

Pesticides in the UK



The **2008**
report on the impacts and
sustainable use of pesticides

A report of the Pesticides Forum

INTRODUCTION

Welcome to the new style annual report of the Pesticides Forum. This new report replaces the previous 'annual report' and the 'report of indicators reflecting the impacts of pesticide use'.

The Pesticides Forum was set up in 1996 to bring together a range of organisations with an interest in how pesticides are used and their impacts. In 2006 the Government published its UK Pesticides Strategy; this was updated in 2008. The aim of the Strategy is 'to achieve high standards of human and environmental protection against potential risks posed by pesticides whilst maintaining the economic viability of crop protection and effective control of pests, weeds and diseases'. A number of stakeholder action plan groups have been established to develop work programmes to deliver this aim. These groups are considering measures to: protect human health, water and biodiversity; improve practice in the amenity and amateur (home and garden) sectors; and ensure the availability of a sufficient range of pest and vegetation management options. One of the Forum's main tasks is to review the work of these groups in delivering the Strategy and provide advice to the Government in order to maximise the effectiveness of its work.

This report is structured along similar lines to last year's indicators report, which in turn mirrored the structure of the Strategy's action plan groups. This meant looking at: the impacts of pesticides on human health, water and biodiversity; practice of users in the amenity and amateur (home and garden) sectors; and issues for pest and weed control and vegetation management arising from a decreasing number of pesticides. We have

supplemented this information by detailing the work which the Forum has undertaken looking at these issues. Records of our discussions can be found on our website:

[Pesticides Forum Home Page](#)

We are also investigating the potential for regional indicators in future editions of this report to complement the national perspective currently provided.

Our members represent 24 organisations covering the farming (conventional and organic production), farming equipment and pesticide industries; environmental and conservation groups; education and training; consumer interests and trades unions. Representatives from all the Government Departments responsible for, or those who have an interest in, pesticides in the UK participate in our meetings to provide advice and listen to the views put across. Details of all the members and advisers are listed on our website:

[Pesticides Forum Membership](#)

Indicators are an important way of monitoring the impacts of pesticides on human health and the environment. They typically come in one of two forms: those which measure impacts directly (e.g. the amount of pesticide pollution of water or residues in foodstuffs); or those which measure the behaviour of pesticide users (e.g. regular testing of spray equipment can reduce risks of pollution).

Assessing the risks from the use of pesticides is largely addressed by the rigorous approvals system. Firstly, no pesticide would be approved for use if it is shown to be a risk to human health. Once a pesticide has passed

the human health checks, the next stage is to assess how it will behave once it is released into the environment. Only products which are assessed as safe for users, consumers, residents, bystanders and the environment will be authorised for use. Stringent conditions of use are often placed on products to ensure that any risks associated with their use are reduced to an acceptable level.

The impacts of pesticide use are carefully monitored, to ensure that they are behaving as predicted by the approvals process. This information, along with a review of the amount of pesticide used and the behaviour of pesticide users, forms the basis of the indicators in this report. However, using indicators to assess the risks arising from pesticide use is not a precise science. It inevitably involves pulling together relevant information and expert opinion to 'paint a picture'.

[UK Approvals System](#)

We also revised our objectives last year to more clearly define the role of the Forum in respect of the UK Pesticides Strategy, and these are reproduced in [Section D](#) of this report. Finally, this is the first year that the annual report has been produced in electronic form only. This decision has been taken to keep the cost of production down but also to allow for the increased number of hyperlinks to other relevant websites which have been placed throughout the report. However, it has also been produced in a way that allows you to print a good quality copy.

If you have any comments or views on this report please do not hesitate to contact us at the address below:

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FOREWORD



This new report pulls together the full range of work the Pesticides Forum does in one document. A key focus of our work since last year, when the Government introduced the latest

version of the ['UK Pesticides Strategy: A Strategy for the Sustainable Use of Plant Protection Products'](#) has been to monitor impacts and encourage responsible use.

Although all the member organisations of the Pesticides Forum have always put a great deal of effort into understanding the use of and reducing the impacts from pesticides, it was not always clear how to bring together all this information. We now structure each meeting in such a way that we focus on all the key action plans from the UK Pesticides Strategy: human health; availability of products and techniques; water; biodiversity; amateur use; and amenity use. Each of these plans is reviewed in turn and Forum members provide a clear steer both on the actions taken by Government, Agencies, the industry and NGOs to date, and where future work should be focussed and who should do it.

This was perhaps most clearly shown in the work the Forum did to support the UK Government in gaining a better understanding of the implications of the implementation of the proposed EU Authorisation Regulation (replacing Directive 91/414/EEC on the placing of plant protection products on the market: [Directive 91/414/EEC](#)). Based on our meeting, Forum members

agreed I should write to the EU Commissioner overseeing the new Regulation, Mme Androulla Vassiliou, highlighting the problems resulting from the lack of a robust Regulatory Impact Assessment covering the proposals: [Letter to European Commissioner](#) This omission had created a great deal of concern, across Government and the agricultural industry, over the potential loss of a wide range of chemical pesticides, with consequent major impact on both food production and food prices, at a time when food security and sustainability are high on the political agenda. I fear that, unless we get an early and clear understanding of the potential impacts of the new Regulation, the pressures faced by the industry as a whole could be greatly exacerbated as it is required to produce ever greater amounts of food whilst hampered by the reduced availability of the correct tools with which to minimise pests, diseases and weeds in crops.

The Forum recognises the key importance of scientific evidence and expert advice in protecting human health and the environment from the harmful effects of pesticides. It welcomes engagement with other relevant expert bodies, including the Advisory Committee on Hazardous Substances: [ACHS Home Page](#), in the process of making sound decisions to ensure the safe use of pesticides.

However, as well as reporting on the progress of individual action plans, we have not lost sight of the need to highlight new issues raised by our own members. An example has been the work we have done to explain the problems associated with container design, spillages and recycling. Here a group of members have developed a discussion paper

PF 170 Container Management highlighting all the important issues and work is now progressing on identifying key stakeholders such as manufacturers of plastics, the pesticide producers and local authority waste managers to see how these issues can be progressed.

I hope I have been able to give you a taste of some of the most important work the Forum members have done this year. This report will provide further information about the many subjects we have covered at our meetings. I think you will find the new format helpful in understanding the range of issues considered by the Pesticides Forum, and that it puts our work into clear perspective alongside the UK Pesticides Strategy. In this way, we hope it is relevant to everyone with an interest in both the impacts and sustainable use of plant protection products.

Finally, I would like to take this opportunity to thank all the members of the Pesticides Forum, and the secretariat, for their valuable contributions both at meetings and in correspondence. The engagement of every one of our members ensures that each and every topic is covered thoroughly and professionally. This depth of knowledge, combined with enthusiasm, of all the members is perhaps the most important factor in the continuing success of the Forum.



James Clarke
Chairman

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EXECUTIVE SUMMARY

Pesticides in the UK: The 2008 report on the impacts and sustainable use of pesticides

This new report pulls together the work of the UK Pesticides Forum in 2008. It contains both 'annual report' items and the 'report of indicators reflecting the impacts of pesticide use'. We have structured the report, as we have our meeting schedules, around the UK Pesticides Strategy. It covers progress with the key action plans: human health; availability of products and techniques; water; biodiversity; amateur use; and amenity use. These items are prefaced by background information on the use of pesticides.

Our report confirms that the use of pesticides is not impacting adversely on the health of UK citizens or the environment. The mix of statutory and voluntary controls delivered within the framework of the Government's UK Pesticides Strategy have been successful in ensuring that society derives the benefits which can accrue from the responsible use of these chemicals, without being exposed to unacceptable levels of risk which could arise from their use.

A major change in 2008 was the increased land area under cropping as land came out of set-aside. This is a major driver of the total amount of pesticide used. We are also pleased to note the impact of the new, lower use rate fungicides in reducing total fungicide use and the continued success of NRoSO, NSTS and BASIS training/registration schemes in getting the good practice message to the vast majority of users. It is also worth noting the relatively low number of breaches in pesticide legislation identified in RPA Cross Compliance

inspections, the majority of which were 'rectifiable'.

In relation to the human health action plan, there has been good progress with establishing the implementation group; and we note the continued decline in pesticide incident cases reported under PIAP. We are pleased to acknowledge two initiatives to interact with members of the public in relation to local spraying, namely the proposed PSD bureau to allow members of the public to find out more about spraying practices in their neighbourhood, and the NFU 'good neighbour initiative'. MRL exceedances, especially in UK and EU produce, remain at very low levels. Under the availability plan we note the developing range of biopesticide choices.

There is continuing development of water and biodiversity indicators and these groups continue to evolve to meet new challenges. The continued recent downward trend in percentage of water samples above 0.1 g/litre is encouraging.

We also welcome and support the development of 'Amenity Assured', a registration scheme which aims to ensure a consistent standard of performance (including minimisation of risk) amongst amenity contractors.

A particular highlight of 2008 for Forum members was a visit to Peter Hall's farm, where organically produced top fruit is being grown at conventional production levels using a range of alternative approaches.

There is, however, still room for improvement. For example:

- ▶ the report indicates that pesticide use may be increasing. This may be due to a number of factors, including the facts that more land is being farmed (due to the ending of set-aside and increased commodity prices having created an incentive to plant) and some broad-spectrum products are no longer approved for use. Whilst an increase in use does not necessarily equate to an increased risk, this is something we will want to keep an eye on;
- ▶ we also feel that it would be beneficial to have access to either different, or a wider range of, information in order to better assess the risks which can arise from the use of pesticides. Therefore, whilst we were pleased to note the progress of the Government's UK Pesticides Strategy action plan groups, we would stress the need for work to continue on the development of relevant indicators against which their success and progress can be monitored; and

- ▶ the reported increased number of cases of abuse of pesticides reported to the Wildlife Incident Investigation Scheme is of concern. We recognise that this may be due to increased vigilance and reporting, which we would support, but we hope that measures will be taken to examine this evidence further.

In general, though, the UK public can be assured that users of pesticides are applying these chemicals in a responsible manner. Many users take specialist advice before, during and after applications, and are adopting practices which exceed the statutory requirements. As such, the UK is well placed to meet the demands to further improve the way we use pesticides which will flow from the requirements of the EU Directive on the Sustainable Use of Pesticides.



SECTION A:

The wider context

Before looking in detail at our work on:

- ▶ the impact of pesticides on human health, water and biodiversity;
- ▶ practice in the amenity and amateur (home and garden) sectors;
- ▶ and issues relating to the availability of pesticide products in 2008;

it is important to establish the context in which this is reported.

To set the scene, therefore, this part of the report contains indicators detailing pesticide sales, cropping patterns, usage, and practice amongst users in 2008 (where data are not available we have referred to the most recent).



The 2007 data describe a substantial increase in pesticide sales (by more than 9,000 tonnes of active ingredient) over 2006, reversing the decline in pesticide sold since 2004. This is affected by an increase in CPA membership. Another driver is the area of land planted that year. Other, probably more temporary, reasons include commodity prices in 2007 and early 2008 and weather conditions.

The cereal area planted in autumn 2007 increased by approximately 13% over the previous year, leading to an increase in the amount of autumn-applied pesticides. The increase in land under cultivation was partly due to a reduction in set-aside following

changes to the European set-aside requirements. This coincided with the world prices of cereal grains reaching record, (and temporary) highs during late 2007, which also stimulated an increase in pesticide use as the optimum economic yield tracked the high world grain prices during spring and autumn 2007. The weather conditions during autumn 2006 did not restrict the potential area sown to cereals (as happens in many years). The spring weather conditions of 2007 promoted crop growth, and weed, disease and insect pest development, and weather conditions during autumn 2007 were again conducive to a large planted area.

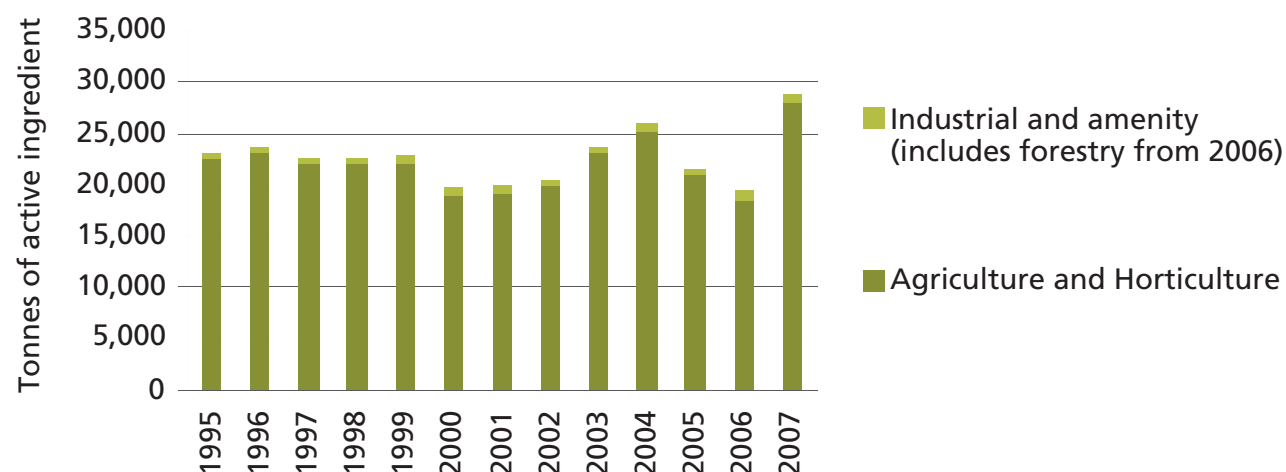
With respect to non-cereal / oilseed rape crops, the warm and higher than average rainfall conditions of the late spring /early summer of 2007 led to unusually severe epidemics of mildew and blight in vegetable and potato crops, resulting in an increase in the need for fungicides.

It is expected that the long-term trend for reduced pesticide use will be re-established during late 2008 and into 2009, following the stabilisation of world grain prices during 2008; more 'normal' weather conditions; and the withdrawal from the UK market of a number of high use rate herbicides.

Figure 1 shows the amount of pesticide active substance sold by the members of the Crop Protection Association (CPA) each calendar year. It provides an indication of whether more or less pesticides were used. Please note the figures do not include amateur (home and garden) use and are for CPA-member companies only. They are therefore affected by membership changes within that organisation.

[CPA Home Page](#)

**Figure 1: Headline indicator
Pesticide sales**



Source: Crop Protection Association [Crop Protection Association Home Page](#)

The amount of pesticides used is a starting point in assessing risk and can help to put all subsequent findings in this report into context. It should be borne in mind, however, that there are many factors which determine the risk arising from pesticide use, including the toxicity of the chemicals and the ways in which they are used. For example, risks to water can be reduced by preventing applications close to streams and ditches.

