

Why is Britain voting for the renewal of the license of glyphosate?

Europe-wide soil contamination by glyphosate and dramatic declines in insect biomass

Glyphosate and AMPA: widespread persistence in topsoils in Europe¹

*"A new research study by the European Commission's Joint Research Centre, the Dutch University of Wageningen and Rikilt laboratories, reveals that among 317 EU soil samples of arable land, 42% contained AMPA, the most toxic metabolite of glyphosate, while glyphosate was found in 21% of the soils; 18% of the samples had both. The study was conducted in six crop systems along 11 EU member states comprising soils under different geographical and climatic conditions. Denmark, **the UK** and Portugal are the worst in this spectrum, with the highest detection frequency, while Italy and Greece seem to be the ones using less glyphosate on their crops. However, and most notably, these 2 molecules could be found in every tested member state. **All tested crops presented glyphosate and AMPA residues.** By far, the worst case was that of Portuguese vineyards, while no crops exhibited patterns of reduced reliance on glyphosate compared to others."*

Angeliki Lyssimachou, PAN Europe's ecotoxicologist said: "This study (from the European Commission's own Joint Research Centre) clearly contradicts the predictions of European Authorities that glyphosate does not persist in the environment. ² In fact European agriculture is highly reliant on a toxic substance that is not even properly regulated in the EU, putting everyone at risk."

Ecological Armageddon after dramatic plunge in insect numbers 18/10/2017

More than 75 percent decline over 27 years in total flying insect biomass in protected areas in Germany³

Part of Abstract: Global declines in insects have sparked wide interest among scientists, politicians, and the general public. Loss of insect diversity and abundance is expected to provoke cascading effects on food webs and to jeopardize ecosystem services. Our understanding of the extent and underlying causes of this decline is based on the abundance of single species or taxonomic groups only, rather than changes in insect biomass which is more relevant for ecological functioning. Here, we used a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (96 unique location-year combinations) to infer on the status and trend of local entomofauna.

When the total weight of the insects in each sample was measured a startling decline was revealed. The annual average fell by 76% over the 27-year period, but the fall was even higher – 82% – in summer, when insect numbers reach their peak. ⁴

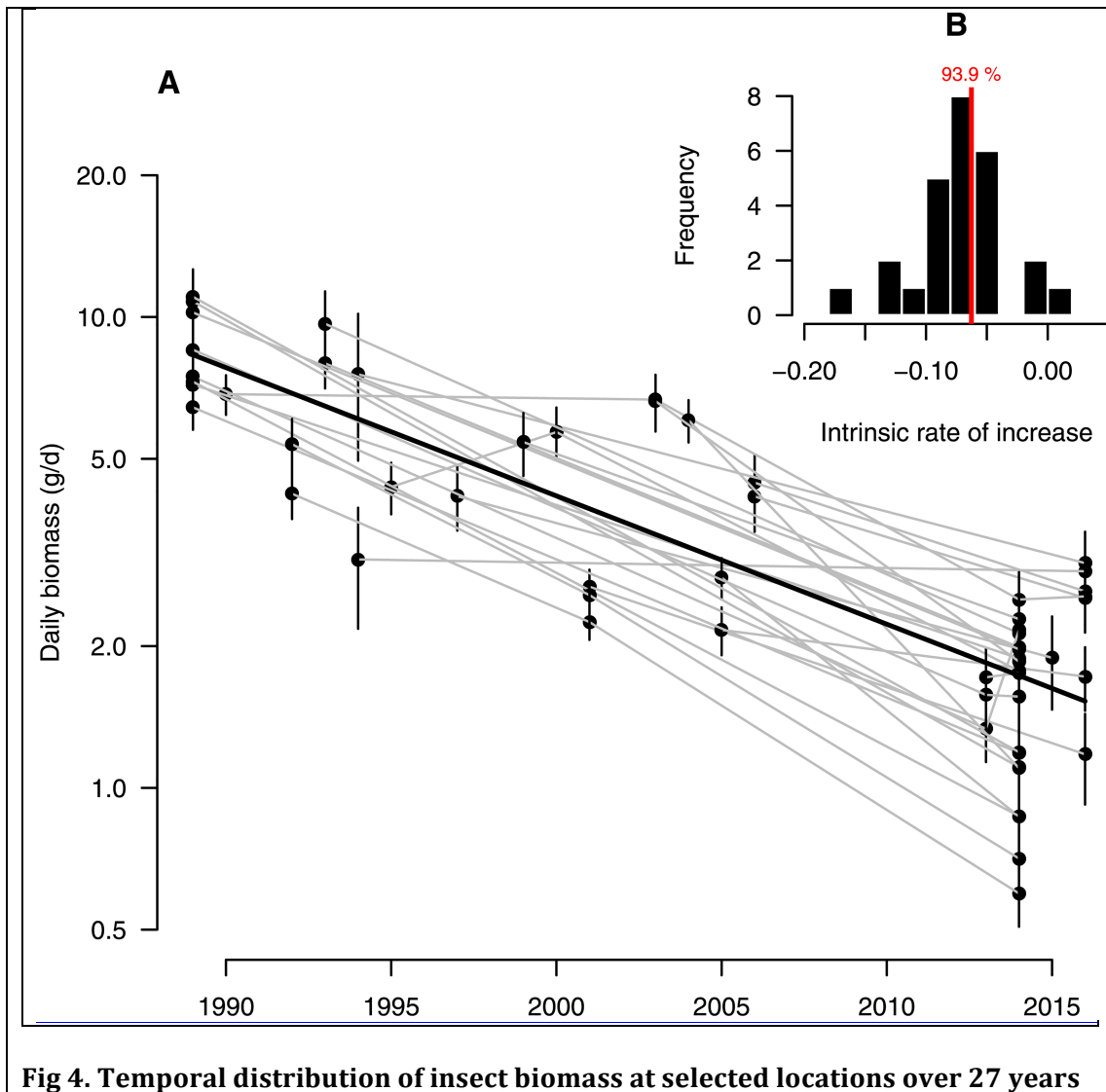
¹ <http://www.sciencedirect.com/science/article/pii/S0048969717327973>

