PESTICIDES FORUM MEETING: 17 JUNE 2008 - PESTICIDE USAGE SURVEY REQUIREMENTS

Issues for the Forum Organisations:
To advise the Working Party for Pesticide Usage Surveys on:

- the purpose to which the Forum (or its member organisations) puts existing usage survey information (it would be helpful to refer to specific surveys and data);

- any changes the Forum (or its member organisations) would like to see to the current programme – this may include the range of data collected (e.g. crops/situations, whether this should also cover user practice, etc) and reporting arrangements (detail, frequency, speed of reporting and method of dissemination). It would be helpful if the Forum could detail reasons for any proposed changes.

- any other points on which the Forum (or its member organisations) would like to comment (e.g. ways of collecting the required information (use of sources other than surveys, combining with other data collection exercises, etc)).

Background
There is a need to ensure that the pesticide usage survey programme provides information to meet statutory, regulatory and policy requirements in a way which delivers best value for money.

The forthcoming EU statistics regulation will create new statutory requirements. However these requirements will be relatively basic (quantity of active substance applied to groups of crops once every 5 years). If it is decided that the UK requires more comprehensive arrangements, we will need clear justification for doing so, to avoid ‘gold-plating’ Community legislation.

Pesticides Forum Secretariat
May 2008
Date: 30 April 2008

Dear Sir/Madam

Pesticide Usage Survey requirements

I am writing to seek your assistance in establishing current and medium term information requirements relating to the use of plant protection products. This information is currently collected by the pesticide usage surveys.

This is a preliminary information gathering exercise, conducted with selected key stakeholders. It will be used to develop the Impact Assessment that will be prepared as part of the consultation outlining how we will implement the proposed EU statistics regulation. Although negotiations have yet to formally conclude, it is clear that the programme required to implement the Community programme will be substantially less detailed than that currently in place in the UK.

When we consulted on the proposed regulation last year many stakeholders felt the requirements detailed in the regulation were insufficient for their information needs and felt that greater detail was required - though they did not specify what these were. PSD anticipates, therefore, that it will be necessary to maintain a usage survey programme which exceeds the requirements of the regulation. However, to ensure that we are not seen to be ‘gold-plating’ EU legislation PSD must clearly establish national information requirements.

I would like to take the opportunity afforded by the need to confirm our information requirements to review the details required from our survey programme. I would be grateful, therefore, if you could let me know by 24 June 2008 (if applicable):

- the purpose to which you put existing usage survey information (it would be helpful if you could refer to specific surveys and data);

- any changes you would like to see to the current programme – this may include the range of data collected (e.g. crops/situations, whether this should also cover user practice, etc) and reporting arrangements (detail, frequency, speed of reporting and method of dissemination). It would be helpful if you could detail reasons for any proposed changes.

- any other points on which you would like to comment (e.g. ways of collecting the required information (use of sources other than surveys, combining with other data collection exercises, etc)).
The costs associated with survey programme are met by the crop protection industry through the annual levy on pesticide sales collected by PSD from approval holders. As we are keen to minimise costs to industry, our starting position is that such data should only be used for statutory and policy purposes. We are also keen to minimise administrative burdens on pesticide users who assist with the data collection exercises.

Annexes outlining potential uses of the data, details of the statistics regulation and the current national survey programme, and how to access the current survey results are attached to this letter.

If you have any questions please do not hesitate to contact me.

Yours faithfully


Grant Stark
Chair, Working Party for Pesticide Usage Surveys
Pesticides Safety Directorate
Annex A: Potential uses of pesticide usage survey data

- Informing the pesticide risk assessment (approval) process;
- Policy, including assessing the economic and/or environmental implications of withdrawals/non-approval of pesticides;
- Informing the targeting of monitoring programmes for residues in food and water quality;
- Contributing to measuring the impact of pesticide use, principally as part of the Pesticide Forum’s Annual Indicators Report;
- Responding to enquiries (for example, Parliamentary questions correspondence, queries under the Freedom of Information Act or Environmental Information Regulations, etc);
- Assisting with research projects.
Annex B: Proposed EC Statistics Regulation

Member states shall be required to collect data by means of: surveys; reporting obligations on suppliers or users under pesticide/food safety legislation; administrative sources; or combination of such measures.

