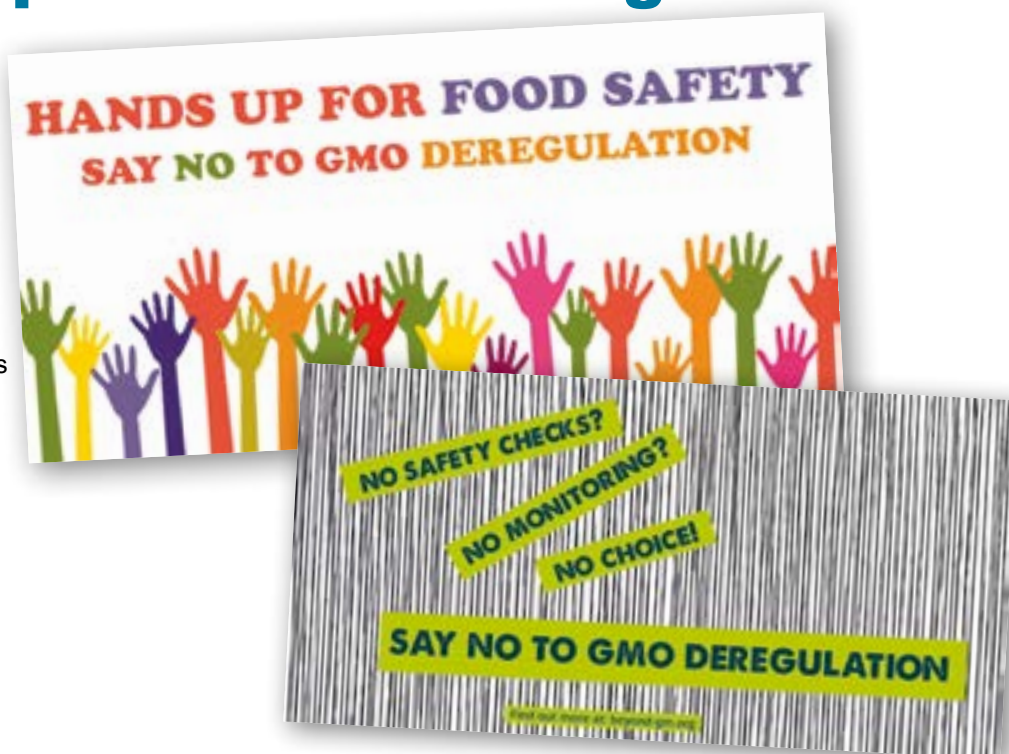


Grave concerns and strong responses to Government plans for GM deregulation

The UK Department for the Environment, Food and Rural Affairs (Defra) launched its controversial [Consultation on the Regulation of Genetic Technologies](#) just before we sent the last issue of *Thin Ice* to print. Opening on 7 January, just one week after the end of the Brexit transition period, the consultation prompted GM Freeze and many others to raise concerns about food safety, environmental protection, animal welfare, trade, consumer choice, the rights of farmers, the role of the devolved nations and much more.

The Westminster Government has been pushing plans to remove vital regulatory safeguards from the newest GM techniques ever since Boris Johnson moved into Number 10 ([Thin Ice 53](#) and [Thin Ice 56](#)). The consultation continued that theme with questions framed around two claims that we entirely reject. Firstly, they presented new gene (or genome) editing techniques as radically different from older GM methods when, in fact, all forms of genetic engineering involve similar processes, risks and ethical concerns. Secondly, the consultation proposed removing safeguards from GMOs that “could have been developed using traditional breeding



methods”. This makes no legal or scientific sense as genetic engineering is not the same as traditional breeding – different things can go wrong with a lab-based process so different regulation is needed.

GM Freeze worked closely with [Beyond GM](#) to develop [a comprehensive guide to the consultation](#), a [political briefing](#), online action requests and lots of activity on [Facebook](#) and [Twitter](#). We also worked behind the scenes

to encourage and support other campaign groups, charities, farmers, businesses and alliances to make their voices heard. We met with politicians, civil servants and Defra’s Chief Scientific Advisor to ensure that our perspective was firmly on the table. The consultation report is due out soon and will give us a better idea of what we achieved but we already

... continued on page 2



Your help needed to respond to latest GM field trial plans

Rothamsted Research have applied for permission to plant yet another GM field trial, this time for wheat designed to reduce the impact of burnt toast.