² <http://www.glyphosate.eu/environmental-fate-and-behaviour-glyphosate>

² <http://www.glyphosate.eu/environmental-fate-and-behaviour-glyphosate>

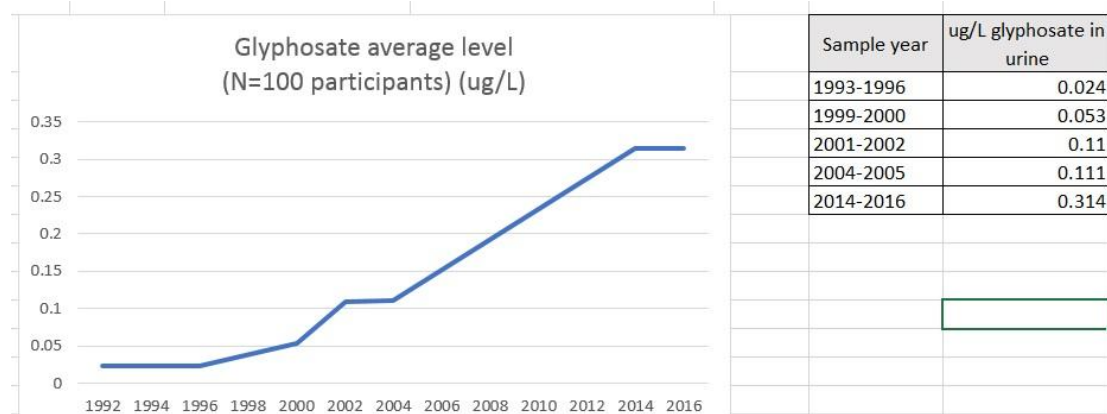
³ <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809>

⁴ <https://www.theguardian.com/environment/2017/oct/18/warning-of-ecological-armageddon-after-dramatic-plunge-in-insect-numbers>



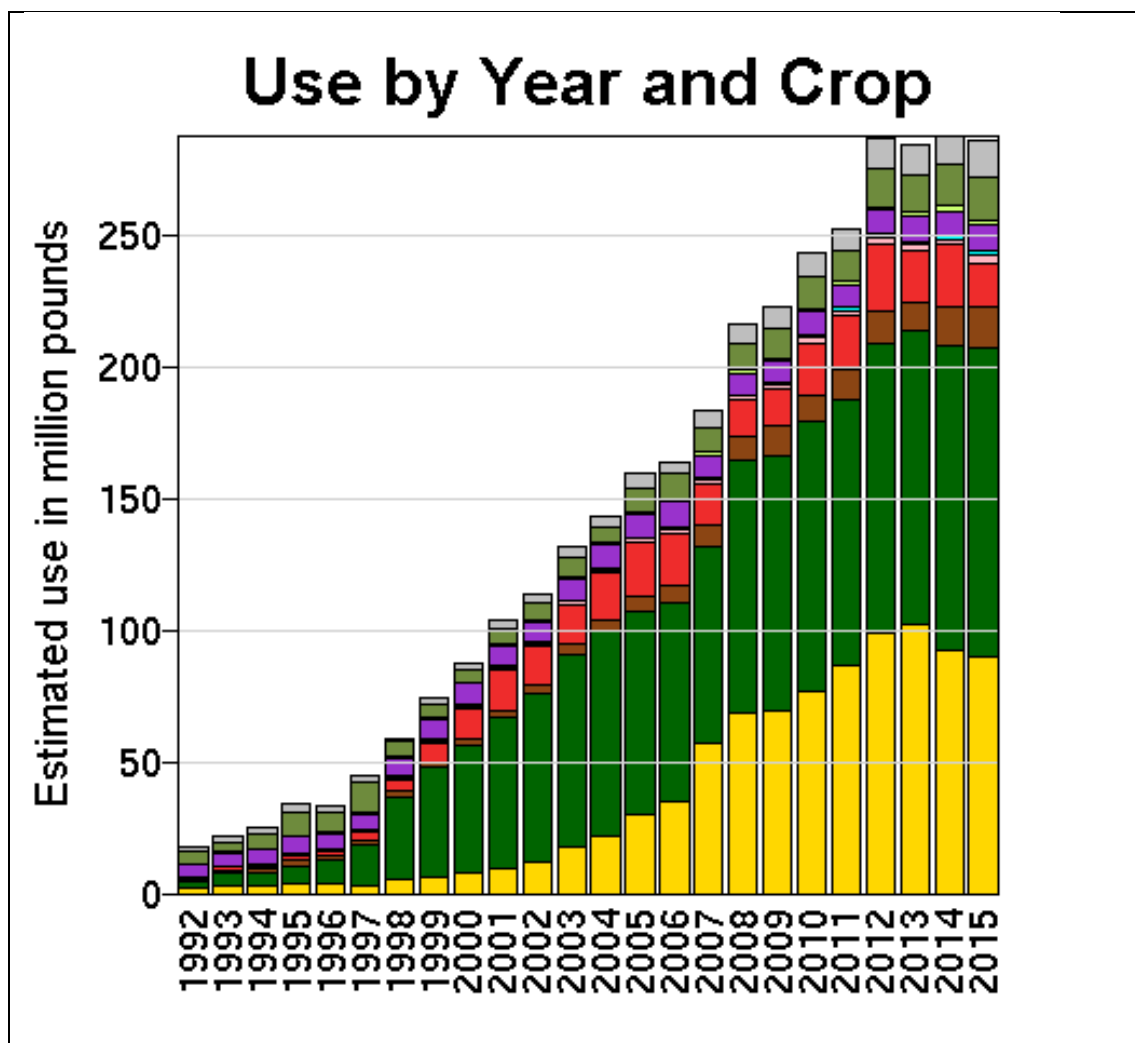
Glyphosate excretion in urine of adults increases over 23 years

Excretion of the herbicide glyphosate in older adults between 1993 and 2016⁵



Graph reproduced by kind permission of Dr J. Sass PhD Senior Scientist NRDC

⁵ <https://jamanetwork.com/journals/jama/article-abstract/2658306>



Glyphosate use by year in the US 1992-2015 ⁶

Extracts: "The herbicide Roundup is sprayed onto genetically modified crops and applied as a desiccant to most small non-genetically modified grains. Use of this herbicide has increased since 1994 when genetically modified crops were introduced in the United States. Glyphosate, the primary ingredient in the herbicide, is found in these crops at harvest. Environmental exposure through dietary intake of these crops has potential adverse health effects and can be assessed by measuring urinary excretion. We measured excretion levels of glyphosate and its metabolite aminomethylphosphonic acid (AMPA) in participants from the Rancho Bernardo Study (RBS) of Healthy Aging. Mean glyphosate and AMPA levels and the proportion of samples with detectable levels increased over time.

Multimomics reveal non-alcoholic fatty liver disease in rats following chronic exposure to an ultra-low dose of Roundup herbicide.⁷

Overall, metabolome and proteome disturbances showed a substantial overlap with biomarkers of non-alcoholic fatty liver disease and its progression to steatohepatitis and thus confirm liver functional dysfunction resulting from chronic ultra-low dose

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https://water.usgs.gov/nawqa/pnsp/usage/maps/show_map.php?year=2015&map=GLYPHOSATE&hilo=H&disp=Glyphosate

⁷ <http://www.nature.com/articles/srep39328>

Glyphosate-Based Herbicide (GBH) exposure. The study is the first ever to show a causative link between consumption of Roundup at a real-world environmentally relevant dose and a serious disease. NAFLD currently affects **25% of the US population** and **similar numbers of Europeans**. Risk factors include being overweight or obese, having diabetes, or having high cholesterol or high triglycerides (a constituent of body fat) in the blood. However, some people develop NAFLD even if they do not have any of these known risk factors.

