

Tainted Honours list reaches new low by rewarding the catastrophic failure to protect people from toxic pesticides

Amidst the usual highly contentious awards for a string of scandal-hit bungling bureaucrats and advisors, political cronies and party donors, there is one gong in the New Year's Honours list that has been largely overlooked. Yet it is actually the most outrageous of them all.

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I never really take much notice these days of any of the Honour's lists when they come out as they have long been associated with rewarding certain people for failure

However, one gong in this New Year's Honours list goes way beyond rewarding for failure and only goes to underline just how tainted such honours have now become.

A Government official, Paul Hamey, who is directly involved in the long standing and scandalous failure to have any proper risk assessment for rural residents exposed to pesticides sprayed on nearby crop fields as a result of his continued erroneous assumptions and seriously flawed calculations in setting pesticide exposure assessments [has been awarded an MBE for "services to the regulation of pesticides."](#)

Yet it is as a direct result of Mr. Hamey's work that many millions of people who live near conventionally farmed cropland have absolutely no protection at all from exposure to the cocktails of poisons sprayed on fields in the locality of residents' homes, schools, children's playgrounds, nurseries, hospitals, amongst other areas.

A catastrophic public health and safety failure

This is because, to date, the official method relied on by Mr. Hamey and then subsequently used by other regulators around the world for assessing the risks to people from crop spraying - and under which many thousands of pesticide products have been approved - has been based on the model of a short term 'bystander', occasionally exposed, for just a few minutes, and to just one pesticide at any time.

This means pesticides have been approved for decades without first assessing the health risks for people who actually live in sprayed areas which obviously includes babies, children, pregnant women, the elderly, and people already ill and/or disabled.

As the real life exposure for residents, as opposed to a mere bystander, is both repeated acute and chronic exposures over the long term, it is cumulative, and is to innumerable mixtures/cocktails of pesticides used on crops, throughout every year.

Considering how many people will be living in this situation then this is, without a doubt, a catastrophic public health and safety failure on a truly scandalous scale.

EU law regarding the authorisation of pesticides (formerly [Directive 91/414](#) and now [Regulation 1107/2009](#)) requires that pesticides can only be authorised for use if it has been established - based on the necessary risk assessments for all exposure groups (eg. operators, workers, residents, bystanders) - that there will be no immediate or delayed harmful effect on human health, including vulnerable groups.

Yet, although such strict EU laws exist, they are simply not being adhered to by either the UK or other Member States, and which is as a direct result of the flawed methods produced by Mr. Hamey and his regulatory colleagues in the UK and EU.

Exposing the flaws

I have spent the last 15 years exposing and challenging the flaws in the assumptions and calculations of Paul Hamey's assessments, as he has continued to be the official responsible for human exposure assessment at the Chemicals Regulation Directorate (CRD), and which was formerly the Pesticides Safety Directorate (PSD).

This included [challenging the Government's policy and approach in the courts](#), as Paul Hamey was the official that represented DEFRA in the legal proceedings and wrote/produced the majority of the Witness Statements on behalf of the Government.

It was as a direct result of that legal case, (in particular the [landmark ruling in the High Court](#) that rural residents are not protected from pesticides), that DEFRA Ministers requested a review of the policy in March 2009. As part of that review a working group was set up known as "BRAWG" and which recommended changes to the approach for assessing the risks to people from pesticides. BRAWG had agreed with a number of my long-standing arguments, including that: there needs to be separate exposure and risk assessments for residents and bystanders; and that both acute (short-term) and longer-term exposure assessments are required for residents.

[The Government subsequently announced in December 2013 that it accepted all of BRAWG's recommendations](#) and in doing so the Government had *finally* acknowledged that the risk assessment approach relied upon to date (by Paul Hamey and his regulatory colleagues) had been inadequate. However, despite vindicating the crux of my critical campaign arguments (that residents are simply *not* covered by the existing bystander model), overall BRAWG's recommendations were still woefully inadequate. In any event, the Government does not appear to have implemented the various changes that it previously publicly committed to do.

