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SID 5 Research Project Final Report

Note

In line with the Freedom of Information Act 2000, Defra aims to place the results of its completed research projects in the public domain wherever possible. The SID 5 (Research Project Final Report) is designed to capture the information on the results and outputs of Defra-funded research in a format that is easily publishable through the Defra website. A SID 5 must be completed for all projects.

- This form is in Word format and the boxes may be expanded or reduced, as appropriate.

ACCESS TO INFORMATION

The information collected on this form will be stored electronically and may be sent to any part of Defra, or to individual researchers or organisations outside Defra for the purposes of reviewing the project. Defra may also disclose the information to any outside organisation acting as an agent authorised by Defra to process final research reports on its behalf. Defra intends to publish this form on its website, unless there are strong reasons not to, which fully comply with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

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Project identification

1. Defra Project code	PS2012
2. Project title	Pesticide user habits: public purchasing, use, storage and disposal of pesticides
3. Contractor organisation(s)	Resource Futures
4. Total Defra project costs (agreed fixed price)	£ 16,888
5. Project: start date.....	01 April 2007
end date.....	15 June 2007

6. It is Defra's intention to publish this form.
Please confirm your agreement to do so. YES NO

(a) When preparing SID 5s contractors should bear in mind that Defra intends that they be made public. They should be written in a clear and concise manner and represent a full account of the research project which someone not closely associated with the project can follow.

Defra recognises that in a small minority of cases there may be information, such as intellectual property or commercially confidential data, used in or generated by the research project, which should not be disclosed. In these cases, such information should be detailed in a separate annex (not to be published) so that the SID 5 can be placed in the public domain. Where it is impossible to complete the Final Report without including references to any sensitive or confidential data, the information should be included and section (b) completed. NB: only in exceptional circumstances will Defra expect contractors to give a "No" answer.

In all cases, reasons for withholding information must be fully in line with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

(b) If you have answered NO, please explain why the Final report should not be released into public domain

Executive Summary

7. The executive summary must not exceed 2 sides in total of A4 and should be understandable to the intelligent non-scientist. It should cover the main objectives, methods and findings of the research, together with any other significant events and options for new work.

Pesticide Safety Directorate (PSD) is working with other stakeholders through the Amateur Use Action Plan Implementation Group (AUAPIG) to encourage best practice in amateur use and storage of pesticides, and to ensure the safe disposal of unused products and empty containers. One of the objectives of the group is to identify key research and information needs; a need to expand the knowledge base regarding public purchasing, use, storage and disposal of pesticides was identified. Therefore, a project to investigate these issues was commissioned, comprising a survey of purchasing, use, storage and disposal of garden chemicals by members of the public.

The specific objectives of the project, which was undertaken by Resource Futures, were:

- to develop a questionnaire in consultation with members of AUAPIG, in order to ensure that the concerns of all stakeholders are addressed
- to implement the survey in six garden centre locations across the UK
- to analyse and report on the findings, including attendance at an AUAPIG meeting to discuss implications.

Project outputs will be used by the Pesticide Safety Directorate and other stakeholders (including the British Retail Consortium, Crop Protection Association, Garden Organic, the Horticultural Trades Association and the Royal Horticultural Society) to inform work being undertaken by the AUAPIG, with particular reference to:

- the development of resources for communicating with the public about appropriate purchasing, use, storage and disposal of pesticide products
- the development of indicators of the adoption of behaviours by pesticide users of practices which help minimise risk to the environment.

The questionnaire was developed by Resource Futures in consultation with members of AUAPIG and covered subjects including respondents' attitudes to gardening; age bracket; different types and numbers of pesticides purchased; main location(s) of purchases; reading of instructions; other channels through which information on pesticide use is accessed; type of product used (ready-to-use or concentrated); location and duration of storage; and disposal of empty pesticide containers and pesticides.

Survey respondents were offered an incentive of entry to a prize draw for garden centre vouchers, which were provided by the Horticultural Trades Association (HTA). The work was undertaken by fully trained and experienced staff who were briefed on the survey, and on key background facts relating to pesticides

and their use, using a briefing sheet developed by PSD.

The survey was carried out at garden centres in Milngavie (Glasgow), Newport, Oxford, Preston, Tunbridge Wells and Woodbridge (Ipswich) between Wednesday 16 May and Sunday 20 May 2007. Questionnaires were only undertaken with garden centre shoppers who confirmed that they used pesticides in their gardens. A total of 1,052 responses were obtained.

