Open Letter to Sir John Beddington Professor of Natural Resources Management Oxford Martin Commission

The Year of the Bumblebee

In 2010 when we sent you our photo-journal: <u>The Year of the Bumblebee</u> we said that Dr Henk Tennekes, an independent toxicologist from the Netherlands, prophesied environmental catastrophe from the use of the systemic neonicotinoid insecticides. He said that these chemicals act on the brains of insects (and humans) in a virtually irreversible and time-dependent manner.¹ He showed that collapse of bee colonies, the loss of other invertebrates and bird declines in Europe are associated with chronic low levels of these chemicals.² Bayer and Syngenta are fighting the partial neonicotinoid ban. The EU authorities have granted many exemptions including those requested by Industry (alone) and the NFU.³ There are plenty of independent studies from around the world to show that neonicotinoid insecticides are killing bees and they are fast heading for extinction. On 20/02/2017 a former employee of the US EPA wrote an article in the US Huffington Post showing that America's honeybees are on life support.⁴ However, the summary written by Prof Charles Godfray of the Oxford Martin Commission ⁵ promoted a paper by Syngenta ⁶ that denies this. Lack of statistical analysis has been heavily criticized by independent scientists.⁷ These insecticides are still on the market and in fact the quantities exported by German companies even increased significantly – from 952 tons (2008) to 2269 tons (2014).⁸

We have discovered an even more dangerous biocide. Glyphosate/Roundup sprayed on invasive Japanese knotweed in Swansea has totally destroyed the biodiversity in our nature reserve Attached is an abbreviated <u>Testimony to the Judges of the International Monsanto Tribunal</u> about the poisoning of our nature reserve. We sent it in August 2016 to the Tribunal.



¹ http://www.academia.edu/8394408/Tennekes 2010 Toxicology

http://www.farmlandbirds.net/sites/default/files/Tennekes Presentation Annual%20Meeting Swiss%20Toxic ology%20Society %2022112012.pdf

³ <u>https://www.theguardian.com/environment/2017/feb/15/eu-criticised-over-emergency-authorisations-of-banned-bee-harming-pesticides</u>

⁴ http://www.huffingtonpost.com/entry/americas-honeybees-on-life-

support us 58a8a1bde4b026a89a7a2bec

http://centaur.reading.ac.uk/37205/1/Godfray%20et%20al%20%202014%20NN%20Restatement%20of%20evi dence.pdf

⁶ <u>http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0077193</u>

⁷ https://enveurope.springeropen.com/articles/10.1186/s12302-016-0103-8

⁸ <u>http://www.cbgnetwork.org/6458.html</u>



These lovely creatures photographed between 2006 and 2010 have disappeared

We discovered in November 2016 that Swansea City and County Council at the beginning of 2016 had asked the Monsanto contractor, Complete Weed Control, to eradicate ordinary weeds from the city for the benefit of tourists. Thus in spring/summer 2016 1500 km of streets around Swansea had been sprayed with Dakar Pro, a professional preparation of Roundup. In the autumn this was repeated and the same 1500 km of streets had been sprayed. In December 2016 I obtained an Environmental Freedom of Information (FOI): 518 kg Dakar Pro had been sprayed but they still had 26 wards to complete. In contravention of the EU recommendations they sprayed schools, hospitals, parks and playgrounds; the chemical was also being sprayed on hard surfaces. New rules from the Chemicals Regulation Directorate in 2012 stated it should only be sprayed on weeds. Run-off from hard surfaces means that it goes into groundwater.⁹ I wrote to Martin Temple Chairman of the Health & Safety Executive. We said that the biodiversity in our nature had been wiped out by Roundup and many of us had developed cataracts and macular degeneration during 2016. ¹⁰ In addition, the method of spraying had been illegal. The area in the vicinity of Roundup spraying is a hotspot for aggressive cancers (breast, prostate, lung (often in non-smokers) pancreas, ovary, colon, kidney, bladder, liver, uterus (including sarcoma), oesophagus, myeloma, non-Hodgkin's lymphoma, carcinoid, malignant melanoma, brain tumour, mostly glioblastoma, and neurological disorders (multiple sclerosis, Parkinson's, Dementia and MND). Dan Manghai for HSE replied: "It is for the Council to decide how it controls weeds in its area not HSE." Martin Temple was appointed as Chair of HSE by the Department of Work and Pensions. I experienced what it must be like to be a disabled person having benefits withdrawn by the DWP.

The Glyphosate Task Force was involved in the re-assessment process: the European Authorities committed scientific fraud in concluding glyphosate was not carcinogenic

<u>Le Monde</u> revealed that one third of the Members of the <u>BFR Commission on Pesticides and their</u> Residues are directly employed by the chemical industry; others came from the 'dubious' Bee Institutes.¹¹ The satirical comment from <u>Le Monde</u> was, that in Germany: "<u>people from the pesticide</u> <u>industry give expert safety advice on their own products</u>".

Walter Haefeker President of the European Professional Beekeepers' Association (EPBA) confirmed this: "<u>Dr. Karsten Hogardt, Federal Office of Consumer Protection and Food Safety</u> (BVL) stated that the BVL sees itself as: '*a service for its clients, the plant protection industry.'* In this role it is

⁹ <u>https://www.monsanto-ag.co.uk/roundup/roundup-amenity/streets-and-pavements/</u>

¹⁰ 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).

 ¹¹ FOUCART, S. 2015. Noire semaine pour l'espertise. *Le Monde (Paris)* article 30.III.2015 http://www.lemonde.fr/idees/article/2015/03/30/noire-semaine-pour expertise_
4605627 3232.html?xtmc=neonicotinoides&xtcr=1

'advised' by an expert group of 'risk-managers' including many from the pesticide industry." <u>Haefeker said</u>: "It is shocking and disgraceful, that no independent scientists are allowed in the regulation, or licensing, of pesticides in Germany".¹² A report by Patrick van Zwanenberg in The Guardian in May 2015: "Readers might be astonished, for example, to learn that much of the German government's recent evaluation of glyphosate – favourably compared to the IARC's evaluation by the agrochemical industry - was not actually written by scientists working for the German Federal Institute for Risk Assessment (BfR), but rather by the European Glyphosate Task Force, a consortium of agrochemical firms.¹³

Monsanto and pesticide regulators claim that glyphosate only poisons plants, fungi and bacteria

They claim that it doesn't harm humans and animals because they don't have a particular enzyme pathway that is present in plants, fungi and bacteria...but humans and animals have exactly the same pathway: <u>mammals can only absorb nutrients via the bacteria in their gut; the gut microbiome</u>. The gut microbiome is the collective genome of organisms inhabiting our body.¹⁴ Pesticide scientists and plant scientists have based their assessment of herbicides on <u>complete ignorance of human</u> <u>physiology</u>. UK public health experts, physicians in the Wellcome Trust, the Royal Society and the British Medical Association <u>appear to be similarly ignorant</u>.

