European Chemicals Agency classifies glyphosate as a substance that causes serious eye damage

As the requirement for cataract surgery has increased, so has rationing, a *BMJ* survey finds¹ Cataract surgery is the most common operation in the NHS, with more than 400 000 procedures performed every year in the UK. Experts had hoped that NICE's 2017 guideline would make it harder for NHS commissioners in England to ration treatment for financial reasons. But *The BMJ*'s analysis shows that rationing has actually risen in parts of the country since then, with patients increasingly having to meet strict criteria before they can be referred for surgery. Among the 185 Clinical Commissioning Groups (CCGs) that provided data (95% response rate), the investigation found that almost 2900 prior approval requests or individual funding requests for cataract surgery were rejected last year, more than double the number two years ago.

European Chemical Agency (ECHA) Risk Assessment Committee on glyphosate²

ECHA's Committee for Risk Assessment (RAC) agrees to maintain the current harmonised classification of glyphosate as a <u>substance causing serious eye damage</u> and <u>being toxic to aquatic life with long-lasting effects</u>. RAC concluded that the available scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction. The committee concluded that the scientific evidence available at the moment warrants the following classifications for glyphosate according to the CLP Regulation:

- Eye Damage 1; H318 (Causes serious eye damage)
- Aquatic Chronic 2; H411 (Toxic to aquatic life with long lasting effects)
 RAC concluded that the available scientific evidence did not meet the criteria in the CLP Regulation to classify glyphosate for specific target organ toxicity, or as a carcinogen, as a mutagen or for reproductive toxicity.

ECHA's role is in the harmonised classification of chemicals

Jack de Bruijn, in charge of risk assessment, explains that ECHA's role is in the labelling and classification of chemicals. "We only look at the hazardous properties of a chemical," he said, "not at the risks that occur when you use a chemical."

At the International Monsanto Tribunal, Koffi Dogbevi from Wisconsin-Madison Law School US presented the case: ECOCIDE LAW AND MONSANTO PAST AND PRESENT ACTIVITIES. ³

He wrote to me on 27 June 2017, commenting adversely on 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 Substances Directive (DSD) and the Dangerous Preparations Directive (DPD), regulations that are

¹ https://www.bmj.com/content/365/bmj.l2326

² https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa

³ https://www.academia.edu/29309281/ECOCIDE_LAW_AND_MONSANTO_PAST_AND_PRESENT_ACTIVITIES

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.

I therefore support your call for an independent hazard and risk assessments, and an accounting of the scientific community for the outcome of their findings."

Extracts from my correspondence with ECHA Executive Director, Geert Dancet

I challenged Geert Dancet and asked him if that was why glyphosate had wiped out trout and salmon stocks in Wales as a result of lack of food?⁴ Was that the reason that the incidence of cataracts and macular degeneration had skyrocketed in recent years?

Eventually I wrote to him after the Standing Committee (Plants, Animals, Food and Feeds) had endorsed ECHA's statement.

Executive Director European Chemicals Agency Dear Geert

Following my email of yesterday, 20/07/2017, in the Report from Thursday's meeting of the Standing Committee (Plants, Animals, Food and Feed) the European Commission spokeswoman, Anca Paduraru was quoted as saying that ECHA said Roundup was unlikely to cause cancer...yet you told me that **ECHA only assesses glyphosate**. It is absolutely outrageous. Even if ECHA only <u>classifies a chemical</u>, **you saw what it did our nature reserve**. I told you about the biological deserts in US farmland where Monsanto's GM crops were grown...

If you don't correct Health Commissioner Vytenis Andriukaitis' misapprehensions and he authorises Roundup I shall hold ECHA entirely responsible for the subsequent annihilation of the environment and the devastation of global human health.

At present Monsanto is being sued by many plaintiffs who claim that Roundup caused their cancer...and you can see the evidence (in my email below) that is mounting up against them about fraud and corruption over chemicals. This time there are many top US lawyers arraigned against them. If Monsanto could just get the European Commission to say that Roundup is not carcinogenic...and the Health Commissioner is trying to oblige them.

But you know and I know that ECHA did not test Roundup, but glyphosate. THAT IS FRAUDULENT. Monsanto are trying to bluff it out. They know that they are close to being taken to the International Criminal Court in The Hague charged with crimes against humanity - ecocide - destruction of the environment. And it is possible that the European Regulators will appear beside them. After all, ECHA has already had a mention by one of the judges!