Information is required on:

- **Sales.** The volume (in kg) of active substances; safeners and synergists contained in plant protection products placed on market in a calendar year. The requirement would commence from the second calendar year after the Regulation entered force and reports would be required within 12 months of the end of the year under report.

  Sales data will be collected for two purposes: firstly, to enable an approximate annual estimation to be made of non-agricultural use of pesticides (by subtracting estimated annual agricultural use from annual sales); to enable approximate annual estimates of agricultural usage (by comparing annual sales).

  The government is proposing using existing data collected by the Office of National Statistics as part of the PRODCOM surveys. The pesticide data collected as part of this survey is based on sales and is collected in a way which is compatible with the requirements of this regulation. We do not expect, therefore, additional burdens on industry as a result of these requirements.

- **Use.** The volume (in kg) of each active substance used in the agricultural use of plant protection products. Programmes shall be designed to ensure they are representative of the crops cultivated and substances used.

  There would be a requirement to report on pesticide use on the selected crops over a 12 month period once every five years. Different years can be chosen for different crops/situations. The requirement would commence in the first calendar year following the first calendar year after the Regulation entered force and reports would be required within 12 months of the end of the year under report.

  Usage data will be used to populate models developed under the HAIR (Harmonised Indicators of Environmental Risk) project. The HAIR models have been developed to deliver indicators of the impact of pesticide use.
Annex C - Current Pesticide Usage Survey arrangements

Government-run pesticide usage surveys on a range of crops/situations have taken place since 1964. The surveys in England and Wales are currently carried out on behalf of the PSD by Defra’s Central Science Laboratory (CSL). Surveys are carried out in Scotland by the Scottish Agricultural Science Agency (SASA) and in Northern Ireland by the Agri-Food and Biosciences Institute (AFBI). CSL also maintains a computer database of all usage data collected in England, Wales and Scotland; preparing and publishing reports on a GB basis and responding to requests for information on pesticide usage.

Surveys are conducted on the following basis (details of most recent enquiries)

<table>
<thead>
<tr>
<th>Crop groups</th>
<th>Holdings visited</th>
<th>Frequency</th>
<th>Data collection period</th>
<th>Results published</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable Crops</td>
<td>950</td>
<td>Every 2 years</td>
<td>October 2006-April 2007</td>
<td>January 2008</td>
</tr>
<tr>
<td>Bulbs and flowers</td>
<td>102</td>
<td>Every 4 years</td>
<td>October 2005-April 2006</td>
<td>June 2007</td>
</tr>
<tr>
<td>Glasshouse</td>
<td>410</td>
<td>Every 4 years</td>
<td>October 2007-April 2008</td>
<td>June 2009</td>
</tr>
<tr>
<td>Grassland and fodder</td>
<td>1298</td>
<td>Every 4 years</td>
<td>October 2005-April 2006</td>
<td>December 2006</td>
</tr>
<tr>
<td>Hardy Nursery Stock</td>
<td>306</td>
<td>Every 4 years</td>
<td>October 2005-April 2006</td>
<td>June 2007</td>
</tr>
<tr>
<td>Hops</td>
<td>42</td>
<td>Every 4 years</td>
<td>October 2004-April 2005</td>
<td>December 2005</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>39</td>
<td>Every 4 years</td>
<td>October 2007-April 2008</td>
<td>August 2009</td>
</tr>
<tr>
<td>Orchards</td>
<td>238</td>
<td>Every 4 years</td>
<td>October 2004-April 2005</td>
<td>November 2005</td>
</tr>
<tr>
<td>Soft fruit</td>
<td>656</td>
<td>Every 4 years</td>
<td>October 2006-April 2007</td>
<td>August 2008</td>
</tr>
<tr>
<td>Vegetables</td>
<td>602</td>
<td>Every 4 years</td>
<td>October 2007-April 2008</td>
<td>January 2009</td>
</tr>
</tbody>
</table>

Data is normally collected from October in the year under report until the following April. Results are available from 8-14 months after collection of the data. Data is collected through a series of face-to-face interviews with farmers and growers.