It is a matter of fact that there is *still* no actual risk assessment for the real life exposure of rural residents who live in the locality of pesticide sprayed fields.

Omitted pesticide exposure pathways and routes

For example, the Government's current approach (which still relies on Paul Hamey's work) continues to exclude entirely many of the exposure factors and routes that are necessary to include in the calculations for a residents specific exposure scenario.

These omitted exposure factors and routes include, amongst others:

- exposure to spray drift (droplets) for longer than 15 minutes;
- exposure to vapour for longer than 24 hours;
- exposure from hand to mouth-object to mouth for longer than 2 hours, and repeatedly; and exposure via the oral route for all other exposure factors;
- exposure via the eyes for all exposure factors;
- long-term exposure to pesticide particles, droplets and vapours in the air in the days, weeks and months after spraying applications;
- exposure to pesticides via precipitation and reactivation;
- exposure to pesticides in pollen, dust (including harvest dust);
- exposure to pesticides transported from outdoor applications and redistributed into an indoor air environment;
- exposure to pesticides via long-range transportation, as studies have shown pesticides found miles away from where they were originally applied;
- exposure to the mixtures/cocktails of pesticides used on crops as opposed to exposure to just one individual pesticide at any time (and even then the existing UK approach is only to the active ingredient and *not* all the other hazardous chemicals contained in each product formulation such as solvents, surfactants, co-formulants - some of which can have adverse effects in their own right, even *before* considering any synergistic effects in a mixture(s)).

Exclusion of acute exposure

Further, despite the fact that BRAWG recommended that both acute and longer-term exposure assessments are required for residents, DEFRA has recently stated it will not be expecting applicant companies to undertake assessments for acute exposure. [1]

This is again inconsistent with EU law as [Commission Regulation \(EU\) No 284/2013](#) of 1st March 2013 that sets out the data requirements that applicants must submit *prior* to any pesticides being considered for authorisation clearly specifies that the risk assessment undertaken for residents has to include both acute and chronic exposures. For example, the data requirements Regulation clearly states:

"The information provided for the plant protection product and that provided for the active substance, shall be sufficient to: (f) permit an estimation of acute and chronic exposure to operators, workers, residents and bystanders including, where relevant, the cumulative exposure to more than one active substance."

Then under the heading "*Circumstances in which required*" it states, "*An estimation of bystander and resident exposure shall always be performed.*"

DEFRA's current stated approach of not requiring applicant companies to undertake assessments for acute exposure for either residents or bystanders, is even worse than the grossly flawed approach proposed in the European Food Safety Authority's (EFSA's) Guidance - [which I have written about in detail previously](#) - and which applies from 1st January 2016.

In that Guidance, EFSA had concluded that a separate acute assessment for residents was not needed as it should be covered by the acute assessment for bystanders. Apart from the fact that this is simply not the case, as the acute

exposure for residents is most certainly *not* the same as acute exposure for a transient bystander, the EFSA Guidance *again* failed to reflect the risk assessment requirements set down in EU law, including [Commission Regulation \(EU\) No 284/2013](#) and [Regulation 1107/2009](#).

Both Regulations clearly require separate risk assessments to be undertaken for residents and bystanders - and for residents the risk assessment has to include for both acute and chronic exposures.

Acute exposures and acute effects

As I have continued to stress to the UK and EU regulators and authorities, the majority of reports, to date, of acute exposure and toxicity in the UK Government's very own monitoring system are for residents not bystanders, nor even operators.

This is not surprising considering operators and workers generally have protection - wearing of PPE, use of filtered cabs, and access to all the necessary chemical information, warnings, data sheets of the pesticides used etc. - and residents do not.