Roundup caused a 50% decrease in sperm count in males between 1973 and 2011

Prof Hagai Levine from the Hebrew University of Jerusalem undertook a rigorous and comprehensive meta-analysis of data collected between 1973 and 2011 finds that among men from Western countries, sperm concentration declined by more than 50 percent, with no evidence of a 'leveling off' in recent years.⁸ Prof Levine suggested endocrine disruption from chemical exposures *"during critical windows of male reproductive development may play a role in prenatal life"* and *"exposure to pesticides may play a role in adult life. Thus, a decline in sperm count might be considered as a 'canary in the coal mine' for male health across the lifespan."* Researchers from Brazil where babies who are lactose intolerant drink GM soy milk found that in rats fed soy milk it elicits endocrine-disrupting effects, by decreasing serum testosterone levels, decreased Sertoli cell numbers and increased percentage of degenerated Sertoli and Leydig cells.⁹

European Commission has rejected the advice of its own Joint Research Centre

- On levels of glyphosate and AMPA in European Soils.
- On organic foods

On healthy soils: *"Heavy tilling, multiple harvests and abundant use of agrochemicals have increased yields at the expense of long-term sustainability. In the past 20 years, agricultural production has increased threefold and the amount of irrigated land has doubled, notes a paper in the outlook by the Joint Research Centre (JRC) of the European commission. Over time, however, this diminishes fertility and can lead to abandonment of land and ultimately desertification. The JRC noted that decreasing productivity can be observed on 20% of the world's cropland, 16% of forest land, 19% of grassland, and 27% of rangeland."*¹⁰

The health impacts generated by food systems are severe, widespread, and closely linked to industrial food and farming practices

A major new report on the damage to human health from existing industrial and chemical-intensive conventional food and farming systems was launched today by the UN Committee on World Food Security in Rome.

The report, entitled *Unravelling the Food-Health Nexus: Addressing practices, political economy, and power relations to build healthier food systems*, is authored by the International Panel of Experts on Sustainable Food Systems (IPES-Food) - an independent panel of food system experts - and was commissioned by the Global Alliance for the Future of Food ¹¹

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<https://academic.oup.com/humupd/article/doi/10.1093/humupd/dmx022/4035689/Temporal-trends-in-sperm-count-a-systematic-review>

⁹ <http://www.sciencedirect.com/science/article/pii/S0278691516304896>

¹⁰ <https://www.theguardian.com/environment/2017/sep/12/third-of-earths-soil-acutely-degraded-due-to-agriculture-study>

¹¹ http://www.ipes-food.org/images/Reports/Concentration_ExecSummary.pdf

Farming with chemicals in Britain: massive increases since 1980

UK farmers used glyphosate to desiccate crops on the suggestion of a Monsanto scientist:¹² the numbers of residues of pesticides found in non-organic food is rapidly increasing

Defra started publishing pesticide residues in foods in 2000.¹³ *“Residues of chlormequat¹⁴, glyphosate and pirimiphos-methyl¹⁵ were found (in bread). Defra said: “These pesticides are commonly used on cereal crops, and residues have been found in other cereal products, therefore these findings are not unexpected. None of the residues found were of concern for consumer health.”*

A Report by Pesticides Action Network- UK has shown that 46% of non-organic food in 2013 contained residues of one or more pesticides and this had increased from 25% in 2003.¹⁶ A further Report by PAN-UK: Pesticides in your daily bread showed that nearly two-thirds of bread contained one or more pesticides and the three most frequently found were glyphosate, chlormequat and malathion.¹⁷

Capability to detect 393 pesticides in food, but none risked consumer health

When the CRD Head of Regulatory Policy replied on 28/02/2014 to defend the authorisation of glyphosate, he told me that the capability to detect individual pesticides in food had increased from 150 in 2003 to 393 in 2012. He stated: *“In the 2012 Report, although there were a large number of residues found in bread, none of these were at a level to suggest a risk to consumer health.”* However, he failed to reply to my question as to why EFSA was regularly increasing the Maximum Residue Levels (MRLs) of glyphosate in foods at the request of Monsanto to accommodate their practice of desiccation of crops and to protect their imports into Europe.¹⁸

UK Pesticide usage statistics show a massive increase in glyphosate used between 2012 and 2014

Fera statistics showed that in 2012 the area treated by glyphosate was 1,750,000 ha. This had increased in 2014 to 2,250,000 ha. Guy Gagen, Chief Arable Adviser for the NFU, said increased glyphosate use (up one third since 2012, to an area the size of Wales) was probably due to treatment of ‘black grass.’¹⁹ Black grass is a glyphosate-resistant super-weed just like Japanese knotweed. Herbicide resistant black grass, first seen in 1982 (two years after farmers started spraying glyphosate pre-harvest) and is now found on 16,000 farms in 34 counties. Gagen said that spraying wheat could result in traces of glyphosate ending up in bread sold in supermarkets but the amount was well below the maximum residue level set by the EU. A Defra spokesman said: *“There are extensive regulations in place so that people and the environment are protected from pesticides. The approval of glyphosate for use across Europe is being reviewed by the EU Commission.”*

¹² <http://www.hgca.com/media/185527/is02-pre-harvest-glyphosate-application-to-wheat-and-barley.pdf>

¹³ <http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/about-PRiF>

¹⁴ Chlormequat, a plant growth regulator was present consistently throughout.

¹⁵ pirimiphos-methyl, is an organophosphate insecticide for use in storage. The approval was revoked on 24/03/2011, but it was only finally banned 31/03/2013, presumably to allow stocks to be used up.

¹⁶ http://www.pan-uk.org/files/pesticides_on_a_plate_2013_final.pdf

¹⁷ [http://www.pan-uk.org/files/Pesticides%20in%20Your%20Daily%20Bread%20guide%20-%20FINAL%20\(1\).pdf](http://www.pan-uk.org/files/Pesticides%20in%20Your%20Daily%20Bread%20guide%20-%20FINAL%20(1).pdf)

¹⁸ <http://www.efsa.europa.eu/en/efsajournal/pub/2550.htm>

¹⁹ <http://www.thetimes.co.uk/tto/environment/article4528297.ece>

Food and Environment Research Agency (FERA) survey of pesticides 1988 to 2014

These indicate that Pesticide Residues on British food are increasing annually. A survey of pesticide (active substances) usage on Oil Seed Rape (OSR) 1988-2014 showed that the number of active substances applied had increased from 5 in 1988 to 15 in 2014 and the number of treatments had increased from 5 in 1988 to 12 in 2014. In 2014, herbicides were used on 98.4% OSR and seed treatments on 95.8%.