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

Subject:RE: US Lawsuit against Monsanto causing cancers
Date:Wed, 20 Sep 2017 06:34:28 +0000
From:DANCET Geert <Geert.DANCET@echa.europa.eu>
To:R MASON <rosemary.mason01@btinternet.com>

Dear Ms Mason,

Thank you for your email to ECHA dated 6 September.

⁴ https://www.walesonline.co.uk/news/wales-news/salmon-sea-trout-could-disappear-13517741

As noted in our previous response, ECHA can only respond to glyphosate-related comments which concern the harmonised classification and labelling (CLH) process. We again stress that in the CLH process ECHA does not assess the risks of substances, only their hazards, in accordance with the provisions of the CLP Regulation. Hence ECHA is not in in a position to respond to issues relating to the assessment of the <u>risks associated with the use of glyphosate</u>. ECHA is also not involved in the approval of the active substances used in plant protection products – the relevant decision-making process is ongoing in the <u>European Commission</u>.

ECHA's responses can only be restricted to issues which are within the remit of our Agency. The issues which you have raised in your email are either not within ECHA's remit or have been addressed in previous correspondence. To avoid repeating the same message, I wish to inform you that we will not be responding to any correspondence received from you in future unless it raises any issues on which ECHA considers it has responsibility.

Yours sincerely, **Geert Dancet**Executive Director

European Chemicals Agency

Annankatu 18, P.O. Box 400, FI-00120 Helsinki, Finland

Tel. +358 9 6861 8200

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. ⁵

Alan Boobis claimed he had no conflicts of interest, but *The Guardian's* European Environment Editor showed that his organisation had received industry money

Professor Alan Boobis, who claimed he had no conflicts of interest, is Vice President of the International Life Science Institute (ILSI) Europe, an organisation that had received money from both Monsanto and CropLife International. The following report was from *Guardian* journalist Arthur Neslen. "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 ingredient in its bestselling Roundup weedkiller. 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."

 $[\]underline{\text{https://ec.europa.eu/food/sites/food/files/plant/docs/pesticides} \ glyphosate_commission_proposal_final_ver} \\ \underline{\text{sion.pdf}}$

⁶ https://www.theguardian.com/environment/2016/may/17/unwho-panel-in-conflict-of-interest-row-over-glyphosates-cancer-risk

Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group Rome, Italy, 20–29 September 2004 7

When Glyphosate was reassessed in 2004, Professor Alan Boobis was also Chairman of the UN's JMPR meeting on pesticide residues.

The presentation on re-assessment of glyphosate data was done by two members of the German Rapporteur Member State Federal Institute of Risk Assessment (BfR) Dr Rudolf Pfeil and Dr Lars Niemann and two other members of the BfR were present Dr Roland Solecki and Dr Ursula Banasiak. Why did the BfR declare beforehand that since they carried out the original work it would be improper for them to be involved in the JMPR discussions?

On page 98, the Ridley and Mirly paper on ¹⁴C labelled glyphosate showed it was distributed to every organ in the body.

So why did <u>Dan Goldstein</u>, Senior Science Fellow and Lead, Medical Sciences and Outreach, Monsanto on Friday, 12/20/2013 3:16 pm: claim: "If ingested, <u>glyphosate is excreted rapidly, does not accumulate in body fat or tissues, and does not undergo metabolism in humans</u>. Rather, it is excreted unchanged in the urine (EU Review Report of the active substance glyphosate, 2002)⁸ and refer back to the 2002 (sic) assessment?

<u>Page 98 Table 3</u>. Mean tissue concentration of radioactivity (ppm) at 168 h in rats given ¹⁴C-labelled glyphosate as single or repeated doses. Glyphosate was present in whole blood, liver, brain, kidney, spleen, lung, heart, testes/ovary, stomach, small intestine, colon, bone, bone marrow, abdominal muscles, shoulder muscles.

Page 125/126 Chronic feeding Study by Stout and Ruecker in rats commissioned by Monsanto:
Extracts: "Histological examination of the eyes at study termination revealed the incidences of cataract and/or lens fibre degeneration (Table 19. Incidences of cataract and lens fibre degeneration determined by histological examination in male rats given diets containing glyphosate for 1 year). The occurrence of cataractous lens changes in males at the lowest and intermediate doses, as well as in all treated groups of females, were comparable to that of their respective controls. The observed incidence for this finding of 25% for male CD rats at the highest dose was within the range (0–33%) observed in previously conducted studies at this laboratory, but a treatment-related impact could not be excluded. An independent pathologist's examination confirmed a statistically significant increase (p < 0.05) in the incidence of cataractous lens changes in males at the highest dose (one out of 14 compared with eight out of 19) and concluded that there appeared to be a treatment-related occurrence of lens changes affecting males at the highest dose. The results of histopathology also suggested that there was an increase in cataractous lesions in male rats at 20 000 ppm, although the difference in incidences in the control group and at the lowest and intermediate doses was less pronounced than suggested by ophthalmoscopy."

