

Brexit means (BBC) Breakfast for GM Freeze

Boris Johnson's support for Brexit is a given but he took us all by surprise in late July when his first speech as Prime Minister (PM) included a pledge to de-regulate GM crops.

[Speaking on the steps of 10 Downing Street](#), Johnson promised to "liberate the UK's extraordinary bioscience sector from anti genetic modification rules" suggesting that this would allow us to "develop the blight-resistant crops that will feed the world".

Laudable as that aim may sound, conventionally-bred blight resistant crops have been [available for years](#), while the GM version is still at the relatively early [field-trial](#) stage. Also, hunger has nothing to do with overall crop production (we already produce enough food for between one and a half and two times the current world population, yet people still starve) and everything to do with fair distribution, waste and the politics of poverty.

The real motivation behind Johnson's enthusiasm for GM is surely the prospect of a trade deal with the United States. In June, US President



Boris Johnson, Downing Street, 21 July

Donald Trump signed an executive order instructing his administration to "develop an international strategy to remove unjustified trade barriers and expand markets for products of agricultural biotechnology". In August, Zippy Duvall who heads the American

Farm Bureau told the BBC that the UK must accept US food standards as part of any future trade deal, attacking GM scepticism as "not science-based".

Worrying as Johnson's comments and the context that surrounds them are, they have drawn attention to the possibility that Brexit could open the UK's door to unregulated GM. GM Freeze has been [raising concerns about the loss of EU oversight](#) since shortly after the referendum result but it has been extremely difficult to get any air-time for this one Brexit issue amongst so many.

In a statement to the press shortly after the PM's comments, GM Freeze Director Liz O'Neill said "*If we need to be liberated from anything, it's the idea that technology can provide quick fixes for all of our woes. EU rules on the use of genetic modification are essential safeguards that keep our food system responsible, fair and sustainable. As the UK prepares to go it alone, we need robust GM regulation that protects people, animals and the*

... continued on page 2



Europe must act on ECJ ruling as genome editing's poster child falls from grace

A year on from the European Court of Justice (ECJ)'s ruling in July 2018 that genome editing is GM and must be regulated as such ([Thin Ice 49](#)), politicians and campaigners in Europe have been highlighting the need for action to implement the ruling. This means identifying the most effective ways to detect seed, crops and ingredients from plants created with new GM techniques and applying controls on agricultural goods imported from countries where new GMOs are cultivated.



Hornless cattle, the "poster children" for genome editing.

Support for regulation of genome edited crops came from an unexpected source on 6 August. The National Grain and Feed Association, along with four

other US agricultural trade associations, [wrote to the US Department of Agriculture's Animal and Plant Health Inspection Service](#) (APHIS) to criticise proposals for regulating plant-based agricultural biotechnology products. The groups described plans to exempt most crops developed with gene editing from regulatory oversight as "fundamentally flawed". While stressing their support for GM crops, they said that such a step "*risks undermining consumer acceptance*".

... continued on page 2

Brexit means ... continued from page 1
environment; effective protection from GM contamination; and clear labelling that allows consumers to make an informed choice.”

Liz appeared on BBC 5 Live's Breakfast show on 26 July and BBC One's BBC Breakfast on 21 August, arguing for robust regulation and explaining why GM will never live up to its promoters' promises. You can find links to media coverage featuring GM Freeze at www.gmfreeze.org/coverage.

Celebrity chef Jamie Oliver also [hit headlines](#) with worries about future US trade deals, saying “I think that hormone use and genetically modified crops are really not OK. Europe doesn't have any of this.”

The process of designing, printing and posting *Thin Ice* takes about three weeks which looks likely to be a very long time in Brexit politics. Whatever happens before and after 31 October 2019, GM Freeze will continue to campaign to [Safeguard our Farms](#) and ensure they [Don't Hide What's Inside](#) our food. Make sure you are signed up to receive urgent updates by email, at www.gmfreeze.org/emails.

Who should pay to Safeguard our Farms?

A key element of safeguarding our

food and our farms from the potential damage of GM crops is proper protection from contamination, but how should that work?

