

Towards a thematic strategy on the sustainable use of pesticides

Response to the European Commission by English Nature on behalf of the Joint Nature Conservation Committee

Summary of Main Points:

1. A clear statement of the risks and impacts that it is intended to address must accompany the strategy, with clearly stated protection goals. It must include clear objectives to reduce the risks and adverse impacts on the environment both within and outside the cropped area.
2. The scope of the strategy should be broadened to encompass rodenticides used in agriculture. Veterinary medicines should preferably also be included, but if this is not possible within the current draft, there should be a commitment to address these in a subsequent communication.
3. The strategy should clearly identify those areas of pesticide risk assessment where progress in implementing Directive 91/414 is unsatisfactory, or which are not adequately covered in that Directive, and include a firm programme for further implementation.
4. The strategy should require Member States to establish and maintain a programme of environmental monitoring of pesticides to confirm the outcomes of risk assessments made during pesticide authorisation.
5. We support the aim of the thematic strategy to encourage the development of national plans to reduce the adverse impacts and risks of pesticides in the environment. The proposals should draw on the UK experience of voluntary measures, but should require that where such measures are not succeeding, or where there is failure to comply with statutory requirements, there must be commitment by governments to introduce alternative measures such as a pesticide tax or more stringent enforcement.
6. The strategy should require further surveillance and enforcement of statutory risk reduction measures such as buffer zones for the protection of watercourses.
7. We support the principle of measures under the strategy to help avoid further deterioration of natural habitats. There must be provision for well-defined exemptions within environmentally sensitive areas such as Natura 2000 sites, for example to permit herbicide use for vegetation management where this is necessary to maintain or achieve favourable conservation status. There may be similar requirements to enable aerial spraying for bracken control under some circumstances.
8. We agree that comparative risk assessment (the substitution principle) should be developed for pesticides. An approach which further reduces risk through comparative assessment is justified, particularly if otherwise specific risk management measures are needed. However, an important principle should be that reducing the risk in one area should not lead to any increase of risk in another.

9. We strongly support the Commission's proposals for encouraging more low input or pesticide free farming. Promotion of organic farming should be an integral part of the overall strategy, with clear action plans for Member States.
10. The strategy should require the adoption by Member States of indicators of environmental response in order to demonstrate the effectiveness of the strategy and Member States' action plans arising from it. The strategy should recommend that further work is urgently needed to develop environmental response indicators to changes in pesticide use.

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Response by English Nature, Countryside Council for Wales, Scottish Natural Heritage and Joint Nature Conservation Committee to the European Commission

1. Introduction

English Nature is the statutory body that champions the conservation and enhancement of the wildlife and natural features of England. We do this by:

- **advising** - Government, other agencies, local authorities, interest groups, business, communities, individuals;
- **regulating** - activities affecting the special nature conservation sites in England;
- **enabling** - helping others to manage land for nature conservation, through grants, projects and information;
- **enthusing** - advocating nature conservation for all and biodiversity as a key test of sustainable development.

In fulfilling our statutory duties, we:

- establish and manage National Nature Reserves;
- notify and safeguard Sites of Special Scientific Interest (SSSIs);
- advocate to government departments and others effective policies for nature conservation;
- disseminate guidance and advice about nature conservation;
- promote research relevant to nature conservation.

Through the Joint Nature Conservation Committee, English Nature works with sister organisations in Scotland, Wales and Northern Ireland to advise Government on UK and international nature conservation issues. English Nature also has a Lead Agency role on pesticides and toxic substances on behalf of the other conservation agencies (Scottish Natural Heritage, Countryside Council for Wales and the Joint Nature Conservation Committee). This response on the environmental aspects of the thematic strategy is therefore made on behalf of the Countryside Council for Wales, English Nature, Scottish Natural Heritage and the Joint Nature Conservation Committee.

General comments

2. Purpose of the pesticides strategy

- 2.1 The strategy must include a clear statement of the risks and impacts on the environment that it is intended to address, with clearly stated protection goals. We have assumed that the strategy is not intended to address the sustainability of manufacturing and associated processes for pesticides, but their sustainability in use, and this is the focus of our response. There are differences between Member States in the priority given to protection of biodiversity within and outside the cropped area,

and this has created difficulties, for example, in establishing risk assessment protocols for non-target arthropods and plants under Directive 91/414.

