

Our food is poisoned with weedkiller. Why hasn't the UK Corporate media informed the public?

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Public Inquiry: Japanese knotweed and the built environment

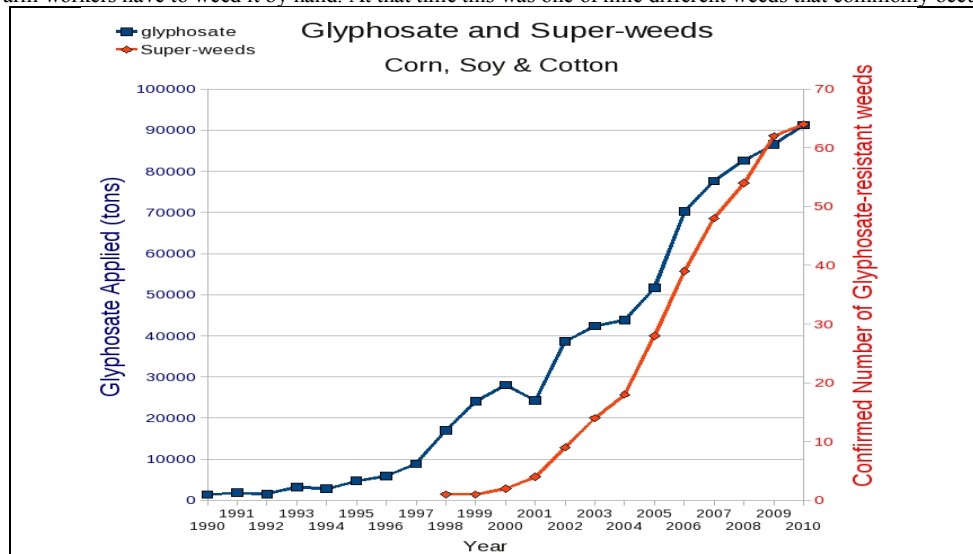
Written evidence to the Science and Technology Committee to be held 22/01/2019

Introduction: Swansea is dubbed '*the Japanese Knotweed Capital of Europe*'. Monsanto, whose factory was/is,¹ still in Newport, used Swansea as the testbed of its flagship herbicide, Roundup. Roundup was sprayed time and time again on Japanese Knotweed until it became a superweed, just like the weeds in the US, where they grow Roundup Ready crops.



Northern Indiana. Giant Ragweed (3 m) resistant to glyphosate.

Farm workers have to weed it by hand. At that time this was one of nine different weeds that commonly occur.



Glyphosate and Super-weeds: Glyphosate applied to Corn, Soy and Cotton crops in the U.S. and the number of confirmed glyphosate-resistant weeds. Glyphosate data from USDA; super-weed data from Charles Benbrook. By kind permission of Dr Nancy Swanson.

Herbicide-Resistant weeds in the US

International Survey of Herbicide-Resistant Weeds Updated to 20 January 2019. Run the cursor over the map and it will tell you how many herbicide-resistant weeds each US State has. The number of herbicide-resistant weeds in the US vary from one (Massachusetts) to 30 (California). California is the fruit-growing capital of the US.

<http://weedsscience.org/vmap/statemap.aspx>

¹ In July 2012 the old company (Solutia) was acquired by the [Eastman Chemical Company](#). Its Board of Directors includes Officers from Monsanto, Dow Chemicals, Dow Corning, General Mills, and Cargill.



Photo taken Ilston Valley, Penmaen 10 July 2015. Dakar Pro has been sprayed over Japanese Knotweed since March 2015, but new shoots are emerging by July. This is due to resistance by gene amplification

Glyphosate-based herbicides and other herbicides are a waste of money for Councils because they cause weeds to become superweeds. As in the US, they have to be removed by hand.

*Research has traced the resistance mechanism in Palmer amaranth (*Amaranthus palmeri*) to 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS) gene amplification. Resistant weed populations from Georgia contained 5-fold to 160-fold more copies of the EPSPS gene, compared to susceptible plants. Moreover, EPSPS gene amplification is heritable, leading Gaines et al.² to warn that the emergence of GR weeds “endangers the continued success of transgenic glyphosate-resistant crops and the sustainability of glyphosate as the world’s most important herbicide.” Resistant Palmer amaranth (*Amaranthus palmeri*) has spread dramatically across southern states since the first resistant populations were confirmed in 2005, and already poses a major economic threat to U.S. cotton production. Some infestations are so severe that cotton farmers have been forced to leave some crops un-harvested.”*

1. How Roundup poisoned our nature reserve with the help of the Health and Safety Executive, the Chemicals Regulation Division and Defra

In March 2006, UK’s Natural Environment Research Council (NERC) announced the closure of its wildlife research centres, a decision opposed by 99% of 1 327 stakeholders. Monks Wood centre,

²

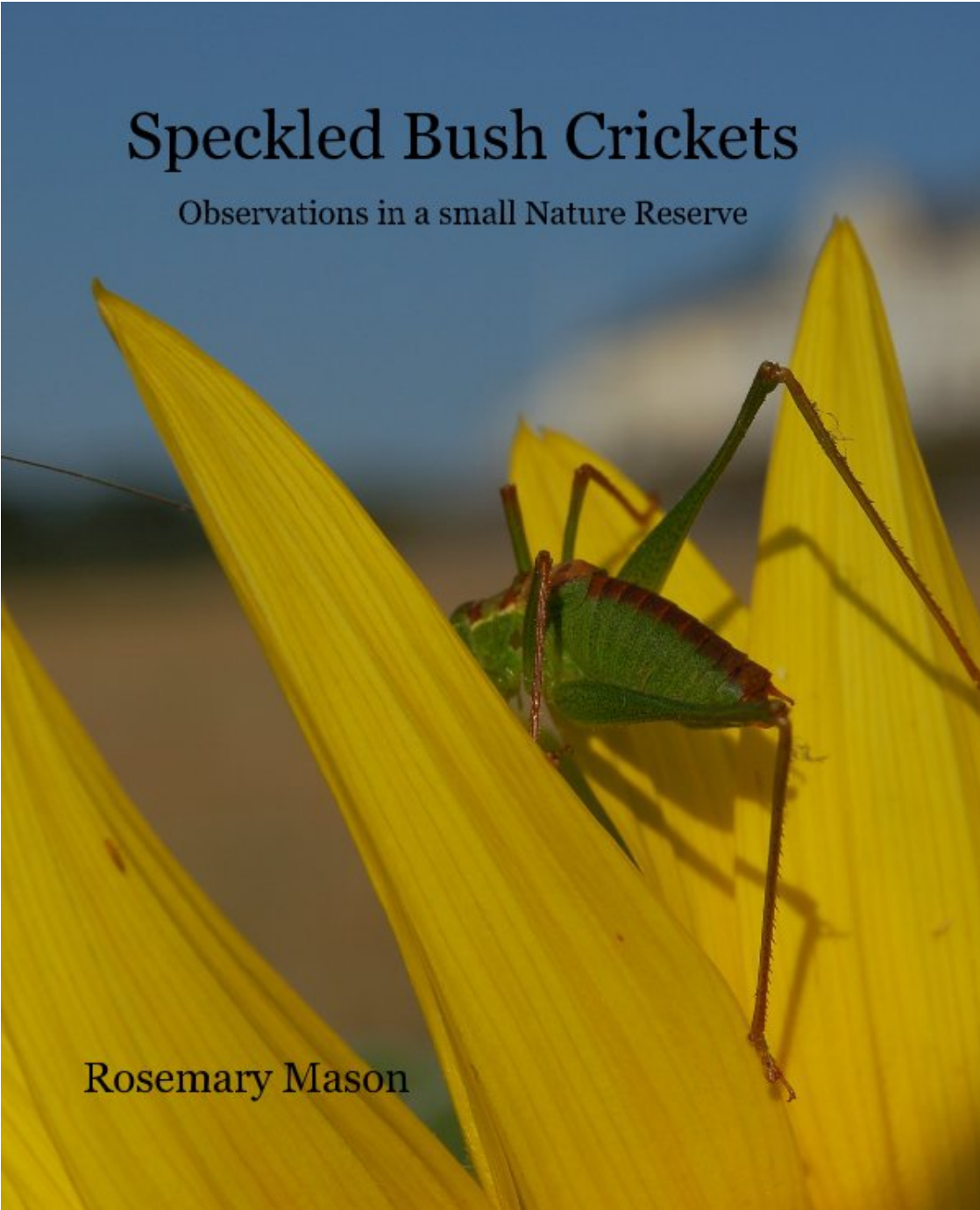
http://www.pnas.org/content/107/3/1029?ijkey=e2066eddc44aa8e0f054b2e1ccb0fdcc5a6b000c&keytype=tf_ipsecsha

which hosted BBC's Spring Watch, pioneered work on DDT and pesticides in the 1960s, and more recently revealed how climate change is affecting wildlife, with spring arriving three weeks earlier. The research centres were also involved in assessing the impacts of GM (genetically modified) crops on wildlife, with findings contradicting industry claims that no harm would be caused.

Speckled Bush Crickets

Observations in a small Nature Reserve

Rosemary Mason



The Year of the Bumblebee

Observations in a small Nature Reserve (2)



Rosemary Mason & Palle Uhd Jepsen

We published two photo-journals in 2010: Speckled Bush Crickets and The Year of the Bumblebee

In 2006, we established a small nature reserve in South Wales. In 2013, the biodiversity started to decline. We measured glyphosate in August 2013 and August 2014. The Council said they would not stop spraying Roundup unless the HSE instructed them to.

We asked the HSE to request the Council to stop spraying Roundup in Swansea

On several occasions between February 2014 and October 2017, I wrote to the HSE about Roundup® poisoning our nature reserve and glyphosate being present in River water and tap water. We had sent

samples of water to the Biocheck Veterinary Laboratories in Leipzig.³ I told HSE, that in August 2013, the level of glyphosate in the Clyne River draining from areas of Japanese Knotweed spraying was 190 parts per trillion (ppt) and in local tap water it was 30 ppt. Analysis of local tap water in August 2014 revealed a 10-fold increase since August 2013: from 30 ppt to 300 ppt. I told them that these were of the order of concentrations found in a laboratory study in 2013 that showed that breast cancer cell proliferation is accelerated by glyphosate in extremely low concentrations.⁴
CRUK statistics: In 2015 there were 55,122 new cases of invasive breast cancer and in 2016 11,563 deaths. The deaths from cancers keep on increasing and no treatments make any difference.

2. Correspondence with HSE, DEFRA, CRD and Swansea City and County Council

----- Forwarded Message -----

Subject:Roundup sprayed in Swansea - CETO/358/16

Date:Tue, 20 Dec 2016 11:26:06 +0000

From:Dan.Manghai@hse.gov.uk

To:rosemary.mason01@btinternet.com

Dear Dr Mason,

Thank you for your emails and attachments of 9 and 19 December to HSE's Chair, Martin Temple, and the one of 14 December to me. Further to my acknowledgement of 9 December I am now writing with a substantive response. The various points you raise have been addressed in previous correspondence between you and HSE or Defra so there is nothing further to add on these. With regard to your key point on the use of glyphosate by Swansea Council, glyphosate is approved as a pesticide active substance in the EU and glyphosate products are authorised for use in the UK. The Council's duty in this case is to use pesticide products which are authorised in the UK and to comply with the rules on use of pesticides. In doing this, it is for the Council to decide how it chooses to control weeds in its area not HSE.

Yours sincerely,

Dan Manghai

**Chief Executive, Parliamentary and Secretariat Office
 Health and Safety Executive**

HSE consistently refused to write to the Council and ask them to stop spraying Roundup[®] because "*it was still legal.*" The response to my letter of 28th July 2017 was:

"Dear Dr Mason,

*Thank you for your latest email of 28 July to Martin Temple. HSE's response to your question is the same as expressed in previous correspondence on this. I would advise you that, unless your correspondence raises any issues on which HSE considers it should respond, **we will not be responding to you in future.***

Yours sincerely,

|Health & Safety Executive

CE, Parliamentary and Secretariat Office | Legal and Governance Division

Desk 39, 5N.3, Redgrave Court, Merton Road, Bootle, L20 7HS"

³ <https://biocheck-leipzig.de/index.php/en/impressum>

⁴ <http://www.ncbi.nlm.nih.gov/pubmed/23756170>

As a physician and a naturalist, I have a unique overview of nearly 50 years of living in Swansea

I have seen what continuous exposure to weedkiller spray and to residues of weedkiller in food does to people and biodiversity. In 1980 some farmers started to spray Roundup weedkiller pre-harvest at the suggestion of a scientist from Monsanto to desiccate (dry) the crops).

In 1974, Monsanto tested its 'flagship' weedkiller Roundup in the mining areas of the Swansea Valleys. In areas where the soil has been disturbed it spreads very rapidly by thick underground roots. Japanese knotweed (*Reynoutria japonica*) was introduced into Holland by an amateur Dutch botanist, Van Reynoutre in the late 16th Century. For 500 years it caused few problems until chemical herbicides were used. In 1969 in the UK⁵ it was still being promoted as a plant suitable for gardens (as was the Balsam species *Impatiens glandulifera (royalei)*). Both plants became super-weeds and were classified as invasive species in the 1981 Wildlife and Countryside Act.⁶ Japanese Knotweed became resistant to Glyphosate-based herbicides about 1980. Nevertheless, the contractors continued to spray the plants and used it to get rid of weed on roads and pavements. They ignored Monsanto's and CRD's instructions in 2012 that it shouldn't be sprayed on hard surfaces, only on weeds. They failed to measure levels in groundwater. The endocrine system disrupting and nervous system disrupting actions of Roundup have totally altered the people of Swansea, both physically and mentally.

In 1971, the British Association for the Advancement of Science held its Annual Meeting in Swansea. The book of the proceedings weighs 1.4 kg and is nearly 400 pages long. It is called Swansea and its Regions. It coincided with the cleaning up the valleys from industrial dereliction. In the 18th and 19th centuries the Swansea and Neath Valleys were the most concentrated industrial areas in Europe. Coal, iron, steel, copper, zinc and aluminium mining were all in one region. There was a shipping industry, sailing boats with seamen going around Cape Horn (*the Cape Horner's*), culture (male voice choirs and Eisteddfods) and close-knit communities.

From about 2000, the poorest people in Swansea gradually grew fatter and fatter, with increasing levels of weedkiller in their diet and being exposed to Roundup sprayed on them. Some are now grossly obese, have Type 2 Diabetes, are disabled and their children have autism and birth defects. Wales has the highest rate of child poverty of all the four nations. Swansea has been highlighted recently as having no food in its food banks at the start of the summer holidays. However, UK 'top' doctors, the media and the agrochemical industry blame people for "life-style choices" These, and the multiple cancers, are blamed on alcohol, obesity and smoking. But the pesticides industry is to blame.

