

## Monsanto to be put on trial in The Hague in the International Criminal Court

[https://www.academia.edu/19243589/Open\\_letter\\_to\\_the\\_CMO\\_England\\_the\\_Wellcome\\_Trust\\_and\\_Public\\_Health\\_England](https://www.academia.edu/19243589/Open_letter_to_the_CMO_England_the_Wellcome_Trust_and_Public_Health_England)

**NEW: 22 December 2015 European Food Safety Authority published its conclusion on glyphosate** *Conclusion on the peer review of the pesticide risk assessment of the active substance glyphosate:* EFSA and the German Rapporteur Member State (RMS) Federal Institute of Risk Assessment (BfR) have recommended that glyphosate be re-approved, but have some concerns.<sup>1</sup>

I quote from the EFSA abstract: "Following a second mandate from the European Commission to consider the findings from the International Agency for Research on Cancer (IARC) regarding the potential carcinogenicity of glyphosate or glyphosate-containing plant protection products in the on-going peer review of the active substance, EFSA concluded that glyphosate is unlikely to pose a carcinogenic hazard to humans and the evidence does not support classification with regard to its carcinogenic potential according to Regulation (EC) No 1272/2008."

### **NEW: *Le Monde*<sup>2</sup> newspaper in France revealed that the German RMS BfR is in the hands of the Agrochemical Industry**

The French investigative journalist Stéphane Foucart (who in the past has written for the Guardian) exposed the BfR on 30 March 2015: "The BfR was already under suspicion over its peculiar risk evaluations; for example it declared glyphosate to be 'harmless' despite massive evidence to the contrary." *Le Monde* revealed that one third of the Members of the **BFR Commission on Pesticides and their Residues** are directly employed by the chemical industry; others came from the 'dubious' Bee Institutes. The satirical comment from *Le Monde* was, that in Germany: "people from the pesticide industry give expert safety advice on their own products". Walter Haefeker President of the European Professional Beekeepers Association (EPBA) confirmed this: "Dr. Karsten Hogardt, Federal Office of Consumer Protection and Food Safety (BVL) stated that the BVL sees itself as: '**a service for its clients, the plant protection industry**'.<sup>3</sup> In this role it is 'advised' by an expert group of 'risk-managers' including many from the pesticide industry". Haefeker said: "It is shocking and disgraceful, that no independent scientists are allowed in the regulation, or licensing, of pesticides in Germany".

**NEW: Syngenta exposed for funding neonicotinoid research in Britain:** On 23/09/2012, once again in the French newspaper *Le Monde*, Stéphane Foucart revealed that Dr James Cresswell a bee researcher at Exeter, who denied that neonicotinoids caused colony collapse in honey bees, was receiving funding from Syngenta, but had not revealed conflicts of interest.<sup>4</sup> Foucart said it didn't really matter for France because the French Government had already made a decision to ban Cruiser® (Thiamethoxam, made by Syngenta). A study (using mathematical models, statistics and computer simulations), published in the journal *Science* by Dr Helen Thompson of Britain's Food and Environment Agency together with Dr James Cresswell University of Exeter (both of whom are supported by industry) claimed that the results of the research from nine eminent bee scientists at the French National Institute for Agricultural Research (INRA)<sup>5</sup> was flawed.

### **The UK Government, the BBC and some of the media have colluded with the pesticides industry**

- GM companies are running the Government's PR strategy on GM crops by controlling how public and private money will be invested in research (Page 6)

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/scientific\\_output/files/main\\_documents/4302.pdf](http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/4302.pdf)

<sup>2</sup> FOUCCART, S. 2015. Noire semaine pour l'expertise. *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](http://www.lemonde.fr/idees/article/2015/03/30/noire-semaine-pour-expertise_4605627_3232.html?xtmc=neonicotinoides&xtcr=1)

<sup>3</sup> <http://podcasts.haefeker.org/?p=132>

<sup>4</sup> [http://www.lemonde.fr/planete/article/2012/09/23/le-chercheur-l-agrochimiste-et-les-abeilles\\_1764022\\_3244.html](http://www.lemonde.fr/planete/article/2012/09/23/le-chercheur-l-agrochimiste-et-les-abeilles_1764022_3244.html)

<sup>5</sup> <http://www.sciencemag.org/content/336/6079/348.abstract> Cresswell and Thompson comments on A Common Pesticide Decreases Foraging Success and Survival in Honey Bees

- David Cameron, Lord de Mauley and Defra buried the Open Letter from America delivered to Downing Street in November 2014, which urges Europe not to authorise GM crops because of the devastating effects on human health and the environment (Page 8)
- A secret meeting in 2012 to overcome the barriers to bringing in GM crops (Page 26)
- **NEW:** Sixteen European countries and four regions (including Scotland, Wales and Ireland) have banned GM crops – but England has embraced them wholeheartedly because it will be good for the economy.

**Open Letter to the Chief Medical Officer (England), the Wellcome Trust and Public Health England was sent on 30 November 2015<sup>6</sup>**

As yet I have had no reply. There is a seventeen page introduction, after which the evidence starts on page 18.

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**NEW: Monsanto to be put on trial in The Hague in the International Criminal Court in 2016**

Non-governmental organizations (NGOs) from around the world announced on December at COP21 in Paris on December 3 2015 that they will put Monsanto on trial for crimes against nature and humanity, and ecocide, in The Hague, Netherlands, next year on World Food Day, October 16, 2016. There are 10 initiators (including environmental lawyers) 23 supporting organizations and hundreds of signatories. This International Criminal Court, established in 2002 in The Hague, has determined that prosecuting ecocide as a criminal offense is the only way to guarantee the rights of humans to a healthy environment and the right of nature to be protected.

The tribunal’s website says, “*According to its critics, Monsanto is able to ignore the human and environmental damage caused by its products and maintain its devastating activities through a strategy of systemic concealment: by lobbying regulatory agencies and governments, by resorting to lying and corruption, by financing fraudulent scientific studies, by pressuring independent scientists, by manipulating the press and media, etc.* One of initiators is Prof Gilles-Eric Seralini of Committee for Research and Information on Genetic Engineering (CRIIGEN ).<sup>7</sup>

**NEW: Seralini’s team wins defamation and forgery court cases on GMO and pesticide research**

“On 25 November 2015, the High Court of Paris indicted Marc Fellous, former chairman of France’s Biomolecular Engineering Commission, for “*forgery*” and “*the use of forgery*”, in a libel trial that he lost to Prof Gilles-Eric Seralini. The Biomolecular Engineering Commission has authorised many GM crops for consumption. In September 2012, an article written by Jean-Claude Jaillette in Marianne magazine said that “*researchers around the world*” had voiced “*harsh words*” about the research of Seralini and his team on the toxic effects of a GMO and Roundup over a long term period – research that was supported by the independent organisation CRIIGEN. The journalist wrote of a “*scientific fraud in which the methodology served to reinforce pre-determined results*”. On 6 November 2015, after a criminal investigation lasting three years, the 17<sup>th</sup> Criminal Chamber of the High Court of Paris passed sentence. Marianne magazine and its journalist were fined **for public defamation of a public official and public defamation of the researchers and of CRIIGEN**, which is chaired by Dr Joel Spirooux de Vendômeis.”<sup>8</sup>

<sup>6</sup>

[https://www.academia.edu/19243589/Open letter to the CMO England the Wellcome Trust and Public Health Eng and](https://www.academia.edu/19243589/Open_letter_to_the_CMO_England_the_Wellcome_Trust_and_Public_Health_England)

<sup>7</sup> <http://www.monsanto-tribunal.org/>

<sup>8</sup> <http://www.gmoseralini.org/seralinis-team-wins-defamation-and-forgery-court-cases-on-gmo-and-pesticide-research/>

**NEW: Federation of German Scientists Whistleblower Award goes jointly to Prof Gilles-Eric Séralini and former US drone pilot Brandon Bryant <sup>9</sup>**

*“Professor Gilles-Eric Séralini has been honoured with the 2015 Whistleblower Award by the Federation of German Scientists (VDW) and the German Section of the International Association of Lawyers Against Nuclear Arms (“IALANA”). Prof Séralini received the award in recognition of his research demonstrating the toxic effects of Roundup herbicide on rats when administered at a low environmentally relevant dose over a long-term period. After the research was published, Prof Séralini was attacked in what the VDW and IALANA call “a vehement campaign by ‘interested circles’ from the chemical industry” as well as from the **UK Science Media Centre.**”*

Bryant quit active service with the US armed forces in 2011 *“due to his rejection of the secret worldwide drone war carried out by the US.”* He particularly objected to the innumerable civilian victims and the severe psychological consequences for the drone pilots involved in the killings.

