


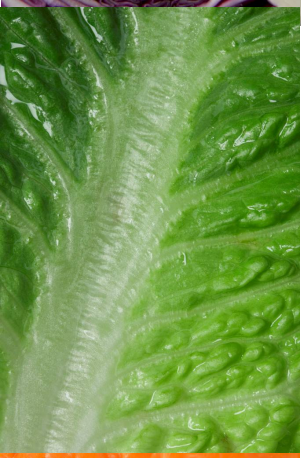


Pesticide Residues Committee

# PESTICIDE RESIDUES COMMITTEE

## PESTICIDE RESIDUES MONITORING REPORT

## SECOND QUARTER REPORT 2005

## QUARTER ENDING JUNE 2005

**Published: 15 December 2005**

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## Summary Findings

This is the second of our quarterly reports for 2005. This year we aim to continue our programme of targeted surveys following up on previous potential residue problems, together with rolling surveys of various food commodities and larger more representative surveys.

This quarter's programme surveyed 1101 samples of different foodstuffs. They included apples, beans, bran, broccoli, carrots, chicken, courgettes, cucumbers, exotic fruits, grapes, kidney, lettuce, mango, milk, oily fish, oranges, pears, potatoes and spinach.

The results show 26 samples (2.4%) contained residues in excess of the maximum permitted levels. This is a slightly higher proportion than we have found recently. We have looked carefully at each of these and in every case the presence of these residues would not have resulted in any adverse health effects for consumers. It is possible that many of these 'exceedances' are technicalities, arising because MRLs have not been set to reflect legitimate use of pesticides in exporting countries.

We have asked suppliers and the authorities in exporting countries for an explanation of our findings- any responses we received are at appendix E.

Thanks go to all of those individuals and organisations responsible for helping us put this report together. These include our Secretariat and scientists (both based at the Pesticides Safety Directorate), the shoppers and Defra officials who have collected the samples and laboratory staff across the UK who undertook the analysis.

**Dr Ian Brown**
**BSc Agric. FRCP FFOM DDAM**
**Chairman Pesticide Residues Committee**

# PART 1
# INTRODUCTION

## Background

Food safety is important. Modern food production processes have given us plentiful supplies of a wide range of good quality and reasonably produced produce.

One of the ways to deliver plentiful supplies of reasonably priced, safe, nutritious, quality produce is to carefully control the environment in which foodstuffs are produced. In the food industry of today the production environment can be controlled from the preparation of seeds used for crops, through growth and harvesting to transport, preparation, packaging and retail of the produce.

One of the ways the food industry controls the environment in which foodstuffs are produced is by applying pesticides. Pesticides are mainly applied to crops growing in a field or orchard. They help farmers and growers maximise the production of foodstuffs by, for example, preventing weeds inhibiting the growth of the crop, or insects destroying or infesting them. Pesticides can also be used to help protect seeds, or prolong the life of crops after they have been harvested.

Applying pesticides to foodstuffs has the potential for risk. As pesticides are used to control unwanted pests, weeds and moulds, they can potentially also harm people, wildlife and the environment. This is why the UK, in common with most other countries, imposes legally enforceable conditions as to how and when pesticides can be used. No pesticide can be supplied or used on a food crop in the UK without the Government authorisation. To obtain this authorisation the manufacturer of the pesticide must show that it does not present a concern for people's health or the environment.

Once the authorisation has been granted Government authorities carry out follow up checks to ensure that the authorisation is providing the necessary degree of protection to users, consumers and the environment and that those who use pesticides are complying with conditions specified within it.

The Government authority responsible for checking pesticides in foodstuffs is the Pesticides Safety Directorate. The Pesticide Residues Committee (PRC) oversees (and provides an independent check) on this work. We know that the use of pesticides on crops may lead to traces (residues) of these chemicals in food and we expect to find these in our monitoring programme.

**The Pesticide Residues Committee (PRC)**

The Pesticide Residues Committee (PRC) is an independent group of experts; our main function is to oversee Government's £2.2 million pesticide residues surveillance programme. Our Chairman, Dr Ian Brown, is a consultant occupational physician and toxicologist at Southampton University hospitals. The Committee also includes lay members and individuals from academic, food industry and consumer backgrounds. This broad range of expertise has enabled us to develop a rigorous monitoring programme that provides taxpayers with good value for money.

Information on the membership of the PRC is also available on the PRC's website: www.pesticides.gov.uk/prc.asp?id=823

Our role is to advise Ministers and the Chief Executives of the Pesticides Safety Directorate (PSD) and the Food Standards Agency (FSA) on:

- the planning of surveillance programmes for pesticide residues in the UK food supply and the evaluation of the results;
- procedures for sampling, sample processing, new methods of analysis, the assessment of variability of pesticide residues in food and related issues.

**Surveillance programme**

The pesticide residues surveillance programme is designed to enable us to check the following:

- that specified pesticide maximum residue levels are being respected;
- that users of pesticides are complying with conditions of use specified in the authorisation; and
- that dietary intakes of residues are within acceptable limits.

We do this by collecting samples of foodstuffs from a range of points in the supply chain (including supermarkets, corner shops, markets, distribution and supply depots). Each sample is then analysed in carefully selected laboratories for residues of, typically, up to several dozen different types of pesticides.

The surveillance programme is organised on an annual basis, divided into four quarters. The programme ensures all the major components of our national diet are sampled (milk, bread, potatoes, fruit and vegetables, cereals and related products, animal products and baby food). The programme is not designed to provide a representation of residues in our diet- it is carefully targeted and tends to look more at those commodities likely to contain residues.

The sampling and analysis is carried out in accordance with stringent international standards.

**Reporting the results**

Details of the findings of the surveillance programme are outlined in quarterly reports. The reports detail the number and source of the foodstuffs analysed and any residues detected. We highlight and investigate findings of residues which:

- are in excess of statutory maximum residue levels (MRL) of a pesticide permitted in foods;
- are within the MRL but which may results in intakes in excess of the Acute Reference Dose (ARfD). New ARfDs are established relatively early in the EC review programme of active substances as part of the consideration of human toxicological effects. However, MRLs for individual commodities are established after a decision has been taken whether or not to include an active substance on the European 'positive list' of authorised substances (Annex I to Directive 91/414/EEC). There can be a time delay extending to many years between establishing the ARfD for an active substance and establishing corresponding, new MRLs in the legislation of member states.
- occur in UK produce where there is no UK approval for use of that pesticide.

Identifying and carrying out risk assessments on residues within MRL but which give intakes above the ARfD is a new development. This will allow us to keep track of the EC process and where necessary seek the early consideration of existing MRLs to reflect any concerns that we have. We have also recently began to publish details of combined risk assessments for particular categories of pesticides which have a similar mode of action. You can find the risk assessments at Appendix D.

## PART 2
## THE RESULTS

**Apples (part 1 of 2)**

Introduction

Imported and UK sourced apples are available all the year round. Apples are monitored yearly due to their importance in the diet, particularly for children. We have surveyed apples every year since 2000. This is the first part of our survey, the second part will cover samples bought in the second half of the year.

Pesticides sought and residues detected ……page 33

Risk assessments ……..……page 97

Results January to June 2005

- We tested 60 samples for up to 118 pesticide residues.
- 12 of the samples were from the UK, 29 were imported from outside the EC and 19 were imported from within the EC.
- We didn't find any residues in 7 samples.
- We found residues below the relevant MRLs in 53 samples.
- We didn't find any residues above the relevant MRLs.
- We found two samples in which risk assessments identified intakes for certain groups of consumers in excess of the ARfD:
  - one sample containing carbendazim at 0.6 mg/kg. Intakes for infants, toddlers, 4-6 and 7-10 year olds were in excess of the ARfD.
  - one sample containing dithiocarbamates at 0.8 mg/kg. Intakes for infants, toddlers and 4-6 year olds were in excess of the ARfD.

  Risk assessments concluded that there were no health concerns (full details at Appendix D).
- We didn't find any residues in the 4 samples labelled as organic.
- We found residues of more than one pesticide in 40 samples (full details at Appendix C). 2 of these samples contained residues of either organophosphate/carbamate pesticides- a combined risk assessment concluded that there were no health concerns (full details at Appendix D).
- We found one incidence of UK non-approved use. One sample contained residues of iprodione at 0.07mg/kg (MRL 10 mg/kg). This residue falls within the MRL. PSD have notified the supplier .

**Conclusions**

None of the residues found was of concern for human health.

One sample of apples from the UK contained residues of iprodione which is not approved for this use. No health concerns arising from this finding. PSD have notified the supplier.

**Beans (green)**

Introduction

This survey is being conducted as part of the co-ordinated European programme. Half of the samples collected throughout the year will be speciality beans, that is varieties not commonly grown in Europe. We surveyed speciality beans in 2004 and found residues for a number of pesticides. A relatively high proportion contained residues above the MRL. However the MRLs set in these crops were set at the lowest level which can be routinely tested for because producers have not supplied information to set a higher level. This is a particular issue with developing countries that these types of produce are from. Where we found residues above MRLs, we told suppliers and the relevant authorities. PSD has also met suppliers of speciality vegetables to discuss reducing these problems in the future.

Pesticides sought and residues detected ……page 40

Risk assessments ……..……page 98

Results January to June 2005

- We tested 43 samples for up to 116 pesticide residues. 24 of these samples were green beans and 19 samples were speciality beans.
- 23 of the green beans samples were imported from outside the EC and 1 was imported from within the EC. All 19 samples of speciality beans were imported from outside the EC.
- We didn't find any residues in 16 of the imported green bean samples and 5 of the speciality bean samples.
- We found residues below the relevant MRLs in 5 samples of green beans and 4 samples of speciality beans.
- We found residues above the MRL in 3 samples of green beans and 10 samples of speciality beans. 1 of the samples of green beans and 1 of the samples of speciality beans contained residues of two or more different pesticides above the relevant MRLs.
    - one green bean sample from Egypt contained carbendazim at 0.2 mg/kg (MRL 0.1* mg/kg);
    - one green bean sample from Kenya contained dimethoate at 0.04 mg/kg (MRL 0.02* mg/kg);
    - one green bean sample from Egypt contained dicofol at 0.8 mg/kg (MRL 0.02* mg/kg) and profenofos at 0.1 mg/kg (MRL 0.05* mg/kg); and
    - one speciality bean sample from China contained chlorothalonil at 0.1 mg/kg (MRL 0.01* mg/kg);
    - one speciality bean sample from Thailand contained carbendazim at 0.2 mg/kg (MRL 0.1* mg/kg);
    - one speciality bean sample from Thailand contained carbendazim at 0.2 mg/kg (MRL 0.1* mg/kg) and omethoate at 0.05 mg/kg (MRL 0.02* mg/kg));
    - one speciality bean sample from Thailand contained omethoate at 0.09 mg/kg (MRL 0.02* mg/kg);
    - one speciality bean sample from Thailand contained chlorpyrifos at 0.2 mg/kg (MRL 0.05* mg/kg), methamidophos at 1.8 mg/kg (MRL 0.5 mg/kg);
    - two speciality bean samples from China contained carbendazim at 0.2 mg/kg (MRL 0.1* mg/kg);

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* **Maximum Residue Levels set at the LOD (LOD MRL):** These MRLs are set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. Either insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop in the EU. **These MRLs are not based on Good Agricultural Practice (GAP).**

- one speciality bean sample from Costa Rica contained carbendazim at 2.3 mg/kg (MRL 0.1* mg/kg);
- one speciality bean sample from Thailand contained dicofol at 0.04 mg/kg (MRL 0.02* mg/kg);
- one speciality bean sample from Bangladesh contained fenvalerate at 0.1 mg/kg (MRL 0.02* mg/kg);

Risk assessments concluded that all intakes were with the ARfD or ADI, so there were no health concerns (see Appendix D for full details). PSD have notified the suppliers and comments received are at Appendix E.

- We found residues of more than one pesticide in 4 samples of green beans and 7 samples of speciality beans (full details at Appendix C). 2 of these samples contained residues of either organophosphate/carbamate pesticides- a combined risk assessment concluded that there were no health concerns (full details at Appendix D).
- None of the samples were labelled as organic.

**Conclusions**
None of the residues found was of concern for human health.

The Pesticides Safety Directorate has raised this issue with importers as the results are similar to previous findings in 2004, where a relatively high incidence of MRL exceedances occurred.

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*** Maximum Residue Levels set at the LOD (LOD MRL):** These MRLs are set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. Either insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop in the EU. **These MRLs are not based on Good Agricultural Practice (GAP).**

**Bran**

Introduction

Bran is the husk (outer part) of grains such as wheat that is removed when the grains are milled for flour. It is recognised as an important component of a healthy diet. We last sampled bran in Quarter 4 of 2001 as part of our rolling programme. There are no MRLs for bran, only for whole grains.

Pesticides sought and residues detected …page 45

Risk assessments ……..…….page 99

Results January to June 2005

- We tested 72 samples for up to 39 pesticide residues.
- 70 of the samples were from the UK, 1 was imported from outside the EC and 1 was imported from within the EC.
- We didn't find any residues in 7 samples.
- We found residues in 65 samples.
- We found residues of more than one pesticide in 62 samples (full details at Appendix C). 1 of these samples contained residues of either organophosphate/carbamate pesticides- a combined risk assessment concluded that there were no health concerns (full details at Appendix D).
- We didn't find any residues in the 7 samples labelled as organic.
- We didn't find any evidence of UK non-approved use.
- The reporting levels for OP pesticides have been standardised across our surveys since bran was last surveyed. This is so that risk assessments for OP pesticides as a group can be carried out. In the case of bran the reporting levels used this time are lower than those used last time, and this has lead to a higher detection rate of residues.
- Mepiquat (a plant growth regulator) was sought for the first time and found in 43% of samples.

**Conclusions**

None of the residues found was of concern for human health.

Although virtually all of this produce was labelled as being of UK origin the residue profiles are not consistent with UK crop protection practices. We believe that this indicates that this bran comes from grains grown abroad which were then processed and/or packed in the UK.

**Broccoli (Part 1 of 2)**

Introduction

Broccoli (calabrese) was last surveyed in 2000 part of our rolling programme. This survey has been split into two parts: this is the first part and focuses predominantly on crops grown in the Southern EU member states. The second part of the survey will be reported in Quarter 4 of 2005 and is expected to contain a greater proportion of crops produced in northern regions of the EU.

Pesticides sought and residues detected …….page 49

Risk assessments ……..…none required

Results January to June 2005

- We tested 48 samples for up to 83 pesticide residues.
- 1 of the samples was from the UK, 47 were imported from within the EC.
- We didn't find any residues in 47 samples.
- We found residues below the relevant MRLs in 1 sample.
- We didn't find any residues above the relevant MRLs.
- We didn't find any residues in the 7 samples labelled as organic.
- We didn't find residues of more than one pesticide in any samples.
- We didn't find any evidence of UK non-approved use.

**Conclusions**

None of the residues found was of concern for human health.

**Carrots (part 1 of 2)**

Introduction

Carrots have featured in the surveillance programme extensively since 1990, and every year since 2002.

Restrictions on the number of organophosphorus (OP) applications were introduced in 1995 on the advice of the Advisory Committee on Pesticides following research into variation in OP pesticide residues between individual carrot roots. The residue levels of the main OP pesticides have declined since 1989, and specifically more recently. Samples were taken from wholesalers as well as retailers.

Pesticides sought and residues detected ……page 51

Risk assessments ……..……none required

Results January to June 2005

- We tested 72 samples for up to 77 pesticide residues.
- 58 of the samples were from the UK, 1 was imported from outside the EC, 12 were imported from within the EC and 1 sample was of unknown origin.
- We didn't find any residues in 70 samples.
- We found residues below the relevant MRLs in 2 samples.
- We didn't find any residues in the 4 samples labelled as organic.
- We didn't find residues of more than one pesticide in any sample.
- We didn't find any evidence of UK non-approved use.

**Conclusions**

None of the residues found was of concern for human health.

**Chicken**

Introduction

Chicken was sampled as part of the rolling programme of commonly eaten animal products. We sampled fresh chickens and chicken pieces. Chicken in this form was last surveyed in 2001 and we surveyed breaded chicken (including chicken nuggets) in 2002.

