Lord Bach
Parliamentary Under Secretary (Lords)
Dept. for the Environment, Food and Rural Affairs
Nobel House
17 Smith Square
LONDON SW1P 3JR

4 April 2006

Dear Lord Bach,

ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION: REPORT ON CROP SPRAYING AND THE HEALTH OF RESIDENTS AND BYSTANDERS

Following the announcement of the publication of the above mentioned Royal Commission report the Pesticides Forum agreed to consider whether we were able to respond to any of the recommendations made in the RCEP report. Our comments are attached as an Annex to this letter.

As you may be aware, part of the remit of the Pesticides Forum is “To advise Government on the development, promotion and implementation of its policy relating to the responsible use of pesticides.” The Forum in general does not have expertise on human health matters. However, many of the RCEP’s recommendations raise practical issues surrounding pesticide use – an area in which many members do have expertise.

Given the wide range of views held by member organisations, this response can only reflect the collective view of the Forum members and not the views of individual representative organisations many of which will have responded directly to the RCEP consultation and some that will have also consulted with Defra. However, the Forum response does show that in some areas it is possible to reach agreement on the difficult questions raised by the Royal Commission.
You will wish to know that we have also taken into account the views of Jon Allbutt – the Chair of the Amenity Forum. As a result these comments should be seen as reflecting both the agricultural and amenity sectors.

There is one general point of concern to a number of Forum members which may not emerge sufficiently from the responses to the individual recommendations. It is clear that many of the recommendations could involve substantial costs for the farming industry and government should establish and then weigh these costs carefully against any benefits in deciding whether to proceed.

Finally, in taking forward the programme of work arising from the Royal Commission report, you may wish to consider using the Pesticides Forum, and its member organisations, to assist the Department. I believe between them they have a great deal of useful expertise to offer.

Yours sincerely,

[Signature]

Professor Ed Gallagher
Chair
6.19

Our recommendations encompass a wide range of measures and reflect the significant degree of uncertainty, which in our view underlies current understanding of resident and bystander safety and exposure. We have recommended a more precautionary approach pending more research. This will deliver a significant strengthening of risk management procedures until a more rigorous evaluation of the risk and necessary accompanying measures can be made. The interim measures need to be introduced in the UK and drawn to the attention of the authorities in the EU who, we are told, do not currently regard bystander exposure to pesticides as a priority.

The Pesticides Forum agrees that there is a need for further research, to be undertaken as a matter of urgency.

The Report in general has not highlighted the need for more research into application techniques and equipment. Improvements in this area present a powerful means for improving the way pesticides are used and reducing the associated risks.

A cost benefit analysis should be applied to establish the areas offering the greatest potential benefit.

6.20

Based on the conclusions from our visits and our understanding of the biological mechanisms with which pesticides interact, it is plausible that there could be a link between resident and bystander pesticide exposure and chronic ill health. We find that we are not able to rule out this possibility. We recommend that a more precautionary approach is taken with passive exposure to pesticides. The existing uncertainties indicate an urgent need for research to investigate the size and nature of the problem and any underlying mechanisms that link pesticide spraying to ill health.

The Pesticides Forum endorses the precautionary principle, and the undertaking of appropriate research to support it. Individual members hold a range of views as to the nature and appropriate extent of any such precautions.
6.21

We recommend a comprehensive systematic review of the literature on pesticide spraying and human health that takes account of the shortcomings of the Ontario Report.

The Pesticides Forum supports the principle of the review. It stresses the importance of its being an ongoing process, which embraces a wide range of scientific viewpoints, thus ensuring credibility as a robust and independent analytical procedure.

6.23

We recommend that the Health Protection Agency (HPA) and related organizations within the devolved administrations in Scotland and Wales, collect population data on pesticides, their metabolites and biomarkers of effects that would provide a sound basis for exposure assessment and also could be used to establish a national database for monitoring.

The Pesticides Forum recognises and supports the need for rigorous, up to date, systems for data collection, collation and monitoring.

6.24

We recommend that the private sector and universities be encouraged to develop new animal models that better reflect the chronic disorders experienced by residents and bystanders exposed to pesticide spraying.

Assuming that the monitoring undertaken under the remit of 6.23 endorses the need for new models, then the Pesticides Forum supports their development.