**Why is the Science Media Centre (SMC) sponsored by Corporations, but not by NGOs or Unions?**

(Page 1 and 12-15)

The SMC is hosted by The Wellcome Trust. Colin Macilwain, a science policy writer from Edinburgh who has worked as a reporter and an editor from both sides of the Atlantic<sup>10</sup> wrote about plans to replicate Britain’s Science Media Centre (SMC) in the United States, which he said was *“fraught with danger.”*

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,<sup>11</sup> 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). Ms Fox 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.*

However, there are similar Science Media Centres in Japan, Canada, Australia and New Zealand

Ms Fox took this (the silence of the British Press in 2012 when the Séralini 2-year study of rats fed GM Roundup® Ready maize that showed tumours, liver and kidney damage was published) as evidence that the 10-year-old Centre was fulfilling its remit (to protect the pesticides industry) and prevent a repeat of incidents such as the uncritical reporting in 1998 of the claim - heavily criticised by the scientific community - made by Árpád Pusztai, a former researcher at the Rowett Research Institute in Aberdeen, that rats fed on GM potatoes had stunted growth and a repressed immune

<sup>9</sup> <http://www.gmoseralini.org/federation-of-german-scientists-whistleblower-award-goes-to-prof-gilles-eric-seralini/>

<sup>10</sup> <http://magz.elibraries.eu/ul/1826/Nature%20Magazine%207389%20-%202012-03-15.pdf>

go.nature.com/klnuna World View Nature 15<sup>th</sup> March 2012

<sup>11</sup> <http://www.sciencemediacentre.org/about-us/funding/>

system.<sup>12</sup> She said that the relatively muted coverage in the UK contrasted with how the story was reported in other countries, particularly France, where it was "*front-page news everywhere*", prompting the French government to launch an inquiry into the study's findings. According to Ms Fox, the Science Media Centre's ability to gather a lot of expert comment quickly was particularly valuable in this instance because journalists who were shown the paper in advance of its publication were required to sign a highly unusual agreement that prevented them from sharing it with third parties. Critics claimed that this minimised the time journalists had to gather potentially negative commentary.

The London Science Media Centre repeatedly protected Monsanto by issuing so-called 'expert' reactions to Séralini's studies involving glyphosate and GM, for the benefit of UK journalists.

**In 1998 Tony Blair, Monsanto and the Royal Society combined to discredit Dr Árpád Pusztai when he found that rats fed GM potatoes had complications; his lab was closed down** (Page 22)

On 10 August 1998 in a Granada '*World in Action*' broadcast<sup>13</sup> Dr Árpád Pusztai (a GM expert leading the team at the Rowett Institute) explained his research that showed that rats fed with genetically modified potatoes had suffered immune damage. He raised questions about the safety of GM food in the human diet on the basis of the study. The news flashed around the world. Professor Robert Orskov OBE who had worked at the Rowett Institute for 33 years was told that phone calls went from Monsanto, the American firm which produces 90% of the world's GM food, to Clinton and then to Blair. "*Clinton rang Blair and Blair rang James*" (Professor James, Director of the Rowett Institute). "*There is no doubt he was pushed by Blair to do something. It was damaging the relationship between the USA and the UK, because it was going to be a huge blow for Monsanto.*" Dr Pusztai lost his job and his Laboratory in the Rowett Institute was closed down.

**NEW: Stuttgart Peace Prize for Dr Árpád Pusztai in 2009**

Dr Árpád Pusztai and his wife Dr Susan Bardocz were awarded the Stuttgart Peace Prize in 2009.<sup>14</sup>

*"The award is for their tireless advocacy for independent risk research. Both have made an essential contribution to a broader understanding of the dangers of genetic manipulation. The award also honours their courage and scientific integrity as well as their undaunted insistence on the public's right to know."*

In response to the letter of congratulation from Claire Robinson and Jonathan Matthews of GMWatch, Dr Pusztai sent an email reply on 10 August 2008.

*"Dear Claire and Jonathan,*

*I thought that I should write to you on the 10th anniversary of my 150 seconds of TV "fame" and tell you what I think now. It is very appropriate to write to you because you have provided the most comprehensive service to inform people about the shenanigans of the GM biotechnology industry and its advocates.*

*On this anniversary I have to admit that, unfortunately, not much has changed since 1998. In one of the few sentences I said in my broadcast ten years ago, I asked for a credible GM testing protocol to be established that would be acceptable to the majority of scientists and to people in general. 10 years on we still haven't got one. Instead, in Europe we have an unelected EFSA GMO Panel with no clear responsibility to European consumers, which invariably underwrites the safety of whatever product the GM biotech industry is pushing onto us... We must not underestimate the financial and political clout of the GM biotechnology industry. Most of our politicians are committed to the successful introduction of GM foods We must therefore use all means at our disposal to show people the shallowness of these claims by the industry and the lack of credible science behind them, and*

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<sup>12</sup> <https://www.timeshighereducation.com/news/research/research-intelligence-shock-troops-check-poor-gm-study/421361.article>

<sup>13</sup> <http://news.bbc.co.uk/1/hi/health/149882.stm>

<sup>14</sup> <http://www.gmwatch.org/latest-listing/1-news-items/11801-pusztai-to-receive-stuttgart-peace-prize->

*then trust to people's good sense, just as in 1998, to see through the falseness of the claims for the safety of untested GM foods.*

*Let's hope that on the 20th anniversary I shall not have to write another warning letter about the dangers of untested GM foods!*

*Best wishes to all*

*Árpád Pusztai "*

### **Why are the US EPA, the European Union and the UK Environment Agency not measuring glyphosate in water (or the neonicotinoid insecticides for that matter)?** (Page 72)

After all, globally it is the most widespread herbicide in use. Why aren't our governments protecting us by measuring it? The Chairman of the UK Environment Agency refused to measure it. Dr Jo Kennedy replied on Lord Smith's behalf on 1st May 2013. With regard to glyphosate, she replied: *"The GCMS scan is not able to measure glyphosate, and glyphosate is not part of the routine suite of substances monitored for nationally across our network. The main reason for this is that glyphosate analysis is relatively costly and it was felt that the additional costs of analysis could not be justified. If local glyphosate problems have been identified in groundwater the Environment Agency can carry out operational monitoring at a local level."*

### **The basis of science requires that measurements are made** (Page 72)

Ministers and civil servants<sup>15</sup> in the UK claim that the CRD, EFSA, US EPA and the AVPMA are doing 'sound science' or 'robust science'. Any independent scientists' research that contradicts industry studies are rejected and described as: *"flawed"*. However, none of these regulatory bodies have made measurements of either glyphosate or the neonicotinoid insecticides in water or soil. Many of these are long-acting chemicals (the half-life of clothianidin in a range of soils is an average of 545 days with a maximum of 1386 days). Farmers apply seed treatments & glyphosate blindly each year.