I could weep to see what has happened to Swansea, Dylan Thomas's 'ugly, lovely, town'.

Industry being in charge of its own assessments could explain the indecisive state of the population and the incoherent plans of some members of the British Parliament over Brexit

Even in the 1970s the Agricultural Industry was given massive power by the British Government. Robert van den Bosch, writing in 1978 in *The Pesticide Conspiracy*:⁷ *"If one considers how dangerous these chemicals are, one would suppose that it would be Government policy to minimize their use by every possible means. However, the Royal Commission on Environmental Pollution notes, 'there is... no such policy in the UK, nor does the possible need for it appear to have been considered, notwithstanding the great increases in the use of these chemicals.'*

The Agrochemical Industry, on the contrary, seems to be under the impression it is Government policy to encourage the maximum use of pesticides. Thus, according to the Agrochemical industry, of 367,000 acres of potatoes grown in this country in 1976, 310,000 acres are treated with herbicides, 114,000 acres with granular insecticides and nematocides, 218,000 acres with foliar insecticides and

⁵ Marshall Cavendish Illustrated Encyclopaedia of Gardening 1969.

⁶ <http://www.legislation.gov.uk/ukpga/1981/69>

⁷ Van den Bosch, R. *The Pesticide Conspiracy*: USA Doubleday & Company (1978): Dorchester, UK: Prism Press (1980).

265,000 acres with fungicides.⁸ In this way one acre of potatoes, the industry boasts, can be treated from 2-11 times with different pesticides.” Van den Bosch also condemns the UK for aerial spraying. “What is particularly shameful in this country is the prevalence of aerial spraying. One million acres of agricultural land are sprayed each year, which involves 34,000 flights. Controls on this practice are practically non-existent...nor as the Royal Commission points out, does there appear to be any controls on the type of spraying equipment.”

Open Letter to Bayer CropScience

An advertisement that Bayer placed in Politico and the Farmers’ Guardian on 19/12/2018⁹

“Transparency creates trust. At Bayer, we embrace our responsibility to communicate how we assess our products’ safety — and we recognize that people around the world want more information around glyphosate. This month, we published more than 300 study summaries on the safety of glyphosate on our dedicated [transparency website](#).”

Bayer CropScience has never been transparent in its life. Formerly IG Farben, the private German chemicals company allied with the Nazis, that manufactured the [Zyklon B](#) gas used to commit genocide against millions of European Jews in the [Holocaust](#). It built a factory next to Auschwitz, Poland, so it could exploit Jewish slave labour in its oil and rubber production plant. In total, some 300,000 detainees from Auschwitz were employed in IG Farben’s workforce, supplying the company with free labour. The company housed the workers in its own concentration camp, with the horrendous conditions there and in the factory leading to an estimated 30,000 deaths. On top of this, an unknown number of workers deemed unfit to continue working at the factory were sent to the death camp at Auschwitz. Alongside the brutal conditions of the labour camp, IG Farben also sanctioned drug experiments on live, healthy inmates. IG Farben was probably the most well-known corporate participant in the Holocaust, and the company’s history sheds a chilling light on how genocide became tied in with economics and business.¹⁰

At the end of the war, after the Nuremberg Trials, the company itself was dissolved into three separate divisions, Hoescht, Bayer, and BASF. Monsanto was a firm created by the Rockefeller Foundation.¹¹ Monsanto partners with [I.G. Farben](#), makers of Bayer aspirin and the Third Reich’s go-to chemical manufacturer producing deadly Zyklon-B gas during World War II.

Monsanto, at the invitation of the British Government led by Clement Richard Attlee, established a factory in Newport, Wales, in 1949.¹² From then on, they manufactured PCBs until 1977 and a number of other dangerous chemicals. Monsanto was found to be dumping toxic waste in the River Severn, public waterways and sewerage. After that they paid a contractor to illegally *dump “thousands of tons of cancer-causing chemicals - among them [PCBs](#), [dioxins](#) and [Agent Orange derivatives](#)”* at two quarries in Wales: Brofiscin (80,000 tonnes) and Maendy (42,000 tonnes) between 1965 and 1972.¹³ According to engineering company WS Atkins, in a report prepared for the agency and the local authority in 2005 **but never made public**, Brofiscin Quarry contains at least 67 toxic chemicals. Seven PCBs have been identified, along with vinyl chlorides and naphthalene. The unlined quarry is still leaking, the report says. “*Pollution of water has been occurring since the 1970s, the waste and groundwater has been shown to contain significant quantities of poisonous, noxious and polluting material, pollution of ... waters will continue to occur.*”

In 1968 US documents showed that Monsanto tried to decide whether or not to come clean about the dangers of the chemicals. They stopped making PCBs in Anniston US in 1971 because of scandals

⁸ Industry’s Statistics: British Agrochemical Association London 1976

⁹ <https://www.cropscience-transparency.bayer.com/en/News/News-Bucket/2018/11/20181121-Glyphosate>

¹⁰ <https://www.newhistorian.com/ig-farben-opens-factory-at-auschwitz/3822/>

¹¹ <https://www.globalresearch.ca/the-complete-history-of-monsanto-the-worlds-most-evil-corporation/5387964>

¹² http://www.eastman.com/Company/Worldwide/our_sites/Pages/Newport_SouthWales.aspx

¹³ <http://www.dailymail.co.uk/news/article-435737/Monsanto-investigation-illegal-dumping.html>

about PCBs on the health of the population and wildlife. However, the British government led by Ted Heath agreed to ramp up production at their Monsanto plant in Newport.

Our food is poisoned with weedkiller. Why hasn't the UK Corporate media informed the public?

Weedkiller found in 43 out of 45 popular breakfast cereals marketed for US children

Significant levels of the weedkilling chemical glyphosate have been found in an array of popular breakfast cereals, oats and snack bars marketed to US children, a new study has found.¹⁴ Tests revealed glyphosate, the active ingredient in the popular weedkiller brand Roundup, present in all but two of the 45 oat-derived products that were sampled by the Environmental Working Group, a public health organization. Nearly three in four of the products exceeded what the EWG classes safe for children to consume. Products with some of the highest levels of glyphosate include granola, oats and snack bars made by leading industry names Quaker, Kellogg's and General Mills, which makes Cheerios. In April, internal emails obtained from the Food and Drug Administration (FDA) showed that scientists have found glyphosate on a wide range of commonly consumed food, to the point that they were finding it difficult to identify a food without the chemical on it. The FDA has yet to release any official results from this process. **The UK Guardian reported:** "There was no indication that the claims related to products sold outside the US."

Shockingly high levels of weedkiller found in popular breakfast cereals marketed for British children

In view of this statement by the *Guardian*, we sent samples of four oat-based breakfast cereals marketed for children in the UK to the Health Research Institute, Fairfield, Iowa, an accredited laboratory for glyphosate testing. Dr Fagan the Director says: "These results are consistently concerning. The levels consumed in a single daily helping of any one of these cereals, even the one with the lowest level of contamination, is sufficient to put the person's glyphosate levels above the levels that cause fatty liver disease in rats (and likely in people).

Type of breakfast cereal marketed for children Product description	Glyphosate level ng/g	AMPA ng/g	Effective glyphosate level ng/g
Kelloggs No added sugar granola with Apricot & pumpkin seeds	499.90	ND	499.90
Quaker/Oat So simple/Original Microwaveable Oats	464.23	24.04	500.28
Weetibix Oatibix 100% wholegrain oats	318.85	16.96	344.28
Nestle Multigrain Cheerios Whole Grain Oat Flour 29.6% Whole Grain Wheat 29.6% Whole Grain Barley Flour 17.9% Whole Grain Corn Flour 2.1% Whole Grain Rice Flour 2.1%.	137.29	ND	137.29

We sent the results to the Editor of *Guardian Letters*, Paul Chadwick, so the public would be informed, but he never published it. However, the *Daily Mail* did report it.¹⁵

FDA Glyphosate Testing Conspicuously Skips Oats, Wheat Products¹⁶

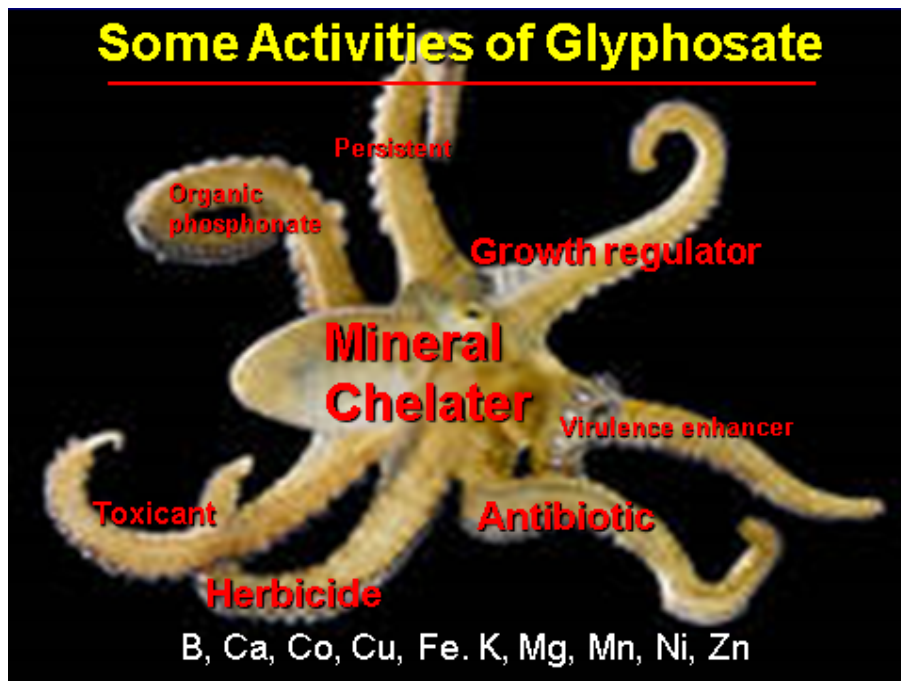
Monsanto's Roundup Weed Killer Detected on Two-Thirds of Corn and Soybean Samples
WASHINGTON – The Food and Drug Administration failed to include oats and wheat products in its glyphosate testing program, leaving Americans largely in the dark about their exposure through food to the active ingredient in Monsanto's Roundup weed killer. After sitting on the data from its

¹⁴ <https://www.theguardian.com/environment/2018/aug/16/weedkiller-cereal-monsanto-roundup-childrens-food>

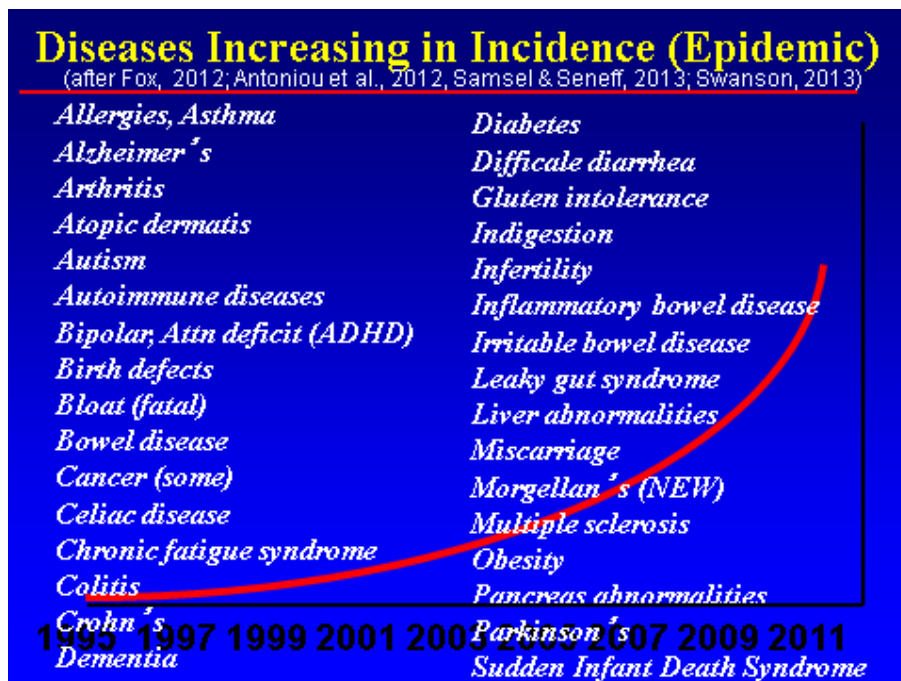
¹⁵ <https://www.dailymail.co.uk/health/article-6315209/Revealed-UK-cereals-contain-potentially-harmful-amounts-WEEDKILLER.html>

¹⁶ <https://www.ewg.org/release/fda-glyphosate-testing-conspicuously-skips-oats-wheat-products>

In addition, Dr Huber shows that glyphosate is an organic phosphonate, a growth regulator, a toxicant, a virulence enhancer and is persistent in the soil. It chelates (captures) and washes out the following minerals: boron, calcium, cobalt, copper, iron, potassium, magnesium, manganese, nickel and zinc.



Antibiotic-resistant diseases are an apocalyptic threat to humans; but when Monsanto is to blame, UK public health doctors, the UK Science Media Centre, the Wellcome Trust, BBSRC and the Media Corporations are unaccountably silent



Dr Huber's second slide shows diseases which have increased in incidence since 1995, correlated with the red line, which represents the increasing use of glyphosate in the US

The UK Science Media Centre is sponsored by corporations

The UK Science Media Centre is sponsored by corporations not by NGOs or Unions

Colin Macilwain, a science policy writer from Edinburgh who has worked as a reporter and an editor from both sides of the Atlantic wrote about plans to replicate Britain's Science Media Centre (SMC) in the United States, which he said was "fraught with danger."²⁸

Extracts: "The London SMC was set up because UK scientific leaders were upset that environmentalists had successfully fought the introduction of genetically modified food; they felt that the UK media were too susceptible to environmental scare stories about new technologies. Despite the fears of the SMC founders, **the British press — led by the BBC, which treats the Confederation of British Industry with the deference the Vatican gets in Rome — is overwhelmingly conservative and pro-business in its outlook. It is quite unperturbed by the fact that SMC sponsors include AstraZeneca, BP, Coca-Cola, L'Oreal, Monsanto, Syngenta (as well as Nature Publishing Group) but not a single environmental non-governmental organization (NGO) or trade union.**

Fiona Fox, the SMC's director, says that the centre operates independently of its sponsors and points out that none (except its host, a Medical Charity, the Wellcome Trust) accounts individually for more than 5% of its income. She adds that no NGOs are involved because it was their public-relations skills that the founders of the SMC sought to match."