Conclusions of the UN's JPMR meeting

<u>Page 158</u> In view of the absence of a carcinogenic potential in animals and the lack of genotoxicity in standard tests, the Meeting concluded that glyphosate is unlikely to pose a carcinogenic risk to humans.

<u>Page 159</u> The Meeting concluded that glyphosate is not teratogenic. The Meeting concluded that the existing database on glyphosate was adequate to characterize the potential hazards to fetuses, infants, and children.

https://apps.who.int/iris/bitstream/handle/10665/43624/9241665203 eng.pdf;jsessionid=B0AAD3975D65BB30FFFE902DD40DF27C?sequence=1

⁸ http://ec.europa.eu/food/plant/protection/evaluation/existactive/list1_glyphosate_en.pdf

⁹ Stout, L.D. & Ruecker, F.A. Chronic study of glyphosate administered in feed to albino rats. Unpublished Study, Project No. MSL-10495. Monsanto Agricultural Company (2,175 pp.) EPA MRID 416438-01 (26 September 1990)

On the basis of the new toxicological data, the present Joint Meeting concluded that AMPA is of no greater toxicological concern than its parent compound, thus confirming the conclusion of the 1997 JMPR.

In 1994 the Joint FAO/WHO/JMPR Panel had granted Monsanto increased Maximum Residue Levels (MRLs) for glyphosate on soya (from 5 mg/kg to 20 mg/kg) and soya bean fodder (from 20 mg/kg to 200 mg/kg). ¹⁰

Letter to Klaus Berend on 12 June 2017

Head of Unit EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY Food and feed safety, Innovation Pesticides and Biocides

Dear Klaus Berend

I am fully aware that you are not an expert in Pesticides and Biocides, but an expert in the REACH specifications of plastics in aviation. ¹¹ Nor was the previous holder of the post, Michael Flüh, who was a non-scientist. Therefore, it is hardly surprising that your letter to me displayed a lack of knowledge of the subject. Does the Commissioner for Health Vytenis Andriukaitis have a shortage of qualified candidates to choose from to fill the post of Head of Unit, as specified by Jean-Claude Juncker?

REACH (Registration, **E**valuation, **A**uthorisation and Restriction of **C**hemical substances): The Biocidal Product Regulation (BPR, Regulation (EU) 528/2012) concerns the placing on the market and use of biocidal products, which are used to protect humans, animals, materials or articles against harmful organisms, like pests or bacteria, by the action of the active substances contained in the biocidal product.¹²

"REACH is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while **enhancing the competitiveness of the EU chemicals industry**. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals."

It came into force on 02/08/07.

A global industry has emerged to give advice on Biocides Regulation. The British Government is also making a lot of money out of it because BiocidesHub is based in the UK

As with the regulation of pesticides, it is controlled by the pesticides industry and based in the UK. Biocides Symposia are held regularly around the world to "get up-to-speed on all that's new in biocidal products regulation" to "stay one step ahead." Courses are from £300-400 per day to \$1585 for a Symposium. A multitude of firms have clients from 'industry, crop protection and government'. Chemical Watch **Biocides**Hub (Shrewsbury) offers 13 Events on Biocides Regulation in 2016, ranging from beginners' courses to advanced courses.

BIOCIDES HAVE NO PLACE IN AGRICULTURE. A BIOCIDE IS A SUBSTANCE THAT IS KILLING ALL LIFE

¹⁰

 $[\]underline{\text{http://www.fao.org/fileadmin/templates/agphome/documents/Pests}} \ \ \underline{\text{Pesticides/JMPR/Evaluation94/glyphos.}} \\ pdf$

¹¹ https://www.britishchamber.be/event/pesticides-and-biocides-regulation-klaus-berend-head-unit-pesticides-and-biocides-dg-sante

¹² https://echa.europa.eu/regulations/biocidal-products-regulation

<u>Klaus Berend claimed</u>: "Maximum Residue Levels (MRLs) are the highest levels of pesticide residues that are legally tolerated in or on food and feed." I asked him why EFSA regularly increased MRLs?