### **Many independent sources have measured glyphosate and neonicotinoids in the environment and show that they are increasing. They have been correlated with losses of biodiversity** (Pages 74-79)

Glyphosate persistence in samples of seawater extracted from the Great Barrier Reef has been shown (page 79-80). The 27-year decline in coral cover (50.7% initial coral cover) has been largely attributed to tropical cyclones, coral predation and global warming.

### **NEW: Environment Agency's own data was used in an unpublished British Geological Survey (BGS) Report 2012.**<sup>16</sup>

On page 35: *"Glyphosate is now the most widely used herbicide in the world, with dramatic increases in agricultural use since the introduction of (GM) glyphosate resistant crops. Microbial degradation produces aminomethyl phosphonic acid (AMPA) (Kolpin et al., 2000) and it has been anticipated that AMPA may be problematic. The high water solubility of both the parent and the metabolite has meant that their analysis has been difficult... ...Similarly for parent compounds which have non-agricultural applications, there will be routes to groundwater which would not be identified, such as routes which do not pass through the soil zone. Kolpin (2006) showed AMPA to be detected in wastewater-impacted surface waters about four times as frequently as the parent."*

### **We have glyphosate and other pesticide residues in our foods; they are increasing year on year**

Farmers in the UK have been spraying glyphosate pre-harvest on advice from Monsanto since 1980. EFSA increases the Maximum Residue Level at the request of industry. On finding that there are glyphosate residues in our bread and the WHO International Agency for Research into Cancer has declared that glyphosate is probably carcinogenic to humans, the **Soil Association** has launched a

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<sup>15</sup> Elected officials and other leaders have almost no knowledge of science. Prof Paul Ehrlich 2012 (Page 84)

<sup>16</sup> <http://nora.nerc.ac.uk/14557/1/OR11013.pdf>



campaign NOT IN OUR BREAD.<sup>17</sup> A Report by Pesticides Action Network- UK has shown that 46% of non-organic food in 2013 contained residues of one or more pesticides and this had increased from 25% in 2003.<sup>18</sup> A further Report by PAN-UK: Pesticides in your daily bread showed that nearly two-thirds of bread contained one or more pesticides and the three most frequently found were glyphosate, chlormequat and malathion.<sup>19</sup> “Farmers have sharply increased their use of a weed killer that has been classified as ‘probably carcinogenic in humans.’” Ben Webster, *The Times* Environment Correspondent said on August 15 2015: “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,<sup>20</sup> 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 protected from pesticides. The approval of glyphosate for use across Europe is being reviewed by the EU Commission.”

#### **Healthy Harvest-safeguarding the Crop Protection tool box: June 2014 (Page 31)**

The National Farmers’ Union (NFU), the Crop Protection Association (CPA) and Agricultural Industries Confederation (AIC) launched *Healthy Harvest – safeguarding the crop protection toolbox* in June 2014. The NFU and pesticide companies continually defend the use of pesticides for economic reasons and complain at any attempt to restrict the 320 at their disposal. One farmer defended aerial spraying of bracken with a herbicide.<sup>21</sup> CPA, AIC and the NFU commissioned Andersons to write a Report: The effect of the loss of plant protection products (i.e. pesticides) on UK Agriculture and Horticulture that predicted dire economic effects on UK farming if pesticides were restricted.<sup>22</sup>

#### **The NFU President Meurig Raymond puts farming profitability and economic success of the UK above the deleterious effects of chemicals on the brains of children in Britain (Pages 8, 32 and 64)**

#### **NEW: Food and Environment Research Agency (FERA)<sup>23</sup> survey of pesticides 1988 to 2014**

A survey of pesticide (active substances) usage on Oil Seed Rape (OSR) 1988-2014<sup>24</sup> showed that the number of active substances applied had increased from 5 in 1988 to 15 in 2014 and the number of treatments had increased from 5 in 1988 to 12 in 2014. In 2014, herbicides were used on 98.4% OSR and seed treatments on 95.8%. In 2014 glyphosate was used on Wheat (601,330 kg) Winter barley, Spring barley, Oats, Rye, Triticale, Oilseed rape (577,969 kg), Linseed, All potatoes, Peas, Beans, Sugar beet, with a total of **1,765,465 kg** glyphosate on all crops.<sup>25</sup> The total weight of pesticides

<sup>17</sup> <http://www.soilassociation.org/notinourbread>

<sup>18</sup> [http://www.pan-uk.org/files/pesticides\\_on\\_a\\_plate\\_2013\\_final.pdf](http://www.pan-uk.org/files/pesticides_on_a_plate_2013_final.pdf)

<sup>19</sup> [http://www.pan-uk.org/files/Pesticides%20in%20Your%20Daily%20Bread%20guide%20-%20FINAL%20\(1\).pdf](http://www.pan-uk.org/files/Pesticides%20in%20Your%20Daily%20Bread%20guide%20-%20FINAL%20(1).pdf)

<sup>20</sup> 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?

<sup>21</sup> [https://www.nfuonline.com/healthyharvest\\_final\\_digital/](https://www.nfuonline.com/healthyharvest_final_digital/) The impact of losing plant protection products on UK Food Production

<sup>22</sup> [http://www.cropprotection.org.uk/media/89364/andersons\\_final\\_report.pdf](http://www.cropprotection.org.uk/media/89364/andersons_final_report.pdf)

<sup>23</sup> Fera has issued voluntary redundancy letters to 48 people in total at its headquarters in Sand Hutton near York, including nine people in science roles. The move follows a deal in March this year, in which private investor Capita paid £20 million to acquire a 75 per cent stake in Fera.

<sup>24</sup> Pesticide usage on oilseed rape 1988-2014. John Hoar; (Hampshire BKA Spray Liaison Officer) using data published by Fera; in press: Beecraft. February 2015.

<sup>25</sup> <https://secure.fera.defra.gov.uk/pusstats/surveys/documents/arable2014v2.pdf>

(herbicides and desiccants, fungicides, growth regulators, molluscicides and repellants, insecticides and seed treatments) applied to farmland in 2014 was in excess of **16,000 tonnes**.

**NEW: Flooding of towns and cities has resulted from protection of farmland and grouse moorland** *“Supported by taxpayers’ money and crazy policies, farmers divert water off the land and into our homes”*.<sup>26</sup> These massive amounts of pesticides which pour off farmland during floods are contaminating our homes. They add to the glyphosate and other pesticide usage on amenity land.

**However, the extent of usage of glyphosate in the UK on ‘amenity’ land is ‘unknown’** (Page 85) The CRD commissioned a Report *Determining the Usage and Usage Patterns of Amenity Pesticides Across the UK*, from Risk & Policy Analysts in association with Britt Vegetation Management.<sup>27</sup> It was published in February 2011.

The customers for Contractors were: all local authorities across the UK; transport organisations (including the Highways Agency, Network Rail, British Waterways and airport management companies); Ministry of Defence; sports and leisure clubs and facilities (including golf clubs, football clubs, cricket clubs, rugby clubs, bowling greens, leisure centres); conservation bodies (including the National Trust, local Wildlife Trusts, the RSPB, Natural England, National Park Authorities, Countryside Council for Wales, Scottish Natural Heritage and the Environment and Heritage Service Northern Ireland); industrial premises, factories and utility companies; and contracted third parties. The surface types considered were: amenity grass; sports turf; amenity woodland including tree and shrub beds; riparian and aquatic areas; roads; and other hard surfaces, including gravel/ballast surfaces, pavements and kerbs.