Details of the information published in the most usage survey reports can be found in the Appendix attached to this Annex. It is worth noting that more data is collected in the surveys than is covered in the reports.
Appendix I to Annex C

Details covered in the arable crops report:

1. Proportion of crops treated.
2. Treated areas of arable crops in Great Britain 2006 by crop group (spray hectares).
3. Weight of pesticides applied to arable crops in Great Britain 2006 by crop group (tonnes of active substance).
5. Usage of pesticides on arable crops in Great Britain 2006 - number of spray rounds applied to crops (excluding seed treatments).
6. Usage of pesticides on arable crops in Great Britain 2006 – number of products (other than seed treatments) applied to crops.
7. Usage of pesticides on arable crops in Great Britain 2006 – number of active substances (other than seed treatments) applied to crops.
8. Extent and quantities of pesticide formulations used.
11. Extent and quantities of active substances used.
12. Estimated area (ha) of application of the fifty most extensively-used active substances on all arable crops surveyed in 2006 in Great Britain (excluding seed treatments).
13. Estimated amount (tonnes) of the 50 active substances, used most by weight, on all arable crops surveyed in 2006 in Great Britain (excluding seed treatments).
14. Detailed use of pesticides are reported on the following crops: wheat; winter barley; spring barley; oats; rye; triticale; oilseed rape; linseed; ware potatoes; seed potatoes; dry harvest peas; field beans; sugar beet and set aside. Details include:
   a. Timings of pesticide applications
   b. Sprayer water volumes
   c. Fungicides
   d. Seed treatments
   e. Herbicides
   f. Growth regulators
   g. Insecticides and nematicides
   h. Molluscicides
   i. Comparison with previous surveys
   j. Summary of the number of sprays, products and active substances applied
   k. Summary of the number of fungicide sprays, products and active substances applied
   l. Number of product full label doses applied
   m. Total dose of products applied
   n. Comparison of pesticide usage, area treated (ha) and amount used (t)
   o. Comparison of pesticide usage, treated area as a percentage of area grown and average application rate (kg a.s./ha)
15. Arable crops – comparison with previous surveys:
   a. Summary of the number of sprays, products and active substances applied to all crops 1996 – 2006
   b. Comparison of pesticide usage on all arable crops, (excluding set-aside and failed crops) 1996 – 2006, area treated (ha) and amount used (t)
16. Aerial applications:
   a. Distribution of treated bracken in Great Britain - hectares flown
   b. Timing of applications made to upland areas to control bracken 2003-2006
   c. Comparison with previous surveys
d. Annual area (ha) of bracken sprayed from the air 1985 – 2006
Details covered in the bulbs and flowers report:

1. Area of bulb and flower crops grown in Great Britain 2005 (hectares).
2. Proportion of crops treated.
3. Treated areas of outdoor bulb and flower crops in Great Britain 2005 by crop group (spray hectares).
5. Usage of pesticides on bulb and flower crops in Great Britain 2005 – number of spray rounds applied to crops (excluding direct seed or bulb applications or those applied via hot water treatment).
6. Usage of pesticides on bulb and flower crops in Great Britain 2005 – number of products applied to crops (excluding direct seed or bulb applications or those applied via hot water treatment).
7. Usage of pesticides on bulb and flower crops in Great Britain 2005 – number of active substances applied to crops (excluding direct seed or bulb applications or those applied via hot water treatment).
8. Extent and quantities of pesticide formulations used.
9. Usage of pesticides (field treatments) on outdoor bulb and flower crops grown in Great Britain, 2005 (spray hectares).
10. Usage of pesticides (field treatments) on outdoor bulb and flower crops grown in Great Britain, 2005 (kg active substance applied).
11. Extent and quantities of active substances used.
12. Estimated area (ha) of application the fifty most extensively-used active substances on all outdoor bulb and flower crops surveyed in Great Britain in 2001 and 2005 (excluding seed and hot-water treatments).
13. Estimated amount (kg) of the 50 active substances used most by weight on outdoor bulb and flower crops surveyed in 2001 and 2005 in Great Britain (excluding seed and hot-water treatments).
14. Detailed use of pesticides are reported including:
   a. Timing of applications made to bulbs and flowers
   b. Fungicides
   c. Herbicides
   d. Insecticides
   e. Treatments made to the bulbs (including hot water treatments)
   f. Pesticides applied as field treatments and their reasons for application (treated hectares) and total amount applied (kg active substance).
15. Comparison with previous surveys
16. Comparison of pesticide usage on outdoor bulb and other flowers for cutting, area treated (ha) and amount used (kg).
17. Comparison of pesticide usage on outdoor bulb and other flowers for cutting, treated area as a percentage of area grown and average rate applied (kg/ha).
18. Changes in overall pesticide input (kg/ha of crop grown).
Details covered in the glasshouse report:

1. Proportion of crops treated and number of applications made with registered pesticides and biological control agents
2. treated area of edible protected crops in Great Britain by crop group (spray hectares of registered products)
3. Usage of pesticides on edible protected crops in Great Britain by crop group (kg of registered active substances)
4. treated area of ornamental protected crops in Great Britain by crop group (spray hectares of registered products)
5. Usage of pesticides on ornamental protected crops in Great Britain by crop group (kg of registered active substances)
6. Usage of pesticides on protected crops in Great Britain, percentage area of crops treated with pesticides
7. Usage of pesticides on protected crops in Great Britain, number of spray rounds applied to crops (where treated with that pesticide)
8. Extent and quantities of active substances used.
9. Usage of registered pesticides on all protected crops
10. Usage of all pest, disease and weed control agents on protected edible crops
11. Usage of pesticides on edible protected crops grown in Great Britain, (spray sq m)
12. Usage of pesticides on edible protected crops grown in Great Britain, (kg active substance)
13. Usage of all pest, disease and weed control agents on protected ornamental crops
14. Usage of pesticides on ornamental protected crops grown in Great Britain, (spray sq m)
15. Usage of pesticides on ornamental protected crops grown in Great Britain, (kg active substance)
16. Extent and quantities of active substances used on edible crops.
17. Estimated area (ha) of application of the fifty most extensively used active substances on all protected edible crops surveyed in Great Britain (excluding edible plants in propagation)
18. Estimated amount (kg) of the fifty active substances, used most by weight, on all protected edible crops surveyed in Great Britain (excluding edible plants in propagation)
19. Extent and quantities of active substances used on ornamental crops.
20. Estimated area (ha) of application of the fifty most extensively used active substances on all protected ornamental crops surveyed in Great Britain (excluding edible plants in propagation).
21. Estimated amount (kg) of the fifty active substances, used most by weight, on all protected ornamental crops surveyed in Great Britain (including edible plants in propagation).
22. Detailed use of pesticides are reported on the following crops: tomatoes; cucumbers; lettuce; peppers; celery; other vegetables; edible plants in propagation; strawberries and other fruit; chrysanthemums for cutting; carnations and pinks; alstroemeria; other flowers and foliage; pot chrysanthemums; other pot plants; ornamental plants in propagation; and hardy ornamental nursery stock. Details include:
   a. Fungicides
   b. Insecticides
   c. Acaracides
   d. Disinfectants
   e. Herbicides
   f. Soil sterilants
   g. Sulphur
   h. Biological control agents
   i. Molluscicides
j. Growth regulators
23. Changes in the area treated (ha) for the top five fungicides in use.
24. Changes in the area treated (ha) for all acaricides.
25. Changes in the area treated (ha) for all insecticides
26. Comparison of pesticide usage, area treated (ha) and amount used (t)
27. Comparison of pesticide usage, treated area as a percentage of area grown and average rate applied (kg a.s./ha)
28. Areas of protected crops grown in Great Britain
29. Comparison of the area of protected crops grown in Great Britain
30. Changes in the area grown of major crop groups
31. Comparison of pesticide usage on all protected edible crops, area treated (ha) and amount used (kg) (excluding edible plants in propagation)
32. Comparison of pesticide usage on all protected edible crops, treated area as a percentage of area grown and average rate applied (kg a.s./ha) (excluding edible plants in propagation)
33. Comparison of pesticide usage on all protected ornamental crops, area treated (ha) and amount used (kg) (including edible plants in propagation)
34. Comparison of pesticide usage on all protected ornamental crops treated area as a percentage of area grown and average rate applied (kg a.s./ha) (including edible plants in propagation).
Details covered in the grassland and fodder report:

1. Area of fodder crops and grassland grown in Great Britain (hectares)
2. Regional pesticide usage.
3. Treated area of fodder crops and grassland in Great Britain by crop group (spray hectares).
4. Usage of pesticides on fodder crops and grassland in Great Britain by crop group (kg of active substance applied).
5. Proportion of crops treated.
6. Usage of pesticides on fodder crops and grassland in Great Britain, percentage area of crops treated with pesticides.
7. Usage of pesticides on fodder and forage crops in Great Britain, average number of applications made to crops where treated (excluding seed treatments).
8. Usage of pesticides on fodder and forage crops in Great Britain, average number of products (other than seed treatments) applied to crops where treated.
9. Usage of pesticides on fodder and forage crops in Great Britain average number of active substances (other than seed treatments) applied to crops where treated.
10. Extent and quantities of pesticide formulations used.
11. Usage of pesticides on fodder crops and grassland grown in Great Britain, (spray hectares).
12. Usage of pesticides on fodder crops and grassland grown in Great Britain, (kg of active substances).
13. Extent and quantities of active substances used.
14. Estimated area (ha) of application the fifty most extensively used active substances on all grassland and fodder crops surveyed in Great Britain (excluding seed treatments).
15. Estimated amount (kg) of the fifty active substances used most by weight on all grassland and fodder crops surveyed in Great Britain (excluding seed treatments).
17. Detailed use of pesticides are reported on the following crops: Maize; Turnips and swedes; Fodder beet and mangolds; Kale, cabbage, rape etc.; Other crops for stock feeding; Stubble turnips and catch crops; New leys – direct-sown; New leys – undersown; Grassland 2 - 5 years old; Permanent pasture; and Rough grazing. Details include:
   a. Herbicides
   b. Seed treatments
   c. Molluscicides
   d. Insecticides
18. Changes in the area treated (ha) for the top five herbicides.
19. Comparison of pesticide1 usage on maize, area treated (ha) and amount used (t)
20. Comparison of pesticide usage, treated area as a percentage of area grown and average rate applied (kg a.s./ha)
21. Aerial applications:
   a. Distribution of treated bracken in Great Britain - hectares flown
   b. Timing of applications made to upland areas to control bracken
Details covered in the hardy nursery stock report:

1. Area of hardy nursery stock grown in Great Britain (hectares).
2. Treated area of hardy nursery grown in Great Britain.
3. Proportion of crops treated.
4. Treated area of hardy nursery stock in Great Britain by crop group (spray hectares).
5. Weight of pesticides applied to hardy nursery stock in Great Britain by crop group (kg of active substance).
6. Usage of pesticides on hardy nursery stock in Great Britain, percentage area of crops treated with pesticides.
7. Usage of pesticides on hardy nursery stock in Great Britain, number of spray rounds applied to crops (excluding seed treatments).
8. Usage of pesticides on hardy nursery stock in Great Britain, number of products (other than seed treatments) applied to crops, including repeat applications of the same product.
9. Usage of pesticides on hardy nursery stock in Great Britain, number of active substances (other than seed treatments) applied to crops, including repeat applications of the same active substance.
10. Extent and quantities of pesticide formulations used.
12. Usage of pesticides on hardy nursery stock grown in Great Britain, (kg of active substance used).
13. Extent and quantities of active substances used.
14. Estimated area (ha) of application of the fifty most extensively-used active substances on all hardy nursery stock surveyed in Great Britain.
15. Estimated amount (kg) of application of the fifty most extensively-used active substances on all hardy nursery stock surveyed in Great Britain.
16. Detailed use of pesticides is reported on the following crops: Fruit Stock; Roses; Ornamental trees; Shrubs etc; Herbaceous Plants; Mixed Areas and; Christmas Trees. Details include:
   a. Timing of applications made.
   b. Fungicides
   c. Herbicides
   d. Insecticides
   e. Acaricides
   f. Other pesticides
17. Changes in the area treated (ha) for the top five herbicides
18. Changes in the area treated (ha) for the top five fungicides
Details covered in the hops report:

1. Extent and quantities of pesticide formulations used.
2. Usage of pesticides on hops - reasons for use, areas treated (ha) and kg applied.
3. Extent and quantities of active substances used.
4. Estimated area (ha) of the 25 most extensively - used active substances on hops surveyed in England and Wales.
5. Estimated amount (kg) of the 25 active substances used most by weight on hops surveyed in England and Wales.
6. Target area and timing of application.
   a. Timing of applications
   b. Fungicides and Sulphur
   c. Herbicides
   d. Insecticides and Acaricides
7. Usage of pesticides on hops, target area and hectares treated
8. Usage of pesticides on hops, target area and kg active substance applied
9. Number of applications
   a. Number of spray rounds.
   b. Number of products.
   c. Number of active ingredients.
10. Comparison with previous surveys
    a. Changes in the area treated (ha) for the top five fungicides.
    b. Changes in the area treated (ha) for the top five herbicides.
    c. Changes in the area treated (ha) for all acaracides.
    d. Changes in the area treated (ha) for the top five insecticides.
    e. Changes in the area treated (ha) for tar oil and other defoliants.
11. Comparison of pesticide usage on all hops, area treated (ha) and amount used (t).
12. Comparison of pesticide usage on hops, area treated as a percentage of area grown and rate of active substances used (kg/ha).
Details covered in the mushrooms report:

1. Comparison of growing system by percentage of production area (ha).
2. Comparison of growing system by percentage of national production (kg).
3. Comparison of production system by percentage of production area (ha).
4. Comparison of production system by percentage of national production (kg).
5. Extent and quantities of pesticide formulations used.
6. Usage of pesticides on mushrooms grown in Great Britain (treated sq metres).
7. Usage of pesticides on mushrooms grown in Great Britain (kg active substance applied).
8. Methods of application.
10. Usage of pesticides on mushrooms grown in Great Britain: methods of application (treated sq metres).
11. Between crop treatments: pesticides and their reasons for application (treated sq metres) and total amount applied (kg active substance).
12. Pesticide usage at the pre-production stage.
13. Pesticide usage during the production stage.
14. Use of non-registered substances.
15. Pre-production treatments: pesticides and their reasons for application (treated sq metres) and total amount applied (kg active substance).
16. Production treatments: pesticides and their reasons for application (treated sq metres) and total amount applied (kg active substance).
17. Use of non-registered substances (other than biological control agents) on mushrooms grown in Great Britain (treated sq metres) and total amount applied (kg active substance).
18. Number of applications.
19. Comparisons with previous surveys.
   a. Comparisons of pesticide usage on all mushroom crops, area treated (ha) and amount used (kg).
20. Estimated area (ha) of application of all active substances and biological control agents used on mushroom crops surveyed in Great Britain.
21. Estimated amount (kg) of all active substances and biological control agents used on mushroom crops surveyed in Great Britain.
Details covered in the orchards report:

1. Areas of crops surveyed and census areas in Great Britain.
3. Crop age.
4. Cultivars.
5. Herbicide usage on all crops.
6. Proportion of crops treated.
7. Treated area of top fruit crops in Great Britain by crop group (spray hectares).
8. Treated area of top fruit crops in Great Britain by crop group (kg a.s. applied).
9. Usage of pesticides on orchard crops in Great Britain, percentage area of crops treated with pesticides.
10. Usage of pesticides on top fruit crops in Great Britain, number of spray rounds applied to treated crops.
11. Usage of pesticides on top fruit crops in Great Britain, number of products applied to treated crops.
12. Usage of pesticides on top fruit crops in Great Britain, number of active substances applied to treated crops.
13. Extent and quantities of pesticide formulations used.
14. Estimated usage of pesticides on top fruit crops grown in Great Britain, (spray hectares).
15. Estimated usage of pesticides on top fruit crops grown in Great Britain, (kg active substance).
16. Extent and quantities of active substances used.
17. Estimated area (ha) of application the fifty most extensively used active substances on all orchard crops surveyed in Great Britain.
18. Estimated amount (kg) of the fifty active substances used most by weight on all orchard crops surveyed in Great Britain.
19. Pesticide usage on pome fruits: cox dessert apples; eider dessert apples; bramley culinary apples; other culinary apples; pears; cider apples and perry pears. Pesticide usage on stone fruits and nuts: plums; cherries; and other top fruit (incl. nuts). Details include:
   a. Timing of pesticide applications
   b. Fungicides
   c. Growth regulators
   d. Insecticides
   e. Herbicides
   f. Other pesticides
   g. Changes in the area treated (ha) for the top five fungicides.
   h. Changes in the area treated (ha) for the top five growth regulators.
   i. Changes in the area treated (ha) for the top five insecticides.
   j. Changes in the area treated (ha) for the top five herbicides.
   k. Comparison of pesticide usage, area treated (ha) and amount used (t).
20. Comparison with previous surveys:
   a. Comparison of the area of orchard crops grown in Great Britain.
   b. Comparison of pesticide usage on all orchard crops, area treated (ha) and amount used (t).
   c. Comparison of pesticide usage on all orchard crops, area treated as a percentage of area grown and average rate of active substance used (kg/ha).
21. Treatment of top fruit during storage.
   a. Number of stores visited and total tonnes of top fruit stored.
   b. Storage type used and top fruit stored (tonnes)
   c. Total tonnes of top fruit treated.
   d. Total amount of active substances applied per crop group (kg).
22. Comparison with previous storage treatments:
a. Comparison of pesticide usage in orchard stores, fruit treated (tonnes) and amount of active substance used (kg).
Details covered in the soft fruit report:

1. Area of soft crops grown in Great Britain (ha)
2. Regional pesticide usage.
3. Proportion of crops treated.
4. Treated area of soft fruit crops in Great Britain (spray hectares).
5. Usage of pesticides on soft fruit crops in Great Britain, percentage area of crops treated with pesticides.
6. Usage of pesticides on soft fruit crops in Great Britain, number of spray rounds applied to crops.
7. Usage of pesticides on soft fruit crops in Great Britain, number of products applied to crops.
8. Usage of pesticides on soft fruit crops in Great Britain, number of active substances applied to crops.
9. Extent and quantities of pesticide formulations used.
10. Usage of pesticides on soft fruit crops grown in Great Britain (spray hectares).
11. Usage of pesticides on soft fruit crops grown in Great Britain (kg active substance applied).
12. Extent and quantities of pesticide active substances used.
13. Estimated area (ha) of application of the fifty most extensively used active substances on all soft fruit crops surveyed in Great Britain.
14. Estimated amount (kg) of application of the fifty most extensively used active substances on all soft fruit crops surveyed in Great Britain.
15. Pesticide usage on: strawberries; blackcurrants; redcurrants and whitecurrants; gooseberries; raspberries; blackberries; hybridberries; and vines. Details include:
   a. Timings of fungicidal and sulphur applications.
   b. Timings of acaricidal and insecticidal applications.
16. Comparison with previous surveys:
   a. Comparison of the area of soft fruit crops grown in Great Britain.
   b. Comparison of the area of soft fruit crops grown in Great Britain, area treated (ha) and amount used (kg).
   c. Comparison of pesticide usage on soft fruit crops, area treated as % of the area grown and rate of active substance use (kg/ha).
Details covered in the vegetables report:

1. Area of vegetable crops grown in Great Britain (ha)
2. Regional pesticide usage.
3. Proportion of crops treated.
4. Area of vegetable crops in Great Britain treated with pesticides (spray hectares) – excluding seed treatments.
5. Weight of pesticides applied to vegetable crops in Great Britain by crop group (kg of a.s.) – excluding seed treatments.
6. Usage of pesticides on vegetable crops in Great Britain, percentage area of crops treated with pesticides.
7. Usage of pesticides on vegetable crops in Great Britain, number of spray rounds applied to crops.
8. Usage of pesticides on vegetable crops in Great Britain, number of products applied to crops.
9. Usage of pesticides on vegetable crops in Great Britain, number of active substances applied to crops.
10. Extent and quantities of pesticide formulations used.
11. Usage of pesticides on vegetable crops grown in Great Britain (spray hectares).
12. Usage of pesticides on vegetable crops grown in Great Britain (kg active substance applied).
13. Extent and quantities of pesticide active substances used.
14. Estimated area (ha) of application of the fifty most extensively used active substances on all vegetable crops surveyed in Great Britain.
15. Estimated amount (kg) of application of the fifty most extensively used active substances on all vegetable crops surveyed in Great Britain.
16. Pesticide usage on: calabrese; summer and autumn cauliflower; Brussels sprouts; root crucifers (including turnips and Swedes); peas and beans (including vining peas, French beans); dry bulb onions; leeks; carrots, parsnips and celery; lettuce, endive, etc.; sweetcorn; beetroot and other root vegetables; cucurbits; and other outdoor vegetables (including herbs, asparagus). Details include:
   a. Timings of applications.
   b. Spray water volumes.
   c. Herbicides
   d. Fungicides.
   e. Insecticides.
   f. Molluscsides.
   g. Biological control agents.
17. Comparison with previous surveys:
   a. Comparison of the pesticide usage, area treated (ha) and amount used (kg).
   b. Comparison of the pesticide usage, treated area as a percentage of area grown and average rate applied (kg/ha).
   c. Comparison of the area of soft fruit crops grown in Great Britain, area treated (ha) and amount used (kg).
   d. Comparison of pesticide usage on soft fruit crops, area treated as % of the area grown and rate of active substance use (kg/ha).
18. Usage of seed treatments on vegetable crops grown in Great Britain (kg active substance applied).
   a. Total tonnes of vegetables stored and method of storage.
   b. Storage type used and vegetables used (tonnes).
   c. Pesticide usage on vegetables in store, tonnes treated and amount of active substance used (kg).
Annex D: Usage survey results

The results of the surveys are available:

- in full written reports that can be downloaded from CSL’s website at http://www.csl.gov.uk/newsAndResources/resourceLibrary/articles/puskm/index.cfm
- from a searchable database hosted by CSL at http://pusstats.csl.gov.uk/index.cfm; and
- directly from CSL’s Pesticide Usage Survey Team upon written request.