European Food Safety Authority Reasoned Opinions increases MRLs at the request of industry (Monsanto in this case, to 100 times the previously authorised MRL)

Monsanto Europe asked EFSA to set the import tolerance for glyphosate in lentils "in order <u>to</u> <u>accommodate the authorised desiccation use of glyphosate</u> in lentils in the US and Canada" from 0.1 mg/kg to 10 mg/kg¹³ (i.e. <u>100 times</u>: January 2012). EFSA had granted similarly elevated MRLs for glyphosate on wheat and GM soya.

The increase in cataracts has been verified by epidemiological studies in England and by a 2016 WHO Report. This confirms ECHA's classification of serious eye damage and the report of cataracts (page 125) that the JMPR completely disregarded at their meeting on 20–29 September 2004 ¹⁴ Annual rates of admission for cataract surgery in England rose 10-fold from 1968 to 2004: from 62 episodes per 100,000 population in 1968 to 637 in 2004. ¹⁵ A 2016 study by the WHO also confirmed that the incidence of cataracts had greatly increased: ¹⁶ '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. 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.

Age-related Macular Degeneration (AMD) is a leading cause of vision loss in the U.S. AMD destroys the macula, the part of the eye that provides sharp, central vision needed for seeing objects clearly

By 2050, the estimated number of people with AMD is expected to more than double from 2.07 million to 5.44 million. White Americans will continue to account for the majority of cases. However, Hispanics will see the greatest rate of increase, with a nearly six-fold rise in the number of expected cases from 2010 to 2050.17

How Monsanto manipulates journalists and academics¹⁸

Monsanto's own emails and documents reveal a disinformation campaign to hide its weedkiller's possible links to cancer. by Carey Gillam, US Right To Know (US RTK) Director

"Over the past year, evidence of Monsanto's deceptive efforts to defend the safety of its top-selling Roundup herbicide have been laid bare for all to see. Through three civil trials, the public release of internal corporate communications has revealed conduct that all three juries have found so unethical as to warrant punishing punitive damage awards.

Much attention has been paid to Monsanto conversations in which company scientists casually discuss ghostwriting scientific papers and suppressing science that conflicts with corporate assertions of Roundup's safety. There has also been public outrage over internal records illustrating cozy relationships with friendly regulators which border on – and possibly cross into – collusion.

https://apps.who.int/iris/bitstream/handle/10665/43624/9241665203 eng.pdf;jsessionid=B0AAD3975D65BB30FFFE902DD40DF27C?sequence=1

¹³ http://www.efsa.europa.eu/en/efsajournal/pub/2550.htm

¹⁴

¹⁵ http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1955650/

¹⁶ http://apps.who.int/iris/bitstream/10665/204585/1/9789241565196 eng.pdf

¹⁷ https://nei.nih.gov/eyedata/amd

¹⁸ https://www.theguardian.com/commentisfree/2019/jun/02/monsanto-manipulates-journalists-academics

But these once-confidential <u>Monsanto</u> documents demonstrate that the deception has gone much deeper. In addition to the manipulation of science and of regulators, the company's most insidious deceit may be its strategic manipulation of the media, according to the records.

We recently learned that a young woman <u>falsely posing</u> as a freelance BBC reporter at one of the Roundup cancer trials was in fact a "reputation management" consultant for FTI Consulting, whose clients include Monsanto. The woman spent time with journalists who were covering the <u>Hardeman v Monsanto</u> trial in San Francisco, pretending to do reporting while also suggesting to the real reporters certain storylines or points that favored Monsanto.

Lawyer Tim Litzenburg, who represents several plaintiffs suing Monsanto over claims Roundup causes cancer, told me that he has traced what he calls a "dark money project" by Monsanto aimed at winning favorable public opinion. The project includes planting helpful news articles in traditional news outlets; discrediting and harassing journalists who refused to parrot the company's propaganda; and secretly funding front groups to amplify pro-Monsanto messaging across social media platforms.

"We now know they had pet journalists who pushed Monsanto propaganda under the guise of 'objective reporting,'" Litzenburg, a partner with the firm Kincheloe, Litzenburg & Pendleton, told me. "At the same time, the chemical company sought to amass dossiers to discredit those journalists who were brave enough to speak out against them."

