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To the EU consultation body
By Email to: ENV-SustainablePPP@cec.eu.int

31 October, 2002.

Response to the consultation on the Document: “Towards a Thematic Strategy on the Sustainable Use of Pesticides”.

Dear Sir/Madam,

I would make the following comments on this document. The comments are given first, followed by a section giving the background justification of those comments.

General Comments

In my opinion, the various proposals in the strategy document will be an important step towards tighter regulation of pesticide use, and as such, should be rigorously implemented.

I fully support most of the measures proposed in the document. In particular, it is very important that whichever measures are finally adopted should be mandatory, as voluntary schemes seldom produce results to the necessary magnitude or to timescale.

In view of the potential risks to health and to the environment of the inappropriate use of many pesticides, such a stance is necessary in order to follow the Precautionary Principle, and thereby avoid the potential for irrecoverable problems in the future.

The costs of compliance should be borne by the industry. Costs of harm to health from the use of pesticides should not have to be borne by consumers. Although the costs of the various schemes proposed for reducing our dependence on the more harmful pesticides may appear high, the benefits to health are likely to be higher, as I will discuss below.

As regards the balance between action at EU level and action at national level, subsidiarity etc. In my opinion, action needs to be taken at EU level to be effective. Otherwise, there will be too much pressure from food producers to weaken any initiatives proposed at National level, of the grounds of unfair competition from imports.

Specific comments on section VI. The proposed thematic strategy.

- VI 1. Minimising the hazards and risks to health and environment. I support most of the proposed measures.
- VI 1.a. The list of bodies particularly encouraged to assist in designing national plans for risk reduction should not just include trade bodies and local authorities, but also include any health bodies or other organisations who represent those people whose health may have been affected by the inappropriate use of pesticides, such as PAN (Pesticides Action Network) or PEX, (Pesticides Exposure group of sufferers) in the UK. Only then can the list attempt to reflect “broad participation by all parts of society”.
- VI 1.b.3. Aerial spraying. I support a general ban on aerial spraying. I do not support the proposal that “specific derogation may be given by member states if aerial spraying presents clear advantages and also environmental benefits.” unless there are very specific requirements to ensure that there is no possibility whatsoever of spray drift reaching any local residents or people walking nearby.
- VI 1.c.1. The list of users at particularly high risk should be expanded to include not just agricultural workers and more sensitive consumers, but also people who live or habitually walk near fields which are subject to pesticide spraying. These people may be subjected to spray drift, which can cause long-term damage to their health, or if pregnant, to the health of their children.
- VI 1.c.2. Similarly, the categories of people who may be affected by incidents should be expanded from workers and private users, to also include residents of houses subjected to pest controls or adjacent to fields; and walkers who may come into contact with spray drift.
- VI 1.d.1. Soluble packaging sounds as if it could create additional risks or spillage, if the pesticides are not stored properly in a damp-free location.
- VI 1.d.4. It is very encouraging that the proposals include further research into potential synergistic and antagonistic effects of pesticides, as there is strong evidence emerging that many pesticide ingredients may act synergistically, and hence have a greater effect on health than expected, especially given that farmers often spray a crop with various different pesticides. We have, in our group, done an amount of research on this, but there is a great deal more to be done (i, ii, iii).
- VI 1.d.6. The intent is laudable; to assess the risks from residues to infants and children, but this needs to be expanded to also assess the risks to fetuses in the womb (.
- VI 2. Improved controls of the use and distribution of pesticides. All the proposed controls seem necessary, in view of the potential risks to health from these chemicals.
- VI 3. Substitution with safer alternatives. This proposal is absolutely essential, in my opinion, to minimise the health effects of those pesticides which are a danger to health. It has been proven, that it is simply not possible to use some of these chemicals safely, and they should be substituted with alternatives as soon as feasible.
- VI 4.a. Whereas I agree that alternatives to chemical control should be promoted, including organic farming and in some cases biological control, I am doubtful that current GM recombinant DNA technology is likely to be a safe alternative. So far, the use of GM technology has tended to result in the application of more pesticides, rather than less, so it does not appear to be a viable solution, especially considering the many

unforeseen risks to the environment that have been demonstrated to occur when this technology has been used, such as the spread of pesticide resistant weeds.