Macilwain goes on to say: "But the perception that the environmental group Friends of the Earth constitutes a bigger threat to scientific truth-telling than some of the corporate names on the SMC's sponsorship list is not one the US media would accept. Some of those considering a US centre share these concerns. They think that their funding model will have to rely on charitable trusts, not companies or government agencies.

UK's Science Media Centre lambasted for pushing corporate science²⁹

The meeting of global science writers in Bath in 2014 concluded: "Journalists who uncritically report on SMC briefings and quotes sent by the centre are being taken for a ride by a lobby organisation instead of a neutral science information provider." Connie St Louis, former president of the Association of British Science Writers and a senior lecturer at City University, London said: "I would close down the UK Science Media Centre." She conducted a small study on the centre's impact on UK science reporting in the 12 national newspapers in 2011 and 2012. The SMC's main activities include sending out 'expert reactions' — quotes on issues in the news — and holding media briefings, essentially small press conferences with a few experts. She found that more than half the SMC's expert reactions were covered in the press and, in 23 per cent of the stories that included these, the only quotes were those that came from the centre.

David Miller, a professor of sociology from the University of Bath, United Kingdom, presented a scathing analysis of the SMC, based on a combination of methods, such as analysing the SMC's website content and sending out freedom of information requests. He looked at which experts the centre uses — given that its mission is to get scientists' views across. What he found was that some 20 of the 100 most quoted experts were not scientists, as defined by having a PhD and working at a research institution or a top learned society. Instead they were lobbyists for and CEOs of industry groups. In 2012, the UK SMC, EFSA, Monsanto and GMO lobbyists worked to get the paper by Séralini and his team retracted (see next page, Claire Robinson testified at the Monsanto Tribunal).

Séralini's 2-year feeding study provoked chronic hormone and sex dependent pathologies in rats; males developed tumours at 4 months and females at 7 months

"The health effects of a Roundup®-tolerant genetically modified maize (from 11% in the diet), cultivated with or without Roundup®, and Roundup® alone (from 0.1 ppb in water), were studied 2 years in rats. In females, all treated groups died 2–3 times more than controls, and more rapidly. This difference was visible in 3 male groups fed GMOs. All results were hormone and sex dependent, and

²⁸ <https://www.nature.com/news/two-nations-divided-by-a-common-purpose-1.10224?nc=1376335775294>

²⁹ <https://www.scidev.net/global/journalism/feature/uk-s-science-media-centre-lambasted-for-pushing-corporate-science.html>

the pathological profiles were comparable. Females developed large mammary tumours almost always more often than and before controls, the pituitary was the second most disabled organ; the sex hormonal balance was modified by GMO and Roundup® treatments. In treated males, liver congestions and necrosis were 2.5–5.5 times higher. This pathology was confirmed by optic and transmission electron microscopy. Marked and severe kidney nephropathies were also generally 1.3–2.3 greater. Males presented 4 times more, large palpable tumors (kidney) than controls which occurred up to 600 days earlier. Biochemistry data confirmed very significant kidney chronic deficiencies; for all treatments and both sexes, 76% of the altered parameters were kidney related. These results can be explained by the non-linear endocrine-disrupting effects of Roundup®, but also by the overexpression of the transgene in the GMO and its metabolic consequences.”

The industry-funded UK Science Media Centre is able to feed journalists with a corporate agenda; the European Food Safety Authority followed suit to discredit him

Monsanto and paid lobbyists were so alarmed about the work of Séralini’s team at CRIIGEN, that a world-wide campaign was organised to discredit him. Claire Robinson speaking at the Monsanto Tribunal said:³⁰ *“I’m going to speak today on how Monsanto and its allies used underhand, deceptive, and non-transparent tactics to try to discredit a scientific study that threatened the company’s interests – and to smear the scientists themselves. In this and other similar cases, the company’s interests were often represented by third parties such as public relations firms or ostensibly independent academics and scientists (the “third-party” PR technique).”*

The Séralini 2-year feeding study, published in 2012, showed that rats fed GM Maize and Roundup developed liver and kidney damage and hormone and sex-dependent tumours, gave the opportunity for Monsanto scientists to claim fraudulent science. It was not reported by the UK media (apart from John Vidal in *The Guardian*) but had widespread coverage throughout the world, particularly in France.

Prof Gilles-Eric Séralini was awarded Whistleblower of the Year 2015 (a shared award) by German Scientists for his work on the toxicity of GMOs and Glyphosate³¹

Citation from German Scientists: *“He was the first to publish animal test results demonstrating the toxic and carcinogenic properties of the most commonly used herbicide worldwide, the glyphosate-based “Roundup” by carrying out a two-year feeding test on rats. After the research was published, Prof Séralini was attacked by a vehement campaign by ‘interested circles’ from the chemical industry as well as the industry-financed British Science Media Centre.”*

Séralini’s team finds heavy metals in chemical formulants of GBH that are in our diet

Extract: *As with other pesticides, 10–20% of GBH consist of chemical formulants. We previously identified these by mass spectrometry and found them to be mainly families of petroleum-based oxidized molecules, such as POEA, and other contaminants. In this work, we also identified by mass spectrometry the heavy metals arsenic, chromium, cobalt, lead and nickel, which are known to be toxic and endocrine disruptors, as contaminants in 22 pesticides, including 11 G- based ones.*³²

European Regulatory decisions on glyphosate do not feature prominently in the UK media. In France they are at the top of the agenda

***Le Monde* (France) informs the French people the truth about pesticides**

“French government ministers are so concerned by the findings (of Séralini’s study) that they have asked its National Agency for Health Safety to investigate and say that if necessary will suspend imports of the GM maize.” *Le Monde* investigative journalists Stéphane Foucart and Stéphane Horel contributed revelations about Monsanto emails to **The Monsanto Papers** part of Baum Hedland’s evidence in the trial against Monsanto for Roundup causing cancer. In November 2017 *Le Monde*

³⁰ http://www.gmwatch.org/files/Mon_Trib_summary.pdf

³¹ https://vdw-ev.de/wp-content/uploads/2016/07/full_reasoning_whistleblower_sereralini_en.pdf

³² https://www.gmoseralini.org/wp-content/uploads/2018/01/Defarge-et-al_TOXREP_2018.pdf

won the Prix Varenne for their series of articles, the *Monsanto Papers*, an investigation on the world-wide war the Monsanto Corporation started in order to save glyphosate: it included intimidating letters to Dr Margaret Chan the then Director-General of the World Health Organisation and individual scientists in the International Agency for Research into Cancer.³³

Extracts from Questions to Lord Gardiner of Kimble in the House of Lords on Roundup on 31 October 2018: Lord Gardiner bats away the questions that say nothing, except it is safe

QUESTION The Countess of Mar: “My Lords, I remind the noble Lord that **glyphosate** was initially registered as a very powerful chelator, which means that it blocks out essential minerals and elements from plant systems. Secondly, it was registered as an antibiotic, so it kills off micro-organisms in the soil. Thirdly, it was registered as a **weedkiller**. All those factors have an effect on what we eat every day. Finland, which has a no-till policy using **glyphosate**, has found that over the last three years crop levels have fallen, and that there has been an increase in infertility in men and women. Will the noble Lord bear that in mind when recommending the ubiquitous use of Roundup?”

QUESTION Baroness Bakewell of Hardington Mandeville: “As has been said, **glyphosate** is an active ingredient found in the weedkiller Roundup and has been a source of controversy amid claims that it is connected to certain kinds of cancer. Oatmeal and other breakfast cereal crops are often sprayed with this chemical. What in-depth research are the Government doing to ensure public safety, both now and after 29 March?”

REPLY Lord Gardiner of Kimble: “All this area is hugely important as a priority, both now and after we leave the European Union. Public safety will always be the prime consideration, and this would not be authorised if it was deemed to be unsafe.”

QUESTION Baroness Jones of Moulsecoomb: “I thank the Minister for his reply. I am sure that it is general knowledge that the landmark verdict in a case in the United States was that Roundup and **glyphosate** herbicides can cause cancer, and Monsanto has acted with “malice and oppression” by selling it in full awareness of the risks. Given that here in the UK farmers have to keep such pesticides under lock and key in a steel cupboard, how can it be all right to sell it freely in the supermarkets on open shelves? Is that not a risk for both shoppers and workers?”

REPLY Lord Gardiner of Kimble: “My Lords, the recent case was a civil court case with a non-expert jury. There was no new scientific evidence presented regarding safety as part of the court case, and so it does not raise doubts about the scientific assessments underpinning the EU approval decision. Of course, we have in this country, and through the EU as well, very strict rules about authorisations and approvals. There are many requirements for Roundup, and it is important that it is used responsibly, **but it is safe**.”

Baumhedlundlaw.com have announced the schedule of court cases against Monsanto.³⁴

“Monsanto Company (now Bayer) is facing thousands of lawsuits across the United States filed by individuals who allege exposure to Roundup weed killer caused them to develop non-Hodgkin lymphoma. The first trial against Monsanto ended on August 10, 2018 with a unanimous jury verdict of \$289 million for a Benicia, California school district groundskeeper, Dewayne “Lee” Johnson. Most of the Roundup cancer lawsuits are filed in various state courts. Others have been consolidated in a federal multidistrict litigation (MDL) in Northern California. Below you will find the Monsanto Roundup trial schedule for cases throughout the U.S. This page will be updated on a monthly basis.”

³³ <https://usrtk.org/pesticides/secret-documents-expose-monsantos-war-on-cancer-scientists/>

³⁴ <https://www.baumhedlundlaw.com/toxic-tort-law/monsanto-roundup-lawsuit/monsanto-court-papers/monsanto-roundup-trial-schedule/>

Federal Monsanto Roundup Multidistrict Litigation (MDL) Schedule

Federal MDL in Roundup Products Liability Litigation

U.S. District Court for the Northern District of California

San Francisco, CA

Lead Case No. 3:16-md-02741

The Honorable Judge Vince Chhabria is the presiding judge. As of October 2018, 1,654 plaintiffs with non-Hodgkin lymphoma had filed cases in federal courts across the country. These cases are consolidated before the U.S. District Court for the Northern District of California.

Missouri: Thousands of cases are filed in St. Louis City Court and St. Louis County Court.

In the UK there were 13,605 new cases of Non-Hodgkin Lymphoma in 2015 (and 4,920 deaths in 2016)³⁵

There were 41,804 new cases of bowel cancer in 2015 (and 16,384 deaths in 2016); 12,547 new cases of kidney cancer in 2015 (and 4,619 deaths in 2016); 5,736 new cases of liver cancer in 2015 (5,417 deaths in 2016); 15,906 new cases of melanoma in 2015 (2,285 deaths in 2016); 3,528 new cases of thyroid cancer in 2015 (382 deaths in 2016); 10,171 new cases of bladder cancer in 2015 (5,383 deaths in 2016); 8,984 new cases of uterine cancer in 2015 (2,360 deaths in 2016); 7,270 cases of ovarian cancer in 2015 (4,227 deaths in 2016); 9,900 new cases of leukaemia in 2015 (4,712 deaths in 2016); 55,122 new cases of invasive breast cancer in 2015 (11,563 deaths in 2016); 46,388 new cases of lung cancer in 2015 (and 35,620 deaths in 2016); 47,151 new cases of prostate cancer in 2015 (11,631 deaths in 2016); 9,211 new cases of oesophageal cancer in 2015 (8,004 deaths in 2016) and 5,540 new cases of myeloma in 2015 (3,079 deaths in 2016); 2,288 new cases of testicular cancer in 2015 (57 deaths in 2016); 9,921 new cases of pancreatic cancer in 2015 (9,263 deaths in 2016); 11,432 new cases of brain cancer in 2015 (5,250 deaths in 2016). In the US in 2014 there were 24,050 new cases of myeloma.

Each year there are steady increases in the numbers of new cancers, and increases in deaths from the same cancers, with no treatments making any difference to the numbers.

In 2011, CRUK began donating money (£450 million/year) to the Government's Strategy for UK Life Sciences and AstraZeneca provided 22 compounds to academic research to develop medicines.³⁶

Cancer Research UK protects the Agrochemical Industry: the CRUK website claims '*there is little evidence that pesticides cause cancer*'

Michael Pragnell former Chairman of Cancer Research UK (2010-2017), founder of Syngenta and former Chairman of CropLife International was awarded a CBE in 2017 for services to cancer research. CropLife International was founded in 2001.³⁷ As of 2015 CropLife International's member list includes the following 8 companies: BASF, Bayer CropScience, Dow AgroSciences, DuPont, FMC Corp., Monsanto, Sumitomo and Syngenta. Many of these make their own formulated glyphosate.

CRUK said that there was little evidence that pesticides caused cancer. CRUK, the CMO England and PHE, linked cancer to alcohol, obesity and smoking. They blamed the people for 'lifestyle choices'.

The Francis Crick Institute with its world class resources is failing to improve lives³⁸

"The Francis Crick Institute is a biomedical discovery institute dedicated to understanding the fundamental biology underlying health and disease. Its work is helping to understand why disease develops and to translate discoveries into new ways to prevent, diagnose and treat illnesses such as cancer, heart disease, stroke, infections, and neurodegenerative diseases.

An independent organisation, its founding partners are the Medical Research Council (MRC), Cancer Research UK, Wellcome, UCL (University College London), Imperial College London and King's College London. The Crick was formed in 2015, and in 2016 it moved into a brand-new state-of-the-

³⁵ <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/non-hodgkin-lymphoma>

³⁶ <https://www.gov.uk/government/publications/uk-life-sciences-strategy>

³⁷ https://www.vinci.com/vinci.nsf/en/management-board-directors/pages/michael_pragnell.htm

³⁸ <https://www.crick.ac.uk/about-us/>

art building in central London which brings together 1500 scientists and support staff working collaboratively across disciplines, making it the biggest biomedical research facility under a single roof in Europe.

The Francis Crick Institute will be world-class with a strong national role. Its distinctive vision for excellence includes commitments to collaboration; to developing emerging talent and exporting it the rest of the UK; to public engagement; and to helping turn discoveries into treatments as quickly as possible to improve lives and strengthen the economy."

Monsanto's toxic synthetic chemicals cause many genetic defects

That is why Britain has become the number one global centre for researching and finding cures for these diseases.

Monsanto manufactured Agent Orange, Polychlorinated biphenyls (PCBs), dioxins and formulated glyphosate (Roundup) and many other toxic chemicals. These synthetic chemicals, manufactured in Monsanto's factory in Wales from 1949 onwards, and dumped in Brofiscin Quarry³⁹ and various quarries cause genetic defects. WWF-UK's Bio-monitoring Survey November 2003 showed that every person tested is contaminated by a cocktail of known highly toxic chemicals which were banned from use in the UK during the 1970s and which continue to pose unknown health risks.⁴⁰

The fraudulent decision on glyphosate by the European Regulatory Authorities shows that the European Glyphosate Task Force was in charge

European Chemical Agency Report on the reassessment of glyphosate. This formed the basis of the European Commission's renewal of glyphosate's licence for 5 years⁴¹

Published 15/03/2017 ECHA said the available scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction but it was **classified as causing serious eye damage and as being toxic to aquatic life with long lasting effects.**

Why did the final version of the proposal on glyphosate omit the full classification?