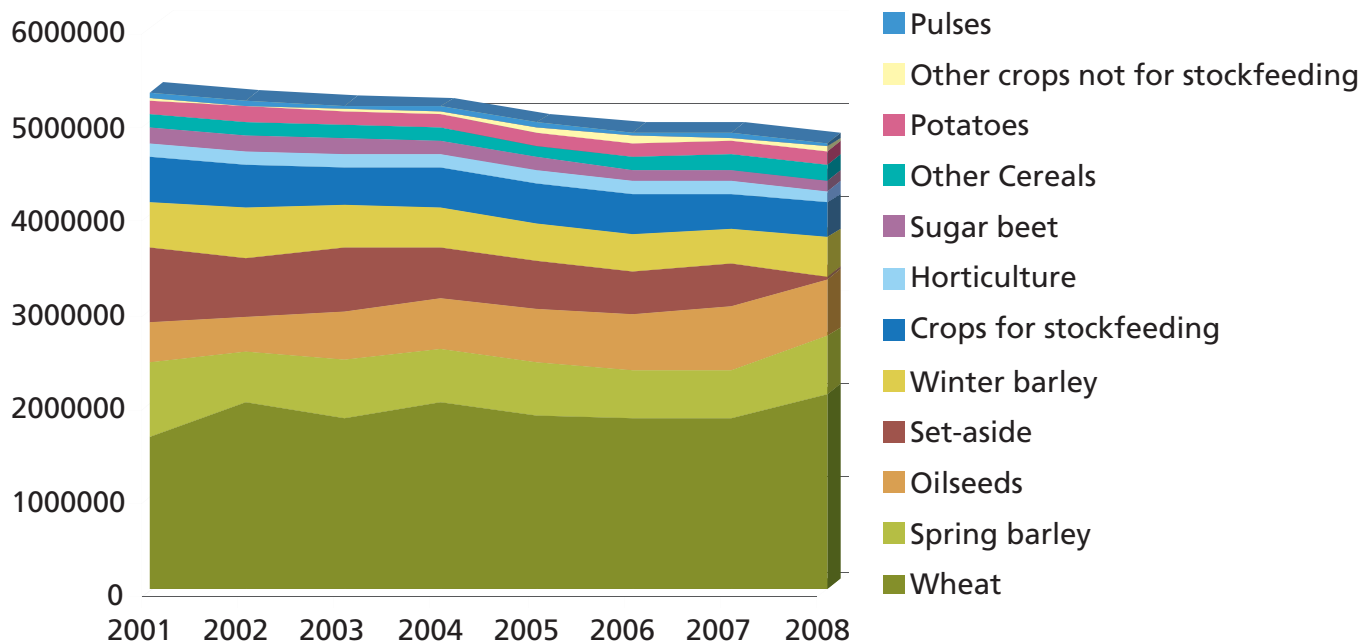
It is also important to note, when interpreting the headline indicator for pesticide sales, that the data are presented for the calendar year 2007, which does not coincide with the cropping year for the major UK arable crops. Most crops (such as winter wheat, winter barley and winter oilseed rape) are sown in the autumn and harvested the following summer and these figures represent pesticide usage during spring and summer 2007 on a cropped area established in autumn 2006 plus pesticide usage during autumn 2007 on the crop area established during that period.

There can be a significant impact on the reported data if applications to autumn-sown crops are delayed into the spring. The calendar year coincides with the cropping year for the less widely grown, spring-established crops of spring cereals, potatoes, sugar beet, legumes and vegetables.

UK pesticide usage is closely correlated to cropping patterns and is also subject to seasonal variation in response to weather conditions.

Combinable, winter-sown crops account for about 60% of the arable areas; other crops (mainly spring-sown) about 30%. Although horticulture accounts for slightly less than 4% of the cropped area, usage can be intense on some crops, particularly orchards, hops and some vegetables. The current trend is for basic cropping patterns to continue, though there may be a significant reduction in the amount of land which is set aside.

**Figure 2: Core indicator
Cropped areas (ha) in UK**



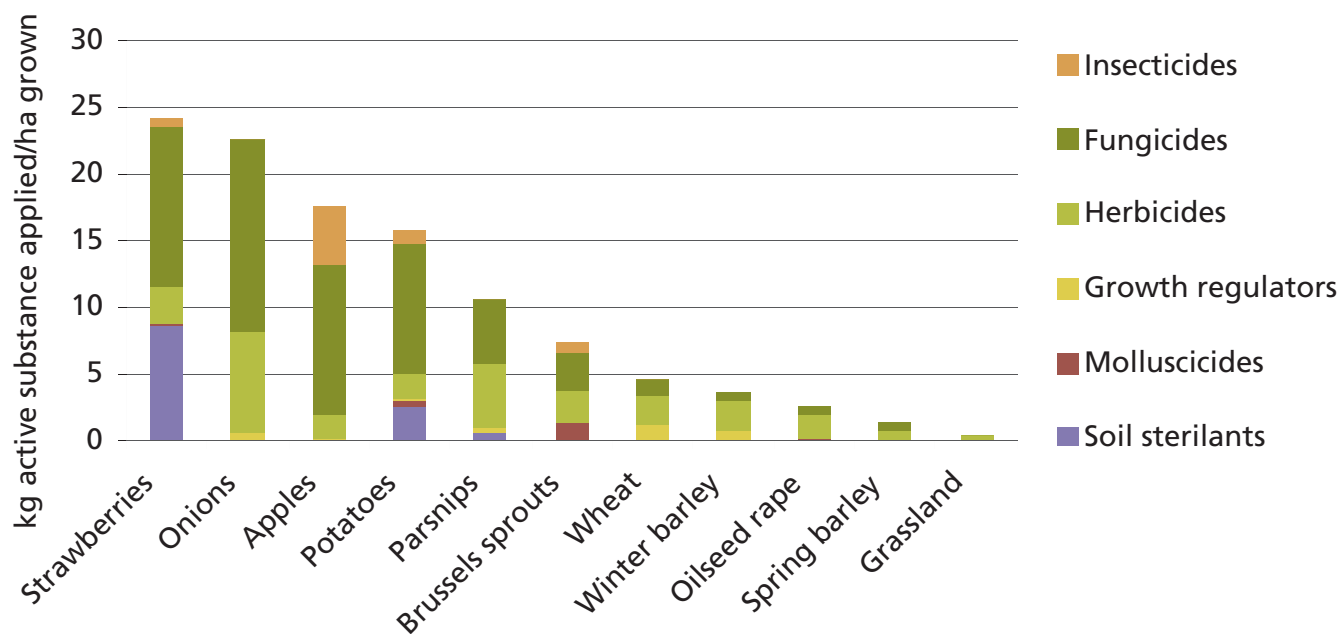
Source: Defra [June Agricultural Survey](#)

Figure 2 does show a reduction in total cropped area, which is accounted for by an increase in woodland and grassland (5 years and over). Land also continues to be lost to buildings, roads and other infrastructures.

Figure 3 demonstrates the range in total weight of pesticide applied to particular crops. It shows that some horticultural crops receive high weights of active substance per hectare. Soil sterilants require high dose rates to be effective, with extra fungicide applications also being required. This use is to ensure crops meet quality standards and reflects several products which have high weights of active substance applied per hectare. However, the area of these crops is relatively small, and use on these crops is only a small proportion of the total. The data are included to show the difference between crops and how this fundamentally affects pesticide use.

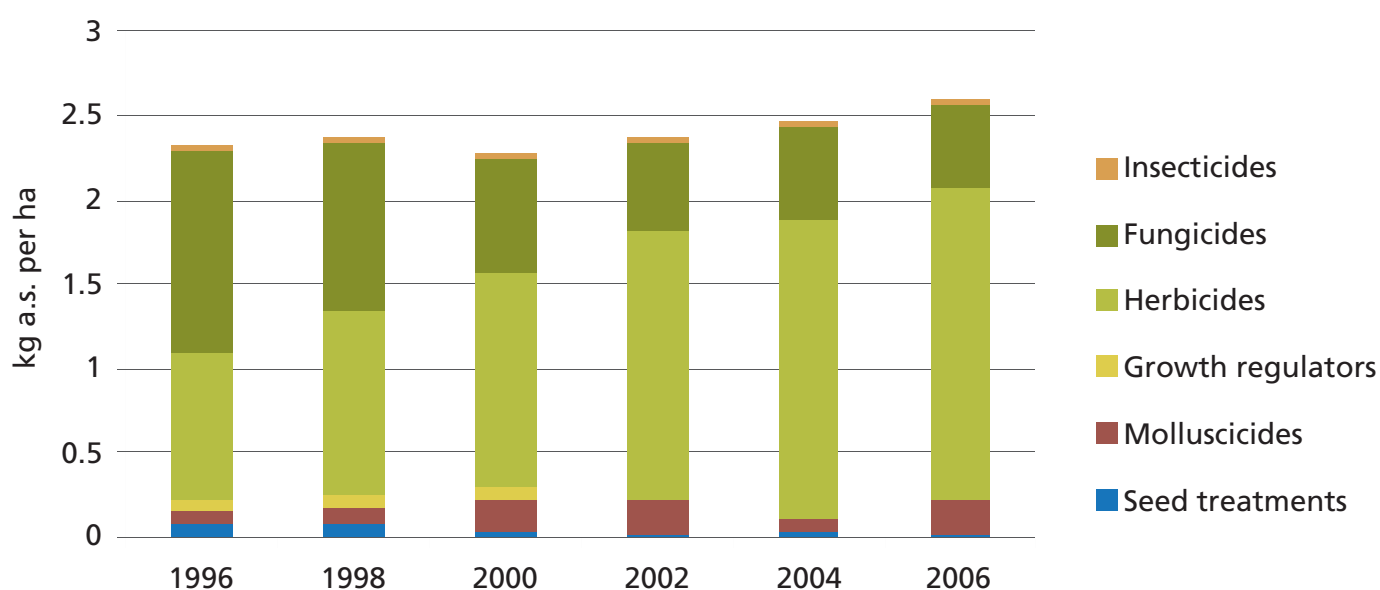
Figure 4 shows the average total dose of pesticides applied per hectare of oilseed rape. It illustrates a major shift to a reduced weight of fungicide applied over time, in contrast to an increased weight of herbicide. More information on each of the categories is provided in the paragraphs which follow. As this information is collated on a biennial basis, we currently only have information up to 2006. Last year we reported on wheat, as it is the most extensively grown UK crop. However, we have decided to report on oilseed rape this year, since it provides a look at a different crop which is also one where many of the pesticides applied have been found in water courses.

Figure 3: Core indicator
Pesticide average inputs per crop – kg active substance applied per crop in GB for 2006



Source: PSD Pesticides Usage Survey [Pesticides Usage Survey Reports](#)

Figure 4: Core indicator
Pesticide use on oilseed rape (kg active substance per ha)



Source: PSD Pesticides Usage Survey [Pesticide Usage Survey Reports](#)

Herbicides

Many oilseed rape herbicides are applied in large quantities of active substance per hectare. This is why they make up the largest amount of active substance applied. On oilseed rape they are almost exclusively applied in autumn and winter. Oilseed rape is grown as a cleaning crop, but it is uncompetitive and suffers from grass-weeds and volunteer cereals (from the previous crop). As a result, herbicide use is essential for an economic yield and to achieve an effective crop rotation. The increased weight of active substance over the period reflects changed product choice. As resistance has developed, residual products have tended to replace foliar applied products, residual products being necessarily applied at higher rates of active substance per hectare.

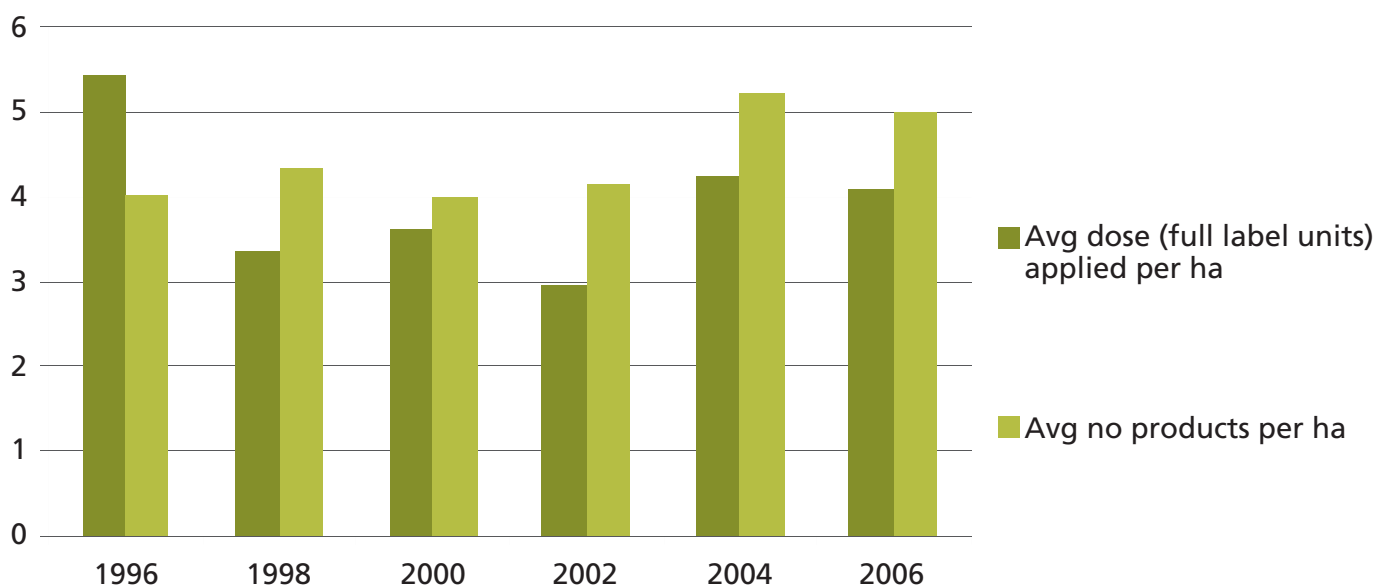
Fungicides

Fungicide use varies according to seasonal risk. In oilseed rape, there are significant disease pressures in autumn, spring and summer. Fungicides are used in oilseed rape primarily for the control of *Phoma* (autumn and spring), light leaf spot (spring) and *Alternaria* and *Sclerotinia* (summer). The decline in total fungicide usage is due to the introduction of new, lower use rate fungicides which have replaced higher use rate products, together with a significant reduction in summer applications to control *Alternaria* and *Sclerotinia*.

Insecticides

The use of insecticides in the UK cereal and oilseed rape crops reflects UK climate and cropping patterns, and has continued at a low level in terms of both dosage and number of applications. Overall, usage has not varied greatly over the last few years, as both new and existing active ingredients have exceptionally low use rates.

Figure 5: Core indicator
Fungicide use on wheat – number of products and total doses of active substance per ha



Source: PSD Pesticides Usage Survey [Pesticides Usage Survey Reports](#)

Plant Growth Regulators (PGRs)

All approvals for use on oilseed rape were withdrawn in 2001. Most growers now rely on a side effect of many fungicides which helps improve crop standing ability. It is not clear how new variety types might change this pattern in future.

Molluscicides

Molluscicides are used to protect crops from slugs which are potentially the cause of greatly reduced crop establishment. Heavy soils and wet years create a greater need, and this seasonal effect accounts for the changes between years.

Seed Treatments

Virtually all crops are grown from treated seed. Because the amounts of pesticide used to treat seeds are particularly low, seed treatments constitute a very small proportion of pesticides

used in the UK. However, seed treatments are only effective for a few weeks following crop emergence and have not replaced subsequent insecticide or fungicide use.