We've been asking people at festivals this summer who they think should pay for any costs or damages if a GM crop grown legally in the UK causes harm to a non-GM crop. That harm might include contamination through seed or pollen escape but also other damage like dispersal of a weedkiller sprayed onto a herbicide-tolerant GM crop. Financial liability is



GM Freeze at Valley Fest and the Northern Green Gathering

a key tool in preventing this kind of damage as it places responsibility for preventing the harm with one or more party, but should that lie with:

- The farmer who grew the GM crop?
- The company that created or sold the GM crop?
- The farmer whose non-GM crop was contaminated?
- Whichever official body allowed the GM crop to be grown?
- Or Somebody else?

It's a difficult question that prompts thoughtful discussion and, for many of the people we've spoken to, the conclusion that growing GM crops is simply a risk too far.

TAKE ACTION

Please get your friends, family and colleagues thinking about exactly who should pay to **Safeguard our Farms** by sharing our online poll at www.gmfreeze.org/poll.

If you are attending an event where you might be able to use one of our large printed card versions of the poll to get people thinking about what GM would really mean for UK farms, please contact us on info@gmfreeze.org or 0845 217 8992 to discuss practicalities.

Europe must act ... continued from page 1

[Later in August it emerged](#) that the US Food and Drug Administration (FDA)'s own staff had stumbled upon key evidence of exactly why regulation of genome editing matters.

Hornless cattle have long been one of the “poster children” for genome editing. Presented as an altruistic replacement for painful horn removal, they were also widely hailed as an example of a DNA change that matched exactly what could have been achieved (albeit more slowly) with selective breeding. The Brazilian authorities were so impressed that they decided in 2018 that the GM animals didn't require any special oversight and arrangements were made for sperm from two genome edited bulls to be used to create ten calves and then, in time, a whole new herd.

Those plans were abruptly halted after scientists from the FDA analysed the GM bulls' genomes with new screening

software and found that they both contained unexpected DNA alterations. These unintended changes included the addition of antibiotic resistance marker genes into the cattle's genome. The global rise of antibiotic resistant infections

makes these traits concerning in their own right, but the wider lesson that must be learnt is that new techniques for genetic engineering are significantly less precise and predictable as those who promote them would have us believe.

Informed consumers erode market for GM crops

A [report](#) by the US Department of Agriculture (USDA)'s Global Agricultural Information Network (GAIN) service in June credited German consumers' demand for GM-free foods with “eroding demand for US exports of genetically engineered soy”. According to the report, awareness of the Ohne Gentechnik (GM free) labelling scheme has created “marketing opportunities for growers and producers of non-GMO feed ingredients and additives”.

We couldn't agree more and the

report, from a body more often found promoting GM crop exports, backs up [GM Freeze's call](#) for the use of GM animal feed to be declared on meat, egg and dairy product labels. GM ingredients have had to be declared on food packaging within the EU since 2004 and are, as a result, a relatively rare sight on our supermarket shelves. The same is not true for GM-fed products which are now the norm in the UK's non-organic food chain. Germany established its successful GMO-free labelling scheme, which is run by the non-profit Association for Food without Genetic Engineering (VLOG), in 2008.

Review of the year

GM Freeze's Annual Report and Accounts for the year April 2018-March 2019 are published on the GM Freeze website and will be discussed at the [AGM](#). Here, we share a roundup of key events and activities in our year.

Protecting our food and our farms after Brexit

We [worked throughout 2018/19 to highlight](#) the impact that leaving the EU could have on GM in food and farming across the UK. We submitted evidence to consultations on Defra plans for future farming policy, the [Food Standards Agency's](#) approach to retained EU law, trade negotiations and [a Conservative Manifesto for Conservation](#).

We made the case for robust GM regulation; proper protection from GM contamination; and clear labelling. We supported public subsidy for public good. We raised concerns about the UK's capacity to take on responsibilities held by key European agencies and the need to respect Scotland, Wales and Northern Ireland's [rejection of GM crops](#).

In September 2018 we launched the [Don't Hide What's Inside petition](#) which has attracted over 4,000 signatures to defend our GM ingredient labels.