The President of the European Commission, Jean-Claude Juncker, signed the Final version of the commission proposal. It says: *"In its opinion, the Committee for Risk Assessment of the Agency (European Chemicals Agency) concluded by consensus that on the basis of the information currently available, no hazard classification for carcinogenicity is justified for glyphosate."* The omission of the full classification would appear to be intentionally fraudulent.⁴²

Koffi Dogbevi, Lawyer for the International Monsanto Tribunal, also commented adversely on the ECHA's classification

"It is interesting to see that ECHA's Committee for Risk Assessment (RAC) agreed to maintain the classification of glyphosate as a substance causing serious and irreversible effect on the eye (Eye Dam. 1, H318) and being toxic to aquatic life with long-lasting effects (Aquatic Chronic 2, H411), and at the same time reaching the conclusion that glyphosate is safe and non-hazardous. While this imbroglio seems to relate to the distinction between hazard (the intrinsic potential to cause harm) and risk (the probability of harm occurring at a given exposure), **it is clear that any reasonable person would assert that a product causing an irreversible harm on the eye, and having a long-lasting toxicity impact on aquatic life, is likely a dangerous product.**

Hazardous materials/substances were covered, in the European Union under the Dangerous

³⁹

http://www.theecologist.org/The_Brofiscin_Monsanto_Files/777777/burying_the_truth_the_original_ecologist_investigation_into_monsanto_and_brofiscin_quarry.html

⁴⁰ <http://www.wwf.org.uk/filelibrary/pdf/biomonitoringresults.pdf>

⁴¹ <https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa>

⁴²

https://ec.europa.eu/food/sites/food/files/plant/docs/pesticides_glyphosate_commission_proposal_final_version.pdf

Substances Directive (DSD) and the Dangerous Preparations Directive (DPD), regulations that are currently replaced by the EC Regulation No 1272/2008 of 16 December 2008 on the classification, labelling and packaging of substances and mixtures. It is very interesting to notice that glyphosate is listed under the EC Regulation No 1272/2008 as substance causing eye irritation (Eye Dam. 1, H318), toxic to the aquatic environment (Aquatic Chronic 2, H411), and having an acute toxicity (H302) which is a Hazard Category 4. However, it is very troubling to see that the ECHA not only voluntarily omitted the acute toxicity characteristic (H302/ hazard category 4) of glyphosate, but also exonerate itself of any risk assessment task that may lead to unexpected or non-provisionary outcome, and classified glyphosate as safe and non-hazardous substance.”

How did the US EPA and IARC reach opposite conclusions about glyphosate’s genotoxicity?⁴³

An important paper by Charles Benbrook was published on 14 January 2019 in *Environmental Sciences Europe*.

“Many people around the world still struggle to understand how and why the [US EPA](#) and the European Food Safety Authority ([EFSA](#)) concluded that the herbicide active ingredient glyphosate is not genotoxic (damaging to DNA) or carcinogenic, whereas the World Health Organisation’s cancer agency (International Agency for Research into Cancer) came to the opposite conclusion. IARC stated that the evidence for glyphosate’s genotoxic potential is “[strong](#)” and that glyphosate is a probable human carcinogen.

While IARC referenced only peer-reviewed studies and reports available in the public literature, [EPA](#) relied heavily on unpublished regulatory studies commissioned by pesticide manufacturers. In fact, 95 of the 151 genotoxicity assays cited in EPA’s evaluation were from industry studies (63%), while IARC cited 100% public literature sources.

Another important difference is that [EPA](#) focused its analysis on glyphosate in its pure chemical form, or “glyphosate technical”. The problem with that is that almost no one is exposed to glyphosate alone. Applicators and the public are exposed to complete herbicide formulations consisting of glyphosate plus added ingredients (adjuvants). The formulations have repeatedly been shown to be more toxic than glyphosate in isolation.

Further [support](#) for many of these measures comes from the European Parliament’s [PEST Committee](#), which was set up in response to the concerns raised by the European Citizens’ Initiative to ban glyphosate, the Monsanto Papers (internal Monsanto documents disclosed in cancer litigation in the USA revealing how industry has subverted science), and the discrepancies in the cancer assessments of glyphosate between the European institutions and the IARC.

In an unusual step, the editor-in-chief of *Environmental Sciences Europe*, Prof Henner Hollert, and his co-author Prof Thomas Backhaus, weighed in with a strong statement in support of the acceptance of Dr Benbrook’s article for publication.⁴⁴ In a commentary published in the same issue of the journal, they wrote, “*We are convinced that the article provides new insights on why different conclusions regarding the carcinogenicity of glyphosate and GBHs [glyphosate-based herbicides] were reached by the US EPA and IARC. It is an important contribution to the discussion on the genotoxicity of GBHs.*”

Conclusions

“In the case of glyphosate-based herbicides, the world’s most widely-used pesticide ever, such relatively high-exposure episodes occur tens of thousands of times on a daily basis in the US and hundreds of thousands, if not millions of times globally.

IARC’s evaluation relied heavily on studies capable of shedding light on the distribution of real-world exposures and genotoxicity risk in exposed human populations, while EPA’s evaluation placed little or no weight on such evidence.”

Glyphosate causes cataracts and interstitial damage

Among Monsanto’s long-term studies an unpublished study on albino rats in 1990 showed that glyphosate entered the eye and caused cataracts and tissue damage. ECHA classified it as a ‘*substance causing serious eye damage*’. The rate of cataract surgery in England “*increased very substantially*”

⁴³ <https://www.gmwatch.org/en/news/archive/2019/18699>

⁴⁴ <https://link.springer.com/article/10.1186/s12302-018-0184-7>

between 1989 and 2004 from 173 (1989) to 637 (2004) episodes per 100,000 population.

A 2016 study by the WHO also confirmed that the incidence of cataracts had greatly increased: ‘A global assessment of the burden of disease from environmental risks.’ says that cataracts are the leading cause of blindness worldwide. Globally, cataracts are responsible for 51% of blindness – an estimated 20 million individuals suffer from this degenerative eye disease.⁴⁵

In the US between 2000 and 2010 the number of cases of cataract rose by 20% from 20.5 million to 24.4 million. It is projected that by 2050, the number of people with cataracts will have doubled to 50 million.

Monsanto’s sealed secret studies obtained under FOI from the US EPA

The Federal Agency supplied these documents to Anthony Samsel under FOI with special consideration for his research into glyphosate

Samsel and Seneff wrote paper IV on Glyphosate: Glyphosate, pathways to modern diseases IV: cancer and related pathologies⁴⁶ and concluded that: “*significant evidence of tumours was found during these investigations*”. Ridley and Mirly (1988) (for Monsanto) found bioaccumulation of ¹⁴C-labelled glyphosate in Sprague Dawley rat tissues. Residues were present in bone, marrow, blood and glands including the thyroid, testes and ovaries, as well as major organs, including the heart, liver, lungs, kidneys, spleen and stomach (Table 11 Page 127). The eye is included in this list. Table 8 Page 126): Incidence and occurrence of ophthalmic degenerative lens changes by glyphosate. Table 9 Page 126: Data on unilateral and bilateral cataracts (all types) and Y-suture opacities, excluding “prominent Y suture”, following glyphosate exposure to rats. Stout & Rueker (1990) commissioned for Monsanto.

A Senior Monsanto scientist had claimed that glyphosate didn’t accumulate but was excreted unchanged from the body⁴⁷ and referred back to the glyphosate re-assessment in Europe in 2002. However, Monsanto’s secret studies had revealed otherwise.

Anthony Samsel gave Testimony to the California Environmental Protection Agency

“There are no safe levels of glyphosate. Glyphosate is a synthetic amino acid and analogue of our canonical amino acid glycine and participates in plant and animal biology.

One microgram of glyphosate technical acid (N-phosphonomethyl glycine) contains 3.561 trillion molecules each capable of integrating with a protein altering shape, folding and function. I am a US scientist and hazardous chemicals materials consultant and expert on the subject of Glyphosate. I am one of few people to have received all of the Monsanto’s trade secret sealed studies on glyphosate from the US EPA. The federal agency supplied these documents in excess of 100,000 pages to me under the FOIA with special consideration for my research into this chemical. I now have six peer-reviewed papers on the subject of glyphosate and several more papers on the glyphosate in progress, a short list to some of these studies links are appended. The full series of peer-reviewed glyphosate papers may be found at ResearchGate in the author file under Anthony Samsel.

*Babies and young children are now stricken with cancers and these have not a chance at a normal life, with many not cured but extinguished. Something is causing these maladies and I suspect N-nitrosamines of glyphosate may be to blame. This is not chronic long-term exposure. I strongly believe that long-term exposure is not necessary for the induction of cancer.”*⁴⁸ He has found glyphosate residues present in vaccines, baby milk formulations, pet foods and rat feeds for experimental purposes.

“I call on the California Environmental Protection Agency to immediately ban the chemical glyphosate based on the latest scientific research conducted here in the USA. Glyphosate has

⁴⁵

http://apps.who.int/iris/bitstream/handle/10665/204585/9789241565196_eng.pdf;jsessionid=3A4E7737D8EA3FB16E6AAD5F4822A74D?sequence=1

⁴⁶ <http://www.amsi.ge/jbpc/31515/11SA15R.pdf>

⁴⁷ <https://gmoanswers.com/ask/hi-does-senior-monsanto-scientist-dan-goldstein-still-maintain-if-ingested-glyphosate-excreted>

⁴⁸ https://oehha.ca.gov/media/dockets/8594/8767-anthony_samsel/letter_ca_epa_june_32017_draft.pdf

recently been found to integrate with structural proteins as well as animal i.e. human enzymes that include digestive enzymes pepsin, trypsin and lipase as well as lysozyme.”

Samsel found ¹⁴C labelled glyphosate detected in cartilage; is it responsible for degeneration of cartilage and knee arthritis? Is that why many UK sports people have to retire early?

Recent anatomical studies of knee arthritis from Harvard show, that when the team factored out the effects of weight and age in the two modern groups, **knee arthritis was still more than twice as common in the group of people who died after 1976**, ‘suggesting other factors are involved’.⁴⁹ In England in July 2017 the NHS waiting list for hip replacement and cataract surgery exceeded 4 million.

UK Mortality rates from 2014 the highest for 50 years: they continue to rise⁵⁰

“The period July 2014 to June 2015 saw an additional 39 074 deaths in England and Wales compared with the same period the previous year. While mortality rates fluctuate year-on-year, this was the largest rise for nearly 50 years and the higher rate of mortality has been maintained throughout 2016 and into 2017.”

British women live shorter lives than most other Europeans and nearly 20 years in poor health⁵¹
Spanish women live the longest, with UK longevity ranked 17th out of 28 EU nations, according to Public Health England’s annual health profile

*“There is no reason why we shouldn’t be as healthy as anywhere in Europe,” said Prof John Newton, director of health improvement at PHE.⁵² “Many of the causes of chronic, long-term diseases in the UK which shorten lives are preventable. **Obesity** is causing a big surge in the numbers of people developing type 2 diabetes. The report shows the numbers with diabetes are expected to rise swiftly, from just under four million last year to nearly five million in 2035. Along with alcohol, obesity is also one of the factors behind the rise in breast cancer. Apart from the human cost, the bill for the NHS will be huge... The list of the most common site-specific cancers remained unchanged from 2015 in both sexes. Lung cancer, colorectal and anal cancer, and leukaemia and lymphomas were all in the top ten leading causes of death in 2016... Prostate cancer and breast cancer remained amongst the top ten leading causes of death for males and females respectively, both ranked seventh, the same as in 2015. Lung cancer deaths remained the third most common cause of death for males and sixth most common for females in 2016. There has also been an increase in the death rate from lung cancer (8%), kidney disease and other diseases of the urinary system (38%) and chronic lower respiratory disease (18%). When deaths from all cancers are grouped together, cancer accounted for 25.6% of all deaths in females and 30.3% of all deaths in males in 2016. This would make it the leading cause, in 2016, for both sexes. The leading cause of death for women is dementia and Alzheimer’s disease, responsible for 15.8% of deaths, with heart disease second at 8.3%. There has been an increase in the death rate from dementia and Alzheimer’s of more than 60% and deaths from liver disease have increased by 12%.*

Women in 2014-16 were spending nearly 20 years of their life in poor health (19.3 years), while men spent just over 16 years in poor health, according to data from the Office for National Statistics included in the report. The leading cause of poor health, responsible for more than 22% of the pain and suffering, is low back and neck pain, which can be caused by a number of things, including injury and rheumatoid arthritis. After that come skin diseases such as acne and psoriasis, says the report. Third for men is sight and hearing loss, while for women it is migraine. Fourth for both is depressive disorders. Long-term conditions such as diabetes, high blood pressure and cancers underlie some of these problems.”

⁴⁹ <http://www.sciencemag.org/news/2017/08/knee-arthritis-americans-has-doubled-1940>

⁵⁰ <http://jech.bmj.com/content/early/2017/09/01/jech-2017-209403>

⁵¹

<http://click.mail.theguardian.com/?qs=bd4bb2980cde506285bbd7433f46e1dcb58fad37ae94d5a5d26dba313aef8ec8b4af965a3c4068bc7770cb3208949b39>

⁵² <https://www.gov.uk/government/publications/health-profile-for-england-2018/chapter-2-trends-in-mortality>

This is because Roundup weedkiller is in our food and is present in every organ of the body

Monsanto's secret sealed documents obtained under FOI from the US EPA by Anthony Samsel showed that Ridley and Mirly (1988) (for Monsanto) found bioaccumulation of ¹⁴C- labelled glyphosate in Sprague Dawley rat tissues. Residues were present in bone, marrow, blood, connective tissue, cartilage and glands including the thyroid, testes and ovaries, as well as major organs, including the heart, liver, lungs, kidneys, spleen and stomach.

Obesity in UK children began to rise before the age of 7 and between 7 and 14⁵³

The Millennium Cohort Study (MCS) is a multi-disciplinary research project following the lives of around 19,000 children born in the UK in 2000-01. The six surveys of MCS cohort members carried out so far – at age nine months, three, five, seven, 11 and 14 years – have built up a uniquely detailed portrait of the children of the new century. The Age 14 Survey took place in 2015. Interviews were conducted with 11,726 families. Age 14 was when the MCS identified obesity, mental health disease and self-harm at the highest.

