

Sir Tom Blundell, Chairman / Tom Eddy, Secretary
The Royal Commission on Environmental Pollution
5-8 The Sanctuary
Westminster
London
SW1P 3JS

21st October 2004

Dear Sir Tom Blundell and Members of the RCEP,

EVIDENCE FOR THE ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION – PESTICIDES AND BYSTANDER EXPOSURE STUDY

I welcome the opportunity to submit evidence on the pesticides and bystander exposure study to the Royal Commission.

I would like my previous submission to the DEFRA Consultation on *Proposals for the Introduction of No-Spray Zones Between Spraying Areas and Residential Properties in England and Wales* dated 29th September 2003, to be taken as my main written evidence for the Royal Commission study also. The aforementioned submission and accompanying video were very detailed and extensive and covered all the relevant areas related to the RCEP study. In addition I would also like all the previous material submitted to the RCEP members, (*see appendix 3*) as well as the material submitted here to be considered alongside the aforementioned submission.

The material submitted here is set out as follows:-

1. Background to the Bystander issue
2. Health Dimension
3. Scientific Modelling and Bystander Exposure
4. Public Concern
5. Legal and Policy Issues
6. Conclusion
7. Key Points and Recommendations

Appendices

- I. References that coincide with reference numbers
- II. List of documentation/material accompanying this submission and some of which is referred to in the text of this document
- III. List of previous material already provided to RCEP members' and some of which is referred to in the text of this document

1. Background to the Bystander Issue

- 1.1. My family and I have lived next to sprayed fields for over 20 years. As has been well documented we were unaware that we were being exposed to pesticides for the first 9 years or so that we lived here and therefore no linkage was made between the repeated acute or chronic long-term ill-health effects that we were suffering from following crop-spraying applications and exposure to pesticides.
- 1.2. From around 1993 onwards we made repeated approaches to the HSE and local Environmental Health Department for assistance regarding the lack of any protection for our health and safety, property and land from exposure/contamination of agricultural chemicals. However, we were regularly told that the farmer wasn't doing anything illegal and in relation to requests for prior notification before any spraying application, we were informed that there was no legal obligation for a farmer to provide it or any information on the chemicals to be used. (*See enclosed video document 10 entitled "Crop-Spraying Media Compilation," document 5 the paper presented for the ACP Open Meeting on July 10th 2002 entitled "Why the "bystander risk assessment" does not equate to real-life exposure scenarios," as well as documents 28, 29 and 30 for information relating to my family's specific situation*).
- 1.3. In early 2001 I realised that if this practice was in fact legal, then the problem had to originate at Government Policy level and so I started to investigate the history of crop-spraying and the regulatory system for pesticides.
- 1.4. I made representations on behalf of all those living near sprayed fields at the ACP Open Meeting in July 2001 and then following this to the Policy Commission on the Future of Farming and Food in September 2001. I also managed to arrange a meeting with members of the Policy Commission and other attendees held at the Cabinet Office on December 3rd 2001.
- 1.5. The Chairman of the ACP, Professor David Coggon was called in to meet members of the Policy Commission the following week to respond to the questions raised about the current regulations and monitoring system for pesticides.
- 1.6. Helen Browning, one of the members of the Policy Commission stated in September 2003 that *"One of the issues that greatly concerned me while I was involved with the Government's Policy Commission ("Curry") was the evidence given by Georgina Downs on the effect that pesticide drift had on her health and that of her family. In the short time we had available, we could not seem to get any reliable figures of how many incidences of suspected pesticide poisoning were occurring each year and what the legal position is for those effected."*¹
- 1.7. I met with Professor Coggon at a meeting on December 12th 2001. During the conversation Professor Coggon made a statement that turned out to be very significant in relation to assisting me in my identification that the bystander

risk assessment was inadequate to address the long-term exposure of a resident actually living in an agricultural area. Professor Coggon said “...*if people are spraying right up to the boundary’s of residential property’s then we need to establish, we need to take, do appropriate risk assessments for that. What we do with the risk assessments is we do do a risk assessment for bystanders, people who are standing by when pesticides are being sprayed, generally speaking the exposures of bystanders are much lower than those of the operators.*”

- 1.8. “*Bystanders*” are not legally defined either in national regulations or under Directive 91/414/EEC, although the latter specifically refers to bystanders. A working definition of bystanders has been developed, which assumes that there will only be occasional short-term exposure from the spray cloud at the time of application only. It also assumes exposure will only be to one individual pesticide at any time. (*See document 2 submission to the DEFRA Consultation entitled “Consultation on Proposals for the Introduction of No-Spray Buffer Zones Between Spraying Areas and Residential Properties in England and Wales,” dated 29/9/03 and document 5 paper presented for the ACP Open Meeting on July 10th 2002 entitled “Why the “bystander risk assessment” does not equate to real-life exposure scenarios”*).
- 1.9. Subsequent to this I made representations regarding pesticide exposures for people in agricultural areas and the inadequacy of the bystander risk assessment in addressing the exposure scenario of residents/neighbours to a number of other UK and EU Consultations. These included, amongst others, the Committee on Toxicity’s Working Group on the Risk Assessment of Pesticides and Similar Substances (WIGRAMP) in 2002, (UK), the Consultation document for “*Creating a Health Protection Agency*” in 2002, (UK) and the European Commission Consultation document “*Towards a Thematic Strategy for the Sustainable Use of Pesticides*” in 2002.
- 1.10. I also discovered during this time that a section in the Health and Safety at Work Etc. Act (1974) Part 1, Section 3.3, (in relation to members of the public gaining access to information held by an employer or self-employed person of that which may affect the Health and Safety of others) is actually a part of the Act that, according to HSE, has no power, as no regulations have ever been made under it, even though it has been there since 1974!
- 1.11. Dr. Charles Clutterbuck, representative of the Transport and General Workers Union (Farmworkers/TUC) asked at a meeting of the Health and Safety Executive’s Health in Agriculture Committee (HIAG) on 12th June 2002, if a schedule could be set for crop-spraying under Section 3.3 of the Health and Safety at Work Etc. Act (1974). HSE declined this request saying there needed to be regulations made under that section for HSE Inspectors to act.
- 1.12. In February 2002 I was invited by Professor David Coggon to make a presentation regarding the “*bystander risk assessment*” to the Government’s Advisory Committee on Pesticides at their Open Meeting on July 10th 2002. I produced a paper that was circulated to all attendees prior to the meeting entitled “*Why the “bystander risk assessment” does not equate to real-life*

exposure scenarios.” I also presented a video at the meeting to illustrate the reality of crop-spraying near human habitation and the inherent health risks. When the video finished, I asked the attendees to raise their hand if they thought it had demonstrated an acceptable system for protecting public health. Not a single hand went up!² (See the video previously circulated for RCEP members’ entitled “Pesticide Exposures for People in Agricultural Areas – Part 1 – Pesticides in the Air,” as well as the enclosed video document 10 entitled “Crop-Spraying Media Compilation” and also document 5 the aforementioned paper presented for the ACP Open Meeting on July 10th 2002).

1.13. During the meeting, the ACP requested that further work needed to be carried out by the regulators, the Pesticides Safety Directorate (PSD) to address the issues I had raised. (See document 12, letter from Lord Whitty (Minister for Food and Farming) dated 6th November 2002).

1.14. In a conversation with Canice Nolan, a member of the European Commission’s Health and Consumer Protection Directorate General, on 26th November 2002 about the bystander issue, he agreed that people who live in agricultural areas are not “bystanders” and that this was something that needed to be incorporated in the review of Directive 91/414/EEC.

1.15. I then met with the DEFRA Ministers Lord Whitty (Minister for Food and Farming) and Michael Meacher (Former Minister for Environment) on December 17th 2002 to show them the video and to present the case for a change in the regulations and legislation governing agricultural spraying. This included the call for a) a ban on crop-spraying within a certain distance of homes, schools, workplaces or any other places of human habitation as well as b) prior notification before any spraying application and direct public access to all the necessary chemical information. During this meeting it was stated that **“You haven’t just thrown another stone into the pool, you’ve really made a case and obviously we need to respond in one way or another.”** (See previous material circulated for RCEP members’ and referred to in Appendix 3, where document 8, was the full transcript of the meeting with Lord Whitty and Michael Meacher on 17th December 2002).

1.16. Following this meeting and subsequent media coverage of my campaign, the Ministers decided to launch 2 Consultations’ on crop-spraying on July 21st 2003, that were proposing the introduction of the measures that I had been campaigning for. (See document 6 for related media coverage, as well as enclosed video, document 10 entitled “Crop-Spraying Media Compilation”).

1.17. The first, an “informal” consultation, considered proposals for mandatory notification and disclosure of information to the public concerning spray activities. (See document 2, submission to the DEFRA Consultation on no-spray zones, appendix 3, as well as additional comments below relating to the Consultations’).

1.18. The second “formal” consultation was in relation to introducing mandatory no-spray zones around residential areas. (See document 2, submission to the

DEFRA Consultation, as well as additional comments below relating to the Consultations’).

- 1.19. The Consultations’ resulted in the highest number of responses since DEFRA records began.
- 1.20. I made an extensive written submission to this Consultation highlighting the inadequacies of the current regulatory and monitoring systems for pesticides, supported by references and excerpts from various international scientific journals and papers. I also submitted a second video to accompany the written material that featured individuals and families from all over the country reporting seemingly disproportionate amounts of illness and disease in rural communities surrounded by sprayed fields. A number of those featured on the video have actually been officially diagnosed and confirmed by the Government as suffering from pesticide related ill-health. *(See document 2, submission to the DEFRA Consultation and the video previously circulated for RCEP members’ entitled “Pesticide Exposures for People in Agricultural Areas.”)*
- 1.21. During this time there had been a Government reshuffle and therefore Alun Michael (DEFRA Minister for Rural Affairs) took over the responsibility for pesticides from Lord Whitty.
- 1.22. I met with Alun Michael on December 17th 2003. My request to record this meeting was declined and I was told that I would be provided with a report of the meeting by the Minister’s office. Despite repeated approaches this has not been forthcoming.
- 1.23. The submission and video I put into the DEFRA Consultation were also submitted separately as evidence to a number of different advisory committees and government departments, including amongst others, the Advisory Committee on Pesticides (ACP); the Committee on Toxicity (COT); the Pesticides Forum and the relevant Ministers responsible for pesticides in other Government departments. These include Des Browne, Department of Work and Pensions; Melanie Johnson, Department of Health; Carwyn Jones, the Welsh Assembly and Ross Finnie, the Scottish Executive. However, as RCEP members are aware a number of these listed did not actually look at the material at all. This included members of the ACP, which resulted in a formal complaint being made to the Minister, Alun Michael, in a letter dated 6th April 2004. *(See previous material circulated for RCEP members’ and referred to in Appendix 3, where document 5 related to the 6 pages that were sent to ACP members prior to their meeting on 20th May 2004. This document contained the formal complaint that was made to Alun Michael in a letter dated 6th April 2004, concerning the ACP’s approach to my documentation and video. Also see Appendix 2, document 24, correspondence with the COT Secretariat regarding the video and accompanying material).*
- 1.24. Following extensive media interest and coverage on this issue over the last 2 years, I continue to be contacted by people from all over the country reporting acute and chronic long-term illnesses and diseases in rural areas. *(See*

documents' 6, 7, 8, 9 and enclosed video document 10 entitled "Crop-Spraying Media Compilation").

- 1.25. The most common illnesses reported include clusters of various cancers, (especially breast cancer among rural women) leukaemia, non-Hodgkins lymphoma and neurological problems, along with many other medical conditions. Reports of this nature have gone on for decades. *(See document 2, the submission to the DEFRA Consultation, in particular Appendix 2 and the video previously circulated for RCEP members' entitled "Pesticide Exposures for People in Agricultural Areas" for reports of acute and chronic long-term ill-health for people living in agricultural areas).*
- 1.26. On April 23rd 2004, the Ontario College of Family Physicians published a comprehensive review of pesticide research.³ As a literature review the document does not provide any new scientific evidence. However, the report does make startling observations from the combined weight of credible evidence obtained.
- 1.27. The college found consistent evidence linking pesticide exposure to brain, kidney, prostate and pancreatic cancer as well as leukaemia, non-Hodgkins lymphoma, neurological damage, Parkinson's disease and other serious illnesses and diseases. The review found that children are particularly vulnerable to the effects of pesticide exposure. The authors concluded that the literature does not support the concept that some pesticides are safer than others and recommended that people avoid exposure to all pesticides whenever and wherever possible.³
- 1.28. Professor Samuel Epstein, Chairman of the Cancer Prevention Coalition and author of "*Stop Cancer Before it Starts*" sent an email to Alun Michael, Margaret Beckett (Secretary of State for DEFRA) and Melanie Johnson (DOH Minister for Public Health) on June 14th 2004. He confirmed that there is already substantive scientific evidence on the role of pesticides, along with other environmental pollutants as a major cause of cancer and other diseases and was in full support of the case that I had presented to the Government on this issue. *(See document 23).*
- 1.29. In his Written Statement to Parliament on June 16th 2004, announcing the result of the 2 DEFRA/PSD Consultations', Alun Michael stated "*The independent scientific advice I have received both from the independent Advisory Committee on pesticides and DEFRA's Chief Scientific Advisor, is very clear that the existing system provides full reassurance. I am confident that no new scientific evidence has come to light that would provide a safety based justification for buffer zones and I have therefore decided against their introduction around agricultural land.*"
- 1.30. However, he instead requested this current study by the Royal Commission on Environmental Pollution to assess the risks to people from crop-spraying.
- 1.31. In relation to the Consultation on access to information, Alun Michael had decided to introduce new legislation to make it mandatory for farmers and growers to keep spray records and to make these records available to the

public via a “*third party*.” He had also decided to carry out a pilot study to explore practical means of providing advance notification to residents living next to farms.