For example, the acute adverse health effects recorded in the UK Government's own monitoring system include, amongst other acute effects, the following:

- chemical burns (including to the eyes and skin);
- rashes and blistering;
- throat irritation (eg. sore and painful throats);
- damaged vocal chords;
- sinus pain;
- respiratory irritation;
- difficulty swallowing and chest discomfort;
- coughing;
- breathing problems;
- shortness of breath;
- asthma attacks;
- headaches, dizziness, nausea;
- vomiting;
- stomach pains;
- flu-type illnesses;
- aching joints.

These are the same types of acute adverse health effects reported to my campaign from rural residents and communities not only here in the UK, but also from various other countries across Europe, and indeed from around the world.

The majority of pesticide product data sheets are clear that acute effects, including both systemic effects, and local effects, can occur as a result of exposure.

Therefore considering that most, if not all, pesticides would have the potential for acute toxicity for residents, and further, considering that pesticides are rarely used

individually, but commonly in mixtures, then acute assessments must be required for *all* pesticides.

All exposures have to be included – and then summed

It is clear that any exposure and risk assessment for the real life exposure of rural residents and communities has to include *all* the relevant exposure factors and routes, including in relation to both the acute exposures, and chronic exposures.

Further still, all the exposure factors and routes would need to be included in the exposure calculations and then added together (summed) for the assessment of the overall exposure *in totality*, otherwise no exposure assessment and resulting risk assessment for residents (or indeed any of the exposure groups) can be complete.

It is a matter of fact that no pesticides should have been approved for use in the first place in the absence of all the necessary exposure and risks assessments being undertaken. The EU law duty requires that it must be established before a pesticide can be approved for use that there will be no harm to human health. This includes acute exposure and acute effects, as well as chronic exposure and chronic effects.

Facts and data ignored in favour of unevidenced industry assertions

The actual facts, evidence, and data of the reality of residents exposure, *direct* from residents themselves, has continued to be side lined by Paul Hamey and other regulators in favour of the unevidenced assertions of the manufacturers and producers of pesticides as to what they *maintain* the exposure of residents involves!

Yet the primary concern of the pesticides industry has always clearly been to protect the sales of their products and related profits and to keep such pesticides being used

Pesticides are obviously very big business. Sales of pesticides in the UK *alone* each year is around £627 million [2] and reports have put the value of the world pesticides industry at [around a staggering \\$53 billion](#). Therefore it has never been in the interests of the pesticide corporations to have the real life exposure of rural residents and communities properly recognised, as it is absolutely clear that if a proper assessment was undertaken to assess the exposure and risk for residents, then the result would be that pesticides would simply *not* be allowed to be approved *at all* for use in the locality of residents' homes, as well as schools, children's playgrounds etc

There is also a striking and astonishing fact related to the continued reliance of the regulators on the unevidenced assertions of the pesticides industry - in that Paul Hamey's employer, the Chemicals Regulation Directorate (CRD) which is part of the Health and Safety Executive (HSE), receives approx. 60% of its funding from the agro-chemical industry. This is broken down into the fees charged to manufacturers for applications, and a charge on the UK turnover of pesticide companies. [3] This results in the CRD receiving around £7 million or more per year from the industry.

This has always been a completely inappropriate structure.

Therefore, even though [CRD's main priority is supposed to be to protect public health and the environment from pesticides](#), this absolutely conflicts with the fact that its main customers/clients are the big agro-chemical giants.

This may go some way to explaining why the CRD has always, very notably, been far more concerned with the protection of industry and business interests, particularly applicants for approval, rather than the protection of the public, especially residents.

CRD and pesticides industry behind latest outrageous EU proposal?

In fact, the CRD, along with representatives of the pesticides industry, appear to be behind the astonishing proposal currently being considered in Europe - in a EC *draft* Technical Guidance [4] - to interpret pesticides being applied in "closed systems" and "in other conditions excluding contact with humans" as being applicable to the outdoor use of pesticides from crop spraying applications on fields in the open air.

This is in order for the exposure of residents to then be deemed so low and insignificant that it is included within the context of the term "*negligible exposure*."

