£6,972 of grant income has been carried forward into 2020/21 for ongoing work.

Members and supporters are warmly invited to attend the GM Freeze AGM which will take place online on Thursday 19 November 10am to 12noon. After the formal business there will be an opportunity to contribute your thoughts on the future of GM Freeze. Please go to www.gmfreeze.org/AGM to register and receive joining instructions.
**INTERNATIONAL NEWS**

**United States**
Following years of debate officials in the Florida Keys have approved the release of 750 million GM mosquitoes next year. Plans described by one group as a “Jurassic Park experiment” involve releasing huge numbers of male mosquitoes engineered to produce female offspring that die before reaching the age where they produce eggs and bite humans. Speaking to the press, a representative of the British-based (but now US owned) developer Oxitec said there is “no potential risk to the environment or humans” which strikes us as a very bold claim for a project setting out to disrupt the ecosystem at scale.

Meanwhile, commercial success is looking less and less likely for the first GM animal to enter the food chain. AquAdvantage salmon, genetically engineered to grow at an unnaturally fast rate, is due to go on sale this Autumn but Friends of the Earth has released a list of 80 retailers, seafood companies, caterers and restaurants covering 18,000 locations across the US that have all stated they will not sell the GM fish.

**Kenya**
An application has been lodged with the Kenyan National Biosafety Authority for the cultivation and sale of cassava genetically modified to be resistant to a viral disease known as CBSD. Cassava is a staple food providing the main source of energy for around 600 million people in tropical regions, particularly in Africa. Raising a number of concerns about the GM crop, an article on the African Centre for Biodiversity website describes the cultivation plan as risky and unsafe, citing missing safety studies as a violation of international and national food safety guidelines.

Researchers from Rothamsted Research; Bayer Crop Science; Sheffield, Nottingham and Newcastle Universities studied the impact of different herbicide regimes on blackgrass collected from wheat fields on 71 farms across England. They found that, far from preventing the evolution of resistant “super weeds”, spraying with multiple herbicides encourages weed populations to develop resistance to herbicides in general. As Bayer is currently seeking approval for a GM maize resistant to five different herbicides, we have to wonder how well the study was received behind closed doors at the agrochemical giant.

Weedkillers in the spotlight ...

continued from page 1

... government will be able to impose a national ban in November.

In June, a study published in the scientific journal *Nature* identified a new problem with the common agricultural practice of tackling herbicide resistant weeds by applying a combination of different weedkillers. Anyone concerned about the wider environmental impacts of spraying cocktails of toxic chemicals on our fields won’t need convincing, but the new study suggests that the use of herbicide combinations isn’t even an effective way to kill weeds.

As the evidence against herbicides continues to stack up we couldn’t help but notice a telling tweet from self-styled “Pro-science, progressive environmentalist” Mark Lynas. Despite being a high-profile cheerleader for GMOs in recent years, Lynas publicly admitted in August that herbicide tolerant GMOs are causing harm. Tweeting in response to yet another study indicating that the decline of the monarch butterfly is linked to over use of glyphosate on GM “roundup ready” crops, Lynas said that the new study “shows herbicide tolerant GMO traits are not a panacea.” We would go a lot further, of course, but it’s a start!

**India**
From the beginning of next year, every consignment of 24 major food crops imported into India will have to be certified as “of non-GM origin, does not contain genetically modified organism and is also not genetically modified.” Foods covered by the new rules include soya, maize, apples, tomatoes, potatoes, sugar beet and sugarcane. The Food Safety and Standards Authority of India issued the order as an interim measure while it develops regulations on GM foods. The move was described by commentators as remarkable, given a recent campaign to allow 5% GM contamination as part of a trade treaty.

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

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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