The **1970 British Cohort Study** (BCS70) is a continuing, multi-disciplinary longitudinal study monitoring the development of more than 17,000 babies born in the UK during the week of 5–11 April 1970. Since the birth survey in 1970, there have been eight sweeps of all cohort members at ages 5, 10, 16, 26, 30, 34, 38 and 42. The Centre for Longitudinal Studies (CLS) based at the Institute of Education University of London published their latest report on 9 November 2013.⁵⁴

Their key findings of the cohort at age 42 were that:

- The generation born in 1970 is considerably more likely to be overweight or obese than those born 12 years earlier were at the same age.
- Men born in 1970 are far more likely to be overweight than women.

I wrote to the CLS to see when the next one would be published. They said: “*unfortunately, there has been a delay and the next one is unlikely to be out before 2019.*”

Evidence that obesity is a problem related to glyphosate: a study showed that in 2025, the UK will have the highest obesity rates among both men and women in Europe, at 38%: in contrast in France women have had virtually no increase in BMI over 40 years

A study on obesity published in *The Lancet* in March 2016 says: “*About a fifth of all adults around the world and a third of those in the UK will be obese by 2025, with potentially disastrous consequences for their health.*” *The Lancet* Study says there is zero chance that the world can meet the target set by the UN for halting the climbing obesity rate by 2025. “*Over the past 40 years, we have changed from a world in which underweight prevalence was more than double that of obesity, to one in which more people are obese than underweight,*” said senior author Prof Majid Ezzati from the School of Public Health at Imperial College London. “*The English-speaking world is particularly badly affected. The UK will have the highest obesity among both men and women in Europe, at 38%.*”⁵⁵

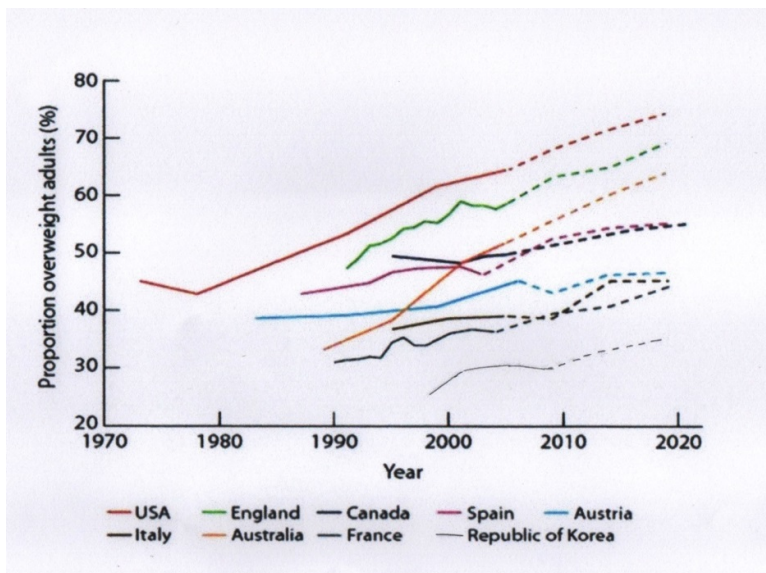
In contrast: “*Against the trend of steadily rising weight, women in some countries had virtually no increase in BMI over the 40 years – in Singapore, Japan, and a few European countries including Czech Republic, Belgium, **France**, and **Switzerland**.*”

⁵³ <http://www.cls.ioe.ac.uk/page.aspx?&sitesectionid=2419&sitesectiontitle=MCS+Age+14+initial+findings>

⁵⁴ [Overweight and obesity in mid-life: Evidence from the 1970 British Cohort Study at age 42](#)

⁵⁵ <http://www.theguardian.com/society/2016/mar/31/one-fifth-of-worlds-adults-will-be-obese-by-2025-study-predicts>

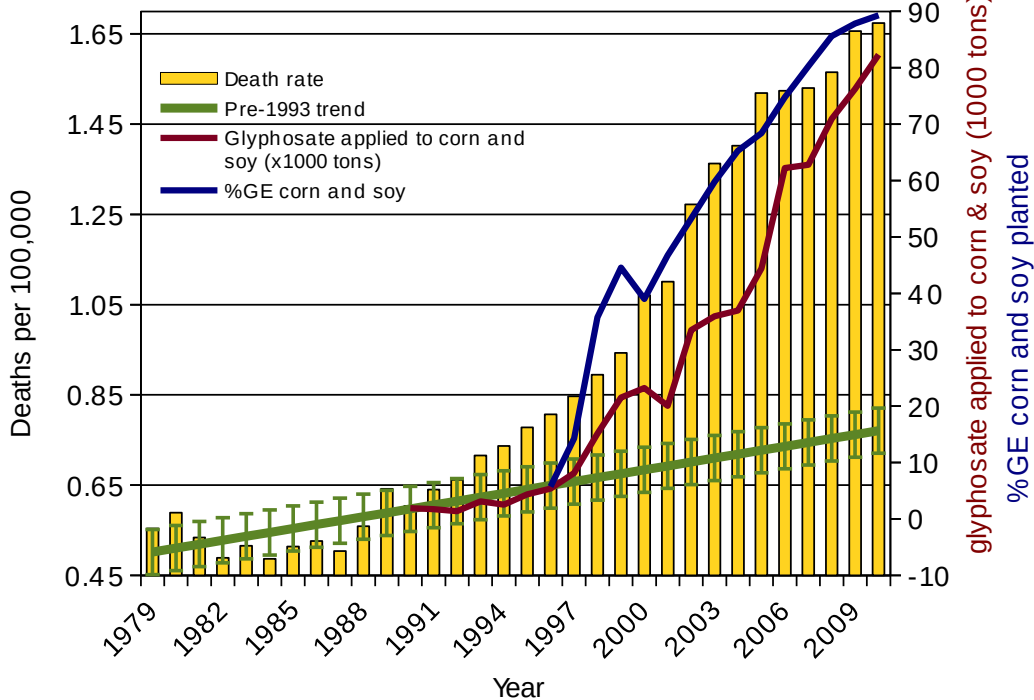
Obesity levels in England are second only to the US and are running a parallel course to the US



Historical and projected overweight rates in OECD countries⁵⁶

Age Adjusted Deaths due to Obesity (ICD E66 & 278)

plotted against %GE corn & soy (R = 0.9618, p <= 3.504e-06)
 and glyphosate applied to corn & soy (R = 0.9616, p <= 1.695e-08)
 Sources:USDA:NASS; CDC



⁵⁶ Healthy Choices OECD Health Ministerial Meeting, Paris, 7-8 October 2010
<http://www.oecd.org/health/ministerial/46098333.pdf>

Neurotransmitter changes in the brain from exposure to Glyphosate-based herbicides

Many papers come from Latin American countries where they grow almost exclusively GM Roundup Ready Crops that Monsanto forced on them in 1996: this is one of many papers that the European Glyphosate Task Force excluded from their re-assessment.

Behavioral impairments following repeated intranasal glyphosate-based herbicide administration in mice.⁵⁷

Taken together, our findings demonstrate that intranasal (IN) exposure to commercial Gly-BH produces alterations in locomotor activity, anxiety and memory in adult mice. These observations could be a consequence of alterations in neurotransmission systems comprising the GABAergic, dopaminergic, serotonergic and/or cholinergic systems.” In this research paper there are references to many papers from around the world that confirm the glyphosate-based herbicides are damaging to the development of the foetal brain and that repeated exposure is toxic to the adult human brain and may result in alterations in locomotor activity, feelings of anxiety and memory impairment.

This is why there are so many mental health and psychiatric disorders, depression, suicides, anxiety and violence among children and adults in the UK and in the US.

Close relationships between the government, industry and the UK Media

Syngenta is the powerhouse of the UK government’s agrochemical policy

Dr Peter Campbell Head of Ecotoxicology: Principal Scientific Officer York Pesticides Safety Directorate (PSD September 1991 – November 1997); now the Chemical Regulations Directorate (CRD) became Head of Ecological Sciences, Syngenta (October 1997 – September 2007) at Jealott’s Hill International Research Centre, Bracknell UK.⁵⁸

Dr Helen Thompson Senior Bee Scientist from the Food & Environment Research Agency (Fera) defected in 2013, after having done commissions for Syngenta.⁵⁹ FoI declarations discovered a compromising letter from Owen Paterson MP to Syngenta Switzerland assuring them of his support against the neonicotinoid ban in Europe.⁶⁰ Dr Campbell had the power to direct Syngenta funding wherever he saw fit. In 2009 Syngenta gave £1 million to fund Warwick University and Rothamsted Research “to help to improve honeybee health”. (Rothamsted had lost funding for its Bee Unit in 2006). Syngenta pioneered Operation Bumblebee in the UK and in 2010 announced expansion of programmes across Europe; up to €1 million over 5 years. Programmes included “*What Operation Bumblebee can do for your golf course.*” Syngenta had representatives on the Advisory Committee on Pesticides (ACP), the Committee on Toxicity of Chemicals in Foods, Consumer Products and the Environment (CoT), and Dr Campbell himself was on the Panel to choose the Pollinator Initiative Projects.⁶¹ Syngenta contributed to the Government’s Foresight Future of Farming Report.⁶² Syngenta’s parent company AstraZeneca had two representatives on CoT.

Dr James Cresswell received £136,000 from Syngenta to fund his research at Exeter in 2012.⁶³ (He has since resigned and told the story to the New York Times of how he was trapped.)⁶⁴

Syngenta gave scholarships for students at Exeter University in 2012⁶⁵ and with the Biotechnology and Biological Research Council (BBRSC) funded the BEEHAVE honeybee model.⁶⁶ Syngenta also

⁵⁷ <https://www.sciencedirect.com/science/article/pii/S0892036217301526>

⁵⁸ <http://uk.linkedin.com/pub/peter-campbell/4/283/6ba>

⁵⁹ <http://www.theguardian.com/environment/2013/jul/26/government-bee-scientist-pesticide-firm>

⁶⁰ <http://www.guardian.co.uk/environment/interactive/2013/apr/29/environment-secretary-letter-syngenta-insecticide-ban>

⁶¹ <http://www.bbsrc.ac.uk/funding/opportunities/2009/insect-pollinators-initiative.aspx>

⁶² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288329/11-546-future-of-food-and-farming-report.pdf Page 88 Wheat.

⁶³ <http://www.theguardian.com/environment/damian-carrington-blog/2012/oct/22/bees-pesticides>

⁶⁴ http://www.nytimes.com/images/2017/01/04/nytf/nytf/nytf_global.20170104.pdf

⁶⁵

http://www.exeter.ac.uk/media/universityofexeter/international/exeter/pdfs/agentsnewsletters/January_2015.pdf

⁶⁶ <http://www.bbsrc.ac.uk/news/food-security/2014/140304-pr-virtual-bees-unravel-causes-of-decline.aspx>

applied to EFSA GMO Panel for GM Roundup®-tolerant maize.⁶⁷ *"The UK Competent Authority and Syngenta applied for placing on the market of a GM, herbicide tolerant (glyphosate) maize GA21 for food and feed uses, import, processing and cultivation."*

Syngenta's parent company is AstraZeneca. AstraZeneca manufactures six different anti-cancer drugs mainly aimed at breast and prostate cancer. The Corporation has links in Asia, including Hospitals in China, Japan, Korea, and collaborators in Russia. AstraZeneca's Oncology Website⁶⁸ has the following portentous prediction: *"Cancer claims over 7 million lives every year and the number continues to rise. Deaths are estimated to reach 12 million by 2030."*

Society of Environmental Toxicology and Chemistry (SETAC); headed by industry

Dr Peter Campbell of Syngenta was the World President of SETAC in 2011. He describes the rotation between Vice-President/President/Past.⁶⁹ SETAC is a society controlled by industry and the US EPA. In 2011, SETAC held a Workshop on Pesticide Risk Assessment for Pollinators January 15-21, 2011, at Pellston, Florida. It was by invitation only; 'world experts' of whom many were from industry (Helen Thompson, now working for Syngenta, and Mark Clook CRD were present from the UK). David Fischer from Bayer CropScience and Thomas Moriarty from the US EPA Office of Pesticide Programs and Team Leader, US EPA Bee Unit wrote the Executive Summary.⁷⁰

The Summary shows that the pesticides industry and all of the environmental protection agencies were aware of the following, which up until then, they had consistently denied:

- That the systemic neonicotinoid pesticides are harmful to bees.
- That the tests and protocols that had allowed registration of the systemic pesticides were not adapted to assess potential hazard and risk from this type of pesticide.
- Despite knowing all this, the Protection Agencies had allowed the pesticides industry to keep neonicotinoids on the market while they carried out further research.
- That many of the projects suggested for the future have already been done by independent scientists. These were merely delaying tactics.

Admission on Page 12 *"Many who are familiar with pesticide risk assessment recognize that the methodology and testing scheme for foliar application products (where exposure may be primarily through surface contact) is not adapted to assess potential hazard and risk from systemic pesticides"*.

The Open Letter from America was from more than 60 million American citizens⁷¹

to David Cameron on 12/11/2014 (and the rest of the EU) warning them not to authorize GM crops and/or glyphosate because of the devastating effects on human health and the environment.

Extracts: *"In our country, GM crops account for about half of harvested cropland. Around 94% of the soy, 93% of corn (maize) and 96% of cotton grown is GM. The UK and the rest of the EU have yet to adopt GM crops in the way that we have, but you are currently under tremendous pressure from governments, biotech lobbyists, and large corporations to adopt what we now regard as a failing agricultural technology...Studies of animals fed GM foods and/or glyphosate, however, show worrying trends including damage to vital organs like the liver and kidneys, damage to gut tissues and gut flora, immune system disruption, reproductive abnormalities, and even tumors.³⁵...These scientific studies point to potentially serious human health problems that could not have been anticipated when our country first embraced GMOs, and yet they continue to be ignored by those who should be protecting us. Instead our regulators rely on outdated studies and other information funded and supplied by biotech companies that, not surprisingly, dismiss all health concerns.*

Through our experience we have come to understand that the genetic engineering of food has never really been about public good, or feeding the hungry, or supporting our farmers. Nor is it about consumer choice. Instead it is about private, corporate control of the food system.