Pesticides sought and residues detected ……Page 53

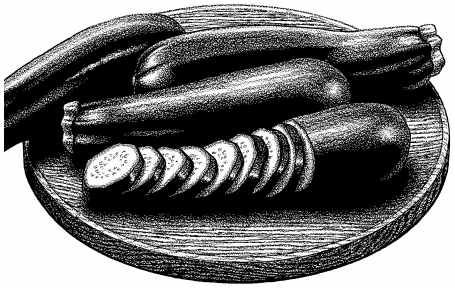
Risk assessments ……..……none required

Results January to June 2005

- We tested 60 samples for up to 13 pesticide residues.
- 54 of the samples were from the UK, 2 were imported from outside the EC and 4 were imported from within the EC.
- We didn't find residues in any samples.
- 2 of the samples were labelled as organic

**Conclusions**
No residues detected

**Courgettes**



Introduction

Courgettes (zucchini) have been surveyed as part of the rolling programme of fruit and vegetable surveys and were last surveyed in 2001.

Pesticides sought and residues detected ……page 54

Risk assessments ……..……page 99

Results January to June 2005

- We tested 47 samples for up to 105 pesticide residues.
- 1 of the samples was from the UK, 2 were imported from outside the EC and 44 were imported from within the EC.
- We didn't find any residues in 44 samples
- We found residues below the relevant MRLs in 2 samples (full details at Appendix C).

  We found residues above the MRL in one sample from Spain. This contained dimethoate at 0.05 mg/kg (MRL 0.02* mg/kg). A risk assessment concluded that intakes were within the ARfD for all consumer groups, so no adverse health effects were expected (full details at Appendix D). PSD have notified the suppliers.
- We didn't find any residues in the 1 sample labelled as organic.
- We didn't find residues of more than one pesticide in any samples.
- We didn't find any evidence of UK non-approved use.

**Conclusions**

None of the residues found was of concern for human health.

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* **Maximum Residue Levels set at the LOD (LOD MRL):** These MRLs are set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. Either insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop in the EU. **These MRLs are not based on Good Agricultural Practice (GAP).**

**Cucumbers**

Introduction

We surveyed cucumbers as part of our rolling programme. We last surveyed them in 2003.

Pesticides sought and residues detected ……page 56

Risk assessments ……..……page 99

Results January to June 2005

- We tested 48 samples for up to 105 pesticide residues.
- 25 of the samples were from the UK, 23 were imported from within the EC.
- We didn't find any residues in 33 samples.
- We found residues at or below the relevant MRLs in 15 samples (full details in Appendix C).
- We didn't find residues above the relevant MRLs in any sample.
- We didn't find any residues in the 2 samples labelled as organic.
- We found residues of more than one pesticide in 6 samples.
- We found one sample which contained residues of a pesticide not approved for use in the UK. One sample contained residues of dithiocarbamate. In 2003 we found similar levels and the PRC concluded that one of the possible reasons could be contamination from rubber gloves which contain carbon disulphide. Carbon disulphide is a breakdown product of the dithiocarbamate pesticides, but it can also occur naturally. The Horticultural Development Council have recently issued advice to growers about avoiding the use of these gloves when handling. This issue will be raised again with the industry. The residues of 0.1 mg/kg were within the MRL of 0.5 mg/kg. PSD have notified the supplier and their comments are at Appendix E.

**Conclusions**

One sample indicated potential UK non-approved use.

None of the residues found was of concern for human health.

**Exotic fruit – passion fruit, pomegranates and persimmon (Sharon fruit)**

Introduction

This survey is being conducted as part of the co-ordinated European programme. We tend to find residues for a number of pesticides in exotic fruits. Previous surveys have found a relatively high proportion contained residues above the MRL. However the MRLs set in these crops were set at the lowest level which can be routinely tested for because producers have not supplied information to set a higher level. This is a particular issue with developing countries that these types of produce are from. Where we found residues above MRLs, we told suppliers and the relevant authorities. PSD has also met suppliers of exotic fruits to discuss reducing these problems in the future.

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Pesticides sought and residues detected ……page 59

Risk assessments ……..……page 99

Results January to June 2005

- We tested 36 samples (12 of each fruit) for up to 87 pesticide residues.
- 35 of the samples were imported from outside the EC, 1 is of unknown origin.
- We didn't find any residues in 27 samples.
- We found residues of omethoate at the MRL in one sample of persimmon.
- We found residues of difenoconazole and folpet for which no MRLs have yet been set in one sample of passion fruit.
- We found residues above the MRL in 7 samples
  - two samples of passion fruit from Kenya contained dithiocarbamates at levels of 0.09 mg/kg and 0.2 mg/kg (MRL 0.05* mg/kg)
  - three samples of pomegranates from India contained dithiocarbamates at levels of 0.06 mg/kg (twice) and 0.08 mg/kg (MRL 0.05* mg/kg);
  - one sample of persimmon from Israel contained residues of omethoate at 0.03 mg/kg (MRL 0.02 mg/kg) and prochloraz at 0.2 mg/kg (MRL 0.05* mg/kg); and
  - one sample of persimmon from Israel contained residues of dimethoate at 0.04 mg/kg (MRL 0.02* mg/kg) and omethoate at 0.05 mg/kg (MRL 0.02* mg/kg).

  Risk assessments concluded that there were no health concerns (full details at Appendix D). PSD have notified the supplier and their comments are at Appendix E.
- We found residues of more than one pesticide in 5 samples (full details at Appendix C).
- None of the samples were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

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* **Maximum Residue Levels set at the LOD (LOD MRL):** These MRLs are set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. Either insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop in the EU. **These MRLs are not based on Good Agricultural Practice (GAP).**

**Grapes (part 1 of 2)**

Introduction

Grapes are sampled regularly because they are widely consumed, and results from previous surveys have shown that they can contain a relatively wide range of residues. This is due to the fact that pesticides are used frequently because grapes are susceptible to insect and fungal attacks that can damage the crop and therefore its value.

During 2003 there were several occasions when the UK was notified via the EC's Rapid Alert System for Food and Feed (RASFF) about pesticide residues in grapes. European grapes have also contained levels of methomyl above MRLs. We therefore decided to monitor for these pesticides more frequently. Samples are being collected twice a month by Defra's Horticultural Marketing Inspectors from a range of points in the supply chain; wholesale markets, retail depots, ports and import points. The rapid response results are published around two weeks after the last samples are taken each month.

We test samples for a wide range of pesticides throughout the year. Full reports will be published in December 2005 (Q2) and in June 2006 (Q4). In addition, we arranged for the results of the analysis for 13 pesticides to be published monthly onwards. These pesticides are: acephate, azinphos-methyl, carbendazim, chlorpyrifos, dimethoate, dithiocarbamates, imazalil, methamidophos, methomyl, monocrotophos, omethoate, oxydemeton-methyl and pirimiphos-methyl.

These results are for the full list of pesticides sought, incorporating the monthly results, and are for the first half of the survey.

Pesticides sought and residues detected ……page 62

Risk assessments ……..……page 100

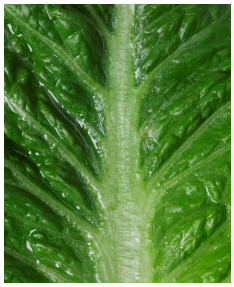
Results January to June 2005

- We tested 49 samples for up to 56 pesticide residues.
- All of the samples were imported from outside the EC.
- We didn't find any residues in 15 samples.
- We found residues below the relevant MRLs in 34 samples.
- We didn't find any residues above the relevant MRLs.
- We found residues of more than one pesticide in 14 samples (full details at Appendix C).
- None of the samples were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

**Lettuce (part 2 of 3)**



Introduction

In the 1990s the surveillance programmes detected unapproved use of pesticides on lettuce. Since then lettuce has been sampled annually, with produce being collected from retail outlets. All the lettuce in this year's survey are being collected at retail level. These results are for the second part of the survey, the final part will be reported later this year.

Pesticides sought and residues detected ……..……page 68

Risk assessments ……..……...none requried

Results April to June 2005

- We tested 38 samples for up to 112 pesticide residues.
- 19 of the samples were from the UK and 17 imported from within the EC.
- We didn't find any residues in 31 samples.
- We found residues below the relevant MRL 7 samples.
- We didn't find residues above the relevant MRLs in any samples.
- We didn't find residues of more than one pesticide in any samples.
- We didn't find any evidence of UK non-approved use.
- None of the samples were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

**Kidney**

Introduction
We sampled kidney (lamb, ox and pig) as part of our rolling programme of meat and meat product monitoring. .

Pesticides sought and residues detected ……page 66

Risk assessments ……..none required

Results April to June 2005

- We tested 59 samples for up to 13 pesticide residues.
- 46 of the samples were from the UK and 13 were imported from outside the EC.
- We didn't find residues in any of the samples.
- None of the samples were labelled as organic.

**Conclusions**
No residues detected.

**Mango**

Introduction

We surveyed mango as part of our rolling programme. We last surveyed mango in 2001. The residues will tend to be found predominantly on the skin. The MRLs are set to include residues found in the whole fruit, skin and flesh. We do not peel the samples before analysis.

Pesticides sought and residues detected ……page 69

Risk assessments ..……..…….none required

Results January to June 2005

- We tested 48 samples for up to 77 pesticide residues.
- All of the samples were imported from outside the EC
- We didn't find any residues in 12 samples.
- We found residues below the MRL in 36 samples (full details at Appendix C). All residues were associated with pesticides often applied after harvest to prevent deterioration during transportation.
- We didn't find residues above the MRL in any samples.
- We found residues of more then one pesticide in 5 samples (full details at Appendix C).
- None of the samples were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

**Milk (Part 2 of 4)**

Introduction

Whole cow's milk and partially skimmed cow's milk were analysed in this survey. Skimmed milk is not included in the PRC's surveys because of its very low fat content (typically around 0.1%). The pesticides sought are all fat-soluble, so would not be likely to be found in milk with such a low fat content. Residues have generally not been detected in milk for a number of years, though dieldrin was detected in 1 sample at a very low level in quarter 3 of 2003.

300 milk samples are to be analysed in the 2005 survey as this is considered to be more statistically representative of the supply chain.

Pesticides sought and residues detected ……page 72

Risk assessments ……..……..none required

Results April to June 2005

- We tested 77 samples for up to 13 pesticide residues.
- All of the samples were from the UK
- We didn't find residues in any samples.
- 15 samples were labelled as organic

**Conclusions**
No residues detected.

**Oily fish**

Introduction

We sampled oily fish (salmon, trout and mackerel) as part of our rolling programme. We surveyed fresh and tinned salmon in 2001 and sampled farmed salmon and trout in 2004. There are no MRLs for fish

Pesticides sought and residues detected ……..……page 73

Risk assessments ……..……page 100

Results January to June 2005

- We tested 48 samples for up to 13 pesticide residues.
- 36 of the samples were from the UK, 11 samples were imported from outside the EC, 1 sample was imported from inside the EC.
- We didn't find any residues in 17 of the samples.
- We found residues in 31 of the samples (full details at Appendix C). The pesticides we found were chlordane, dieldrin, DDT and hexachlorobenzene. These pesticides are no longer used in Europe and are banned or heavily restricted in many other countries. Residues of these pesticides take a long time to break down in the environment and can also build up in fatty tissues.
- We found a residue of DDT in the one sample labelled as organic. This may have come from exposure to DDT present in the environment at the fish farm or from DDT levels in the food they eat. The DDT was found in the form of a breakdown product that takes some time to form so we are sure it was not from recent use. We have notified ACORS of this finding.
- We found residues of more than one pesticide in 7 samples (full details at Appendix C).

**Conclusions**

None of the residues found was of concern for human health.

**Oranges**

Introduction

Oranges are sampled regularly because they are a popular fruit both fresh and processed as juice. A wide range of pesticides are found in oranges. Some of these residues will be predominantly found in the skin. The MRLs are set to include residues found in the whole fruit, skin and flesh. We do not peel the samples before analysis. Where it is appropriate our risk assessments take into account that the consumption of the peel is lower than the flesh. We last sampled oranges as part of our rolling programme in 2002. We surveyed orange juice in 2004.

Pesticides sought and residues detected ……page 77

Risk assessments ……..……page 101

Results January to June 2005

- We tested 36 samples for up to 82 pesticide residues.
- 16 samples were imported from outside the EC and 20 were imported from within the EC
- We found residues below the relevant MRL in 34 samples.
- We found residues above the relevant MRLs in 2 samples

  - one sample from Egypt contained dimethoate at 0.03 mg/kg (MRL 0.02* mg/kg); and

  - one sample from Egypt contained residues of diazinon at 0.04 mg/kg (MRL 0.02* mg/kg).

  Risk assessments concluded that intakes for all consumer groups were within the ARfD and no adverse health effects were anticipated. PSD have notified the suppliers and their comments are at Appendix E.
- We found three samples in which risk assessments identified intakes for certain groups of consumers in excess of the ARfD:

  - one sample containing carbofuran at 0.08 mg/kg. If the whole fruit (skin and pulp) was consumed intakes for infants were in excess of the ARfD. If only the pulp is consumed intakes are below the ARfD.

  - one sample containing methidathion at 0.3 mg/kg. If the whole fruit (skin and pulp) was consumed intakes for infants toddlers, 4-6, 7-10 year olds and 11-14 year olds were in excess of the ARfD. If only the pulp is consumed intakes are below the ARfD.

  - One sample contained fenthion at 0.3 mg/kg. If the whole fruit (skin and pulp) was consumed intakes for infants toddlers, 4-6, 7-10 year olds and 11-14 year olds were in excess of the ARfD. If only the pulp is consumed intakes are below the ARfD.

  Risk assessments concluded that there were no health concerns (full details at Appendix D).
- We found residues of more than one pesticide in 35 samples (full details at Appendix C). 6 of these samples contained residues of either organophosphate/carbamate pesticides- a combined risk assessment concluded that there were no health concerns (full details at Appendix D).
- None of the samples were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

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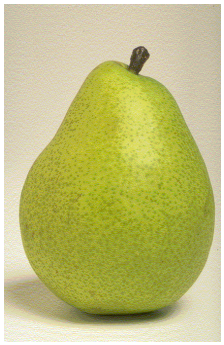
* **Maximum Residue Levels set at the LOD (LOD MRL):** These MRLs are set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. Either insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop in the EU. **These MRLs are not based on Good Agricultural Practice (GAP).**

**Pears (part 1 of 2)**



Introduction

Pears are sampled as part of the rolling programme. They have been the subject of frequent surveys since 1995 when intelligence information indicated that chlormequat, a plant growth regulator not approved for use on fruiting pears in the UK, was being used by some UK growers. In addition MRL exceedances were also found in imported produce. Surveys were carried out in 1995, 1997 and 1998, to investigate a wide range of pesticides including chlormequat. In 1999 further surveys were carried out to monitor residues of chlormequat only. Further monitoring was carried out in 2000 to ensure that the improvements in results seen in 1999 were being maintained, an EU survey was undertaken in 2002 and further surveys was done in 2003 and 2004.

Pesticides sought and residues detected ……page 82

Risk assessments ……..……page 102

Results January to June 2005

- We tested 154 samples for up to 76 pesticide residues.
- 22 of the samples were from the UK, 56 were imported from outside the EC and 76 were imported from within the EC.
- We didn't find any residues in 23 of the samples.
- We found residues below the relevant MRLs in 131 samples.
- We didn't find any residues above the relevant MRLs.
- We found two samples in which risk assessments identified intakes for certain groups of consumers in excess of the ARfD:
  - one sample containing carbendazim at 1.0 mg/kg. Intakes for infants, toddlers, 4-6, 7-10 and 11-14 year olds were in excess of the ARfD.
  - one sample containing dithiocarbamates (expressed as carbon disulphide) at 0.8 mg/kg. Intakes for infants, toddlers and 4-6 year olds were in excess of the ARfD.

  Risk assessments concluded that there were no health concerns (full details at Appendix D).
- We found residues of more than one pesticide in 90 samples (full details at Appendix C).
- We found one incidence of UK non-approved use. One sample contained residues of diphenylamaine at 0.2 mg/kg (MRL 10 mg/kg). PSD have notified the supplier and their comments are at Appendix E.
- None of the residues were labelled as organic.

**Conclusions**

None of the residues found was of concern for human health.

**Potatoes (part 1 of 2)**

Introduction

Potatoes are monitored annually due to their importance as a staple component of the diet. This survey covers maincrop (or ware) potatoes and new potatoes. MRLs for maincrop and new potatoes can differ because of the harvest interval timing. The samples were collected by officers from Defra' Plant Health and Seeds Inspectorate (PHSI), they were obtained from processors, wholesalers, packers, farms and ports.

