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Response from the UK Pesticides Campaign to the Environmental Audit Committee report “*Pollinators and pesticides*”

Georgina Downs from the UK Pesticides Campaign (www.pesticidescampaign.co.uk) states,

“The UK Pesticides Campaign welcomes a number of the Environmental Audit Committee’s recommendations. In particular the UK Pesticides Campaign is pleased to see that the committee has recommended that DEFRA must review how it exercises the precautionary principle. DEFRA has often fought tooth and nail both here and in Europe to ensure that the status quo can be maintained in relation to the UK policy and approach on pesticides.

The UK Pesticides Campaign also welcomes the committee’s recommendation that economic considerations should not form part of risk assessment and risk management decisions. This is a critical point that the UK Pesticides Campaign repeatedly made in its written and oral evidence to the committee as DEFRA has continued to adopt the improper approach of *balancing* the harm of pesticides against the (supposed) benefits of pesticide use (eg. cost/economic benefits for farmers and the industry). The result of this is that successive Governments’ have for many years now based its policy decisions regarding pesticides on the *alleged* financial and economic impacts on manufacturers, farmers and distributors, or the impact on agricultural productivity, if there were any changes to the current policy and approach for pesticides and related approvals system. Yet the overriding primary objective of the EU pesticides legislation is the high level of protection of human health and the environment. It is therefore clear that under EU legislation there should be no balancing of interests as the protection of human health and the environment is supposed to be paramount.

It is however disappointing that the Environmental Audit Committee report is limited to assessing the impacts of pesticides on bees and other pollinators *solely* in relation to one group of pesticides, the neonicotinoids. The committee has therefore not addressed in any detail the wider and very serious problems from the use of pesticides in agriculture *in general* and the impacts on bees, other pollinators, **as well as importantly on humans.**

Pesticides are assessed based on exposure to just one individual pesticide at any time. Yet the reality is that innumerable mixtures of pesticides are used on crops, including a variety of insecticides, fungicides, and herbicides. This is on a regular basis, year after year. In fact there are over 2,000 products currently approved for use in the UK in agriculture. The report has not addressed in any detail the very serious failure of the current UK policy and approvals system to adequately assess the risks of such exposure (ie. to **mixtures** of pesticides regularly sprayed), as well as the failure of successive Governments’ to act on known risks and adverse impacts. The fact is that the **reality** of pesticide spraying in the countryside is simply not reflected in any of the Government’s risk assessments, whether it be for humans or bees!

When I was invited by the committee to provide written and oral evidence on behalf of the UK Pesticides Campaign **it was on the absolute understanding that the committee would be considering such wider issues in its inquiry.** Therefore it is disappointing that the report

has not tackled the wider problems with pesticides, as the UK policy and regulatory system is grossly flawed and fails to protect *any* species whether it be humans, bees, or indeed other.

The Environmental Audit Committee report also does not address the inherent problem regarding the fact that the key officials advising ministers on pesticides safety, the Chemicals Regulation Directorate, receives approx. 60% of its funding from the agrochemical industry. This is broken down into the fees charged to companies for applications, and a charge on the UK turnover of pesticides companies.¹ For a number of years now this has resulted in the CRD receiving around £7 million per year from the agrochemical industry.² This has always been a completely inappropriate structure, as even though CRD's main priority is supposed to be to protect public health and the environment from pesticides this clearly conflicts with the fact that the CRD's main customers/clients are its approval holders, (predominantly made up of the agro-chemical companies). Further, by CRD carrying out all the Government consultations' on pesticides, and also being the main Government agency that assesses the adequacy of the UK's policy and approach, is really effectively just asking the regulator to be judge and jury of itself, which further compounds the inappropriateness of the UK structure.

There is no doubt that the continued dependence and widespread use of pesticides in agriculture is causing serious damage to the environment, wildlife **and, above all, human health**. An important review just published in Toxicology and Applied Pharmacology³ regarding the chronic health impacts of pesticides points out that long-term contact to pesticides can disturb the function of different organs in the body, including nervous, endocrine, immune, reproductive, renal, cardiovascular, and respiratory systems. The review details pesticides associated with elevated incidence of cancer in epidemiological studies, and lists studies (including numerous studies relating to residents living in the locality of pesticide sprayed fields) whose results implicate on the association of exposure to pesticides with incidence of chronic diseases. These include, cancers of the breast, prostate, lungs, brain (including childhood brain cancer), kidney, testicles, pancreas, stomach, bladder, bones, as well as non-Hodgkin's lymphoma, multiple myeloma, soft tissue sarcoma, leukaemia, (including childhood leukaemia), birth defects, reproductive disorders, neuro degenerative diseases (including Parkinson's, Alzheimer's, Amyotrophic lateral sclerosis), cardio-vascular diseases, respiratory diseases, diabetes (Type 1, 2 and gestational), chronic renal diseases, and autoimmune diseases (such as rheumatoid arthritis, and systemic lupus erythematosus).