There were so few questionnaires returned in 2011 (None from Wales or Scotland) that it wasn’t possible to apply statistics so the usage had to be extrapolated from 2007. *“In 2007 it was estimated that for the 2006 calendar year, 747 tonnes of active ingredient were used in plant protection products by the amenity sector, 679 tonnes (91%) of which were herbicides and 68 tonnes (9%) were non-herbicides (algicides, fungicides, insecticides and moss-killers).”*

**EFSA only evaluates the active ingredient plain glyphosate; the formulated forms have a highly toxic stabiliser, a commercially secret ingredient that allows it to penetrate surfaces**

Since the patent for Monsanto’s Roundup® expired in 2000, virtually all the companies have their own brand of glyphosate; e.g. Bayer Garden has Super Strength Glyphosate.<sup>28</sup> Each is ‘formulated’ with a highly toxic stabiliser, a commercially secret ingredient, which allows it to penetrate surfaces in the manner of corrosive detergents. A more recent paper<sup>29</sup> showed that *“Roundup® was by far the most toxic among the herbicides and insecticides tested. Most importantly, 8 formulations out of 9 were several hundred times more toxic than their active principle.*

**December EFSA rejected the findings of WHO International Agency for Research on Cancer (IARC)**

On 22 December 2015 I received a response to from the Directorate-General for Health and Food Safety signed by Michael Flüh (Head of Unit Safety of the Food Chain Pesticides and Biocides of the European Commission) with regard to the letter I had sent on December 7 2015.<sup>30</sup>

He informed me that the European Food Safety Authority had published its *Conclusion on the peer review of the pesticide risk assessment of the active substance glyphosate*.<sup>31</sup>

I quote from the EFSA abstract: *“Following a second mandate from the European Commission to consider the findings from the International Agency for Research on Cancer (IARC) regarding the potential carcinogenicity of glyphosate or glyphosate-containing plant protection products in the on-*

<sup>26</sup> <http://www.theguardian.com/commentisfree/2015/dec/29/deluge-farmers-flood-grouse-moor-drain-land>

<sup>27</sup> Amenity\_Pesticide\_Report\_Final Feb 2011.pdf

<sup>28</sup> <http://www.bayergarden.co.uk/en/data/Products/s/Super-Strength-Glyphosate.aspx>

<sup>29</sup> <http://www.hindawi.com/journals/bmri/aip/179691/>

<sup>30</sup> [https://www.academia.edu/19651589/Open\\_Letter\\_to\\_the\\_Standing\\_Committee\\_on\\_Plants\\_Animals\\_Food\\_and\\_Feed](https://www.academia.edu/19651589/Open_Letter_to_the_Standing_Committee_on_Plants_Animals_Food_and_Feed)

<sup>31</sup> [http://www.efsa.europa.eu/sites/default/files/scientific\\_output/files/main\\_documents/4302.pdf](http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/4302.pdf)

going peer review of the active substance, EFSA concluded that glyphosate is unlikely to pose a carcinogenic hazard to humans and the evidence does not support classification with regard to its carcinogenic potential according to Regulation (EC) No 1272/2008.”

In the main document: Pages 25 and 26: “Missing information identified as being required by the regulatory framework is listed. Concerns are identified.”

Page 25 “Eight out of the 24 applicants (companies which are members of the Glyphosate Task Force) presented specifications that were not supported by the toxicological assessments.”

### **Standing Committee on Plants, Animals, Food and Feed (December 10/11). Who sits on this mysterious European Standing Committee that fails to mention of humans?**

All we know is that the Committee is under Phytochemical Legislation. All Member States have representatives on it but who they are appears to be a secret. This process lacks transparency. They ratified the EFSA conclusions, despite being sent the letter below from the IARC Working Group.

### **Strong challenge by IARC Working Group and 90 independent scientists**

This claim by EFSA that glyphosate was: “unlikely to pose a carcinogenic hazard to humans” was challenged by a group of over 90 independent scientists, and signed by Prof Christopher Portier Head of the Working Group at IARC. They had written an open [letter](#) on November 27 2015 to the European Health and Food Safety Commissioner, Vytenis Andriukaitis.<sup>32</sup> In it they challenged EFSA’s decision and the BfR report that it was based on. In it they express deep concern that BfR assesses the widely used herbicide glyphosate as “unlikely to pose a carcinogenic hazard to humans”.

They considered the BfR evidence point by point and the two most disturbing statements were that:

- BfR used historical controls (*When using historical control data, they should be from studies in the same timeframe, for the same exact animal strain, preferably from the same laboratory or the same supplier and preferably reviewed by the same pathologist*).
- The BfR Addendum dismisses the IARC Working Group finding that “*there is strong evidence that glyphosate causes genotoxicity*” by suggesting that unpublished evidence not seen by the IARC WG was overwhelmingly negative and that, since the studies that were reviewed were not done under guideline principles, they should get less weight.
- To maintain transparency, IARC reviews only publicly available data. Thus the use of confidential data submitted to the BfR makes it impossible for any scientist not associated with BfR to review this conclusion with scientific confidence. Further skewing their interpretation, the BfR did not include evidence of chromosomal damage from exposed humans that was highlighted in the IARC Monograph.

### **The EFSA and German RMS BfR decision has to be ratified by the European Commission**

The European Food Safety Authority provides scientific advice for the European Commission. Up until now the European Commission has accepted that advice without question.

Michael Flüh (Head of Unit Safety of the Food Chain Pesticides and Biocides of the European Commission) on Page 1 of his letter to me praises EFSA. “*EFSA has acted in line with its principles of excellence, independence and transparency set out in its founding legislation, Regulation (EC) NO 178/2002*”. A decision to renew or withdraw the approval of glyphosate will be taken in due course.

### **NEW: European Commission denied our claim that the registration of clothianidin was illegal**

One of our complaints to the European Ombudsman in 2012 (1089/2012/BEH) was that clothianidin had been registered illegally, since its half-life in a range of soils was an average of 545 days with a maximum of 1386 days (Source: Footprint Database). According to the Directive on Plant Protection Products (EC) 1107/2009;<sup>33</sup> Annex II, page 43, persistence in the soil, approval should not be given if

<sup>32</sup> <http://images.derstandard.at/2015/11/30/glyphosate.pdf>

<sup>33</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0001:0050:EN:PDF>



the half-life in soil is greater than 120 days ('based on half-life data collected under appropriate conditions, which shall be described by the applicant').

Michael Flüh, had replied on behalf of Commissioner John Dalli, "*The allegation as regards the illegality of the registration of clothianidin is strongly rejected. The assessment of clothianidin, carried out by a Rapporteur Member State and peer reviewed by experts from all Member States concluded that safe uses of this substance exist.*" Was this the mysterious **Standing Committee on Plants, Animals, Food and Feed** that endorsed EFSA's conclusion that glyphosate was not carcinogenic, despite the letter from WHO IARC Working Party and 90 independent scientists?