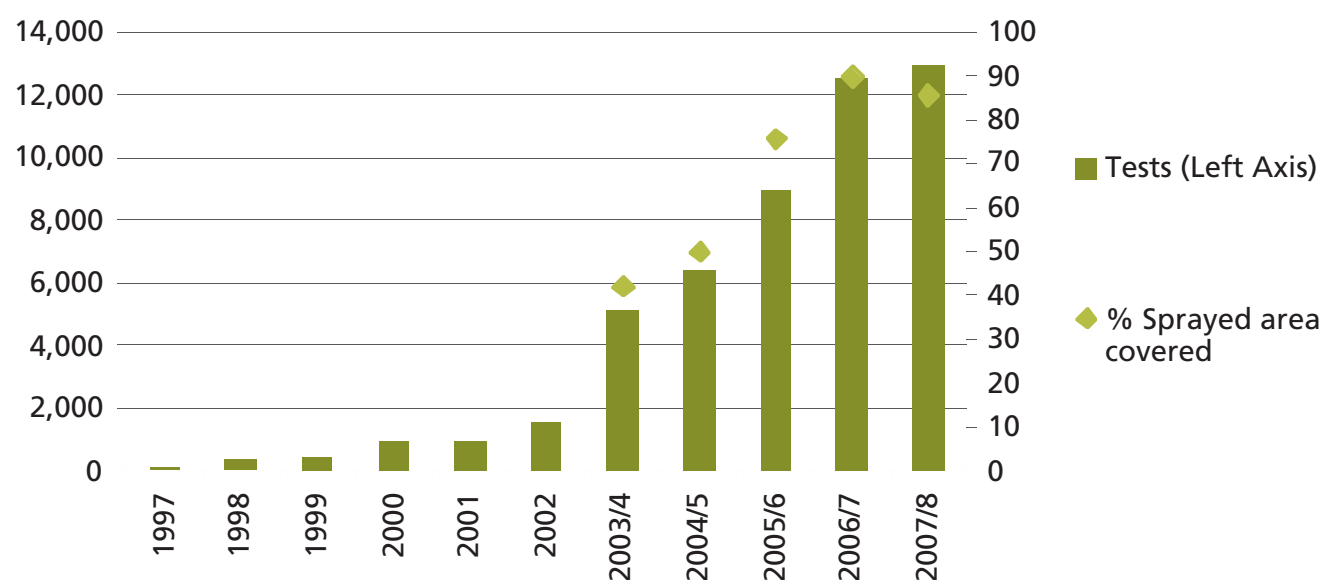
Figure 6a indicates the number of sprayer tests conducted, and percentage of the sprayed area treated by equipment tested, under the National Sprayer Testing Scheme (NSTS), as part of the Voluntary Initiative (VI):

[NSTS Home Page](#)

[Voluntary Initiative Home Page](#)

Well maintained and correctly serviced spray machinery is essential for safe and accurate application of pesticides. This is especially important as the average age of such equipment is estimated to be seven years. Sprayer testing will help to ensure that equipment is leak proof, capable of operating correctly, and is equipped with nozzles that are suitable for use. This has the potential to significantly minimise the risks to water, wildlife habitats and the spray operator. Figure 6a, therefore, indicates the

Figure 6a: Core indicator
User practice: National Sprayer Testing Scheme
(number of tests and % sprayed area)



Source: VI Annual Report 2007-08 and NSTS [VI Annual Report 2007-08](#)



extent to which users are adopting behaviours which increase efficacy and reduce risk to human health and the environment.

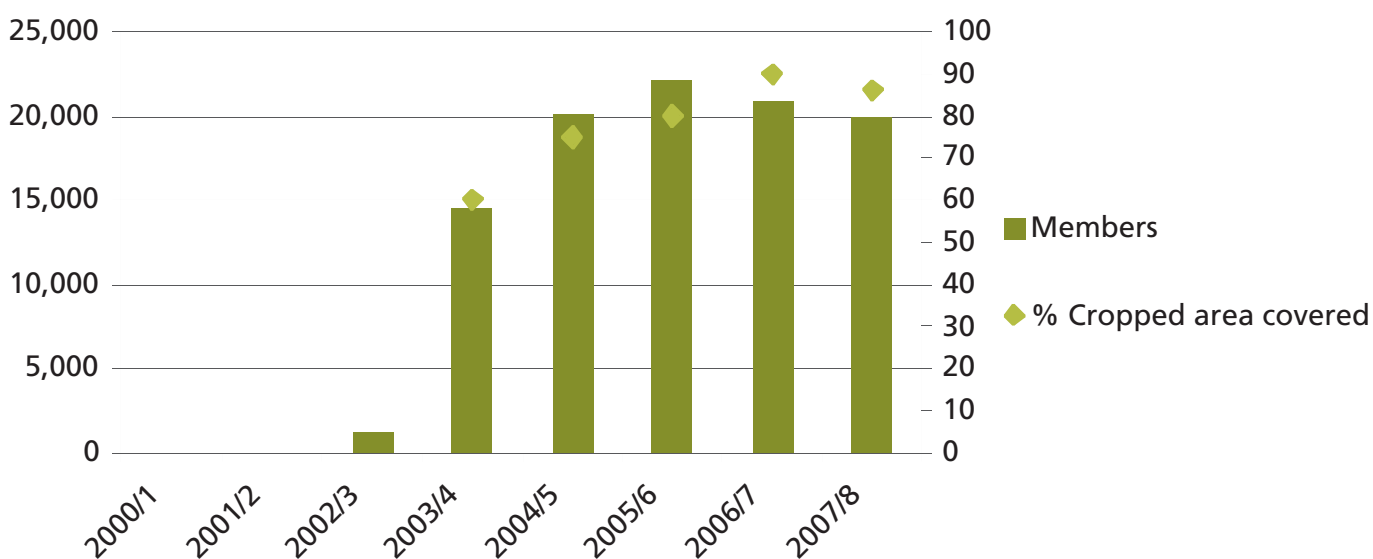
The number of tests conducted is less important than the sprayed area covered as, with increasing farm rationalisation, individual spray machines are used to cover larger areas and contractors are being used more widely. Consequently, the 'sprayed area' is now the preferred measure for assessing the coverage of the scheme. An estimate of 1m ha sprayed area for the forestry and amenity sector has been made.

Figure 6b indicates the number of members of the National Register of Sprayer Operators (NRoSO), and the percentage of the sprayed area treated by them, as part of the Voluntary Initiative.

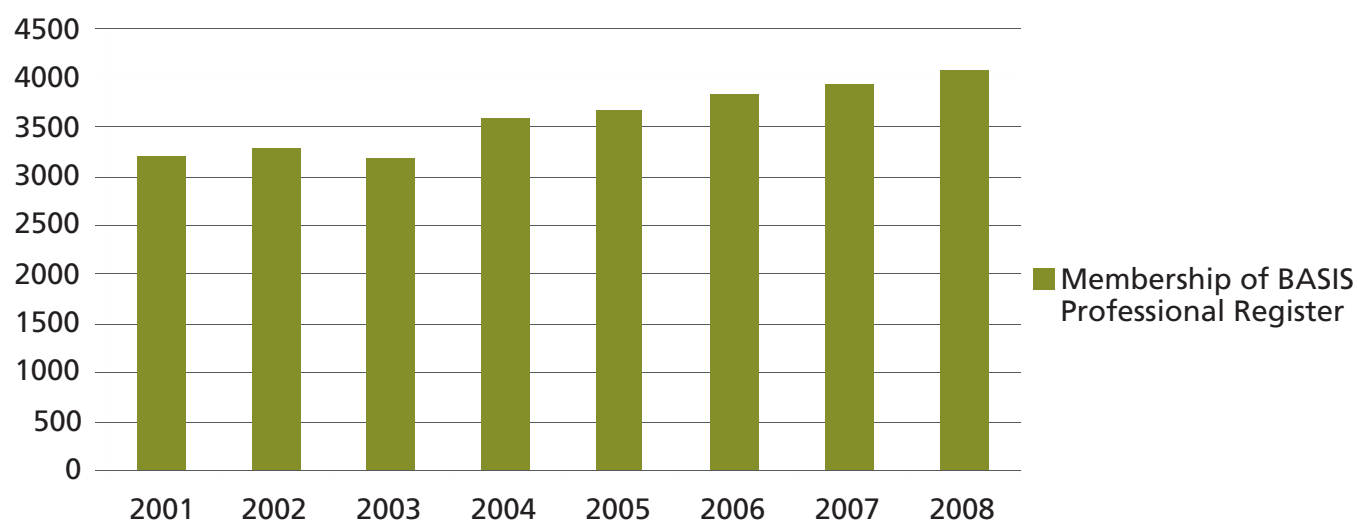
Well-trained operators follow best practice and make better use of pesticides through timely and accurate application, whilst taking care of their own safety, the safety of others and the environment. NRoSO establishes a framework for encouraging continuing professional development through training amongst sprayer operators. Figure 6b, therefore, indicates the extent to which users are adopting behaviours that reduce both environmental and human health risks.

Prior to the establishment of NRoSO, there was little regular, in-service training of operators. There are now 19,967 members, covering an estimated 86% of the sprayed area. Although membership is now a requirement of many farm assurance schemes, membership numbers are expected to decline in line with a reduction in the number of working sprayers and the increased use of contractors.

Figure 6b: Core indicator
User practice: National Register of Sprayer Operators (number of members and % sprayed area)



Source: NRoSO [NRoSO Home Page](#)

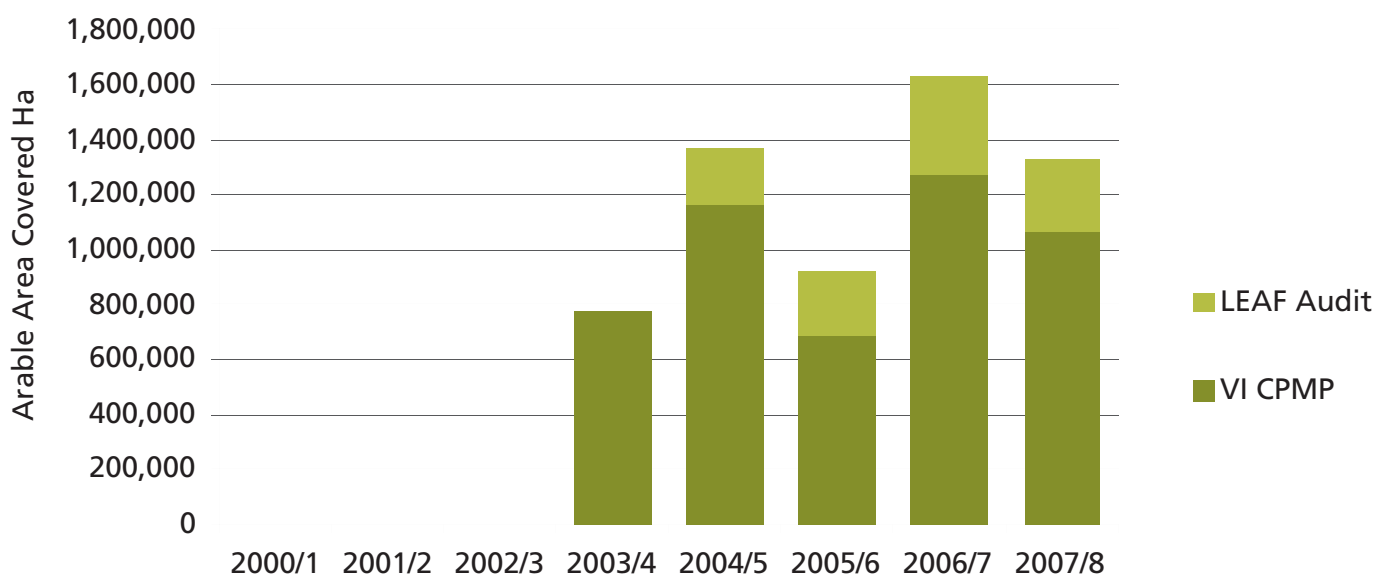
Figure 6c: Core indicator**User practice: BASIS professional register (number of members)**

Source: BASIS [BASIS Home Page](#)

Membership of the BASIS Professional Register is an indicator of a commitment to best practice in the crop protection industries. The Register encourages training through a commitment to continuing professional development.

It is estimated that there are more than 4,200 active sellers/advisers of pesticides involved in

food production. At the end of 2008 there were 4,129 members of the Register. This includes those specialising in agriculture (793), agriculture including fertiliser (1,575), amenity (202), horticulture (124), horticulture including fertiliser (107) and fertiliser – main category (909). The balance is made up of a number of smaller categories.

Figure 6d: Core indicator**User practice: Crop Protection Management Plans (area covered)**

Source: [VI Annual Report 2007-08](#)

Figure 6d shows the hectare of the cropped area covered by Crop Protection Management Plans (CPMPs): [CPMPs](#) which are part of the Voluntary Initiative. These plans help farmers to identify a) measures to minimise risks arising from the use of pesticides and b) the extent to which they are following best practice. Figure 6d provides, therefore, an indication of the extent to which farmers are aware of measures that protect human health and the environment, and promote biodiversity.

There are 2,433,819 ha of land covered by CPMPs under existing Entry Level Scheme (ELS) agreements: [Entry Level Stewardship](#). However, due to the removal of CPMPs from new ELS agreements, and from some farm assurance schemes, a decline in the number of plans submitted to the NFU occurred in 2007-8. To address this situation, the NFU substantially revised the plan in 2008, including launching an online version: [CPMP Online](#). This new plan

will be revised annually. In addition, attempts are being made to get better support from farm assurance schemes which should lead to future increases in the number of plans produced by farmers and growers.