The State of Nature in the UK 2016 is “pretty knackered” according to the Report: the Republic of Ireland and the USA lie even further below the UK²⁰

Mark Eaton of the RSPB, the Report's first author said: *“The report includes a new “biodiversity intactness index”, which analyses the loss of species over centuries. The UK has lost significantly more nature over the long term than the global average with the UK the 29th lowest out of 218 countries. “It is quite shocking where we stand compared to the rest of the world, even compared to other western European countries: France and Germany are quite a way above us in the rankings,” said Eaton. “The index gives an idea of where we have got to over the centuries, and we are pretty knackered.”*

Monsanto Papers; EFSA says it ‘had little bearing on its finding that glyphosate is safe’

Monsanto Papers and glyphosate were discussed at a public hearing in Europe

The US Judge Vince Chhabria and a large group of US Attorneys (Baum Hedlund being the lead) who acting together have forced Monsanto to reveal emails that show it employed ghost-writing, used scientists as paid lobbyists and targeted those that produced evidence against them in order to keep Roundup, its flagship herbicide, on the market by fraudulent science.

More than 250 lawsuits are pending against Monsanto Co. in U.S. District Court in San Francisco, filed by people alleging that exposure to Roundup herbicide caused them or their loved ones to develop non-Hodgkin lymphoma, and that Monsanto covered up the risks. The cases have been combined for handling as multidistrict litigation under Judge Vince Chhabria. The lead case is 3:16-md-02741-VC. Additionally, at least 1,100 plaintiffs have made similar claims against Monsanto in state courts.

US Attorneys came to the European Union with two plaintiffs to support the Members of the European Parliament in their Public Hearing on The Monsanto Papers and glyphosate on 11/10/2017. This was their press release.²¹

EFSA's Comments on the Public Hearing

EFSA has insisted that the review (into the Monsanto Papers) had little bearing on its finding that glyphosate is safe, *“because its verdict was based mainly on its assessment of the original studies, not reviews of studies.”*

Eric Andrieu MEP picked up on the fact that EFSA had said it was normal to copy and paste industry documents, saying there needed to be an investigation. They highlighted Monsanto's refusal to attend which Marc Tarabella MEP said was a rebuff to 500 million anxious European citizens. Mr Andrieu deplored the faith he said the European agencies placed in the industry's studies. *“Listening to Dr Tarazona ... you'd think the copy and paste method was completely normal practice in EFSA's evaluation reports. You wonder if you're not dreaming.”*

²⁰

http://www.rspb.org.uk/Images/State%20of%20Nature%20UK%20report_%2020%20Sept_tcm9-424984.pdf

²¹ <https://www.baumhedlundlaw.com/eu-investigate-monsanto-science-manipulation/>

The European Glyphosate Task Force drew up European Legislation

Monsanto Europe replied to Health Commissioner Andriukaitis on 04/04/2016 to say that the 24 GTF members were prepared to grant very limited access to the data.²² From this we learn that the current EU legislation is set up to “*protect intellectual property and confidential information from public disclosure.*” “*All confidential data ...shall be deleted or redacted (Regulation 1107/2009, Article 63).*” Much of the industry data submitted to the German Rapporteur Member State was redacted.

Tim Bowmer Chairman of ECHA's Risk Assessment Committee confirms this fact

Tim Bowmer, chair of ECHA's Risk Assessment Committee told MEPs: “*We are in your hands,*” stressing that the current legislation agreed by the European Parliament and Council requires the agencies to look at unpublished studies submitted by industry.

European Glyphosate Task Force ensured that MEPs couldn't interfere²³

“The renewal process is legislated for by means of a Commission Regulation (No. 1107/2009). The European Parliament has no official role in this particular type of legislative procedure.”

Standing Committee for Food Chain and Animal Health

The Glyphosate Task Force said: “*Based on the final EFSA conclusion, the Commission prepares a Review Report followed by a Regulation that proposes approval, non-approval or amended conditions of approval to the Standing Committee for Food Chain and Animal Health. SCFCAH consists of representatives from relevant ministries of all EU Member States and delivers its opinion by means of qualified majority voting. In the case of a non-approval decision, Member States are required to withdraw authorisation for products containing the active substance within a defined schedule.*”

Glyphosate affects humans as well as plants, fungi and bacteria. So why are there no physicians on this panel? I challenged the European Ombudsman about this but she dismissed my claim that this fell into her remit of ‘maladministration’.

A lawsuit against Monsanto for misleading labeling on 11 April 2017

Washington, DC- Two nonprofit organizations filed a lawsuit against Monsanto for misleading the public by labeling its popular weedkiller Roundup as “*target[ing] an enzyme found in plants but not in people or pets.*” This lawsuit claims this statement is false, deceptive, and misleading, because the enzyme targeted by glyphosate, the active ingredient in Roundup, is, in fact, found in people and pets.

“The unequivocal nature of Monsanto's label claim on Roundup belies the complexity of human biology and the impact this highly toxic chemical has on the functioning of the human gut bacteria, essential to our health,” said Jay Feldman, Executive Director of Beyond Pesticides. *“With this claim, Monsanto is falsely telling the public that its product cannot hurt them,”* he said.

The European Commission has already broken the law. It couldn't find suitably trained staff: so existing staff can move around between agencies!

Two consecutive Heads of Unit of Pesticides and Biocides, European Commission do not have “*appropriate degrees of specialist knowledge and technical expertise,*” as specified in

²²

<https://dl.dropboxusercontent.com/u/6366131/letter%20to%20Commissioner%20Andriukaitis.pdf>

²³ http://www.glyphosate.eu/system/files/sidebox-files/renewal_process_for_glyphosate_faqs_0.pdf

the EC regulations.²⁴ Michael Flüh admitted to being a non-scientist. When he departed in the middle of the glyphosate reassessment, Klaus Berend from the European Chemicals Agency (ECHA) was appointed to replace him. He is an expert on plastics in aviation.

Article 4 Role of Heads of Units Page 5

“The role of heads of unit is regarded as particularly important. They shall possess specific management (i.e. work organisation, people management and, where relevant, financial resources management) competencies and an appropriate degree of specialist knowledge and technical expertise.”

Middle management staff work for a trial period. If the Commissioner of the Unit is satisfied with their work they become permanent in the post for a maximum of 10 years. They can rotate between units and agencies until they retire. This new decision was set up in 2016 when Jean-Claude Juncker was President.