Pesticides sought and residues detected ……page 91

Risk assessments ……page 102

Results January to June 2005

- We tested 71 samples for up to 71 pesticide residues.
- 52 of the samples were from the UK, 16 were imported from outside the EC and 3 were imported from within the EC.
- We didn't find any residues in 40 of the samples
- 31 of the samples contained residues below the relevant MRLs.
- We didn't detect any residues above the relevant MRLs.
- We didn't find any residues in any of the 6 samples labelled as organic.
- We found one sample containing aldicarb at 0.02 mg/kg which a risk assessment concluded that intakes for infants would exceed the ARfD. However no adverse health effects were expected (full details at Appendix D).
- We found residues of chlorpropham in 25 samples. There is no MRL for chlorpropham at the moment. However chlorpropham has recently been evaluated within the EC pesticide review programme. An MRL of 10 mg/kg will come into effect on 21 April 2007. As the residues we found were under this level we have not carried out a risk assessment.
- We found residues of more than one pesticide in 9 samples (full details at Appendix C).
- We didn't detect any evidence of UK non-approved use.

**Conclusions**

None of the residues found was of concern for human health.

**Spinach**

Introduction

Spinach has been included in this year's survey as part of the rolling programme of commodities tested on a regular basis. Samples of fresh or canned spinach were purchased.

We last surveyed spinach in 2002 when we found residues of methomyl above the MRL. We followed up this survey with a special survey of spinach in 2003 looking just for methomyl: we found no samples with methomyl residues above the MRL.

Pesticides sought and residues detected ……page 94

Risk assessments ……page 104

Results January to June 2005

- We tested 35 samples for up to 105 pesticide residues.
- 9 of the samples were from the UK, 1 was imported from outside the EC, 24 were imported from within the EC and 1 was of unknown origin.
- We didn't find any residues in 27 samples.
- We found residues below the relevant MRLs in 5 samples (full details at Appendix C).
- We found residues above the relevant MRLs in 3 samples:
  - one sample from the USA contained cypermethrin at 1.8 mg/kg (MRL 0.5 mg/kg);
  - two samples from Spain contained cypermethrin at 0.8 mg/kg (MRL 0.5 mg/kg); and

  Risk assessments concluded that all intakes were within the ARfD, so there were no health concerns (see Appendix D for full details).

  PSD have notified the suppliers and their comments are at Appendix E.
- We didn't find any residues in the 1 sample labelled as organic.
- We didn't find residues of more than on pesticide in any sample.
- We didn't detect any evidence of UK non-approved use.

**Conclusion**s

None of the residues found was of concern for human health.

# PART 3
# ASSESSING THE RESULTS

The surveillance programme is designed to enable the regulatory authorities to check that:

- specified pesticide MRLs are being respected;
- users of pesticides are complying with conditions of use specified in the authorisation;
- dietary intakes of residues are within acceptable limits.

Details of the number of samples complying with MRLs are detailed in Appendix A of this report. They indicate that these levels are being respected, with only 2.4% of samples containing residues above the MRLs. As exceedances of these levels may be indication that users are not following the conditions of use specified in the Government authorisation - this finding also indicates a high level of compliance with these requirements.

Assessments of dietary intakes are detailed in Appendix D of this report and are within acceptable limits. MRLs are usually set well within safety limits and so residues in excess of an MRL do not necessarily result in exposure to pesticides which will harm the health of consumers.

**When assessments are carried out**
New assessments are not produced for every case in which residues are detected. This is because for example, the consumer safety implications for residues falling within MRLs will have already been assessed as part of the normal pesticide approval process. Additional risk assessments are undertaken when the risk is different to that which we have already determined, for example

- When a residue is higher than an MRL;
- Where there is not an MRL to compare the residue found with (levels have not yet been set for all pesticides)
- Where the residue appears to result from the non-approved use of a pesticide (only practical to determine for UK produce);
- Any other cases which we feel may result in consumer intake concerns.

**Assessing Dietary intakes**
Assessing the acceptability of dietary intakes is complicated. Consumer risk assessments are carried out for both short-term (peak) and long-term intakes. These assessments use information on food consumption collected in UK dietary surveys in conjunction with the residue levels we find. Occasionally, additional pesticide specific information on the losses of residues that occur during preparation and/or cooking of food is also used.

**How the assessment is carried out**
Short-term intakes (also called NESTIs) are calculated using consumption data for high-level consumers, based on single-day consumption values and the highest residue found in a food commodity multiplied by a variability factor to take account of the fact that residues may vary between individual items that make up the sample analysed. The estimated intake is compared to the Acute Reference Dose (ARfD). This is done for ten consumer groups; adults, infants, toddlers, 4-6 year olds, 7-10 year olds, 11-14 year olds, 15-18 year olds, vegetarians, elderly living in residential homes and elderly living in their own homes.

Long-term intakes (NEDI) are also calculated for high-level consumers, but in this case the consumption data are high-level long-term values rather than peak single-day events, and similarly the residue values used reflect long-term averages rather than occasional high values. Again these estimates are made for the ten consumer groups. In this case the estimated intake is compared to the Acceptable Daily Intake (ADI). In many cases the short-term intakes are lower than the ADI so it is not necessary to calculate the long-term intake.

The reference doses (ADI, ARfD) are set by the Advisory Committee on Pesticides (ACP), or agreed within the EC (an increasing proportion of UK pesticide authorisations are now carried out in accordance with harmonised EU processes). However, where neither the UK nor the EC has set a reference dose levels set by regulatory authorities in other countries may be used.

Although MRLs are not safety levels a tolerance would not be established if intakes of residues from commodities at the MRL would give rise to health concerns. In most cases residues present at the MRL result in intakes below the ARfD and the ADI. So even if the MRL is exceeded this does not always lead to an intake above the ARfD or ADI.

In all cases where MRLs are exceeded, or where for any reason there is potential concern about intakes (this would include intakes below an MRL leading to exceedances of the ARfD), a consumer risk assessment is carried out. This establishes whether the highest level of residues present could lead to the ARfD or ADI being exceeded by a 'high-level' consumer.

An estimated intake that exceeds the ADI or ARfD does not automatically result in concerns for consumer health, because a protective approach is used in setting the ADI and ARfD. In the unusual circumstance of an intake exceeding the ADI or ARfD, an evaluation of the toxicological data is made, and details of this assessment would be presented.

Most consumer intakes are for short-term exposure rather than chronic exposure. This is because in most cases the monitoring data show the majority of samples to contain residues below the reporting limit and so chronic exposure would not present a concern.

Acute (short-term) toxicity is not a concern for all pesticides (e.g. iprodione does not demonstrate any associated acute toxic effects in studies). In these cases the highest residues are compared to the ADI as a first step in the consumer risk assessment with a more refined long-term exposure assessment using average residue levels conducted if appropriate.

As the surveillance programme monitors residues in all types of food, from raw commodities (e.g. potatoes) to processed (e.g. wine), dried (e.g. dried fruit) and composite foods (e.g. fruit bread), consumer risk assessments are specifically tailored to address processed and mixed food products. MRLs are generally set for raw commodities, although when MRLs are established the assessment of dietary intakes takes into account the potential for residues to remain in processed foods produced from the raw agricultural commodities. MRLs have been set for processed infant foods, and in future may be extended to other processed food products.

Residues are usually reduced during food processing and occasionally may concentrate. The alteration of residues can be considered in consumer risk assessments, for example, in oil seed rape a fat-soluble pesticide may result in higher residues in the oil compared to residues in the raw seed. Consumption data are available for many major processed food items such as boiled potatoes, crisps, fruit juice, sugar, bread, and wine. Where such consumption data are not available, the intake estimates are based on the total consumption of the raw commodity, which would represent the worst-case (for example, breakfast cereals consumption would be based on total cereal products consumption). In the case of composite products a suitable worst-case alternative would be used, for example total bread consumption for fruit bread consumption.

The standard calculations of consumer exposure use realistic consumption data and residue levels. However, they will tend to overestimate intakes in most circumstances. This is due to the assumptions used; fruit and vegetables would contain high levels of residues in an individual unit and that these would be consumed by high-level consumers, i.e. at the 97.5th percentile. They do not take into account the possible range of residue levels and consumption distributions that occur in reality. These possible combinations of residues and consumption levels can be taken into account using modelling/simulation techniques to produce probability distributions of residue intake levels to indicate the range of consumer intakes, presented as a probabilistic assessment of consumer exposure (see below).

The consumer intake assessments focus on short-term (acute) dietary exposure as being of most relevance and most critical in assessing the risk to consumers. Chronic risk assessments have been carried out on a case-by-case basis, but are not routinely reported.

Consumer exposure estimates have been compared to the most appropriate ARfD where available and relevant. Where a specific ARfD has not been readily available, short-term exposure estimates have been compared to the ADI. We have used, wherever possible, peer-reviewed toxicological end points which have been established independently. However some reference doses used have been determined by PSD. They have not been independently peer-reviewed and should therefore be regarded as provisional.

Acute toxicology is not considered relevant for all pesticides, as some are not acutely toxic. In terms of the pesticides that have been found in fruit and vegetables through the surveillance programme an acute risk assessment would not be necessary on the following: tecnazene, maleic hydrazide, bitertanol, buprofezin, dicloran, diphenylamine, ethoxyquin, furalaxyl, imazalil, iprodione, kresoxim-methyl, myclobutanil, permethrin, pendimethalin, 2-phenylphenol, propargite, propyzamide, quintozene, thiabendazole, tolclofos-methyl and vinclozolin.

Long-term (chronic) exposure assessments will have been routinely compared to ADIs when pesticide registrations were issued, when MRLs were established and during any UK or EU reviews that have been carried out. Long-term exposure assessments are carried out using median residue levels, rather than using the highest residues found. Therefore, long-term risk assessments would only need to be carried out where the PRC data indicated a high proportion of samples contained residues above the MRL (would result in a higher median residue level than that previously assessed), or where there is no MRL *and* acute toxicology is not considered relevant for the particular pesticide concerned.

**Probabilistic Modelling**
The standard calculations of consumer exposure use realistic consumption data and residue levels. However, they tend to overestimate intake in most circumstances. This is due to the assumptions used; fruit and vegetables would contain high levels of residue in an individual unit and that these would be consumed by high-level consumers i.e. at the 97.5th percentile. They do not take into account the possible range of residue levels and consumption distributions that may occur in reality. These possible combinations of residues and consumption levels can be taken into account using modelling/simulation techniques to produce probability distributions of residue intake levels to indicate the range of consumer intakes, presented as a probabilistic assessment of consumer exposure. Application of these techniques is a relatively new development in consumer risk assessment.

**Multiple residues**
The risk assessment process is not standing still. We are aware that some consumers are concerned by the 'cocktail effect'- the possible implications of residues of more than one chemical occurring in, say, a single portion of fruit or vegetables or the interaction between mixtures of pesticides and veterinary medicines at residue levels.

Where more than one pesticide residue is found in a sample, we produce a separate table which identifies each sample and what we found (see Appendix C). If more than one organophosphate/carbamate is found we will undertake an additional risk assessment. If the combination of pesticides found is either unusual or gives cause for concern then this will be detailed in the report.

The Food Standards Agency asked the Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment to assess these concerns. Their Report Risk Assessment of Mixtures of Pesticides and Veterinary Medicines was published in 2002. The Committee concluded that the probability of any health hazard from exposures to mixtures is likely to be small. Nonetheless, it identified areas of uncertainty in the risk assessment process and made recommendations for further work. These fell under the broad headings of regulatory, surveillance, research and public information issues. An action plan to take forward the recommendations has been published on the FSA website at:
http://www.food.gov.uk/safereating/pesticides/pestmixbranch/.

Scientific methodologies have yet to be developed to deal with mixtures from groups of pesticides identified by the Committee. However, the Advisory Committee on Pesticides (ACP) has developed an approach for the anticholinesterase compounds. They have also recommended an approach for assessing compounds that might have combined toxicity. This includes a consideration of the proportion of the respective reference doses taken up by the predicted exposures to each active substance. If this is only a small proportion (e.g. <50% if there are two components; <33% for 3 etc) then assuming simple additivity the risks would still be acceptable. However if exposures to each active substance represent a high proportion of the respective reference doses and the total exceeds 100% a more detailed consideration is needed.

We are keen to ensure our reports reflect consumer concerns. We therefore now assess findings showing multiple residues of organophosphate and carbamate pesticides. This is a new development in risk assessment. Further advances in risk assessment methodology will be taken into account in developing the approach to multiple risk assessments in future.

# PART 4
# SUPPLIER DETAILS

**Introduction**
The following information on each sample collected this quarter is available separately upon request from our Secretariat:

- Date and place of collection
- Description (e.g. 'Iceberg lettuce', organic milk);
- Country of origin or manufacture;
- Brand name and packer/manufacturer; and
- Residues detected (results shown in green indicate residues above the MRL).

**The Government's 'brand naming' policy**
The Government has decided that brand name information should be published as part of the Government food chemical surveillance programme. Brand names have been published for most pesticide residue surveys since 1998. Certain samples are excluded from the release of brand name information. These include samples taken as part of any pesticide residues enforcement programme and those taken as part of surveys to study individual people/farms (these are not covered by this monitoring programme).This policy was reviewed in 2000/1, when Ministers agreed to its continuation.

Where we find residues above an MRL or the presence of non-approved pesticides brand owners/retailers/growers are notified of the result in advance of publication of reports and given four weeks to comment. Any responses we receive are included in Appendix E.

**Interpreting brand name information**
There is no ready definition of what constitutes a brand in all cases. For clearly branded produce like breakfast cereals or biscuits the "brand owner" is shown. In the case of "own brand" goods this may be one of the multiple retailers. For fruit and vegetables the retailer is generally shown. For meat, milk and most other animal products the retailer is also generally shown. Finally, for all commodities the country of origin is shown where this was displayed either on the produce or in the store.

Our programme samples produce in approximate proportion to the market share of the main retailers. This has been done to ensure we obtain an accurate representation of a sector (e.g. fruit and vegetables).

Individual programmes are not capable of generating statistically valid information on residues in particular crops from particular retailers. This would require the collection of a much larger number of samples: either substantially increasing costs or greatly reducing the range of different foods sampled in any one year. Therefore, results from an individual survey cannot be taken as a fair representation of the residues status of any particular brand.

However, we do collect samples from a variety of outlets in a range of locations, over a period of years. Successive programmes should therefore help generate information on the typical residues profile of particular types of produce and on major trends in the incidence and levels of pesticides. It should be noted that this quarterly report is not intended to give a comprehensive comparison with previous surveys of the same commodities. Detailed analysis of the results for these surveys compared with previous ones will be reported on separately in the form of 'special reports'. It may be possible to give an accurate picture on trends of residues in each commodity, as sufficient data become available.

A particular issue arises in relation to the country of origin of fruit and vegetables. The origins included in the reports are those recorded either on the produce or in the store. However, it is not uncommon for mixing to occur on shop shelves. We have responded by increasing the proportion of pre-packed goods sampled. However, pre-packed samples are not available for some produce in some stores and it could also introduce bias to surveys if loose produce were not sampled. Loose produce is therefore sampled but the origin of the sample should be interpreted with a degree of caution.

## APPENDIX A
## SUMMARY OF RESULTS

**Table 1: Fruit and Vegetables (number of samples)**

| Food | Analysed | With residues at or below the MRL | With residues above the MRL | With residues of non-approved pesticides (UK only) | With Multiple residues | Organic samples tested | Organic samples with residues |
|---|---|---|---|---|---|---|---|
| Apples | 60 | 53 | 0 | 1 | 40 | 4 | 0 |
| Beans (green) | 43 | 9 | 13 | No samples | 11 | 0 | No samples |
| Broccoli | 48 | 1 | 0 | 0 | 0 | 7 | 0 |
| Carrots | 72 | 2 | 0 | 0 | 0 | 4 | 0 |
| Courgettes | 47 | 2 | 1 | 0 | 0 | 1 | 0 |
| Cucumbers | 48 | 15 | 0 | 1 | 6 | 2 | 0 |
| Exotic fruit | 36 | 2 | 7 | No samples | 5 | 0 | No samples |
| Grapes | 49 | 34 | 0 | No samples | 14 | 0 | No samples |
| Lettuce | 38 | 7 | 0 | 0 | 0 | 0 | No samples |
| Mango | 48 | 36 | 0 | No samples | 5 | 0 | No samples |
| Oranges | 36 | 34 | 2 | No samples | 35 | 0 | No samples |
| Pears | 154 | 131 | 0 | 1 | 90 | 0 | No samples |
| Potatoes | 71 | 31 | 0 | 0 | 9 | 6 | 0 |
| Spinach | 35 | 5 | 3 | 0 | 0 | 1 | 0 |
| **Total** | **785** | **362** | **26** | **3** | **215** | **25** | **0** |

**Table 2: All Other Commodities (number of samples)**

| Food | Analysed | Residues at or below the MRL | Residues above the MRL | Non-approved pesticide residues (UK only) | Multiple residues | Organic samples tested | Organic samples with residues |
|---|---|---|---|---|---|---|---|
| Bran | 72 | 65 samples with residues. [1] | 0 | 0 | 62 | 7 | 0 |
| Chicken | 60 | 0 | 0 | Not applicable | 0 | 2 | 0 |
| Kidney | 59 | 0 | 0 | Not applicable | 0 | 0 | No samples |
| Milk | 77 | 0 | 0 | Not applicable | 0 | 15 | 0 |
| Oily fish | 48 | 31 samples with residues. [2] | 0 | Not applicable | 7 | 1 | 1 |
| **Total** | **316** | **96** | **0** | **0** | **69** | **25** | **1** |

Maximum Residue Levels (MRLs) reflect levels of pesticides that could occur in produce, which has been treated in accordance with good agricultural practice. Where pesticides do not give rise to readily detectable residues, or are not approved for use on particular commodities, MRLs are set at the lowest level which can be identified in routine laboratory analysis. Thus, they provide a mechanism for statutory controls on pesticides in produce which is put into circulation and for monitoring correct use of these chemicals.