This is yet again outrageous, especially considering that EU law already recognises that the exposure for residents living in the locality of pesticide sprayed fields is high, as residents are now specifically defined as a "*vulnerable group*" in [Article 3, paragraph 14, of the EU Regulation 1107/2009](#), which clearly recognises and clearly states that residents are "*subject to high pesticide exposure over the long term*."

Thus what is currently being considered in Europe is *again* not in line with existing EU law, in which residents exposure cannot possibly be considered as "*negligible*."

My campaign is the only one in the EU battling hard to get these proposals scrapped

A catalogue of adverse health impacts

It is now beyond dispute that pesticides can cause a wide range of both acute, and chronic, adverse effects on human health. This includes irreversible and permanent chronic effects, illnesses and diseases.

The European Commission itself [has previously clearly 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*."

High quality, peer-reviewed scientific studies and reviews have concluded that long-term exposure to pesticides can disturb the function of different systems in the body, including nervous, endocrine, immune, reproductive, renal, cardiovascular, and respiratory systems.

For example, [an important review published in Toxicology and Applied Pharmacology](#) regarding the chronic health impacts of pesticides concluded that exposure to pesticides is associated with a wide range of chronic diseases (and the

review included references to numerous studies relating to residents living in the locality of pesticide sprayed fields).

These chronic diseases include, cancers of the breast, prostate, lung, brain (including childhood brain cancer), kidney, testicles, pancreas, oesophagus, stomach, bladder, bone, as well as non-Hodgkin's lymphoma, multiple myeloma, soft tissue sarcoma, leukaemia, (including childhood leukaemia).

Other chronic health impacts include, birth defects, reproductive disorders, neuro degenerative diseases (including Parkinson's, Alzheimer's, Amyotrophic lateral sclerosis (ALS)), 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 stated that, taken together, the chronic diseases discussed within the review are considered as the major disorders affecting public health in the 21st century, and it concluded that it is time to adopt a preventive approach and find efficient alternatives to using pesticides.

Such findings again added further support and vindication to the many residents who have continued to raise concerns over the association of pesticides and such chronic conditions.

The most common chronic long-term effects, illnesses and diseases reported to my campaign from residents living in the locality of crop sprayed fields include neurological conditions such as Parkinson's disease, Motor Neurone Disease, and neurological damage, as well as various cancers, especially those of the breast and brain, leukaemia, non-Hodgkins lymphoma, amongst many other chronic conditions.

The economic costs of the health conditions that pesticides can cause are massive.

Obviously it goes without saying that the personal and human costs to those suffering chronic diseases and damage, and the impacts on all those around them, cannot be calculated in financial terms.

I myself have known a number of residents lose their lives, or the lives of their husbands or wives, sons or daughters. It has been heart breaking to watch this happening, especially knowing that if pesticides were not sprayed in the locality of residents' homes then such health conditions would have been totally preventable.

Guinea pig-style experiment with lives and health

Millions of rural citizens have been put in a massive guinea pig-style experiment, for which many of us residents have had to suffer the serious, devastating - and in some cases fatal - consequences. There are so many horrific stories of people being poisoned from crop spraying in the locality of their homes and many involve children.

Despite this - and despite the fact the primary duty of any Government is supposed to be to protect its people - successive Governments' have continued to fail to act to secure the protection of rural residents from exposure to these harmful chemicals.

They have instead just continued to shift the goalposts, cherry picked the science to suit the desired outcome (of maintaining the status quo wherever possible), and misled the public over the safety of crop pesticides sprayed on UK fields - as there has never been *any* evidence of safety for residents, or children attending schools near sprayed fields, just successive Governments' own unfounded assertions.

Hamey at the heart

Such a policy position taken by successive Governments' has been predominantly based on the flawed assumptions and methods produced by Paul Hamey, considering his role as the CRD official responsible for human exposure assessment

The fact that Mr. Hamey was given the responsibility of representing in the UK courts the policy approach taken by DEFRA - and in doing so he was really defending his own work, as the official in charge of human exposure and risk assessment - only further demonstrated the influence he has on the policy decisions taken by DEFRA.