2.2 The use of pesticides to control crop pests, weeds and diseases continues to give rise to concerns about effects on wildlife for a number of reasons:

- The extensive use of pesticides, together with other changes in farming practice, has contributed to, and continues to contribute to significant declines in the numbers and diversity of insects and wild plants in farmland. By affecting their food supply, this indirect effect of pesticide use is a major factor contributing to serious declines in the populations of certain farmland birds.
- Wildlife of semi-natural habitats including watercourses, hedgerows and important nature conservation sites such as Sites of Special Scientific Interest (SSSIs) and Natura 2000 sites, can be damaged by pesticide drift, runoff, leaching or over-spraying, and by the use or disposal of veterinary medicines such as sheep dip and pesticides and other chemicals used in fish farming.
- Local populations of rare species including some birds of prey are at risk from the misuse or deliberate abuse of pesticides
- The approved use of pesticides still leads to occasional incidents of wildlife mortality. There is a need for continued vigilance over this, and for an improved understanding of the consequences for wildlife populations of exposure to sublethal concentrations of pesticides and veterinary medicines.

2.3 The overall objective of the strategy must be to reduce the environmental burden posed by pesticides. The strategy must include clear objectives to reduce the risks and adverse impacts on the environment, both within and outside the cropped area. Within the cropped area, the objectives should be to reduce the risk of direct effects of pesticides on important wildlife (such as rare arable weeds) and to reduce the indirect effects of pesticides (acting, for example, via their impact on the availability of wildlife food resources such as weed seeds and invertebrates). Outside the cropped area, measures are needed which minimise the effects of pesticides on semi-natural habitats, including hedgerows and watercourses, by reducing the risks from spray drift and run-off or leaching from the site of application, or losses to the environment during disposal.

3. Scope of the strategy

3.1 The introduction to the strategy document acknowledges that further measures are needed in the area of both agricultural and non-agricultural pesticide use. Although the main focus of the strategy is towards agricultural uses, significant environmental concerns have arisen from the use of pesticides in non-agricultural situations, including their use in forestry and industrial/urban situations. These non-agricultural uses should be explicitly addressed in the strategy.

- 3.2 Veterinary medicines and biocides are not included in the present draft of the thematic strategy, which is focussed on plant protection products. The strategy document states that most Member States have insufficient knowledge to propose further measures regarding biocides. However, there is good evidence for serious environmental impacts of some veterinary medicines (eg pesticides used in sheep dip), and evidence is emerging that demonstrates widespread contamination by second-generation rodenticides in populations of birds of prey and other predators. Action is needed now to reduce exposure and risks of impacts in these areas and English Nature would be happy to present to the Commission evidence for risks to wildlife from these groups of products.
- 3.3 The scope of the strategy should consider “pesticides” from the point of view of the user group at which it is principally targetted (ie farmers) and should be broadened to include all biocides used by that group and which may cause environmental damage. We strongly recommend that the strategy should encompass rodenticides used in agriculture, given the widespread concerns about this group of products, and their use by farmers in crop protection.
- 3.4 Veterinary medicines should preferably also be included because of the involvement of the same user group to which the strategy is directed. Similar classes of products are often involved, and risks to the environment from some veterinary products are well documented. If this is not possible within the current draft, there should be a commitment to address these in a subsequent communication. Links should be made between any pesticides issues identified during future EC discussions on the soils thematic strategy, which may require delivery through action under the pesticides strategy.