US wild bees are disappearing from most of the important farmlands¹⁵

"The first-ever study to map U.S. wild bees suggests they are disappearing in the country's most important farmlands -- from California's Central Valley to the Midwest's corn belt and the Mississippi River valley. If wild bee declines continue, it could hurt U.S. crop production and farmers' costs," said Taylor Ricketts, a conservation ecologist at the University of Vermont, at the American Association for the Advancement of Science (AAAS) annual meeting panel, Plan Bee: Pollinators, Food Production and U.S. Policy on Feb. 19 2017. GM Roundup Ready crops are being grown. Roundup has poisoned bumblebees and solitary bees and other invertebrates on our reserve in South Wales.

The German Government summoned Prof Dr Andreas Hensel (President of BfR) before the Committee on Agriculture and Food; they accused BfR of scientific fraud by using GTF statistics The report says that BfR stands "accused of endangering the population" and also of "intentional falsification of the content of scientific studies". The statistical dodge employed by the German authorities to defend glyphosate was the subject of an explosive in-depth news report that aired on German TV last October (2015) in the midst of deliberations by EU authorities on whether to reauthorize the chemical.

German Toxicologist Dr Peter Clausing gave evidence at the International Monsanto Tribunal

"Ample evidence has been provided above showing that European Authorities twisted or ignored scientific facts and distorted the truth to enable the conclusion that glyphosate is not to be considered a carcinogen, thereby accepting and reinforcing the false conclusion proposed by the Monsanto-led GTF. The German Federal Institute for Risk Assessment (BfR) and the European Food Safety Authority (EFSA) committed scientific fraud." ¹⁶

In his evidence to the Tribunal, Clausing systematically demolished arguments that the EU authorities used to dismiss the significant findings of glyphosate-induced malignant lymphoma in

¹² <u>http://podcasts.haefeker.org/?p=132</u>

¹³ https://www.theguardian.com/science/political-science/2015/may/13/chemical-reactions-glyphosate-andthe-politics-of-chemical-safety

¹⁴ <u>http://www.nature.com/nature/journal/v500/n7464/abs/nature12506.html</u>

¹⁵ https://www.sciencedaily.com/releases/2017/02/170219165128.htm

¹⁶ http://www.gmwatch.org/news/latest-news/17307-german-toxicologist-accuses-eu-authorities-ofscientific-fraud-over-glyphosate-link-with-cancer

mouse carcinogenicity studies. ¹⁷ The complete recordings from the International Monsanto Tribunal are now available. Below is the link to Dr Peter Clausing's presentation: his is the third on page 8. <u>https://vimeo.com/channels/mten/page:8</u>

Conflicts of interest on the Joint FAO/WHO Meeting on Pesticides Residues (JMPR)

Professor Alan Boobis is Vice-President of the International Life Sciences Institute (ILSI) Europe, an industry-funded organisation that had received money from both Monsanto and CropLife International. Angelo Moretti is a board member of ILSI's Health and Environmental Services Institute. Boobis and Moretti were Chair and co-Chair respectively of the Joint FAO/WHO Meeting on Pesticides Residues (JMPR) that made the decision that glyphosate was non-carcinogenic and non-genotoxic. *"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."¹⁸*

However, it is 'business as usual' at the European Commission. Did the European Ombudsman help the European Authorities to cover up for Monsanto by silencing a British citizen?

On <u>13/02/2017</u>, the European Ombudsman <u>ruled</u> that the European Commission was within its rights to stop communication with a British citizen about glyphosate, having answered correspondence on several occasions. ¹⁹ <u>She said she did not have the expertise to evaluate the scientific assessment but that EFSA appeared to have given adequate information to citizens about its work</u>. But these letters were from Dr John Little who was conveying messages from US Scientist Anthony Samsel whose Senator had obtained under FOI from the US EPA sealed secret long-term studies on mammals that showed that Monsanto knew that glyphosate caused cancers in the 1970s but concealed the fact from the public.²⁰

Amongst the thousands of sheets of studies was an un-published study from 1990 that showed that glyphosate entered the eye and caused cataracts and connective tissue damage in rats.²¹ Annual rates of admission for cataract surgery in England rose 10-fold from 1968 to 2003: from 62 episodes per 100,000 population in 1968 to 637 in 2004. The rate of cataract surgery in England *"increased very substantially"* between 1989 and 2004 from 173 (1989) to 637 (2004) episodes per 100,000 population.²² Some UK farmers started spraying glyphosate on crops pre-harvest in 1980 at the suggestion of a scientist working for Monsanto²³ and on grassland in 1985 on the advice of another Monsanto scientist.²⁴

<u>A 2016 study by the WHO</u> also confirmed that the incidence of cataracts had greatly increased:²⁵ (<u>A global assessment of the burden of disease from environmental risks</u>.' 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.

¹⁷ http://www.pan-germany.org/download/Memo Monsanto-Tribunal Peter Clausing 10 2016.pdf

¹⁸ https://www.theguardian.com/environment/2016/may/17/unwho-panel-in-conflict-of-interest-row-overglyphosates-cancer-risk

¹⁹ https://www.ombudsman.europa.eu/cases/decision.faces/en/75832/html.bookmark

²⁰ http://www.epa.gov/opp00001/chem_search/cleared_reviews/csr_PC-103601_30-Oct-91_265.pdf 21

https://www.researchgate.net/publication/283490944 Glyphosate pathways to modern diseases IV cance r and related pathologies

²² http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1955650/

²³ O'Keeffe MG. The control of Agropyron repens and broad-leaved weeds pre-harvest of wheat and barley with the isopropylamine salt of glyphosate; 1980. pp. 53–60. Proceedings of British Crop Protection Conference-Weeds.

²⁴ Stride CD, Edwards RV, Seddon JC. Sward destruction by application of glyphosate before cutting or grazing; 1985. pp. 771–778. British Crop Protection Conference – Weeds 7B–6.

²⁵ <u>http://apps.who.int/iris/bitstream/10665/204585/1/9789241565196_eng.pdf</u>

In 1985 the US EPA classified glyphosate as a Group C carcinogen but changed to Group E in 1991

In 1991 an archival document showed that the US EPA Health Effects Division colluded with Monsanto and the classification of glyphosate was changed from a Group C carcinogen to Group E (evidence of non-carcinogenicity for humans).

The original Panel comprised of members of the Toxicology Branch of the Hazard Evaluation Division that examined the carcinogenic potential of glyphosate. In a consensus review on March 4 1985 the Committee classified glyphosate as a Group C carcinogen. It was based on the incidence in rats/mice of renal tumours, thyroid C-cell adenomas and carcinomas, pancreatic islet cell adenomas, hepatocellular adenomas and carcinomas in males. However, in 1991 The Health Effects Division Carcinogenicity Peer Review Committee met on June 26 1991 to discuss and evaluate the weight of evidence on glyphosate with particular emphasis to its carcinogenic potential. In a review of the data the Committee concluded that glyphosate should be classified as Group E (evidence of non-carcinogenicity for humans). In order to cover themselves they declared: *"It should be emphasized, however, that the designation of an agent in Group E is based on the available evidence at the time of evaluation and should not be interpreted as a definitive conclusion that the agent will not be a carcinogen under any circumstances"*.