⁶⁷ <http://www.efsa.europa.eu/en/efsajournal/pub/2480.htm>

⁶⁸ <http://www.astrazeneca.co.uk/medicines/oncology>

⁶⁹ <https://www.linkedin.com/in/peter-campbell-6ba2834/>

⁷⁰ <https://pdfs.semanticscholar.org/14d9/8897533f5743b399241b0a738d4e368424ef.pdf>

⁷¹ www.theletterfromamerica.org

Americans are reaping the detrimental impacts of this risky and unproven agricultural technology. EU countries should take note: there are no benefits from GM crops great enough to offset these impacts. Officials who continue to ignore this fact are guilty of a gross dereliction of duty. If the UK and the rest of Europe becomes the new market for genetically modified crops and food our own efforts to label and regulate GMOs will be all the more difficult, if not impossible. If our efforts fail, your attempts to keep GMOs out of Europe will also fail.

If we work together, however, we can revitalize our global food system, ensuring healthy soil, healthy fields, healthy food and healthy people.”

Most countries in the EU took that advice and opted out of GM (including Scotland, Wales and Ireland).

David Cameron ignored that advice on behalf of England. He and Defra concealed the letter from the British public.

The European Commission and the European Food Safety Authority also ignored it and continued to approve GM Crops for growing and for food and feed in the EU. This was despite these grave warnings from American citizens of their experiences (Living with GMOs) and from independent organisations in Europe, such as Testbiotech (Germany), CRIIGEN (France), Corporate Europe Observatory, Earth Open Source, Greenpeace and Pesticides Action Network.

Healthy Harvest with up to 320 pesticides

The National Farmers' Union (NFU), the Crop Protection Association (CPA) and Agricultural Industries Confederation (AIC) launched *Healthy Harvest – safeguarding the crop protection toolbox* in June 2014.⁷² The NFU and pesticide companies continually defend the use of pesticides for economic reasons and complain at any attempt to restrict the more than 320 at their disposal. CPA, AIC and the NFU commissioned Andersons to write a Report: The effect of the loss of plant protection products (i.e. pesticides) on UK Agriculture and Horticulture that predicted dire economic effects on UK farming if pesticides were restricted.⁷³

The global legacy of aspartame, Monsanto's neurotoxic sweetener

Why does the UK SMC promote aspartame, Monsanto's neurotoxic sweetener?

Monsanto chose Britain to be the Rapporteur Member State with backup from EFSA. Aspartame was first synthesised in 1965 in the US. It is an addictive, excite-neurotoxic, carcinogenic, genetically-engineered drug and adjuvant that damages the mitochondria and interacts with drugs and vaccines. For the first 16 years the FDA banned it. Aspartame was shown by FDA scientists to cause brain tumours, epilepsy and neurotoxic effects. However, the CEO of Searle that manufactured aspartame was a man called Donald Rumsfeld. He and President Ronald Reagan (a man famed for his deregulation of the US EPA) between them managed to get it passed for use in a wide number of fizzy diet drinks in 1982. It has been approved for use in Britain since then. In 1985 (when Monsanto purchased Searle, that held the patent to aspartame) the late FDA toxicologist, Dr Adrian Gross, confirmed to congress that it was highly neurotoxic (1985, Senate) and that aspartame violated the Delaney Amendment because it caused brain tumors and brain cancer.⁷⁴ Many independent researchers have confirmed its dangers but industry studies say it is safe.

In 2007 a Review was published in *Nature*: Direct and indirect cellular effects of aspartame on the brain.⁷⁵ “Aspartame is composed of phenylalanine (50%), aspartic acid (40%) and methanol (10%). Phenylalanine plays an important role in neurotransmitter regulation, whereas aspartic acid is also thought to play a role as an excitatory neurotransmitter in the central nervous system. Glutamate, asparagines and glutamine are formed from their precursor, aspartic acid. Methanol, which forms

⁷² <https://cropprotection.org.uk/newsroom/2014/industry-working-together-to-safeguard-the-crop-protection-toolbox/>

⁷³ http://www.cropprotection.org.uk/media/89364/andersons_final_report.pdf

⁷⁴ <http://www.mpwahi.com/main.htm>

⁷⁵ <http://www.nature.com/ejcn/journal/v62/n4/full/1602866a.html>

10% of the broken-down product, is converted in the body to formate, which can either be excreted or can give rise to formaldehyde, diketopiperazine (a carcinogen) and a number of other highly toxic derivatives.”

The UK is the Rapporteur Member State for aspartame Monsanto’s controversial sweetener. EC rules specify that the RMS be chosen by Industry.⁷⁶ It appears that the Committee on Toxicity of Chemicals in foods (CoT) had only consulted industry literature, since they have allowed aspartame to be approved since 1982. Professor David Coggon was Chairman at the time of the latest reassessment of aspartame.

*“At its meeting on 29 October 2013, the Committee on Toxicity of Chemicals in foods (CoT) discussed a paper, describing results from a study led by scientists at Hull York Medical School.”... CoT POSITION PAPER ON A DOUBLE BLIND RANDOMIZED CROSSOVER STUDY OF ASPARTAME.⁷⁷ No one is allowed to see this study until it has been accepted for publication in a peer-reviewed journal. *“The Committee judged the delay acceptable since the results presented did not indicate any need for action to protect the health of the public.”* EFSA has also re-evaluated the safety of aspartame.⁷⁸ As a result, it concluded in December 2013 that *‘aspartame and its breakdown products are safe for human consumption at current levels of exposure’*.*

Independent scientist Erik Millstone⁷⁹ Professor in Science & Technology Policy, Sussex University sent a 67-page detailed response to the Head of EFSA ‘Food Ingredients and Packaging’ Unit and the Senior Scientific Officer.⁸⁰ He strongly disputed their re-assessment. EFSA ignored his response, just as the US EPA ignored evidence from Dr Betty Martini and Dr John Olney.⁸¹

UK SMC Expert reaction to EFSA risk assessment of aspartame⁸²

Catherine Collins, Principal Dietitian at St George’s Hospital NHS Trust, said:

“For those contemplating the post-Christmas bulge, there’s yet more reassurance from EFSA that aspartame (E951), the calorie-free sweetener made from amino acids (the building blocks of protein) is totally safe for humans – both in terms of its chemical structure, and in how it’s metabolised when we consume it. Aspartame has been the sweetener with the biggest ‘conspiracy theory’ stories ever-ranging from behaviour issues in children to liver damage and cancer – all totally disproven, yet again, by this detailed scientific review published today. For those of us battling the bulge during Christmas and beyond, reaching for the diet squash and fizzy drinks will save almost 200kcal a serving compared with the full sugar version – and is kinder to teeth! Cheers!”

The BBC is colluding with the pesticides industry

BBC Panorama: GM Food – Cultivating Fear⁸³

Description in the Radio Times: *“A new generation of GM foods is winning over governments and former critics of the technology, and scientists say the crops could help feed people in the developing world. So, are those who oppose GM doing more harm than good? And is their opposition based on genuine safety concerns, or is it just feeding fear?”*

Cultivating Myths – The Pro-GMO Bias of the BBC

June 9, 2015 by Lawrence Woodward and Pat Thomas:

“The pro-GM bias of the BBC was plain to see during Monday’s (8 June 2015) Panorama programme. Blinkered and narrow rather than panoramic, selective and prejudicial rather than investigative, this sorry display set a new low for a programme which was once a flagship of investigative journalism. It had no more veracity and insight than the most clichéd corporate press

⁷⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009R1107>

⁷⁷ <http://cot.food.gov.uk/pdfs/cotposponaspar.pdf>

⁷⁸ <http://www.food.gov.uk/news-updates/news/2013/dec/efsa-aspartame#.UuAtV3xFDcs>

⁷⁹ Professor of Science Policy at the University of Sussex

⁸⁰ http://sro.sussex.ac.uk/43821/1/EM_Letter_to_EFSA_on_Aspartame_22Feb2013.pdf

⁸¹ <http://www.scribd.com/doc/6669992/Dr-John-Olney-Statement-Aspartame-1987> Dr. John Olney’s letter to the Senate in 1987.

⁸² <http://www.sciencemediacentre.org/expert-reaction-to-efsa-risk-assessment-of-aspartame/>

⁸³ <https://www.youtube.com/watch?v=6KruFQ2uCqk>

*release and the result was that a mix of myths, deceptive assertions and inaccurate statements by pro-GM lobbyists – including those masquerading as independent scientists – were given a free ride and promotional slot on prime-time television. It's tempting to say that you couldn't make this stuff up – except Panorama has proven with its latest fiction that actually you can – and that you can even get the BBC (and thus the licence fee payer) to pay for it.”*⁸⁴

Mark Lynas interviews Bangladeshi farmers and he claims a 90% success for Bt Brinjal.

The following are extracts from the account by Clare Robinson of GM Watch:⁸⁵

The BBC's claim of 90% success for Bt brinjal in Bangladesh has been challenged by a journalist.

Faisal Rahman, staff correspondent for the United News of Bangladesh (UNB), contacted GMWatch after watching the programme, which he felt “*denied the reality of losses the farmers of Bangladesh incurred by cultivating Bt brinjal*”. Out of concern for the farmers, Rahman wanted to set the record straight. His evidence, together with subsequent investigations by GMWatch, casts serious doubt on the credibility of the BBC Panorama programme.

The review by the BBC Trust Editorial Standard Committee dismissed the complaint

The complaints about the outrageous Panorama Programme on GM Crops were reviewed by the BBC Trust and were dismissed outright.⁸⁶ The Trust Editorial Standards Committee (ESC) Richard Ayre, Mark Damazer, Sonita Alleyne, Bill Matthews and Nicholas Prettejohn actually apologised to Monsanto. “*The programme had achieved due accuracy and due impartiality in the way it reflected the role of Monsanto (an agricultural company). In accurately stating Monsanto’s direct interest in the project and in reflecting the reporter’s professional judgement that the exercise could sway the public argument over GM, Panorama gave the audience sufficient information to reach an informed view on the issue.*” Richard Ayre the Chairman of the Editorial Standards Committee of the BBC Trust was founder of the UK Food Standards Agency. He had conflicts of interest having previously worked with Monsanto.

BBC Farming Today 18 March 2016: President of Monsanto Brett Begemann was interviewed⁸⁷

Asked by the interviewer about the carcinogenicity of glyphosate, the President dismissed as nonsense the International Agency for Research on Cancer (IARC) statement that glyphosate is probably carcinogenic in humans. He said: “*I trust the science.*” Why did the BBC not reveal the massive dispute between IARC and the German Rapporteur Member State BfR and EFSA’s risk assessment of glyphosate? Why was Prof Christopher Portier not asked to speak on behalf of IARC?

Why is Brett Begemann on the Board of Directors of Eastman Chemical Company, Newport⁸⁸

Bayer CropScience completed its acquisition of Monsanto on 7 June 2018. The old Monsanto Company factory in Newport had been acquired by Solutia. Allegedly it filed for bankruptcy in 2003, but emerged again in 2008 to sell the company. In July 2012 the company (Solutia) was acquired by the Eastman Chemical Company.

Report in South Wales Argus 26/04/2013:⁸⁹ *More than 200 Newport jobs have been secured after the Welsh Government gave a £4.1 million grant to an American chemical company following a potential threat to move most of the posts overseas. Eastman is to invest tens of millions of pounds into a new plant at what is known as the Solutia site in Lliswerry. The Newport site beat off competition from three rival locations in the US and Malaysia and was helped by a £4.1 million grant from the Welsh Government. “Without Welsh Government support, the sources said, Solutia considered locating the project at a competing plant in Alabama, United States. Eastman is an international player. The fact that it is investing further in Newport is a major vote of confidence for the city.”*

Brett D. Begemann (Director since February 2011) Mr. Begemann has been President and Chief

⁸⁴ <http://beyond-gm.org/cultivating-myths-the-bbc-pro-gmo-bias/>

⁸⁵ <http://www.gmwatch.org/news/latest-news/16320-bt-brinjal-plants>

⁸⁶ http://downloads.bbc.co.uk/bbctrust/assets/files/pdf/appeals/esc_bulletins/2016/feb.pdf

⁸⁷ <http://www.bbc.co.uk/programmes/b0739w6g>

⁸⁸ http://www.eastman.com/Company/About_Eastman/Leadership/Pages/BoardofDirectors.aspx

⁸⁹

http://www.southwalesargus.co.uk/news/10382004.4m_grant_helps_secure_more_than_200_Newport_jobs/

Operating Officer of Monsanto Company, a leading global provider of technology-based solutions and agricultural products that improve farm productivity and food quality, since October 2013, with responsibility for Monsanto's worldwide sales and operations, corporate affairs, and global business organization. Other Directors of Eastman Chemical Company are: from Dow Chemicals, Dow Corning, General Mills, leading producer of packaged consumer goods and Cargill *Inc.*, an agricultural trading and processing company.

Pro-pesticides industry pronouncements by the UK Media and Defra on GM crops, which they intend growing after Brexit

The Observer view on GM Crops⁹⁰

Europe can no longer turn its back on the benefits of genetically modified crops

This point was endorsed last week when a 20-strong committee of experts from the US National Academies of Science announced the results of its trawl of three decades of scientific studies for “persuasive evidence of adverse health effects directly attributable to consumption of foods derived from genetically engineered crops”. It found none. Instead the group uncovered [evidence that GM crops have the potential to bestow considerable health benefits](#). An example is provided by golden rice, a genetically modified rice that contains beta carotene, a source of vitamin A. Its use could save the lives of hundreds of thousands of children who suffer from vitamin A deficiency in the third world, say scientists. The publication of the NAS study is timely. New techniques – in particular the gene-editing technology CRISPR – promise to make the genetic manipulation of plants even easier to achieve in the near future.⁹¹ There is therefore an urgent need for Europe to reappraise its opposition to GM crops at a time when the rest of the world is embracing the technology. Europe is already becoming a backwater for new breeding technologies and needs to move swiftly to prevent this situation worsening, UK scientists warned last week. The restrictive regulations that are blocking the growing of GM crops need to be stripped away as soon as possible. An example is provided by one crop – now ready for trials – which has been engineered to grow omega-3, a fatty acid food supplement said to have considerable health benefits but whose sources, mainly fish and other sea creatures, are now being over-exploited. Thus, the health of both humanity and the planet could be improved by a single plant.

The National Academy of Sciences' Report was fatally flawed by conflicts of interest

Some groups critical of genetically engineering foods criticised the report before it came out. Food & Water Watch castigated the National Academy for taking funding from biotechnology firms and using “pro-GMO scientists” to write its reports.⁹² Its report documents the one-sided panels of scientists the NRC enlists to carry out its GMO studies and describes the revolving door of its staff directors who shuffle in and out of industry groups. The report also shows how it routinely arrives at watered-down scientific conclusions based on industry science. Especially revealing is a table that shows that 11 out of the 19 members of the NRC committee listed in the NAS report have ties to the GMO industry or to pro-GMO advocacy.

The Telegraph's View on GM crops

The *Telegraph* wrote wrongly: “It was funded by a combination of US government and independent charitable cash. In other words, it can't be blamed on the evil shills of Monsanto.”⁹³ See above.