4. Need for effective implementation of regulation:

- 4.1 Significant further progress is still required to fully implement the Plant Protection Products Directive (91/414) and this is recognised in the strategy document. In addition to the areas requiring further development in 91/414 identified in Council Communication 15287/01, many of the assessment methods for impacts on non-target wildlife are still unsatisfactory. In particular significant uncertainties remain over methods being developed for determining the acceptability of risks to non-target arthropods, and there is need for better guidance on assessment methods for impacts on non-target plants.
- 4.2 Some areas of environmental risk are not covered at all within current EU assessment procedures in 91/414, for example the adverse indirect effects on groups such as farmland birds (which may be affected by changes in invertebrate and plant food availability following pesticide use) although in the UK progress is being made in research and in the development of possible risk assessment methodologies this area.
- 4.3 We agree with the recognition in the thematic strategy that risks of synergistic effects need closer consideration, given the evidence for the potential effects on wildlife of interactions between organophosphate insecticides and some fungicide groups, and between different groups of insecticides.

- 4.4 The strategy should clearly identify areas such as those listed above where progress in implementing 91/414 is unsatisfactory, or which have yet to be addressed, and include a firm programme for implementation of these improvements.

5. Monitoring as part of the regulatory process

- 5.1 Because of the limitations and uncertainties in the ability of risk assessments to predict effects, including the effects of scale of use, a process is needed to check the outcomes of pesticide risk assessments and to validate the judgements reached at that stage. A key concern is the need to underpin the authorisation process for pesticides with a parallel environmental monitoring programme. Any risk assessment requires a number of assumptions to be made, and, although these are generally precautionary, genuine uncertainties remain. This is especially the case in the interpretation of higher tier studies and in instances where pesticides are granted approval only on condition that users undertake risk management methods. For these reasons, environmental monitoring of pesticides should be undertaken to confirm risk assessments made during pesticide authorisation.
- 5.2 This principle is already recognised as an important part of risk assessment within Europe, particularly in certain areas where future risks are difficult to predict. For example, under Directive 2001/18 risk assessments for the release of GMOs are assessed through mandatory post-market monitoring. Such monitoring should be a requirement as part of pesticide authorisation, and should include information on patterns of use, pesticide incidents involving wildlife, and monitoring for residues in environmental sectors (such as water and selected wildlife species). The information gathered should be regarded as an integral part of the approvals process and used to verify risk assessments as well as to identify additional and perhaps unexpected potential environmental risks.

6. Voluntary approaches to pesticides management

- 6.1 A mixture of regulation, advice, incentive, taxation/levy measures and voluntary measures will be needed to deliver the necessary changes in pesticide use patterns. Experience is being gained in the UK over the scope for delivering environmental improvements through voluntary measures, under the Voluntary Initiative for pesticides agreed between industry stakeholders and government. This programme aims to achieve reductions in the risks to biodiversity and to the environment more widely by encouraging the adoption of measures to:
- reduce unnecessary pesticide use
 - promote alternative methods for crop protection
 - enable selection of less environmentally damaging products
 - mitigate the adverse effects of pesticides where their use is essential
- 6.2 The key elements of the Voluntary Initiative package which could help deliver these objectives include:
- training programmes

- improved information availability
- the development of individual Crop Protection Management Plans (CPMPs),
- encouraging the uptake of improved application technology and providing a scheme to improve the condition of crop sprayers.
- raising awareness of sensitive local habitats and species
- promoting measures to protect watercourses.
- implementing pilot stewardship campaigns for the protection of water

6.3 The scheme has been in operation for about 18 months. English Nature's overall view is that the measures contained within the Voluntary Initiative package could change farmers' behaviour and lead eventually to measurable environmental and biodiversity benefits, but only if widely taken up. However, motivating farmers to adopt the package as a whole remains a key concern. The voluntary measures have been slow in development, and it is still uncertain whether they will deliver the required benefits. There is a need for alternative action by government if the initiative fails to deliver according to requirements, and the options of a pesticide tax and more stringent enforcement should remain as a viable alternative approach. However the approach does contain a number of key elements which should be considered within any overall strategy and associated action plan to deal with pesticides, however implemented.

7. Consistency between chemicals and pesticides policy

7.1 There are some important differences between the principles underlying the pesticides approvals process and those used in assessing other biocides under the Biocides Directive, and also in assessing existing industrial chemicals. The substitution principle, under which a comparative assessment must be made between new and existing products, is a requirement under the Biocides Directive and we consider this further under paragraph 13 below.