- 1.32. DEFRA’s Chief Scientific Advisor, Howard Dalton, had been asked by Alun Michael to become involved in the bystander issue at the beginning of the year (2004) and subsequently advised the Minister that the current system is robust and provides adequate protection to the public from crop-spraying and pesticide use.
- 1.33. Alun Michael invited key Stakeholders to a meeting held on 22nd July 2004 to explain the reasoning behind the decisions he had made.
- 1.34. In a discussion I had with Howard Dalton, following the meeting, it emerged that he had not seen or heard any of the evidence/arguments that I have been presenting to the Government regarding the bystander issue over the last 3 years. He stated that he had not seen any of my documentation or videos and that he wasn’t even aware that this material existed. In addition it appears that he did not see the Ontario pesticides literature review either, prior to his advice to Ministers that the current system is robust. *(See previous material circulated for RCEP members’ and referred to in Appendix 3, where document 12 contained the letter I sent Howard Dalton on 23rd July 2004).*
- 1.35. In fact it transpired at the Stakeholder meeting that Professor Dalton had only met with and heard from the PSD, as well as Professor David Coggon, Chairman of the ACP regarding the bystander issue, prior to the formulation of his advice to Ministers. This cannot possibly lead to a balanced or fully informed decision. *(See previous material circulated for RCEP members’ and referred to in Appendix 3, where document 13 was the press release I sent out on 3rd August 2004 in relation to this).*
- 1.36. As RCEP members are already aware I have recently made an application to Judicially Review Alun Michael’s decision, pending the outcome of the RCEP report.
- 1.37. I must stress that I am an independent pesticides campaigner solely representing people who live near sprayed fields, as someone who has over 20 years direct experience of living in this situation. *(See www.pesticidescampaign.co.uk)*
- 1.38. Therefore I would like to stress that the comments that I make and measures that I have proposed all the way through the campaign are based on everything that I have collected/amassed over the last 3 years. This includes both in terms of scientific evidence as well as the reports and comments that are coming into me from other rural residents and communities, along with members of the public in general. *(See document 2, the submission to the DEFRA Consultation, as well as the video previously circulated for RCEP members’ entitled “Pesticide Exposures for People in Agricultural Areas.”)*

2. Health Dimension

- 2.1. In addition to the comments below, I would like to refer RCEP members to my previous submission to the DEFRA Consultation on no-spray zones dated 29/9/03, as it was very detailed and extensive and contained references and excerpts from various international peer-reviewed scientific studies/journals and papers in relation to the adverse effects of pesticides.
- 2.2. However, I have included a few comments and additional material related to each question below.

What are the biological effects of bystander exposure (what is the knowledge base)?

- 2.3. Pesticides are deliberately designed to be toxic and are therefore naturally going to be inherently hazardous to human health.
- 2.4. There has been over 50 years of documented scientific and medical evidence in relation to the dangers of pesticides, the risks inherent in their use and the acute and chronic long-term ill-health effects that can result following exposure, including from Government's very own documentation. *(See document 2, submission to the DEFRA Consultation, in particular, Appendix 1).*
- 2.5. Residents and others in the countryside are subjected to a very high level of exposure to these chemicals, commonly uninformed, unprotected and with no escaping the effects, as it's in the air and almost constantly contaminates both their outdoor and indoor air and living environment. *(See document 2, submission to the DEFRA Consultation and the video previously circulated for RCEP members' entitled "Pesticide Exposures for People in Agricultural Areas")*
- 2.6. The acute effects that are commonly reported to me by people exposed to pesticides and other hazardous chemicals from crop-spraying include, sore throats, burning eyes, nose, skin, blisters, headaches, dizziness, nausea and flu-type illnesses. *(See document 2, submission to the DEFRA Consultation, in particular Appendix 2, as well as the video previously circulated for RCEP members entitled "Pesticide Exposures for People in Agricultural Areas.")*
- 2.7. Some of these acute effects can be seen listed on the safety data sheet for each product and therefore the cause of the effect should be fairly clear. For example, I have had a number of reports where residents or others in the countryside have suffered immediate chemical burns to their eyes from crop-spraying exposure. This has resulted in both acute burns and in some cases chronic long-term problems with the eyes, which can also subsequently become susceptible to any further exposure(s). In cases where the chemical information was obtained, the safety data sheet would clearly state "*Risk of serious damage to eyes*" and that if exposure did occur then the instruction was to "*Immediately irrigate affected eyes for at least 10 minutes under flowing water, with eyelids open.*" *(See documents' 29 and 30 for safety data sheet examples).*

- 2.8. However, even in cases such as these the adverse effects that are suffered by people are commonly dismissed by the authorities as not being related to pesticides, which results in only a few cases of acute effects confirmed as pesticide related per year. It should also be pointed out that none of these cases are ever followed up to see if the acute effects have resulted in permanent long-term illness.
- 2.9. The most common chronic long-term illnesses and diseases that are reported to me, (not only in humans, but in dogs⁴ and other domesticated animals as well), include clusters of various cancers, leukaemia, Non-Hodgkins lymphoma, neurological problems, asthma, allergies, along with many other medical conditions, particularly in young children. Reports of this nature have gone on for decades and as said above there is substantive scientific and medical evidence that pesticides *can* cause cancer and other chronic long-term illnesses and diseases. *(See document 2, submission to the DEFRA Consultation; Appendix 1 for references and excerpts from various international peer-reviewed scientific studies/journals and papers; Appendix 2, along with the accompanying video entitled "Pesticide Exposures for People in Agricultural Areas," contains examples of reports that have been coming into me of acute and chronic long-term ill-health for people living in agricultural areas).*
- 2.10. **As stated in 2.1 it is imperative that RCEP members see and refer to my original submission to the DEFRA Consultation, as it covered the points raised in this section in more detail.**

What are the limits of toxicology and epidemiology in cases of bystander exposure to pesticides?

- 2.11. The scientific assessment of the toxicity of pesticides is inherently flawed as it is based on creating visible symptoms in laboratory animals, which is unlikely to detect some of the more common adverse health effects experienced by people suffering pesticide related ill-health. For example, some effects of pesticides, like cancer formation, death, severe organ damage and the neurotoxic effects of paralysis, tremors and muscle wastage, will obviously be visibly noticeable in animal studies.
- 2.12. However, the more subtle alterations in neurological function are unlikely to be detected, as it is not possible for a rat to say it is experiencing symptoms like pains in the legs, tingling sensations, giddiness, headaches or generally feeling ill. These neurotoxic effects are some of those that are commonly experienced and reported by people suffering pesticide related ill-health. Also symptoms like burning eyes, nose and throat, will also be difficult to assess.
- 2.13. In addition, at a meeting on 27th January 2004, the PSD confirmed that inhalation studies, whether single or repeated, are not really being done in animal tests. Also animals don't get followed up to see if any acute effects have led to chronic long-term damage/disease.

- 2.14. Therefore, animal studies of this nature are not accurate or conclusive and yet this is the whole basis for the safety levels of chemicals.
- 2.15. In the book **“Gassed,”** by Rob Evans (2000) it states that:- *“Animal experiments can give little quantitative information on damage caused by chemicals.”*
- 2.16. One section of the book goes on to say, *“Porton scientists have as a rule felt that animal experiments are inadequate and that ultimately the chemical has to be tried out on people. Like many scientists, one of Porton’s histories notes that the “final” evaluation of the effectiveness of a chemical weapon depended on “many and varied” tests on humans. One senior British Official commented, “As a general principle in the chemical warfare field of investigation there is no doubt that, in the absence of tests on man, estimates of the hazard from potential chemical warfare agents will be unreliable and a dubious backing for weighty decisions concerning UK defences.” He added that, “Experiments with various species of animals to determine the toxicity of chemicals often produce differing results and so “crucial” tests on humans had to be done to discover just how poisonous a compound was to mankind.””*
- 2.17. Also it must be stressed that pesticides are only assessed on an individual chemical basis and yet in reality pesticides are not used one at a time. The existing toxicological assessment for pesticides does not take into account multiple exposures to mixtures of pesticides and other hazardous chemicals from all possible sources and by all routes of contamination, oral, dermal and inhalation, as well as eyes. Therefore the possibility of any potentiating or synergistic interaction from mixtures of different pesticides and other chemicals is currently not assessed.
- 2.18. In the Royal Commission’s own 2003 report *“Chemicals in Products – Safeguarding the Environment and Human Health,”* it states *“Given the inherent uncertainties about the way chemicals interact with the environment, it makes sense to assume that the continuing use of large numbers of synthetic chemicals will lead to serious effects, which we cannot predict on the basis of our current or foreseeable understanding of these processes. A sensible approach to this uncertainty would be one of precaution – to reduce the hazard wherever we have an opportunity to do so.”*
- 2.19. The lack of UK epidemiological research as a major obstacle in the full assessment of pesticide health hazards, particularly in relation to chronic effects, was highlighted in the 1990 British Medical Association’s report on *“Pesticides, Chemicals and Health”* and the Commons Select Committee on Agriculture report in 1987. The BMA report states *“In 1987 the Chairman’s report of the House of Commons Select Committee on Agriculture said that he found the “.....lack of epidemiological research quite unsatisfactory” and he urged the government to exert themselves to remedy that situation. Research protocols in this area are difficult to design and implement, but in 1990, there is no published evidence that steps have been taken to implement that recommendation effectively.”*

- 2.20. It is now 14 years on and it would appear that this situation still remains unchanged.
- 2.21. There are a number of international epidemiological studies available, some of which have looked specifically at patterns of illness in people living in rural areas. *(See document 2, submission to the DEFRA Consultation in particular, Appendix 1, as well as studies highlighted and referenced in the 2003 report by the Environmental Justice Foundation "What's Your Poison?" A copy of the full report has been provided to the RCEP Secretariat).*
- 2.22. In relation to pesticide exposure in general, the recent aforementioned pesticide literature review by the Ontario College of Family Physicians (OCFP) found consistent evidence linking pesticides to various forms of cancer, as well as other serious illnesses and diseases.³ Yet this review was heavily criticised by the UK Advisory Committee on Pesticides (ACP) who concluded that *"...the report does not raise any new concerns about pesticide safety that were not already being addressed and does not indicate any need for additional regulatory action in the UK."* (See <http://www.pesticides.gov.uk/acp.asp?id=1387>)
- 2.23. In their response to the ACP Chairman, dated 5th October 2004, Dr. Donald Cole on behalf of the OCFP states *"Overall, we were saddened by the overwhelming negative tone of your criticisms. We can always demand better reviews and better evidence, but we should ask ourselves whether this is the best way to move policy and practice towards more sustainable approaches to human activity in the long term."*
- 2.24. Therefore I think the RCEP need to ask the ACP, PSD and other scientific bodies that advise Government on pesticides what evidence will they accept? How many more studies have to show that pesticides are damaging human health and causing both acute and chronic long-term disease before they recommend that any action needs to be taken?
- 2.25. **For more extensive comments relating to the above, please refer to the submission to the DEFRA Consultation, as well as other relevant documentation provided to the RCEP.**

How plausible is it that pesticides cause the health problems reported?