The UK Science Media Centre is funded by industry, UK Government and the Wellcome Trust

Chief Executive Fiona Fox was very frank about the reasons for this: so that the UK government can support corporate industry to bring in GM Crops for the economy and to oppose the NGOs who produce ‘scare stories’ about GM. Most UK journalists use the Science Media Centre’s so-called ‘experts’ that feed a corporate agenda.

Colin MacIlwain wrote in World View:²⁵

“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.” That is why the people have been kept in the dark.

Monsanto scientists, EFSA and the UK SMC rallied to dismiss the Séralini study as fraudulent and it went largely unreported by the British Media

In September 2012 Prof Gilles-Eric Séralini and his team (France) published a 2-year rat feeding study with GMO Roundup®-tolerant maize and Roundup®. This diet provoked chronic hormone and sex dependent pathologies in rats; males developed tumours at 4 months and females at 7 months.

Highlights: “A Roundup®-tolerant maize and Roundup® provoked chronic hormone and sex dependent pathologies. Female mortality was 2–3 times increased mostly due to large mammary tumours and disabled pituitary. Males had liver congestion, necrosis, severe kidney nephropathies and large palpable tumours. This may be due to an endocrine disruption linked to Roundup® and a new metabolism due to the transgene. GMOs and formulated pesticides must be evaluated by long term studies to measure toxic effects.”

The Industry-financed UK Science Media Centre and EFSA pronounced the Séralini study as fraudulent.²⁶

Professor Gilles-Eric Séralini won an award for his rat feeding studies on GMOs, glyphosate and tumours. He was one of the driving forces behind the International Monsanto Tribunal (see page 17).

On 16 October 2015 Prof Gilles-Eric Séralini was awarded Whistleblower of the Year by German Scientists for his work on GMOs and Glyphosate. Citation: “He was the first to

²⁴ https://ec.europa.eu/info/sites/info/files/european-commission-decision-on-middle-management-staff_3288_c_2016_en.pdf

²⁵ <http://www.nature.com/news/two-nations-divided-by-a-common-purpose-1.10224>

²⁶ http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumours.htm

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.

Plaintiffs are also suing for other cancers that have been linked to Roundup

Lawyers of the US firm Baum, Hedlund stated: A number of [Roundup cancer studies](#) have found evidence linking the weed killer’s main ingredient, glyphosate, to serious side effects. ²⁷ The most serious Roundup side effects include:

- [Non-Hodgkin Lymphoma](#)
- Bone Cancer
- Colon Cancer
- Kidney Cancer
- Liver Cancer
- Melanoma
- Pancreatic Cancer
- Thyroid Cancer

Cancer Research UK Statistics for 2014 (former Chairman Michael Pragnell had worked for the pesticides industry): CRUK website said there was little evidence that pesticides caused cancer and blamed lifestyle choices including alcohol

In 2014 in Britain there were 13,605 new cases of NHL (4,801 deaths). ²⁸ 41,265 new cases of bowel cancer (15,903 deaths); 12,523 new cases of kidney cancer (4,421 deaths); 5,550 new cases of liver cancer (5,091 deaths); 5,419 new cases of melanoma (2,459 deaths); 3,404 new cases of thyroid cancer (376 deaths); 10,063 new cases of bladder cancer (5,369 deaths); 9,324 new cases of uterine cancer (2,166 deaths); 7,378 cases of ovarian cancer (4,128 deaths) 9,534 new cases of leukaemia (4,584 deaths); 55,222 new cases of invasive breast cancer (11,433 deaths); 46,690 new cases of prostate cancer (11,287 deaths); 8,919 new cases of oesophageal cancer (7,790 deaths) and 5,501 new cases of myeloma (2,928 deaths); 2,418 new cases of testicular cancer (60 deaths). In the US in 2014 there were 24,050 new cases of myeloma.

The venture to Genetically Engineer our food is based on fraud

Genetically-engineered crops, glyphosate and the deterioration of health in the United States of America. Swanson *et al.*²⁹

***Abstract:** A huge increase in the incidence and prevalence of chronic diseases has been reported in the United States (US) over the last 20 years. Similar increases have been seen globally. The herbicide glyphosate was introduced in 1974 and its use is accelerating with the advent of herbicide-tolerant genetically engineered (GE) crops. Evidence is mounting that glyphosate interferes with many metabolic processes in plants and animals and glyphosate residues have been detected in both. Glyphosate disrupts the endocrine system and the balance of gut bacteria, it damages DNA and is a driver of mutations that lead to cancer.*

In the present study, US government databases were searched for GE crop data, glyphosate application data and disease epidemiological data. Correlation analyses were then

²⁷ <https://www.baumhedlundlaw.com/toxic-tort-law/monsanto-roundup-lawsuit/monsanto-secret-documents/>

²⁸ <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/non-hodgkin-lymphoma>

²⁹ http://www.organic-systems.org/journal/92/IOS_Volume-9_Number-2_Nov_2014-Swanson-et-al.pdf

performed on a total of 22 diseases in these time-series data sets. The Pearson correlation coefficients are highly significant ($< 10^{-5}$) between glyphosate applications and hypertension ($R = 0.923$), stroke ($R = 0.925$), diabetes prevalence ($R = 0.971$), diabetes incidence ($R = 0.935$), **obesity** ($R = 0.962$), lipoprotein metabolism disorder ($R = 0.973$), Alzheimer's ($R = 0.917$), senile dementia ($R = 0.994$), Parkinson's ($R = 0.875$), multiple sclerosis ($R = 0.828$), autism ($R = 0.989$), inflammatory bowel disease ($R = 0.938$), intestinal infections ($R = 0.974$), end stage renal disease ($R = 0.975$), acute kidney failure ($R = 0.978$) cancers of the **thyroid** ($R = 0.988$), **liver** ($R = 0.960$), **bladder** ($R = 0.981$), **pancreas** ($R = 0.918$), **kidney** ($R = 0.973$) and **myeloid leukaemia** ($R = 0.878$).

The Pearson correlation coefficients are highly significant ($< 10^{-4}$) between the percentage of GE corn and soy planted in the US and hypertension ($R = 0.961$), stroke ($R = 0.983$), diabetes prevalence ($R = 0.983$), diabetes incidence ($R = 0.955$), **obesity** ($R = 0.962$), lipoprotein metabolism disorder ($R = 0.955$), Alzheimer's ($R = 0.937$), Parkinson's ($R = 0.952$), multiple sclerosis ($R = 0.876$), hepatitis C ($R = 0.946$), end stage renal disease ($R = 0.958$), acute kidney failure ($R = 0.967$), cancers of the **thyroid** ($R = 0.938$), **liver** ($R = 0.911$), **bladder** ($R = 0.945$), **pancreas** ($R = 0.841$), **kidney** ($R = 0.940$) and **myeloid leukaemia** ($R = 0.889$). The significance and strength of the correlations show that the effects of glyphosate and GE crops on human health should be further investigated.