Paul Hamey has also heavily influenced the flawed approach to the exposure of residents taken at the EU level, as well as in other countries around the world, as he has been on a number of key advisory committees and working groups on the issue.

This includes the fact that although it was my campaign representations on the flaws in the existing exposure and risk assessment approach that prompted the development of the EFSA Guidance in the first place, the actual basis of the EFSA Guidance came from a project report in which Paul Hamey was the lead author. [5]

In other words the person who was behind the very flaws that I was highlighting and in which there was again a clear conflict of interest in relation to defending his own existing methods. Paul Hamey was also involved throughout the drafting of the text of the EFSA Guidance document as he was on the related EFSA working group.

Therefore be in no doubt that Paul Hamey is at the very heart of the long standing and scandalous failure to have any proper risk assessment for rural residents.

The fact that he has been singled out to be rewarded an MBE speaks volumes, and obviously publicly named in the process - something which is not lost on me considering a previous access to information complaint in which the HSE maintained the names of junior officials (who were the authors of some documents related to the residents' issue) should not be made publicly available. I knew one of the officials was Paul Hamey and argued that the public had the right to know that information.

It is interesting that neither Paul Hamey nor the HSE has any such qualms about his name being made publicly available in relation to his MBE! In fact [the HSE press release related to the award even has his picture and some quotes from him](#) to boot.

A national disgrace

It is simply beyond outrageous to have rewarded an official who has had such a critical and direct involvement in the flawed policy and approach taken by successive Governments' for assessing the risks to people from agricultural pesticides – and

which as a result has led to the catastrophic failure to protect rural residents from exposure to the innumerable cocktails of poisons sprayed on crops across the UK.

Considering how many people have had their health damaged as a result of exposure to pesticides sprayed in their locality then it just adds further insult to injury to all those affected from the lack of duty of care in protecting people in rural areas.

It also sinks the Honours list to a new low, as this goes way beyond rewarding for failure. This is rewarding someone directly involved with one of the biggest public health scandals of our time, and which can only be described as a national disgrace.

Further still, the fact that [the Chair of the Health and Safety Executive, Judith Hackitt, has been made a Dame in the New Year's Honours list](#) - when she has presided over the agency that has responsibility for both the regulation and enforcement of pesticides - is yet another sign of Government contempt for all those it has poisoned.

Once the wider world is aware of this scandal, then in time, Paul Hamey may well join the ever increasing number of former recipients of such Honours (ie. MBE's, as well as OBE's, CBE's, even Knighthoods) [who have had their titles stripped/revoked](#).

In the meantime the question is this - how can officials with blood on their hands be rewarded in the first place?

Georgina Downs is a journalist and campaigner. She has lived next to regularly sprayed crop fields for more than 30 years and runs the [UK Pesticides Campaign](#).

References

1. As stated by David Williams from DEFRA in an email on 20th September 2015, and again in an email from Adrian Dixon, Head of Policy CRD, on 15th January 2016.
2. Taken from an email from the finance department of the Chemicals Regulation Directorate (CRD) on 25th September 2012 confirming this figure.
3. Source: paragraph 3.1 of a 2011 DEFRA document at:- <http://www.defra.gov.uk/consult/files/110210-pesticides2011-condoc.pdf>
4. European Commission *draft* Technical Guidance on points 3.6.3. to 3.6.5 of Annex II to Regulation (EC) No 1107/2009, in particular regarding the demonstration of negligible exposure to an active substance in a plant protection product under realistic conditions of use. The latest draft is November 2015 which is unpublished.
5. "Project to assess current approaches and knowledge with a view to develop a Guidance Document for pesticide exposure assessment for workers, operators, bystanders and residents," Paul Hamey (of then PSD which is now CRD) et al, 2008.