- 2.26. As stated in paragraph 2.6 and 2.7 some of the acute effects that are commonly reported to me by people exposed to pesticides from crop-spraying can be seen listed on the safety data sheet for each product and therefore the cause of the effect should be fairly clear. *(See document 29 and 30 for examples of safety data sheets).*
- 2.27. In relation to chronic effects, the recent European Commission Communication *"A European Environment and Health Strategy"* (the SCALE initiative) states that *"Pesticides are possibly related to immunological effects, endocrine-disrupting effects, neurotoxic disorders and cancer."*

- 2.28. Many pesticides are carcinogenic, neurotoxic and/or endocrine disruptors and residents and others in the countryside are subjected to a very high level of exposure to mixtures of pesticides and other hazardous chemicals, from regular spraying applications, throughout every year and in many cases for decades.
- 2.29. There is no doubt about the rise in chronic illness. The Office of National Statistics recently released figures that show that record numbers of children and young adults are suffering from long-term illnesses and conditions and that one in six children under 5 now suffer from a long-standing illness, compared with 4 per cent in 1972.⁵ It is not known what proportion of these illnesses could be attributable to environmental causes. (*See document 2, submission to the DEFRA Consultation section 6.32 to 6.76 for other ill-health statistics*).
- 2.30. A recent report by Professor Colin Pritchard from Bournemouth University shows marked changes in “*neurological*” morbidity and mortality in most of the major Western world countries, particularly England and Wales, which the authors linked to an association with the use of multi-chemicals and pesticides in particular.⁶
- 2.31. Many pesticides that were approved for use for decades and declared safe have since been banned, as they were subsequently recognised as having damaging effects on human health and the environment (ie. DDT, Lindane, dichlorvos etc.)
- 2.32. There are many parallel examples where the UK Government have continued to deny the existence of a problem only to have to issue subsequent retractions at a later date, (although very rarely any apologies!)
- 2.33. The most significant of these is in relation to asbestos related diseases.
- 2.34. A new report just released states that three and a half thousand people die each year as a result of exposure to asbestos and that this figure is expected to rise to over 10,000 people a year in the next decade.⁷ These deaths and those yet to come could have been avoided if the early warning signs, going back many decades, had been adhered to and the immediate and appropriate action taken. (*See also comments in section 5.16 – 5.19*).
- 2.35. The most recent turn around over another controversial illness is in relation to Gulf War Syndrome. The US and UK Governments’ have always strenuously denied the existence of the condition and have (as with so many other things) labelled people who experience symptoms as suffering from a “*psychiatric*” illness.
- 2.36. However, a new report by the US Department of Veterans Affairs’ Research Advisory Committee on Gulf War Veterans’ Illnesses states that “*..a substantial proportion of Gulf War veterans are ill with multi-system conditions not explained by wartime stress or psychiatric illness.*”⁸

- 2.37. The report blames damage caused by nerve gas and its antidotes, as well as organophosphate insecticides (OP's) sprayed on soldiers' tents, which all block the enzyme that normally destroys acetylcholine, an important neural signalling chemical.
- 2.38. However, despite the change in stance by the US, at the time of writing (and as with so many other things that implicate chemicals as the cause of illness/disease, including the effects on people in the countryside from crop-spraying/pesticides) the UK Government still insists there is no link.⁹
- 2.39. The evidence that pesticides *can* cause the types of acute and chronic long-term illnesses and diseases that are being reported to me is indisputable. (See *Appendix 1 in DEFRA Consultation submission dated 29/9/03*).
- 2.40. In an email to Margaret Beckett, Alun Michael and Melanie Johnson on June 14th 2004, Professor Samuel Epstein, Chairman of the Cancer Prevention Coalition and author of "*Stop Cancer Before it Starts*" stated "...*there is substantive scientific evidence on the role of pesticides, along with other environmental pollutants as a major cause of cancer and other diseases.*" He went on to say that "*The implementation of a prevention principle is more appropriate than the precautionary principle, as substantive data regarding acute and chronic long-term illness and disease already exists.....*" and that "*It is high time that European and UK citizens got the high level of protection for their health and wider environment that they have the right to expect.*" (See document 23).
- 2.41. **For more extensive comments relating to the above, please refer to the submission to the DEFRA Consultation which contained references and excerpts from various international peer-reviewed scientific studies/journals and papers in relation to the risks inherent in the use of pesticides. See Appendix 2 of the aforementioned submission, as well as the video entitled "*Pesticide Exposures for People in Agricultural Areas – Part 2 – The Hidden Costs,*" for examples of reports of acute and chronic long-term illnesses and diseases for residents and others in agricultural areas.**

What systems are in place to respond to and record bystander exposure and how well do they work (eg. GP's, PIAP)?

- 2.42. I have made extensive comments in relation to the fundamental flaws throughout the existing regulations and monitoring system for pesticides in the submission to the DEFRA Consultation, the paper presented for the ACP Open Meeting on July 10th 2002 and in the presentation on the 25th September 2004.
- 2.43. However, I would like to make the following points here.

HSE, PIAP and NPIS

- 2.44. The Health and Safety Executive (HSE), the Pesticides Incidents Appraisal Panel (PIAP) and the National Poisons Information Service (NPIS) were only

really set up to deal with incidents of acute exposure and poisoning and therefore there is no monitoring or collection of data on chronic effects.

2.45. Therefore the full extent of ill-health related to pesticides is not known.

2.46. However, even in relation to acute effects there is underreporting and misdiagnosis due to a number of factors:-

- Residents and others in the countryside may not know that their health problems follow a pesticide exposure
- They may realise the link, but not know who to report it to or be passed from one agency to the next (*see below*)
- They may not be able to access the necessary chemical information which is vital for the correct assessment and treatment of any adverse health effects
- Their GP or other medical advisors may not be familiar with the symptoms and adverse effects following exposure to pesticides (especially in the absence of the necessary chemical information) and therefore there will be no correlation that the symptoms may be linked (*See below*)
- There may be no investigation by the authorities
- There may be an investigation by the authorities, but if there is no evidence of a breach of the approval, then the reported ill-health may be dismissed as not being related to pesticide exposure (*see below*)

2.47. This results in only a few cases of acute effects being confirmed by PIAP as related to pesticide exposure per year. It should also be pointed out that none of these cases are ever followed up to see if the acute effects have resulted in permanent long-term illness.

2.48. On Farming Today, transmitted on 3rd May 2003, it was acknowledged by a senior representative of the Health and Safety Executive that the PIAP system is inevitably flawed. Graeme Walker stated "*At the end of the day PIAP is a small snapshot of a fraction of the total use of pesticides in the UK. Inevitably in those circumstances it's flawed.*"

2.49. In response to questions about how many pesticide poisoning cases there are per year, Graeme Walker went on to admit that "*I don't know the extent of the whole problem, I can only comment on what's happening in the HSE's area of responsibility.....There are 430 odd local authorities who are also enforcing authorities for pesticide use in the UK. We have no control over what they do or they don't do, we have no control over the quality or otherwise of their investigations, we have no information on what they're doing.*"

2.50. He went on to say *“I have no idea what the extent of ill-health related to pesticides in the Local Authority enforced sector is and I have no mechanism for finding out. I have no responsibility for it and I have no right to access to that information, if indeed it exists.”*

Local Environmental Health Authority

2.51. I think the Royal Commission should find out how many Local Authorities actually know that they are enforcing authorities for pesticides. I say this because in my experience and the experience of a number of other people who have contacted me, the Local Authority will just say that any reports in relation to pesticide exposure are HSE’s area of responsibility and not theirs.

2.52. In cases where the Local Authority does appear to take details of a report of pesticide exposure, it does not necessarily lead to an investigation. A good example of this is an email I received last year from a man reporting an incident where both he and his 2-year-old daughter had been exposed to pesticides from a crop-spraying application. In his email he said *“I was very concerned about what the chemicals were that my daughter had had to breathe and contacted the Local Council in order to find out. I visited the council in person and related the incident to the duty environmental receptionist who, because of the matter of the child, appeared to take the issue seriously even though I was unable to say how often this spraying was taking place. I was told that they would contact environmental health officers and make an investigation. I left my name and address, identified the field in question on their map and agreed that the farmer in question was probably a However, I have never received any information or even an acknowledgement of my report and to this day I am none the wiser as to what the chemicals were.”* (See full email at the top of page 76 of my submission to the DEFRA Consultation).

Department of Health and the Health Protection Agency

2.53. I have made repeated approaches to the Department of Health on this issue, but I have been informed that at the present time, the DOH and the HPA both look to the Advisory Committee on pesticides to provide them with any required expert advice. (See document 18, correspondence with Pat Troop, Chief Executive, HPA, following our involvement in the BBC Breakfast series *“Too Close for Comfort.”* The part of the series relating to crop-spraying and pesticides is on the enclosed video entitled *“Crop-Spraying Media Compilation”* – document 10).

2.54. Therefore if the ACP’s advice is that there are no health risks from crop-spraying/pesticides then the Department of Health are unlikely to become actively involved. The Government department that has taken the lead on this issue is DEFRA and yet it was confirmed by PSD at a meeting on January 27th 2004 that DEFRA does not actually have any health directorate at all within the department.

GP's and other medical professionals

- 2.55. Doctors and other medical professionals only receive a few hours of toxicological training and therefore are commonly not familiar with the symptoms and adverse effects following exposure to pesticides (or chemicals in general), especially when in the absence of the necessary chemical information. This results in many of the symptoms being misdiagnosed as something else.
- 2.56. Margaret Reichlin, who suffers from long-term pesticide related ill-health, was told by one young doctor, *"We don't know anything about chemicals, what do you expect us to do about them?"*
- 2.57. There are a small number of GP's who do specialise in pesticide related ill-health and who therefore have a number of cases on record. One of these is Dr. Sarah Myhill who is also the Secretary of the British Society for Allergy, Environmental and Nutritional Medicine, which consists of a group of doctors interested in all areas of toxicology and illnesses related to toxic/environmental pollutants. Dr. Myhill utilises fat biopsies to test for pesticide levels and to prove definite exposure in people suffering from suspected pesticide related ill-health.

"Acceptably Safe" and Legal/Approved Use – A Catch-22?

- 2.58. However, the fundamental problem at the root of the deficiencies of the current UK monitoring system for pesticides stems from the failure at the approval level to identify and assess the dangers and risks to residents and others in the countryside from exposure to pesticides. This therefore in turn creates a "catch 22" scenario. *(Also see Conflicts of Interest? in section 4 and section 5, Legal and Policy Issues).*
- 2.59. For example, if pesticides have been approved as "acceptably safe" and a farmer has used pesticides in the accordance with the approval, could it then in the eyes of the enforcing authorities be deemed unlikely that the pesticides would have caused any ill effects?
- 2.60. A good example of this is a quote from the HSE in the "Big Issue" (Edition – August 4th 2003) that states *"People come to us with symptoms like headaches, nausea and asthma after they've been sprayed. But, in the last four and a half years, HSE has been unable to prove that any pesticide incident has been linked to a criminal offence that has caused the ill health of any individual."*
- 2.61. Therefore as I have stated in previous documentation, the continued claims made by DEFRA/PSD/ACP that pesticides are safe and do not pose any health risks to people in the countryside gives a false impression that once a pesticide has been approved and if used in accordance with the approval then it is therefore safe and will not cause any harm. *(See document 2, submission to the DEFRA Consultation; document 5, paper presented for the ACP Open Meeting on July 10th 2002 and also from previous material circulated for*

RCEP members' and referred to in Appendix 3, document 6, the submission I made to the PSD Consultation on the Green Code dated 30th July 2004).

2.62. This is factually inaccurate and seriously misleading to all parties, not just to farmers and the public, but to enforcing authorities, GP's and other bodies that may receive reports from people who have suffered adverse health effects following exposure, as if there is no evidence of illegal use, it may be concluded that any ill-health is therefore unrelated to pesticides.

2.63. I would like to quote Margaret Reichlin who so eloquently summed up this problem on Farming Today on May 3rd 2003. Margaret stated "*I think we have in Britain today an extremely interesting system. We have something called the law and the law says that you must not harm or injure people and if you do the law will clobber you and the victim will get some redress. Now that is what we are assured will happen. But when it comes to chemicals standing between us and the law is something called the protection system. Now the protection system has Codes of Practice and Guidance Notes and Advisory Codes, it has risk assessments, all of which are designed to prove that you cannot have been harmed because if all of these regulations have been observed they are there to protect you, therefore you must have been protected, therefore nothing can have happened, so it must be a question of anecdotal evidence or perceived risk or all in the mind.*" (See document 15, various correspondence with the ACP Chairman, Professor David Coggon, as it is relevant to this).

2.64. As RCEP members will know from my previous documentation this is the fundamental point of the case that has been presented to the Government over the last year. This is not about ill-health occurring through the misuse of pesticides or illegal use, but about pesticides legally allowed to be sprayed near to people's homes, schools, workplaces and the inherent health risks and acute and chronic long-term effects. (See document 2, submission to the DEFRA Consultation and document 5, paper presented for the ACP Open Meeting on July 10th 2002).

Health and environmental monitoring – observations by residents and the lay public

2.65. The RCEP report "*Chemicals in Products – Safeguarding the Environment and Human Health,*" stated that "*Some of the most severe problems caused by chemicals in the environment have been detected by observation rather than assessment techniques.*"

2.66. The RCEP pointed out in the accompanying press release dated June 26th 2003 entitled "*Reducing the risk from chemicals*" that "*Amateur naturalists and anglers played an important part in exposing the lethal effects of organochlorines and the way in which "endocrine disruptor" chemicals entering streams and rivers from sewage works were feminising male fish.*"

2.67. Therefore observations by residents who live near sprayed fields and others in the countryside can be an invaluable source of health and environmental monitoring, that can assist in identifying adverse impacts. Apart from my own

direct experience of this situation, I continue to be contacted by people from all over the country reporting both acute and chronic long-term ill-health effects following exposure to pesticides from crop-spraying and as said before not just in humans, but in dogs and other domesticated animals. I have continued to present this information to the Government, its agencies, and scientific advisors, as well as the EU. However, real-life experiences are currently not considered to be “*evidence*” by either the PSD or the ACP. Therefore in the light of Alun Michael’s recent decision it would appear that all the evidence presented to the Government to highlight the reality for people living near sprayed fields has merely been discounted as insignificant. (See document 2, submission to the DEFRA Consultation and the video entitled “*Pesticide Exposures for People in Agricultural Areas,*” as well as section 4, *Public Concern and in particular, the section, Comments on the DEFRA/PSD Consultation*).