The Open Letter from America ³⁰ was from 60 million American citizens to David Cameron (and the rest of the EU countries and EU Regulators) warning them not to authorize GM crops because of the devastating effects on human health and the environment

It was delivered to 10 Downing Street on 11 November 2014.³¹

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. 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."

Most of the 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

³⁰ www.theletterfromamerica.org

³¹ https://twitter.com/beyond_gm/status/532224079605288960

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 and Pesticides Action Network.

US Attorney Steven Druker says: Governments and leading scientific institutions have systematically misrepresented the facts about GMOs

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.³²

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 challenged UK Royal Society over misleading statements made about GM foods

Open Letter to the UK Royal Society can be read here.³³

Extracts: "Because clarifying the facts about GM foods is crucial for developing an intelligent, science-based policy on the future of agriculture, and because the Royal Society has significantly contributed to the confusion that currently surrounds this issue, it is imperative that remedial action be promptly initiated. This is especially so considering that:

- The European Commission is about to approve substantial regulatory changes in regard to GM crops.*
- The UK is seriously considering allowing them to be commercially planted.*
- The Society and other proponents of GM foods have inculcated the widespread illusion that there is an overwhelming scientific consensus that the safety of these products has been established through rigorous testing..."*

Steven Druker says that there has been silence following his challenge to the Royal Society

"The Royal Society wants us to take its word that GM crops are safe and healthy", writes Steven Druker on June 2015 in The Ecologist.³⁴ "But it refuses to retract its errors, apologise to those whose reputations it has impugned, or enter into constructive debate on the issue. To restore its scientific integrity, it must abide by its own motto. Scientific truths are not merely asserted, nor are they created by the authority of the speaker, no matter how eminent. They must be firmly rooted in evidence and rational argument."

³² <http://beyond-gm.org/new-book-exposes-systematic-government-and-scientific-fraud-over-gm-food/>

³³ http://beyond-gm.org/wp-content/uploads/2015/03/DRUKER_OPEN-LETTER-TO-THE-ROYAL-SOCIETY_Final.pdf

³⁴

http://www.theecologist.org/blogs_and_comments/commentators/2921277/the_royal_societys_assault_on_the_science_of_gm_foods_must_cease.html

Druker talks about the Royal Society's preposterous pretensions

"But neither he nor the Society have acknowledged the errors, or provided any reply to the allegations made. Instead, the misrepresentation of reality has been amplified. In response to [media inquiries about the challenge](#), here's the official statement that the institution provides:" "The Royal Society bases its views on evidence, evidence that has been closely scrutinized by people with expert knowledge and that has stood up to that scrutiny. Personal opinions and unsubstantiated anecdotes are unhelpful to having a rational public debate on science and the use of new technologies."

Why did Sir Paul Nurse, President of the Royal Society fail to respond?

Sir Paul had been sent over by the Rockefeller Foundation New York to try to persuade the public to accept GM crops. In 2016 he became the Director of the Francis Crick Institute. 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. **Many of these diseases are related to pesticides.** The second largest donation came from Cancer Research UK (£160 million). The previous Chairman, Michael Pragnell OBE was Founder of Syngenta and former Chairman of CropLife International.

Royal Society supports GM crops but refuses to have a rational debate about them

Dr Brian John of GM-Free-Cymru wrote an Open Letter to the President of the Royal Society Sir Paul Nurse on 26/01/2011.³⁵ It was in response to a BBC Horizon programme in which Sir Paul examined some of the reasons why the public at large is profoundly sceptical about science and scientists with regard to global warming and GM. Dr John says: *"For more than a decade now, scientists working in the GM field have mounted vicious personal attacks (sometimes politically rather than scientifically motivated) upon serious scientists who have had the temerity to discover 'uncomfortable things about GM crops and foods'. This trend started with the vitriolic treatment meted out (with the Royal Society in the vanguard) on Arpad Pusztai and Stanley Ewen a decade ago, and continued with the crucifixion of Ignacio Chapela and David Quist, Angelika Hilbeck, Maewan Ho, Judy Carman, Gilles-Eric Seralini, Andrés Carrasco, Manuela Malatesta, Christian Velot, Irina Ermakova and many others..."*

You will be aware that there has never been a single piece of epidemiological research to back up the claims that GM foods are entirely safe to eat. Since the earliest days of the GM enterprise, the industry has set itself against such research, and governments, regulators and august bodies like the Royal Society have connived in this cunning little plan, allowing GM advocates like Julian Little (Bayer) to trot out this sort of nonsense: 'two trillion meals containing GM ingredients have been consumed with no adverse health effects.' As we all know, there are abundant animal feeding studies that show that GM components in the diet lead to physiological changes and cell damage. The American Academy of Environmental Medicine drew attention to studies that indicate "serious health risks associated with GM food consumption including infertility, immune dysregulation, accelerated aging, dysregulation of genes associated with cholesterol synthesis, insulin regulation, cell signalling, and protein formation, and changes in the liver, kidney, spleen and gastrointestinal system". They concluded that: "There is more than a casual association between GM foods and adverse health effects. There is causation ..."

³⁵ http://www.gmfreecymru.org.uk/open_letters/Open_letter26Jan2011.html

How the GE food venture has been chronically based on deception³⁶

Steve Druker writes again in August 2016: *"Although it purports to be based on solid science and the open flow of information on which science depends, the massive venture to reconfigure the genetic core of the world's food supply has substantially relied on the propagation of falsehoods. Its advancement and very survival have been crucially and chronically dependent on the misrepresentation of reality – to the extent that more than thirty years after the creation of the first genetically engineered plant, the vast majority of people the world-over (including most government officials, journalists, and even scientists) continue to be misled about the important facts..."*

So if the world's oldest and most respected scientific institution cannot argue for the safety of GE foods without systematically distorting the facts, it indicates that such distortion is essential to the argument. Moreover, when the multitude of distortions and deceptions that have been issued on behalf of these products over the last thirty-five years are compiled and irrefutably documented (as in my book), the conclusion that the GE food venture could not have survived without them becomes virtually inescapable."

A journalist asked the late Dr Maewan Ho: doesn't Genetic Modification follow what nature does already? No it breaks all the rules of evolution

In April 2004, Anastasia Stephens,³⁷ a journalist from the Evening Standard, interviewed the late Dr Maewan Ho, Geneticist and Co-Director of the former Institute of Science in Society.

AS "Doesn't genetic modification follow what nature does already - the evolutionary principle of genetic selection?"

MWH "No, GM breaks all the rules of evolution, it short circuits evolution altogether. It bypasses reproduction, creates new genes and gene combinations that have never existed, and is not restricted by the usual barriers between species."