The Times's view on GM crops

Matthew Ridley the *Times* Science Editor aka the 5th Viscount Ridley with a large country estate in Northumberland. He was Chairman of Northern Rock 2004-2007 when it collapsed and had to be

⁹⁰ <https://www.theguardian.com/commentisfree/2016/may/22/observer-view-on-genetically-modified-gm-crops>

⁹¹ <https://nypost.com/2018/06/12/futuristic-gene-editing-technology-may-cause-cancer/>

⁹² <https://gmwatch.org/en/news/latest-news/16977>

⁹³ <https://www.telegraph.co.uk/opinion/2016/05/18/we-must-end-our-superstitious-objections-to-genetically-modified/>

bailed out by the British Government. Owen Paterson MP, previous Environment Minister of pro-GM fame, is his brother-in-law. Matt Ridley writes in the *Times*.⁹⁴

“The exhaustive and cautious new report from the American National Academies of Sciences, Engineering and Medicine leaves no room for doubt that genetically engineered crops are as safe or safer, and are certainly better for the environment, than conventionally bred crops. The European Union was wrong to reject them 25 years ago and is wrong to continue rejecting this beneficial technology. The European Commission conceded in 2010 that GM crops are not per se more risky than, for example, conventional plant-breeding technologies, but still makes it all but impossible to grow them. Insect-resistant “Bt” crops in particular have better yields and need fewer pesticides, resulting in “higher insect biodiversity on farms”, the academies’ report concludes.”

The UK Farming Minister was interviewed by Arthur Neslen on 30/05/2016 about Brexit⁹⁵

He said: *“The birds and habitats directives would go. But the directives’ framework is so rigid that it is spirit-crushing.”* On pesticides, he said *“the EU’s precautionary principle needed to be reformed in favour of a US-style risk-based approach, allowing faster authorisation.”* . *A precautionary approach is the right thing to do but it should be based on realistic assessments of risk and not just theoretical hazards,”* he said. *“That is the wrong way to go about it.”* The principle has underpinned bans [on GM foods](#), [neonicotinoid insecticides](#) linked to bee colony declines and [endocrine disrupting chemicals](#)

Defra is quoted as saying that after Brexit: *“The most promising crops suitable for introducing to England would be Roundup Ready GA21 glyphosate tolerant crops, which synergises well with herbicides already widely used in the UK. Empowering farmers to use the cutting-edge crop science innovations that are available is certainly one opportunity presented by shifting the responsibility for licencing domestically post-Brexit. Although the blanket spraying of herbicides like Roundup present challenges regarding their impact on the environment and animals, the more obvious solution would be to regulate the technique, not the actual product because it would make that possible.”⁹⁶*

Two scientists show that genetically-engineered food is based on mistakes and/or fraud. Their conclusions have not been reported in the UK Media.

‘Pandora’s Potatoes: The Worst GMOs’

The creator of GMO potatoes reveals the dangerous truth.⁹⁷ The Ex-Director of J.R. Simplot and team leader at Monsanto, Caius Rommens, has revealed the hidden dangers of the GMO potatoes he created, in a wide ranging interview for Sustainable Pulse, on the same day that his book ‘Pandora’s Potatoes: The Worst GMOs’ was released [on Amazon](#).

Here are some extracts from the interview.

How many years did you spend working on creating GM potatoes? Was this all lab-based work or did you get out to see the farms that were growing the potatoes?

“During my 26 years as a genetic engineer, I created hundreds of thousands of different GM potatoes at a direct cost of about \$50 million. I started my work at universities in Amsterdam and Berkeley, continued at Monsanto, and then worked for many years at J. R. Simplot Company, which is one of the largest potato processors in the world. I had my potatoes tested in greenhouses or the field, but I rarely left the laboratory to visit the farms or experimental stations. Indeed, I believed that my theoretical knowledge about potatoes was sufficient to improve potatoes. This was one of my biggest mistakes.”

⁹⁴ <https://www.thetimes.co.uk/article/time-to-embrace-gm-crops-and-reap-the-rewards-tnkzsgdc9>

⁹⁵ <https://www.theguardian.com/politics/2016/may/30/brexit-spirit-crushing-green-directives-minister-george-eustice>

⁹⁶ <https://www.politicshome.com/news/uk/foreign-affairs/brexit/opinion/dods-monitoring/95900/future-food-will-defra-embrace-gmos>

⁹⁷ https://sustainablepulse.com/2018/10/09/the-creator-of-gmo-potatoes-reveals-the-dangerous-truth-exclusive-interview/#.W70H-i97E_V

Why have you decided to reveal information about the failings of GM potatoes after spending many years creating them?

“I dedicated many years of my life to the creation of GMO potatoes, and I initially believed that my potatoes were perfect but then I began to doubt. It again took me many years to take a step back from my work, reconsider it, and discover the mistakes. Looking back at myself and my colleagues, I believe now that we were all brainwashed; that we all brainwashed ourselves. We believed that the essence of life was a dead molecule, DNA, and that we could improve life by changing this molecule in the lab. We also assumed that theoretical knowledge was all we needed to succeed, and that a single genetic change would always have one intentional effect only.

We were supposed to understand DNA and to make valuable modifications, but the fact of the matter was that we knew as little about DNA as the average American knows about the Sanskrit version of the Bhagavad Gita. We just knew enough to be dangerous, especially when combined with our bias and narrowmindedness. We focused on short-term benefits (in the laboratory) without considering the long-term deficits (in the field). It was the same kind of thinking that produced DDT, PCBs, Agent Orange, recombinant bovine growth hormone, and so on. I believe that it is important for people to understand how little genetic engineers know, how biased they are, and how wrong they can be. My story is just an example.”

Genetically Engineered Foods: The Biggest Fraud in the History of Science⁹⁸ Governments and leading scientific institutions have systematically misrepresented the facts about GMOs and the scientific research that casts doubt on their safety

On 4 March 2015 the Organisation Beyond GM facilitated the Press Release of American public interest attorney Steven Druker’s acclaimed new book, Altered Genes, Twisted Truth: How the Venture to Genetically Engineer Our Food Has Subverted Science, Corrupted Government and Systematically Deceived the Public.⁹⁹

His book reveals how governments and leading scientific institutions have systematically misrepresented the facts about GMOs and the scientific research that casts doubt on their safety.¹⁰⁰ GM Watch reported: “The book features a foreword by the renowned primatologist Dame Jane Goodall, who will also speak at the conference, hailing it as “without doubt one of the most important books of the last 50 years.”

The book’s revelations come at a crucial time when the UK is considering the commercial planting of GM crops following the European Parliament’s decision to allow member states to opt out of the blockade that has barred them from the EU until now. Based on the evidence presented in the book, Druker and Goodall will assert that it would be foolhardy to push forward with a technology that is unacceptably risky and should never have been allowed on the market in the first place. The book is the result of more than 15 years of intensive research and investigation by Druker, who came to prominence for initiating a lawsuit against the US Food and Drug Administration (FDA).

Steven Druker initiated a lawsuit against the US Food and Drug Administration (FDA) that forced it to open its files on GM foods

Those files revealed that GM foods first achieved commercialisation in 1992 only because the FDA:

** Covered up the extensive warnings of its own scientists about their dangers*

** Lied about the facts*

** And then violated federal food safety law by permitting these foods to be marketed without having been proven safe through standard testing*

“Druker’s well-referenced book points out that if the FDA had actually heeded its own experts’ advice, told the truth, and obeyed the law, the GM food venture would have imploded and never

⁹⁸ Altered Genes, Twisted Truth: Steven M Druker. How the Venture to Genetically Engineer Our Food Has Subverted Science, Corrupted Government and Systematically Deceived the Public. 2015 Clear River Press. page 384

⁹⁹ <http://beyond-gm.org/new-book-exposes-systematic-government-and-scientific-fraud-over-gm-food/>

¹⁰⁰ <http://www.gmwatch.org/index.php/news/archive/2015-articles/15973>

gained traction anywhere.” There were extensive media resources¹⁰¹ but the launch failed to be reported in the newspapers. It is not surprising since many august bodies, scientific journals and philanthropists in the UK & US are supporting GM.¹⁰²

Where were the Reports of the UN Rapporteurs and the verdict of the judges of the International Monsanto Tribunal?

UN Rapporteur: Report of the Special Rapporteur on the right to food: Pesticides are “global human rights concern” and UN experts urge new treaty¹⁰³

The United Nations received a [report](#) by the Special Rapporteur on the right to food, presented to the United Nations Human Rights Council, focused more narrowly on agricultural chemicals. The UN report states unequivocally that the storyline perpetuated by companies like Monsanto—the one that says we need pesticides to feed the world—is a myth.¹⁰⁴ The Report presented to the UN human rights council on 08/03/2017, is severely critical of the global corporations that manufacture pesticides, accusing them of the “*systematic denial of harms*”, “*aggressive, unethical marketing tactics*” and heavy lobbying of governments which has “*obstructed reforms and paralysed global pesticide restrictions*”.

GENEVA (7 March 2017) – Two United Nations experts are calling for a comprehensive new global treaty to regulate and phase out the use of dangerous pesticides in farming, and move towards sustainable agricultural practices. They say: “*excessive use of pesticides is very dangerous to human health, to the environment and it is misleading to claim they are vital to ensuring food security.*”

Chronic exposure to pesticides has been linked to cancer, Alzheimer’s and Parkinson’s diseases, hormone disruption, developmental disorders and sterility. Farmers and agricultural workers, communities living near plantations, indigenous communities and pregnant women and children are particularly vulnerable to pesticide exposure and require special protections. –

The experts warn that certain pesticides can persist in the environment for decades and pose a threat to the entire ecological system on which food production depends. The excessive use of pesticides contaminates soil and water sources, causing loss of biodiversity, destroying the natural enemies of pests, and reducing the nutritional value of food. The impact of such overuse also imposes staggering costs on national economies around the world.

The experts say the use of neonicotinoid pesticides is particularly worrying because they are accused of being responsible for a systematic collapse in the number of bees around the world. **For example, heavy use of these insecticides has been blamed for the 50 per cent decline over 25 years in honeybee populations in both the United States and the United Kingdom of Great Britain and Northern Ireland.** Such a collapse, they say, threatens the very basis of agriculture as 71% of crop species are bee-pollinated.

The UN expert on Toxics, Baskut Tuncak wrote in the *Guardian* on 06/11/2017: The EU and glyphosate: it's time to put children's health before pesticides¹⁰⁵

“A pending decision on Monsanto’s ubiquitous weedkiller is a crucial opportunity to protect our children from the toxic cocktail of pesticides polluting their food, water and play areas.”

“Our children are growing up exposed to a toxic cocktail of weedkillers, insecticides, and fungicides. It’s on their food and in their water, and it’s even doused over their parks and playgrounds. Many governments insist that our standards of protection from these pesticides are strong enough. But as a

¹⁰¹ <http://beyond-gm.org/altered-genes-twisted-truth-media-resources/>

¹⁰² Royal Society, Wellcome Foundation, Bill & Melinda Gates, Lord David Sainsbury and the Gatsby Foundation, Rothamsted Research, John Innes Centre, Sainsbury Laboratory, Civil Servants from Defra, NFU, James Hutton Institute, BIS, Offices of Life Sciences, Centre for Food Security, Food Standards Agency, etc.

¹⁰³ <http://www.pan-uk.org/site/wp-content/uploads/United-Nations-Report-of-the-Special-Rapporteur-on-the-right-to-food.pdf>

¹⁰⁴ <http://apps.who.int/iris/bitstream/10665/254678/1/WHO-FWC-IHE-17.01-eng.pdf?ua=1>

¹⁰⁵ <https://www.theguardian.com/environment/2017/nov/06/the-eu-and-glyphosate-its-time-to-put-childrens-health-before-pesticides>

scientist and a lawyer who specialises in chemicals and their potential impact on people's fundamental rights, I beg to differ. Last month it was revealed that in recommending that glyphosate – the world's most widely-used pesticide – was safe, the [EU's food safety watchdog copied and pasted pages of a report directly from Monsanto](#), the pesticide's manufacturer. Revelations like these are simply shocking.

The UN Convention on the Rights of the Child, the most ratified international human rights treaty in the world (only the US is not a party), makes it clear that states have an explicit obligation to protect children from exposure to toxic chemicals, from contaminated food and polluted water, and to ensure that every child can realise their right to the highest attainable standard of health. These and many other rights of the child are abused by the current pesticide regime. These chemicals are everywhere and they are invisible. The only way to protect citizens, especially those disproportionately at risk from exposure, is for governments to regulate them effectively, in large part by adhering to the highest standards of scientific integrity.

Paediatricians have referred to childhood exposure to pesticides as creating a “silent pandemic” of disease and disability. Exposure in pregnancy and childhood is linked to birth defects, diabetes, and cancer. Because a child's developing body is more sensitive to exposure than adults and takes in more of everything – relative to their size, children eat, breathe, and drink much more than adults – they are particularly vulnerable to these toxic chemicals. Increasing evidence shows that even at “low” doses of childhood exposure, irreversible health impacts can result. But, most victims cannot prove the cause of their disability or disease, limiting our ability to hold those responsible to account. In light of revelations such as the copy-and-paste scandal, a careful re-examination of the performance of states is required. The overwhelming reliance of regulators on industry-funded studies, the exclusion of independent science from assessments, and the confidentiality of studies relied upon by authorities must change.”

On December 12th 2017 the EU Commission relicensed glyphosate for 5 years. The British Government ignored the plea by Baskut Tuncak and voted with the Commission, but did they read ECHA's full classification?

BBC News and ITN C4 News reported on the Court Verdict, but there is no public record of it
On 11 August 2018, the BBC 10 o'clock news and Fatima Manji C4 news showed extracts from the US Court where Judge Bolanos announced the unanimous verdict of the jury and Dewayne (Lee) Johnson thanked his legal team. [California-Jury finds in favour of Plaintiff against Monsanto - Nearly three hundred million dollars awarded against Monsanto.](#)¹⁰⁶ (After Monsanto's appeal in October Judge Bolanos reduced it to \$78.) But the BBC reporter said the [British Government had no intention of banning Roundup](#) and quoted Cancer Research UK as saying that in the UK there was no evidence that Roundup caused cancer.

On 11 August 2018 the C4 news report from the Team at C4 news is missing and the BBC 10 o'clock news is missing from the BBC I-Player. **Did Monsanto ask the BBC and ITN to remove them so there would be no record of the Lawsuit in the UK media?**

The International Monsanto Tribunal in The Hague with regard to ecocide¹⁰⁷

The Monsanto Tribunal is an international civil society initiative to hold Monsanto accountable for human rights violations and ecocide. Eminent judges heard testimonies from victims and experts. Then, they delivered a legal opinion following procedures of the International Court of Justice (on April 18th 2017, The Hague).