There were signatures of the 11 members present, six members signed in absentia but three members refused to sign because they "*did not concur*." Presumably they knew that the change of classification of glyphosate from Group C to Group E was fraudulent.

In a letter sent to President Juncker by Dr Little on 06/02/2017 the existence of these secret documents from Monsanto was made clear but the President ignored the letter

Subject: The Glyphosate Renewal Assessment Report (RAR) (1) – Scientific Ignorance or Fraud? "Research scientists Anthony Samsel and Stephanie Seneff have under the US Freedom of Information Act obtained the release of a range of sealed papers relating to Monsanto's earlier submissions for glyphosate's approval and published details in their 2015 paper: 'Glyphosate, pathways to modern disease IV: Cancer and related pathologies.'" Dr Little, for example, mentions testicular cancers in rats and prostate cancer and asks why Monsanto got approval. "The RAR would have us believe that ingested residues are excreted without harm." (The GTF excluded all of Prof Dr Monika Krüger's studies of glyphosate residues in animals). "But in the case of 38 live borne malformed piglets Krüger et al found glyphosate in all their tissues and organs.²⁶ Krüger postulated that glyphosate had reached the piglets through the placenta – a serious issue, which the RAP ignores, preferring to rely on a multitude of development studies, presumably submitted by the Glyphosate Task Force (GTF)."

Regulators, lobbyists and their families are at risk of being poisoned by the chemical that they are relicensing/or supporting. <u>Which of the following diseases would they prefer to have</u>?

Dr Huber Emeritus Plant Physiologist Purdue University and a world expert on glyphosate, shows that it is an organic phosphonate, a growth regulator, a toxicant, a virulence enhancer and is persistent in the soil. It chelates (captures) and washes out the following minerals: boron, calcium, cobalt, copper, iron, potassium, magnesium, manganese, nickel and zinc.²⁷ Key problems caused by glyphosate in the diet are depletion of micronutrients, especially minerals and essential amino-acids, inhibition of CYP enzymes which detoxify toxins in the liver and systemic toxicity.²⁸

²⁶ <u>https://www.omicsonline.org/open-access/detection-of-glyphosate-in-malformed-piglets-2161-0525.1000230.php?aid=27562</u>

²⁷ Dr. Don M. Huber – Professor Emeritus of Plant Pathology at Purdue University

²⁸ http://www.mdpi.com/1099-4300/15/4/1416

| Allergies, asthma | Alzheimer's disease | Arthritis |
|--------------------------|--------------------------|----------------------------|
| Atopic dermatitis | Autism | Autoimmune diseases |
| ADHD Bipolar | Birth defects | Bloat (fatal) |
| Bowel disease | Cancers (some) | Coeliac disease |
| Chronic fatigue syndrome | Colitis | Crohn's disease |
| Dementia | Diabetes (Type 2) | Difficile diarrhea |
| Gluten intolerance | Indigestion | Inflammatory bowel disease |
| Irritable bowel disease | Leaky gut syndrome | Liver abnormalities |
| Miscarriage/infertility | Morgellan's disease | Multiple sclerosis |
| Obesity | Pancreatic abnormalities | Parkinson's disease |
| Renal disease/failure | Sudden infant death | Cataracts & eye diseases |
| Stroke | Hypertension | Hypercholesterolaemia |

An epidemic of diseases correlated with glyphosate that have been increasing in the US since 1995

Dementia and predictions: There are 850,000 people with dementia in Britain and this figure is expected to reach 1 million by 2025. Last year, <u>dementia overtook heart disease</u> as the leading cause of death in England and Wales.²⁹

Global epidemics of Autism and Attention Deficit Hyperactivity Disorder (ADHD) and predictions On June 12/13, 2013, an Autism conference was held in Edinburgh. Dr Martha Herbert, an expert on Autism from Harvard Medical School, was an invited speaker. Dr Herbert believes the culprit is an environmental toxin in autistic children that interferes with nutrient absorption. *"We need to get them built up again, getting the gut micro-flora sorted out"*.³⁰ In the US in 1970, the incidence was 1 in 10,000 and in 2009 it was 1 in 100 and in 2013 it was 1 in 50. The US has had an even more dramatic (and earlier) rate of increase than in Scotland (261% for boys and 385% for girls between 1997 and 2008).³¹ In the UK in 2015 the incidence was 1 in 100. Dr Stephanie Seneff predicts that by 2025 half the children in the US will have autism.³² She noted that the side effects of autism closely mimic those of glyphosate toxicity and she presented data showing a <u>remarkably consistent</u> <u>correlation</u> between the use of Roundup on crops (and the creation of Roundup-ready GMO crop seeds) with rising rates of autism. Children with autism have biomarkers indicative of excessive glyphosate, including zinc and iron deficiency, low serum sulfate, seizures, and mitochondrial disorder.

Cancers from the AstraZeneca website in 2013 and predictions: "*Cancer claims over 7 million lives every year and the number continues to rise. Deaths are estimated to reach 12 million by 2030.*"

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

A study on obesity published in *The Lancet* in March 2016 says: "About a fifth of all adults around the world and a third of those in the UK will be obese by 2025, with potentially disastrous consequences for their health." The Lancet Study says there is zero chance that the world can meet the target set by the UN for halting the climbing obesity rate by 2025. "Over the past 40 years, we have changed

²⁹ <u>https://www.theguardian.com/society/2017/feb/21/long-winded-speech-could-be-early-sign-of-alzheimers-says-</u>

<u>study?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+main+NEW+H+categories&utm_ter</u> m=214221&subid=5939743&CMP=EMCNEWEML661912

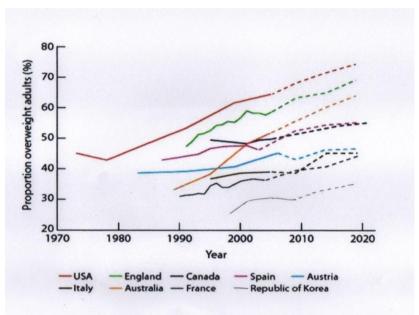
³⁰ <u>http://www.scotsman.com/lifestyle/autism-unlocking-a-generation-1-2944710</u>

³¹ 87222060-CDC-Autism-Study-March-2012.pdf

³² <u>http://www.anh-usa.org/half-of-all-children-will-be-autistic-by-2025-warns-senior-research-scientist-at-mit/</u>

from a world in which underweight prevalence was more than double that of obesity, to one in which more people are obese than underweight," said senior author Prof Majid Ezzati from the School of Public Health at Imperial College London. "The English-speaking world is particularly badly affected. The UK will have the highest obesity among both men and women in Europe, at 38%. ³³ In contrast: "Against the trend of steadily rising weight, women in some countries had virtually no increase in BMI over the 40 years – in Singapore, Japan, and a few European countries including Czech Republic, Belgium, France, and Switzerland."