The emails show that a controversial story published in June 2017 by Reuters, raising questions about the integrity of the IARC's review of glyphosate, was secretly fed to the news agency by Monsanto executive Sam Murphey. Murphey gave the reporter documents that had not yet been filed publicly in court along with a desired story narrative and a <u>slide deck</u> of suggested points to make in the story. The story, which did not disclose Monsanto as the initial source, closely followed <u>Monsanto's suggestions</u>, the emails show.

Another newly released email details how Monsanto's fingerprints were on at least two other Reuters stories about the IARC. A 1 March 2016 email speaks of the involvement of Monsanto's <u>"Red Flag" campaign</u> in a Reuters story critical of IARC and Monsanto's desire to influence a second, similar story Reuters was planning. Red Flag is a Dublin-based PR and lobbying firm. According to the email, "following engagement by Red Flag a number of months ago, the first piece was quite critical of IARC." The email goes on: "You may also be aware that Red Flag is in touch with Reuters regarding the second report in the series..."

A little over a month later, Reuters published a story headlined <u>"Special Report: How the World Health Organization's cancer agency confuses consumers."</u>

The stories in question were shared by ACSH, the American Chemistry Council, Monsanto and others In Europe, French prosecutors are now probing Monsanto's campaign to manipulate journalists and others, including secret files on influential individuals compiled by Monsanto public relations firm FleishmanHillard.

Science institute that advised EU and UN 'actually industry lobby group' 19

"International Life Sciences Institute used by corporate backers to counter public health policies, says study. An institute whose experts have occupied key positions on EU and UN regulatory panels is, in reality, an industry lobby group that masquerades as a scientific health charity, according to a peer-reviewed study.

The Washington-based <u>International Life Sciences Institute (ILSI)</u> describes its mission as "pursuing objectivity, clarity and reproducibility" to "benefit the public good".

But researchers from the University of Cambridge, Bocconi University in Milan, and the US Right to Know campaign assessed over 17,000 pages of documents under US freedom of information laws to present evidence of influence-peddling.

 $[\]frac{\text{19}}{\text{https://www.theguardian.com/us-news/2019/jun/03/science-institute-that-advised-eu-and-un-actually-industry-lobby-group}$

The paper's lead author, Dr Sarah Steele, a Cambridge university senior research associate, said: "Our findings add to the evidence that this nonprofit organisation has been used by its corporate backers for years to counter public health policies. ILSI should be regarded as an industry group – a private body – and regulated as such, not as a body acting for the greater good."

ILSI Vice-president, Prof Alan Boobis, is currently the Chairman of the UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) (2015-2021)

He was directly responsible for authorising chemicals such as glyphosate, chlorothalonil, clothianidin and chlorpyrifos that are destroying human health and according to IPBES is creating a crisis in biodiversity that is more serious than climate change. As demonstrated on page 4, his group WHO/UN/Pesticide Residues authorised glyphosate repeatedly even though they knew it was distributed throughout the body and it caused serious eye damage. He and David Coggon, the previous Chairman of CoT (2008-2015), were appointed as experts on Science Advice for Policy by European Academies (SAPEA). This is a group allied with the agrochemical industry and is fighting for higher pesticide exposure. I Jean-Claude Juncker the President of the European Commission who, against a petition from more than 1.5 million European Citizens, re-authorised glyphosate in December 2017 for a further 5 years. He set up the Science Advisory Mechanism (SAM) with the aim of putting industry-friendly personnel on the Committees.

According to Global Chemicals Outlook II, Glyphosate is top of the Top 10 products used on major crops in the United States by volume, 1968 and 2016. Page 47²² Glyphosate (number 1) and clothianidin (number 10) are in the top of the silent killers because no-one dares to mention them. Bayer owns both chemicals. As you can see from glyphosate's reassessment in 2004 by a corrupt group of people, ¹⁴ C labelled glyphosate is distributed to every organ of the body. Glyphosate is the prime candidate because it has multiple actions. It is an herbicide, an antibiotic, a fungicide, an antiprotozoal, 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.

Continued growth in the pesticide/crop protection industry

Pesticides include herbicides, insecticides, termiticides, nematicides, rodenticides and fungicides. These products are largely used for crop protection in agriculture. Today the industry is valued at over US dollars 50 billion and there are around 600 active ingredients. Herbicides account for approximately 80 per cent of all pesticide use (Phillips McDougal 2018).

UN warns of global failure to tackle hazards – with risks ranging from cancer to coral damage²³ Sales of synthetic chemicals will double over the next 12 years with alarming implications for health and the environment, according to a global study that highlights government failures to rein in the industry behind plastics, pesticides and cosmetics.