Key survey findings can be summarised as follows:

- As might be expected, a majority of the respondents (53.4%) defined themselves as "keen and regular gardeners" and the sample had a bias to older age groups, with only 0.9% of respondents in the 16-24 age group, and more than 80% over 45.
- The most frequently purchased products were slug pellets (66.8% of respondents), weed-killers (50.1%) and lawn treatments (45%).
- The majority of respondents purchased either one (32%) or two (26.6%) products each year. Around one in ten people purchased an average of less than one product per year, while a total of 16.3% of respondents purchased 4 or more products each year.
- Only small minorities of respondents stated that they rarely or never read product instructions (5.9%); regarded instructions as unclear (2.5%, with a further 3.9% unsure); or stated that they did not (2.1%) or only sometimes (5.6%) follow instructions.
- In addition to product instructions, garden centre staff, magazines, TV programmes and websites were the most frequently cited sources, with the BBC (Gardeners' World) and RHS being the most popular among these.
- Nearly half of respondents (46.9%) only used "ready-to-use" products, and are therefore not at risk of disposing of products that need diluting (and thus carry the greatest environmental risk) in an inappropriate fashion. Respondents from the 25-44 age group were considerably more likely to use ready-to-use products only, with nearly 60%, compared to 44.6% and 42.4% respectively for the 45-64 and 65 and over groups.
- Among respondents using products that require diluting before use, 23.7% save products that they have already mixed and 59.7% rinse empty containers. More than half of respondents rinsing containers put the rinsings down the drain, with small numbers also using the sink (6.6%) or the toilet (0.9%).
- The shed was the most frequent location for storage of pesticides (58.9%), followed by the garage (31.0%). Only 4.1% of people stored pesticides in the home. Regarding storage duration, most respondents used products in one season (33.9%), or stored for between 1 to 2 years (49.8%). However, one in ten stored products for 2 to 3 years and around 6% for 3 years or more. This indicates that there is some hoarding of products in lieu of disposal, but that this is only carried out by a minority.
- Nearly half of gardeners disposed of empty pesticide containers in the dustbin, while more than a third were recycling them. Nearly one in five were disposing of containers at their local household waste recycling centre (HWRC), while a small number (1.4%) burned containers.
- More than one in eight respondents (13.8%) stated that they disposed of pesticides. This implies that the majority of respondents were using up products for their intended purpose. It also implies that the sample size of respondents disposing of pesticides is relatively small (145), so findings relating to this group of respondents should be treated with some caution, eg disposal routes.
- The methods used for disposal of unused or unwanted pesticides varied, but the survey made it clear that products are being disposed of in an inappropriate fashion by only a small minority of gardeners. The most frequently cited disposal route was to take products to the local HWRC (31.7% of those disposing of pesticides). A small proportion (3.4%) used a local authority collection service. However, the second most frequent disposal method stated was the bin (28.3%). One in five respondents disposing of pesticides – 29 respondents – did so by putting them down the drain, while small numbers also used the sink or the toilet. As a proportion of the total sample (1,052 respondents), 3.9% of respondents were disposing of pesticides via the bin and 2.8% were putting them down the drain.
- Many of those disposing of pesticides using inappropriate methods are disposing of products that need diluting before use. Thus, while 46.7% of the total survey sample used "ready-to-use" products only, this was true of only 17.2% of respondents who disposed of pesticides down the drain, and 29.3% of those who put them in the bin. In other words, users of concentrated products appear to be over-represented among the small number of respondents disposing of products in an inappropriate fashion.

Following consideration of this report, the Amateur Use Action Plan Implementation Group (AUAPIG) will continue to develop communications messages and materials. The group may wish to use additional

qualitative focus group research to test or to inform the development of communications messages. In this respect, the numbers of survey respondents indicating that they were willing to take part in a focus group would be adequate for at least one group to be run in each location except Preston.

Project Report to Defra

8. As a guide this report should be no longer than 20 sides of A4. This report is to provide Defra with details of the outputs of the research project for internal purposes; to meet the terms of the contract; and to allow Defra to publish details of the outputs to meet Environmental Information Regulation or Freedom of Information obligations. This short report to Defra does not preclude contractors from also seeking to publish a full, formal scientific report/paper in an appropriate scientific or other journal/publication. Indeed, Defra actively encourages such publications as part of the contract terms. The report to Defra should include:
- the scientific objectives as set out in the contract;
 - the extent to which the objectives set out in the contract have been met;
 - details of methods used and the results obtained, including statistical analysis (if appropriate);
 - a discussion of the results and their reliability;
 - the main implications of the findings;
 - possible future work; and
 - any action resulting from the research (e.g. IP, Knowledge Transfer).

References to published material

9. This section should be used to record links (hypertext links where possible) or references to other published material generated by, or relating to this project.