The review concludes that there is "*a huge body of evidence on the relation between exposure to pesticides and elevated rate of chronic diseases,*" and that taken together the chronic diseases discussed within the review "*are considered as the major disorders affecting public health in the 21st century*" and that "*it is time to find a **preventive approach** ... by logical reducing pesticide use or pesticide dependency and find efficient alternatives.*"³

Therefore based on the existing evidence it is now beyond dispute that pesticides can cause a wide range of both acute, and chronic, adverse effects on human health. The European Commission has previously acknowledged that "*Long term exposure to pesticides can lead to serious disturbances to the immune system, sexual disorders, cancers, sterility, birth defects, damage to the nervous system and genetic damage.*"⁴ Also, new EU pesticides legislation now recognises residents as a "*vulnerable group*" as residents living in the locality of sprayed fields are "*subject to high pesticide exposure over the long term*".⁵ However, neither of these important facts are referred to at all in the Environmental Audit Committee's report.

It is clear that the very serious and inherent problems that result from using pesticides will definitely not be solved by merely tinkering with the existing system. **There needs to be a complete policy shift away from the dependence on pesticides altogether by utilizing sustainable non-chemical farming methods.** Therefore it is a complete paradigm shift that is needed to a non-chemical food production system. It simply would **not** solve the deep seated and fundamental problems that exist in relation to the UK's policy and approvals regime by just banning a few individual pesticides here and there (especially considering that agricultural pesticides are commonly used in *mixtures*, often 4 or 5 different products in any one application, and are therefore rarely used individually), or by just substituting one pesticide for another, **as no toxic chemicals that have related risks and adverse impacts for any species (whether humans, bees, birds, or other) should be used to grow food.**

It is important to stress the fact that the problems with pesticides simply will not be solved by Integrated Pest Management (IPM) and the UK Pesticides Campaign is therefore rather surprised that the Environmental Audit Committee report appears to be of the view that the utilisation of IPM will have a significant impact on pesticide use in the UK. IPM is a system **that still uses pesticides** and considering that many conventional farmers insist they already adopt IPM practices even though they are still spraying mixtures of pesticides on a regular basis, year after year, on crop fields across the UK, then IPM is really current conventional farming. Therefore in *reality*, and in practice, IPM does not necessarily involve lower pesticide use, and thus IPM is not going to fundamentally change anything as it is not a move away from the use of pesticides in agriculture. IPM is a red herring and is a weaker, far more compromised system than utilising complete non-chemical farming systems. It is also important to emphasise the fact that **just one single exposure to pesticides could lead to damage to the health of humans, bees or other species.** Therefore, as said, the only real solution to eliminate the adverse health and environmental impacts of pesticides is to take a preventative approach and avoid exposure altogether with the widespread adoption of truly sustainable non-chemical farming methods. This would obviously be more in line with the objectives for sustainable crop production, as the reliance on complex chemicals designed to kill plants, insects or other forms of life, cannot be classified as sustainable.

In objection to the widespread adoption of non-chemical methods the UK Government and the chemical and farming industries have repeatedly argued over the years that there would be a vast reduction in yield if pesticides were not used. Yet there are various international studies that have shown that this would not necessarily be the case, and in fact a number of studies actually found a significant *increase* in yield, including increases of up to 250%.⁶

The health of the public, bees, birds and other species urgently needs protecting and the only way to do that is not to use these toxic chemicals at all in the production of our food.”

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Notes to editors

- The Environmental Audit Committee report “*Pollinators and pesticides*” **that is embargoed until 0.01am Friday 5 April** will be published on the committee website on Friday 5th April 2013 at:-