The second <u>Global Chemicals Outlook</u>, which was released in Nairobi on Monday, said the world will not meet international commitments to reduce chemical hazards and halt pollution by 2020. In fact, the study by the United Nations Environment Programme found that the industry has never been more dominant nor has humanity's dependence on chemicals ever been as great.

"When you consider existing pollution, plus the projected growth of the industry, the trends are a cause for significant concern," said Achim Halpaap, who led the 400 scientists involved in the study.

 $\frac{\text{https://wedocs.unep.org/bitstream/handle/20.500.11822/28113/GCOII.pdf?sequence=1\&isAllowed=y}{\text{https://www.theguardian.com/environment/2019/mar/12/surge-in-chemical-use-a-threat-to-health-and-environment}}$

²⁰ <u>https://www.ipbes.net/news/ipbes-global-assessment-summary-policymakers-pdf</u>

²¹ https://www.sapea.info/wp-content/uploads/Working-Group-Members-SAPEA-PPP-report.pdf

Glyphosate-based herbicides are now banned or restricted in 17 countries <u>but not in the UK</u>²⁴
Following the recent bans on the use of glyphosate-based herbicides by cities and institutions in the U.S., including Key West, Los Angeles, the University of California and Miami, Sustainable Pulse decided to research which countries around the world have banned or restricted the use of the world's most used herbicide. Victoria State, Australia is now reviewing the situation.²⁵

Canada: In the ongoing debate about whether glyphosate causes cancer, several legal actions are being launched. A Saskatchewan farmer is at the centre of a class-action lawsuit claiming exposure to the weedkiller Roundup has caused or contributed to the plaintiffs' cancer. ²⁶ Moose Jaw-area farmer Garry Gadd is the lead plaintiff in the class, which is being launched by high-profile Canadian lawyer Tony Merchant. Gadd has declined comment on the case. Merchant said there are currently fewer than 12 plaintiffs involved in the claim.

According to CRUK, which protects industry, there were 13,605 new cases of Non-Hodgkin Lymphoma in 2015 (and 4,920 deaths in 2016)²⁷

Australia A Melbourne gardener has launched legal action against a global pharmaceutical giant in the first Australian case to link cancer with popular weedkiller Roundup. Michael Ogalirolo, 54, was diagnosed in 2011 with non-Hodgkin lymphoma, after more than 18 years of exposure to glyphosate, the active component in Roundup. The defendant knew or ought to have known that the use of Roundup products was dangerous for the plaintiff ... in particular causing DNA and chromosomal damage in human cells, cancer, kidney disease, infertility and nerve damage among other devastating illnesses. As such, Roundup products are dangerous to human health and unfit to be marketed and sold in commerce, particularly without proper warnings and directions, the writ by Carbone Lawyers claims. The lawsuit filed on Monday in the Supreme Court coincides with a Victorian government review into the safety of glyphosate. Several councils across Melbourne and Sydney are also considering a ban on Roundup and other products that include the chemical. "Based on recent developments in the United States, Victoria's Department of Environment, Land, Water and Planning is reviewing the use of glyphosates, including Roundup, across its public land management function as a matter of precaution," a government spokesman said last week.

Another couple in Australia developed pancreatic cancers within 6 years of each other. Their daughter said: "But within 5½ months of a pancreatic cancer diagnosis in 2011, she was dead. In 2017, Mr Dunn was also struck down with pancreatic cancer at the age of 73, of an identical kind to his wife. Exact same pancreatic cancer, same spot, and he lived for about eight months," she said. "We strongly believe it's [Roundup/glyphosate] that killed Mum and Dad prematurely, absolutely. Especially when we read their diaries and find out how much they were using and spraying." ²⁹ According to CRUK there were 9,921 new cases of pancreatic cancer in 2015 (9,263 deaths in 2016).