- VI 4.c. Special levies on PPPs. Whilst acknowledging the difficulty of achieving an ideal pesticide tax, which is proportional to the potential damage each pesticide can cause, in my opinion, this is a bullet which must be bitten so as to provide sufficient incentive for substitution with alternatives. It is essential that the funds raised by a pesticides tax should be hypothecated to finance support programmes to optimise pesticide use and support alternatives such as organic farming.
- VI 6.a. The discussion on disposal of obsolete pesticides assumes that the only suitable method of disposal is via “incineration in specific incinerators”. This is, in my opinion, not the safest method of disposal, offering as it does the possibility of emissions of dioxins and other products of incomplete combustion. There have been developed various closed loop methods of disposal of hazardous chemicals, which should be considered before incineration.

Dangers to health from many conventional chemical pesticides

The main defence of the agrochemical industry, in debating the health effects of pesticides, is that there is no evidence of effect. This is hardly surprising, as there were no baseline health studies prior to the introduction of pesticides and there is no information on human exposure patterns to relate to epidemiology. Without these basic measurements, it is impossible to conduct a risk assessment, because it would have to include so many assumptions, that it would amount simply to surmise. Add to this the fact that pesticides are tested one at a time, but that they act in the body in a complex mixture, so complex that we do not possess the tools to be able to analyse it. This then only leaves one feasible approach – precaution through hazard reduction.

Thus the complexity of the large number of influences on human pathology turns out to be the major stumbling block to being able to identifying causal relationships between exposure to pesticides and disease. In the absence of exposure data, we will never be in a position to know whether our daily background exposure to thousands of recently introduced man-made chemicals is having an effect on common conditions. And yet there are changes in the pattern of human disease, which are worrying. The incidence of cancer in society is rising - the chance of contracting it in the 1950s was 1 in 4. Today it is less than 1 in 3. Nobody can say why. However, when we examine the timescales, we find that such changes are happening over a similar timescale to the widespread introduction of man-made organic chemicals. That is as far as the currently available information will allow extrapolation to go. It is the same for other categories of disease that are of interest, for example the action of hormone-disrupting chemicals, of which pesticides comprise a large number.

When tested in laboratory animals, pesticides are known to be able to produce toxic effects, including carcinogenesis and hormone disruption. It is perfectly feasible that there is a mechanism whereby they could produce human disease, when present throughout the lifetime and in a complex mixture, as is currently often the case. We simply cannot be emphatic one way or the other. Therefore, a programme of hazard reduction seems to be the only logical method of moving forward. This could be achieved by reducing the size of the list of pesticides available through comparative risk assessment and the minimisation of inputs in food, particularly to women of childbearing age.

These are my personal views, and do not reflect any policy of the University of Liverpool.

Yours sincerely

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- i Axelrad JC, Howard CV, McLean WG. 'Interactions between pesticides and components of pesticide formulations in an in vitro neurotoxicity test.' Proceedings of the BTS annual congress, April 7-10, 2002, Toxicology, 2002, 173: 259-268.
- ii Axelrad JC, Howard CV, McLean WG 'Enhanced in vitro toxicity of the herbicide glyphosphate to neuroblastoma cells chronically pre-treated with the organophosphate pesticide diazinon.' Proceedings of the BTS annual congress, April 7-10, 2002, Toxicology 178 (1): 62-63 Sp. Iss. SI Aug 30 2002
- iii Axelrad JC, Howard CV and McLean WG. 'Synergism of Phosmet and Pirimiphos Methyl to inhibit Neurite Outgrowth from Differentiating Neuroblastoma Cells.', Proceedings of International Neurotoxicology Association meeting in 1999, Neurotoxicology, 21, 2000, 634