### **The Rapporteur Member State BfR concluded that glyphosate is not harmful to the environment**

A brief summary of the German BfR Renewal Assessment Report evaluation of peer-reviewed literature regarding the ecotoxicity of Glyphosate.<sup>34</sup> It broadly concluded that glyphosate is not harmful to the environment. (Page 73)

### **A biological desert: Correlation of loss of biodiversity with glyphosate levels on an Iowa farm**

(Page 73) The State of Iowa was just one area in which the US Geological Survey reported widespread contamination of water, air and rainfall with glyphosate. Grundy County, Iowa was where Craig Childs spent a long weekend in a monoculture of GM "Roundup® Ready" corn looking for wildlife.<sup>35</sup> "*In this cornfield, I had come to a different kind of planetary evolution. I listened and heard nothing, no bird no click of an insect ... Mr Owen was the farmer who had given us permission to backpack across his cornfields. He grew a combination of DuPont and Monsanto stock. We were in DuPont now. It didn't look any different to me.*" In contrast, "*Yet, 100 years ago, these same fields, these prairies, were home to 300 species of plants, 60 mammals, 300 birds, hundreds and hundreds of insects. This soil was the richest, the loamiest in the state. And now, in these patches, there is almost literally nothing but one kind of living thing. We've erased everything else. There's something strange about a farm that intentionally creates a biological desert to produce food for one species: us. It's efficient, yes. But it's so efficient that the ants are missing, the bees are missing, and even the birds stay away. Something's not right here. Our cornfields are too quiet.*"<sup>36</sup>

In South Wales, "Roundup®" sprayed on Japanese knotweed from April to August has caused rapid declines of biodiversity in our nature reserve<sup>37</sup> and in the surrounding areas since 2010. Glyphosate was present in river and tap water at concentrations of the order of that found in a study in 2013, which showed that breast cancer cell proliferation is accelerated by glyphosate in extremely low concentrations: "*The present study used pure glyphosate substance at log intervals from 10<sup>-12</sup> to 10<sup>-6</sup> M. These concentrations are in a crucial range that correlate to the potential biological levels at ppt (parts per trillion) to ppb (parts per billion) that have been reported in epidemiological studies.*"<sup>38</sup>

### **NEW: Glyphosate preparations authorised by CRD in 2013**

In 2013 the Chemicals Regulation Directorate listed on its approved pesticides database 187 different glyphosate products that are licenced to be sold as suitable for the amateur gardener.<sup>39</sup> Glyphosate preparations for professional use are even more: 211.

### **Repeated use of herbicides creates super-weeds (the US) or invasive weeds (the UK) (Page 84)**

The Pesticides Industry and the BBC found that it was convenient to perpetuate the myth that Japanese knotweed was brought into the UK by the Victorians. '*Fallopia japonica* was found in Japan

<sup>34</sup> Glyphosate Renewal Assessment Report Vol 3 Annex B9. Evaluation of peer-reviewed literature regarding ecotoxicity

<sup>35</sup> Childs, C. *Apocalyptic Planet. Field Guide to the Future of the Earth*, ch. 6, Species Vanish, p. 187. New York: Vintage Books (2013)

<sup>36</sup> <http://www.npr.org/blogs/kruulwich/2012/11/29/166156242/cornstalks-everywhere-but-nothing-else-not-even-a-bee>

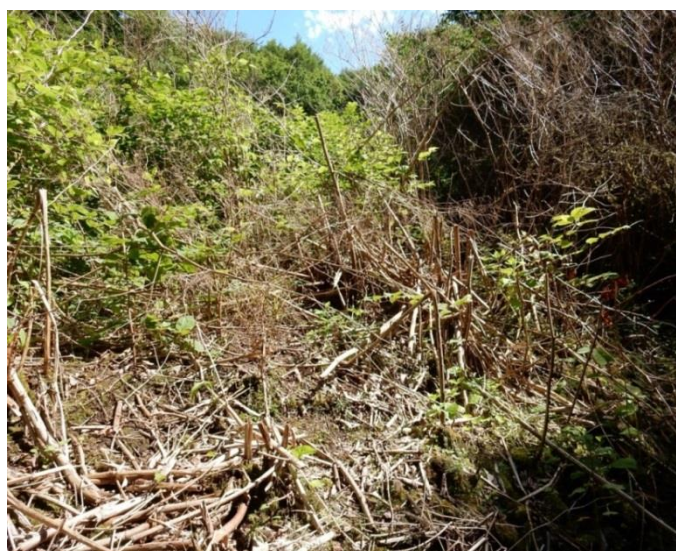
<sup>37</sup> [http://www.i-sis.org.uk/How\\_Roundup\\_Poisoned\\_My\\_Nature\\_Reserve.php](http://www.i-sis.org.uk/How_Roundup_Poisoned_My_Nature_Reserve.php)

<sup>38</sup> <http://www.ncbi.nlm.nih.gov/pubmed/23756170>

<sup>39</sup> <https://secure.pesticides.gov.uk/pestreg/prodlist.asp?pageno=1&origin=prodsearch>

by Phillipe von Siebold and brought back to Europe around 1829'.<sup>40</sup> In fact Japanese knotweed *Reynoutrie japonica* (syn. *Polygonum cuspidatum*) was introduced into Europe in the mid-16<sup>th</sup> Century by an amateur botanist from the Netherlands, Van Reynoutrie (syn. Karel van Sint Omaars).<sup>41</sup> For 500 years it caused no problems.

Historical and chronological evidence suggest that the herbicide glyphosate (or other herbicides that are used as alternatives) is responsible for the transformation of garden escapes into super-weeds (in the UK these are termed 'invasive species'). Glyphosate was used repeatedly in the same areas and Japanese knotweed developed resistance to it.<sup>42</sup> According to the author Richard Mabey in his book: *Weeds: The Story of Outlaw Plants*, "*the rampaging spread across Britain in the late 1970s and 80s is regarded as a parable of the dangers of casually introducing alien species into the countryside.*" However in 1969 in the UK<sup>43</sup> it was still being promoted as a plant suitable for large gardens (as was a member of the Balsam species *Impatiens glandulifera* (*royalei*)). Glyphosate was introduced in 1974 and by 1981 both plants were classified in the Wildlife and Countryside Act as invasive species.<sup>44</sup> In the US, the first confirmed Glyphosate-Resistant weed, rigid ryegrass was reported in 1998 within two years of Genetically-Modified (GM) Roundup® Ready crops being grown. Super-weeds in the US in GM cropping systems are now a massive problem. Between 1996 and 2011, as a result of GM technology, twenty two Glyphosate-Resistant super-weeds had developed which required an additional 239 million kg of glyphosate.<sup>45</sup> Some farmland has had to be abandoned in the US because weeds have to be removed by hand. In a January 3 [press release](#), to launch their Enlist Duo,<sup>46</sup> Dow noted that "*an astonishing 86 percent of corn, soybean and cotton growers in the South have herbicide-resistant or hard-to-control weeds on their farms,*" as do more than 61 percent of farms in the Midwest. "*Growers need new tools now to address this challenge,*"



A photograph of a valley in Swansea taken in August 2015; a three-year programme of eradication of Japanese knotweed with Roundup® had been announced by the Council. The first Roundup® was sprayed in April 2015, but by August, new shoots were emerging: 1440 kg of Roundup Dakar Pro had been used by Complete Weed Control in their contract

<sup>40</sup> <http://www.knotweed-removal.co.uk/history-and-biology-of-japanese-knotweed.php>

<sup>41</sup> Van Reynoutrie (or Karel van Sint Omaars) (1533-1569) H. Wille: The discovery of the scientific heritage of Karel van Sint Omaars (1533-1569). The Libri Picturati a 16-30 in the Jagiellon Library in Krakow. Scientiarum Historia 22 (1996) 2 67.

<sup>42</sup> <http://newsroom.dowagro.com/press-release/dow-agrosciences-statement-about-usda-announcement-regarding-draft-environmental-impac>

<sup>43</sup> Marshall Cavendish Illustrated Encyclopaedia of Gardening 1969.

<sup>44</sup> <http://www.legislation.gov.uk/ukpga/1981/69>

<sup>45</sup> <http://www.enveurope.com/content/pdf/2190-4715-24-24.pdf>

<sup>46</sup> Dow's Enlist GE corn and soybeans are genetically engineered (GE) to be resistant to several herbicides, including one known as 2,4-D.

### **Urban and suburban populations are at greater risk of exposure to glyphosate**

Urban populations<sup>47</sup> are more at risk during heavy rainfall from run-off<sup>48</sup> than are rural populations. All this suggests that the population of Swansea has been exposed massive amounts of glyphosate over the last 20 or so years without being made aware of it.