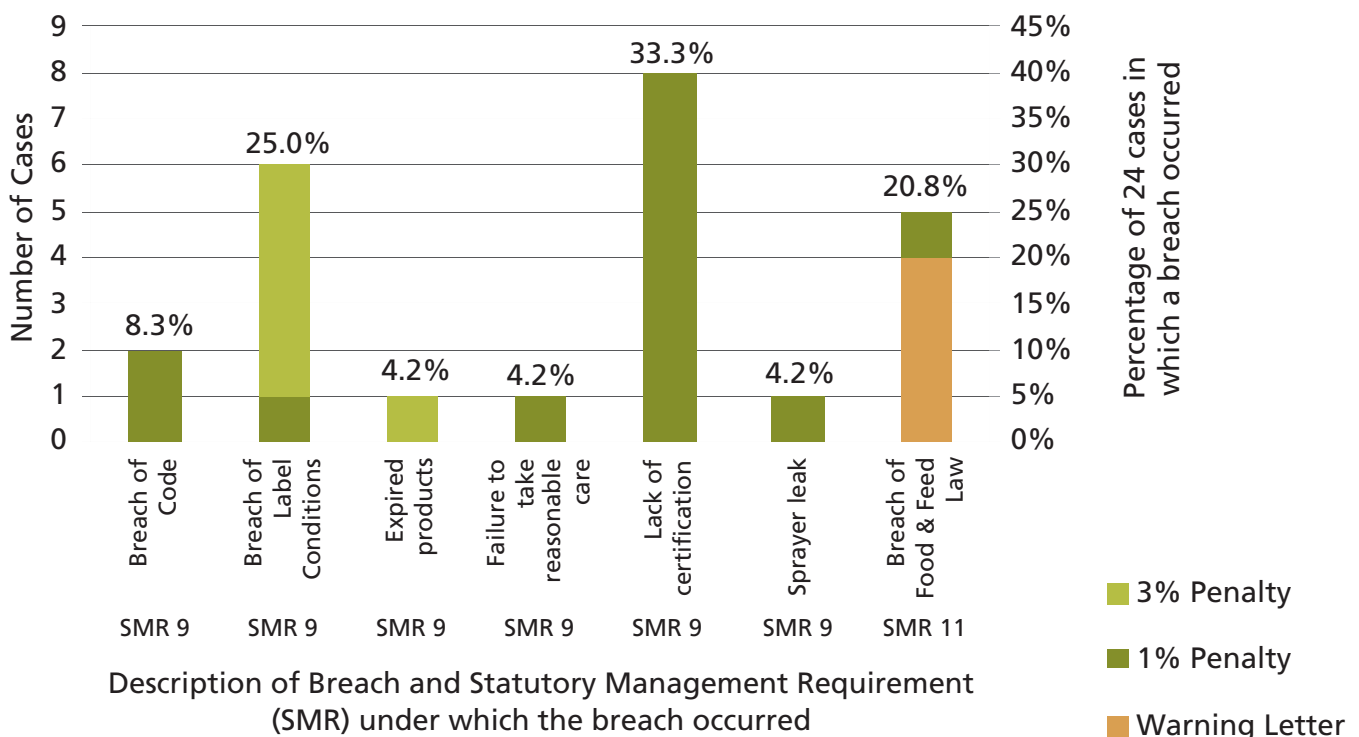
One of the series of checks carried out on farms receiving the Single Farm Payment (SFP) is compliance with pesticide regulations. Approximately 1,100 inspections are carried out each year. Figure 6e shows the results of Cross Compliance inspection of a representative percentage of single farm claimants in 2007. The inspections identified 24 (2.1% of the total number of inspections) breaches of pesticide legislation. Of these, 20 cases resulted in a penalty of between 1 and 3% of the SFP claim. In 18 cases the breach was deemed to be 'rectifiable'. For one of the cases, the outcome of an appeal may subsequently affect the level of penalty imposed.

[Single Payment Scheme](#)

[Cross Compliance Home Page](#)

Figure 6e: Core indicator

User practice: Cross Compliance checks, legislative breaches



Source: [RPA inspection records](#)

SECTION B:

Review of activities supporting the Government's UK Pesticides Strategy

Part 1: protecting human health

The issue

Protection of human health is the essential objective of the pesticide regulatory regime. A pesticide product is only approved if the risk assessment indicates there is no unacceptable risk based on internationally accepted procedures. The risk assessment process considers a number of ways in which human health may be impacted by the use of pesticides: consumers eating or drinking produce containing residues; using pesticides (for example those carrying out spraying operations); and impacts on members of the public who may live adjacent to sprayed areas or be passing close to such applications.



Work of the action plan group

The group met for the first time in 2008 and undertook a review of this wide-ranging subject. Activity was largely devoted to agreeing topics for discussion at future meetings.

Initial priorities identified by the group included: training of operators; the risk assessment of mixtures of pesticides; and developing indicators. The group may also

look at: the authorisation process; human health monitoring; crop assurance schemes; and programmes of residues reduction.

Work of the Pesticides Forum

The Pesticides Forum was pleased to note that the Government has included protection of human health within the updated Strategy, and that the action plan group has begun to develop its work programme. We look forward to the group reviewing and developing indicators during 2009.

Ensuring adequate protection for members of the public who may live adjacent to sprayed areas, or those passing close to such applications, has been the main focus of activity with respect to the protection of human health. Of particular interest has been the judicial review of the UK pesticide regulatory regime published in November 2008 and the potential implications. We await the outcome of the Government's appeal against the judgement.

Crop Spraying and the Health of Residents and Bystanders

We also heard how PSD is developing a bureau which would allow members of the public to contact them should they wish to find out which pesticide, if any, had been sprayed and when. In addition, we heard of the NFU's 'Good Neighbour' initiative, the main aim of which is to encourage the public to approach farmers directly if they have any concerns regarding the spraying of pesticides close to individuals or their property.

NFU 'Good Neighbour' initiative

The Food Standards Agency (FSA) updated members about its action plan to minimise pesticide residues in food which had resulted in the development of specific crop guides. Members also learnt details of subsequent liaison with relevant industry organisations to take the residue minimisation work forward. The FSA highlighted the possible impact of its advice on mycotoxin development and told members about its Code of Good Agricultural Practice for Reduction of Mycotoxins in UK Cereals which should be used in conjunction with guidelines for minimising residues. Both the action plan and the codes are currently available on the FSA's website:

[Crop guides on pesticide residue minimisation](#)

[Managing mycotoxin risk](#)

Indicators

Figure 7 shows the number of incidents investigated under the Health and Safety Executive's (HSE) Pesticide Incident Appraisal

Panel (PIAP) since 1993. Incidents are categorised as:

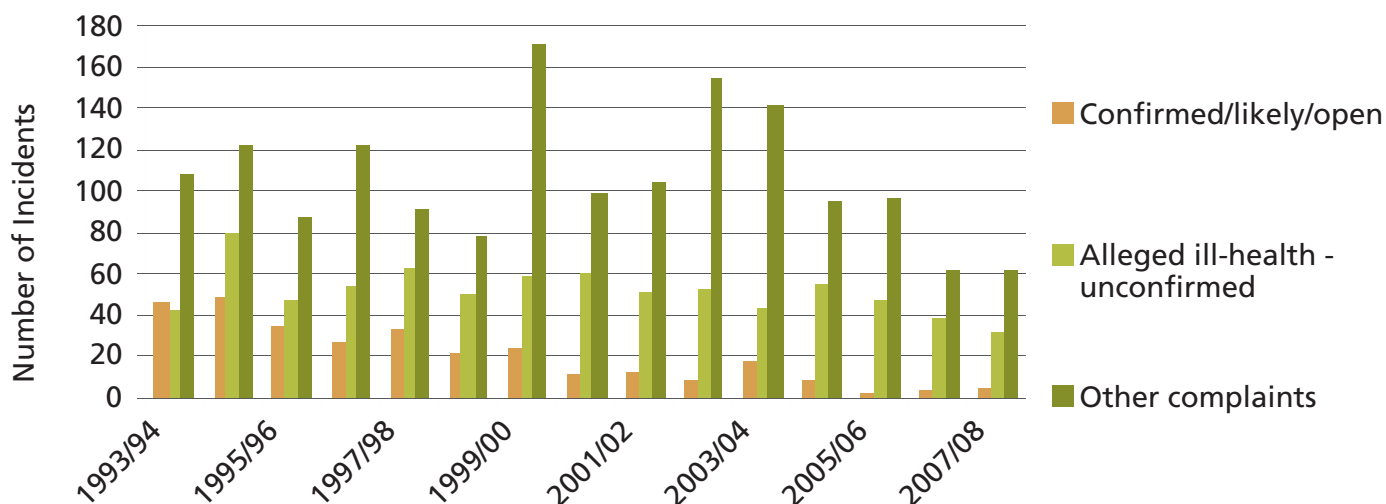
Alleged ill-health incidents. These are complaints in which ill health is alleged to have occurred as a result of exposure.

Other complaints. These are non-health related complaints about poor compliance with standards and/or good practice and/or environmental issues.

Confirmed, likely or open. These are the number of cases of alleged ill health:

- ▶ that were confirmed by the available evidence in the year of investigation or in a subsequent year;
- ▶ where on the balance of probability the exposure evidence is likely to be consistent with reported ill health but cannot be confirmed absolutely; or
- ▶ where the implied association between ill health and pesticide exposure cannot be entirely ruled out.

Figure 7: Headline indicator
Human health protection: PIAP investigations



Source: HSE [Pesticide Incident Appraisal Panel Report 2007-08](#)

All complaints of alleged ill health, and the vast majority of other complaints referred to HSE, are investigated. Where an incident is not clearly pesticide related, or where the reported condition(s) amount to a generalised allegation of feeling 'unwell' which cannot be associated with a particular incident or exposure to a pesticide, the complaint will not be classified as an incident nor will it be investigated.

The overall number of complaints varies from year to year and is thought to reflect variability in the awareness of, and concern by, members of the public about the use of pesticides. It is, however, good to note that, if anything, there is a reduction in the number of complaints reported.

Figure 8 shows the percentage of samples of fresh fruit and vegetables tested in the UK pesticide residues surveillance programme during 2007 (and the two previous years) that contained detectable residues above the Maximum Residue Level (MRL).

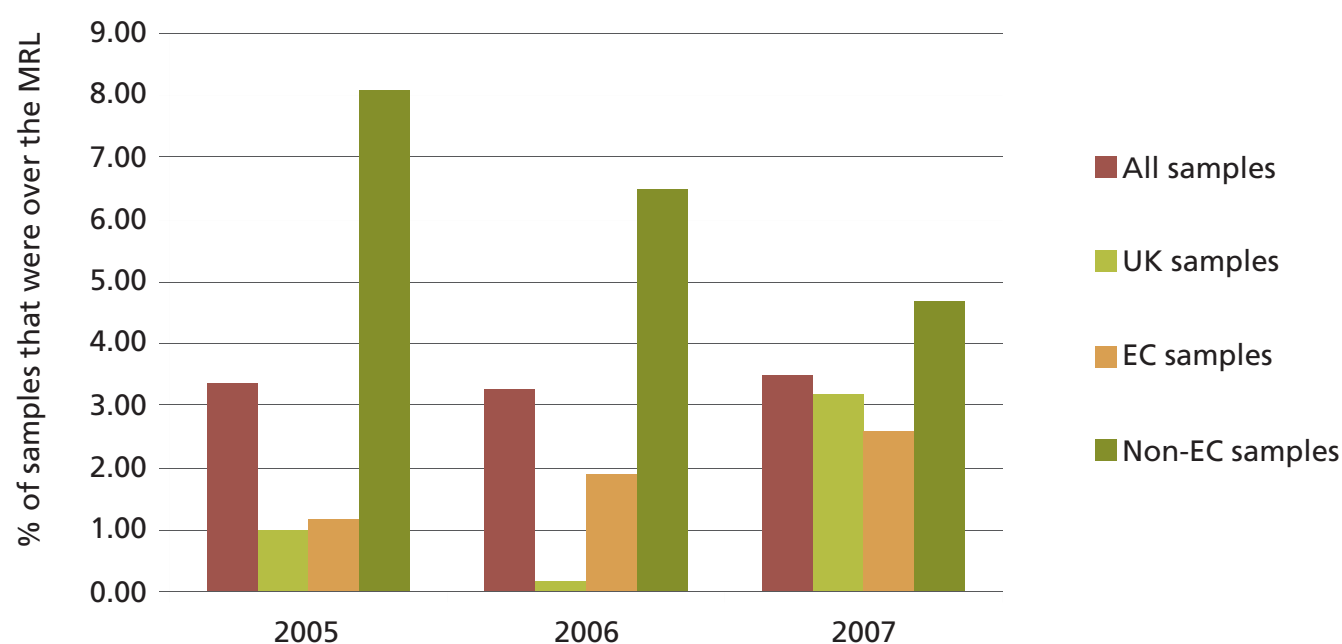
It is illegal to sell foods that contain residues above MRLs. MRLs are the maximum amount of pesticide residue that might be found in food when pesticides have been used properly.

It should be noted that MRLs are a mechanism for regulating trade in produce. EC MRLs do not always take account of pesticide usage patterns outside the EC, particularly for produce not originating within the EC.

It also has to be borne in mind that the monitoring programme is directed towards foods where residues are expected. The same food products are not tested each year, and the range of pesticides being tested for has increased from year to year. Therefore, comparing data year on year is not straightforward.

Figure 8, therefore, provides only an indirect indication of practice amongst pesticide users.

Figure 8: Core indicator
Consumer protection: Maximum Residue Levels compliance



Source: Pesticides Safety Directorate www.pesticides.gov.uk

Further information on MRLs

Residues and human health

MRLs are generally set many times lower than levels which would be expected to have an adverse effect on human health. Consuming foodstuffs with residues in excess of an MRL does not, therefore, necessarily constitute a risk to consumer health.



PSD screens each residue found for consumer health risks. If necessary, they also carry out a detailed consumer risk assessment. The Pesticide Residues Committee considered 14 such risk assessments in 2007 and concluded in all cases that adverse health effects were unlikely. Details of all results and conclusions are published in the Pesticide Residues Committee's quarterly reports for 2007: [PRC Reports](#)

New MRL regulation

EC regulation 396/2005 came into force in September 2008 and set MRLs for a wider range of crop/commodity combinations. Where data have not been supplied to support a higher level, the MRL will be set at the limit of determination (the lowest level where analytical methods can quantify the presence of the pesticide). The Pesticides Residues Committee expects this to mean that more residues are reported that exceed these new MRLs.

Increased analytical suite

For the 2007 programme onwards, PSD has increased the number of pesticides it is looking for in fruit and vegetable surveys. For this reason, it may be the case that more residues are found both under and above the MRL.

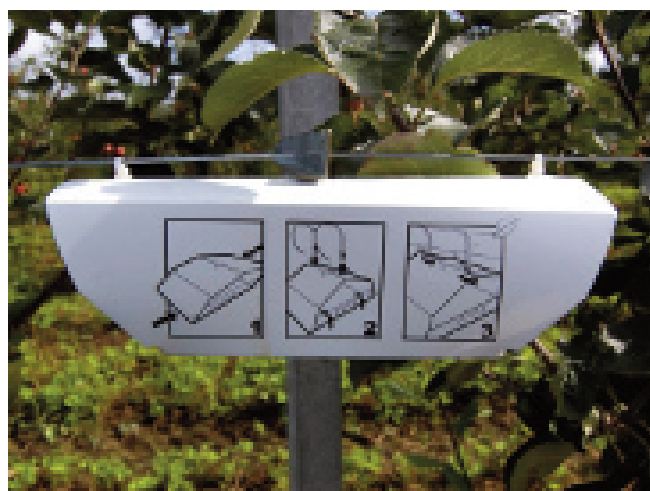
Part 2: availability of products and techniques

The issue

Virtually all farmers (including many organic growers) rely on pesticides to produce an economic crop. The availability of a sufficient range of products and techniques to control pests and diseases is, therefore, central to sustainable farming. Problems with the availability of pesticides are being exacerbated as the review programme under Directive 91/414/EEC removes many of the older substances from the market. The Maximum Residue Levels (MRL) programme, for similar reasons, is likely to reduce the range of permitted pesticide uses. The problem will be particularly acute for 'minor pesticide uses' (uses on minor crops, or minor uses on major crops) which occur principally in the horticultural sector.

Work of the action plan group

The group has focussed its attention on increasing, or at least maintaining, the availability of plant protection products, particularly for minor uses. Activity has concentrated on ensuring all elements of the pesticides regulatory regime and processes take sufficient account of this issue.