2.68. Therefore in view of all the above and the points covered in previous documentation the monitoring system is seriously flawed and when it feeds back into the approval process it gives a false impression that pesticides are only causing very limited acute health problems, therefore creating a “*catch 22*” that then leads to continued claims of pesticides safety.

2.69. **This is completely unacceptable as patterns of illnesses have been reported in rural areas for decades and the Government has not acted, despite recommendations from previous reports that have looked specifically at the use of pesticides in agriculture.** (See section 5, *Legal and Policy Issues and in section 4, Conflicts of Interest?*).

2.70. **However, I must stress again that the principle aim of pesticide regulation is supposed to be the protection of public health and therefore this is based on the risk of harm and not that harm has to have already occurred. Therefore it is not up to an individual to have to “*prove*” that they are ill, but the Government not to expose them to any risks to their health and safety.**

2.71. **As stated in 2.1 it is imperative that RCEP members see and refer to my original submission to the DEFRA Consultation, as it covered the points raised in this section in more detail.**

3. Scientific Modelling and Bystander Exposure

How robust is the model? What kinds of exposure take place?

3.1. I have made extensive comments in relation to the inadequacy of the “*bystander*” model throughout the submission to the DEFRA Consultation, the paper presented for the ACP Open Meeting on July 10th 2002 and in the presentation on the 25th September 2004, as well as in other documentation submitted to the RCEP.

3.2. *To summarise a few of the key points:-*

- The *predictive* bystander model is not appropriate or realistic to address the long-term exposure of a resident actually living in an agricultural area
- Residents/neighbours will be repeatedly and frequently exposed to mixtures of pesticides and other hazardous chemicals, throughout every year and in many cases for decades
- Routes of exposure include oral, dermal and inhalation, as well as eyes and sources of exposure will include pesticides in the air, (droplets, particles, vapours, dusts etc.) outdoor and indoor environment, fog, soil, precipitation, pollen, harvesting dust, food, water etc. Exposure can be to both high and lower doses and levels over both the short and the long-term. (NB. In addition there could also be exposure to non-agricultural pesticides ie. – home and garden use, local authority or private pest control, spraying of sports fields, schools, parks, playgrounds, public footpaths, roads, pavements, golf courses, domestic goods etc.)
- There have not to date been any direct measurements taken in either the UK or the EU of the actual exposures that people are receiving in real-life when they live in an agricultural area, as it is all based on predictive models only. Nor have there been any direct measurements taken of pesticide levels in the blood and urine or any other health monitoring of rural residents (See document 22, Parliamentary Questions).
- Therefore without an adequate exposure assessment there cannot possibly be an appropriate or realistic assessment of the risks to public health in this specific exposure scenario and yet pesticides are not supposed to be approved for use until risk assessments have been undertaken to provide evidence that there will not be a health risk

3.3. **As stated in 2.1 it is imperative that RCEP members see and refer to my original submission to the DEFRA Consultation, as it covered the points raised in this section in more detail. For examples of real life exposures reported by other rural residents see Appendix 1 of the aforementioned submission as well as the accompanying video “Pesticide Exposures for People in Agricultural Areas.”**

How were safety factors derived?

3.4. The measure that is used to assess risks to “bystanders” is the Acceptable Operator Exposure Levels (AOELs). AOELs are based on No Observable Adverse Effects Levels (NOAELs) from animal studies. (See paragraphs 2.11 – 2.18 for comments relating to inherent flaws in animal testing in relation to extrapolating between animals and humans etc.)

3.5. The assessment was originally derived in relation to operators’ exposure, but has been extended to include “bystanders.” **It should be pointed out that there is no specific mention of residents or neighbours.**¹⁰ The EU and the

UK have simply chosen to include within the definition of “bystander” those who live near sprayed fields.

- 3.6. In the PSD document “*Bystander Exposure and Risk Assessment*,” it states “*A wide toxicology database is required to support an AOEL. The same data and approach to setting AOEL’s is followed across the European Union, under the Plant Protection Products Directive 91/414/EEC.*”
- 3.7. However, the DG SANCO document “*Guidance for the Setting of Acceptable Operator Exposure Levels (AOELs)*” is still a “*working document*” only and has not been finalised. A member of DG SANCO has confirmed in a recent email to Dr. Charles Clutterbuck on 28th October 2004 that “*the document has no legally binding status.*”
- 3.8. The Scientific Committee on Plants (SCP) questioned the comparison of bystanders and residents in their recommendations to the European Commission in October 2002 in response to the aforementioned DG SANCO draft document.¹¹ The SCP stated that “*there appears to be no clear definition of bystander. In addition, specific criteria to assess or estimate bystander exposure have not yet been developed.*”
- 3.9. They went on to say that “*The SCP is of the opinion that a difference should be made between a subject who is at risk of being exposed during the application of the PPP because he is occasionally in the proximity of the field and a subject who lives or works near the field being treated.*”
- 3.10. In their recommendations they stated “*The SCP recommends to the Commission to reconsider the concept of bystander, its appropriate exposure scenarios and the adequacy of applying the AOEL to this sub-population.*”
- 3.11. Therefore as Dr. Vyvyan Howard highlighted in his presentation at the public meeting on September 25th 2004, there has not to date been any research or information presented to explain the addition of bystanders to the AOEL process. Nor has there been any information/justification presented to explain why the UK Government and the EU have defined residents and neighbours as simply “*bystanders.*”
- 3.12. **This is completely unacceptable, as the UK Government and the EU have been aware of the case presented regarding pesticide exposures for people in agricultural areas and the inadequacy of the bystander risk assessment since early 2002. Therefore this requires immediate action, as it is wholly inappropriate to continue to include the exposure scenario of a resident into the “bystander” category.**

What happens in the “real” world (are rules followed, how good (old) is technology, how well does the model deal with dispersion?)

- 3.13. Again all these questions have been covered extensively and in detail in all the previous documentation submitted to the RCEP.

- 3.14. However, I have included a few of the key points as well as some additional comments here.
- 3.15. The current model does not address chemical fumes, volatilisation, persistence, transportation or wider dispersion after application, as it is mainly concerned with immediate spraydrift at the time of the application only.
- 3.16. From hearing comments at the public meeting on September 25th 2004 I am aware that there are many farming representatives and others who believe that the answer to managing and minimising the exposure to people in the countryside from crop-spraying can be found in advanced technology and better nozzle design.
- 3.17. This is an unrealistic portrayal of the real scope of the problem as in relation to volatilisation, precipitation etc. that can occur days, weeks even months after application, then it is immaterial how good the nozzles of the sprayer may be at the time of application.
- 3.18. The EU FOCUS – AIR Working Group document entitled “*Pesticides in Air, Plant, Soil and Water System*,” June 4-6 2003 states “*To date no harmonised guidance is available in the EU to estimate the emission of pesticides into air (excluding spraydrift) and to quantify their atmospheric transport, transformation and deposition outside the treated field.*”
- 3.19. It goes on to say that “*Today more than 80 different pesticides have been detected in precipitation in Europe and 30 in air (Van Dijk & Guicherit, 1999.*”
- 3.20. **Therefore immediate spraydrift is just one aspect of a much wider and more far-reaching problem, as regardless whether there is immediate drift or not, a farmer/grower will not be able to prevent pesticides, once they are airborne contaminants, from being in the air, as the droplets, particles, vapours etc. will be impossible to confine within the treated area.** (See document 2, submission to DEFRA Consultation for references and quotes taken from various studies in relation to airborne pesticides; distances pesticides have been shown to travel; mixtures; precipitation; as well as the video “*Pesticide Exposures for People in Agricultural Areas – Part 1 Pesticides in the Air*” and the aerial photos, document 11).

Control Of Substances Hazardous to Health (COSHH)

- 3.21. Farmers who use approved pesticides in accordance with the approval, will have taken their instruction from the product label (although there may be those who do not read the label at all).
- 3.22. If there is nothing written under the statutory conditions of use to indicate that it is hazardous to those within the surrounding area; the need to notify neighbours or any restrictions for use, then a farmer/grower may give less importance to the assessment of any health risks, (for those exposed other than workers/operators), if the risks have not been identified at the highest level, that of the approval.

3.23. In addition to this, if a farmer/grower is continuously told that pesticides are safe and that the problem is simply with “*public perception*,” then this will only further jeopardise their consideration of the risks to human health and adverse effects of pesticide use.

3.24. Therefore as I have stated in previous documentation, the continued claims made by DEFRA that pesticides are safe and do not pose any health risks for people in the countryside are factually inaccurate, seriously misleading and downright dangerous for both farmers and the public.

Green Code for the Safe Use of Pesticides on Farms and Holdings

3.25. The Green Code is only really related to immediate spraydrift and not the wider issue of the long-term exposure to pesticides in the air, volatilisation, transportation, persistence and wider dispersion. The Green Code in itself is effectively useless, as it is an advisory document for guidance only and therefore is not legally enforceable. Voluntary and self-regulatory measures have existed for decades, have not worked and are completely unacceptable in this situation. Therefore the introduction of statutory measures is essential.

Health and Safety at Work Etc. Act 1974

3.26. It must also be stressed that the existing regulations governing agricultural spraying appear to be at odds with the legal instruction given in the Health and Safety at Work etc. Act 1974, which clearly states that if someone releases dangerous or noxious emissions into the atmosphere, then it has to be “*without risk to human health*.”

3.27. Therefore it does not say that it depends on the level of risk or whether that risk is deemed by the regulatory authorities/scientific advisors to be an “*acceptable*” risk, it quite clearly states that it has to be “*without risk to human health*.”

3.28. In view of all the above, the existing pesticide policy is creating an adversarial relationship between farmers, regulators and the general public.

4. Public Concern

4.1. **In addition to the comments below, I would like to refer RCEP members to my previous submission to the DEFRA Consultation on no-spray zones dated 29/9/03 and accompanying video entitled “*Pesticide Exposures for People in Agricultural Areas*,” as well as other material already submitted to the RCEP to highlight the comments and concerns that are being made by others who also have the direct experience of this situation.**

4.2. ***NB. The comments I have made in the whole of this section should address all the other questions raised (ie. What are the public concerns and what are the causes of concern? What role do public values play? How are risk and uncertainty perceived and communicated? What is the relationship***

between science and the public in the bystander issue?), as well as the question listed below.

To what extent have the public been genuinely engaged in the bystander exposure policy process?

- 4.3. I shall cover this question in 2 parts, starting with the engagement I have had with the Government as a representative of all those living in this situation and then that of the public in general.
- 4.4. As described in section 1, the *Background to the Bystander Issue*, since 2001, I have been presenting to the Government what many people believe to be an unarguable case, regarding pesticide exposures for people in agricultural areas and the inadequacy and serious fundamental flaws of the “*bystander risk assessment*.” I have therefore had ongoing correspondence with Ministers, Government agencies and scientific advisors, as a representative of all those who live near sprayed fields.
- 4.5. However, considering the outcome of the Consultation and Alun Michael’s decision, it is clear that the evidence and arguments that I have presented over the last 3 years have not been given proper consideration in the decision making process.
- 4.6. Alun Michael had cited in his decision the advice he had received from both DEFRA’s Chief Scientific Advisor, Howard Dalton and the ACP.
- 4.7. As stated previously, some members of the ACP did not look at the documentation and accompanying video that had been submitted to them and Howard Dalton had not been provided with it. The Chairman of the ACP has repeatedly stated that the Committee needs to see the evidence of what is happening in reality to check if the current system is working. Yet when they receive the evidence to show that the current system is not working, it is not really looked at. In my opinion, this is unbelievably complacent and shows a total disregard for public health and safety.
- 4.8. In a letter from Alun Michael dated 11th August 2004, he has stated that “*...the assessment of our scientists was that your contribution was not a scientific paper and contained no medical or scientific evidence. It contained anecdotal descriptions of adverse effects you believe are caused by pesticides.*”
- 4.9. This statement was completely factually incorrect, as the documentation contained references and excerpts from various international scientific journals and papers. I had also heavily quoted from publications like the British Medical Association’s 1990 report “*Pesticides, Chemicals and Health*,” amongst others. In fact the most ridiculous part of the aforementioned statement is that I had also quoted from Government’s very own medical and scientific documentation! (*See document 2, submission to the DEFRA Consultation, in particular, Appendix 1*).