Challenging GM crop trials

GM Freeze has long led the response to [open trials of GM crops](#) but even we were rather daunted when four separate field trial applications

were lodged in early 2019. Field trial applications include around 50 pages of technical detail and formal objections must be scientifically accurate and fully referenced if they are to be taken seriously. We [turned to our supporters](#), whose generous donations allowed us to focus on getting our evidence in to each statutory consultation as well as creating user-friendly guides to help others make their voices heard.

Sadly, all four trials were approved but some controls were improved in response to points we raised, and, together, we made it abundantly clear that objection to GM crops has not gone away.

ECJ ruling

July 2018 brought celebrations when the [European Court of Justice \(ECJ\) ruled](#) that new forms of genetic engineering are GM and must be regulated as such. [We demanded the immediate halt](#) of Rothamsted Research's trial of genome edited plants that had not been through the GM consent process. A few months later, farming minister George Eustice admitted we were right.

The ECJ ruling was a huge success but, having failed to get legal backing for their interpretation of a key EU

Directive, the biotech lobby is now campaigning to get that Directive changed. We [continue to work with colleagues across Europe](#) to demand that the ECJ ruling is respected and put onto practice.

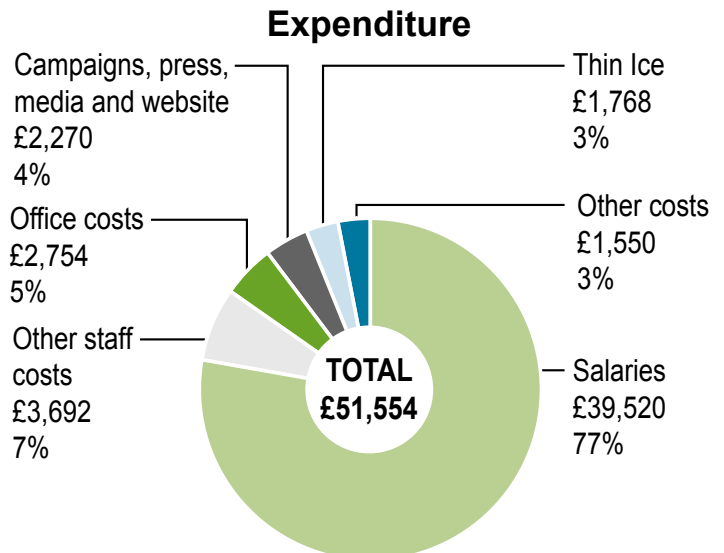
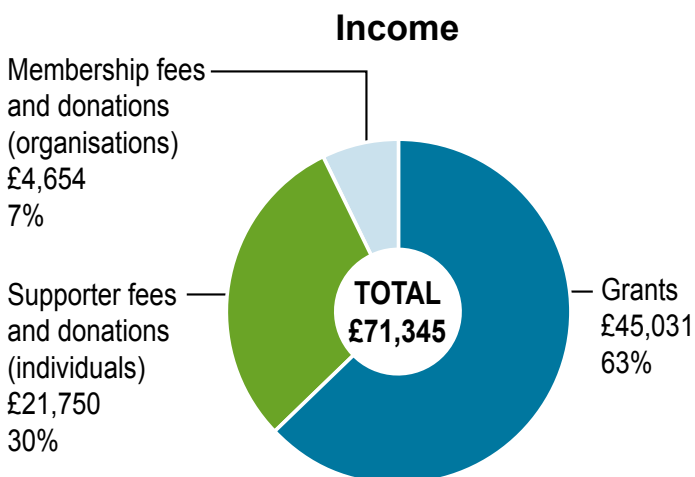
Thank you

We are grateful to JMG Foundation, the Sheepdrove Trust, the Andrew Wainwright Reform Trust and Lush Charity Pot for grants awarded during 2018/19. We also received a very generous one-off donation but many other supporters gave what they could and all those gifts, be it £5 a month or £500 in response to an urgent appeal, are what allowed us to achieve the work described on this page, and much more.

Thank you for your support, in whatever form it takes.