Key activities include: promoting the benefits of zonal authorisations in the new EC pesticide approvals regime; supporting the adoption by the EC of broader residues extrapolations and by EPPO of changes to efficacy extrapolations; securing the vast majority of Maximum Residue Levels needed to accommodate UK authorised uses; and introducing special authorisation arrangements for biopesticides.

[EPPO Home Page](#)

Future activity is likely to focus on: taking advantage of zonal authorisations to help develop collaborative approaches; the practicalities associated with the adoption of integrated and alternative approaches; and the development of robust indicators.

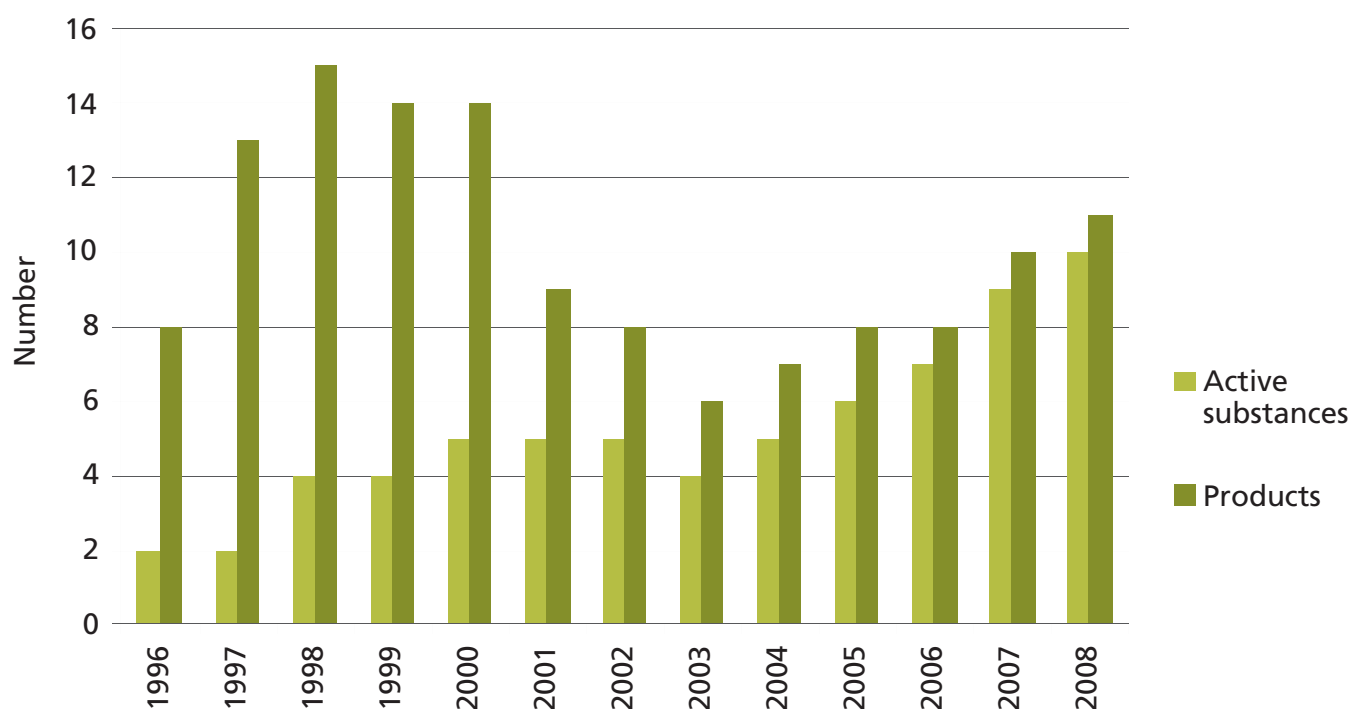
Work of the Pesticides Forum

The Pesticides Forum has heard how computerised decision support systems can be used to help farmers and growers make informed decisions about whether to spray pesticides and, if so, which pesticide, when and in what quantity. But members also learnt that, however good these programmes are, any error in the decision made can have a significant bearing on the confidence farmers and growers have in the system in future. However, the Forum agreed that such systems, as they become more intelligent, will inevitably be much more widely used on farms in the future.

Indicators

Figure 9 shows the number of products and the number of active substances approved, in any one year, as biopesticides since 1996.

Figure 9: Core indicator
Number of biopesticides available to users 1996 to 2008



Source: Pesticides Safety Directorate [Biopesticides Home Page](#)

Although the number of products has fallen, the number of active substances has gradually been rising. Biopesticides are, therefore, becoming increasingly available for the purposes of biological control as innocula, insecticides, herbicides and fungicides across a wide range of edible and non-edible crops.

Biopesticides are defined as one of the following:

- ▶ Products based on pheromones or semiochemicals. Semiochemicals are natural chemicals emitted by plants, animals and other organisms (or synthetic chemicals designed to mimic the natural substances) that evoke a behavioural or physiological response in the target species (such as deterring target insects from entering the crop or attracting them away from the crop to the margins).
- ▶ Products containing a micro-organism (e.g. bacterium, fungus, protozoa, virus, viroid).
- ▶ Products based on plant extracts. There is a large spectrum of plant extracts (i.e. unprocessed extracts representing a ‘cluster of substances’ or those which are highly refined containing one active substance).
- ▶ Other novel alternative products. As the description suggests, these are potential products which do not easily sit within one of the specific categories above.

More information on the definitions of biopesticides can be found on:

[Biopesticides Home Page](#)

Part 3: protecting water

The Issue

Protecting water and minimising risks to water quality is a key objective of the UK Pesticides Strategy. There is a need to integrate water protection policies in relation to plant protection products with wider water policy matters such as meeting the requirements of the Water Framework Directive (WFD). Water quality is already being addressed through initiatives such as the England Catchment Sensitive Farming Delivery Initiative (ECSFDI) and via the Voluntary Initiative for pesticides which includes pilot water catchment projects. The Strategy's water action plan seeks to integrate and build on these initiatives.

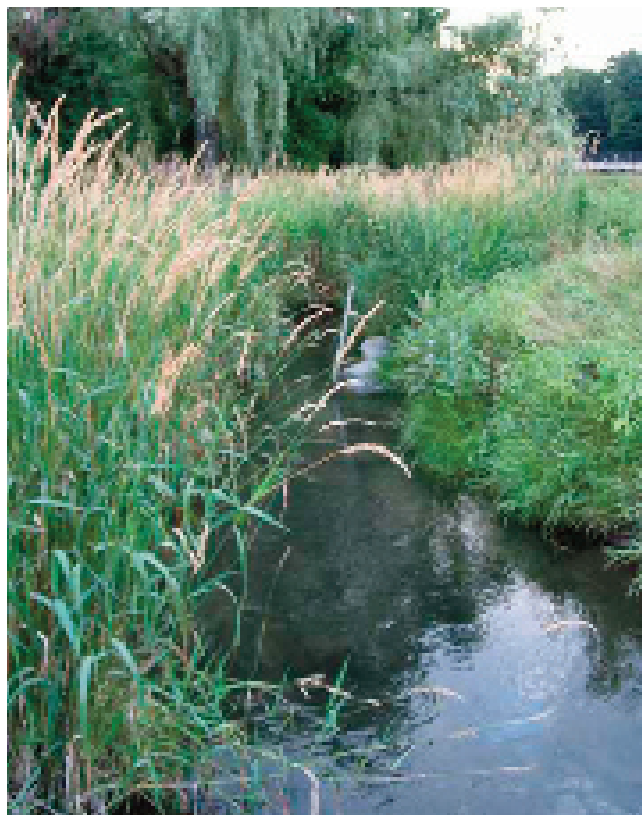
Water Framework Directive

ECSFDI

Work of the action plan group

The Water action plan group met twice during 2008. Activity is largely being driven by measures designed to implement the WFD. Members of the group have been working on projects led by the Environment Agency that are designed to: identify waterbodies which are at risk of failing chemical or ecological quality requirements of the Directive; develop measures that could be used to ensure compliance with the required standards; and improve the headline and core indicators used by the action plan.

The group also considered the potential impact of the emergence of pesticides such as carbetamide, propyzamide and metaldehyde in supplies used for the abstraction of drinking water and the most appropriate procedures for addressing such issues.



Work of the Pesticides Forum

In October, the Pesticides Forum was updated on latest developments relating to implementation of the WFD. The Environment Agency invited members to participate in reviewing draft River Basin Management Plans (RBMPs) which will set out a Programme of Measures (POM) for each water body, and draft Pollution Reduction Programmes (PRPs) for a number of individual pesticides identified as either WFD Priority Substances or UK Specific Pollutants. The Pesticides Forum noted that work to develop new surface water indicators had not progressed as quickly as anticipated.

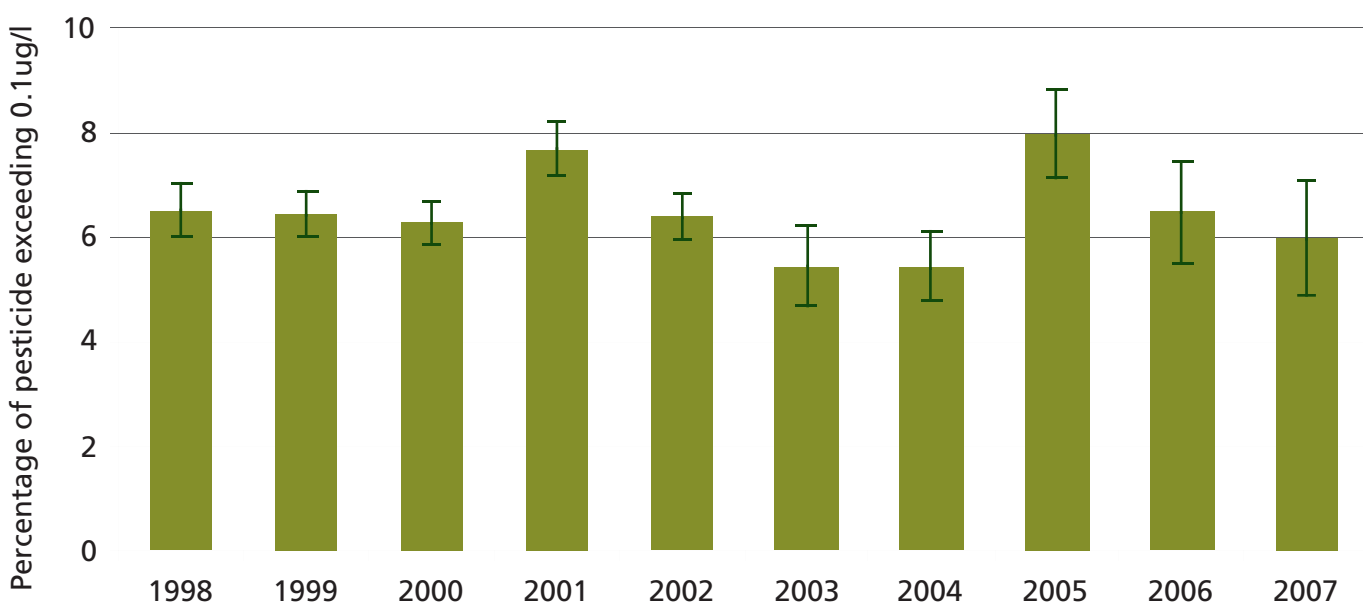
River Basin Management Plans

The Forum also considered how pesticide container design might lead to the risk of spillages and point source pollution of

watercourses. At its June meeting, members heard from a range of industry representatives about the issues surrounding container design, including the potential for use of biodegradable film, which would break down in the mixing tank (similar to the system used in dishwashing machines). Members

were also reminded of the potential risks that can result from the use of foil caps on containers which, if not disposed of properly, can be a major point source pollutant. A Forum Container Management sub-group was set up at the October meeting, tasked with the production of a set of recommendations for improved and best practice.

Figure 10: Headline indicator Pesticides in surface waters (England and Wales)



Source: [Environment Agency](#)

Indicators

The Environment Agency’s surface water indicator is based on nine pesticides most commonly found at relatively high levels. These substances are 2,4-D, atrazine, chlorotoluron, dichlorprop, diuron, isoproturon, mecoprop, MCPA, and simazine. These are all herbicides that are mobile and persistent and have traditionally been used in large quantities.

Figure 10 shows, for each year since 1998, the percentage of samples breaching 0.1 g/l. The Environment Agency uses 0.1 g/litre as a threshold to look at trends of pesticides in the

environment. It is not a measure of environmental damage.

The figure only uses data from monitoring sites that have been consistently sampled for several years, as this allows for better analysis of trends. Annual results are generated using data from over 10,500 samples, taken at approximately 1,100 sites over the Agency’s eight regions.

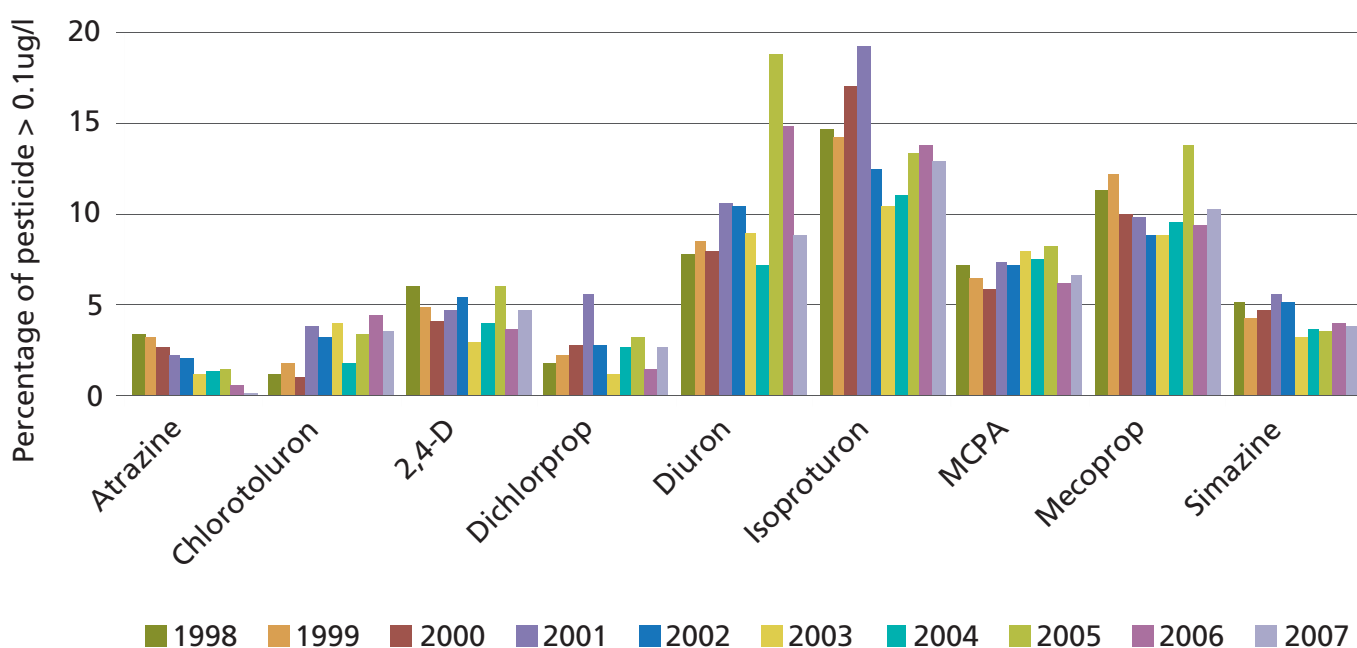
The sites represent, in the main, those where inputs of pesticides will have come from use rather than, for example, discharges from manufacturing plants or discharges from historically contaminated sites.