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



Historical and projected overweight rates in OECD countries³⁴

Some of the UK population has been exposed to glyphosate residues in foods since 1980, even without growing GM Glyphosate-Tolerant crops. The US has had GM crops since 1996. The third area with the most overweight adults is Australia, where obesity levels started to rise steeply in 1990 and by 2000 have overtaken Spain and Canada, both of which have GMs. There are 553 glyphosate products registered in Australia. Glyphosate use on GM crops is accelerating. GM canola was registered in 2003: bans in NSW and Victoria were lifted in 2008.³⁵ Canola has been registered to be desiccated since October 2014³⁶ and sunflowers since 2012.³⁷ However, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is promoted as Australia's pre-eminent public scientific research body. "Although ostensibly publicly funded, CSIRO has, in reality, been encouraged to get 30% of its funding from business, with the CSIRO top management encouraging its staff to go to 40%." According to John Stocker, CSIRO's former Chief Executive: "Working with the transnationals makes a lot of sense, in the context of market access. There are very few Australian companies that have developed market access in the United States, in Europe and in Japan, the

³³ http://www.theguardian.com/society/2016/mar/31/one-fifth-of-worlds-adults-will-be-obese-by-2025study-predicts ³⁴ Healthy Choices OECD Health Ministerial Meeting, Paris, 7-8 October 2010

http://www.oecd.org/health/ministerial/46098333.pdf

³⁵ http://www.sbs.com.au/news/article/2012/11/15/factbox-gm-foods-australia

³⁶ http://www.farmweekly.com.au/news/agriculture/cropping/general-news/new-canola-weed-controloption/2714416.aspx

http://www.australianoilseeds.com/about aof/news/glyphosate as a desiccant in sunflowers

world's major marketplaces. Yes, we do find that it is often the best strategy to get into bed with these companies." 38

Our Daily Poison: From Pesticides to Packaging, How Chemicals Have Contaminated the Food Chain and Are Making Us Sick³⁹

Obesity is not, as the CMO England, CRUK and the UK Media tell us, due to 'lifestyle choices.' It is due to the poisoning of our food with pesticides. Marie-Monique Robin is an award-winning French journalist and filmmaker and author of the above book. She was the patron of the Monsanto Tribunal and on the Steering Committee.

The 2016 State of Nature UK was written by a coalition of more than 50 leading wildlife charities and research organizations and assesses the state of wildlife in the UK, land and sea⁴⁰

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. "Of 218 countries assessed, the UK is ranked 189: it is 29th lowest out of 218: countries below the UK are the **Republic of Ireland**, USA, Hong Kong and Macao.

UK 165 species are considered critically endangered and likely to go extinct.

England 109 species are critically endangered and likely to go extinct.

Scotland 65 species are critically endangered and likely to go extinct.

Northern Ireland 45 species are critically endangered and likely to go extinct.

Wales 41 species are critically endangered and likely to go extinct."

Eaton said: "Around 75% of the UK is managed for food production. How we manage that land is key to the state of Nature."⁴¹

The US State of Nature is lower than that of the UK and the Republic of Ireland. Prof George Church's project to bring back the Woolley Mammoth from extinction seems to be a 'vanity project.'42 Harvard would be much better spending it on stopping farmers from growing GM crops and using pesticides.

The NFU denies the link between biodiversity losses and pesticides: farmers are brainwashed by industry and defend pesticide use for 'economic reasons'

On 15 August 2015 Ben Webster, The Times Environment Correspondent wrote: "Farmers have sharply increased their use of a weed killer that has been classified as 'probably carcinogenic in humans.' More than 1,700 tonnes of glyphosate were sprayed on crops last year, up a third on 2012, according to the Department for Environment, Food and Rural Affairs (Defra). The total area sprayed with the weed killer grew by almost 500,000 hectares to 2.1 million hectares, an area the size of Wales. Guy Gagen, chief arable adviser for the National Farmers' Union, said that glyphosate usage had probably increased to control black-grass,⁴³ a weed that is resistant to weaker herbicides. He said: "No farmer would be wanting to put a chemical on a crop when he doesn't need to." He added 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

³⁸ http://www.gmwatch.org/latest-listing/1-news-items/13325-csiro-in-bed-with-multinationals

³⁹ http://www.truth-out.org/progressivepicks/item/27667-our-daily-poison-how-chemicals-havecontaminated-the-food-chain ⁴⁰ http://www.rspb.org.uk/Images/State%20of%20Nature%20UK%20report %2020%20Sept tcm9-424984.pdf

⁴¹ <u>https://ww2.rspb.org.uk/whatwedo/stateofnature2016</u>

⁴² http://www.telegraph.co.uk/science/2017/02/16/harvard-scientists-pledge-bring-back-woolly-mammothextinction/

⁴³ HERBICIDE RESISTANT BLACKGRASS, FIRST SEEN IN 1982 IS NOW FOUND ON 16,000 FARMS IN 34 COUNTIES. This is a glyphosate-resistant super weed, the same as in GM in the US and Japanese Knotweed in the UK. Does the NFU understand super weeds and do they really want GMO technology?

protected from pesticides. The approval of glyphosate for use across Europe is being reviewed by the EU Commission.""⁴⁴

The National Farmers' Union (NFU), Crop Protection Association (CPA) and Agricultural Industries Confederation (AIC) launched <u>Healthy Harvest – safequarding the crop protection toolbox</u> in June 2014.⁴⁵ The NFU and pesticide companies continually defend the use of pesticides <u>for economic reasons</u> and complain at any attempt to restrict the 320 at their disposal.

<u>George Eustice MP Minister of State for Agriculture, Fisheries and Food</u> interviewed by Arthur Neslen on 30/05/2016 about Brexit said: *"The birds and habitats directives would go,"* On pesticides, the Minister said "<u>the EU's precautionary principle needed to be reformed in favour of a</u> <u>US-style risk-based approach, allowing faster authorisation</u>."

Fera statistics show a steady increase in numbers of active ingredients, frequency of times applied during the year and area of cropland to which it is applied between 1988 and 2014

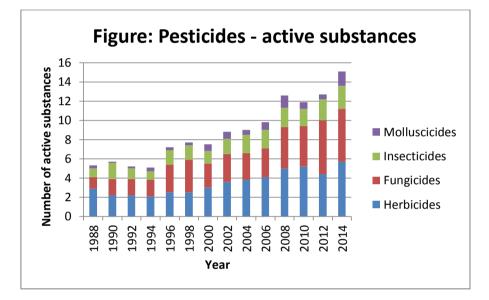


Fig. 1 PESTICIDES: Number of active substances used on Oil Seed Rape in the UK between 1988 and 2014: By kind permission of John Hoar, Hampshire Beekeeper's Spray Liaison Officer. Figures supplied by FERA

⁴⁴ <u>http://www.thetimes.co.uk/tto/environment/article4528297.ece</u>

⁴⁵ http://www.nfuonline.com/assets/30597

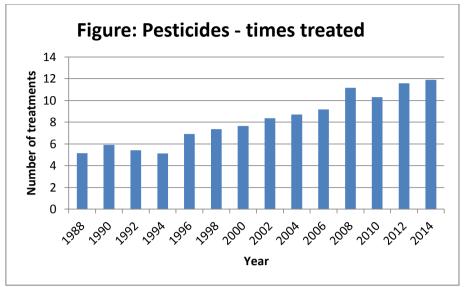


Fig. 2 PESTICIDES TIMES TREATED: used on Oil Seed Rape in the UK between 1988 and 2014: By kind permission of John Hoar, Hampshire Beekeepers Spray Liaison Officer. Figures supplied by FERA

Is the NFU aware that farmers, their families and rural communities are most affected by the toxic effects of pesticides?