If no use of a pesticide on a crop is identified when MRLs are set the tolerance for that pesticide/crop combination is set at the limit of determination (effectively zero). Limit of determination MRL are marked by a '*' in Part 2.

MRLs are established under the Pesticides (Maximum Residue Levels in Crops, Food and Feeding Stuffs) (England and Wales) Regulations 1999 (as amended), the Pesticides (Maximum Residue Levels in Crops, Food and Feeding Stuffs) (Scotland) Regulations 2000 and the Pesticides (Maximum Residue Levels in Crops, Food and Feeding Stuffs) Regulations (Northern Ireland) 2002. These Regulations list all statutory MRLs established under UK national or EC procedures. Today, virtually all these MRLs are set under an ongoing EC programme and the Regulations are amended periodically as levels are set for increasing numbers of pesticides.

There are a number of pesticides which do not yet have statutory MRLs. In the absence of such MRLs we advise suppliers to adhere to any appropriate levels established by the Codex Alimentarius Commission (CAC) a United Nations body established to promote global trading standards. Codex MRLs are not statutory but have been risk-assessed when set and provide a suitable standard in the absence of a statutory MRL.

MRLs may be extended to composite and processed products but levels are not specifically laid down in legislation. They are derived by calculation on an individual basis.

[1] No MRLs for bran
[2] No MRLs for fish

## APPENDIX B
## SUMMARY OF MRL EXCEEDANCES AND UK NON-APPROVED USES

**Table 3: MRL Exceedances**

| PRC sample ID | Food | Country of origin | Pesticide detected | Residue detected (mg/kg) | MRL (mg/kg) |
|---|---|---|---|---|---|
| 4381/2005 | Green Beans | Egypt | Carbendazim | 0.2 | 0.1 |
| 1172/2005 | Yard Long Beans | China | Chlorothalonil | 0.1 | 0.01 |
| 1074/2005 | Thai Yard Long Beans | Thailand | Carbendazim | 0.2 | 0.1 |
| 2499/2005 | Yard Long Bean | Thailand | Chlorpyrifos | 0.2 | 0.05 |
| | | | Methamidophos | 1.8 | 0.5 |
| 1581/2005 | Fine Beans | Kenya | Dimethoate | 0.04 | 0.02 |
| 1582/2005 | Edamame Soy Beans in pod | China | Carbendazim | 0.2 | 0.1 |
| 4027/2005 | Edamame Soy Beans in pod | China | Carbendazim | 0.2 | 0.1 |
| 1024/2005 | Lubia (Yard Beans) | Costa Rica | Carbendazim | 2.3 | 0.1 |
| 2440/2005 | Yard Long Beans | Thailand | Carbendazim | 0.2 | 0.1 |
| 1171/2005 | Dwarf Beans | Egypt | Dicofol | 0.8 | 0.02 |
| | | | Profenofos | 0.05 | 0.05 |
| 1262/2005 | Yard Long Beans | Thailand | Dicofol | 0.04 | 0.02 |
| 2439/2005 | Yard Long Beans | Bangladesh | Fenvalerate | 0.1 | 0.02 |
| 0944/2005 | Courgettes | Spain | Dimethoate | 0.05 | 0.02 |
| 1439/2005 | Passion fruit | Kenya | Dithiocarbamates | 0.2 | 0.05 |
| 2378/2005 | Passion Fruit | Kenya | Dithiocarbamates | 0.09 | 0.05 |
| 1346/2005 | Pomegranate | India | Dithiocarbamates | 0.06 | 0.05 |
| 1359/2005 | Pomegranates | India | Dithiocarbamates | 0.08 | 0.05 |
| 2659/2005 | Pomegranates | India | Dithiocarbamates | 0.06 | 0.05 |
| 1299/2005 | Sharon Fruit | Israel | Omethoate | 0.03 | 0.02 (MRL for dimethoate applies) |
| | | | Prochlroaz | 0.2 | 0.05 |
| 4261/2005 | Sharon Fruit | Israel | Dimethoate | 0.04 | 0.02 |
| | | | Omethoate | 0.05 | 0.02 |
| 1273/2005 | Navel oranges | Egypt | Diazanon | 0.04 | 0.02 |
| 1243/2005 | Navel oranges | Egypt | Dimethoate | 0.03 | 0.02 |
| 1184/2005 | Baby Spinach | USA | Cypermethrin | 1.8 | 0.5 |

| | | | | | |
|---|---|---|---|---|---|
| 4139/2005 | Fresh spinach | Spain | Cypermethrin | 0.8 | 0.5 |
| 4166/2005 | Fresh spinach | Spain | Cypermethrin | 0.8 | 0.5 |

**UK Non-approved Uses**

| PRC sample ID | Food | Pesticide detected | Residue detected (mg/kg) | MRL (mg/kg) |
|---|---|---|---|---|
| 4302/2005 | Apples | Iprodione | 0.07 | 10 |
| 0003/2005 | Comice pears | Diphenylamine | 0.2 | 10 |
| 0587/2005 | Cucumbers | Dithiocarbamates | 0.1 | 0.5 |

## APPENDIX C:
## PESTICIDES SOUGHT AND FOUND IN INDIVIDUAL FOODSTUFFS

**Table 4a. Analysis of residues detected in retail samples of APPLES obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **APPLES, UK: 12 samples analysed** | | |
| captan | <0.02 (i.e. not found) | 10 |
| (MRL = 3) | 0.02 | 2 |
| carbendazim | <0.05 (i.e. not found) | 8 |
| (MRL = 2) | 0.05 - 0.6 | 4 |
| chlorpyrifos | <0.02 (i.e. not found) | 6 |
| (MRL = 0.5) | 0.02 - 0.1 | 6 |
| dithianon | <0.05 (i.e. not found) | 11 |
| (CAC MRL = 5) | 0.07 | 1 |
| dithiocarbamates | <0.05 (i.e. not found) | 11 |
| (MRL = 3) | 0.1 | 1 |
| iprodione | <0.02 (i.e. not found) | 11 |
| (MRL = 10) | 0.07 | 1 |
| pirimicarb | <0.02 (i.e. not found) | 11 |
| (CAC MRL = 7) | 0.03 | 1 |
| **APPLES, IMPORTED (NON-EC): 29 samples analysed** | | |
| azinphos-methyl | <0.02 (i.e. not found) | 18 |
| (MRL = 1) | 0.04 -0.1 | 11 |
| captan | <0.02 (i.e. not found) | 23 |
| (MRL = 3) | 0.02 - 0.04 | 6 |
| carbaryl | <0.02 (i.e. not found) | 26 |
| (MRL = 5) | 0.05 - 0.08 | 3 |
| carbendazim | <0.05 (i.e. not found) | 28 |
| (MRL = 2) | 0.1 | 1 |
| chlorpyrifos | <0.02 (i.e. not found) | 28 |
| (MRL = 0.5) | 0.04 | 1 |
| diphenylamine | <0.05 (i.e. not found) | 16 |
| (MRL = 5) | 0.2 - 2.2 | 13 |
| dithiocarbamates | <0.05 (i.e. not found) | 20 |
| (MRL = 3) | 0.09 – 0.8 | 9 |
| dodine | <0.05 (i.e. not found) | 25 |

**Table 4a. Analysis of residues detected in retail samples of APPLES obtained in January to June 2005 *continued***

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| (CAC MRL = 5) | 0.09 - 0.3 | 4 |
| fenpropathrin | <0.05 (i.e. not found) | 28 |
| (CAC MRL = 5) | 0.1 | 1 |
| folpet | <0.02 (i.e. not found) | 28 |
| (No MRL) | 0.08 | 1 |
| phosmet | <0.02 (i.e. not found) | 27 |
| (CAC MRL = 10) | 0.02 - 0.07 | 2 |
| pyrimethanil | <0.05 (i.e. not found) | 26 |
| (MRL = 5) | 0.5 - 1.1 | 3 |
| thiabendazole | <0.05 (i.e. not found) | 20 |
| (MRL = 5) | 0.2 – 0.9 | 9 |
| **APPLES, IMPORTED (EC): 19 samples analysed** | | |
| captan | <0.02 (i.e. not found) | 10 |
| (MRL = 3) | 0.02 – 0.2 | 9 |
| carbendazim | <0.05 (i.e. not found) | 14 |
| (MRL = 2) | 0.06 – 0.07 | 5 |
| chlorpyrifos | <0.02 (i.e. not found) | 15 |
| (MRL = 0.5) | 0.02 - 0.04 | 4 |
| diphenylamine | <0.05 (i.e. not found) | 9 |
| (MRL = 5) | 0.2 – 1.2 | 10 |
| dodine | <0.05 (i.e. not found) | 15 |
| (CAC MRL = 5) | 0.06 - 0.07 | 4 |
| phosalone | <0.02 (i.e. not found) | 17 |
| (MRL = 2) | 0.1 | 2 |
| pirimicarb | <0.02 (i.e. not found) | 18 |
| (CAC MRL = 1) | 0.03 | 1 |
| propargite | <0.05 (i.e. not found) | 11 |
| (CAC MRL = 3) | 0.07 – 0.8 | 8 |
| thiabendazole | <0.05 (i.e. not found) | 10 |
| (MRL = 5) | 0.3 – 1.4 | 9 |

Imported (EC) samples of apples were from France (16), Italy (2), Spain (1).
Imported (non-EC) samples of apples were from Argentina (1), Brazil (2), Canada (1), Chile (6), New Zealand (4), South Africa (8), USA (7).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| azinphos-methyl | Chile (4), South Africa (4), USA (3) |
| Captan | Chile (1), France (8), Italy (1), New Zealand (4), USA (1) |
| Carbaryl | Brazil (1), Chile (2) |
| carbendazim | Chile (1), France (4), Spain (1) |
| Chlorpyrifos | Chile (1), France (4) |

**Table 4a. Analysis of residues detected in retail samples of APPLES obtained in January to June 2005 *continued***

| | |
|---|---|
| diphenylamine | Canada (1), Chile (5), France (8), Italy (1), South Africa (2), Spain (1), USA (5) |
| dithiocarbamates | Brazil (2), South Africa (7) |
| Dodine | Chile (3), France (2), Italy (1), New Zealand (1), Spain (1) |
| fenpropathrin | USA (1) |
| Folpet | Brazil (1) |
| Phosalone | France (1), Spain (1) |
| Phosmet | USA (2) |
| Pirimicarb | France (1) |
| Propargite | France (7), Spain (1) |
| pyrimethanil | Chile (3) |
| thiabendazole | Canada (1), Chile (4), France (8), Spain (1), USA (4) |

No residues were found in 4 of the 12 UK samples.
No residues were found in 3 of the 29 imported samples.
Residues were found in all of the EC samples.

**Table 4b. Residues detected in retail samples of APPLES obtained in January to June 2005**

Residues (1-7 compounds) were found in 53 of the 60 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CPF | DOD | DPA | DTC | DTN | FNPP | FPET | IPR | PGT | PHS | PIR | PMT | PYM | TBZ | |
| (1) | 1322/2005 | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 1381/2005 | - | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 4327/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - | - | UK |
| | 0851/2005 | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | New Zealand |
| | 0971/2005 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | New Zealand |
| | 2593/2005 | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | New Zealand |
| | 1382/2005 | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2262/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2382/2005 | - | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2661/2005 | - | - | - | - | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2352/2005 | - | - | - | - | - | - | - | - | - | - | - | - | 0.07 | - | - | - | - | - | France |
| | 4326/2005 | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | France |
| | 4301/2005 | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Italy |
| (2) | 1431/2005 | - | 0.02 | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 4203/2005 | - | - | - | 0.6 | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 4302/2005 | - | - | - | - | 0.02 | - | - | - | - | - | - | 0.07 | - | - | - | - | - | - | UK |
| | 0551/2005 | - | - | - | - | - | - | - | 0.3 | - | - | 0.08 | - | - | - | - | - | - | - | Brazil |
| | 1292/2005 | - | - | 0.05 | - | - | - | - | 0.8 | - | - | - | - | - | - | - | - | - | - | Brazil |
| | 2722/2005 | - | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | 0.2 | Canada |
| | 0881/2005 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 0.9 | Chile |
| | 2631/2005 | - | 0.02 | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | New Zealand |
| | 2632/2005 | 0.1 | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2721/2005 | 0.04 | - | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 3927/2005 | - | - | - | - | - | - | 2.2 | 0.1 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 1408/2005 | - | 0.2 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | France |

**Table 4a. Analysis of residues detected in retail samples of APPLES obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CPF | DOD | DPA | DTC | DTN | FNPP | FPET | IPR | PGT | PHS | PIR | PMT | PYM | TBZ | |
| | 2231/2005 | - | - | - | - | - | - | 0.2 | - | - | - | - | - | 0.3 | - | - | - | - | - | France |
| | 2261/2005 | - | 0.03 | - | - | - | - | 0.8 | - | - | - | - | - | - | - | - | - | - | - | France |
| | 3902/2005 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 0.3 | France |
| | 4202/2005 | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.6 | France |
| | 4229/2005 | - | 0.05 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | France |
| | 4252/2005 | - | - | - | - | - | - | 0.8 | - | - | - | - | - | - | - | - | - | - | 0.7 | France |
| | 2594/2005 | - | - | - | - | - | 0.06 | 0.6 | - | - | - | - | - | - | - | - | - | - | - | Italy |
| (3) | 4226/2005 | - | 0.02 | - | 0.06 | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 2322/2005 | - | - | 0.08 | - | - | - | 0.9 | - | - | - | - | - | - | - | - | - | - | 0.5 | Chile |
| | 0941/2005 | 0.05 | - | - | - | - | - | 0.5 | 0.5 | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2291/2005 | 0.07 | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | 0.8 | USA |
| | 2321/2005 | - | 0.02 | - | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | - | 0.3 | USA |
| | 2351/2005 | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | 0.02 | - | 0.4 | USA |
| | 4276/2005 | 0.04 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 0.3 | USA |
| | 2318/2005 | - | 0.06 | - | - | 0.03 | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | France |
| | 3876/2005 | - | 0.03 | - | 0.06 | - | - | - | - | - | - | - | - | 0.3 | - | - | - | - | - | France |
| | 3951/2005 | - | - | - | - | - | - | 1.2 | - | - | - | - | - | - | - | 0.03 | - | - | 0.4 | France |
| | 3986/2005 | - | - | - | - | - | - | 0.9 | - | - | - | - | - | 0.2 | - | - | - | - | 0.5 | France |
| (4) | 1291/2005 | - | - | - | 0.1 | 0.03 | - | - | 0.1 | 0.07 | - | - | - | - | - | - | - | - | - | UK |
| | 0821/2005 | 0.06 | - | - | 0.1 | - | - | 1.7 | - | - | - | - | - | - | - | - | - | - | 0.9 | Chile |
| | 0911/2005 | 0.07 | - | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | 0.8 | 0.2 | Chile |
| | 2662/2005 | 0.04 | - | - | - | - | 0.2 | 1.2 | - | - | - | - | - | - | - | - | - | 0.5 | - | Chile |
| | 3863/2005 | 0.09 | - | - | - | - | - | 0.1 | - | - | 0.1 | - | - | - | - | - | 0.07 | - | - | USA |
| | 4001/2005 | - | 0.07 | - | - | - | - | - | - | - | - | - | - | 0.5 | 0.1 | - | - | - | 0.9 | France |
| (5) | 2381/2005 | - | - | - | 0.07 | 0.02 | - | 0.5 | - | - | - | - | - | 0.07 | - | - | - | - | 1.4 | France |
| (6) | 0552/2005 | - | 0.03 | - | - | 0.03 | 0.07 | 0.6 | - | - | - | - | - | 0.8 | - | - | - | - | 0.7 | France |
| | 1321/2005 | - | - | - | 0.07 | - | 0.07 | 1 | - | - | - | - | - | 0.3 | 0.1 | - | - | - | 0.7 | Spain |
| (7) | 3926/2005 | 0.07 | 0.04 | 0.05 | - | 0.04 | 0.3 | 2 | - | - | - | - | - | - | - | - | - | 1.1 | - | Chile |