- 4.10. The accompanying video that featured individuals (*a number of whom have been officially confirmed as suffering from pesticide related ill-health*) and families from all over the country reporting seemingly disproportionate amounts of illness and disease in rural communities, was not “*anecdotal*,” but highly relevant to the decision making process. (*See video previously submitted for RCEP members entitled “Pesticide Exposures for People in Agricultural Areas”*).
- 4.11. **Therefore I have set out below some of the factors that in my opinion need to be considered in addition to those raised in paragraphs 2.58 – 2.71 as to why the Government discounted not only my evidence, but the evidence submitted to the DEFRA Consultation by others who were also in favour of the proposals being introduced.**

Comments on the DEFRA/PSD Consultation

- 4.12. In the DEFRA News release issued on 21st July 2003, Alun Michael stated “*I hope everyone affected by these issues will be encouraged to contribute, so we can develop proposals that will truly reflect the best interests of the countryside.*”
- 4.13. However, right from the outset the Consultation document and overall process portrayed a biased and unbalanced view of the problem, as it focussed only on the potential costs and negative implications for the farming industry and economics of production if no-spray zones were to be introduced.
- 4.14. It did not address anywhere the substantial health and environmental costs and the existing devastating effects on residents and others in the countryside from the continued use of chemicals in agriculture or the benefits and gains that would be realised if the proposals were to be implemented. (*See 6.32 to 6.84 of document 2, submission to the DEFRA Consultation for more extensive comments in relation to health and environmental costs etc.*)
- 4.15. There were 758 consultees on the original list published by DEFRA, where the vast majority were chemical companies and others who would be opposed to any new restrictions on the use of pesticides. There was only a very small percentage (approx. 4%) of organic, environmental or other groups. **People who actually live next to sprayed fields were not included on the list at all.** Therefore rural residents and other members of the public only found out about the Consultation through National media coverage I managed to secure regarding my campaign or from email mail outs and forums sent out by myself, PAN-UK or environmental groups (FOE etc.) or other supporters. (*NB. I also provided PSD with a list of other organisations, groups and individuals to add to their own list in an attempt to redress the balance, although it is not known how many of those on my list did actually get sent the Consultation Document by PSD.*)
- 4.16. The DEFRA Consultation did not address the fundamental points of the case that had been presented regarding the bystander issue, for example that the bystander model is not appropriate for residents. It centred on immediate visible spraydrift only and not the wider issue of the long-term exposure to

pesticides in the air and the actual overall exposures that people are getting when they live in an agricultural area. This is a fundamental point in relation to the case that has been presented to the Government over the last 3 years, as this is not about the misuse of pesticides, but about pesticides legally allowed to be sprayed, near to people's homes, schools, workplaces and the inherent health risks.

- 4.17. As I have previously highlighted in my submission to the DEFRA Consultation the language used in the text of the Consultation documents' and many of the statements made were factually inaccurate and seriously misleading to both farmers and the public. (See document 2, submission to the DEFRA Consultation).
- 4.18. The DEFRA Press release as well as the Consultation Documents' themselves consistently drew attention to the fact that the science was not in question and therefore that the Consultations' were not being launched due to health and safety concerns, but "to increase public confidence in the current system."
- 4.19. For example, in the accompanying notes to the Consultation documents' entitled "Consultations on Pesticide Spraying Close to Residential Properties – General Q&A Briefing," point 5 states "***What are the benefits of these proposals? – We believe that the current techniques for assessing the risks from crop-spraying are robust and sufficient to prevent adverse health effects in nearby residents. There are therefore no benefits to be gained from this proposal as regards human health, however spraying up to the boundary of a residential property might be considered socially unacceptable and addressing this would be the primary benefit of the imposition of no-spray zones.***" (See document 16).
- 4.20. However, in his announcement on June 16th 2004, Alun Michael stated "*The independent scientific advice I have received both from the independent Advisory Committee on pesticides and DEFRA's Chief Scientific Advisor, is very clear that the existing system provides full reassurance. I am confident that no new scientific evidence has come to light that would provide a safety based justification for buffer zones and I have therefore decided against their introduction around agricultural land.*"
- 4.21. This appears quite contradictory. The Government set out the Consultation on the basis that the science was adequate and had stated that the purpose of the Consultation was to enhance public confidence. To determine the Consultation on the grounds that there was no new scientific evidence (despite the fact that this was never actually requested) turns the Consultation into a self-fulfilling prophecy.
- 4.22. It would appear that the Government changed the terms of reference from one not seeking safety related evidence (because the Government was confident of its robust science) to one that was searching for a safety based justification for the introduction of buffer zones.

- 4.23. However, despite this, many members of the public, doctors, professors, scientists and others did provide scientific evidence to support their comments in favour of the proposals, but in the light of the decision, this evidence would appear to have been discounted in the Government's considerations.
- 4.24. In relation to those who submitted comments without any supporting scientific evidence, (which had not been requested) then they also had a legitimate expectation that their views and values would be properly considered in the decision making process.
- 4.25. The responses in favour of the proposals included those from members of the public who live near sprayed fields. They are clear, factual and highlight their own real-life experiences of ill-health following exposure to pesticides and were therefore in favour of the "long overdue" controls to protect their own health and that of others living in rural communities. *(See document 17, submission to the DEFRA Consultation by the late Pam Baguley, dated 26th September 2003 for an example of this. I have also included a number of emails from Pam in document 17 as they make powerful reading and I gave copies of them to Alun Michael following the meeting on 17th December 2003).*
- 4.26. In contrast the overriding factor in the responses against the proposals was that concerning financial and economic implications of introducing no-spray zones.
- 4.27. The Government, its agencies and advisors have repeatedly stated that society designates "acceptable risk" and that if society feels that the risk is not acceptable, then what is considered acceptable is redefined and the risk assessed accordingly.²
- 4.28. It is clear from looking through the Consultation submissions that the majority of the public, (excluding industry and farmers) do not see the risks as acceptable and have questioned the claims made by DEFRA that the current system is robust and provides adequate protection to the public. *(As said in paragraph 4.23 a number of these respondents did provide scientific evidence to support their comments, even though it wasn't requested).*
- 4.29. The principle aim of pesticide regulation is supposed to be the protection of public health, therefore this has to be the number one priority and take absolute precedence over any financial, economic or other considerations.
- 4.30. However, the Government clearly decided on a position that would largely maintain the status quo and protect chemical and industry interests over and above public health.
- 4.31. Therefore the approach adopted by the Government to this Consultation raises serious questions about its adequacy, relevance and impartiality.
- 4.32. In my opinion there are a number of factors to be considered in relation to the outcome of the DEFRA Consultation and I would like to briefly highlight these below.

Massive legal and political implications

4.33. In my opinion this is a problem that has become entrenched in relation to the issue of crop-spraying and pesticides in general. For years the Government and in particular DEFRA (previously MAFF) have made continued claims that pesticides are safe and do not pose any health risks (only for individual products to be withdrawn after years and in some case decades of use).

4.34. Therefore continued political and industry denials of a problem will result in it becoming more and more difficult in terms of responsibility, accountability and liability issues to admit any mistakes or that claims previously made were in fact wrong. This then means even in the absence of evidence to support them, the Government's claims still have to continue and the status quo maintained. Therefore it would appear that in many situations, legal and political issues override those of scientific evidence and value. (*See section 5 Legal and Policy Issues for further comments in relation to this*).

4.35. For the Government to publicly admit that there is any health risk from crop-spraying would be an admittance of a fundamental systemic failure.

4.36. For example, one farmer respondee stated in his submission to the Consultation "*If far reaching new regulations are introduced this implies that,*

- a) PSD
- b) HSE
- c) Local Authority Environmental Health
- d) DEFRA/IPPC
- e) ACCS
- f) legal accountability/nuisance/negligence

have or has proved ineffective and further regulation is required. Have these authorities informed you that this is so?"¹²

4.37. In the 3 page Summary of Responses document published by the PSD following the announcement of the Consultation, this point is cited as one of the key points against buffer zones.

4.38. It states "*The introduction of buffer zones would undermine the risk assessment process and the integrity of the scientific advice from the ACP.*" (*See document 25*).

Conflicts of Interest?

4.39. The Pesticides Safety Directorate is the public body that co-ordinated the Consultations', analysed the responses and then reported back to Alun Michael with their advice. In my opinion the PSD were highly unlikely to admit any fault within the system, as it would have undermined their own advice and regulations and that of the ACP. This raises the question as to whether it was actually appropriate for the PSD to judge what is evidence if

that evidence is highly critical of the approach/system that they have adopted for decades, as it places them in the position of being both judge and jury?

4.40. In addition to the above point, there could also be fundamental conflict of interests in that the PSD has, by their very structure, a financial interest in the decision. They receive approx. 60% of their revenue (this can vary slightly year to year¹³) from the agro-chemical industry for the licensing of pesticides. This is broken down into the levy charge and the fees for applications. The figure for the year 2003/04 for income generated from the agro-chemical industry is £4,364,000 for the levy and £2,791,000 for the fees. This equals a total of £7,155,000. (Taken from PSD's "Annual Report and Accounts 2003/04" available at:

http://www.pesticides.gov.uk/uploadedfiles/Web_Assets/PSD/PSD_Annual_Report_2003-4.pdf)

4.41. On page 11 of the 2003/04 accounts it states "PSD are required to achieve full cost recovery for its operations" and on page 15 it states "Financial Performance – To recover from industry and Government the full economic cost (as calculated according to resource accounting principle) of PSD's services."

4.42. Therefore the DEFRA/PSD Consultation appears to have been merely a public relations exercise with a view of trying to placate and reassure the public without any real intention of acting on any of the evidence submitted, as it could have prejudiced the Government's political, economic, financial and legal position.

4.43. In my opinion this is an area that the Royal Commission need to address in this study, as from a public perspective the current system is deemed an inappropriate structure.

4.44. In addition to the potential conflicts of interests listed above, there are a number of members of key Scientific Advisory Committees' who have links with industry. For example, they may undertake consultancy work, have shares in an agro-chemical company (or companies) and/or receive funding for research support etc.

4.45. In July 2003, it was reported that Lord Whitty (Minister for Food and Farming) and Michael Meacher (Former Minister for the Environment) had both raised concerns about the structure of committees that were advising them on critical health and environmental issues.

4.46. In an article on 13th July 2003,¹⁴ Michael Meacher stated "These Committees' are absolutely critical. They give definitive advice, which Ministers at their peril seek to overturn. I constantly argued that nobody with significant commercial links should be allowed to sit on these bodies. It is vital they are truly independent."

4.47. On Radio 4's Farming Today transmitted on 15th July 2003, Lord Whitty stated "We need to ensure a balance in these Committees'. Clearly these are

Advisory Committees' for the Government regulating particular products and it is important that although we do need to get some industrial expertise in there, this is balanced by other people who do not have links with particular companies or particular industry funded research.....and certainly we want a stronger independent element on those Committees', but not to the total exclusion of industrially based scientists."

- 4.48. **This again is an area that the Royal Commission need to address in this study, as the public do not see it as acceptable for specialist advice to be provided by experts who have links with/are tied to/funded or simply influenced by the very industry they may be overseeing in relation to the hazards to human health. Information must not only be impartial, but complete and accurate.**
- 4.49. In addition to the above point it is noticeable that some Government advisors have a surprising range of expertise. One scientist I know sits on a number of key scientific advisory committees' covering a range of different areas, including chemicals and mobile phone masts to name but a few. He personally does not believe that any of these hazards can have detrimental effects on human health and therefore it does not seem to matter what evidence may be presented to him, his opinion will not change.
- 4.50. I do not believe this attitude and arrogance to be solely in the best interests of protecting public health and safety.
- 4.51. This is an issue that was raised by Professor Irwin at the public meeting on 25th September 2004, where he acknowledged the fact that the public do not see it as acceptable for decision to be made by just "a small cabel...of experts," as other scientific views/opinions, as well as public views and values must be taken into account when formulating policy decisions.
- 4.52. In relation to uncertainties I can do no better than quote from The Royal Commission's own report, "*Chemicals in Products, Safeguarding the Environment and Human Health.*" The accompanying summary document states, "*Much of the evidence that the Commission received for the Chemicals Study indicated areas of ignorance and uncertainty in data reliability, the validity of risk assessment assumptions and basic understanding of environmental processes and effects. Mechanisms for incorporating people's values into the resolution of these uncertainties were rarely to be found.*"
- 4.53. **This is completely unacceptable, as members of the public have to be able to decide on an issue as important as the protection of their health and that of their family from any harm. Members of the public who have the direct experience of living in this situation are far better placed to decide on whether they find any health risks acceptable from crop-spraying and pesticide use, than those who do not live in this situation. It should not be down to a few scientists to decide what is "acceptable" for the wider society.**
- 4.54. **The view of rural residents who have contacted me is that they do not want to be exposed to pesticides at all in their air and living environment**

and they have a fundamental right not to be. In relation to crime there is a demand for “zero tolerance.” There is also a demand for zero pesticide residues in food.

4.55. People who live in the countryside have a right to expect “zero exposure” to pesticides and other hazardous chemicals from the far higher doses and levels of exposure from the actual application process and they should not be expected to tolerate anything less.