6.26 & 6.27

We recommend that the Royal Medical Colleges agree how patients with chronic symptoms associated with pesticide spraying should be investigated and treated, and identify a clear referral pathway from primary care to an appropriately trained consultant specialist.

We recommend that a new national reporting and monitoring mechanism for ill health associated with pesticide spraying should replace the Pesticide Incident Appraisal Panel (PIAP), and that this should fall within the remit of the Health Protection Agency and related organisations in the devolved administrations.
The Pesticides Forum endorses the need for appropriate pathways and an effective system for monitoring ill health associated with pesticide spraying.

6.29

People are exposed to pesticides through uses other than in agriculture, such as amenity and timber treatment and these people have reported similar health concerns to those discussed in chapter 2. Although we have not studied these areas in detail, the measures we recommend on health issues and monitoring human health should be extended to cover these non-agricultural pesticides.

The Pesticides Forum agrees that a consistent approach should be taken towards all environmental contaminants.

6.30, 6.31 & 6.32

We recommend that the current approach for assessing resident and bystander exposure should with some urgency be replaced by a computational model which is probabilistic, looks at a wider range of possible exposure routes and more robustly reflects worst-case outcomes. The model should be rigorously validated by wind tunnel and field tests designed for the purpose, including non-standard conditions to test the sensitivity of the model predictions.

We recommend that validation of the model should be supported by monitoring of representative pesticides in a range of field conditions. Such monitoring should include measurements of concentrations in air for extended periods after spraying to contribute to better understanding of possible exposure other than through immediate spray drift.

We recommend that both the model and the test data be peer reviewed and published in the open scientific literature so that the basis for the predictions is transparent and can be evaluated.

The Pesticides Forum agrees that there is a need for robust modelling processes, incorporating a consideration of the range of application techniques and technology, coupled with a more realistic risk assessment, which reflects current practice. Probabilistic modelling is complex, data-hungry and extremely time-consuming. The Forum believes that it is more realistic and useful to aim, at least in the first instance, for an improved, non-probabilistic realistic, worst case model, achievable within a shorter timeframe. It agrees that all parts of the risk assessment model and data should be published and peer reviewed.
6.33

We recommend that all actual spraying practice be brought into line with the aspirations of the Green Code recommendations (chapter 5), including giving proper regard to the importance of optimal timing of the application and therefore efficacy of the pesticide. This will require appropriate monitoring arrangements, and sanctions for non-compliance.

The Pesticides Forum thinks that appropriate risk assessment and approvals procedures are paramount in ensuring human safety. The Green Code should not become statutory since best practice can vary with local conditions. Such an over prescriptive approach could therefore hinder best practice and not necessarily help to reduce exposure.

6.34

We recommend the introduction of buffer zones alongside residential property and other buildings such as schools, hospitals and retirement homes where people may be adversely affected by crop spray. Buffer zones should be evaluated on the basis of the revised resident and bystander exposure model. Until then, on the basis of our current understanding, we see five metre buffer zones as providing the necessary further protection and encourage the active management of these so as to decrease the likelihood of spray drift affecting residents and bystanders.

The Pesticides Forum wishes to emphasise that buffer zones provide only one means of potentially reducing bystander exposure and do nothing to improve spraying practice. It recommends that the full range of techniques and factors that might have a beneficial impact on exposure levels be thoroughly investigated and appropriate recommendations made.

6.35

We recommend that ‘Grandfather rights’, allowing those born before 31 December 1964 to spray without passing the relevant tests, should be phased out by 2010.

The Pesticides Forum endorses this proposal, believing that appropriate operator training is one of the single most effective routes to reducing levels of exposure for bystanders. Such training could also help in generally improving the level of competence in the application of pesticides.
6.36

We recommend that the purchase of agricultural pesticides should be restricted to those who are permitted to use them.

The Pesticides Forum agrees that any person buying pesticides ought to be trained in their correct use. There are practical considerations that need to be taken into account since a farmer may buy pesticides for use by a sprayer operator or contractor. The use of appropriate certification such as the production of an ACCS or SQC certificate or NRSoS card at point of purchase might provide a workable system.

6.37

We recommend that the National Sprayer Testing Scheme becomes compulsory and that spray equipment should be checked annually so that it is regularly maintained in good working order by both contractors and farmers. Consideration should also be given to applying this recommendation to more rudimentary or small-scale types of spraying, such as those operating from all terrain vehicles (e.g. quad bikes.)