**Table 4a. Analysis of residues detected in retail samples of APPLES obtained in January to June 2005 *continued***

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| AZM | azinphos-methyl | CAP | captan | CBY | carbaryl |
| CBZ | carbendazim | CPF | chlorpyrifos | DOD | dodine |
| DPA | diphenylamine | DTC | dithiocarbamates | DTN | dithianon |
| FNPP | fenpropathrin | FPET | folpet | IPR | iprodione |
| PGT | propargite | PHS | phosalone | PIR | pirimicarb |
| PMT | phosmet | PYM | pyrimethanil | TBZ | thiabendazole |

**Table 4c Residues sought but not found in retail samples of APPLES obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

2-phenylphenol (0.1)
acephate (0.02)
aldicarb (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
biphenyl (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
carbofuran (0.01)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
Chlorpyrifos-methyl (0.02)
Chlozolinate (0.02)
cyfluthrin (0.05)
cypermethrin (0.05)
cyprodinil (0.05)
DDT (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
difenoconazole (0.05)
dimethoate (0.02)
endosulfan (0.05)
ethion (0.02)
ethoprophos (0.02)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropimorph (0.05)
fenpyroximate (0.05)
fenvalerate (0.05)
flusilazole (0.05)
fonofos (0.02)
fosthiazate (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.05)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
ofurace (0.05)
omethoate (0.02)
oxadixyl (0.05)
oxydemeton-methyl (0.02)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phorate (0.02)
phosphamidon (0.02)
pirimiphos-methyl (0.02)
prochloraz (0.1)
procymidone (0.02)
profenofos (0.02)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrifenox (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
spiroxamine (0.05)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.02)
tetradifon (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazamate (0.02)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 5a Analysis of residues detected in retail samples of BEANS (GREEN) obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **BEANS PART 1, GREEN BEANS, IMPORTED (NON-EC): 23 samples analysed** | | |
| carbendazim | <0.05 (i.e. not found) | 22 |
| (MRL=0.1) | 0.2 | 1 |
| dicofol | <0.02 (i.e. not found) | 22 |
| (MRL=0.02) | 0.8 | 1 |
| dimethoate | <0.02 (i.e. not found) | 22 |
| (MRL=0.02) | 0.04 | 1 |
| dithiocarbamates | <0.05 (i.e. not found) | 19 |
| (MRL=1) | 0.06 - 0.4 | 4 |
| iprodione | <0.02 (i.e. not found) | 21 |
| (MRL=5) | 0.03, 0.1 | 2 |
| procymidone | <0.02 (i.e. not found) | 20 |
| (MRL=2) | 0.04 - 0.1 | 3 |
| profenofos | <0.02 (i.e. not found) | 22 |
| (MRL=0.05) | 0.1 | 1 |
| tetradifon | <0.05 (i.e. not found) | 22 |
| (No MRL) | 0.3 | 1 |
| **BEANS PART 1, SPECIALITY BEANS, IMPORTED (NON-EC): 20 samples analysed** | | |
| captan | <0.02 (i.e. not found) | 19 |
| (MRL=2) | 1 | 1 |
| carbendazim | <0.05 (i.e. not found) | 14 |
| (MRL=0.1) | 0.07 | 1 |
| | 0.2 – 2.3 | 5 |
| chlorothalonil | <0.05 (i.e. not found) | 19 |
| (MRL=0.01) | 0.1 | 1 |
| chlorpyrifos | <0.02 (i.e. not found) | 18 |
| (MRL=0.05) | 0.05 | 1 |
| | 0.2 | 1 |
| cypermethrin | <0.05 (i.e. not found) | 16 |
| (MRL=0.5) | 0.09 - 0.2 | 4 |
| dicofol | <0.02 (i.e. not found) | 19 |
| (MRL=0.02) | 0.04 | 1 |
| dicrotophos | <0.02 (i.e. not found) | 19 |
| (No MRL) | 0.2 | 1 |
| dimethoate | <0.02 (i.e. not found) | 18 |
| (MRL=0.02) | 0.02 | 1 |
| | 0.2 | 1 |

**Table 5a Analysis of residues detected in retail samples of BEANS (GREEN) obtained in January to June 2005 *continued***

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| dithiocarbamates | <0.05 (i.e. not found) | 18 |
| (MRL=1) | 0.3, 0.4 | 2 |
| fenvalerate | <0.05 (i.e. not found) | 18 |
| (MRL=0.02) | 0.1, 0.4 | 2 |
| methamidophos | <0.01 (i.e. not found) | 19 |
| (MRL=0.5) | 1.8 | 1 |
| monocrotophos | <0.02 (i.e. not found) | 19 |
| (No MRL) | 0.1 | 1 |
| omethoate | <0.02 (i.e. not found) | 16 |
| (MRL=0.02) | 0.02 - 0.09 | 4 |
| triazophos | <0.02 (i.e. not found) | 19 |
| (MRL=0.02) | 0.02 | 1 |
| **BEANS PART 1, GREEN BEANS, IMPORTED (EC): 1 sample analysed** | | |
| methamidophos | 0.02 | 1 |
| (MRL=0.5) | | |

Imported (EC) samples of green beans were from Spain (1).
Imported (non-EC) samples of green beans were from Egypt (9), Gambia (1), Kenya (9), Morocco (2), Zimbabwe (2).
Imported (non-EC) samples of speciality beans were from Bangladesh (2), China (7), Costa Rica (1), Dominican Republic (2), Thailand (8).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| Captan | China (1) |
| Carbendazim | China (2), Costa Rica (1), Egypt (1), Thailand (3) |
| Chlorothalonil | China (1) |
| Chlorpyrifos | Dominican Republic (1), Thailand (1) |
| Cypermethrin | Bangladesh (1), Thailand (3) |
| Dicofol | Egypt (1), Thailand (1) |
| Dicrotophos | Thailand (1) |
| Dimethoate | Dominican Republic (1), Kenya (1), Thailand (1) |
| dithiocarbamates | China (1), Egypt (3), Kenya (1), Thailand (1) |
| fenvalerate | Bangladesh (1), Dominican Republic (1) |
| iprodione | Egypt (2) |
| methamidophos | Spain (1), Thailand (1) |
| monocrotophos | Bangladesh (1) |
| omethoate | Dominican Republic (1), Thailand (3) |
| procymidone | Egypt (3) |
| profenofos | Egypt (1) |
| tetradifon | Egypt (1) |
| triazophos | Thailand (1) |

No residues were found in 16 of the 23 imported green beans beans samples.
No residues were found in 5 of the 20 imported speciality beans beans samples.
Residues were found in the EC green beans beans 1 sample.

**Table 5b Residues detected in retail samples of BEANS (GREEN) obtained in January to June 2005**

Residues (1-4 compounds) were found in 23 of the 44 samples as follows:

| Number of residues | PRC Sample ID | Type | Residues found (mg/kg) | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CAP | CBZ | CLN | CPF | CYP | DCPH | DIC | DIM | DTC | FNV | IPR | MDP | MON | OME | PCM | PFS | TET | TRI | |
| (1) | 2439/2005 | Speciality | - | - | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | Bangladesh |
| | 1574/2005 | Speciality | - | - | - | - | - | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | China |
| | 1582/2005 | Speciality | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | China |
| | 4027/2005 | Speciality | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | China |
| | 1024/2005 | Speciality | - | 2.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Costa Rica |
| | 2438/2005 | Speciality | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Dominican Republic |
| | 0782/2005 | Speciality | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | Thailand |
| | 1461/2005 | Green | - | - | - | - | - | - | - | - | 0.06 | - | - | - | - | - | - | - | - | - | Egypt |
| | 1611/2005 | Green | - | - | - | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | Egypt |
| | 4026/2005 | Green | - | - | - | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | Egypt |
| | 0725/2005 | Green | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - | Spain |
| (2) | 1614/2005 | Speciality | - | - | - | - | 0.2 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | Bangladesh |
| | 1172/2005 | Speciality | 1 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | China |
| | 1074/2005 | Speciality | - | 0.2 | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | - | Thailand |
| | 4381/2005 | Green | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | - | - | - | Egypt |
| | 1581/2005 | Green | - | - | - | - | - | - | - | 0.04 | 0.09 | - | - | - | - | - | - | - | - | - | Kenya |
| (3) | 4083/2005 | Speciality | - | - | - | - | - | - | - | 0.2 | - | 0.4 | - | - | - | 0.07 | - | - | - | - | Dominican Republic |
| | 1262/2005 | Speciality | - | - | - | - | - | - | 0.04 | - | 0.3 | - | - | - | - | - | - | - | - | 0.02 | Thailand |
| | 2440/2005 | Speciality | - | 0.2 | - | - | 0.09 | - | - | - | - | - | - | - | - | 0.05 | - | - | - | - | Thailand |
| | 2499/2005 | Speciality | - | - | - | 0.2 | - | - | - | - | - | - | - | 1.8 | - | 0.02 | - | - | - | - | Thailand |
| | 1261/2005 | Green | - | - | - | - | - | - | - | - | 0.4 | - | 0.03 | - | - | - | 0.04 | - | - | - | Egypt |
| (4) | 1025/2005 | Speciality | - | 0.07 | - | - | - | 0.2 | - | 0.02 | - | - | - | - | - | 0.09 | - | - | - | - | Thailand |
| | 1171/2005 | Green | - | - | - | - | - | - | 0.8 | - | - | - | - | - | - | - | 0.1 | 0.1 | 0.3 | - | Egypt |

**Table 5b Residues detected in retail samples of BEANS (GREEN) obtained in January to June 2005 *continued***

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CAP | captan | CBZ | carbendazim | CLN | chlorothalonil |
| CPF | chlorpyrifos | CYP | cypermethrin | DCPH | dicrotophos |
| DIC | dicofol | DIM | dimethoate | DTC | dithiocarbamates |
| FNV | fenvalerate | IPR | iprodione | MDP | methamidophos |
| MON | monocrotophos | OME | omethoate | PCM | procymidone |
| PFS | profenofos | TET | tetradifon | TRI | triazophos |

**Table 5c Residues sought but not found in retail samples of BEANS (GREEN) obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
carbaryl (0.02)
carbofuran (0.01)
chlorfenvinphos (0.02)
chlorpyrifos-methyl (0.02)
chlozolinate (0.02)
cyfluthrin (0.05)
cyproconazole (0.05)
cyprodinil (0.05)
DDT (0.05)
deltamethrin (0.05)
demeton-s-methyl (0.02)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
difenoconazole (0.05)
diphenylamine (0.05)
endosulfan (0.05)
ethion (0.02)
ethoprophos (0.02)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpyroximate (0.05)
fludioxonil (0.05)
flurochloridone (0.02)
flusilazole (0.05)
folpet (0.02)
fonofos (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.05)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methidathion (0.02)
methomyl (0.02)
myclobutanil (0.05)
ofurace (0.05)
oxadixyl (0.05)
oxydemeton-methyl (0.02)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phorate (0.02)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
spiroxamine (0.05)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
teflubenzuron (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.02)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 6a Analysis of residues detected in retail samples of BRAN obtained in 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **BRAN , UK: 70 samples analysed** | | |
| chlormequat | <0.05 (i.e. not found) | 7 |
| (No MRL) | 0.09 - 6.6 | 63 |
| chlorpyrifos-methyl | <0.02 (i.e. not found) | 69 |
| (No MRL) | 0.02 | 1 |
| glyphosate | <0.1 (i.e. not found) | 22 |
| (No MRL) | 0.1 - 5.7 | 48 |
| malathion | <0.02 (i.e. not found) | 61 |
| (No MRL) | 0.02 - 0.3 | 9 |
| mepiquat | <0.05 (i.e. not found) | 39 |
| (No MRL) | 0.05 - 0.3 | 31 |
| pirimiphos-methyl | <0.02 (i.e. not found) | 18 |
| (No MRL) | 0.02 - 0.4 | 52 |
| **BRAN , IMPORTED (NON-EC): 1 sample analysed** | | |
| glyphosate | 0.9 | 1 |
| (No MRL) | | |
| **BRAN , IMPORTED (EC): 1 sample analysed** | | |
| none found | - | 1 |

Imported (EC) samples of bran were from Austria (1).
Imported (non-EC) samples of bran were from Canada (1).

Residues were distributed by country of origin, as follows:
Glyphosate Canada (1)

No residues were found in 6 of the 70 UK samples.
Residues were found in the imported sample.
No residues were found in the EC sample.

**Table 6b. Residues detected in retail samples of BRAN obtained in 2005 *continued***

Residues (1-5 compounds) were found in 65 of the 72 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|
| | | CLQ | CPFME | GLY | MAL | MPQ | PIM | |
| (1) | 1066/2005 | 6.6 | - | - | - | - | - | UK |
| | 1502/2005 | 1.4 | - | - | - | - | - | UK |
| | 2500/2005 | - | - | 0.9 | - | - | - | Canada |
| (2) | 0599/2005 | 0.2 | - | 4.2 | - | - | - | UK |
| | 0647/2005 | 4.7 | - | - | - | - | 0.05 | UK |
| | 0687/2005 | 5 | - | - | - | - | 0.05 | UK |
| | 0711/2005 | 3.6 | - | 0.2 | - | - | - | UK |
| | 0767/2005 | 4.4 | - | - | - | - | 0.08 | UK |
| | 0815/2005 | 5.3 | - | - | - | - | 0.02 | UK |
| | 1193/2005 | 1.8 | - | - | - | 0.05 | - | UK |
| | 1601/2005 | 4.5 | - | - | - | - | 0.03 | UK |
| | 2429/2005 | 0.8 | - | 1.1 | - | - | - | UK |
| | 4046/2005 | - | - | 4.8 | 0.02 | - | - | UK |
| | 4122/2005 | 5.7 | - | - | - | - | 0.04 | UK |
| | 4164/2005 | 4.1 | - | - | - | - | 0.04 | UK |
| (3) | 0600/2005 | 5 | - | 0.1 | - | - | 0.03 | UK |
| | 0766/2005 | 0.09 | - | 5.7 | 0.09 | - | - | UK |
| | 0807/2005 | 1.2 | - | 1.3 | - | - | 0.02 | UK |
| | 1065/2005 | 1 | - | 1 | - | - | 0.3 | UK |
| | 1222/2005 | 6.1 | - | 0.2 | - | - | 0.04 | UK |
| | 1223/2005 | 2.3 | - | 0.2 | - | 0.06 | - | UK |
| | 1283/2005 | 1.5 | 0.02 | - | - | - | 0.4 | UK |
| | 1284/2005 | 2 | - | 0.5 | - | - | 0.05 | UK |
| | 1481/2005 | 1.1 | - | 3.9 | - | - | 0.07 | UK |
| | 1482/2005 | 3 | - | 0.3 | - | - | 0.07 | UK |
| | 1484/2005 | 2.3 | - | - | - | 0.1 | 0.1 | UK |
| | 1495/2005 | 4.5 | - | 0.2 | - | - | 0.03 | UK |
| | 1565/2005 | 0.5 | - | 5 | - | - | 0.08 | UK |
| | 1603/2005 | 1.1 | - | - | - | 0.06 | 0.2 | UK |
| | 2452/2005 | 4.9 | - | 0.1 | - | - | 0.07 | UK |
| | 2490/2005 | 2.7 | - | - | - | 0.06 | 0.07 | UK |
| | 2491/2005 | 3 | - | 0.1 | - | - | 0.05 | UK |
| | 2519/2005 | 1.3 | - | 0.9 | - | 0.1 | - | UK |
| | 2520/2005 | 0.5 | - | 4.9 | - | - | 0.04 | UK |
| | 2551/2005 | 0.7 | - | 4.8 | - | - | 0.02 | UK |
| | 4070/2005 | 1.4 | - | - | - | 0.08 | 0.1 | UK |
| | 4088/2005 | 1.2 | - | 0.2 | - | - | 0.05 | UK |
| | 4121/2005 | 0.5 | - | 3.1 | - | - | 0.06 | UK |
| | 4147/2005 | 2.1 | - | 0.2 | - | - | 0.2 | UK |
| | 4372/2005 | 1.1 | - | 0.9 | - | - | 0.04 | UK |
| | 6616/2005 | 2.1 | - | 0.1 | - | 0.05 | - | UK |
| | 6640/2005 | 1.4 | - | 1 | - | 0.2 | - | UK |
| (4) | 0689/2005 | 0.6 | - | 1.5 | 0.02 | - | 0.04 | UK |
| | 0712/2005 | 1.7 | - | 0.7 | - | 0.2 | 0.03 | UK |
| | 1016/2005 | 1.4 | - | 2.2 | - | 0.1 | 0.03 | UK |
| | 1040/2005 | 1.7 | - | 0.3 | - | 0.1 | 0.2 | UK |
| | 1090/2005 | 0.7 | - | 1.8 | - | 0.05 | 0.04 | UK |
| | 1162/2005 | 2.3 | - | 0.4 | - | 0.05 | 0.05 | UK |
| | 1192/2005 | 1.2 | - | 0.3 | - | 0.06 | 0.09 | UK |