Members and supporters are warmly invited to attend the GM Freeze AGM on Thursday 7 November 2019, starting at 2pm at Friends of the Earth, The Printworks, 139 Clapham Road, London, SW9 0HP. After the formal meeting there will be a discussion about exactly what needs to be included in regulations designed to safeguard our food and our farms, outside of the European Union.

Our finances 2018/19



£3,268 of grant income received in previous years was brought forward to spend in 2018/19
 £4,595 of grant income received in 2018/9 has been carried forward into 2019/20 for ongoing work.

Please note: all figures are provisional, pending final approval by the GM Freeze Management Committee.

INTERNATIONAL NEWS



Brazil

In July, international news agency [Reuters reported](#) that cotton producers in the Brazilian state of Mato Grosso were suing biotech giant Bayer and their country's patent office. The farmers want the patent on Bollgard II RR Flex GM cotton to be cancelled on the basis that it is not, in practice, a real technological innovation. The Mato Grosso Cotton Producers Association is also seeking a total refund of \$151 million of royalties already paid.



Canada

Civil Society groups the Canadian Biotechnology Action Network (CBAN) and Prevent Cancer Now (PCN) [joined forces in August](#) to call for a review of the use of GM herbicide-tolerant crops in Canada. The move comes after Bayer requested government approval of a GM maize (MON 87429) that can withstand the application of four different weed

killers: 2,4-D; dicamba; quizalofop; and glufosinate. Meg Sears of PCN described the proposed new crop as the latest salvo in "escalating weed wars" as the use of herbicide-tolerant GM crops leads, inevitably, to the evolution of herbicide resistant weeds. As Lucy Sharratt of CBAN said: "This is a short-term fix that will likely recreate the problem and further increase herbicide use."



United States

Agronomists in Iowa, Michigan, Minnesota, Ohio, South Dakota and Wisconsin are battling the development of herbicide resistance in Palmer amaranth, a member of the pigweed family that smothers crops and has been called "King of weeds". Specimens have been found that are resistant to glyphosate and farmers are also complaining that 2,4-D and dicamba are losing their effectiveness. Weed scientists are [quoted in Chemical and Engineering News](#) as saying that a solution "will likely require brand new

technology" but in the same article chemical company representatives recommend growing cover crops and employing crop rotation – two practices very much at the heart of agroecological farming.



Austria

A [vote by the Austrian lower house of parliament in early July](#) looks set to make the country the first in the EU to impose an outright ban on the controversial weed killer glyphosate, widely used in conjunction with glyphosate tolerant GM crops elsewhere in the world. [Some farmers object](#) to the proposal, which needs the approval of the EU Commission but Pamela Rendi-Wagner, leader of Austria's Social Democrats, said "The scientific evidence of the plant poison's carcinogenic effect is increasing. It is our responsibility to ban this poison from our environment." Austria has the highest proportion of organic farmland in the EU, at roughly 23%.

Pest evolution beats Bt crops, again

As we reported in [Thin Ice 48](#) the ability of GM Bt crops (which have been engineered to produce proteins that kill insects) to do the one thing they are supposed to be good at (protecting crops from insect pests) has been significantly challenged by the pests' ability to evolve in response. Now, two more examples have come to light, demonstrating the power of nature and the folly of seeking to dominate rather than respect it.

In Texas, scientists are testing cotton bollworms after reports that they

are increasingly thriving in fields of GM cotton that produces the Vip3A protein. There is already strong evidence of bollworms and earworms becoming resistant to the Cry proteins produced by older Bt crops. In fact, the GM trait that allows crops to make Vip3A was added as an extra line of defence. [Syngenta, which developed the trait, is encouraging farmers](#) to use "Best Management Practices" to "help slow down insect resistance to Bt traits". We think this sounds like an admission of defeat, especially when you consider

that the recommended practices include spraying insecticides on the crops that GMO promoters love to cite as a way to reduce insecticide applications.

Meanwhile, researchers in Brazil have found that even when GM Bt traits are effective against a particular insect, it can simply open up an ecological niche for a secondary pest that is not susceptible to the toxins produced by the Bt crop. [The study found](#) the variegated cutworm feeding on GM soya crops for the first time.

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

/GMFreezeUK

@gmfreeze