CHEM Trust published a Report in 2010:⁴⁶ A Review of the Role Pesticides Play in Some Cancers: Children, Farmers and Pesticide Users at Risk? "Studies of death registries in some parts of the world suggest that farmers and agricultural workers are more likely than the general population to die from several cancers including NHL, leukaemia, multiple myeloma, prostate cancer, Hodgkin's disease, pancreatic cancer and brain cancer. Some studies strongly indicate an association between pesticide exposure and NHL, leukaemia and prostate cancer."

Cancers in farm workers, rural residents & those who use biocides at home and in school: excess risk of cancers in those exposed to pesticides (farming, commercial, home and garden)⁴⁷

Abstract: A growing number of well-designed epidemiological and molecular studies provide substantial evidence that the pesticides used in agricultural, commercial, and home and garden applications are associated with excess cancer risk. This risk is associated both with those applying the pesticide and, under some conditions, those who are simply bystanders to the application. In this article, the epidemiological, molecular biology, and toxicological evidence emerging from recent literature assessing the link between specific pesticides and several cancers including prostate cancer, non-Hodgkin lymphoma, leukemia, multiple myeloma, and breast cancer are integrated. Rather than wait for human carcinogens to be identified, several European countries, including Sweden, Denmark, the Netherlands, and others, have initiated pesticide use reduction policies that have resulted in substantially diminished pesticide use overall. In the United States, a nationwide use reduction policy has met with resistance politically because of disagreements about the net benefit to health and debate concerning the disproportionate economic impact of these policies on selected groups (e.g. farmers, food processors, and pesticide manufacturers) and on food prices. Nonetheless, the available scientific evidence does strongly suggest that pesticides do cause cancer in both those who use the pesticides directly and those who are exposed because of applications others make ... "...yet the identification of specific pesticides as human carcinogens has not yet been made."

 ⁴⁶ http://www.chemtrust.org.uk/wp-content/uploads/CHEM-Trust-Report-Pesticides-Cancer-July-2010.pdf
⁴⁷ http://onlinelibrary.wiley.com/doi/10.3322/caac.21170/full

Michael C. R. Alavanja, Matthew K. Ross, Matthew R. Bonner Increased Cancer Burden Among Pesticide Applicators and Others Due to Pesticide Exposure. *CA Cancer J Clin* 2013 American Cancer Society

Pesticide residues on all non-organic food

A Report by Pesticides Action Network-UK has shown that <u>46% of non-organic food</u> in 2013 contained residues of one or more pesticides and this had increased from 25% in 2003.⁴⁸ A further Report by PAN-UK: <u>Pesticides in your daily bread</u> showed that nearly two-thirds of bread contained one or more pesticides and the three most frequently found were glyphosate, chlormequat (a growth regulator) and malathion⁴⁹ (an insecticide classified by IARC as a 2B carcinogen.)⁵⁰

In Europe glyphosate residues are found in wine, whisky and beer as well as non-organic food

Three-quarters of the German population have been contaminated by the controversial herbicide, according to a study carried out by the Heinrich Böll Foundation.⁵¹ The report analysed glyphosate residue in urine and it concluded that 75% of the target group displayed levels that were five times higher than the legal limit of drinking water. A third of the population even showed levels that were between ten and 42 times higher than what is normally permissible. Glyphosate residue was recorded in 99.6% of the 2,009 people monitored by the study. The most significant values were found in children aged from zero to nine and adolescents aged 10 to 19, particularly those individuals raised on farms. Meat eaters also displayed higher levels of glyphosate contamination than vegetarians or vegans because most animals are fed with GM soya and corn.

Glyphosate in urine and abnormal blood parameters found in cattle in Denmark

In a field study, thirty dairy cows from each of eight Danish dairy farms were investigated for excretion of glyphosate in the urine. Blood serum parameters indicative of cytotoxicity such as alkaline phosphatase (AP), glutamate dehydrogenase (GLDH), glutamate oxaloacetate transaminase (GOT), creatinine kinase CK), nephrotoxicity, (urea, creatine), cholesterol and the trace elements as manganese (Mn), cobalt (Co), selenium (Se), copper (Cu) and zinc (Zn) were investigated. All cows excreted glyphosate in their urine but in varying concentrations. Increased levels of GLDH, GOT and CK in cows from all farms demonstrate a possible effect of glyphosate on liver and muscle cells. High urea levels in some farms could be due to nephrotoxicity of glyphosate. Also the unexpected very low levels of Mn and Co were observed in all animals which could be explained due to a strong mineral chelating effect of glyphosate. In contrast the mean levels of Cu, Zn and Se were within the normal reference range.⁵²

Sir John, I note that you have been on Monsanto business in Australia promoting GM

At a conference in Brisbane, the former Chief Adviser to the UK Government said:⁵³ "*There is a movement in Europe which is just against any genetically-modified plant used for food [and] that is so naive,*" he said. However, a report in *The Times* on 17/02/2017 said that after Brexit, Brussels would block GM from Britain.⁵⁴

There is no point in preaching to Australia. It has been in the hands of the agrochemical industry since 2002 ⁵⁵ and has an industry-funded Science Media Centre like the UK (as has Japan and New

⁴⁸ <u>http://www.pan-uk.org/files/pesticides on a plate 2013 final.pdf</u>

⁴⁹ http://www.pan-uk.org/files/Pesticides%20in%20Your%20Daily%20Bread%20guide%20-%20FINAL%20(1).pdf

⁵⁰ <u>http://www.thelancet.com/pdfs/journals/lanonc/PIIS1470-2045(15)70134-8.pdf</u> Carcinogenicity of tetrachlorvinphos, parathion, malathion, diazinon, and glyphosate.

⁵¹ <u>http://detoxproject.org/1275-2/</u>

⁵² https://www.omicsonline.org/field-investigations-of-glyphosate-in-urine-of-danish-dairy-cows-2161-0525.1000186.php?aid=18383

⁵³ <u>http://mobile.abc.net.au/news/2017-02-14/anti-science-era-worries-former-chief-scientist-uk/8265394?pfmredir=sm</u>

⁵⁴ http://www.thetimes.co.uk/edition/news/brussels-will-block-gm-food-from-britain-dphl7zc9n

⁵⁵ http://www.gmwatch.org/latest-listing/1-news-items/13325-csiro-in-bed-with-multinationals

Zealand.⁵⁶) In fact the Australian Pesticides and Veterinary Medicines Authority (APVMA) didn't want to bother to reassess glyphosate, but their citizens insisted. The closing date for comments was 30 December 2016.⁵⁷ The three areas that are in the hands of the pesticides industry are also the areas with the most obesity problems: the UK, the US and Australia.