In 2007, 5.98% of pesticide samples were above 0.1 g/litre. This compares with 6.49% of samples in 2006 and 7.98% of samples in 2005.

The reason for the rise and fall in annual percentage of samples above 0.1 g/litre is not easy to explain as there are many contributory factors, including which crops are being

grown; the prevalence of different pests and choice of pesticide used; weather patterns (loss to water is more likely when application coincides with rainfall); and the degree to which best practice has been employed. Nevertheless, it is encouraging that levels are on a downward trend.

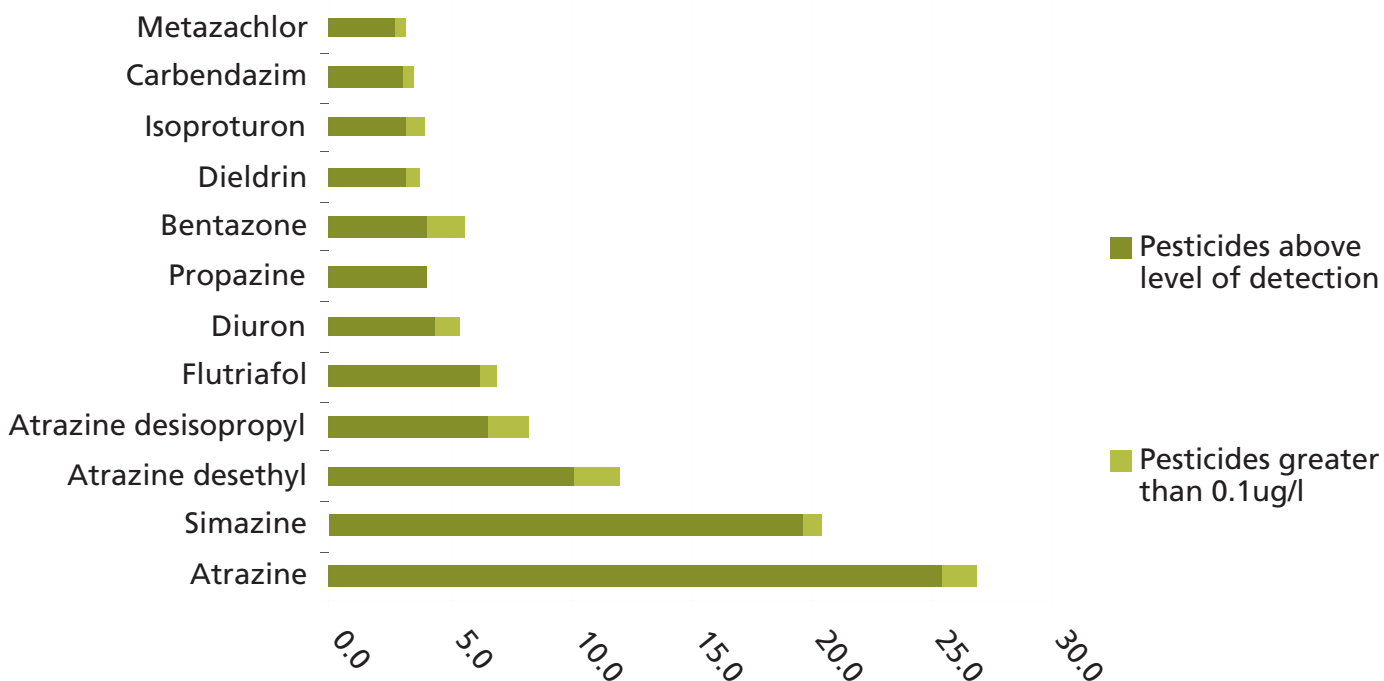
**Figure 11: Headline indicator
Top nine pesticides in surface waters (England and Wales)**



Source: [Environment Agency](#)

Figure 11 shows year-on-year trends in exceedances for each of the 9 pesticides used within the indicator. Those pesticides with the greatest exceedance levels in 2007 were isoproturon (12.9%), mecoprop (10.3%), diuron (8.8%) and MCPA (6.6%). These have typically been the top four pesticides in previous years also, although the order has varied.

Figure 12: Core indicator
Pesticides in groundwater in England and Wales 2007
(top 10 pesticides and their metabolites detected in groundwater)



Source: [Environment Agency](#)

The most frequently occurring pesticides that the Environment Agency found in groundwater in 2007 (figure 12) were atrazine, atrazine breakdown products and simazine.

In the majority of groundwater samples where pesticides were detected, concentrations measured were below 0.1µg/litre. Atrazine and its breakdown products were the group of substances most frequently exceeding this value, along with bentazone.

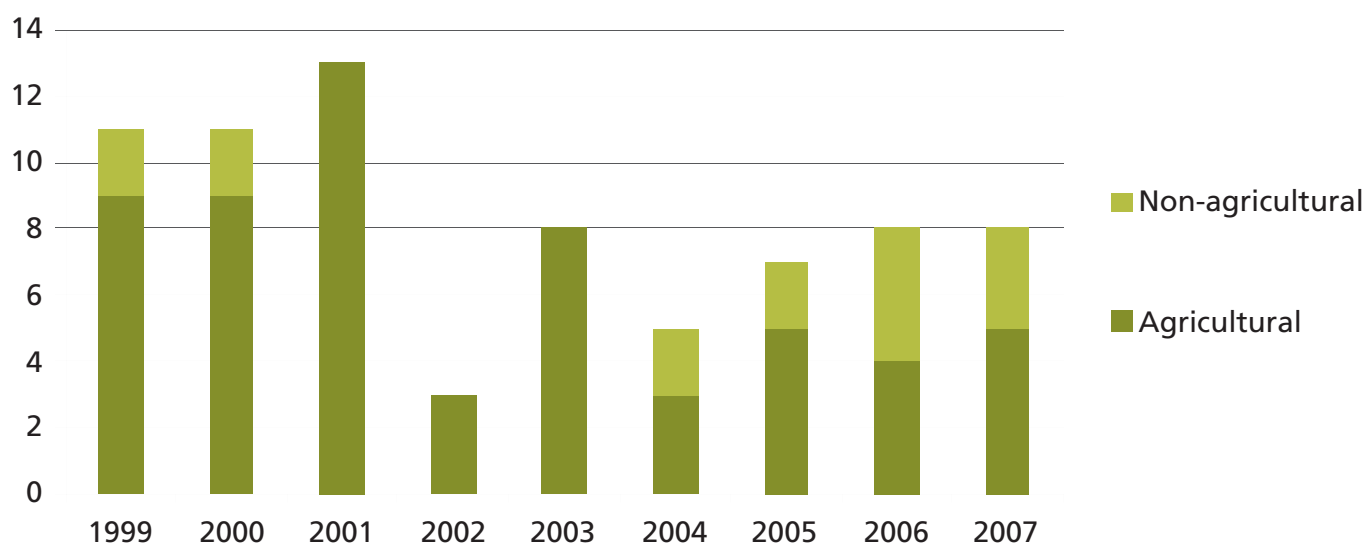
Flutriafol appeared in the equivalent graph for 2006 but was ranked 11th; whereas in 2007

it is the 5th most frequently detected pesticide. It is a broad spectrum triazole fungicide used on cereals. The oilseed rape herbicide metazachlor did not feature in the 2006 rankings. In 2007 it was detected in just under 3% of groundwater samples.

The Environment Agency categorises pollution incidents to land, air or water in terms of their impact on the environment, from category 1 (the most serious) down to category 4 (no impact).

Figure 13: Core indicator

Number of substantiated category 1 and 2 pollution incidents for land, air or water, involving agricultural and non-agricultural pesticides



Source: [Environment Agency](#)

Figure 13 shows the total number of category 1 and 2 incidents for pesticides for each year since 1999. This includes all incidents relating to land, air and water, although in the majority of instances the incidents are water-related. A split is made to show those incidents attributable to agricultural activity and those attributable to non-agricultural activity.

In 2007, the Environment Agency investigated eight category 1 and 2 incidents relating to pesticides (plant protection products). Five related to agricultural activity, and three to non-agricultural activity. These numbers are similar to those for recent years. It should be noted that EA will not capture all incidents that occur, only those that are reported.

Incidents resulting from agricultural activity included a 'fish kill' following discharge of the herbicides trifluralin and prosulfocarb from a damaged crop sprayer to a watercourse; and

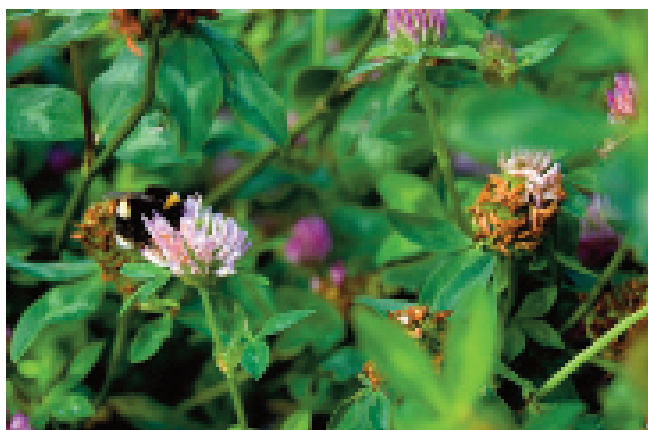
four incidents where water company drinking water intakes were temporarily closed because of high levels of pesticides in the intake water. The pesticides in question were propyzamide (responsible for two of the incidents), isoproturon and oxadixyl.

Incidents resulting from non-agricultural activity included one involving damage to several kilometres of river life following release of cypermethrin (suspected to have arisen from forestry activity). Another involved closure of a drinking water abstraction after aerial spraying of asulam to control bracken. Buffer zones in place to protect vulnerable watercourses were over sprayed. In the third incident, aquatic life was damaged due to the release of promecarb, the source of which was suspected to have been an industrial unit experimenting with novel waste treatment techniques.

Part 4: protecting biodiversity

The issue

The UK Government has made a commitment to reversing the long-term decline in the numbers of farmland birds by 2020. The indicators within the biodiversity action plan support this high level target.



The pesticide approvals system aims to limit the direct adverse effects of pesticides on non-target species. These controls are under continuous development. However, the authorisation system alone will not completely eliminate the effects of pesticides on non-target species. Pesticides can also indirectly affect wildlife by removing the plant, seed and invertebrate food sources that it needs to survive. Initiatives are required to supplement the pesticide regulatory controls and address the indirect effects of pesticides on biodiversity. The Government's UK Pesticides Strategy biodiversity action plan is based around taking some of these key initiatives forward.

Work of the action plan group

The group met twice during 2008 and focussed activity on supporting the Government's wider biodiversity objectives. A key piece of work in this respect has been to identify the UK BAP species and habitats

which may be adversely affected by the use of pesticides. The group has also: overseen a project to develop guidance on indirect effects and compensatory measures (which will be published in 2009); considered measures for inclusion in environmental schemes, including the Government's proposed Enhanced Farm Environment Record (EnFER); and heard updates on the work of the Voluntary Initiative.

[UK BAP Home Page](#)

Future activity will be directed at: driving existing projects to completion; considering development of an enhanced crop protection management plan; reviewing the potential impact of integrated approaches; and developing a more robust set of indicators to more accurately assess the impacts of pesticides on biodiversity.

Work of the Pesticides Forum

This year the Pesticides Forum learnt of PSD's investigations into the incidents of bee deaths in southern Germany in 2008 caused by use of a seed dressing on maize. It is understood that the treatment was applied to the seed with insufficient 'sticker' so did not adhere to the seed during drilling as it should have done. This, and the type of drilling equipment used, resulted in dust drifting in to adjacent areas where bees were present. In addition, drilling took place later in the season than usual and coincided with the flowering of neighbouring crops such as oilseed rape and fruit trees where the bees were foraging. At present there is no evidence that the approvals on the crops and at the rates used in the UK need to be amended. PSD is continuing to be involved with the

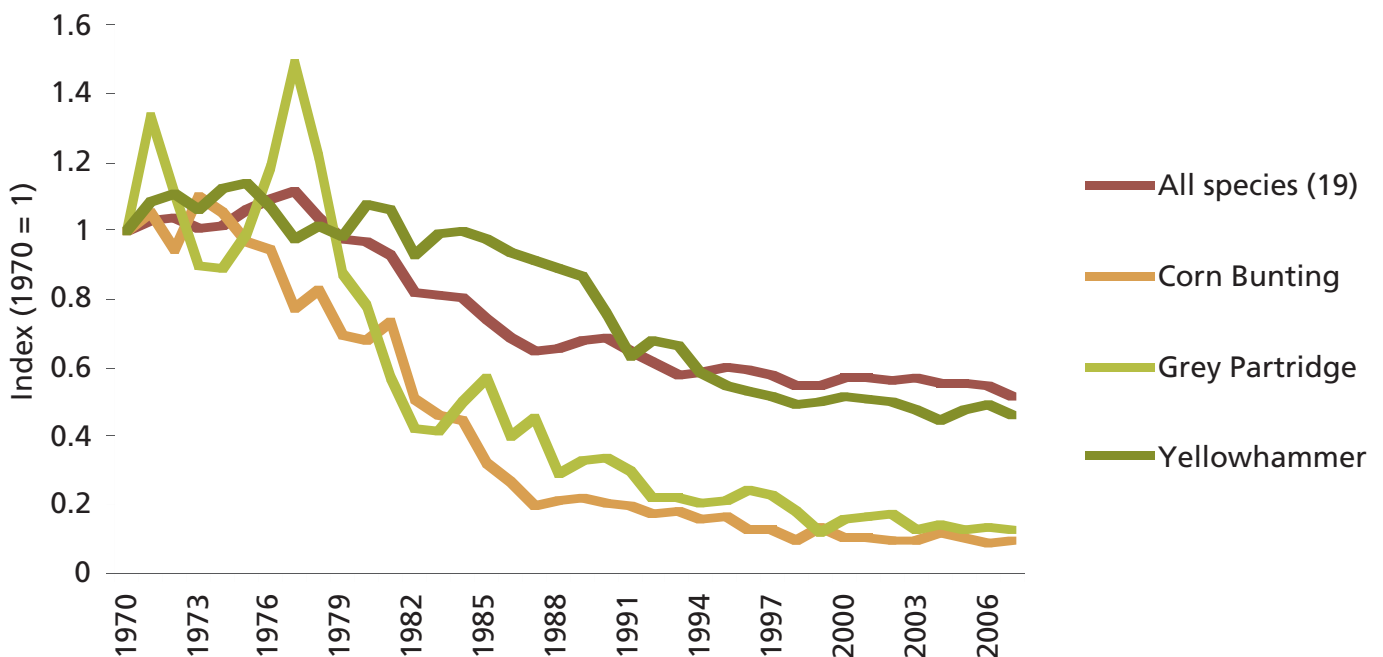
development of bee risk assessment methodology, and will also continue to keep abreast of research and developments in other EU Member States and elsewhere to see if they are relevant to the UK.