<http://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/>

- Georgina Downs of the UK Pesticides Campaign (www.pesticidescampaign.co.uk) was **invited by the Environmental Audit Committee** to provide both written and oral evidence which Ms. Downs duly did, **but only on the absolute understanding that the committee would be considering wider issues in its inquiry, which it subsequently did not.** The UK Pesticides Campaign's written and oral evidence to the inquiry can be seen at:- <http://www.pesticidescampaign.co.uk/evidence.htm>
- The UK Pesticides Campaign was founded in 2001 and is the only campaign, not only in the UK, but also across Europe, that specifically exists to highlight the risks and adverse health, environmental and financial impacts of pesticides on rural residents and communities, as well as on other members of the public exposed. Georgina Downs, as the Founder and Director of the UK Pesticides Campaign, has lived next to regularly sprayed fields for over 29 years, and therefore has the direct experience of living in this situation. Over the last 12 years the UK Pesticides Campaign has produced extensive written and visual materials to highlight the UK Government's inherent fundamental failure to protect public health, in particular rural residents and communities, from exposure to agricultural pesticides sprayed in the locality of residents' homes, schools, playgrounds, amongst other areas. The work of the UK Pesticides Campaign is widely recognised both nationally and internationally, and has led to a considerable number of prestigious environmental awards and nominations.
- **The important review (that is listed as reference 3 in the main text above) that has just published in *Toxicology and Applied Pharmacology*, Volume 268, Issue 2, 15 April 2013, Pages 157–177 regarding the chronic health impacts of pesticides entitled “*Pesticides and Human Chronic Diseases; Evidences, Mechanisms, and Perspectives*” by Sara Mostafalou and Mohammad Abdollahi at the Department of Toxicology and Pharmacology, Faculty of Pharmacy and Pharmaceutical, Sciences Research Center, Tehran University of Medical Sciences, Tehran, Iran is at:- <http://www.sciencedirect.com/science/article/pii/S0041008X13000549>**
- Reference 1:- Source para 3.1 of the 2011 DEFRA document at:- <http://www.defra.gov.uk/consult/files/110210-pesticides2011-condoc.pdf>
- Reference 2: for example, see para 3.1 of the 2011 DEFRA document at:- <http://www.defra.gov.uk/consult/files/110210-pesticides2011-condoc-ia.pdf> in relation to the figure for 2009/2010 which was **£7.4 million**, and in relation to examples for earlier years see page 16 of the CRD's “Annual Report and Accounts 2008/09” for the figures for 2007/08 and 2008/09 available at: http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/A/Annual_report_and_accounts_final.pdf
- The source for reference 4 is available at:- [http://europa.eu/rapid/press-release MEMO-06-278_en.htm?locale=en](http://europa.eu/rapid/press-release_MEMO-06-278_en.htm?locale=en)
- The source for reference 5 is to the EU PPP Regulation regarding the authorisation of pesticides which is available at:- <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0001:01:EN:HTML>

- There are various international studies (listed as reference 6 in the main text above) that have shown that there would not necessarily be a reduction in yield if pesticides were not used and a few examples of these include:
 - One review of over 200 food production projects involving simple, organic type techniques in different countries found that they resulted in **major yield increases, ranging from 46-150%**. (Source: “*Reducing Food Poverty with sustainable agriculture: A Summary of New Evidence*,” ‘SAFE-World’ Research Project. J.N. Pretty and Rachel Hine, 2000).
 - Other case studies in the Philippines have demonstrated that sustainable agriculture can be practised in large scale; where yields do not necessarily drop without the use of chemical fertilisers and pesticides; **and that a rapid (even immediate) transition from chemical farming to sustainable agriculture is possible if correct technical principles are followed.**
 - One 15-year study comparing non-chemical farming methods to conventional methods concluded that yields from non-chemical farming equal conventional yields after four years. **And that's with no detriment to soil, water or human health.** (Source: Rodale Institute of Kutztown, Pennsylvania, 1998).
 - A previous study published results of 205 comparisons made of yields from organic and conventional farming systems in north America and Europe. The major finding of the study was, on average, and for a wide range of crops, yields within 10 percent (90 percent) of those obtained in conventional agriculture were achieved **without use of agro-chemicals.** (Source: G. Stanhill, 1989).
 - It has previously been reported that Ethiopia has also been turning away from high-input, intensive agriculture to develop farming systems based on traditional and organic farming methods. It was reported that the results were impressive, with yields doubling, in some cases more, following the use of compost – yields of the common Faba bean increased five-fold from 500 kg/ha to 2,500 kg/ha. **The practical evidence of Project Tigray’s increased yields convinced the Ethiopian Government to abandon agrochemical-reliant agriculture and reorient national food and farming policy towards organic farming.**
 - Another report found that organic and agro-ecological farming in the Southern hemisphere produces dramatic yield increases, as well as greater crop diversity and greater nutritional content. For example: Tigray, Ethiopia (composted plots yield 3-5 times more than chemically treated plots), Brazil (maize yields increased 20-**250%**); and Peru (increases of 150% for a range of upland crops). (Source: “*The Real Green Revolution – Organic and agro-ecological farming in the South*,” N. Parrott and T. Marsden, Greenpeace, 2002).
 - A study in Africa also showed an increase in yields from using organic and non-chemical methods. The article stated, “*The research conducted by the UN Environment Programme suggests that organic, small-scale farming can deliver the increased yields which were thought to be the preserve of industrial farming, without the environmental and social damage which that form of agriculture brings with it. An analysis of 114 projects in 24 African countries found that yields had more than doubled where organic, or near-organic practices had been used. That increase in yield jumped to 128 per cent in east Africa.” (Source: <http://www.independent.co.uk/news/world/africa/organic-farming-could-feed-africa-968641.html>).*
 - Researchers in Denmark found that a large-scale shift to organic agriculture could actually help fight world hunger while improving the environment. (Source: “*Organic agriculture and food security*,” Mark W. Rosegrant, Timothy B. Sulser, and Niels Halberg, 2007).