### **NEW: BBC promotes the pesticides industry: BBC Panorama: GM Food – Cultivating Fear**<sup>49</sup>

*“Under the BBC’s charter, it is committed to achieving accuracy of reporting, impartiality and to declare conflicts of interest.”* These guidelines have been breached on many occasions, particularly on *Countryfile* and *Farming Today*. All complaints to the BBC have been rejected. However, this pro-GM Panorama programme was outrageous.

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

#### Cultivating Myths – The Pro-GMO Bias of the BBC

June 9, 2015 by Lawrence Woodward and Pat Thomas from Beyond GM:

*“The pro-GM bias of the BBC was plain to see during Monday’s (8 June 2015) Panorama programme. Blinkered and narrow rather than panoramic, selective and prejudicial rather than investigative, this sorry display set a new low for a programme which was once a flagship of investigative journalism. It had no more veracity and insight than the most clichéd corporate press release and the result was that a mix of myths, deceptive assertions and inaccurate statements by pro-GM lobbyists – including those masquerading as independent scientists – were given a free ride and promotional slot on prime time television.*

*It’s tempting to say that you couldn’t make this stuff up – except Panorama has proven with its latest fiction that actually you can – and that you can even get the BBC (and thus the licence fee payer) to pay for it.”*<sup>50</sup>

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

The following are extracts from the account by Clare Robinson of GM Watch:<sup>51</sup>

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

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

In the BBC Panorama programme, the narrator and frontman Tom Heap said, *“After a false start last year, this season more than 90% of the GM trial plots have been successful.”*

This remarkable claim is at odds with the finding of Faisal Rahman that 32 out of 40 farmers interviewed by the end of March this year complained of Bt brinjal crop failure. That’s 80% of the sample interviewed and 30% of the total of 108 farmers growing Bt brinjal. As Rahman points out, the real figure could be much higher, as he did not interview the remaining 68 farmers.

So where did Panorama’s 90% success claim come from? The source was briefly flashed up on the screen as “Cornell University”. Cornell and the Bangladesh Agricultural Research Institute (BARI) are “partner” organisations of the Agricultural Biotechnology Support Project II (ABSP II), which is promoting the Bt brinjal project in Bangladesh and the rest of South Asia.

Cornell University is home to the controversial Cornell Alliance for Science, which is [publicizing](#) the Bangladesh Bt brinjal project. The Alliance was launched last year with a \$5.6 million grant from the

<sup>47</sup> <http://www.sciencedirect.com/science/article/pii/S0045653510007411>

<sup>48</sup> <http://www.ncbi.nlm.nih.gov/pubmed/21128261>

<sup>49</sup> <https://www.youtube.com/watch?v=6KruFQ2uCqk>

<sup>50</sup> <http://beyond-gm.org/cultivating-myths-the-bbc-pro-gmo-bias/>

<sup>51</sup> <http://www.gmwatch.org/news/latest-news/16320-bt-brinjal-plants>

Gates Foundation to “depolarize the charged debate around agricultural biotechnology and genetically modified organisms (GMOs).” Its partners [include](#) the GMO industry group ISAAA, which is funded by Monsanto, CropLife, and Bayer. Cornell [gave](#) Mark Lynas a Visiting Fellowship and a [platform](#) to [voice](#) his pro-GMO views. Lynas now [promotes](#) GMOs “to the exclusion of almost everything else”. Cornell [paid](#) his travel expenses to the Philippines to write a pro-GMO article. Tom Heap, BBC presenter of [Panorama](#) and a reporter on [Countryfile](#) recently addressed the annual dinner of British Society of Plant Breeders (BSPB), an industry body amongst whose member are Monsanto and Syngenta.<sup>52</sup> He advised his industry audience on how to gain greater public acceptance for GM, saying “the key to securing greater public acceptance... for controversial technologies such as GM” lies in delivering “tangible benefits for consumers”.

## **ARE PESTICIDES ASSOCIATED WITH CORAL BLEACHING AND AQUATIC INVERTEBRATE DECLINES?**

Australia, Hawaii, Malaysia, Philippines, Papua New Guinea, Solomon Islands and Timor Leste (Pages 79 to 83)

### **AUSTRALIA**

#### **A 27-year-decline of coral cover on the Great Barrier Reef and its causes<sup>53</sup> (Page 79-83)**

Extracts: Based on the world’s most extensive time series data on reef condition (2,258 surveys of 214 reefs over 1985–2012), we show a major decline in coral cover from 28.0% to 13.8% (0.53%  $\text{y}^{-1}$ ), a loss of 50.7% of initial coral cover.

#### **Glyphosate persistence in samples of seawater extracted from the Great Barrier Reef<sup>54</sup>**

Extracts: Glyphosate is one of the most widely applied herbicides globally but its persistence in seawater has not been reported. Here we quantify the biodegradation of glyphosate using standard “simulation” flask tests with native bacterial populations and coastal seawater from the Great Barrier Reef. The half-life for glyphosate at 25 °C in low light was 47 days, extending to 267 days in the dark at 25 °C and 315 days in the dark at 31 °C, which is the longest persistence reported for this herbicide. AMPA, the microbial transformation product of glyphosate, was detected under all conditions, confirming that degradation was mediated by the native microbial community.

#### **Two pieces of vital evidence that the devastating deterioration in the Great Barrier Reef is man-made and not due to natural disasters came from two papers:**

- “Importantly, the relatively pristine northern region showed no overall decline.”<sup>55</sup>
- “Glyphosate has not often been included in regular monitoring programs as the stand-alone analytical methods are often cost-prohibitive, resulting in a long-term deficiency in global datasets.”<sup>56</sup>

#### **NEW: UNESCO’s World Heritage Committee will meet in Bonn, Germany (June 2015) to decide whether to list the reef as “in danger”.**

The Australian government has made strenuous diplomatic efforts to head off the “in danger” listing, which could negatively affect the \$6bn-a-year tourism industry that relies upon the reef.<sup>57</sup> The London Guardian’s [Keep it in the Ground](#) Campaign is a worldwide campaign to prevent Global Warming. “The plans here (in Australia) are truly colossal. Developers hope to establish a series of mines to exploit a deposit of 247,000 sq km (95,400 sq miles) of coal: a land mass the size of Britain. If the complex is fully developed, CO<sub>2</sub> emissions from the burned coal would top 700m tonnes a year.

<sup>52</sup> <http://www.gmwatch.org/news/latest-news/16554-bbc-reporter-advises-industry-on-how-to-gain-public-acceptance-for-gm>

<sup>53</sup> <http://www.pnas.org/content/109/44/17995.full>

<sup>54</sup> <http://www.sciencedirect.com/science/article/pii/S0025326X14000228>

<sup>55</sup> <http://www.pnas.org/content/109/44/17995.full>

<sup>56</sup> <http://www.sciencedirect.com/science/article/pii/S0025326X14000228>

<sup>57</sup> <http://www.theguardian.com/environment/2015/may/14/australia-lobbies-unesco-stop-listing-great-barrier-reef-as-in-danger>



*That would mean a CO<sub>2</sub> output just behind Germany. Here are also concerns that the project will also impact the Great Barrier Reef because of the risks posed by increased shipping to export the coal. We have established that the Australian government has engaged in a frantic diplomatic push to avoid the Great Barrier Reef being listed as "in danger" by the UN.*<sup>58</sup>

*Preventing the Galilee basin coalmines and other projects from going ahead is the front line of efforts to Keep it in the Ground and prevent dangerous climate change. So are railway lines and a massive expansion of the Abbot Point port on the Great Barrier Reef."*

### **UNESCO grants Australia a reprieve in May 2015 – but in October 2015 the coal mine is approved**

In May 2015 the United Nations conservation agency UNESCO recommended the Great Barrier Reef **not** be placed on the World Heritage "in danger" list.<sup>59</sup>

However, Australia's Minister for the Environment Gregg Hunt signed approval on 14 October 2015 for one of the world's largest coal projects backed by Adani Group, an Indian conglomerate with interests spanning mining, energy and logistics, dismissing the United Nations and scientists concerned over potential damaging effects to the nearby Great Barrier Reef.<sup>60</sup> Critics call the approval of the mine, which will cover an area seven times the size of Sydney Harbour, a "*grossly irresponsible*" decision. Minister Hunt said the 36 conditions he had imposed upon the Carmichael mine and its rail infrastructure project took into account "*issues raised by the community and ensure that the proponent (Adani) must meet the highest environmental standards*".