4.56. *Therefore in view of all the above, I hope the Royal Commission will be able to find out the following:-*

- 1) What was the detailed advice that the PSD gave to the Minister, Alun Michael following their analysis and consideration of all the submissions to the Consultation?
- 2) What scientific evidence did the Chief Scientific Advisor base his decision on that the current system is robust?
- 3) What scientific evidence did the ACP base their decision on that the current system is robust and what was the ACP’s detailed advice to the Minister, Alun Michael?

Other points relating to the DEFRA/PSD Consultations’

Stakeholder Meetings

4.57. The PSD held two Stakeholder meetings regarding the “*Proposals for the Notification and Disclosure of Pesticide Spray Operations*” one on the 13th October 2003 for rural residents’ representatives and one on the 24th October 2003, for farming and industry representatives.

4.58. I was invited to attend the meeting on the 13th October 2003. My request to record this meeting was declined, which I found unsatisfactory and the attendees were also told that there would not be any formal minutes taken either. This means that although there are attendees’ own notes, there is no official record of this meeting. Also it was stated by PSD that there would be “*action points*” recorded at the end, yet these were not forthcoming and in fact I don’t even recall any being discussed!

4.59. After receiving the invitee list for this meeting I suggested to PSD that they should invite more rural residents to hear directly from the people with the direct experience of this situation, as they had mainly invited Parish Council representatives and other organisation representatives who often lack this insight.

4.60. In fact I made enquiries with the PSD about their selection procedure for this meeting. In an email on the 1st October 2003, Caroline Kennedy (PSD) stated that “*We have selected the list of invitees from mainly those who made useful suggestions in their responses to the informal consultation.*” (See document 19, for various correspondences with PSD in relation to the Consultations’).

- 4.61. However, when I spoke to a number of the organisations on the invitee list, some of them had not submitted to the Consultation and in a few cases had not even heard about it! (See document 19, for various correspondences with PSD in relation to the Consultations' including an email sent to Sue Popple (Head of Policy, PSD) dated 16th October 2003 regarding the DEFRA Stakeholder meeting on October 13th 2003).
- 4.62. It was stressed at the meeting that it was only to discuss the Proposals for Notification and Disclosure and PSD were adamant that there would not be any Stakeholder meetings in relation to the Consultation on the Proposals for the Introduction of No-Spray Zones.
- 4.63. However, I discovered earlier this year that the PSD had met with the National Farmers' Union, the Crop Protection Association and the National Association of Agricultural Contractors on March 30th 2004 in relation to both Consultations'.
- 4.64. The fact that this meeting took place after PSD had stressed that there would not be any Stakeholder meetings in relation to the Consultation on no-spray zones was something that I raised in an email to Sue Popple dated 28th May 2004. (See document 19, for various correspondences with PSD in relation to the Consultations'). It was also raised in a letter to Alun Michael dated 6th June 2004.

Management and handling anomalies of the Consultation responses by PSD

- 4.65. In a letter dated 16th June 2004, the Pesticides Safety Directorate (PSD) stated that *"We received a total of 763 responses to the buffer zones consultation and 484 responses to the informal consultation. In accordance with the relevant guidance on formal consultations, all of the replies to the buffer zones consultation will be placed in Defra's Information Resource Centre. Copies may be obtained for an administrative charge...."*
- 4.66. I purchased all the published submissions to the formal Consultation on no-spray zones from the DEFRA library in July 2004.
- 4.67. However, there are some serious inaccuracies in the data and information that I have been provided with, that therefore questions the management and handling of the Consultation by the Pesticides Safety Directorate (PSD). I visited the DEFRA library with a view to checking both the accuracy and completeness of responses that I had been sent. There were a minor number that had been missed in photocopying and therefore I amended my findings accordingly.
- 4.68. **I must stress that at the current time I am still analysing the responses, therefore the figures listed below are approximate numbers and will be amended accordingly, if necessary, in due course.**

- 4.69. **These findings may be summarised as follows:-**

- (i) There are approx. 160 submissions included in what I was sent, but that are not listed on the list of respondees at all
- (ii) There are approximately 185 submissions listed on the list of respondees, but whose submissions are not included in what I was sent (*NB. I think this has to do with the list itself, as there are lots of possible double-ups, ie. John Beaumont, then Mr. Beaumont, then J. Beaumont, which could all be the same person said in different ways or it could actually be 3 Beaumonts, as per how they are listed*)
- (iii) There is an unquantified number (which I am currently still checking) that are neither on the list of respondees nor are their submissions included in what I was sent. (*NB. I know this because I was copied in on quite a few of them at the time and I am therefore aware of their existence*)
- (iv) Some submissions have pages missing and others may refer to extra pages attached, but which aren't there
- (v) Some respondees names are wrong, as well as some organisation names

4.70. It was stated in the DEFRA news Release issued on June 16th 2004 that “*A total of 763 responses were made to the formal consultation on buffer zones. 487 responses were made to the informal consultation on access to information. The responses to both consultations were polarised, with public and environmental groups largely in favour, and most farmers against the proposals. Of those who responded to the formal consultation, the number of respondents split roughly into equal numbers for and against. For the informal consultation, 375 were in favour of increased access to information on pesticide use, with 109 opposed.*”

4.71. Therefore the findings I have detailed above raise serious questions about the accuracy and completeness of the data and the statistical analysis provided by the PSD of the overall number of responses received along with the breakdown of those in favour of the proposals and those against.

4.72. ***NB. As said in paragraph 4.68, I am still currently analysing the responses and therefore these are approximate figures only.***

5. Legal and Policy Issues

How much nuisance should an individual have to bear?

5.1. The regular and currently legal spraying of chemicals that are deliberately designed to be toxic into the air where people are living and breathing is a serious public health hazard and cannot in any way be deemed an acceptable system for protecting public health. Therefore this situation goes way beyond simply one of “*nuisance.*”

5.2. Residents and other members of the public should not have their lives put at risk, restricted or affected in anyway by someone else's hazardous activity when on your own land and property. The personal and human costs of this situation are incalculable, as it is not possible to express in financial terms the devastating impact that ill-health has on a person, their family, their friends and all those around them. *(See document 2, submission to the DEFRA Consultation, in particular Appendix 2, as well as the video previously circulated for RCEP members' entitled "Pesticide Exposures for People in Agricultural Areas.")*

5.3. In legal terms to attempt to take a case against a neighbouring farmer for "nuisance" would be fraught with difficulties, as would in my opinion any case taken under "*Rylands V Fletcher*," even though the latter has proved successful in the past relating to the escape of other noxious substances(s).

5.4. There are a number of reasons why I say this.

1. Such claims would have to be taken against an individual farmer
2. In both claims a farmer is likely to have a defence if he can show that he has applied pesticides in accordance with the label instructions and following advice set out in the "*Green Code*." *(Although just to stress again that the Green Code is an advisory document for guidance only and therefore is not legally enforceable on its own)*. If so, the farmer could then cite in defence the fact that the Government maintains that pesticides are safe and do not pose any risk to people in the countryside
3. In relation to specifically a claim taken under "*Rylands V Fletcher*," this would have the same problems as any investigation and case currently undertaken by the HSE in relation to enforcement. *(NB. "Rylands V Fletcher" was a case in 1968, which established that if a land-occupier brings onto his land something noxious or dangerous, which escapes, he has absolute liability, even if he was using reasonable care and skill and had taken every step to keep it on his land)*. For example, there could be difficulties in relation to the term "*escapes*," as if any environmental damage (ie. plants, trees etc.) has been caused by immediate visible spraydrift then this may be easier to prove, especially if there is video or photographic evidence. However, long-term exposure to pesticides in the air, exposure to chemical fumes, volatilisation, transportation, persistence and wider dispersion have not to date been adequately considered in the regulatory system and therefore a farmer may try to argue a defence that there was no actual "*escape*." It would then be up to the plaintiff to prove that there was. As said, from many reports that I have received this is a problem that exists in HSE investigations as well, as HSE are only really set up to deal with enforcing the existing regulations, which therefore means that they only really address problems in relation to immediate spraydrift *(See page 10 of document 5, the paper presented for the ACP Open Meeting on July*

10th 2002, for quotes from an HSE Inspector, as well as document 2, submission to the DEFRA Consultation, Appendix 2 for other cases)

What are the potential legal issues surrounding harm, causation and compensation and are there issues of pollution law?

- 5.5. There are an increasing number of people who have had their health and lives destroyed due to chemical poisoning following exposure(s) to pesticides with no one accepting any responsibility or being held accountable or liable for the damage caused, as everybody just blames everybody else.
- 5.6. The HSE blames Government policy, the Government blames either Europe or the farmers and others blame the manufacturers. Therefore there is virtually no legal redress for damaged individuals. The costs of mounting any claim for compensation are huge and the chances of success are almost non-existent in view of the problems of proving causation, especially in relation to chronic long-term illnesses and diseases. In the small number of successful cases the awards have been pitiful and seriously inadequate for the damaged individual's future needs.
- 5.7. Manufacturers' are producing products that can harm people and the Government is licensing and approving products that can harm people, so when that harm does occur, then responsibility has to be taken.
- 5.8. **In my opinion, the most responsible party in relation to pesticide exposures for people in agricultural areas is the Government, as the Government, its' agencies and scientific advisors have a duty to protect public health and this is not happening with the existing Government policy on pesticides.**
- 5.9. **The Government has clearly overlooked a very significant exposure scenario in relation to residents/neighbours and yet pesticides are not supposed to be approved for use until risk assessments have been undertaken to provide evidence that there will not be a health risk. Therefore the fact that that there has never been an appropriate or realistic assessment of the risks to health for people who actually live in agricultural areas, despite the fact that crop-spraying has been a predominant feature of agriculture for over 50 years, has both massive legal and political implications.**
- 5.10. The Government's position becomes even more tenable as for years the Government and in particular DEFRA (previously MAFF) have made continued claims that pesticides are safe and do not pose any health risks, only for individual products to be withdrawn after years and in some case decades of use. *(NB. As I pointed out in my submission to the DEFRA Consultation on no-spray zones, dated 29/9/03, in the US, false or misleading claims in relation to pesticides safety are deemed a federal offence. See document 2 page 51 and 52).*
- 5.11. The recent court case in Florida, Castillo vs Du Pont, which was decided in favour of the plaintiff, highlighted the damage caused from just 1 single

exposure. (See section 5.22 of document 2, submission to DEFRA Consultation).

5.12. Therefore continued political and industry denials of a problem will result in it becoming more and more difficult in terms of responsibility, accountability and liability issues to admit any mistakes or that claims previously made were in fact wrong. This then means even in the absence of evidence to support them, the Government's claims still have to continue and the status quo maintained. Therefore it would appear that in many situations, legal and political issues override those of scientific evidence and value.

5.13. A good example of this can be found in the March 2002 "*All Party Organophosphate (OP) Group Briefing Paper.*" In section 5(b) it states "*Opposition Spokesman Michael Meacher's paper "Dangerous Dips – The Truth about Organophosphates" was produced in October 1996. It indicated further risks to health in the form of damage to the nervous system, damage to bone cell function and suicide. Mr. Meacher concluded that successive Governments had failed farmers and made recommendations similar to that of Zuckerman. Soon after the May 1997 change of Government, the group met with Jeff Rooker and Dr. Jack Cunningham at MAFF. He said that he could not ban OP's because of advice from Government lawyers.*"⁵

5.14. **Therefore even when there is a clear recognition of the risks by a Government Minister, he had to abide by the legal instruction and advice from Government lawyers.**

5.15. However, in complete contrast the Government banned beef on the bone without any evidence of a causal link to nv CJD on the grounds that public health was a priority.

5.16. Another example where years of denial of the existence of a problem have led to massive compensation claims is in relation to, as stated earlier, asbestos related diseases.

5.17. It is estimated that asbestos related claims for serious debilitating diseases over the next 3 decades could top over 200,000 cases.⁷

5.18. In the US, $\frac{3}{4}$ of claims are filed by people who have not as yet suffered any asbestos related ill-health, but who have to live with what has been described as a "*health time-bomb*" hanging over them following exposure(s) to even just small amounts of asbestos fibres.⁷

5.19. I must stress that no amount of money can compensate for the loss of one's health and therefore it must be protected at all costs. As stated earlier, all the asbestos related deaths, illnesses and diseases could have been avoided if the early warning signs had been adhered to and the immediate and appropriate action taken to prevent people from exposure. **Prevention is far better than cure in every sense and therefore when people are exposed to a known hazard, the prevention principle must be adopted.**

5.20. **Residents and others in the countryside have the right not to be exposed to avoidable and unnecessary exposures and risks to their health, especially in relation to vulnerable groups; babies, children, pregnant women, the elderly, people who are already ill or any other group where the health risks are increased.**

Violation of Fundamental Human Rights

5.21. The World Health Organisation Charter on Environment and Health states that *“Every individual is entitled to “an environment conducive to the highest attainable level of health and well-being” and that “the health of every individual, especially those in vulnerable and high risk groups must be protected.”*

5.22. **The current system for crop-spraying and pesticide use clearly violates fundamental Human Rights and the Government failed to stop infringements of these rights by not acting to stop exposure of people.** (See page 53 of document 2, submission to the DEFRA Consultation for a list of the rights that are being violated in this situation).