**Table 6a** **Analysis of residues detected in retail samples of BRAN obtained** in 2005 ***continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|
| | | CLQ | CPFME | GLY | MAL | MPQ | PIM | |
| | 1282/2005 | 0.3 | - | 0.7 | - | 0.06 | 0.06 | UK |
| | 1566/2005 | 3.9 | - | 0.4 | - | 0.1 | 0.1 | UK |
| | 1567/2005 | 2.4 | - | 0.3 | - | 0.06 | 0.03 | UK |
| | 1624/2005 | 4.8 | - | 0.2 | - | 0.1 | 0.1 | UK |
| | 1625/2005 | 0.9 | - | 1.3 | - | 0.06 | 0.06 | UK |
| | 2207/2005 | 4.1 | - | 0.2 | - | 0.09 | 0.06 | UK |
| | 2451/2005 | 1.8 | - | 1 | - | 0.3 | 0.03 | UK |
| | 2550/2005 | 1.1 | - | 0.6 | - | 0.05 | 0.03 | UK |
| | 5152/2005 | 1.2 | - | - | 0.3 | 0.08 | 0.2 | UK |
| | 5153/2005 | 1.7 | - | 1.5 | - | 0.1 | 0.05 | UK |
| | 6641/2005 | 4.5 | - | 0.2 | - | 0.1 | 0.03 | UK |
| (5) | 0646/2005 | 0.7 | - | 0.9 | 0.07 | 0.05 | 0.04 | UK |
| | 1015/2005 | 1.7 | - | 0.4 | 0.09 | 0.2 | 0.03 | UK |
| | 1091/2005 | 1.6 | - | 0.1 | 0.2 | 0.07 | 0.2 | UK |
| | 2526/2005 | 1.9 | - | 1 | 0.1 | 0.2 | 0.03 | UK |
| | 6617/2005 | 1.9 | - | 0.1 | 0.1 | 0.06 | 0.1 | UK |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CLQ | chlormequat | CPFME | chlorpyrifos-methyl | GLY | glyphosate |
| MAL | malathion | MPQ | mepiquat | PIM | pirimiphos-methyl |

**Table 6c Residues sought but not found in retail samples of BRAN obtained in 2005 *continued***

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

aldrin (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
carbaryl (0.02)
carbendazim (0.05)
chlormequat (0.05)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlorvos (0.02)
dieldrin (0.02)
endosulfan (0.05)
etrimfos (0.05)
famoxadone (0.05)
fenitrothion (0.02)
fenvalerate (0.05)
glyphosate (0.1)
hydrogen phosphide (0.01)
iprodione (0.02)
kresoxim-methyl (0.05)
lindane (0.01)
malathion (0.02)
mepiquat (0.05)
methacrifos (0.05)
permethrin (0.05)
phosphamidon (0.02)
picoxystrobin (0.05)
pirimiphos-methyl (0.02)
pyraclostrobin (0.05)
trifloxystrobin (0.05)

**Table 7a Analysis of residues detected in retail samples of BROCCOLI obtained in January to May 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **BROCCOLI, UK: 1 sample analysed** | | |
| chlorothalonil (MRL = 3) | 0.1 | 1 |
| **BROCCOLI, IMPORTED (EC): 47 samples analysed** | | |
| none found | - | 47 |

Imported (EC) samples of broccoli were from France (1), Italy (2), Spain (44).

Residues were found in the UK sample.
No residues were found in any of the EC samples.

Residues (1 compounds) were found in 1 of the 48 samples as follows:

**Table 7b Residues detected in retail samples of BROCCOLI obtained in January to May 2005**

| Number of residues | PRC Sample ID | Residues found (mg/kg) CLN | Country of origin |
|---|---|---|---|
| (1) | 1234/2005 | 0.1 | UK |

The abbreviations used for the pesticide names are as follows:

CLN chlorothalonil

**Table 7c Residues sought but not found in retail samples of BROCCOLI obtained in January to May 2005 *continued***

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
chlorfenvinphos (0.02)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
DDT (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
dicrotophos (0.02)
difenoconazole (0.05)
dimethoate (0.02)
diphenylamine (0.05)
endosulfan (0.05)
ethion (0.02)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpyroximate (0.05)
folpet (0.02)
fonofos (0.02)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.05)
iprodione (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.02)
lindane (0.01)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
monocrotophos (0.02)
myclobutanil (0.02)
omethoate (0.02)
oxadixyl (0.05)
parathion (0.02)
parathion-methyl (0.02)
pendimethalin (0.05)
permethrin (0.05)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
procymidone (0.02)
propargite (0.05)
pymetrozine (0.1)
pyrazophos (0.02)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetradifon (0.05)
thiabendazole (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 8a. Analysis of residues detected in samples of CARROTS obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **CARROTS, UK: 58 samples analysed** | | |
| none found | - | 58 |
| **CARROTS, IMPORTED (NON-EC): 1 sample analysed** | | |
| none found | - | 1 |
| **CARROTS, UNKNOWN: 1 sample analysed** | | |
| none found | - | 1 |
| **CARROTS, IMPORTED (EC): 12 samples analysed** | | |
| iprodione | <0.02 (i.e. not found) | 10 |
| (MRL = 0.3) | 0.06 - 0.07 | 2 |

Imported (EC) samples of carrots were from Belgium (1), France (1), Italy (5), Portugal (1), Spain (2), the Netherlands (2).

Imported (non-EC) samples of carrots were from Israel (1).

Residues were distributed by country of origin, as follows:
iprodione Belgium (1), Spain (1)

No residues were found in any of the UK samples.
No residues were found in the imported (Non- EC) sample.
No residues were found in the sample of unknown origin.
No residues were found in 10 of the 12 EC samples.

Residues (1 compounds) were found in 2 of the 72 samples as follows:

**Table 8b. Residues detected in samples of CARROTS obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) IPR | Country of origin |
|---|---|---|---|
| (1) | 0238/2005 | 0.06 | Belgium |
| | 1224/2005 | 0.07 | Spain |

The abbreviations used for the pesticide names are as follows:

IPR iprodione

**Table 8c. Residues sought but not found in samples of CARROTS obtained in January to June 2005 *continued***

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
carbofuran (0.01)
carbosulfan (0.01)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cyfluthrin (0.02)
cypermethrin (0.05)
cyprodinil (0.05)
DDT (0.05)
deltamethrin (0.05)
demeton-s-methyl (0.02)
diazinon (0.02)
dichlofluanid (0.05)
dicofol (0.02)
dimethoate (0.02)
endosulfan (0.05)
ethion (0.02)
fenhexamid (0.05)
fenpropimorph (0.05)
fenvalerate (0.05)
fludioxonil (0.05)
folpet (0.02)
fonofos (0.02)
imazalil (0.05)
imidacloprid (0.05)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.02)
lindane (0.01)
linuron (0.05)
malathion (0.02)
mecarbam (0.02)
metalaxyl (0.02)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
myclobutanil (0.02)
omethoate (0.02)
oxydemeton-methyl (0.02)
parathion (0.02)
parathion-methyl (0.02)
pendimethalin (0.05)
permethrin (0.05)
phorate (0.02)
phosalone (0.02)
pirimicarb (0.02)
pirimiphos-ethyl (0.02)
pirimiphos-methyl (0.02)
procymidone (0.02)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.02)
pyrimethanil (0.05)
quinalphos (0.02)
spiroxamine (0.05)
tefluthrin (0.02)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifluralin (0.05)
vinclozolin (0.02)

**Table 9a. Analysis of residues detected in retail samples of CHICKEN obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **CHICKEN, UK: 54 samples analysed** | | |
| none found | - | 54 |
| **CHICKEN, IMPORTED (NON-EC): 2 samples analysed** | | |
| none found | - | 2 |
| **CHICKEN, IMPORTED (EC): 4 samples analysed** | | |
| none found | - | 4 |

Imported (EC) samples of chicken were from Denmark (2), Germany (1) and EC (unknown) (1).
Imported (non-EC) samples of chicken were from Brazil (2).

No residues were found.

**Table 9b Residues sought but not found in retail samples of CHICKEN obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

aldrin (0.002)
alpha-HCH (0.002)
beta-HCH (0.002)
bifenthrin (0.002)
chlordane (0.002)
DDT (0.002)
dicofol (0.002)
dieldrin (0.002)
endosulfan (0.002)
endrin (0.002)
heptachlor (0.002)
hexachlorobenzene (0.002)
lindane (0.002)

**Table 10a Analysis of residues detected in retail samples of COURGETTE obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **COURGETTE, UK: 1 sample analysed** | | |
| none found | - | 1 |
| **COURGETTE, IMPORTED (NON-EC): 2 samples analysed** | | |
| none found | - | 2 |
| **COURGETTE, IMPORTED (EC): 44 samples analysed** | | |
| dimethoate | <0.02 (i.e. not found) | 43 |
| (MRL = 0.02) | 0.05 | 1 |
| oxamyl | <0.05 (i.e. not found) | 43 |
| (No MRL) | 0.06 | 1 |
| procymidone | <0.02 (i.e. not found) | 43 |
| (MRL = 1) | 0.03 | 1 |

Imported (EC) samples of courgette were from France (1), Spain (41), the Netherlands (2).
Imported (non-EC) samples of courgette were from Morocco (2).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| dimethoate | Spain (1) |
| oxamyl | Spain (1) |
| procymidone | Spain (1) |

No residues were found in the UK sample.
No residues were found in any of the imported samples.
No residues were found in 41 of the 44 EC samples.

**Table 10b. Residues detected in retail samples of COURGETTE obtained in january to June 2005**

Residues (1 compounds) were found in 3 of the 47 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | Country of origin |
|---|---|---|---|---|---|
| | | DIM | OXY | PCM | |
| (1) | 0944/2005 | 0.05 | - | - | Spain |
| | 2235/2005 | - | 0.06 | - | Spain |
| | 2355/2005 | - | - | 0.03 | Spain |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| DIM | dimethoate | OXY | oxamyl | PCM | procymidone |

**Table 10c. Residues sought but not found in retail samples of COURGETTE obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
biphenyl (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
carbofuran (0.01)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
chlozolinate (0.02)
cyfluthrin (0.05)
cypermethrin (0.05)
DDT (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
dieldrin (0.02)
difenoconazole (0.05)
diphenylamine (0.05)
endosulfan (0.05)
ethion (0.02)
ethoprophos (0.02)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpyroximate (0.05)
fenvalerate (0.05)
flurochloridone (0.02)
flusilazole (0.05)
folpet (0.02)
fonofos (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
iprodione (0.02)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
ofurace (0.05)
omethoate (0.02)
oxadixyl (0.05)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
profenofos (0.02)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.05)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.02)
tetradifon (0.05)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 11a. Analysis of residues detected in retail samples of CUCUMBER obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **CUCUMBER, UK: 25 samples analysed** | | |
| carbendazim | <0.05 (i.e. not found) | 22 |
| (MRL = 1) | 0.07 – 0.3 | 3 |
| dithiocarbamates | <0.05 (i.e. not found) | 24 |
| (MRL = 0.5) | 0.1 | 1 |
| propamocarb | <0.1 (i.e. not found) | 21 |
| (CAC MRL = 2) | 0.1 - 0.6 | 4 |
| **CUCUMBER, IMPORTED (EC): 23 samples analysed** | | |
| carbendazim | <0.05 (i.e. not found) | 21 |
| (MRL = 1) | 0.08, 0.3 | 2 |
| cyprodinil | <0.05 (i.e. not found) | 21 |
| (No MRL) | 0.05, 0.06 | 2 |
| dithiocarbamates | <0.05 (i.e. not found) | 18 |
| (MRL = 0.5) | 0.06 – 0.1 | 5 |
| iprodione | <0.02 (i.e. not found) | 20 |
| (MRL = 2) | 0.06 - 0.1 | 3 |
| procymidone | <0.02 (i.e. not found) | 22 |
| (MRL = 1) | 0.07 | 1 |

Imported (EC) samples of cucumber were from Canary Islands, Republic of Ireland(2), Spain (17), the Netherlands (3).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| Carbendazim | Spain (2) |
| Cyprodinil | Republic of Ireland (1), Spain (1) |
| dithiocarbamates | Republic of Ireland (1), Spain (4) |
| Iprodione | Spain (3) |
| Procymidone | Spain (1) |

No residues were found in 19 of the 25 UK samples.
No residues were found in 14 of the 23 EC samples.

**Table 11b. Residues detected in retail samples of CUCUMBER obtained in January to June 2005**

Residues (1-2 compounds) were found in 15 of the 48 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|
| | | CBZ | CYD | DTC | IPR | PCB | PCM | |
| (1) | 0587/2005 | - | - | 0.1 | - | - | - | UK |
| | 1026/2005 | - | - | - | - | 0.3 | - | UK |
| | 2412/2005 | 0.07 | - | - | - | - | - | UK |
| | 2471/2005 | - | - | - | - | 0.2 | - | UK |
| | 2501/2005 | - | - | - | - | 0.6 | - | UK |
| | 1175/2005 | - | - | 0.09 | - | - | - | Spain |
| | 4076/2005 | - | - | 0.1 | - | - | - | Spain |
| | 4133/2005 | - | - | - | 0.1 | - | - | Spain |
| | 1001/2005 | 0.3 | - | - | - | - | - | UK |
| (2) | 2532/2005 | 0.07 | - | - | - | 0.1 | - | UK |
| | 4355/2005 | - | 0.06 | 0.06 | - | - | - | Republic of Ireland |
| | 1205/2005 | - | 0.05 | 0.1 | - | - | - | Spain |
| | 4032/2005 | 0.1 | - | - | 0.06 | - | - | Spain |
| | 4057/2005 | - | - | - | 0.06 | - | 0.07 | Spain |
| | 4157/2005 | 0.08 | - | 0.1 | - | - | - | Spain |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CBZ | carbendazim | CYD | cyprodinil | DTC | dithiocarbamates |
| IPR | iprodione | PCB | propamocarb | PCM | procymidone |

**Table 11c. Residues sought but not found in retail samples of CUCUMBER obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

abamectin (0.01)
acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bendiocarb (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbofuran (0.01)
carbosulfan (0.01)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
chlozolinate (0.02)
cyfluthrin (0.02)
cypermethrin (0.05)
DDT (0.05)
deltamethrin (0.05)
demeton-s-methyl (0.02)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.02)
dimethoate (0.02)
endosulfan (0.05)
ethion (0.02)
ethoprophos (0.02)
fenarimol (0.02)
fenbutatin oxide (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpropimorph (0.05)
fludioxonil (0.05)
flurochloridone (0.02)
flusilazole (0.05)
folpet (0.02)
fonofos (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.05)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
monocrotophos (0.02)
myclobutanil (0.02)
ofurace (0.05)
omethoate (0.02)
oxadixyl (0.05)
oxydemeton-methyl (0.02)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phorate (0.02)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
profenofos (0.02)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
spiroxamine (0.05)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.02)
tetradifon (0.05)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 12a. Analysis of residues detected in retail samples of EXOTIC FRUIT obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **EXOTIC FRUIT, PASSION FRUIT, IMPORTED (NON-EC): 12 samples analysed** | | |
| difenoconazole | <0.05 (i.e. not found) | 11 |
| (No MRL) | 0.07 | 1 |
| dithiocarbamates | <0.05 (i.e. not found) | 10 |
| (MRL = 0.05) | 0.09 -0.2 | 2 |
| folpet | <0.02 (i.e. not found) | 11 |
| (No MRL) | 0.07 | 1 |
| **EXOTIC FRUIT, POMEGRANATE, IMPORTED (NON-EC): 12 samples analysed** | | |
| dithiocarbamates | <0.05 (i.e. not found) | 9 |
| (MRL = 0.05) | 0.06 - 0.08 | 3 |
| ethion | <0.02 (i.e. not found) | 10 |
| (No MRL) | 0.04 - 0.05 | 2 |
| **EXOTIC FRUIT, SHARON FRUIT, IMPORTED (NON-EC): 11 samples analysed** | | |
| dimethoate | <0.02 (i.e. not found) | 10 |
| (MRL = 0.02) | 0.04 | 1 |
| omethoate | <0.02 (i.e. not found) | 8 |
| (MRL = 0.02) | 0.02 | 1 |
| (MRL for dimethoate applies) | 0.03 - 0.05 | 2 |
| prochloraz | <0.1 (i.e. not found) | 10 |
| (MRL = 0.05) | 0.2 | 1 |
| **EXOTIC FRUIT, SHARON FRUIT, UNKNOWN: 1 sample analysed** | | |
| none found | - | 1 |

Imported (non-EC) samples of passion fruit exotic fruit were from Colombia (1), Israel (1), Kenya (2), South Africa (8).India (10), USA (2), Brazil (1), Israel (8), South Africa (2).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| difenoconazole | Colombia (1) |
| dimethoate | Israel (1) |
| dithiocarbamates | India (3), Kenya (2) |
| ethion | India (2) |
| folpet | Colombia (1) |
| omethoate | Israel (3) |
| prochloraz | Israel (1) |

No residues were found in 9 of the 12 imported passion fruit exotic fruit samples.
No residues were found in 9 of the 12 imported pomegranate exotic fruit samples.