### **NEW: BBC commissioned three films on the Great Barrier Reef before the Adani mine starts**

The filming of Part 1 took place in the far north of the reef which is pristine. David Attenborough plays along by talking about climate change: "*But if it changed in 50 years, from an increase of 2C in the sea temperature, which would kill the coral- that would be catastrophic.*"<sup>61</sup>

But a review in the Guardian of Part 1 of The Great Barrier Reef by Lucy Mangan<sup>62</sup> who knew that David Attenborough only reports good news: "*...the man who shows us miracles. It was educational, entertaining, fascinating and the first of three parts. By the end, you will have seen miracles. It will be something to tell your children and your children's children about. And you'll probably have to, as the 1,400 miles of Great Barrier Reef are dying because of – well, you know ... the usual. Us, mainly. Us entirely, if we're truthful. Attenborough must be quietly glad he won't be around to see it.*" There are two more programmes in which David Attenborough can deliver us the bad news.

## **FRACKING - A MEANS OF INTRODUCING 190 MORE CHEMICALS INTO THE GROUNDWATER AND FURTHER POISONING THE PEOPLE**

### **NEW: On December 16<sup>th</sup> 2015 fracking under National Parks was approved by MPs**<sup>63</sup>

The new rules allow fracking 1,200 metres below national parks and sites of special scientific interest, as long as drilling takes place from outside protected areas. This comes despite the government previously pledging an outright ban on the controversial technique for extracting shale gas in such areas. "*The UK has one of the best track records in the world for protecting our environment while developing our industries – these regulations will get this vital industry moving while protecting our environment and people,*" a Department of Energy and Climate Change spokesman told the BBC.

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<sup>58</sup> <http://www.theguardian.com/environment/ng-interactive/2015/may/15/carbon-bomb-australia-the-new-coal-frontier?CMP=ema-60>

<sup>59</sup> <http://www.abc.net.au/news/2015-05-29/great-barrier-reef-unesco-queensland-world-heritage-in-danger/6508004>

<sup>60</sup> <http://www.mining.com/australia-says-yes-to-carmichael-coal-mine-by-great-barrier-reef/>

<sup>61</sup> <http://www.theguardian.com/travel/2015/dec/21/david-attenborough-great-barrier-reef-australia>

<sup>62</sup> <http://www.theguardian.com/tv-and-radio/2015/dec/31/great-barrier-reef-david-attenborough-review>

<sup>63</sup> <http://www.theguardian.com/environment/2015/dec/16/fracking-under-national-parks-approved-by-mps-amid-acrimony>



**NEW: What happened following a fracking leak in Southern California in December 2015? The leak will continue to burn for months and has become a 'no fly' zone**

Lord Chris Smith, former Chairman of the Environment Agency (who refused to measure glyphosate and neonicotinoid insecticides in groundwater) , was appointed by David Cameron in October 2014 to lead the independent, industry-funded Task Force on Fracking to look into the risks and benefits of fracking in the UK (Pages 5 & 17). The conclusion of the Task Force was: *The evidence suggests that the impact of shale gas on the climate is similar to that of conventional gas and less than that of LNG. If this is the case, based on the evidence outlined above, the Task Force is persuaded that, if properly regulated, implemented and monitored, shale gas should be explored as a potential gas source to meet UK energy needs.*

**US EPA disregards the public and the environment in their anxiety to please corporations**

Here is a description of fracking in the US by Evaggelos Vallianatos who worked for the US EPA for 25 years. He writes in his book: <sup>64</sup> "The upshot all this is that there are more than a thousand cases of fracking-related water contamination in 34 states, and documented cases of both human harm and severe health on wildlife and farm animals. In Colorado alone, where drilling increased by 50% between 2003 and 2008, there are more than 1,500 fracking spills."

**NEW:** 19/12/2015 The fracking leak in Southern California will go on for months and is a no fly zone.  
<https://www.youtube.com/watch?v=7KB-9UBCJUY>

Fracking is a highly controversial technique

A law prohibiting fracking for shale gas has been upheld by France's constitutional court, citing environmental protection. Bans have been implemented in Bulgaria, Romania, Germany, Czech Republic, Luxembourg, Northern Ireland, Wales, Scotland and parts of Spain. England is unlucky. Independent scientists have found that what gets pumped into hydrocarbon-rich rock as part of the hydraulic fracture technique to release gas and oil trapped in underground reservoirs may not be entirely healthy. Environmental engineer William Stringfellow and colleagues at Lawrence Berkeley National Laboratory and the University of the Pacific told the American Chemical Society meeting in San Francisco that they scoured databases and reports to compile a list of the chemicals commonly used in fracking.<sup>65</sup> The researchers assembled a list of 190 of them, and considered their properties. For around one-third of them, there was very little data about health risks, and eight of them were toxic to mammals.

**Accelerated modern human induced species losses: entering the sixth mass extinction<sup>66</sup>** (Pages 11 and 83)

The sixth mass extinction and chemicals in the environment: our environmental deficit is now beyond nature's ability to regenerate.<sup>67</sup> This paper contrasts two publications; the above paper written by five ecologists and the other by the Rockefeller Foundation-Lancet Commission on Planetary Health. The latter paper never mentions pesticides.

Here are some apposite observations from Professor Paul Ehrlich's two previous papers.

- Agriculture is a leading cause of losses of biodiversity and ecosystem services and farming is a principal source of global detoxification
- Without significant pressure from the public demanding action, we fear there is little chance of changing course fast enough to forestall disaster (but the public does not know)

<sup>64</sup> <http://www.independentsciencenews.org/health/poison-spring-the-secret-history-of-pollution-and-the-epa/>