Details of the application were published just as this issue of *Thin Ice* went to press, alongside information on a statutory public consultation which is open until Sunday 4 July.

We are reviewing all of the technical information but already have serious concerns about the tendency for experimental GM wheat to escape from trial sites around the world. Thinking about this specific application, we also have questions about the relative costs, risks and impacts of teaching people to make toast without burning it, compared

... continued on page 4

Gene editing applications follow in flawed footsteps of first-generation GMOs

Proponents of plans to remove vital safeguards on the use of new GM techniques (see *Grave Concerns...* page 1 and *European Commission...* page 3) often focus on hypothetical examples of what might be achieved if only the genetic engineers were allowed free rein to do as they please. So, how are the latest genetic engineering techniques actually being used in food and farming?

US plant-based technology company Calyxt developed the first gene-edited soya bean to be released for commercial cultivation. The crop is genetically engineered to produce oil that can withstand repeat frying and Calyxt began by working with farmers to grow the seed from which they planned to sell premium-priced oil into the fast-food industry. However, two years after the crop launched, investment

magazine *Seeking Alpha* reported in [December 2020](#) that “the company disappointed investors with delayed product launches and slow growth... [and]... needs to show its ability to be profitable”. Now Calyxt is winding down its farming and food processing operations to “focus on scientific innovations”.

The European Food Safety Authority (EFSA) is [currently considering an application](#) to allow imports of a gene-edited maize that was actually produced with a combination of both new and much older GM techniques. What’s more, even this risky combination of processes has only achieved the same GM traits we are familiar with from “first generation” GM crops. The maize is herbicide tolerant (it can withstand being sprayed with the weedkiller glufosinate) and its

own cells produce a substance that is poisonous to insects.

A study published in March by Chinese scientists suggests that this pattern of damaging, chemical-linked GM traits is exactly the kind of thing we can expect more of if plans for gene editing deregulation come to fruition. The authors of [Herbicide Resistance: Another Hot Agronomic Trait for Plant Genome Editing](#) state that new genetic engineering techniques have made it possible to introduce tolerance to many different weedkillers at once. They also suggest that this approach is particularly promising because “crops generated without the introduction of foreign DNA do not require risk assessment [in several countries].”

Grave concerns ...

continued from page 1

know that high-profile organisations including the [RSPCA](#), Which? and [the trade union Unite](#) spoke up in defence of effective GM regulation. Our work with Beyond GM is continuing and we are organising some online discussions with small farmers and community supported agriculture groups, so do please get in touch if you would like to take part.

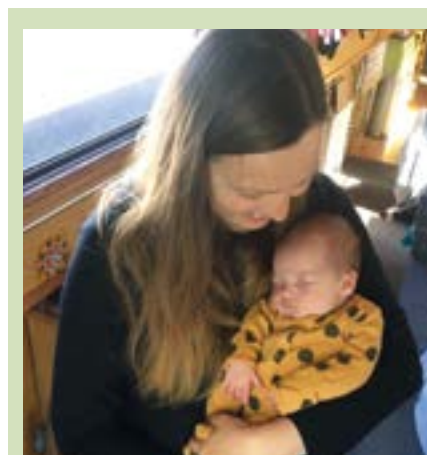
[GM Freeze’s own submission to the consultation](#) included detailed answers to the questions posed but also criticised the conduct of the consultation itself. We said that it was confusing, misrepresented key issues and had been launched at the wrong time.