Specific comments:

8. Establishment of national plans:

8.1 We support the aim of the thematic strategy to encourage the development of national plans to reduce the adverse impacts and risks of pesticides in the environment. Government policy on pesticides in the UK is currently aimed at the promotion of responsible use and reducing the impact on the environment. English Nature believes that this policy should be strengthened and broadened as an explicit risk reduction strategy with an overall government action plan. This should take into account wider policy initiatives such as those to increase the area farmed organically, reductions in the range of pesticides available following the EU pesticides' review programmes, and initiatives such as the Scottish Natural Heritage TIBRE programme (Targeted Inputs for a Better Rural Environment) which aim to reduce pesticide use through improved technology. The strategy and action plan should indicate the relative roles to be played by government, industry, users, producers and other stakeholders. The thematic strategy should require that where existing voluntary measures are not succeeding, or where there is evidence of failure to comply with statutory requirements, there must be a clear commitment by governments to increase

surveillance and enforcement activity. The Voluntary Initiative should be examined closely as part of a UK national plan to minimise hazards and reduce risks, but options of introducing other measures should be kept if this programme fails to deliver measurable benefits.

9. Reducing particular risks:

- 9.1 Risks to watercourses:** Recent evidence in the UK suggests that there is a broad general appreciation by farmers of the need for protection measures for certain pesticides adjacent to watercourses, but that record keeping is inadequate to judge whether compliance with buffer zone requirements and Local Environment Risk Assessments for Pesticides (LERAPs) is adequate. There is a need for increased surveillance and enforcement of statutory risk reduction measures such as buffer zones. We strongly support the proposal for mandatory unsprayed field margins. This action should be linked with other initiatives such as a more flexible approach to set-aside around field margins.
- 9.2 Use of chemicals in sensitive areas:** Although we support the principle of measures under the strategy to avoid further deterioration of natural habitats, there must be provision for exemptions that allow pesticide use for nature conservation purposes within environmentally sensitive areas such as Natura 2000 sites. Because of the very modified nature of semi-natural habitats in the UK, and the need for active management to maintain or achieve favourable conservation status, herbicide use is sometimes essential for the management of vegetation in Natura 2000 sites and other nature conservation areas, although its use is sporadic and varies greatly from year to year according to need. Such use would always take into account environmental risks and the conservation gain would have to outweigh any risks to conservation features. Exemptions may also need to be considered for pesticide use in other agricultural operations within protected sites such as Sites of Special Scientific Interest, where management of the site for nature conservation requires the maintenance of agricultural activities (for example grazing). The use of mandatory terrestrial buffer zones would help to protect environmentally sensitive areas from pesticide drift from adjacent farmland and should be a requirement under the strategy.
- 9.3 Aerial spraying:** We would support a general ban on aerial spraying, given the greater risks of less accurate targeting of pesticide application that this application method can pose. However we agree that specific derogations should be sought for certain uses. Where bracken control is essential for environmental or agronomic reasons, aerial spraying is often the only practicable means of controlling bracken over extensive areas of difficult terrain. Bracken management is sometimes an essential part of vegetation management for nature conservation, and control with herbicides is in some circumstances the only option. Specific derogation may therefore be a requirement for aerial spraying, particularly for bracken control, in certain well-defined circumstances. Under such circumstances there should be mandatory buffer zones to protect sensitive features such as sensitive vegetation and watercourses.

10. Improving knowledge of risks:

- 10.1 We agree with the need to improve understanding of risks as a priority in the strategy. We recommend that environmental monitoring - for residues in environmental compartments (soil and water) and importantly also in selected biota - should be a key element in this area and monitoring by Member States in each of these compartments should be a requirement under the strategy. We welcome the Commission's proposal to support further investigations into the external costs of pesticide use. This will help evaluate the scale of measures needed to tackle such risks, whether via voluntary or fiscal mechanisms.

11. R&D

- 11.1 We agree with the Commission's list of priorities for research, which includes novel suggestions such as research into insurance schemes against potential crop losses in order to minimise preventive pesticide applications. We recommend the addition of the following priorities for research:

11.1.1 better understanding of sublethal effects of pesticides in wildlife, and their significance for wildlife populations and communities;

11.1.2 improved understanding of the significance of pesticide indirect effects at the landscape scale.