Some members visited the farm of another Pesticides Forum member, Peter Hall, to learn about modern organic top fruit growing methods. Linked with targeted alternatives to synthetic chemical pesticides (such as codling moth traps which use pheromones to confuse and disrupt the moth's mating practices), these approaches can provide levels of production similar to conventional farming systems. Members heard how the hope was that the system for top fruit could be developed for use on a wide range of other cropping systems.

Farmland bird populations are used by the UK Pesticides Strategy biodiversity action plan as a measure of the impact of pesticides on biodiversity. This is because farmland bird populations are widely and routinely surveyed, and the three species shown in the graph have been proven to be indirectly impacted by the use of pesticides.

Figure 14: Headline indicator
Populations of selected farmland bird species



Source: [British Trust for Ornithology](#)

By 'indirect effects' we mean that pesticides do not, in themselves, kill these birds but their use puts pressure on populations by removing insect and weed food supplies for chicks.

The data, taken from both Common Bird Census and Breeding Bird Surveys, have been modelled to provide population trends from 1970 to 2007. Figure 14 differs in appearance from the farmland bird population graphs used in previous editions of the Pesticide Forum's indicators report. The 2007 data, supplied by the British Trust for Ornithology (BTO), are now provided in an unsmoothed format. This shows more visibly the year-on-year fluctuations, whereas the previously used 'smoothed' dataset displayed trends more clearly.

[Common Bird Census Home Page](#)

[Breeding Bird Survey Home Page](#)

In 2007, the populations of grey partridge and yellowhammer took a worrying downward turn, as did Defra's Farmland Bird Index of 19 species (including grey partridge and yellowhammer). Reasons for the sharper than usual decline in 2007 have not yet been conclusively identified. Causal effects are complicated by the impacts of a number of interconnected pressures on farmland birds, including pesticide use. However, these data precede any impact from the loss of set-aside, which occurred in the autumn of 2007. Loss of the food resources and habitat found on set-aside could impact on biodiversity by further reducing farmland bird populations.

[Defra Farmland Bird Index](#)

Figure 14 also gives us an indication of the impacts of pesticides on non-target terrestrial wildlife. If other species are scientifically proven to be affected by pesticides, either directly or indirectly, and their populations regularly monitored, they too could be added to the suite of action plan biodiversity indicators.



Figure 15 shows the number of cases of actual, attempted or accidental poisoning of wildlife by pesticides investigated by the Government's Wildlife Incident Investigation Scheme (WIIS). The number of cases of approved use resulting in a poisoning represents a very small proportion of the total number of incidents. However, it is worth noting that the scheme only picks up a proportion of cases. It is important to continue to monitor the use of pesticides in this context and, especially, to consider whether more can be done to educate users about appropriate application in order to reduce the number of cases of misuse.

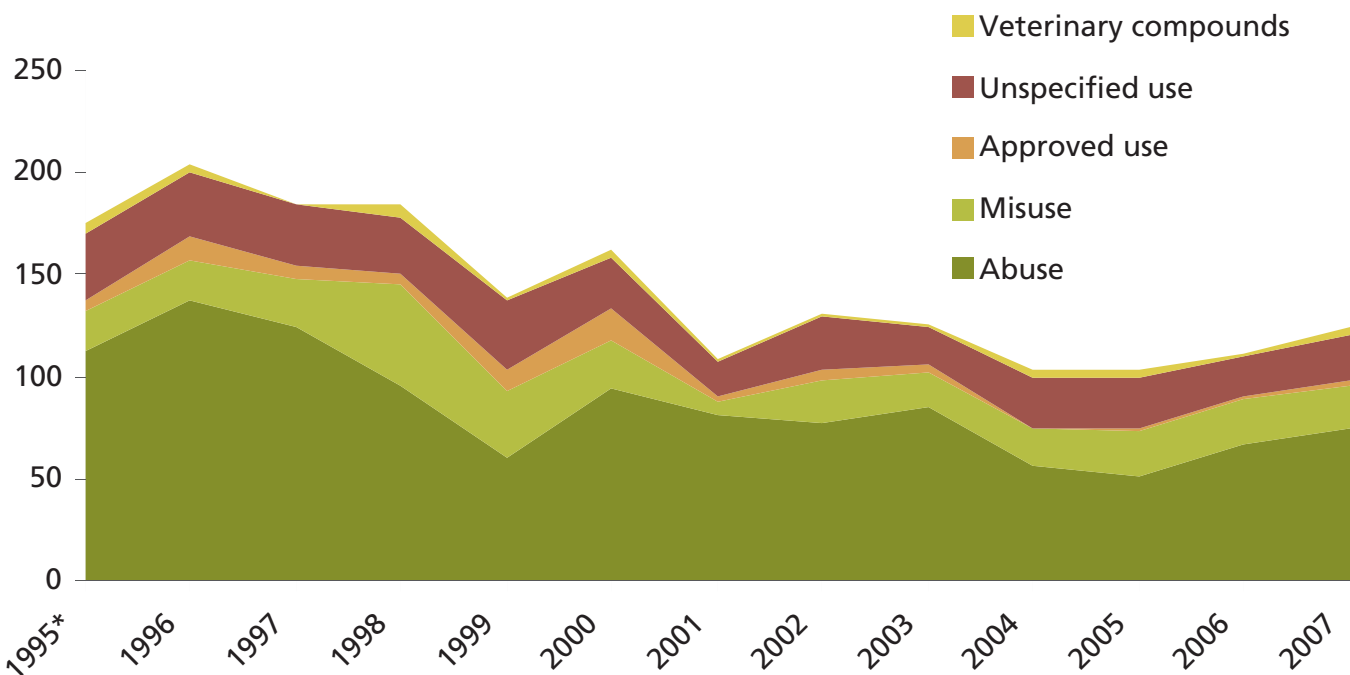
[Wildlife Incident Investigation Scheme](#)

[Campaign Against Illegal Poisoning](#)

Cases are classified as:

- ▶ approved use (the pesticide is used in accordance with its conditions of approval);
- ▶ abuse (a deliberate attempt is made to poison animals illegally);
- ▶ or misuse (carelessness, an accident or wilful failure to use correctly).
- ▶ Where there is insufficient information to classify a case, or to identify the source of poisoning, it is categorised as 'unspecified'.

Figure 15: Core indicator
Pesticide poisoning incidents investigated by WIIS



Source: Pesticides Safety Directorate [WIIS Annual Report 2007](#)

* Numbers for 1995 do not include invertebrates or fish.

In 2007, 124 of the 354 incidents investigated involved pesticide poisoning. There were two incidents of approved use and 21 incidents were a result of misuse. Of the total number of incidents, 75 were recorded as abuse and there were 23 cases of unspecified use. There were three cases that involved a veterinary product. None of the approved use and misuse cases indicated any need to amend the conditions of approval.

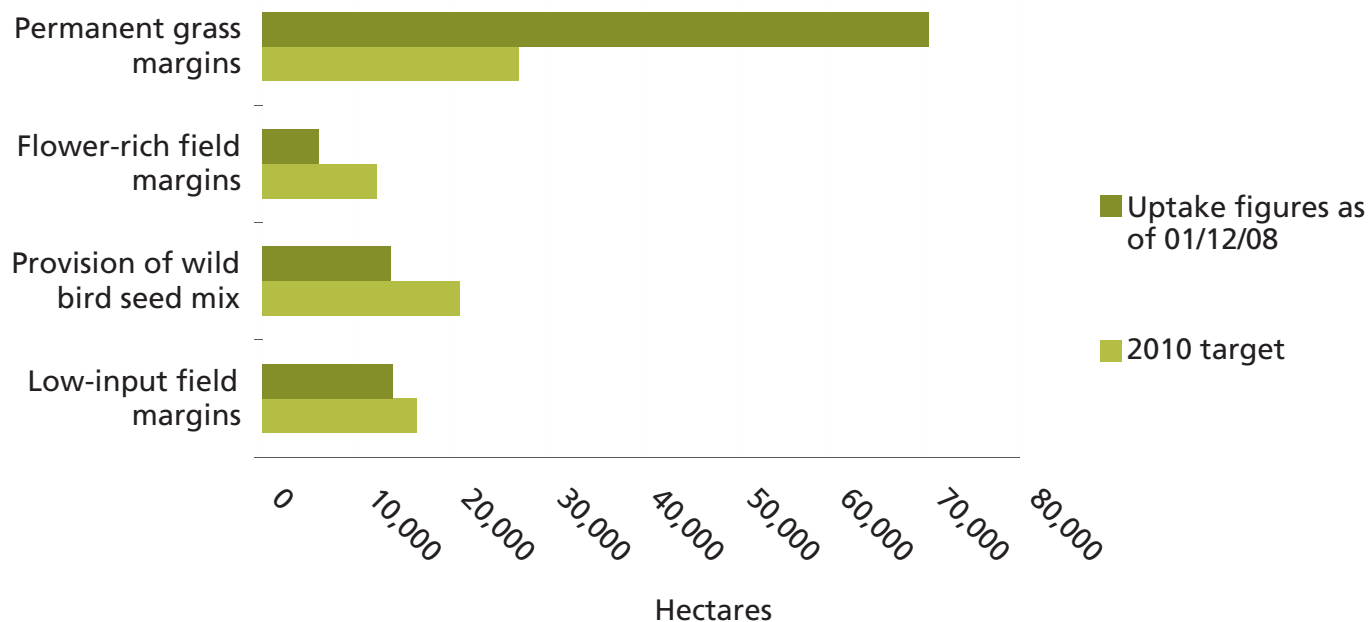
Birds of prey are the most common target for abuse and rodenticides are the pesticides most often detected, usually as a result of secondary poisoning when birds of prey and owls pick up poisoned rodents. The Pesticides Forum has been pleased to note the activities of the [Campaign for Responsible Rodenticide Use](#)



(CRRU) which are aimed at increasing awareness and operator training in relation to rodenticide use.

[WIIS Annual Report 2007](#)

**Figure 16: Core indicator
Arable field margins UK
(minus Scotland – data not available at time of publication)**



Source: UK Arable Field Margin Steering Group [Biodiversity Action Reporting System Home Page](#)

Figure 16 shows the area of different types of field margin used by farmers under environmental schemes. Such schemes are an important mechanism for providing an incentive to growers to adopt land management practices which, amongst other things, mitigate the adverse effects which can arise from the use of some pesticides. There are different types of field margins:

- ▶ Grass margins are easy to establish, they support a range of non-target invertebrates e.g. predator invertebrates which eat pest species, during the summer and winter.
- ▶ Flower-rich margins provide a pollen and nectar source for non-target invertebrates.

- ▶ Wild seed bird mixes are essential food sources for birds over winter.
- ▶ Low-input field margins provide shelter for a diversity of non-target invertebrates along with hedgerows.

Figure 16, therefore, provides some indication of awareness of biodiversity issues amongst farmers and of the ability of the Government’s policy making process to devise measures which are attractive to growers and deliver environmental benefits. The figures show areas for England, Wales and Northern Ireland and progress against Government targets.

Part 5: best practice in amenity use

The issue

Significant quantities of pesticides are used in the amenity sector (about 10% of the total for amenity and forestry). This includes many aspects of our transport infrastructure as well as parks, sports grounds, public spaces and industrial facilities. Although such use has historically received less attention than agricultural applications, there is evidence to suggest that good/best application and disposal practice is followed to a lesser degree than it is in other sectors.

Work of the action plan group

The work of the action plan group has largely been driven by assessing and then following up the messages contained in [PSD's survey of pesticide use and practice in the amenity sector](#). The report identified the need to improve:

- ▶ understanding of the risk associated with the use of pesticides;
- ▶ training;
- ▶ quality of tender specification and contract management;
- ▶ disposal practice;

It also highlighted the need for a consideration of alternative approaches, amongst key groups of users.

Industry was tasked with developing measures to achieve these improvements and established the Amenity Forum to bring stakeholders together. Key activities of the Amenity Forum and its stakeholders have included promotion and roll-out of the 'Amenity Assured' Scheme

Amenity Assured and BACCS

and a programme of activity to promote 'best practice' measures including:

- ▶ a new website: [Amenity Forum Home Page](#)
- ▶ two sets of guidance notes available in 2008: [Specification for Weed Control Contracts](#) and [Check Your Sprayer guidance notes](#)
- ▶ the establishment of a group of northern local authorities to encourage best practice/share experience: [Northern Local Authority Amenity Forum](#)
- ▶ and a weed control conference for local authorities based in the south east.

The industry has also succeeded in developing a test for the application equipment used by Network Rail to manage vegetation along railway tracks and the rail authority is using Amenity Assured Contractors.

Future activity will concentrate on further developing the scope and quality of these projects.

Work of the Pesticides Forum

During the year the Pesticides Forum received updates on: the messages emerging from the PSD survey; the work of the Amenity Forum; and alternatives to pesticide-based methods for controlling vegetation in amenity situations and how this is being reflected in the Strategy's action plan. The Forum encouraged the action plan group to develop indicators demonstrating the progress made in delivering its programme of work.



Indicators

Last year's indicators report contained information about the adoption of 'best practice'; factors influencing vegetation control priorities; and motivation for choice of contractors. The indicators were based on information contained in the PSD survey. Resource constraints mean that it is not practical to conduct such a survey on an annual basis but the Forum understands that the Government intends to conduct a similar enquiry in 2010 to review progress.

In the meantime the Pesticides Forum notes the following information for 2008:

- ▶ 18,000 miles of mainline track managed by Network Rail were sprayed by Amenity Assured contractors.
- ▶ 202 local authorities had weed control contracts carried out by Amenity Assured contractors.

- ▶ 183 candidates have taken the new BASIS Field Sales and Technical Staff course and examination.
- ▶ 77 managers have completed the BASIS POWER (Protection of water, the environment and recommendations) course.
- ▶ 8,089 candidates were awarded with the Certificate of Competence in the Safe Use of Pesticides from City and Guilds NPTC.
- ▶ 125 amenity members are on the National Register of Sprayer Operators.

[BASIS Home Page](#)

[NPTC Home Page](#)

Part 6: best practice in amateur (home and garden) use

The issue

Pesticides are widely used by members of the public in the home and garden (also known as 'amateur use'). Although the quantities used by any individual are tiny, the number of gardeners in the country using pesticides is estimated to be around 6-7 million. This means that the total quantity of pesticide used in the home or garden, while still small in relation to farm use, is significant. Whilst home and garden products present a much lower risk than professional products, their use by large numbers of untrained individuals raises special issues. The Government's UK Pesticides Strategy aims to encourage best practice and to ensure the safe disposal of unused products.



Work of the action plan group

The group has continued to develop its programme promoting best practice, largely driven by the results of the [survey of this sector undertaken in 2007](#).

The group has also considered the data from the National Poisons Information Service on the incidence of poisonings by amateur products, paying particular attention to incidents involving small children.