Scientific Advice Mechanism in the European Union

President Jean-Claude Juncker suggested setting up this Scientific Advice Mechanism Committee in May 2013 in order to give expert advice on 'thorny' problems such as New Techniques in Agricultural Biotechnology. The presentation of the Report took place on 28/04/2017. Sir Paul Nurse was one of those experts.

UK Pesticide Committees members have conflicts of interest

UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (CoT)

Prof Alan Boobis is current Chairman of the UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (CoT), which is alleged to be an independent scientific body.

In 2016 the Joint FAO/WHO/JMPR meeting on Pesticide Residues ruled that glyphosate was probably not carcinogenic to humans

The following report was from *Guardian* journalist Arthur Neslen.³⁸ *"A UN panel that on Tuesday ruled that glyphosate was [probably not carcinogenic to humans](#) has now become embroiled in a bitter row about potential conflicts of interests. It has emerged that an institute co-run by the chairman of the UN's joint meeting on pesticide residues (JMPR) received a six-figure donation from Monsanto, which uses the substance as a core*

³⁶ <https://www.independentsciencenews.org/health/how-the-ge-food-venture-has-been-chronically-dependent-on-deception/>

³⁷ <http://www.i-sis.org.uk/GMmyths.php>

³⁸ <https://www.theguardian.com/environment/2016/may/17/unwho-panel-in-conflict-of-interest-row-over-glyphosates-cancer-risk>

ingredient in its bestselling Roundup weed-killer. [Professor Alan Boobis](#), who chaired the UN's [joint FAO/WHO meeting](#) on glyphosate, also works as the vice-president of the International Life Science Institute (ILSI) Europe. The co-chair of the sessions was Professor Angelo Moretto, [a board member](#) of ILSI's Health and Environmental Services Institute, and of its [Risk21 steering group](#) too, which Boobis also co-chairs. In 2012, the ILSI group took a \$500,000 (£344,234) donation from Monsanto and a \$528,500 donation from the industry group CropLife International, which represents [Monsanto, Dow, Syngenta and others](#), according to [documents obtained by the US right to know campaign](#)."

In 2002 Professor Alan Boobis was also Chairman of the UN's JMPR meeting on pesticide residues when glyphosate was last reassessed. At that time the Panel also said that glyphosate wasn't a carcinogen, a mutagen or a teratogen.³⁹

Why Monsanto chose Britain to be the Rapporteur Member State for aspartame

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.⁴⁰ 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](#).⁴¹ "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 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.⁴² 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](#).⁴³ 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

³⁹ http://whqlibdoc.who.int/publications/2006/9241665203_eng.pdf?ua=1

⁴⁰ <http://www.mpwhi.com/main.htm>

⁴¹ <http://www.nature.com/ejcn/journal/v62/n4/full/1602866a.html>

⁴² <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009R1107>

⁴³ <http://cot.food.gov.uk/pdfs/cotposponaspar.pdf>

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.⁴⁴ 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 Millstone⁴⁵ 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.⁴⁶ 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.⁴⁷

Professor David Kirkland challenged IARC in the Public Hearing on the Monsanto Papers. Prof Kirkland insisted that he had “a reputation to protect and the respect of colleagues to maintain”, adding that he had worked for 150 organisations around the world. Dr David Kirkland also published a paper on aspartame: Aspartame: A review of genotoxicity data.⁴⁸ He supported EFSA’s conclusion that aspartame is non-genotoxic.

Newly leaked emails from John Podesta (Chairman of Hillary Clinton’s presidential campaign) discuss Rumsfeld’s involvement in aspartame approval⁴⁹

“John Podesta’s leaked emails have turned up a number of damning pieces confirming the collusion between the soda industry and high level officials within the U.S. government, including Hillary Clinton. In a recent batch of leaked emails, Donald Rumsfeld’s involvement in the approval of aspartame is discussed. Rumsfeld served as White House chief of staff from 1974 to 1975. He was also secretary of defense from 1975 to 1977, and again from 2001 to 2006.

Call for justice for the many people poisoned by organophosphates: a massive cover up by HSE, Defra and the government

An HSE and Defra cover up? Health & Safety Executive and Report (1990) – officially destroyed – has now been revealed: incriminating sheep dip poisoning

The UK Ministry of Agriculture, Fisheries and Food (MAFF) had made yearly sheep dips compulsory with organophosphorus compounds in 1979 and biannually in 1984 then suddenly stopped them in 1992. Farmer Tom Rigby, Sheep Dip Sufferers’ Support Group, requested a FoI in 2015. He said: “The information I want is HSE advice given to the government minister just before he decided to abandon compulsory dipping and the science behind and date of a government order that Ministry of Agriculture, Fisheries and Food inspectors must not go within 14ft of a sheep dip.” The HSE responded to the FoI request by telling Mr Rigby: “The information you requested is no longer held by the Health & Safety Executive, having been destroyed in accordance with HSE’s corporate retention policy”. A ‘well-wisher’ sent a copy to Mr Rigby.⁵⁰

⁴⁴ <http://www.food.gov.uk/news-updates/news/2013/dec/efsa-aspartame#.UuAtV3xFDCs>

⁴⁵ Professor of Science Policy at the University of Sussex

⁴⁶ http://sro.sussex.ac.uk/43821/1/EM_Letter_to_EFSA_on_Aspartame_22Feb2013.pdf

⁴⁷ <http://www.scribd.com/doc/6669992/Dr-John-Olney-Statement-Aspartame-1987> Dr. John Olney’s letter to the Senate in 1987.

⁴⁸ <http://www.sciencedirect.com/science/article/pii/S0278691515300430?via%3Dihub>

⁴⁹ <http://articles.mercola.com/sites/articles/archive/2016/11/09/podesta-aspartame-dangers.aspx>

⁵⁰

<http://www.sheepdipsufferers.uk/archives/HSE%20Report%20in%20P%20poisoning%201991%20and%20comments.pdf>

HSE and Defra said there was no link between sheep dip chemicals and illnesses in farmers

HSE and Defra had always denied a link between organophosphate use as a sheep dip in the 1980s and neurological problems in farmers: OPs are still registered by Defra.

Organophosphate Sheep Dip 10 June 2015 Westminster Hall debates: Jessica Morden MP spoke on behalf of Andy Burnham ⁵¹ *"We want a full inquiry, independent of Defra, to allow us to question why farmers might have been compelled to use this chemical with no guidance if governmental research pointed to health impacts. Was compulsory dipping stopped because MAFF knew it was affecting farm workers' and farmers' health? If so, why did it not say so? We need an answer to that question in particular."* Organophosphorus compounds are likely to be responsible for Gulf War syndrome and may be associated with Aerotoxic Syndrome in pilots and cabin crew as a result of exposure to OPs in engine oil.