You and Lord Smith, at that time Chairman of the Environment Agency, were warned in 2011

In February 6th 2011 we wrote to you and to Lord Chris Smith. We said: "*The agrochemical industry* has used the environment as a huge, private experimental laboratory". The NGOs in Europe have confirmed that the British people are being used as lab rats...they are correct.⁵⁸

An unprecedented rise in mortality in England and Wales

A paper in the *Journal of the Royal Society of Medicine* investigated 30,000 excess deaths that occurred in 2015 that is already repeating it-self in 2016-17.⁵⁹ This excess mortality hasn't been seen for 60 years. "One possible explanation for a sharp spike is an environmental shock, such as war or natural disaster. While these particular explanations are easy to exclude, other large-scale causes are not always immediately clear." The researchers suggest it is likely to be linked to cuts to the <u>NHS</u> and social care. It has drawn an angry response from the government and the Department of Health.

However, the government is supporting the renewal of the license for glyphosate and DOH and PHE fail to recognise that humans are being poisoned by glyphosate and other pesticides in their food.⁶⁰

Cancer rates will increase nearly six times faster in women than in men over the next 20 years, with obesity partly to blame, experts predict (03/02/2017 *The Guardian*)⁶¹

<u>Cancer Research UK's chief executive Sir Harpal Kumar said</u>: "These new figures reveal the huge challenge we continue to face, both in the UK and worldwide. Research is at the heart of finding ways to reduce cancer's burden and ensure more people survive, particularly for hard-to-treat cancers where the outlook for patients is still bleak. We need to keep working hard to reduce the devastating impact cancer can have on so many families. The latest figures show that more than 8 million people die from cancer each year across the world. More people die from cancer than Aids, malaria and tuberculosis put together. With more investment into research, we hope to make big improvements over the next 20 years in diagnosing the disease earlier and improving and developing treatments so that by 2034, three in four people will survive their disease."

Michael Pragnell, appointed Chairman of Cancer Research UK in 2010, was founder of Syngenta and former Chairman of CropLife International, an International Trade Association of BASF, Bayer CropScience, Dow AgroSciences, DuPont, FMC Corp, Monsanto, Sumitomo and Syngenta The CRUK website's comments about pesticides as a cause of cancer: "For now, the evidence is not strong enough to give us any clear answers. But for individual pesticides, the evidence was either too

⁵⁶ <u>https://www.timeshighereducation.com/news/research/research-intelligence-shock-troops-check-poor-gm-study/421361.article</u>

 ⁵⁷ http://apvma.gov.au/sites/default/files/publication/20701-glyphosate-regulatory-position-report-final.pdf
⁵⁸ http://www.theguardian.com/environment/2016/mar/08/eu-vote-on-controversial-weedkiller-licence-postponed-glyphosate

postponed-glyphosate ⁵⁹ http://journals.sagepub.com/doi/full/10.1177/0141076817693600

⁶⁰ **21 March 2016: Baroness Chisholm of Owlpen (Con) announced in the House of Lords: "***My Lords, the Government support pesticide use where scientific evidence shows that this is not expected to harm people or to have unacceptable effects on the environment. UK experts participated in the European Food Safety Authority's assessment of glyphosate and support its conclusions particularly that glyphosate does not cause cancer."*

⁶¹ <u>https://www.theguardian.com/society/2017/feb/03/cancer-rates-increase-six-times-faster-</u> women?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+main+NEW+H+categories&utm_t erm=211477&subid=5939743&CMP=EMCNEWEML6619I2

weak to come to a conclusion, or only strong enough to suggest a "possible" effect. The scientific evidence on pesticides and cancer is still uncertain and more research is needed in this area. <u>Syngenta is a member of the European Glyphosate Task Force</u>. The GTF is described as "a consortium of companies joining resources and efforts in order to renew the European glyphosate registration with a joint submission." <u>Britain and the GTF</u> claim that glyphosate does not cause cancer and disagree with **World Health Organisation's International Agency for Research on Cancer** (IARC) which has declared glyphosate as a 2A carcinogen (probably carcinogenic in humans)⁶² The IARC Monograph Volume 112 20/03/2015⁶³ states IARC has no legal power to ban glyphosate. "The Monographs Programme provides scientific evaluations based on a comprehensive review of the scientific literature, but it remains the responsibility of individual governments and other international organizations to recommend regulations, legislation, or public health intervention."

Cancer Research UK (CRUK) website shows increasing trends in cancers

<u>The Cancer Research UK</u> (CRUK) website shows similarly increasing trends over time in graphs from 1975 when glyphosate was authorised: for thyroid cancer,⁶⁴ breast cancer,⁶⁵ prostate cancer,⁶⁶ malignant melanoma,⁶⁷ liver cancer,⁶⁸ myeloma,⁶⁹ malignant brain tumours ⁷⁰ and anal cancer.⁷¹

Survival rates: UK cancer survival rates trail 10 years behind other European countries

Cancer survival rates in the UK are still lagging more than two decades behind those achieved in many European countries, according to new analysis by campaigners on 25th March 2015.⁷² The Concord-2 global study looked at survival rates in 67 countries for patients diagnosed with lung, breast, colon and stomach cancers in 1995 to 1999, compared with levels in 2005 to 2009.

Syngenta, AstraZeneca and the UK government have a mutually beneficial relationship with each other at the expense of the British people

One Corporation promotes cancer; the other Corporation tries to cure it.

In 2010 Michael Pragnell was appointed as Chairman of CRUK and by 2011 CRUK was donating money (£450 million/year) to the Government's <u>Strategy for UK Life Sciences</u> and AstraZeneca (Syngenta's parent company) was providing twenty two compounds to academic research in the UK to develop medicines.⁷³ <u>AstraZeneca</u> manufactures six different anti-cancer drugs mainly aimed at breast and prostate cancer. The Corporation has links in Asia, including Hospitals in China, Japan, Korea, and collaborators in Russia. In 2013 <u>AstraZeneca</u>'s Oncology Website had the following portentous prediction: "Cancer claims over 7 million lives every year and the number continues to rise. Deaths are estimated to reach 12 million by 2030."⁷⁴

⁶² <u>http://www.thelancet.com/pdfs/journals/lanonc/PIIS1470-2045(15)70134-8.pdf</u> Carcinogenicity of tetrachlorvinphos, parathion, malathion, diazinon, and glyphosate

⁶³ <u>http://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf</u>

⁶⁴ http://www.cancerresearchuk.org/cancer-info/cancerstats/types/thyroid/incidence/

⁶⁵ http://www.cancerresearchuk.org/cancer-info/cancerstats/types/breast/incidence/#trends

⁶⁶ <u>http://www.cancerresearchuk.org/cancer-info/cancerstats/types/prostate/incidence/uk-prostate-cancer-incidence-statistics#trends</u>

⁶⁷ <u>http://www.cancerresearchuk.org/cancer-info/cancerstats/types/skin/incidence/uk-skin-cancer-incidence-statistics#trends</u>

⁶⁸ http://www.cancerresearchuk.org/cancer-info/cancerstats/types/liver/incidence/#trends

⁶⁹ http://www.cancerresearchuk.org/cancer-info/cancerstats/types/myeloma/incidence/#trends

⁷⁰ http://www.cancerresearchuk.org/sites/default/files/cstream-node/inc_asr_gb_brain_2.pdf

⁷¹ http://www.cancerresearchuk.org/cancer-info/cancerstats/types/anal-cancer/Incidence/#Trends

⁷² <u>http://www.theguardian.com/society/2015/mar/24/uk-cancer-survival-rates-trail-10-years-behind-those-in-european-countries</u>

⁷³ <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32457/11-1429-strategy-</u> for-uk-life-sciences.pdf

⁷⁴ http://www.astrazeneca.co.uk/medicines/oncology

Glyphosate and other pesticides earn billions for the Pharmaceutical Companies with the sales of statins, anti-hypertensives, antidepressants, diabetic medication, anti-cancer drugs, weight reducing drugs, vaccines and drugs to treat dementia etc.