 $[\]frac{^{24}}{\text{https://sustainablepulse.com/2019/05/28/glyphosate-herbicides-now-banned-or-restricted-in-17-countries-worldwide-sustainable-pulse-}$

research/?utm_source=newsletter&utm_medium=email&utm_campaign=glyphosate_gmos_and_pesticides weekly_global_news_bulletin&utm_term=2019-06-01#.XPOUcS17GfU

²⁵ https://www.theage.com.au/national/victoria/victoria-to-review-weed-killer-use-after-us-court-rulings-over-cancer-20190601-p51tgb.html

²⁶ https://www.cbc.ca/news/canada/saskatchewan/merchant-roundup-class-action-monsanto-1.5138038

 $^{^{27} \, \}underline{\text{https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/non-hodgkin-lymphoma}$

 $[\]frac{^{28}}{\text{https://amp.smh.com.au/national/first-cancer-lawsuit-over-weedkiller-roundup-filed-in-australia-20190603-p51u1a.html}$

²⁹ https://www.smh.com.au/national/these-high-school-sweethearts-died-of-the-same-disease-their-daughter-says-a-popular-weed-killer-is-to-blame-20190531-p51t5j.html

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 2001.³⁰ 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 Expert Committee on Pesticides has conflicts of interest

"The UK Expert Committee on Pesticides (ECP) <u>provides independent, impartial</u> advice to the government on the science relating to pesticides."

That does not apply to the current membership. One member worked for Syngenta for nearly 30 years. At least three other members have close relationships with industry, have been involved in writing papers to show that their products work (or are safe) and which industry has used in its advertisements.

Shockingly high levels of weed killer in UK breakfast cereals

We read an article in the UK *Guardian* about breakfast cereals in the US having weed killer in oat-based cereals. The UK *Guardian* reported: "There was no indication that the claims related to products sold outside the US." 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. Kellogg No added sugar granola with apricot and pumpkin seeds Barley Flakes 27% Oats 23% Rye 13% Wheat flour Oat flour; Quaker Oat so Simple: Quaker Whole Grain Rolled Oats; Weetabix Oatibix 100% wholegrain oats; 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%.

<u>Dr Fagan the Director says</u>: "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

Glyphosate and AMPA are found to be widespread in soils throughout the EU 31

Britain was cited as having the second most polluted soil, but glyphosate levels are not yet measured in groundwater in the UK. "A new research study by the European Commission's Joint Research

³⁰ https://www.vinci.com/vinci.nsf/en/management-board-directors/pages/michael_pragnell.htm

³¹ http://www.sciencedirect.com/science/article/pii/S0048969717327973

Centre, the Dutch University of Wageningen and Rikilt laboratories, reveals that among 317 EU soil samples of arable land, 42% contained aminomethyl phosphonic acid (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**.

We sent the results to the organisation, Beyond GM. They wrote a press release. The information was reported in the *Daily Mail*.³²

Glyphosate-based herbicides and other herbicides 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.³³ 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."

Monsanto knew that weeds became resistant to Roundup, but it continued to recommend it.

Roundup (shown to be carcinogenic and to affect human brains) is sprayed to kill weeds on pavements, open spaces, City Parks, playgrounds and playing fields in all Boroughs but one Only the London Borough of Hammersmith and Fulham has agreed to ban Roundup and try other non-chemicals methods.³⁴ All the Councils in Wales use Roundup.³⁵ Presumably, like us in Wales, they asked the Health and Safety Executive, who said that glyphosate was perfectly legal. Neurotransmitter changes occur in the brain from exposure to Glyphosate-based Herbicides. Behavioral impairments following repeated intranasal glyphosate-based herbicide administration in mice. Taken together, our findings demonstrate that intranasal (IN) exposure to commercial Gly-BH produces alterations in <u>locomotor activity, anxiety and memory</u> in adult mice. These observations could be a consequence of alterations in neurotransmission systems comprising the GABAergic, dopaminergic, serotoninergic and/or cholinergic systems." The intranasal route is the fastest route to the brain. 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.³⁶ There are so many mental health and psychiatric disorders, depression, suicides, anxiety and violence among children and adults; UK and

³² https://www.dailymail.co.uk/health/article-6315209/Revealed-UK-cereals-contain-potentially-harmful-amounts-WEEDKILLER.html

 $[\]frac{\text{http://www.pnas.org/content/107/3/1029?ijkey=e2066eddc44aa8e0f054b2e1ccb0fdcc5a6b000c\&keytype2=t}{\text{f ipsecsha}}$

³⁴ https://www.hortweek.com/london-council-bans-contractor-use-glyphosate-parks/parks-and-gardens/article/1398373

³⁵ https://www.walesonline.co.uk/news/local-news/welsh-councils-use-carcinogenic-weedkiller-15086510

³⁶ https://www.sciencedirect.com/science/article/pii/S0892036217301526

<u>US children are being given weedkiller at breakfast; unpublished emails showed FDA scientists could not find a food without Roundup in it.</u>

British women live shorter lives than most other Europeans and nearly 20 years in poor health 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. ³⁷ "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. 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%.