Sarah Mackenzie Ross and colleagues performed a meta-analysis of 14 studies involving 1600 participants.⁵² Defra claimed not to have found correlations but Mackenzie Ross discovered that there was a significant association between low-level exposure to OPs and impaired neurobehavioural function primarily involving cognitive functions, psychomotor speed, executive function, visuospatial ability, working and visual memory.

Former Labour MP Andy Burnham said: *"Farmers who allegedly suffered as a result of organophosphate (OP) sheep dip poisoning are entitled to a 'Hillsborough-style disclosure' of the truth."*

Effects of pesticides on human health and biodiversity in Britain

UK Mortality rates from 2014 the highest for 50 years: they continue to rise⁵³

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.

Modern diseases that are increasing in Britain due to pesticide residues in food and the herbicide Roundup sprayed directly on communities

Alzheimer's disease, Dementia, Autism, ADHD Bipolar, Diabetes (Type 2) Multiple sclerosis, Motor-neurone Disease, Obesity, Stroke, Hypertension, Cataracts & eye diseases, Inflammatory bowel disease, Birth defects, Colitis, Crohn's disease Hypercholesterolaemia, Allergies, asthma, Atopic dermatitis, Miscarriage/infertility, Renal disease/failure, Liver abnormalities, Coeliac disease, Gluten intolerance, Pancreatic abnormalities, Autoimmune diseases, Arthritis and various **cancers**.

¹⁴C labelled glyphosate detected in cartilage; is it responsible for degeneration of cartilage and knee arthritis?

Samsel and Seneff wrote paper IV on Glyphosate: Glyphosate, pathways to modern diseases IV: cancer and related pathologies ⁵⁴ and concluded that: *"significant evidence of tumours was found during these investigations"*. In this paper Table 11 Page 127 shows the distribution and bioaccumulation of ¹⁴C labelled glyphosate in blood, bone, organs and other tissues of Sprague Dawley rats.

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**

⁵¹ <https://www.theyworkforyou.com/whall/?id=2015-06-10a.130.0>

⁵² <http://www.tandfonline.com/doi/pdf/10.3109/10408444.2012.738645>

⁵³ <http://jech.bmj.com/content/early/2017/09/01/jech-2017-209403>

⁵⁴ <http://www.amsi.ge/jbpc/31515/11SA15R.pdf>

still more than twice as common in the group of people who died after 1976, 'suggesting other factors are involved'.⁵⁵ In England in July 2017 the NHS waiting list for hip replacement (and cataract surgery) exceeded 4 million.

The International Monsanto Tribunal in The Hague with regard to ecocide

The Monsanto Tribunal⁵⁶ 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.

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

⁵⁵ <http://www.sciencemag.org/news/2017/08/knee-arthritis-americans-has-doubled-1940>

⁵⁶ <http://www.monsanto-tribunal.org>

environmental harm and affecting the right of the future generations could fall within the qualification of ecocide as well.

Monsanto's toxic waste (including PCBs) dumped at sites throughout Wales

When polychlorinated biphenyls were banned in the US for causing ill health in Anniston, Alabama, the UK Tory Government led by Ted Heath agreed to ramp up production in a Monsanto-owned factory in Wales in 1971. Alabama is more than 50 million square miles: Wales is 8,000 square miles.

A Monsanto-owned factory was built in Newport in 1949. They paid contractors to illegally dump 67 chemicals such as PCBs, dioxins and Agent Orange derivatives between 1965 and 1972: Brofiscin Quarry, one of the most contaminated places in Britain, is polluting Cardiff.⁵⁷ According to engineering company WS Atkins, in a report prepared for the agency and the local authority in 2005 **but never made public**, the site 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.*"

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

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. 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*".⁵⁸

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 are 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

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

⁵⁸ <http://www.pan-uk.org/site/wp-content/uploads/United-Nations-Report-of-the-Special-Rapporteur-on-the-right-to-food.pdf>

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.

Global contamination of honey by neonicotinoid insecticides⁵⁹

05/10/2017: "We assessed the global exposure of pollinators to neonicotinoids by analyzing 198 honey samples from across the world. We found at least one of five tested compounds (acetamiprid, clothianidin, imidacloprid, thiacloprid, and thiamethoxam) in 75% of all samples, 45% of samples contained two or more of these compounds, and 10% contained four or five. Our results confirm the exposure of bees to neonicotinoids in their food throughout the world."

Contamination rates were highest in North America with 86% of samples containing one or more neonicotinoid, followed by Asia (80%) and Europe (79%). It was lowest in South America at 57%. Almost half the samples contained a cocktail of the insecticides. *"The striking finding is that 75% of our samples had measurable quantities,"* said Prof Edward Mitchell at the University of Neuchâtel. *"That was surprising to us, since our coverage included many remote areas, including oceanic islands."*

UK figures released in October 2017 reveal that since the neonicotinoids have been banned oil-seed rape harvests have been the best in 4 years⁶⁰

Oilseed rape yields this year are at their highest ever levels, only twice before has the average yield reached 3.9 tonnes per hectare – in 2011 and 2015, new figures released today reveal.

The Poison Papers Expose Decades of Collusion between Industry and Regulators over Hazardous Pesticides and Other Chemicals Center for Media and Democracy

"The Bioscience Resource Project and the Center for Media and Democracy today are releasing a trove of rediscovered and newly digitized chemical industry and regulatory agency documents stretching back to the 1920s. The documents are available at PoisonPapers.org.

Together, the papers show that both industry and regulators understood the extraordinary toxicity of many chemical products and worked together to conceal this information from the public and the press. These papers will transform our understanding of the hazards posed by certain chemicals on the market and the fraudulence of some of the regulatory processes relied upon to protect human health and the environment."

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

Samsel and Seneff wrote paper IV on Glyphosate: Glyphosate, pathways to modern diseases IV: cancer and related pathologies ⁶¹ 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.

⁵⁹ http://www.sciencemagazinedigital.org/sciencemagazine/06_october_2017?pg=111#pg111

⁶⁰ <https://www.buglife.org.uk/news-%26-events/news/oil-seed-rape-crop-yields-above-average>

⁶¹ <http://www.amsi.ge/jbpc/31515/11SA15R.pdf>

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 body⁶² and referred back to the glyphosate re-assessment in Europe in 2002. However, Monsanto’s secret studies had revealed otherwise.

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-phosphonymethyl 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.”*⁶³ 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 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.”

Rosemary Mason MB ChB FRCA
30 October 2017

⁶² <https://gmoanswers.com/ask/hi-does-senior-monsanto-scientist-dan-goldstein-still-maintain-if-ingested-glyphosate-excreted>

⁶³ https://oehha.ca.gov/media/dockets/8594/8767-anthony_samsel/letter_ca_epa_june_32017_draft.pdf