Table 12a. Analysis of residues detected in retail samples of EXOTIC FRUIT obtained in January to June 2005 ***continued***

No residues were found in 8 of the 11 imported sharon fruit exotic fruit samples.
No residues were found in the sharon fruit exotic fruit sample of unknown origin.

**Table 12b. Residues detected in retail samples of EXOTIC FRUIT obtained in January to June 2005**

Residues (1-2 compounds) were found in 9 of the 36 samples as follows:

| Number of residues | PRC Sample ID | Type of Exotic Fruit | Residues found (mg/kg) | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DIFC | DIM | DTC | ETN | FPET | OME | PRZ | |
| (1) | 2659/2005 | pomegranate | - | - | 0.06 | - | - | - | - | India |
| | 2236/2005 | sharon fruit | - | - | - | - | - | 0.02 | - | Israel |
| | 1439/2005 | passion fruit | - | - | 0.2 | - | - | - | - | Kenya |
| | 2378/2005 | passion fruit | - | - | 0.09 | - | - | - | - | Kenya |
| (2) | 2727/2005 | passion fruit | 0.07 | - | - | - | 0.07 | - | - | Colombia |
| | 1346/2005 | pomegranate | - | - | 0.06 | 0.04 | - | - | - | India |
| | 1359/2005 | pomegranate | - | - | 0.08 | 0.05 | - | - | - | India |
| | 1299/2005 | sharon fruit | - | - | - | - | - | 0.03 | 0.2 | Israel |
| | 4261/2005 | sharon fruit | - | 0.04 | - | - | - | 0.05 | - | Israel |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| DIFC | difenoconazole | DIM | dimethoate | DTC | dithiocarbamates |
| ETN | ethion | FPET | folpet | OME | omethoate |
| PRZ | prochloraz | | | | |

**Table 12c. Residues sought but not found in retail samples of EXOTIC FRUIT obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bitertanol (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
difenoconazole (0.05)
dimethoate (0.02)
dithiocarbamates (0.05)
endosulfan (0.05)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenpropimorph (0.05)
fenpyroximate (0.05)
folpet (0.02)
fonofos (0.02)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.01)
iprodione (0.05)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.02)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
omethoate (0.02)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
prochloraz (0.1)
procymidone (0.02)
profenofos (0.02)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.05)
tebufenpyrad (0.05)
terbufos (0.05)
tetrachlorvinphos (0.02)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
vinclozolin (0.02)

**Table 13a. Analysis of residues detected in samples of GRAPES obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **GRAPES, IMPORTED (NON-EC): 49 samples analysed** | | |
| captan | <0.02 (i.e. not found) | 36 |
| (MRL = 3) | 0.03 - 1.6 | 13 |
| carbaryl | <0.02 (i.e. not found) | 45 |
| (MRL = 5) | 0.04 - 0.2 | 4 |
| carbendazim | <0.05 (i.e. not found) | 45 |
| (MRL = 2) | 0.06 - 0.3 | 4 |
| chlorpyrifos | <0.02 (i.e. not found) | 42 |
| (MRL = 0.5) | 0.03 - 0.4 | 7 |
| dithiocarbamates | <0.05 (i.e. not found) | 46 |
| (MRL = 2) | 0.05-, 0.1 | 3 |
| iprodione | <0.02 (i.e. not found) | 38 |
| (MRL = 10) | 0.02 - 0.7 | 11 |
| lambda-cyhalothrin | <0.05 (i.e. not found) | 47 |
| (MRL = 0.2) | 0.07, 0.07 | 2 |
| metalaxyl | <0.05 (i.e. not found) | 48 |
| (MRL = 2) | 0.07 | 1 |
| myclobutanil | <0.05 (i.e. not found) | 48 |
| (MRL = 1) | 0.05 | 1 |
| procymidone | <0.02 (i.e. not found) | 46 |
| (MRL = 5) | 0.4 - 0.6 | 3 |
| tebuconazole | <0.05 (i.e. not found) | 46 |
| (CAC MRL = 2) | 0.1 - 0.2 | 3 |

Imported (non-EC) samples of grapes were from Argentina (1), Brazil (2), Chile (21), Egypt (2), India (7), Israel (1), Mexico (4), Namibia (1), South Africa (10).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| captan | Chile (10), India (2), Mexico (1) |
| carbaryl | Chile (4) |
| carbendazim | Chile (3), Egypt (1) |
| chlorpyrifos | Chile (7) |
| dithiocarbamates | India (2), South Africa (1) |
| iprodione | Chile (6), South Africa (5) |
| lambda-cyhalothrin | Brazil (2) |
| metalaxyl | Chile (1) |
| myclobutanil | Mexico (1) |
| procymidone | Namibia (1), South Africa (2) |
| tebuconazole | Chile (3) |

No residues were found in 15 of the 49 imported samples.
The results for trifloxystrobin were semi-quantitative for 10 imported samples.
31 of imported samples were analysed for fenvalerate.

**Table 13b. Residues detected in retail samples of GRAPES obtained in January to June 2005**

Residues (1-3 compounds) were found in 34 of the 49 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAP | CBY | CBZ | CPF | DTC | IPR | LCY | MTX | MYC | PCM | TBC | |
| (1) | 0050/2005 | - | - | - | - | - | - | 0.07 | - | - | - | - | Brazil |
| | 0090/2005 | - | - | - | - | - | - | 0.07 | - | - | - | - | Brazil |
| | 0033/2005 | - | - | - | 0.4 | - | - | - | - | - | - | - | Chile |
| | 0036/2005 | 0.4 | - | - | - | - | - | - | - | - | - | - | Chile |
| | 0070/2005 | - | - | - | - | - | 0.4 | - | - | - | - | - | Chile |
| | 0237/2005 | - | - | - | - | - | 0.05 | - | - | - | - | - | Chile |
| | 0242/2005 | - | - | 0.3 | - | - | - | - | - | - | - | - | Chile |
| | 0280/2005 | - | 0.09 | - | - | - | - | - | - | - | - | - | Chile |
| | 0329/2005 | - | - | 0.06 | - | - | - | - | - | - | - | - | Egypt |
| | 0166/2005 | - | - | - | - | 0.1 | - | - | - | - | - | - | India |
| | 0197/2005 | 0.03 | - | - | - | - | - | - | - | - | - | - | India |
| | 0332/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | Mexico |
| | 0333/2005 | - | - | - | - | - | - | - | - | 0.05 | - | - | Mexico |
| | 0008/2005 | - | - | - | - | - | - | - | - | - | 0.6 | - | Namibia |
| | 0006/2005 | - | - | - | - | - | 0.4 | - | - | - | - | - | South Africa |
| | 0016/2005 | - | - | - | - | - | 0.2 | - | - | - | - | - | South Africa |
| | 0084/2005 | - | - | - | - | - | 0.5 | - | - | - | - | - | South Africa |
| | 0086/2005 | - | - | - | - | - | - | - | - | - | 0.4 | - | South Africa |
| | 0157/2005 | - | - | - | - | - | - | - | - | - | 0.5 | - | South Africa |
| | 0202/2005 | - | - | - | - | - | 0.02 | - | - | - | - | - | South Africa |
| (2) | 0010/2005 | 0.2 | - | - | - | - | - | - | - | - | - | 0.1 | Chile |
| | 0012/2005 | - | 0.1 | - | 0.03 | - | - | - | - | - | - | - | Chile |
| | 0020/2005 | - | - | - | 0.07 | - | 0.7 | - | - | - | - | - | Chile |
| | 0022/2005 | 0.7 | - | - | - | - | - | - | - | - | - | 0.2 | Chile |
| | 0047/2005 | 0.06 | - | - | - | - | 0.1 | - | - | - | - | - | Chile |
| | 0089/2005 | 0.2 | - | - | - | - | - | - | - | - | - | 0.1 | Chile |

**Table 13a. Analysis of residues detected in samples of GRAPES obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAP | CBY | CBZ | CPF | DTC | IPR | LCY | MTX | MYC | PCM | TBC | |
| | 0156/2005 | 1.6 | - | - | 0.03 | - | - | - | - | - | - | - | Chile |
| | 0194/2005 | 0.09 | - | - | 0.07 | - | - | - | - | - | - | - | Chile |
| | 0247/2005 | 0.03 | - | - | - | 0.05 | - | - | - | - | - | - | India |
| | 0151/2005 | - | - | - | - | 0.08 | 0.6 | - | - | - | - | - | South Africa |
| (3) | 0051/2005 | 0.8 | - | 0.2 | 0.3 | - | - | - | - | - | - | - | Chile |
| | 0067/2005 | - | 0.2 | - | - | - | 0.6 | - | 0.07 | - | - | - | Chile |
| | 0109/2005 | 0.04 | - | - | 0.07 | - | 0.02 | - | - | - | - | - | Chile |
| | 0161/2005 | 0.2 | 0.04 | 0.07 | - | - | - | - | - | - | - | - | Chile |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CAP | captan | CBY | carbaryl | CBZ | carbendazim |
| CPF | chlorpyrifos | DTC | dithiocarbamates | IPR | iprodione |
| LCY | lambda-cyhalothrin | MTX | metalaxyl | MYC | myclobutanil |
| PCM | procymidone | TBC | tebuconazole | | |

**Table 13c. Residues sought but not found in retail samples of GRAPES obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
chlorfenvinphos (0.02)
Chlorothalonil (0.05)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlorvos (0.02)
dicofol (0.05)
dimethoate (0.02)
endosulfan (0.05)
fenarimol (0.05)
fenitrothion (0.02)
fenvalerate (0.05)
folpet (0.02)
heptenophos (0.02)
imazalil (0.05)
kresoxim-methyl (0.05)
malathion (0.02)
mecarbam (0.02)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
monocrotophos (0.02)
omethoate (0.02)
oxadixyl (0.05)
oxydemeton-methyl (0.02)
parathion (0.02)
parathion-methyl (0.02)
permethrin (0.05)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
prochloraz (0.1)
propyzamide (0.05)
prothiofos (0.02)
pyrimethanil (0.05)
tetradifon (0.05)
tolclofos-methyl (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
vinclozolin (0.02)

**Table 14a Analysis of residues detected in retail samples of KIDNEY obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **KIDNEY, LAMB, UK: 7 samples analysed** | | |
| none found | - | 7 |
| **KIDNEY, OX, UK: 6 samples analysed** | | |
| none found | - | 6 |
| **KIDNEY, PIG, UK: 33 samples analysed** | | |
| none found | - | 33 |
| **KIDNEY, LAMB, IMPORTED (NON-EC): 13 samples analysed** | | |
| none found | - | 13 |

Imported (non-EC) samples of lamb kidney were from New Zealand (13).

No residues were found.

**Table 14b Residues sought but not found in retail samples of KIDNEY obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

aldrin (0.002)
alpha-HCH (0.002)
beta-HCH (0.002)
bifenthrin (0.002)
chlordane (0.002)
DDT (0.002)
dicofol (0.002)
dieldrin (0.002)
endosulfan (0.002)
endrin (0.002)
heptachlor (0.002)
hexachlorobenzene (0.002)
lindane (0.002)

**Table 15a Residues detected in retail samples of LETTUCE obtained in April to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **LETTUCE PART 2, UK: 19 samples analysed** | | |
| iprodione | <0.02 (i.e. not found) | 18 |
| (MRL = 10) | 0.3 | 1 |
| **LETTUCE PART 2, IMPORTED (EC): 17 samples analysed** | | |
| azoxystrobin | <0.05 (i.e. not found) | 16 |
| (MRL = 3) | 0.1 | 1 |
| imidacloprid | <0.05 (i.e. not found) | 15 |
| (CAC MRL = 2) | 0.2 | 2 |
| procymidone | <0.02 (i.e. not found) | 16 |
| (MRL = 5) | 0.03 | 1 |

Imported (EC) samples of lettuce part 2 were from Spain (17).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| azoxystrobin | Spain (1) |
| imidacloprid | Spain (2) |
| procymidone | Spain (1) |

No residues were found in 18 of the 19 UK samples.
No residues were found in 13 of the 17 EC samples.

**Table 15b. Residues detected in retail samples of LETTUCE obtained in January to June 2005**

Residues (1 compounds) were found in 5 of the 36 samples as follows:

| Number of residues | PRC Sample ID | Type of LETTUCE PART 2 | Residues found (mg/kg) | | | | Country of origin |
|---|---|---|---|---|---|---|---|
| | | | AZOX | IMI | IPR | PCM | |
| (1) | 2294/2005 | | - | - | 0.3 | - | UK |
| | 1155/2005 | | 0.1 | - | - | - | Spain |
| | 2233/2005 | | - | - | - | 0.03 | Spain |
| | 2384/2005 | | - | 0.2 | - | - | Spain |
| | 2724/2005 | | - | 0.2 | - | - | Spain |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| AZOX | azoxystrobin | IMI | imidacloprid | IPR | iprodione |
| PCM | procymidone | | | | |

**Table 15c Residues sought but not found in retail samples of LETTUCE obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
azinphos-methyl (0.02)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
chlozolinate (0.02)
cyfluthrin (0.05)
cypermethrin (0.05)
cyprodinil (0.05)
DDT (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
difenoconazole (0.05)
dimethoate (0.02)
diphenylamine (0.05)
dithiocarbamates (0.05)
endosulfan (0.05)
ethion (0.02)
ethoprophos (0.02)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpropimorph (0.05)
fenpyroximate (0.05)
fenvalerate (0.05)
fipronil (0.05)
fludioxonil (0.05)
folpet (0.02)
fonofos (0.02)
fosthiazate (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
inorganic bromide (20)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
ofurace (0.05)
omethoate (0.02)
oxadixyl (0.05)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
profenofos (0.02)
propamocarb (0.05)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pymetrozine (0.05)
pyraclostrobin (0.05)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
simazine (0.1)
spiroxamine (0.05)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.02)
tetradifon (0.05)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**Table 16a Analysis of residues detected in retail samples of MANGO obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **MANGO, IMPORTED (NON-EC): 48 samples analysed** | | |
| Prochloraz | <0.1 (i.e. not found) | 28 |
| (MRL = 5) | 0.2 - 3.3 | 20 |
| thiabendazole | <0.05 (i.e. not found) | 27 |
| (MRL = 5) | 0.05 - 2.6 | 21 |

Imported (non-EC) samples of mango were from Brazil (6), Burkina Faso (1), Costa Rica (7), Gambia (1), Guatemala (1), Ivory coast (3), Nicaragua (1), Peru (12), Puerto Rico (12), South Africa (3), Venezuela (1).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| prochloraz | Brazil (2), Costa Rica (7), Guatemala (1), Nicaragua (1), Peru (6), South Africa (3) |
| thiabendazole | Brazil (3), Costa Rica (1), Peru (7), Puerto Rico (10) |

No residues were found in 12 of the 48 imported samples.