5.23. Regulatory action (by UK Government departments, by the EU Commission and by EU Member State governments) to ban products on a precautionary basis simply because they are hazardous has been upheld as lawful by the English court and the European Court of Human Rights.

5.24. In Alparma (Case T-70/99R 30 June 2000) the Court of First Instance (CFI) stated that the requirements of public health must take precedence over economic considerations and that the Community institutions may take protective measures without having to wait until the reality and seriousness of relevant risks become fully apparent.

5.25. In the BSE case (Case C-180/96 United Kingdom and Northern Ireland v Commission [1996] ECR 1-3903) the Commission decision to adopt emergency measures was upheld by the European Court which stated:

“Where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks becomes fully apparent.”

What role does Europe play in the policy process?

5.26. At present, there are two parallel systems for approval of pesticides in the UK. The first requires scientific evaluation at the National level. This system is gradually being replaced by a uniform approach to be adopted across the European Union.

5.27. The EU Directive 91/414 EEC states:- *“The Directive requires very extensive risk assessments for effects on health and environment to be carried out before a PPP can be placed on the market and used.”*

- 5.28. However, the “*bystander risk assessment*” is also the same model as used in the UK, which assumes occasional short-term exposure from the spray cloud at the time of application only. Therefore pesticides exposures for people in agricultural areas also appears to have been overlooked in Europe as well.
- 5.29. I have had correspondence regarding the bystander issue with both Margot Wallstrom, the European Commission’s DG for Environment and also with the office of David Byrne, DG for Health and Consumer Protection.
- 5.30. They have received the same documentation/material over the last few years as the UK Government, which includes the submission to the DEFRA Consultation along with the accompanying video.
- 5.31. As stated in paragraph 1.14 in a conversation with Canice Nolan, a member of the European Commission’s DG Health and Consumer Protection Directorate General, on 26th November 2002 about the bystander issue, he agreed that people who live in agricultural areas are not “*bystanders*” and that this was something that needed to be incorporated in the review of Directive 91/414/EEC. However, at the time of writing, the current status of this review is unknown, as it appears to have been delayed.
- 5.32. As stated in 3.8 – 3.10, the Scientific Committee on Plants (SCP) questioned the comparison of bystanders and residents in their recommendations to the European Commission in October 2002.
- 5.33. The EU report “*Towards a Thematic Strategy on the Sustainable Use of Pesticides*,” called on the European Commission, before the end of 2003, to “*propose a ban on the use of pesticides...in schools, playgrounds and parks in order to protect children and in areas close to inhabited zones.*” However, at the time of writing, the current status of this report is also unknown.
- 5.34. My MEP Caroline Lucas has also raised the bystander issue in the European Parliament. A Written Parliamentary Question was tabled dated 2nd May 2003, which asked the Commission what plans they had to introduce a ban on the use of pesticides in areas close to inhabited zones. It also asked if the Commission would introduce new regulations to require farmers to disclose publicly the pesticides they are using and to give prior notification before any spraying application. Margot Wallstrom the European Commission’s DG for Environment responded on behalf of the Commission on the 10th June 2003, in which she referred to the aforementioned EU report “*Towards a Thematic Strategy on the Sustainable Use of Pesticides.*” (See document 20 for both the Parliamentary Question as well as Margot Wallstrom’s response).
- 5.35. In the recent European Commission Communication “*A European Environment and Health Strategy*” (the SCALE initiative) it states that “*Pesticides are possibly related to immunological effects, endocrine-disrupting effects, neurotoxic disorders and cancer.*”
- 5.36. I think an important and fundamental question for the Royal Commission to ask is whether the UK Government could have actually changed anything in the process of risk management regarding the introduction of no-spray zones,

without the authorisation of Europe. Professor Coggon stated at the ACP Open Meeting on July 10th 2002 that *“If the Government decides that it wants to adopt a much more precautionary approach in relation to pesticide application, then that option is open to them. **That’s what they can do provided they can do it within European law....**”*²

What are the regulations regarding access to information and are they justified in the light of the cases of bystander exposure?

5.37. In addition to the comments below I would like to refer RCEP members to my previous submission to the DEFRA Consultation on no-spray zones dated 29/9/03, particularly Appendix 3, as well as the video previously circulated for RCEP members entitled *“Pesticide Exposures for People in Agricultural Areas,”* as they both covered this issue extensively and in detail.

5.38. However, I have included a few additional comments related to this question to update RCEP members in the light of Alun Michael’s decision following the Consultation on access to information.

5.39. First of all the answer to the second part of the aforementioned question is no, as members of the public have a fundamental right to have **direct** access to the information necessary to make informed and knowledgeable decisions to protect their health.

5.40. At the meeting on December 17th 2002, Lord Whitty and Michael Meacher were both in agreement that members of the public had a right to know what they were being exposed to. *(See previous material circulated for RCEP members’ and referred to in Appendix 3, where document 8 was the full transcript of the meeting with Lord Whitty and Michael Meacher on December 17th 2002).*

5.41. In addition to the discussion regarding disclosure directly to members of the public, the meeting also covered the HSE’s ability to disclose information to interested parties. *(NB. This was especially applicable to our situation, as despite a number of approaches in 2001 and 2002 the HSE stated they could not pass on any of the chemical information without the written consent of the farmer who provided it).*

5.42. Lord Whitty stated *“...and there is another issue, quite a separate issue, which is one that I know Michael and I have come across before in a different context is the disclosure of information to HSE and the ability of HSE to pass that on to other interested parties and that is one that I think we’ll **look into?**”* *(NB. The last 2 words in bold are not entirely clear on the dictaphone).*

5.43. Between March and May 2003, I had correspondence with the Director General of the HSE, Timothy Walker, regarding HSE’s position on disclosure. *(See document 26, correspondence with Timothy Walker, Director General, HSE).*

- 5.44. In his letter dated 3rd April 2003, Timothy Walker stated “*HSE inspectors are also authorised to exercise the powers of inspectors contained in the Health and Safety at Work etc. Act 1974 (1974 Act), which include for example, the power to make and carry out examinations and investigations and in the course of these, to obtain information. However, information obtained by inspectors using these powers is subject to limits on disclosure under the Act and generally, this means it can only be disclosed with the consent of the person who provided it.*”
- 5.45. He went on to say that “*As a matter of course, HSE inspectors routinely encourage pesticide users voluntarily to pass information on the products they use to members of the public who believe they have been exposed to and/or made ill as a result of exposure. Where they decline to do so, inspectors seek to obtain their consent to allow the information to be disclosed by HSE. Although in many cases users are happy to allow the information to be made available by either route, in some cases, **for commercial or other reasons they feel unable or unwilling to consent to disclosure.***”
- 5.46. In my response dated 28th April 2003, I pointed out that the position of HSE is to protect public health and safety, so obviously health should not be compromised in the first place. I went on to say that in the event that health is affected, to have the information needed withheld, because a user may “*feel unable or unwilling to consent to disclosure*” seemed absurd and extremely dangerous, so I asked Timothy Walker what happened in the event of a fatality? Would the HSE be able to pass on information then, or did it depend on whether the user felt “*able and willing to do so?*”
- 5.47. In his response dated 14th May 2003, Timothy Walker stated “*There are legal restrictions on the information HSE can release but your letter has raised issues about whether releasing such information would be in the public interest. I have asked that a review be undertaken to see what scope there might be for releasing more information in the future. This is a complex area and it is important that we carefully examine all the issues so it will take a little time. The conclusions of this review will form part of HSE’s disclosure procedures and will be adopted by HSE as a whole.*” (See document 26).
- 5.48. I have recently emailed Timothy Walker to enquire as to whether this review did actually take place and what the outcome/conclusions were, considering it has now been a year and a half since he made the aforementioned statement. I have been informed that my request is currently being processed and that I will receive a response in due course.
- 5.49. In relation to the result of the DEFRA Consultation on access to information, the changes that are currently being prepared to make it mandatory for farmers and growers to keep spray records and to make those records available via a “*third party*” are completely unacceptable. Apart from the fact that it will still prevent and obstruct people from getting prompt and immediate treatment to any acute pesticide related incident, members of the public have a fundamental right to know **directly** the information necessary to make informed and knowledgeable decisions to protect their own health.

5.50. The recent decision to set up a pilot study to explore practical means of providing advance notification to residents living near sprayed fields is just not good enough. It is not yet clear when the pilot study will be taking place, how long it will take, the parties involved, if the chemicals to be used will be included in the notification and whether it will result in any legal measures being introduced.

Failure to adopt an adequate system for the provision of information

5.51. The European Court of Human Rights has been helpful in cases where a State has failed to provide adequate information likely to assist individual's to take steps to protect themselves from polluting activities.

5.52. For instance, in *Guerra v Italy* (1998) 26 EHRR 357 the Court found that the direct effect of toxic emissions from a polluting chemical works violated the applicant's right to life. In addition, it found that State's had a positive obligation to provide applicant's with relevant information so that they might assess the risks of continuing to live in the locality of the chemical plant.

5.53. In *McGinley and Egan v UK* (1999) 27 EHRR the European Court of Human Rights held:

“Where a Government engages in hazardous activities...which might have hidden adverse consequences on the health of those involved in such activities, respect for private and family life under Article 8 requires that an effective and accessible procedure be established which enables such persons to seek all relevant and appropriate information.”

5.54. This approach has also been adopted in an Article 2 Right to Life case by the European Court of Human Rights (see *Oneryildiz v Turkey* [2002] ECHR 48939/99) – **where it found that it was the duty of a State to “take all necessary measures to prevent lives from being unnecessarily exposed to danger.”**

5.55. **Therefore, on the information currently available, in my opinion, it is clear that the Government have failed to adopt an adequate system for the provision of information to those with the potential to be affected by the exposure to pesticides from crop-spraying, in breach of their convention rights, particularly their article 8 rights.**

5.56. **In addition to the above and to summarise overall, in my opinion, the Government's existing pesticide policy has also failed in the following:-**

- Failure to apply a preventative and precautionary approach to third party exposure (eg. failure to establish no spray zones, the apparent mismatch between the legislative requirement for the protection of an operator and the lack of any protection afforded to people)
- In the light of the European Convention of Human Rights Act 1998, failure to stop infringements of Human Rights by not acting to stop exposure of people

- Failure to use an adequate measure of exposure (ie. inadequacy of “*bystander risk assessment*” in relation to the exposure scenario of residents/neighbours and others in the countryside)
- Failure reasonably to examine the synergistic effects of multiple exposures to different pesticides
- Failure reasonably to record or examine adequately cases of chronic exposure/illness
- Failure to act on information/evidence regarding exposure/risks to people in the countryside from crop-spraying

6. Conclusion

6.1. Important Note:- In relation to my overall conclusion relating to this issue it is imperative that RCEP members refer to my previous submission to the DEFRA Consultation on no-spray zones dated 29/9/03. The conclusion here is specifically related to the questions set out by the Royal Commission and which have been addressed in this document.

Scientific evidence on which DEFRA has based decisions on bystander exposure

- 6.2. I do not think the ACP’s consideration of this issue, nor the outcome of the subsequent DEFRA Consultation, nor Howard Dalton’s seemingly one-sided examination of the facts have in anyway answered or even adequately addressed the case that I have been presenting to the Government over the last 3 years regarding pesticide exposures for people in agricultural areas.
- 6.3. In my opinion, the fundamental reason for this is that all the aforementioned Government regulators and scientific advisors have continued to base the assessment of people living near sprayed fields on the “*bystander*” exposure model. The assumptions in the risk assessments are that workers get more exposure and bystanders less, but people who live in the sprayed areas are not bystanders, but residents and neighbours. There is a clear distinction to be made between a bystander who occasionally happens to be in the area at the time of application and is only exposed short-term and someone that lives or works in a treated area.
- 6.4. There does not appear to have been any information/justification presented to explain why the UK Government and the EU more widely have defined residents and neighbours simply as “*bystanders*.”
- 6.5. The current regulations do not address long-term exposure to pesticides in the air, chemical fumes, volatilisation, persistence, transportation or wider dispersion after application, as it is mainly concerned with immediate spraydrift at the time of application only.