The Pesticides Forum agrees that, if voluntary schemes do not deliver the necessary improvements, sprayer testing should be made compulsory. A high quality scheme, incorporating on-site testing, must ensure that the factors likely to give rise to bystander exposure are identified and rigorously examined.

6.38

We believe that adherence to some of the recommended conditions under the Green Code should become statutory duties. These include maximum wind speed, spraying practice as specified on the label, boom height and vehicle speed. Further research on refining the resident and bystander exposure model should lead to recommendations for revised spraying conditions for all factors relevant to minimising exposure, and thus to a revision of the statutory obligations.

Whilst the Pesticides Forum considers the Green Code to be a very good guide to best practice, it cannot be definitive and therefore should not be made mandatory. The suggested 'statutory duties' are too prescriptive and could actually result in poorer spraying practice. For example, a legal obligation to follow spraying practice as specified on the label would prohibit the use of some novel technologies, such as air induction nozzles, that have already contributed greatly to risk minimisation by reducing levels of spray drift. Similarly, technologies that have successfully optimised pesticide usage by enabling high sprayer work rates (often
critical in the UK both to ensure product efficacy and to enable application under optimal meteorological conditions) could suffer from the oversimplified guidelines likely to result from the suggested statutory duties in the Green Code being made compulsory. Making the Green Code legally enforceable would not, therefore, necessarily help to reduce exposure.

6.39

*We recommend that as part of their on-site visits the Health and Safety Executive Inspectors should request evidence of: record keeping of pesticide use; training and certification; and testing of spray equipment.*

The Pesticides Forum agrees that such records should be maintained and regular inspections undertaken. However, it is concerned that neither the farmer nor the public purse be overburdened with unnecessary or uncoordinated inspections. A joined-up approach from all agencies is recommended, aiming for as little duplication and conflict of priorities as possible. The Health and Safety Executive is only one of many organisations that might usefully have oversight. Whatever the overseeing authority, inspectors must be appropriately trained, well versed in the actions to be taken on encountering a problem, and staffing levels would need to be commensurate with a regular and timely inspection regime.

6.40

*We recommend that courts should be empowered to suspend or revoke the right to spray where operators have been convicted of breaking the law.*

The Pesticides Forum suggests that a person convicted of the misuse of pesticides or inappropriate spraying practices should have their qualification suspended pending further training. It seems unreasonable, in the vast majority of circumstances, for a complete ban on any future spraying activities to be issued.

6.41

*We recommend that membership of the National Register of Spray Operators becomes compulsory and that it should be linked to possessing a Certificate of Competence, which should expire if continuing professional development is not undertaken.*

The Pesticides Forum endorses this suggestion if voluntary measures do not deliver the necessary improvements. Withdrawal of membership might additionally provide a useful sanction in cases of poor practice. However, if this recommendation is to be effective, it is important to ensure that the necessary CPD training is widely available.
6.42

We recommend that the UK government press the European Commission to implement the recommendations on bystanders made by the former Scientific Committee on Plants, taking into account the concerns discussed in our report.

The Pesticides Forum notes that specific definitions for ‘bystander’ and ‘operator’ will be needed for the improved modelling systems recommended by the Royal Commission.

6.43

The use of pesticides in organic farming is subject to the same regulations as in non-organic farming and our recommendations therefore apply equally to them.

The Pesticides Forum agrees that all the Royal Commission’s recommendations apply equally to organic and non-organic farming.

6.44 & 6.47

We recommend that the advice to Ministers from technical and scientific advisory committees, such as that of the Advisory Committee on Pesticides on the approval of pesticides, should take account of the criteria employed regarding risk and precaution, the choices available, and the likely impacts on those affected by the decisions being recommended. This information needs to be reflected explicitly when communicating risk management decisions to the public. The meaning of such terms as ‘adequate protection’ should be clearly defined and communicated. Areas of scientific uncertainty, ignorance and indeterminacy need to be recognised and their nature described explicitly. It should be clear how uncertainty has been managed within the assessment, for example, through the use of probabilistic analysis (3.53), uncertainty factors etc. The effect of uncertainty on the estimate of risk should be clear.