Séralini won an award for his rat feeding studies on GMOs, glyphosate and tumours

On 16 October 2015 Prof Gilles-Eric Séralini was awarded Whistleblower of the Year by German Scientists for his work on GMOs and Glyphosate.⁷⁵ Citation: *"He was the first to publish animal test* results demonstrating the toxic and carcinogenic properties of the most commonly used herbicide worldwide, the glyphosate-based "Roundup" by carrying out a two-year feeding test on rats. After the research was published, Prof Séralini was attacked by a vehement campaign by 'interested circles' from the chemical industry as well as the industry-financed British Science Media Centre."

Séralini states that Roundup is an endocrine disruptor and a nervous system disruptor⁷⁶

"Roundup and other glyphosate-based herbicides are the most widely used pesticides in the world; their residues are among the main pollutants in surface waters. Their use has increased through the spraying of 80% of edible agricultural GMOs, which also contain high levels of their residues. They are composed of glyphosate (35–40% in general) and adjuvants that are around 1,000 times more toxic than glyphosate alone, and are also endocrine disruptors below toxic thresholds. All endocrine disruptors (ED) are also nervous system disruptors (ND), because they act as "spam" for cell-cell communication, in the sense that they are spurious messages (or molecules) sent to a group of organisms or cells, impeding and slowing down, and in some cases accelerating, the physiological communication system. Therefore, they should be called ENDs (endocrine and nervous system disruptors). From 0.1ppb in chronic tests in vivo, Roundup is highly tumorigenic, provoking hormonedependent tumours, other hormonal imbalances, and important liver and kidney toxicities."

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

Monsanto and paid lobbyists were so alarmed about the work of Séralini's team at CRIIGEN, that a world-wide campaign was organised to discredit him. Claire Robinson speaking at the Monsanto Tribunal said: ⁷⁷ "I'm going to speak today on how Monsanto and its allies used underhand, deceptive, and non-transparent tactics to try to discredit a scientific study that threatened the company's interests – and to smear the scientists themselves. In this and other similar cases, the company's interests were often represented by third parties such as public relations firms or ostensibly independent academics and scientists (the "third-party" PR technique)..." The Séralini 2-year feeding study, published in 2012, showed that rats fed GM Maize and Roundup developed liver and kidney damage and hormone and sex-dependent tumours, gave the opportunity for Monsanto scientists to claim fraudulent science. It was not reported by the UK media (apart from John Vidal in The Guardian) but had widespread coverage throughout the world, particularly in France.

The UK Science Media Centre is hosted by the Wellcome Trust and is financed by industry

Colin Macilwain, a science policy writer from Edinburgh who has worked as a reporter and an editor from both sides of the Atlantic⁷⁸ wrote about plans to replicate Britain's Science Media Centre (SMC) in the United States, which he said was "fraught with danger."

⁷⁵ <u>http://www.vdw-ev.de/wp-content/uploads/2015/10/Presseinformation-Whistleblower-Preisverleihung-</u> 2015 150917 eng.pdf ⁷⁶ http://www.gmoseralini.org/wp-content/uploads/2015/11/Seralini-career-JBPC 2015.pdf

⁷⁷ http://www.gmwatch.org/files/Mon Trib summary.pdf

⁷⁸ http://www.nature.com/news/two-nations-divided-by-a-common-purpose-1.10224

Extracts: "The London SMC was set up because UK scientific leaders were upset that environmentalists had successfully fought the introduction of genetically modified food; they felt that the UK media were too susceptible to environmental scare stories about new technologies. Despite the fears of the SMC founders, the British press — led by the BBC, which treats the Confederation of British Industry with the deference the Vatican gets in Rome — is overwhelmingly conservative and pro-business in its outlook. It is quite unperturbed by the fact that SMC sponsors include AstraZeneca, BP, Coca-Cola, L'Oreal, Monsanto, Syngenta (as well as Nature Publishing Group) but not a single environmental non-governmental organization (NGO) or trade union. Fiona Fox, the SMC's director, says that the centre operates independently of its sponsors and points out that none (except its host, the Wellcome Trust) accounts individually for more than 5% of its *income."* (However, examination of the Funding for 2014,⁷⁹ the total funding from industry and trade bodies (27% from 29 Organizations) exceeds any other source of funding apart from the Government & the Wellcome Trust). "She adds that no NGOs are involved because it was their public-relations skills that the founders of the SMC sought to match." Macilwain goes on to say: "But the perception that the environmental group Friends of the Earth constitutes a bigger threat to scientific truth-telling than some of the corporate names on the SMC's sponsorship list is not one the US media would accept. Some of those considering a US centre share these concerns. They think that their funding model will have to rely on charitable trusts, not companies or government agencies."

Violent Behavior: A Solution in Plain Sight

This paper by Sylvia Onusic, PhD, CNS, LDN, seeks reasons for the increase in violent behavior in America, especially among teenagers. She identifies malnutrition, vitamin and micronutrient deficiency as potent causes of aberrant behavior, crime and the spectrum of autistic diseases. Some children have been corrected by a proper diet free of junk food.⁸⁰

Ability of proper nutrition to promote health

Prof T Colin Campbell also identifies our "neglect of the remarkable ability of nutrition to promote health and decrease illness."⁸¹ He quotes Hippocrates: "Let food be thy Medicine." "Can diet cure disease, and not just prevent it? Scientific evidence is accumulating that diets which emphasize consumption of plants and which avoid meat and dairy products can rapidly reverse common and life-threatening chronic diseases such as diabetes and heart disease. For these and other common diseases research is showing that a diet-based cure is much more effective than current medical treatments which are largely ineffectual, expensive, and plaqued by side effects. These important facts about the power of nutrition are not widely known, however. That is because they simultaneously challenge the food industry, the pharmaceutical industry, and the medical profession." Professor Campbell also asked why cancer research has stalled.⁸² The non-mutagenic nutrition effects we observed in our research on cancer development closely resemble the nutrition-based effects known to dramatically reverse other diseases, including advanced coronary heart disease and diabetes (Esselstyn 2014 and Barnard 2009). These nutritionbased effects have been observed as a result of the dietary lifestyle composed of whole plant-based foods without added oil and refined carbohydrates. The benefits are truly remarkable, broad in scope, and surprisingly rapid in response (Campbell and Campbell 2005; Campbell 2013).