Assessment of Glyphosate Induced Epigenetic Transgenerational Inheritance of Pathologies and Sperm Epimutations: Generational Toxicology³⁸

Michael Skinner, a WSU professor of biological sciences, and his colleagues exposed pregnant rats to the herbicide glyphosate between their eighth and 14th days of gestation. The dose—half the amount expected to show no adverse effect—produced no apparent ill effects on either the parents or the first generation of offspring. But writing in the journal *Scientific Reports*, the researchers say they saw "dramatic increases" in several pathologies affecting the second and third generations. The second generation had "significant increases" in testis, ovary and mammary gland diseases, as well as obesity. In third-generation males, the researchers saw a 30 percent increase in prostate disease — three times that of a control population. The third generation of females had a 40 percent increase in kidney disease, or four times that of the controls. More than one-third of the second-generation mothers had unsuccessful pregnancies, with most of those affected dying. Two out of five males and females in the third generation were obese.

Skinner and his colleagues call this phenomenon "generational toxicology" and they've seen it over the years in fungicides, pesticides, jet fuel, the plastics compound bisphenol A, the insect repellent, DEET and the herbicide atrazine. At work are epigenetic changes that turn genes on and off, often because of environmental influences.

Roundup is now owned by Bayer, formerly IG Farben

Roundup is now owned by Bayer, formerly IG Farben, the private German chemicals company allied with the Nazis, that manufactured the <u>Zyklon B</u> gas used to commit genocide against millions of European Jews in the <u>Holocaust</u>. 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

 $^{^{37} \, \}underline{\text{https://www.gov.uk/government/publications/health-profile-for-england-2018/chapter-2-trends-in-mortality}$

³⁸ https://www.nature.com/articles/s41598-019-42860-0

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. ³⁹

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. Hoescht, Bayer, and BASF. Monsanto was a firm created by the Rockefeller Foundation. Monsanto partners with I.G. Farben, makers of Bayer aspirin and the Third Reich's goto chemical manufacturer producing deadly Zyklon-B gas during World War II.

The factories that had made poisonous gases during the war, were turned into factories making agricultural products, with much the same components. The Westminster Government's close relationship with Monsanto and Bayer began in 1949 and continues to this day. That's why the government and the UK corporate media have been silent about Roundup and the US trials against Monsanto/Bayer for concealing that Roundup caused cancer.

Because the government wants to make money out of GMO Roundup Ready crops after Brexit.

Poison Spring: The Secret History of Pollution and the EPA

Evaggelos Vallianatos, who worked for the US EPA for 25 years, became a whistleblower and wrote a book: Poison Spring: The Secret History of Pollution and the EPA confirms that the factories that had made poisonous gases during the war, were turned into factories making agricultural products. "But what kind of "science" would be blessing farmers spraying their crops with chemicals, which in reality are chemical and biological weapons? If this surprises you, let me assure you that most pesticides are relatives of chemical warfare agents. A weed killer like glyphosate (Roundup) devastates life in the soil, killing the bacteria that make the crops healthy and enhances the power of the bad bacteria giving disease to crops. But the chemicals that cause outright destruction to honeybees are the so-called neonicotinoids, products of the giant German company Bayer.

Neonicotinoids or neonics are terrible nerve and brain poisons. They decimate honeybees." ⁴¹
Vallianatos says: "There's something that attracts me to honeybees. First of all, it's what they do. Their honey is as close as you can get to the food of the gods. How can these tiny insects create such divine food?

Second, honeybees pollinate a considerable number of our crops. More broadly, the pollination of bees touches to some degree something like 75 percent of crops and almost 90 percent of wild flowers. All in all, bees have been working next to humans for millennia. About <u>five to eight percent</u> of the 2015 crops worth \$ 577 billion was a gift of animal pollinators, the vast number of which were most likely bees. Despite this magnificent and tangible gift of bees: boosting our food and a healthy and a beautiful natural world teeming with wild flowers, we return the kindness with warfare. Morally bankrupt governments, regulatory agencies, and farmers have been poisoning honeybees for decades. These "farmers" claim to be following science-based agricultural practices."

Rosemary Mason 04/06/2019

³⁹ https://www.newhistorian.com/ig-farben-opens-factory-at-auschwitz/3822/

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

⁴¹ https://www.huffpost.com/entry/toxic-morality-is-killing-honeybees b 593c867fe4b0b65670e56b21