We recommend that in consultations and in dialogue with the public concerning pesticides, as in other areas of uncertainty, science should not be positioned without argument as being beyond doubt. It should be presented in a manner that is open about the level of risk and uncertainty involved.

The Pesticides Forum believes that a full explanation of the level of risk to be considered acceptable, uncertainties in the estimation of that risk, and the possibility of unknown, unquantifiable risks should be made clear when making recommendations concerning the approval of pesticides. This information should be available to both ministers and the public.

However, the Forum suggests that, in communications to the public (as also recommended in 6.47), this information may need to be set in context
to avoid unnecessary alarm. The risks and uncertainties surrounding other environmental contaminants, as well as the justification for the approval and use of the specific pesticide, might also merit explanation.

6.45

We recommend that advice passed to Ministers from expert committees and statements to the public should properly reflect the full range of opinion within such committees.

The Pesticides Forum agrees that the full range of opinion on advisory committees should be represented in communications with ministers and the public. It is very important that elements of disagreement be communicated in an open and accessible manner.

6.49

We recommend that the draft National Pesticides Strategy should give full recognition to the need to safeguard human health and the environment.

The Pesticides Forum agrees that the draft National Pesticides Strategy should give full recognition to the need to safeguard human health and the environment.

6.50

We recommend that responsibility for pesticides policy should be separate from that for the approval of pesticides. One way to do this might be to move the policy function from the Pesticides Safety Directorate to a unit within the Environment Directorate of Defra. The unit should have a clear remit for recognising the importance of safeguarding human health and the environment as well as the requirements for pest control; the Department of Health should have an explicit role in agreeing its remit and assessing its performance. The remaining functions relating to the approval of pesticides could be transferred to the Environment Agency to enable better co-ordination with wider environmental objectives.

The Forum notes that the arrangements for regulating pesticides and the associated policy function are currently under review within Defra. The Forum and its constituent members would welcome the opportunity to make an input on any proposed changes to the current structure.
6.51

We recommend that records of which pesticides, and when and where they have been used, should be directly available from the persons responsible for crop spraying upon request to any resident and bystander and to researchers investigating the health effects of resident and bystander exposure.

The Pesticides Forum agrees with the principle of rapid accessibility but considers that very careful consideration must be given to the practicalities of providing such access. Farmers are concerned about the potential for the frequency and scale of such enquiries to become potentially unmanageable, some expressing worries about the potential for malicious use of such a system.

6.52

We recommend that the residents living next to fields that are to be sprayed be given prior notification of what substances are to be sprayed, where and when. The results of the pilot study in this area announced by the government should be treated as an exercise to determine how best to provide information, not as an opportunity to re-examine the principle of doing so, which should be accepted.

The Pesticides Forum awaits the outcome of the pilot scheme with interest. Any approach to prior notification must be practical and avoid placing an excessive burden on farmers. Problems encountered during the introduction of a notification scheme in New Zealand should be included in discussions about a possible model for the UK. The Forum also recommends the incorporation of the principle of an obligation on residents wishing to receive prior notification of spraying to make themselves known.

6.53

We recommend that for those wishing to access land, notices should be provided on rights of way or at points where access is likely. These notices should specify what is sprayed and when. A simple sign saying land may be sprayed is not satisfactory, not least because it could be a disincentive to those wishing to access land at times when spraying may not have taken place for some time.

The Pesticides Forum supports the principle of openness but suggests that the implications of information provided should also be explained. There is a danger that poorly worded notices might discourage individuals from accessing land. People need to be equipped to make an informed decision as to whether to access the land or not, whilst being aware of any sensible precautions that can usefully be taken.
We recommend that the UK interpretation of the rules on the Single Farm Payment scheme should be changed to allow land in buffer zones to count towards set-aside and that farmers should be strongly encouraged to make use of agri-environment schemes to minimise the economic costs of buffer zones.

The Pesticides Forum welcomes incentives to reduce exposure and recognises the need to reduce the financial burden that such measures might impose on farmers. The Forum therefore welcomes the potential for buffer zones to count towards set-aside, it recognises that buffer zones alongside watercourses are already a feature of the ELS but notes that the Royal Commission’s recommendations would result in costs for farmers that are not recognised in the Report.

Pesticides Forum
March 2006