They concluded that Monsanto's activities have a negative impact on basic human rights. Besides, better regulations are needed to protect the victims of multinational corporations. Eventually, international law should be improved for better protection of the environment and include the crime of ecocide. Now, it is up to us, the civil society, to spread the conclusions of the Monsanto Tribunal and push for these essential changes.

¹⁰⁶ <https://www.courthousenews.com/jury-finds-monsanto-liable-in-roundup-cancer-trial/>

¹⁰⁷ <http://www.monsanto-tribunal.org>

During the hearings that took place on October 15th and 16th in The Hague, **judges** heard testimonies related to **the six questions** posed to the Tribunal. The ensuing legal opinion delivered by the Tribunal includes a legal analysis of the questions asked, with respect to both existing international law and to prospective law in order to improve international human rights and environmental law. The advisory opinion is structured in three parts:

- I.** The introductory section details the conditions within which the Tribunal was initiated.
- II.** The middle section examines the **six questions** posed to the Tribunal. Looking at the broader picture.
- III.** The final section tackles the growing asymmetry between the rights conceded to corporations and the constraints imposed upon them to protect local communities and/or future generations, wherever corporations operate.

Question 6 asked the Tribunal if the activities of Monsanto could constitute a crime of ecocide, understood as causing serious damage or destroying the environment, so as to significantly and durably alter the global commons or ecosystem services upon which certain human groups rely. Developments in international environmental law confirm the increased awareness of how environmental harm negatively affects the fundamental values of society. Preserving dignity for present and future generations and the integrity of ecosystems is an idea that has gained traction in the international community. As evidence of these developments, and according to the Policy Paper on Case Selection and Prioritisation from September 2016, the **Prosecutor of the International Criminal Court in The Hague wants to give particular consideration to Rome Statute crimes involving the illegal dispossession of land or the destruction of the environment.** However, despite the development of many instruments to protect the environment, a gap remains between legal commitments and the reality of environmental protection... the large-scale use of dangerous agrochemicals in industrial agriculture; and the engineering, production, introduction and release of genetically engineered crops. Severe contamination of plant diversity, soils and waters would also fall within the qualification of ecocide. Finally, the introduction of **persistent organic pollutants such as PCBs** into the environment causing widespread, long-lasting and severe environmental harm and affecting the right of the future generations could fall within the qualification of ecocide as well.

The Opinion of the Judges of the International Monsanto Tribunal¹⁰⁸

In brief, the five judges of the Monsanto Tribunal agreed that:

- **Monsanto has violated human rights to food, health, a healthy environment and the freedom indispensable for independent scientific research.**
- **‘ecocide’ should be recognized as a crime in international law.**
- **human rights and environmental laws are undermined by corporate-friendly trade and investment regulation.**

Extract from top of page 3: “Thirdly, the use of GMO seed raises multiple questions. There is a distinct lack of scientific consensus about the impacts of GMOs on human health. The controversy is embedded in a context of opacity on GMO studies, and even on the inability of researchers to conduct independent research. The "Monsanto Papers" cast light on practices of systematic manipulation of scientific studies, and on the influence exerted on experts by Monsanto. There is no political consensus on the cultivation of GMOs either. The UN Special Rapporteur on the Right to Food, an independent expert, calls for the need to follow the precautionary principle at the global level. The Tribunal concludes that Monsanto has engaged in practices that negatively impacted the right to health.”

In an opinion issued on the 15th of March 2017 and related to the classification of glyphosate, the European Chemicals Agency (ECHA) indeed estimated that this product could not be classified as a carcinogen, as a mutagen or as toxic for reproduction. The Tribunal however stresses that this classification does not take into account the risks of exposure, with residues found in food, drinking water and even in human urine.

¹⁰⁸ http://www.monsanto-tribunal.org/upload/asset_cache/1016160509.pdf

The Monsanto Tribunal: Next steps: Amsterdam 14th June 2017. After the presentation of the Advisory Opinion of the Monsanto Tribunal judges on April 18, much work is ahead of us.

- 1) The 60-page Advisory Opinion, that for thousands of attorneys worldwide will be an important legal instrument for prosecuting these crimes, is to be spread as widely as possible in legal circles, including UN agencies, environmental organizations and governments. But there is also activity at other levels: courts in some countries are considering hearing individual judges from the Tribunal, because they are evaluating if they can incorporate ECOCIDE as a criminal offense in their national legislation. Likewise, deliberations are underway to address the United Nations to extend the Rome Statute, on which the International Criminal Court is based, to include the criminal offense of ECOCIDE.
- 2) The comprehensive documentation from the hearings of the Monsanto Tribunal is to be provided for a worldwide study on the evaluation of the environmental damage caused by Monsanto over the last 60 years. In particular, long-term damage to health and nature will be considered. The planned collective study is under the supervision of renowned economists. Even today experts estimate that the sum of damages could far exceed the price of the merger with Bayer. This study will provide a basis for launching further collective accusations against Monsanto. Werner Baumann has to ask himself whether he would expect his shareholders, in addition to the high purchase price for Monsanto, to agree with accruals in the two or even three-digit billion range in order to meet all the claims of damage against the firm. The purchase of Monsanto could become a Trojan Horse for Bayer. The Bayer-Monsanto merger will not be as smooth as that of Union Carbide and Dow Chemical after the Bhopal disaster in 1984, where the victims and their relatives are still waiting for reparation.
- 3) And perhaps the most important: Several witnesses of the Tribunal have expressed their intention to engage in real lawsuits against Monsanto. If these trials come about, witnesses expect us to support them logistically, politically and financially. We will of course, do this, as a promise from the very beginning to help the witnesses after the Tribunal to take legal actions against Monsanto.

The parents of a disabled French boy testified how they believe the popular herbicides glyphosate caused their son's health problems

Sabine Grataloup was the first person to testify during the Monsanto Tribunal hearings in October 2016. She described the birth defects her son Theo is suffering from, after she was exposed to a glyphosate-based herbicide during the beginning of her pregnancy. Meeting other witnesses in similar situations motivated Theo's parents to go one step further. Together with William Bourdon (Monsanto Tribunal's lawyer who plead on the freedom indispensable to scientific research), **Sabine and Thomas Grataloup have announced their intention to start a legal action against several glyphosate-based herbicides manufacturers, including Monsanto.** They want the justice system to recognize a causal link between those products and Theo's issues. They are now investigating the different legal options to do so, and are getting ready for a difficult, yet necessary legal battle.¹⁰⁹ Theo was born in 2007 with his oesophagus linking his stomach to his lungs instead of his throat, while his trachea was so malformed it had to be removed at birth. Mrs Grataloup, who runs a travel agency with her husband near Lyon, said she didn't know that she was three to four weeks pregnant when she used a glyphosate-based weedkiller and there was no warning on the container that you shouldn't use it while pregnant. She said that important development takes place on the foetus' organs including the oesophagus and trachea at this stage.¹¹⁰

Maria Liz Robledo from a small village in the Crop-sprayed Towns of Argentina described how she and a neighbour had similar malformations and remembered seeing cans of Roundup between the houses and a crop-sprayer (see page 2). She realised that they were spraying Roundup in the villages

¹⁰⁹ https://en.monsantotribunal.org/main.php?name=main&obj_id=384283593

¹¹⁰ <https://www.connexionfrance.com/French-news/Glyphosate-caused-our-son-s-health-issues>

between the houses. The European Glyphosate Task Force (of which Bayer CropScience was one member) in their re-assessment of glyphosate excluded the literature from South America.

The International Criminal Court (ICC) in The Hague is extending its remit to include ecocide¹¹¹

The UN-backed court, which sits in The Hague, has mostly ruled on cases of genocide and war crimes since it was set up in 2002. It has been criticized for its reluctance to investigate major environmental and cultural crimes, which often happen in peacetime. In [a change of focus](#), the ICC announced on 15/09/2016 that it would also prioritize crimes that result in the “destruction of the environment”, “exploitation of natural resources” and the “illegal dispossession” of land. Environmental destruction and land-grabs could lead to governments and individuals being prosecuted for crimes against humanity by the international criminal court.¹¹²

Widespread global contamination with pesticides causes loss of biodiversity

Farmland in Iowa growing Roundup Ready corn was a biological desert as early as 2012

Childs, C. *Apocalyptic Planet. Field Guide to the Future of the Earth.*¹¹³

Chapter 6 Species Vanish: Page 185. Grundy County, Iowa was where Craig Childs spent a long weekend in a monoculture of GM-Roundup® Ready Corn looking for wildlife.

Page 187: “*In this cornfield, I had come to a different kind of planetary evolution. I listened and heard nothing, no bird, no click of an insect ...*” Page 188: *Mr Owen was the farmer who had given us permission to backpack across his cornfields. He grew a combination of DuPont and Monsanto stock. We were in DuPont now. It didn't look any different to me.*” Page 192: Childs said: “*I chose Iowa for a mass-extinction analogue because it is the most thorough picture of genetic exhaustion, the many organs of what was once tallgrass prairie removed and replaced with this.*”

Robert Krulwich's blog commented on Craig Child's description:¹¹⁴ “*Corn farmers champion corn. Anything that might eat corn, hurt corn, bother corn, is killed. Their corn is bred to fight pests. The ground is sprayed. The stalks are sprayed again. So, Craig wondered, "What will I find?" The answer amazed me. He found almost nothing. There were no bees. The air, the ground, seemed vacant. He found one ant "so small you couldn't pin it to a specimen board." A little later, crawling to a different row, he found one mushroom, "the size of an apple seed." Then, later, a cobweb spider eating a crane fly (only one). A single red mite "the size of a dust mote hurrying across the barren earth," some grasshoppers, and that's it.*” Though he crawled and crawled, he found nothing else. “*It felt like another planet entirely,*” he said, a world denuded.

Yet, 100 years ago, these same fields, these prairies, were home to 300 species of plants, 60 mammals, 300 birds, hundreds and hundreds of insects. This soil was the richest, the loamiest in the state. And now, in these patches, there is almost literally nothing but one kind of living thing. We've erased everything else. There's something strange about a farm that intentionally creates a biological desert to produce food for one species: us. It's efficient, yes. But it's so efficient that the ants are missing, the bees are missing, and even the birds stay away. Something's not right here. Our cornfields are too quiet.”

Iowa was just one state in which the US Geological Survey said: “*Glyphosate and AMPA were detected frequently in soils and sediment, ditches and drains, precipitation, rivers, and streams; and less frequently in lakes, ponds, and wetlands; soil water; and groundwater.*”¹¹⁵

¹¹¹ <https://www.theguardian.com/global/2016/sep/15/hague-court-widens-remit-to-include-environmental-destruction-cases>

¹¹² <https://www.icc-cpi.int/Pages/item.aspx?name=pr1238>

¹¹³ Childs, C. *Apocalyptic Planet. Field Guide to the Future of the Earth*, New York: Vintage Books (2013).

¹¹⁴ <https://www.npr.org/sections/krulwich/2012/11/29/166156242/cornstalks-everywhere-but-nothing-else-not-even-a-bee>

¹¹⁵ <http://onlinelibrary.wiley.com/doi/10.1111/jawr.12159/abstract>

US Scientists sound the alarm about global mass poisoning¹¹⁶

Editorial: Regulating toxic chemicals for public and environmental health: Lisa Gross and Linda Birnbaum.¹¹⁷

“By the time President Gerald Ford signed the United States Toxic Substances Control Act in the fall of 1976, tens of thousands of synthetic chemicals had entered world markets with no evidence of their safety... Ford’s signing statement described a law giving the Environmental Protection Agency (EPA) broad regulatory authority to require toxicity testing and reporting to determine whether the chemicals posed risks.” “If a chemical is found to present a danger to health or the environment,” Ford promised, “appropriate regulatory action can be taken before it is too late to undo the damage.” That’s not what happened. The 60,000-plus chemicals already in commerce were grandfathered into the law on the assumption that they were safe. And the EPA faced numerous hurdles, including pushback from the chemical industry that undermined its ability to implement the law. Several articles explore the failure of regulations to keep hazardous chemicals from polluting our food, air, and drinking water. Maricel Maffini and her colleagues describe the failure of regulators to account for health risks associated with the thousands of chemicals introduced into the food system since 1958, when Congress authorized the Food and Drug Administration to ensure the safety of substances added to food. Chemicals from agriculture, industry, and other commercial uses routinely enter drinking water supplies.”

Joseph M Braun and Kimberley Gray: Challenges to studying the health effects of early life environmental chemical exposures on children’s health.¹¹⁸

Maricel V Maffini, Thomas G Neltner, Sarah Vogel: We are what we eat: Regulatory gaps in the United States that put our health at risk.¹¹⁹

“The American diet has changed dramatically since 1958, when Congress gave the United States Food and Drug Administration (FDA) the authority to ensure the safety of chemicals in food. Since then, thousands of chemicals have entered the food system. Yet their long-term, chronic effects have been woefully understudied, their health risks inadequately assessed. The FDA has been sluggish in considering scientific knowledge about the impact of exposures—particularly at low levels and during susceptible developmental stages. The agency’s failure to adequately account for the risks of perchlorate—a well-characterized endocrine-disrupting chemical—to vulnerable populations is representative of systemic problems plaguing the regulation of chemicals in food. Today, we are faced with a regulatory system that, weakened by decades of limited resources, has fallen short of fully enforcing its mandates. The FDA’s inability to effectively manage the safety of hundreds of chemicals is putting our children’s health at risk.”

In 2019, a large-scale survey from Switzerland of house sparrows feathers reveals ubiquitous presence of neonicotinoids in farmlands.¹²⁰

“We quantified neonicotinoids in 146 feather samples of house sparrows living on organic, integrated-production and conventional farms using UHPLC-MS/MS. All samples were positive for neonicotinoids. Thiacloprid was the most prevalent (99% of samples) and clothianidin attained the highest levels (up to 131.4 ppb). Feathers of birds living on conventional farms showed higher concentrations than in the other farms. Our results highlight the extent to which farmland birds are exposed to neonicotinoids, and hence the extent of contamination of our agroecosystems.” Clothianidin and Thiacloprid are manufactured by Bayer CropScience. Bayer CropScience colluded with the Nazis to commit genocide against millions of European Jews in the Holocaust.

Rosemary Mason MB, ChB, FRCA

21 January 2019

¹¹⁶ [PLOS Biology Explores Gaps between Environmental Health Science and Policy | PLOS Blogs Network](#)

¹¹⁷ <http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.2004814>

¹¹⁸ <http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.2002800>

¹¹⁹ <http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.2003578>

¹²⁰ <https://www.sciencedirect.com/science/article/pii/S0048969719300749>