Biocides should never be allowed in agriculture or in the food chain: Biocides = kill life REACH (Registration, **E**valuation, **A**uthorisation and Restriction of **Ch**emical substances): The

⁷⁹ <u>http://www.sciencemediacentre.org/about-us/funding/</u>

⁸⁰ http://www.westonaprice.org/environmental-toxins/violent-behavior-a-solution-in-plain-sight/pdf

⁸¹ http://www.independentsciencenews.org/health/the-healthcare-doctors-forgot-ordinary-food-will-be-thenew-medicine

⁸² https://www.independentsciencenews.org/health/why-cancer-research-has-stalled/

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.⁸³ "*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.*

Exponent Inc. is a company that helps chemical firms with **REACH** compliance.⁸⁴ It describes itself as "a research and scientific consultant firm with clients from industry (including crop protection) and government." Exponent Inc. was employed by Bayer to criticise EFSA's work on neonicotinoids and bees in 2013. It also contributed to a review by a Dow employee (Dow manufactures chlorpyrifos that is still authorised by CRD) that concluded that "exposure to specific pesticides during critical periods of brain development and neurobehavioral outcomes is not compelling."⁸⁵ Dr Caroline Harris, a Vice-President of Exponent Inc. sat on the UK Advisory Committee on Pesticides even before it became the Expert Committee on Pesticides (a conflict of interest).

A global industry has emerged to give advice on Biocides Regulation. The EU authorities are making a lot of money out of it: so is the UK Government because BiocidesHub is based in the UK As with the regulation of pesticides, it is controlled by the EU authorities and the pesticides industry and is 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." Costs are from £300-400/day to \$1585 for a Symposium. A multitude of firms have clients from 'industry, crop protection and government'. Chemical Watch BiocidesHub (Shrewsbury) offered 13 Events on Biocides Regulation during 2016. These range from beginners courses to advanced courses.

In 2007 The Faroes Statement: Human Health Effects of Developmental Exposure to Chemicals in Our Environment: ⁸⁶ was published by Grandjean *et al.* Twenty-five experts in environmental health from eleven countries contributed. *"The periods of embryonic, foetal and infant development are remarkably susceptible to environmental hazards. Toxic exposures to chemical pollutants during these windows of increased susceptibility can cause disease and disability in infants, children and across the entire span of human life. Among the effects of toxic exposures recognized in the past have been spontaneous abortion, congenital malformations, lowered birthweight and other adverse effects. These outcomes may be readily apparent. However, even subtle changes caused by chemical exposures during early development may lead to important functional deficits and increased risks of disease later in life. The timing of exposure during early life has therefore become a crucial factor to be considered in toxicological assessments."* The British Government rejected this statement and believed scientists from Dow Chemicals who said there was no evidence for this.

Sustaining Life: How Human Health Depends on Biodiversity⁸⁷

Dr Eric Chivian founded the <u>Center for Health and the Global Environment</u> at Harvard Medical School in 1996: *"To help people understand that our health, and that of our children, depends on the health of the environment and that we must do everything we can to protect it"*

Eric Chivian and Aaron Bernstein co-edited the above book, which includes contributions from more than 100 leading biodiversity and health scientists. It was published in June 2008 by Oxford University Press and was co-sponsored by the <u>United Nations Development Programme</u>, the <u>United</u>

⁸³ <u>https://echa.europa.eu/regulations/biocidal-products-regulation</u>

⁸⁴ http://www.exponent.com/REACH/

⁸⁵ http://www.ncbi.nlm.nih.gov/pubmed/23777200

⁸⁶ http://www.ncbi.nlm.nih.gov/pubmed/18226057

⁸⁷ https://global.oup.com/academic/product/sustaining-life-9780195175097?cc=gb&lang=en&

<u>Nations Environment Programme</u>, the <u>Secretariat of the Convention on Biological Diversity</u> and the <u>World Conservation Union</u>.

The Prime Minister is hoping to do a trade deal with President Trump that will mean further pesticide deregulation and Britain being required to accept food of lower quality

Georgina Downs founded <u>Pesticides Campaign UK</u> in 2001.⁸⁸ Ms Downs has fought legal battles against Defra in order to protect rural residents from crop spraving. She had a landmark victory in the High Court in November 2008 that ruled that the UK Government's policy on pesticides was not in compliance with European legislation. It was the first known legal case of its kind to reach the High Court to directly challenge the Government's pesticide policy and approach regarding cropspraying in rural areas. However, the Court of Appeal overturned the High Court Judgment in May 2009. Chief Executive, Kerr Wilson's Witness Statements cited various reasons for preserving the status quo. They were related to alleged financial and economic impacts on manufacturers, farmers and distributors, or the impact on agricultural productivity. On behalf of Defra he did not display any concern whatsoever in relation to the protection of public health. His main concern was with protection of industry and business interests. "The annual market value of pesticide sales is approximately £490m which delivers benefits to farmers, significantly improving agricultural productivity... If, as a result of the Declaration, new approvals could not be granted, there would be important ramifications." Press reports at the time supported the Government's stance. That if the High Court Judgment stood then the "Government's pesticide policy would be fundamentally undermined" and that the policy and approvals system "might even grind to a halt."

Blythman tells us why she woke to a nightmare on Radio 4 Today programme⁸⁹

"Those of us who want to eat safe, healthy food awoke to a nightmare on Tuesday, a <u>chilling</u> <u>interview on Radio 4's Today programme</u>. "Bob Young, chief economist at the American Farm Bureau Federation, made it crystal clear that any US trade deal struck by Theresa May would be contingent on the UK public stomaching imports of US foods that it has previously rejected: beef from cattle implanted with growth hormones, chlorine-washed chicken, and unlabelled genetically modified (GM) foods. Wiping the sleep from our eyes, we hoped it was just a bad dream, but the grim reality worsened. <u>Martin Haworth, director of strategy at the National Farmers Union</u> (NFU), was up next. Surely our own farmers, who have worked for decades to stricter EU standards shaped by consumers' demand for safe, natural food, would reiterate their commitment to keeping them? Not a bit of it. Haworth's only concern was that if such controversial American products were allowed into the country, British farmers should be able to use the same production techniques to ensure "an even playing field"..."

Georgina Downs tells of the probable significance of Myron Ebell's visit to Number 10 http://www.theecologist.org/blogs and comments/commentators/2988609/pesticide deregulatio n the real reason for myron ebells number 10 meeting.html

Rosemary Mason MB ChB FRCA 23/02/2017

<u>Compiled with information from a Global Network of Beekeepers, Toxicologists, Independent</u> <u>Scientists, Doctors, Conservationists and Regulators</u>.

⁸⁸ <u>http://www.pesticidescampaign.co.uk/</u>

⁸⁹ <u>https://www.theguardian.com/environment/2017/jan/29/britain-us-trade-deal-gm-food-eu-rules</u>