While the UK was a member of the European Union (EU), most decisions about GM in our food and on our farms were taken in Brussels. As a result, Westminster MPs and the elected representatives in Scotland, Wales and Northern Ireland have not had many opportunities to develop or express their views on the issue. We worked with Caroline Lucas, the Green MP for Brighton Pavilion, to develop an [Early Day Motion](#) (EDM – a kind of petition just for MPs) criticising the

Government’s approach. At the same time, [another EDM](#), led by Grahame Morris (Labour MP for Easington) raised what it called “grave concerns” about the impact the Government’s plans could have on trade with the EU. Both EDMs are now closed as a new Parliamentary Session began with the Queen’s Speech on 11 May, but we hope to do more work with politicians across the UK to challenge the Government’s deregulation plans.

Contact from voters is always the best way to get a politician’s attention so if you would like to help and do not already receive our action alert emails, please sign up at www.gmfreeze.org/emails

We would like to thank all the members and supporters who made their own submissions to the Defra consultation, wrote to their MP, shared information on social media and more. We saw a huge increase in voices standing up for essential food and farming safeguards in the first few months of 2021 so your efforts really made a difference. If you took part and haven’t shared the details with us already, do please let us know by emailing info@gmfreeze.org or using the alternative contact details at the bottom of page 4.



New Arrivals

In March, GM Freeze’s Admin Assistant Vicky Hart welcomed beautiful baby Alder into the world – we’re sure that members and supporters join us in congratulating Vicky and her partner on becoming parents. Coral Sirett, who has many years’ experience in the not-for-profit sector, is covering Vicky’s maternity leave and is your first point of contact for general enquiries, membership issues and leaflet orders until Vicky returns. Coral usually works Wednesday to Friday and can be contacted on coral@gmfreeze.org

Evidence against gene editing continues to mount

This issue of *Thin Ice* reports on UK and EU plans to remove new gene editing techniques from the scope of vital GM safeguards. Meanwhile, evidence of the importance of proper safety checks continues to mount up.

In December 2020, [a technical paper published in the journal BMC Genomics](#) showed that the CRISPR gene editing technique causes unintentional changes to the way that animal genes are regulated. This is a separate finding to the well-known effect, where accidental changes are made to an organism's DNA, as

the observed changes concern the epigenetic system that controls how the DNA is "read" and put into action in cells. The study was carried out on mice which passed the unintended changes on to their offspring for at least ten generations.

A separate [study published in March](#) detailed ways in which even planned genetic changes created with the simplest gene editing tools can result in unintended alterations to organisms. Focusing on plants undergoing small, targeted changes to their genes, the review noted that

even the simplest class of gene editing techniques (known as SDN-1) "can cause unwanted effects in the plants during their development or under stress conditions". The author concluded that "in regard to environmental risk assessment, there are additional challenges concerning genome-edited plants that may go beyond current experiences with transgenic plants". The first generation of GMOs are all transgenic organisms in which DNA is deliberately added from an unrelated species.

European Commission "falls hook, line and sinker" for industry spin to recommend removing key GM safeguards

On 29 April, the European Commission set itself in opposition to the European Court of Justice (ECJ) by [publishing a report](#) that backs biotechnology industry calls for reduced safety checks on crops produced with new GM techniques.

The report was requested by the European Council (the member states of the EU acting together) in 2019. The request was a response to ongoing disputes about the ECJ's 2018 ruling that new genetic engineering techniques produce GMOs and must be regulated accordingly (*Thin Ice* 49).

It describes current EU rules as "not fit for purpose" and proposes a new consultation process that could lead to a reversal of the ECJ decision, allowing risky new GMOs free rein in the EU.

Although the UK has now left the EU and will be making its own decisions about GM regulation (*Grave concerns and strong responses...* page 1), trade with Europe is still vital to the UK economy. That trade flows most easily when both sides follow the same rules so those supporting deregulation here will be pleased with the Commission report. Any change of direction in Europe could also have far-reaching impacts elsewhere as the EU has always been one of the most GM-sceptical territories in the world.

The Commission's report was greeted with concern by charities and campaigners across Europe. [Mute Schimpf, Food and Farming Campaigner at Friends of the](#)



[Earth Europe](#) said "The European Commission has fallen hook, line and sinker for the biotech industry's spin, and has set the future of food and farming in the EU down a dark path today. They are suggesting tearing up decades of the precautionary principle, by allowing new GM crops onto our fields and plates without safety tests".