12 Improved controls on use/distribution.

- 12.1 The Commission list covers the main areas of concern, many of which have already been incorporated into the Voluntary Initiative referred to under paragraph 5 above. It will be important to ensure effective delivery via this mechanism in the UK, and to review the need for further statutory requirements if the voluntary approach fails to deliver effectively.

13. Substituting most dangerous pesticides with safer alternatives:

- 13.1 The UK conservation agencies agree that comparative risk assessment (substitution principle) should be developed for pesticides. Feasible approaches already exist and have been adopted in certain Member States. We recognise that there are difficulties in developing reliable comparative risk assessment processes (on which the substitution principle is based) for pesticides. There are, for example, potential problems for the management of pesticide resistance, and in evaluating comparative risks to entirely different environmental media or receptors. Thus, an important principle should be that reducing the risk in one area should not lead to any increase of risk in another. For example, following the introduction of additional regulatory controls over the use of organophosphate sheep dip to address human health concerns, an increase was recorded in the number of aquatic (environmental) incidents involving synthetic pyrethroid insecticides whose use had increased.
- 13.2 Whereas the current pesticides approvals process is intended to ensure that all products approved for use carry no unacceptable risk for human health or the

environment, there are remaining uncertainties. Some elements of risk are not quantified or are unquantifiable at present. An approach which further reduces risk through comparative assessment is justified, particularly where uncertainties are greatest.

- 13.3 In some cases, an unacceptable risk is rendered acceptable by requiring specific pesticide risk management measures, and product approval is conditional on these. In the case of environmental risk management measures (such as the use of buffer zones for the protection of water) their adoption and effectiveness is often difficult or impossible to monitor or enforce. Substitution with alternatives which do not require specific risk management measures would be appropriate in such cases, and this should be a priority area for development of comparative assessment within pesticides authorisation in the EU.

14. Encouragement of low input farming

- 14.1 We strongly support the Commission's proposals for encouraging low input or pesticide free farming. Promotion of organic farming should be an integral part of the overall strategy, with clear action plans for Member States. Promotion of alternative technologies, such as through TIBRE (see above), should form a part of this aspect of the strategy. Care must be taken to ensure that environmental objectives are firmly built into the design of IPM programmes, since many have developed in response to agronomic problems rather than specifically to address environmental concerns. We support also the proposal to consider linking the possibility of applying penalties such as reducing benefits under support schemes, with requirements to ensure compliance with statutory requirements for pesticides use.

15. Special levies

- 15.1 The European Commission does not intend to introduce an EU-wide pesticides tax at this stage. The current Voluntary Initiative agreed between industry and government in the UK is referred to above (Paragraph 5). We believe that a pesticides tax should be held as an option for the UK if this initiative fails to deliver within a reasonable timescale and according to strict targets. A possible future consideration might be to introduce such a tax for those who do not take up the Voluntary Initiative. Serious consideration needs to be given now to the design for such a tax, and of a rebate mechanism for those already carrying out initiatives under a voluntary programme.

16. Reporting and monitoring and the development of indicators of pesticides

- 16.1 Work has been carried out within the UK's Pesticides Forum to develop environmental indicators for responsible pesticide use (see *Pesticides Forum Annual Report – 2001*, DEFRA publ. 2002), and a range of indicators, including those for pesticides, is under development by the EEA. The Commission should be encouraged to require the adoption by Member States of indicators of environmental response in order to demonstrate the effectiveness of the strategy and MS action plans arising from it. Pesticide risk indicators, such as the aquatic risk indicators proposed by the OECD as well as the Pesticides Forum, are potentially valuable, and the extension of

similar risk indicators for the terrestrial environment should be encouraged. The strategy should recommend that further work is urgently needed to develop environmental response indicators for changes in pesticide use.

- 16.2 The process of monitoring against appropriate indicators must be equitable across Europe, but tailored to local situations. The EU pesticides strategy should provide a framework for Member States' monitoring strategy, and explain how this should translate to monitoring programmes within their national plan.

English Nature, on behalf of the Joint Nature Conservation Committee

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