- 6.6. There have not to date been any direct measurements taken in either the UK or the EU of the actual exposures that people are receiving in real-life when they live in an agricultural area. Nor have there been any direct measurements taken of pesticide levels in the blood and urine or any other health monitoring of rural residents.
- 6.7. **Therefore even though crop-spraying has been a predominant feature of agriculture for over 50 years, there has never been an appropriate or realistic assessment of the risks to health for people in this specific exposure scenario.**
- 6.8. Due to inherent uncertainties, serious data gaps and fundamental flaws in the current risk assessment processes and monitoring systems there does not appear to be any evidence to support DEFRA's claim that pesticides are safe and that there are no health risks to people in the countryside from crop-spraying. Therefore there is no evidence that the clusters of acute and chronic long-term illnesses and diseases that are being reported in rural communities are not related to pesticide exposure.
- 6.9. **In my opinion, the Government grossly misled the public that the decision not to introduce no-spray zones was based on hard scientific fact and evidence. Whereas it is actually based on predictive exposure models that are wholly inappropriate for this type of exposure scenario and seemingly the opinion of a few select officials and scientific advisors. Some of whom, as it turned out, were apparently not provided with (or were not interested in reviewing) all the relevant information to make a balanced and fully informed decision anyway. This is a completely inappropriate and unacceptable way to formulate policy decisions especially when there are serious implications for public health.**

Policy on access to information on crop-spraying

- 6.10. The existing system is totally obstructive, as currently members of the public are not entitled to access the information on the chemicals they are exposed to, nor can their doctors or other medical advisors. Yet this information is vital for the correct assessment and treatment of anyone who suffers adverse health effects (whether they be acute or chronic) as a doctor cannot possibly make a proper assessment of their patient's health effects unless this information is provided. It is also essential to be able to feed back into the monitoring system otherwise pesticide related ill-health statistics will never have a hope of being accurate or complete.
- 6.11. The changes that are currently being prepared to make it mandatory for farmers and growers to keep spray records and to make those records available via a "third party" are completely unacceptable. Apart from the fact that it will still prevent and obstruct people from getting prompt and immediate treatment to any acute pesticide related incident, members of the public have a fundamental right to know **directly** the information necessary to make informed and knowledgeable decisions to protect their own health.

6.12. The recent decision to set up a pilot study to explore practical means of providing advance notification to residents living near sprayed fields is just not good enough. It is not yet clear when the pilot study will be taking place, how long it will take, the parties involved, if the chemicals to be used will be included in the notification and whether it will result in any legal measures being introduced. Voluntary and self-regulatory measures have existed for decades, have not worked and are completely unacceptable in this situation. Therefore the introduction of statutory measures is essential.

6.13. Therefore, on the information currently available, it would appear that the Government have failed to adopt an adequate system for the provision of information to those with the potential to be affected by the exposure to pesticides from crop-spraying, in breach of their convention rights, particularly their article 8 rights.

6.14. However, the fundamental point remains that it is all well and good to finally be providing people with the information on what they are being poisoned by, but surely people have the right not to be exposed to poison in the first place!

Handling and communication of risk and uncertainty

6.15. For decades the Government has continued to maintain that pesticides are safe and that there is no risk to people in the countryside from crop-spraying, despite the fact that there is no actual evidence to support this assertion. The inherent flaws and serious data gaps in relation to addressing exposures/risks for residents/neighbours as well as bystanders have not been openly and transparently acknowledged.

6.16. Therefore continued political and industry denials of a problem will result in it becoming more and more difficult in terms of responsibility, accountability and liability issues to admit any mistakes or that claims previously made were in fact wrong. For the Government to publicly admit that there is any health risk from crop-spraying would be an admittance of a fundamental systemic failure.

6.17. There are potential conflicts of interests, which are becoming prevalent in all areas of science and therefore are not solely related to pesticides and chemicals. Members of the public do not see it as acceptable for specialist advice to be provided by experts who have links with/are tied to/funded or simply influenced by the very industry they may be overseeing in relation to the hazards to human health. Information must not only be impartial, but complete and accurate.

6.18. The DEFRA Press Release as well as the Consultation Documents' themselves consistently drew attention to the fact that the science was robust and therefore that the Consultations' were not being launched due to health and safety concerns, but "*to increase public confidence in the current system.*"

6.19. This was felt by many rural residents to be both patronising and disrespectful to all those living in this situation and especially to anyone who has suffered ill-health whether it be acute or chronic following exposure to pesticides. (See document 17, submission to the DEFRA Consultation by Pam Baguley, dated 26th September 2003 for an example of this).

Public involvement, values and perceptions

6.20. The DEFRA Consultation portrayed an unbalanced view of the problem, as it focussed on the potential costs and negative implications for the farming industry and economics of production, but didn't address anywhere the existing costs and devastating effects on residents and others in the countryside from the continued use of chemicals in agriculture. Therefore this raises serious questions about its adequacy, relevance and impartiality.

6.21. The Consultation turned into a self-fulfilling prophecy as it was set up on the basis that the science was not in question and then determined by saying no new scientific evidence was presented, despite the fact that this was never actually requested.

6.22. However, despite this many members of the public, doctors, professors, scientists and others did provide scientific evidence to support their comments in favour of the proposals, but this evidence, along with the public's views and values appear to have not been given proper consideration in the decision making process.

6.23. The Government, its agencies and advisors have repeatedly stated that society designates "*acceptable risk*" and that if society feels that the risk is not acceptable, then what is considered acceptable is redefined and the risk assessed accordingly.

6.24. It is clear from looking through the Consultation submissions that the majority of the public, (excluding industry and farmers) do not see the risks as acceptable and have questioned the claims made by DEFRA that the current system is robust and provides adequate protection to the public.

6.25. The principle aim of pesticide regulation is supposed to be the protection of public health, therefore this has to be the number one priority and take absolute precedence over any financial, economic or other considerations.

6.26. However, the Government clearly decided on a position that would largely maintain the status quo and protect chemical and industry interests over and above public health.

6.27. Therefore the Consultation appears to have been merely a public relations exercise with a view of trying to placate and reassure the public without any real intention of acting on any of the evidence submitted, as it could have prejudiced the Government's political, economic, financial and legal position.

6.28. Residents and others in the countryside deserve to be protected from avoidable and unnecessary exposures and risks to their health.

Substantive evidence already exists to demonstrate a serious public health problem and in most cases it is not possible to reverse the damage. Therefore the significance of these consequences requires the adoption of a preventative approach to protect not only public health, but also the wider environment for now and for future generations.

6.29.I, along with many other rural residents hope that the RCEP will take a long-term approach in the assessment and recommendations regarding this issue, rather than inadequate measures aimed at addressing the problems only in the short-term.

6.30.This problem is not going to be solved by simply a little first aid or by “papering over the cracks,” as the whole core foundations and structure on which the current regulatory system operates is inherently flawed.

6.31.I can do no better than quote from the Royal Commission’s report *“Chemicals in Products – Safeguarding the Environment and Human Health,”* that stated *“We believe that only a substantial paradigm shift will begin to rectify this situation and we believe that such a shift needs to be made now.”*

6.32.Therefore as I highlighted extensively in my submission to the DEFRA Consultation as well as in other documentation small *“buffer”* zones are not going to be adequate or in anyway acceptable to protect residents and others in the countryside from exposure to pesticides or prevent contamination of their land. This was illustrated in my presentation on September 25th 2004 where the aerial photo marked a house completely surrounded by fields that ran for miles in all directions, which is obviously a common feature of many rural communities. **Therefore for RCEP members reference I have included a number of additional photos with this submission, which simply reinforces the total inadequacy of small “buffer zones/strips” in this context.** The rural areas shown are all those belonging to people who have contacted me reporting ill-health in their communities surrounded by sprayed fields. *(See document 11 for examples of aerial photos in varying scales).*

6.33.The solution for this problem will also not be found in the substitution of one pesticide or hazardous chemical for another. **Residents and others in the countryside should not be exposed to any pesticide in their air and living environment at all. The recent pesticides literature review by the Ontario College of Family Physicians concluded that the literature does not support the concept that some pesticides are safer than others and recommended that people avoid exposure to all pesticides whenever and wherever possible.**

6.34.**Therefore the only overall solution to this problem is through the widespread adoption of sustainable non-chemical and natural farming methods to protect not only public health, but animals, wildlife, air, water, soil, food and the wider environment, for now and for future generations.**

7. Key Points and Recommendations

The only responsible course of action for the EU and the UK Government to take is:-

Legislation

- An immediate ban on crop-spraying and the use of pesticides near to homes, schools, workplaces and any other places of human habitation as a preventative approach (*NB. As said above, this would have to be of a considerable distance to be effective, as a small buffer zone is not going to be adequate or in anyway acceptable to protect people from the high level of risk inherent in the spraying of agricultural chemicals. I cannot see any justification for it being any less than 1 mile*)
- This could also be far more advantageous for farmers, as a small buffer zone will have little, if any, productive use, whereas a much larger area could still be farmed using sustainable non-chemical management practices
- A number of alternative uses of the land could be combined together. For example, there is a certain percentage of an arable farmer's land set-aside from food crop production. Therefore one suggestion would be to move set-aside into the areas immediately surrounding residential properties and then the rest of the land in the area where crop-spraying is legally prohibited could still be farmed using sustainable non-chemical and natural farming methods.* (***NB. Obviously the set-aside in the no-spray zones would not be sprayed.***) This combining method could result in a number of different productive uses for the land, natural wildlife habitats and species could be restored and pesticide-free food and other crops could also be produced, whilst all the time reducing the risk to rural residents, wildlife and the wider environment from repeated exposure to toxic chemicals. (**Non-chemical and natural farming methods would include, for example, rotation, physical and mechanical control and natural predator management*)
- The introduction of a new legal obligation to warn people before any spraying application and to provide all the necessary chemical information and also for any member of the public who enquires to have **direct** access to a farm's spray history in view of any chronic long-term illness/disease
- The statutory conditions of use in the approval for **all** pesticides should contain detailed requirements in relation to the mandatory ban on crop-spraying within a certain distance of human habitation, as well as mandatory notification and provision of notices and access to information as per my response to the *Consultation on Plans for Greater Access to Information about Crop-spraying* on 15th September 2003. (*See Appendix 3 of document 2, submission to the DEFRA Consultation dated 29/9/03*)

Exposure and Risk Assessments

- There needs to be a recognition and acknowledgement of relevant exposure scenarios in exposure assessments, as the current system relies on inadequate and unrealistic risk assessments
- Residents and neighbours must be separated immediately, as it is wholly inappropriate to continue to include the exposure scenario of a resident into the “*bystander*” category
- All aggregate and cumulative exposures to mixtures of pesticides from all possible sources must be taken into account, including exposures to food, drinking water, indoor and outdoor air, contaminated dust, pollen, soil and any other source of exposure that may be relevant. This must apply to both high and lower levels of exposure over both the short and long-term and include all routes of contamination, oral, dermal and inhalation

Education

- People need to be informed about the *true* dangers and risks associated with pesticides and their use, as members of the public have a fundamental right to know the information necessary to make informed and knowledgeable decisions to protect their own health. It should not be down to a few scientists to decide what is “*acceptable*” for the wider society
- The Government must invest resources in research, development and extension services that help farmers/growers and other pesticide users’ move away from chemical dependency to sustainable non-chemical and natural farming methods. Independent farm advisors (not linked to industry) could support farmers/growers in the production of healthy, sustainable, locally produced profitable food

General Recommendations

- The EU and UK Government and their advisors must recognise and admit the effects that pesticides have on human health, as prevention of pesticide poisoning is the only way to protect people from pesticide related ill-health
- There must be recognition by the EU and the UK Government of the Human Rights aspect and implications of pesticide and chemical exposure
- The application by the EU and UK Government (including all scientific advisors and regulatory authorities) of the prevention and precautionary principles’ in pesticide/chemical policies
- There needs to be more information and training for GP’s and other medical professionals regarding the diagnosis and treatment of pesticide and chemical poisoning

- Real-life cases of pesticide poisoning and related ill-health need to be studied in order to assist in the risk assessment process for the potential toxicity in humans, based on clear exposure history/chemicals involved and health effects etc.
- The Government must recognise the condition Multiple Chemical Sensitivity (MCS) as a direct result of chemical exposure
- **The move away from chemical dependency can only be encouraged and authorised by the EU and UK Government and must take absolute precedence over economics and trade or any other financial considerations**
- **The EU and UK Government must promote the use/development and implementation of sustainable non-chemical and natural alternatives to chemical pest control (as there are non-toxic alternatives for almost anything)**
- The Government must accept that it has a financial responsibility for the risks imposed and the damage caused as a direct result of Government Policy

****Important Note:- In relation to the overall case that has been presented to the Government on this issue, it is imperative that RCEP members refer to my previous submission to the DEFRA Consultation on no-spray zones dated 29/9/03 and accompanying video entitled “*Pesticide Exposures for People in Agricultural Areas.*”**

As stated earlier, appendix 1 contains the references that coincide with the reference numbers in the text of this document.

Appendix 2 contains the list of documentation/material accompanying this submission. This includes documentation and a video to be seen prior to the oral evidence session in December 2004. This is listed under “*Essential Reading/Viewing.*” Then the second section is listed as “*Reference Material accompanying this submission,*” for RCEP members’ information. Some of these documents will have been referred to in the text of this document.

Appendix 3 contains the list of previous material already provided to RCEP members’ and some of which is also referred to in the text of this document.

I hope that all the evidence I have submitted to the RCEP pesticides and bystander exposure study has been helpful.

Please let me know if you require any further information/documentation.

Thanks and kindest regards,

Georgina Downs.
 UK Pesticides Campaigner.
www.pesticidescampaign.co.uk