One explanation for the tone and content of the report can be found in a briefing published by Friends of the Earth Europe in March. [Green light for new GMOs?](#) finds that almost three quarters of the interested parties invited to take part in a consultation that fed into the Commission's report were agri-industry bodies that favour deregulation of new forms of genetic

engineering. What's more, the consultation included twice as many questions about the potential benefits of new GMOs as about potential risks.

Despite excessive industry influence, agreement across the EU is far from guaranteed. The German Environment Minister and Austrian Government are both reported to support retaining rules that treat all forms of genetic engineering as GM. Another problem is that the Commission's position is out of step with the views of citizens. An [EU-wide opinion poll](#) commissioned by the Greens/EFA Group of MEPs found that more than two thirds of Europeans who have heard of new GM techniques want food produced with these techniques to be labelled as GM.

INTERNATIONAL NEWS



Canada

Health Canada ran a public consultation in April and May of this year on proposals to remove government oversight from GMOs produced with new gene editing techniques. Mirroring some aspects of the UK consultation and EU process reported on pages 1 and 3, Health Canada asked for views on proposals to allow some GMOs onto the market without government safety assessments or reporting and to conduct reduced safety assessments for GMOs that are similar to previously approved GMOs. The Canadian Biotechnology Action Network (CBAN) [appealed for citizens to take part in the consultation](#) describing the proposals as a threat to food safety and democracy.



Japan

In January, Japanese authorities granted approval for gene-edited tomatoes to be used in food production without an environmental impact assessment or safety screening as food or feed. The tomato, which produces large amounts of a substance thought to reduce human blood pressure, is likely to be marketed as a “lifestyle product”. The Citizens Biotechnology Information Centre [has raised concerns](#) that “*this tomato has many problems*” and “*will appear on our dining tables without any labelling*”. Campaigners also report that the company behind the new GMO,

Sanatech Seed, is distributing 5,000 seedlings to the general public free of charge, to encourage uptake of their product and acceptance into the marketplace.



United States

GM American Chestnut trees, engineered to resist fungal blight, have been [described by campaigners](#) as a “Trojan horse” because their promoters are less interested in saving the American Chestnut than in paving the way for future GM trees designed for industrial plantations. An application for federal approval to plant the D58 GM trees was made last year by the State University of New York’s College of Environmental Science and Forestry. The approval process has faced significant hurdles including opposition from indigenous peoples, scientists, activists and the Forest Stewardship Council. Even the United Nations urges a precautionary approach when it comes to GM trees. American Chestnut trees are known to live for hundreds of years but D58 trials have only been running since 2017, leading to claims that safety checks are wholly inadequate. In April, [Reuters reported](#) that a controversial Memorandum of Understanding had been signed between the Eastern Band of the Cherokee Indians and the American Chestnut Foundation to allow for future planting of the GM trees on tribal land.

Your help needed ... continued
from page 1

with releasing an experimental genetically modified organism (GMO) into the ecosystem.

GM Freeze has [consistently led opposition to open-air field trials](#) in the UK and supported hundreds of people to make their feelings known in a constructive way. Additional restrictions have been placed on trials in response to our input, which ensures that applications cannot be simply nodded through. A full response to each trial costs around £2,500 and GM Freeze is run on a shoestring. Membership fees and supporter donations allow us to cover the basics and we receive grants for some work but that must be planned well in advance, whereas trial applications like this one crop up without notice and need a swift response.

If you are able to help us respond to this latest attempt to release experimental new GMOs in open fields, please donate what you can today, either on our website at www.gmfreeze.org/stop or by sending a cheque (payable to GM Freeze) to GM Freeze, Openspace Cooperative, 41 Old Birley Street, Hulme, Manchester, M15 5RF.

Details of the key problems with the proposed trial and tips on making your voice heard will be published on our website at:

www.gmfreeze.org/wheat

and shared with our email list so make sure you are signed up at:

www.gmfreeze.org/emails.

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.



for a responsible, fair and sustainable food system

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