<sup>65</sup> <http://fracfocus.org/chemical-use/what-chemicals-are-used>

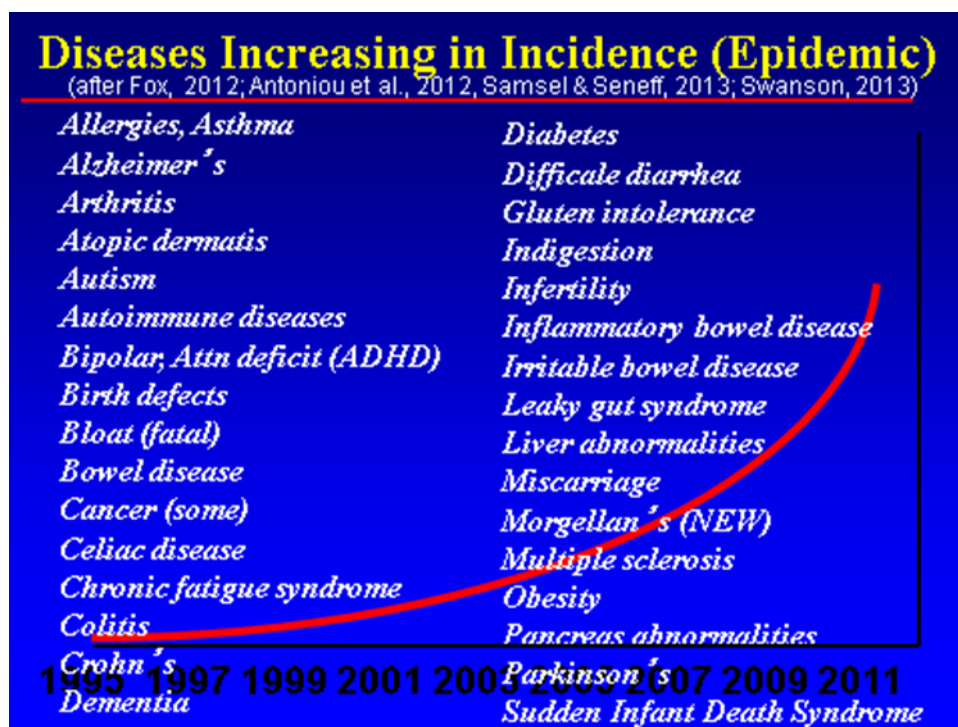
<sup>66</sup> <http://advances.sciencemag.org/content/advances/1/5/e1400253.full.pdf>

<sup>67</sup> [http://www.academia.edu/17783363/The\\_sixth\\_mass\\_extinction\\_and\\_chemicals\\_in\\_the\\_environment](http://www.academia.edu/17783363/The_sixth_mass_extinction_and_chemicals_in_the_environment)

- This will require developing mechanisms to force big corporations (including those in big agriculture and big pharma) to bear social responsibilities like the real individuals whose rights they legally want to assume (they have no intention of doing so)
- There have been increasing signs of great toxic peril for humanity and its life-support systems, with a growing threat from the release of hormone-disrupting chemicals that could even be shifting the human sex ratio and reducing sperm counts (The European Commission, EFSA and the Agrochemical Corporations have been delaying the identification of EDCs) (Pages 3-5, 52-56)
- Elected officials and other leaders have almost no knowledge of science

**NEW: UK Parliament Meeting Brings ‘Dangers’ of Roundup® into Public Focus. This meeting of world experts on glyphosate was held on June 18 2014<sup>68</sup>**

This was not reported by the UK mainstream Media Corporations. Dr Don Huber a Senior Plant Scientist in the US who worked in the professional and military agencies that evaluate and prepare for natural and man-made biological threats and disease outbreaks (and is probably the world’s foremost expert on glyphosate) wrote to the US Secretary of Agriculture Hon Tom Vilsack in January 17<sup>th</sup> 2011 to warn him about a pathogen new to science (Page 36-37)



Dr Huber’s slide shows diseases which have increased in incidence since 1995, correlated with the red line, which represents the increasing use of glyphosate in the US<sup>69</sup>

**Anthony Samsel & Stephanie Seneff had written three papers about glyphosate and modern diseases.** (Page 69) Samsel A and Seneff S (2013) Glyphosate’s suppression of Cytochrome P450 enzymes and amino acid biosynthesis by the gut microbiome: Pathways to Modern Diseases.<sup>70</sup>  
 Samsel A and Seneff S. Glyphosate, pathways to modern diseases II: Celiac sprue and gluten intolerance.<sup>71</sup>

<sup>68</sup> [http://sustainablepulse.com/2014/07/02/uk-parliamentary-meeting-brings-dangers-roundup-public-focus/#.U7TVd-j\\_hzl](http://sustainablepulse.com/2014/07/02/uk-parliamentary-meeting-brings-dangers-roundup-public-focus/#.U7TVd-j_hzl)

<sup>69</sup> Dr. Don M. Huber – Professor Emeritus of Plant Pathology at Purdue University

<sup>70</sup> <http://www.mdpi.com/1099-4300/15/4/1416>

<sup>71</sup> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945755/>

Samsel A, Seneff S. Glyphosate, pathways to modern diseases III: Manganese, neurological diseases, and associated pathologies.<sup>72</sup>

Samsel A, Seneff S. Glyphosate pathways to modern diseases IV cancer and related pathologies<sup>73</sup>

Paper IV reveals Monsanto's secret studies: Monsanto knew that glyphosate caused cancer in animals but manipulated the data (Page 1, 61). The paper contains an analysis of the sealed documents of Monsanto's earliest studies on animals. In 1985 the US EPA classified glyphosate as a Group C carcinogen but under pressure from Monsanto changed to Group E in 1991<sup>74</sup>

#### **NEW: How can one chemical cause all these diseases?**

Samsel and Seneff are in the process of writing paper V about **why** glyphosate causes so many diseases. Canadian activist Tony Mitra interviews Anthony Samsel on 03/01/2016 about it.

<https://www.youtube.com/watch?v=cGR64zTX9Js>

He starts by saying:

#### **THERE IS NO SAFE LEVEL OF GLYPHOSATE (OR GLUFOSINATE) BOTH SYNTHETIC AMINO-ACIDS RANDOMLY WREAK HAVOC IN BIOLOGY**

Samsel describes in detail how glyphosate affects every tissue at a molecular level. That is why it takes so long to see the damage that is happening. He points out that Carbon-14 radio-labeled studies by Monsanto and DuPont confirm that the chemicals are incorporated into every gland, organ and tissue. The glycine mimic gradually causes cell death and predisposes to mitochondrial dysfunction. He explains why someone with Chronic Obstructive Pulmonary Disease (COPD) suddenly deteriorates. They reach a tipping point. This is why there have been so many organ failures since 1980; kidney failure, liver failure, brain failure, heart failure and lung failure.

He describes how all the non-organic foods in the US are contaminated with glyphosate.

In a previous video<sup>75</sup> Samsel described glyphosate as 'an extra-terrestrial amino acid created in a laboratory'. It mimics glycine, the simplest of our 21 amino acids. Every cell in our body is created from 21 amino acids. He emphasises that **ALL LIFE FORMS WILL BE NEGATIVELY AFFECTED** which is how and why it reduces biodiversity.

In that video Samsel concluded:

**THIS CHEMICAL SHOULD NOT BE MANUFACTURED, SHOULD NOT BE USED.  
THIS OPERATION NEEDS TO BE SHUT DOWN, LOCK STOCK AND BARREL**

### **Questions and Answers about Pesticides**

Pesticides are silent killers. This 5-page document describes the criminal activities and corruption of the Agrochemical Industry and their supporters. They have used the world as a private experimental laboratory for their lethal chemicals. Humans and the environment have been their guinea pigs.

[https://www.academia.edu/19623195/Questions\\_and\\_Answers\\_about\\_Pesticides](https://www.academia.edu/19623195/Questions_and_Answers_about_Pesticides)

Rosemary Mason 04/01/2015

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<sup>72</sup> [http://www.surgicalneurologyint.com/temp/SurgNeuroInt6145-4381109\\_121011.pdf](http://www.surgicalneurologyint.com/temp/SurgNeuroInt6145-4381109_121011.pdf)

<sup>73</sup>

[https://www.academia.edu/17751562/Glyphosate\\_pathways\\_to\\_modern\\_diseases\\_IV\\_cancer\\_and\\_related\\_pathologies](https://www.academia.edu/17751562/Glyphosate_pathways_to_modern_diseases_IV_cancer_and_related_pathologies)

<sup>74</sup> [http://www.epa.gov/opp00001/chem\\_search/cleared\\_reviews/csr\\_PC-103601\\_30-Oct-91\\_265.pdf](http://www.epa.gov/opp00001/chem_search/cleared_reviews/csr_PC-103601_30-Oct-91_265.pdf)

<sup>75</sup> <https://www.youtube.com/watch?v=DEiH9wWXZCQ>