[National Poisons Information Service](#)

Key activities/measures include:

- ▶ restricting pack sizes to sufficient for a single season of use;
- ▶ improving label instructions on safe container disposal;
- ▶ distribution of publicity material (including via retailers);

- ▶ and development of training courses for garden centre staff.

Future work will focus on:

- ▶ controls to minimise the risk of incidents involving children;
- ▶ updating information on local authority disposal facilities;
- ▶ and developing increasingly robust indicators.

Work of the Pesticides Forum

The Pesticides Forum did not discuss amateur uses specifically in 2008. However, a number of subjects covered had implications for amateur use. The most important of these was an agenda item relating to 'container design, the avoidance of spillages, and appropriate disposal and recycling of containers'. Although these discussions focussed on agricultural pesticide containers, it was clear that any improvements hold significant potential benefits for home and garden users of pesticides.

Indicators

Last year's indicators report contained details of disposal practice and facilities. These were based on information contained in the PSD survey. The survey showed that 35% of amateur users dispose of unused or unwanted pesticides at a household waste or recycling centre, or use a local authority collection service. The remainder of users adopt practices which either do not accord with these 'best practice' measures or are unknown. The survey also showed that there was a long way to go in terms of local authorities providing suitable disposal facilities.

Resource constraints mean that it is not practical to conduct such a survey on an annual basis but the Forum understands that the Government intends to conduct a similar enquiry in 2010 to review progress. The group will provide data in 2009 on the number of local authorities providing civic amenity facilities and a 'chemical safe' facility as a basis for comparison with the 2003 and [2006 data](#).



SECTION C:

Forward look

Two issues, which are important aspects of determining the future in relation to pesticide use, have come into sharper focus in 2008 and are likely to continue to influence developments, at least in the medium term. Firstly, we have seen an increase in the global demand for food and fuel to feed a growing world population. Secondly, the pesticides agenda has been dominated by activities at an EU level in relation to the Sustainable Use and Regulation of Plant Protection Products.

The world population is growing at a rate of six million people per month and is projected to reach 9 billion by around 2050. The United Nations Food and Agricultural Organisation (FAO) estimates that global food production needs to rise by 50% by 2030 and to double by 2050. This has resulted in an increase in commodity prices which is expected to last into the future. However, this cost benefit for farmers and growers has been offset by rising oil prices which has resulted in higher costs of production. A year ago, we predicted that the removal of set-aside would lead to increases in both crop area and total use of pesticides. Events have shown this to be the case.

[FAO Home Page](#)

The area under cultivation in the UK is already reducing annually and so efficient and cost-effective production is essential. Protecting



crops from weeds, pests and diseases will be a vital part of this. It is likely that the current cropping patterns will remain for several years, although the demands on them will increase. The way in which pesticides are regulated and managed could be a major influence on cropping patterns in future. Looking ahead, it is essential to retain a balance between ensuring food production and protecting humans, water and biodiversity.

As well as using pesticides to maintain food production levels, it is also important that crops are treated to improve quality. This is an area where promoting greater acceptability of food with low levels of insect damage or blemishes from disease could lead to opportunities to reduce the amounts of pesticides used.

We recognise that many people are concerned at the potential adverse impacts that can result from the use of some pesticides. However, the Forum believes that the responsible use of pesticides, as part of an integrated strategy for controlling pests, weeds and diseases and managing vegetation, can help deliver substantial benefits for society, including the challenge of securing the food supply.

2009 will also see publication of the key elements of the EU's Thematic Strategy for Pesticides. One of the most important parts of the Strategy is the Regulation updating the requirements pesticides must meet in order to obtain a marketing and use authorisation. Its long-term impact is likely to be substantial, with a large number of products currently approved no longer being authorised. The intention is that this new legislation will help

to reduce dependency on pesticides and stimulate the development of alternative ways of controlling pests, weeds and diseases. But we need to recognise, and be prepared to deal with, the challenges that may arise from relying on a smaller range of pesticide products.

The other key element of the Strategy is the Directive on the Sustainable Use of Pesticides. This will call for Member States to develop National Action Plans to reduce dependency on pesticides and the risks that can arise from their use (the UK Government's Pesticides Strategy already does this in the UK). The Directive will help improve usage practice by ensuring better:

- ▶ training of operators;
- ▶ controls on sales;
- ▶ testing of equipment;
- ▶ promotion of integrated approaches;
- ▶ protection of watercourses; and
- ▶ use of pesticides in amenity and special conservation areas.

Positive stakeholder engagement will be necessary to respond to these challenges and to make the most of the opportunities arising from the implementation of the legislation.

In addition, the effects of the new EC MRL Regulation 396/2005, which came into force in September 2008 and sets MRLs for a wider

range of crop/commodity combinations, will start to become apparent. Where data have not been supplied to support a higher level, the MRL will be set at the limit of determination (the lowest level where analytical methods can quantify the presence of the pesticide). The Pesticides Residues Committee expects this to mean that more residues are reported that exceed these new MRLs. This does not necessarily mean that there are more residues in foodstuffs but rather that the basis on which the analysis and reporting is carried out has changed.

There is, therefore, plenty of work for the Pesticides Forum to do in future, advising on measures to minimise adverse impacts and helping to inform public debate. The UK Pesticides Strategy provides an excellent basis and structure for dealing with these issues as they emerge. The Pesticides Forum will continue to actively encourage best practice in sustainable use. In this way the UK can continue to grow the amount and quality of food that is demanded, and ensure the safety of transport networks, whilst protecting human health, water, biodiversity and the wider environment.

[EU Thematic Strategy for Pesticides](#)

[MRLs General Guidance](#)

SECTION D:

Our objectives

Overall aim

- ▶ To continue to oversee work under the Government's UK Pesticides Strategy, monitor the effects of policies, laws and other initiatives that affect or are affected by the use of pesticides, and offer advice to Ministers and stakeholders as appropriate.
- ▶ To provide a forum for exchanging views, and wherever possible allowing our stakeholders (the people who have an interest in our work) to come to a general agreement.
- share best practice between all farming systems, whether these use pesticides in organic systems or use other control options.
- ▶ To monitor, review and improve the quality and relevance of information available to all those involved in selling, supplying, storing, using and disposing of pesticides and pesticide waste products.
- ▶ To prepare and publish an annual report of our activities and maintain a close working relationship with the Advisory Committee on Pesticides.

Specific objectives

Communications

- ▶ To promote effective ways of helping all those involved in selling, supplying, storing, using and disposing of pesticides and pesticide waste products to use technologies and techniques which:
 - limit the need to use these products (and the risks that can arise from using them) in a way which is consistent with sustainable production and the control of pests, weeds and diseases; and



Monitoring impacts

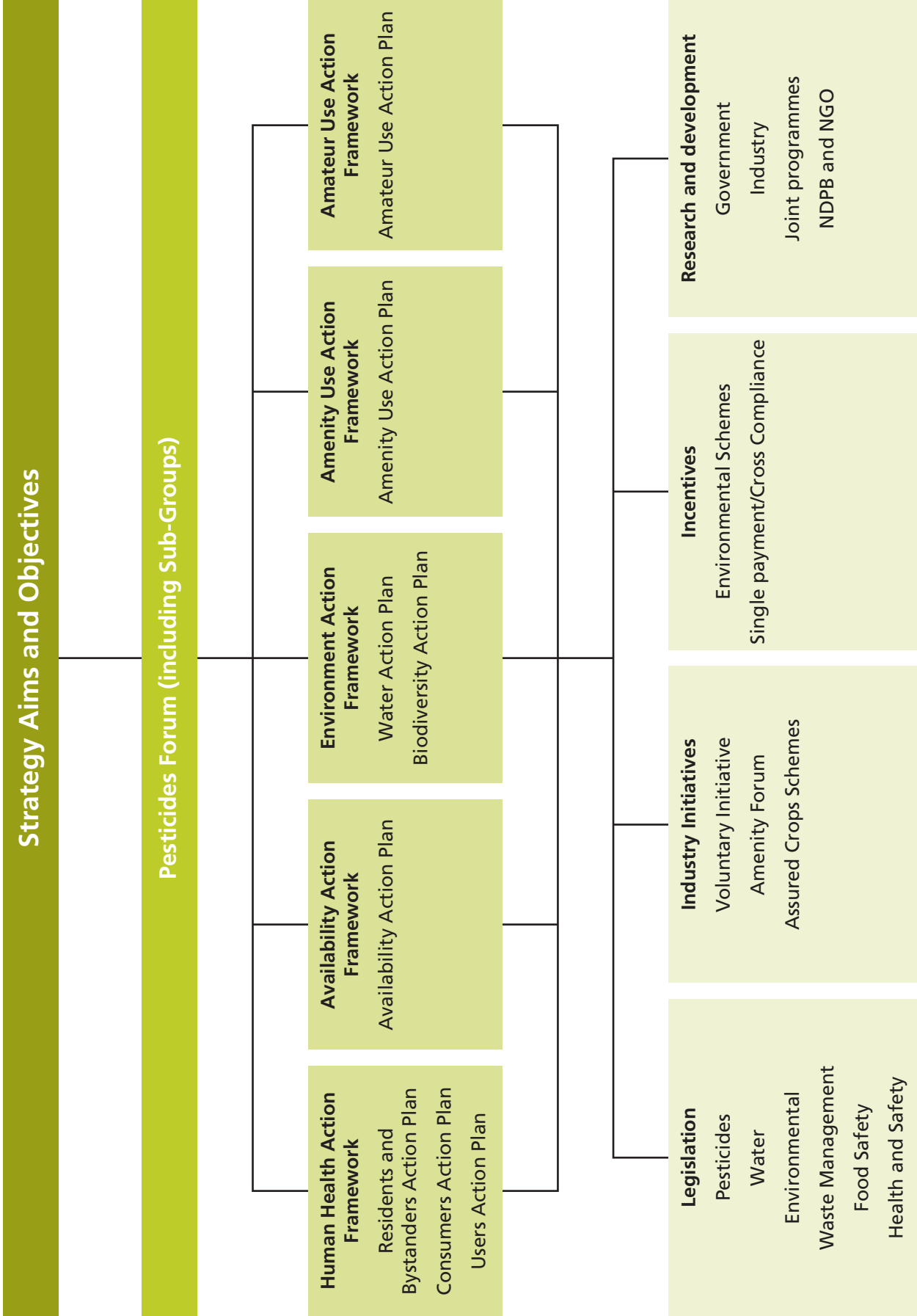
- ▶ To consider how to most effectively monitor all impacts arising from the use of pesticides (including using indicators), and communicate these findings to Ministers, our stakeholders and the public.

Knowledge transfer

- ▶ To monitor pesticide-related research and development and aim to inform funding organisations of any significant gaps in the programme.
- ▶ To promote the most effective and practical ways for sharing best practice and encouraging the use of technology and research and development, by encouraging discussions between researchers and research funders, and between all those involved in selling, supplying, storing, using and disposing of pesticides.

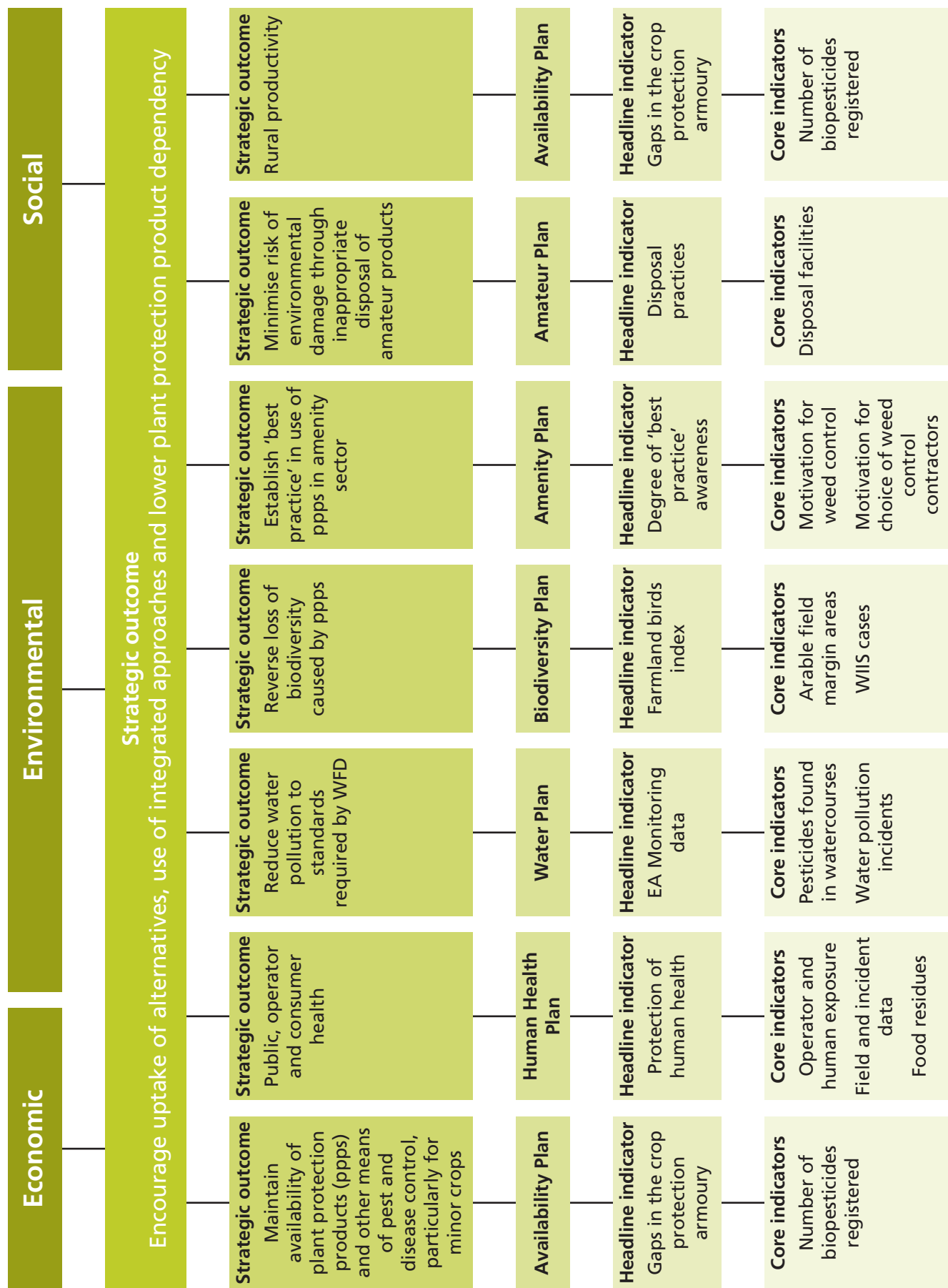
ANNEX A:

Pesticides Strategy Framework



ANNEX B:

Indicators Framework



Acknowledgements

We wish to thank the following for the use of their pictures:

Peter Hall (H E Hall and sons) for the front cover picture and also pictures at pages 17, 24, 25 and 32.

Emily Ledder (Natural England) pages 3 and 26.



If you have any comments or views on this report please do not hesitate to contact us at the address below:

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