**Table 16b Residues detected in retail samples of MANGO obtained in January to June 2005**

Residues (1-2 compounds) were found in 36 of the 48 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) PRZ | TBZ | Country of origin |
|---|---|---|---|---|
| (1) | 0988/2005 | - | 1.6 | Brazil |
| | 1300/2005 | - | 0.6 | Brazil |
| | 2595/2005 | 0.9 | - | Brazil |
| | 3993/2005 | - | 0.6 | Brazil |
| | 4336/2005 | 0.3 | - | Brazil |
| | 0560/2005 | 1.8 | - | Costa Rica |
| | 0859/2005 | 2.2 | - | Costa Rica |
| | 0994/2005 | 1.5 | - | Costa Rica |
| | 2237/2005 | 0.9 | - | Costa Rica |
| | 2670/2005 | 1.3 | - | Costa Rica |
| | 2730/2005 | 1.9 | - | Costa Rica |
| | 2729/2005 | 0.2 | - | Guatemala |
| | 0858/2005 | 2.3 | - | Nicaragua |
| | 1360/2005 | - | 0.05 | Peru |
| | 1440/2005 | - | 0.6 | Peru |
| | 3886/2005 | - | 0.7 | Peru |
| | 3906/2005 | 2.7 | - | Peru |
| | 4011/2005 | 2.8 | - | Peru |
| | 0559/2005 | - | 2 | Puerto Rico |
| | 0829/2005 | - | 2 | Puerto Rico |
| | 0919/2005 | - | 1.8 | Puerto Rico |
| | 0948/2005 | - | 0.6 | Puerto Rico |
| | 2347/2005 | - | 1 | Puerto Rico |
| | 2658/2005 | - | 1.1 | Puerto Rico |
| | 2693/2005 | - | 0.6 | Puerto Rico |
| | 2712/2005 | - | 1.4 | Puerto Rico |
| | 3947/2005 | - | 0.4 | Puerto Rico |
| | 4310/2005 | - | 0.6 | Puerto Rico |
| | 2267/2005 | 0.5 | - | South Africa |
| | 2297/2005 | 3.3 | - | South Africa |
| | 2357/2005 | 3 | - | South Africa |
| (2) | 2671/2005 | 1.2 | 0.2 | Costa Rica |
| | 1330/2005 | 1.8 | 0.08 | Peru |
| | 1390/2005 | 1.2 | 2.6 | Peru |
| | 4212/2005 | 2.2 | 2.4 | Peru |
| | 4262/2005 | 0.3 | 1.3 | Peru |

The abbreviations used for the pesticide names are as follows:

| | | | |
|---|---|---|---|
| PRZ | prochloraz | TBZ | thiabendazole |

**Table 16c Residues sought but not found in retail samples of MANGO obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
difenoconazole (0.05)
dimethoate (0.02)
dithiocarbamates (0.05)
fenarimol (0.05)
fenazaquin (0.05)
fenbuconazole (0.05)
fenpropimorph (0.05)
fenpyroximate (0.05)
folpet (0.02)
fonofos (0.02)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.01)
iprodione (0.02)
isofenphos (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.05)
mecarbam (0.02)
mepanipyrim (0.02)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
monocrotophos (0.02)
myclobutanil (0.02)
omethoate (0.02)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
procymidone (0.02)
profenofos (0.02)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.02)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.02)
tebufenpyrad (0.05)
tetrachlorvinphos (0.02)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
vinclozolin (0.02)

**Table 17a Analysis of residues detected in retail samples of MILK obtained in April to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **MILK PART 2, UK: 77 samples analysed** | | |
| none found | - | 77 |

No residues were found in any of the UK samples.
No residues were found.

**Table 17b Residues sought but not found in retail samples of MILK obtained in April to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

aldrin (0.002)
alpha-HCH (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
chlordane (0.001)
DDT (0.002)
dicofol (0.005)
dieldrin (0.002)
endosulfan (0.002)
endrin (0.0008)
heptachlor (0.002)
hexachlorobenzene (0.002)
lindane (0.0004)

**Table 18a. Analysis of residues detected in retail samples of OILY FISH obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **OILY FISH, MACKEREL, UK: 5 samples analysed** | | |
| chlordane | <0.002 (i.e. not found) | 4 |
| (No MRL) | 0.005 | 1 |
| dieldrin | <0.002 (i.e. not found) | 3 |
| (No MRL) | 0.002, 0.003 | 2 |
| **OILY FISH, SALMON, UK: 23 samples analysed** | | |
| chlordane | <0.002 (i.e. not found) | 22 |
| (No MRL) | 0.005 | 1 |
| DDT | <0.002 (i.e. not found) | 11 |
| (No MRL) | 0.002 - 0.01 | 12 |
| dieldrin | <0.002 (i.e. not found) | 20 |
| (No MRL) | 0.003 - 0.005 | 3 |
| hexachlorobenzene | <0.002 (i.e. not found) | 16 |
| (No MRL) | 0.002 - 0.004 | 7 |
| **OILY FISH, TROUT, UK: 8 samples analysed** | | |
| DDT[1] | <0.002 (i.e. not found) | 7 |
| (No MRL) | 0.004 | 1 |
| dieldrin | <0.002 (i.e. not found) | 7 |
| (No MRL) | 0.004 | 1 |
| hexachlorobenzene | <0.002 (i.e. not found) | 4 |
| (No MRL) | 0.002 - 0.003 | 4 |
| **OILY FISH, MACKEREL, IMPORTED (NON-EC): 6 samples analysed** | | |
| chlordane | <0.002 (i.e. not found) | 5 |
| (No MRL) | 0.003 | 1 |
| hexachlorobenzene | <0.002 (i.e. not found) | 5 |
| (No MRL) | 0.002 | 1 |
| **OILY FISH, SALMON, IMPORTED (NON-EC): 5 samples analysed** | | |
| chlordane | <0.002 (i.e. not found) | 4 |
| (No MRL) | 0.003 | 1 |
| DDT[1] | <0.002 (i.e. not found) | 2 |
| (No MRL) | 0.003 - 0.004 | 3 |
| hexachlorobenzene | <0.002 (i.e. not found) | 3 |

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| (No MRL) | 0.003, 0.004 | 2 |

[1] as *pp'*-DDE

**OILY FISH, SALMON, IMPORTED (EC): 1 sample analysed**

| | | |
|---|---|---|
| DDT[1] (No MRL) | 0.003 | 1 |

[1] as *pp'*-DDE

Imported (EC) samples of salmon oily fish were from Eire (1).
Imported (non-EC) samples of mackerel oily fish were from NORTHEAST ATLANTIC (6).
Imported (non-EC) samples of salmon oily fish were from Norway (5).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| chlordane | NORTHEAST ATLANTIC (1), Norway (1) |
| DDT | Eire (1), Norway (3) |
| hexachlorobenzene | NORTHEAST ATLANTIC (1), Norway (2) |

No residues were found in 3 of the 5 UK mackerel oily fish samples.
No residues were found in 6 of the 23 UK salmon oily fish samples.
No residues were found in 3 of the 8 UK trout oily fish samples.
No residues were found in 4 of the 6 imported mackerel oily fish samples.
No residues were found in 1 of the 5 imported salmon oily fish samples.
Residues were found in the EC salmon oily fish sample.

**Table 18b. Residues detected in retail samples of OILY FISH obtained in January to June 2005**

Residues (1-4 compounds) were found in 31 of the 48 samples as follows:

| Number of residues | PRC Sample ID | Type of OILY FISH PART 1 | Residues found (mg/kg) | | | | Country of origin |
|---|---|---|---|---|---|---|---|
| | | | CLD | DDT[1] | DIE | HCB | |
| (1) | 0568/2005 | SALMON | - | - | - | 0.003 | UK |
| | 0847/2005 | SALMON | - | 0.002 | - | - | UK |
| | 0893/2005 | SALMON | - | - | - | 0.004 | UK |
| | 0954/2005 | SALMON | - | 0.003 | - | - | UK |
| | 1374/2005 | TROUT | - | - | - | 0.002 | UK |
| | 1430/2005 | MACKEREL | - | - | 0.003 | - | UK |
| | 1457/2005 | TROUT | - | - | - | 0.002 | UK |
| | 1458/2005 | SALMON | - | - | - | 0.003 | UK |
| | 2243/2005 | TROUT | - | - | - | 0.003 | UK |
| | 2302/2005 | SALMON | - | - | - | 0.002 | UK |
| | 2361/2005 | SALMON | - | 0.003 | - | - | UK |
| | 2379/2005 | SALMON | - | 0.002 | - | - | UK |
| | 2392/2005 | TROUT | - | - | - | 0.003 | UK |
| | 2679/2005 | SALMON | - | 0.002 | - | - | UK |
| | 2702/2005 | SALMON | - | - | - | 0.003 | UK |
| | 3864/2005 | SALMON | - | 0.003 | - | - | UK |
| | 4182/2005 | SALMON | - | 0.008 | - | - | UK |
| | 4323/2005 | SALMON | - | 0.005 | - | - | UK |
| | 2301/2005 | MACKEREL | - | - | - | 0.002 | NORTHEAST ATLANTIC |
| | 2648/2005 | MACKEREL | 0.003 | - | - | - | NORTHEAST ATLANTIC |
| | 2272/2005 | SALMON | - | 0.003 | - | - | Norway |
| | 3851/2005 | SALMON | - | 0.004 | - | - | Norway |
| | 3937/2005 | SALMON | - | 0.003 | - | - | Eire |
| (2) | 1405/2005 | SALMON | - | 0.003 | - | 0.003 | UK |
| | 2738/2005 | MACKEREL | 0.005 | - | 0.002 | - | UK |
| | 3919/2005 | TROUT | - | 0.004 | 0.004 | - | UK |
| | 4186/2005 | SALMON | - | 0.01 | 0.004 | - | UK |
| | 4197/2005 | SALMON | - | 0.01 | 0.005 | - | UK |
| | 0841/2005 | SALMON | 0.003 | - | - | 0.004 | Norway |
| | 1455/2005 | SALMON | - | 0.003 | - | 0.003 | Norway |
| (4) | 0997/2005 | SALMON | 0.005 | 0.01 | 0.003 | 0.003 | UK |

[1] as *pp'*-DDE

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CLD | chlordane | DDT | DDT | DIE | dieldrin |
| HCB | hexachlorobenzene | | | | |

**Table 18c Residues sought but not found in retail samples of OILY FISH obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

| | | |
|---|---|---|
| aldrin (0.1) | chlordane (0.1) | endrin (0.1) |
| alpha-HCH (0.1) | DDT (0.1) | heptachlor (0.1) |
| beta-HCH (0.1) | endosulfan (0.1) | lindane (0.1) |

**Table 19a Analysis of residues detected in retail samples of ORANGES obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **ORANGES, IMPORTED (NON-EC): 16 samples analysed** | | |
| 2,4-D | <0.05 (i.e. not found) | 10 |
| (MRL = 1) | 0.08 - 0.4 | 6 |
| 2-phenylphenol | <0.1 (i.e. not found) | 14 |
| (CAC MRL = 10) | 1, 1.8 | 2 |
| carbendazim | <0.05 (i.e. not found) | 14 |
| (MRL = 5) | 0.07, 0.1 | 2 |
| chlorpyrifos | <0.02 (i.e. not found) | 13 |
| (MRL = 0.3) | 0.02 - 0.1 | 3 |
| diazinon | <0.02 (i.e. not found) | 15 |
| (MRL = 0.02) | 0.04 | 1 |
| dimethoate | <0.02 (i.e. not found) | 15 |
| (MRL = 0.02) | 0.03 | 1 |
| imazalil | <0.05 (i.e. not found) | 1 |
| (MRL = 5) | 0.3 - 2.2 | 15 |
| malathion | <0.02 (i.e. not found) | 14 |
| (MRL = 2) | 0.03, 0.2 | 2 |
| methidathion | <0.02 (i.e. not found) | 11 |
| (MRL = 2) | 0.06 - 0.3 | 5 |
| thiabendazole | <0.05 (i.e. not found) | 2 |
| (MRL = 5) | 0.3 - 2 | 14 |
| **ORANGES, IMPORTED (EC): 20 samples analysed** | | |
| 2,4-D | <0.05 (i.e. not found) | 17 |
| (MRL = 1) | 0.08 - 0.2 | 3 |
| 2-phenylphenol | <0.1 (i.e. not found) | 12 |
| (CAC MRL = 10) | 0.4 – 4.4 | 8 |
| bromopropylate | <0.05 (i.e. not found) | 19 |
| (MRL = 2) | 0.8 | 1 |
| carbendazim | <0.05 (i.e. not found) | 19 |
| (MRL = 5) | 0.07 | 1 |
| carbofuran | <0.01 (i.e. not found) | 17 |
| (MRL = 0.3) | 0.01 – 0.08 | 3 |
| chlorpyrifos | <0.02 (i.e. not found) | 6 |
| (MRL = 0.3) | 0.03 - 0.1 | 14 |
| dicofol | <0.05 (i.e. not found) | 17 |

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| (MRL = 2) | 0.08 – 1.3 | 3 |
| fenthion | <0.02 (i.e. not found) | 18 |
| (CAC MRL = 2) | 0.03, 0.3 | 2 |
| imazalil | <0.05 (i.e. not found) | 1 |
| (MRL = 5) | 0.3 – 1.8 | 19 |
| malathion | <0.02 (i.e. not found) | 17 |
| (MRL = 2) | 0.02 – 0.05 | 3 |
| methidathion | <0.02 (i.e. not found) | 16 |
| (MRL = 2) | 0.06 - 0.1 | 4 |
| thiabendazole | <0.05 (i.e. not found) | 11 |
| (MRL = 5) | 0.09 – 1.8 | 9 |

Imported (EC) samples of oranges were from Cyprus (3), Spain (17).
Imported (non-EC) samples of oranges were from Egypt (6), Israel (6), Morocco (3), Turkey (1).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| 2,4-D | Israel (6), Spain (3) |
| 2-phenylphenol | Cyprus (3), Egypt (1), Spain (5), Turkey (1) |
| bromopropylate | Cyprus (1) |
| carbendazim | Morocco (2), Spain (1) |
| carbofuran | Spain (3) |
| chlorpyrifos | Egypt (1), Israel (2), Spain (14) |
| diazinon | Egypt (1) |
| dicofol | Spain (3) |
| dimethoate | Egypt (1) |
| fenthion | Spain (2) |
| imazalil | Cyprus (3), Egypt (6), Israel (6), Morocco (2), Spain (16), Turkey (1) |
| malathion | Cyprus (1), Egypt (2), Spain (2) |
| methidathion | Egypt (1), Israel (3), Morocco (1), Spain (4) |
| thiabendazole | Cyprus (1), Egypt (6), Israel (6), Morocco (1), Spain (8), Turkey (1) |

Residues were found in all of the imported samples.
Residues were found in all of the EC samples.

**Table 19b Residues detected in retail samples of ORANGES obtained in January to June 2005**

Residues (1-7 compounds) were found in 36 of the 36 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24D | 2PP | BPP | CBF | CBZ | CPF | DIC | DIM | DIZ | FNT | IMZ | MAL | MDT | TBZ | |
| (1) | 0685/2005 | - | - | - | - | - | - | - | - | - | - | 0.3 | - | - | - | Spain |
| (2) | 0797/2005 | - | - | - | - | - | - | - | - | - | - | 1.3 | - | - | 0.9 | Egypt |
| | 1083/2005 | - | - | - | - | - | - | - | - | - | - | 1.1 | - | - | 0.5 | Egypt |
| | 1593/2005 | - | - | - | - | - | - | - | - | - | - | 1.1 | - | - | 0.5 | Egypt |
| | 1473/2005 | - | - | - | - | 0.1 | - | - | - | - | - | 0.6 | - | - | - | Morocco |
| | 2422/2005 | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.9 | Morocco |
| | 4113/2005 | - | - | - | - | 0.07 | - | - | - | - | - | 0.7 | - | - | - | Morocco |
| | 1008/2005 | - | 0.9 | - | - | - | - | - | - | - | - | 1.3 | - | - | - | Cyprus |
| | 1058/2005 | - | 0.9 | - | - | - | - | - | - | - | - | 1.2 | - | - | - | Cyprus |
| | 0757/2005 | - | - | - | - | - | 0.04 | - | - | - | - | 1 | - | - | - | Spain |
| | 4138/2005 | - | - | - | - | - | 0.06 | - | - | - | 0.3 | - | - | - | - | Spain |
| (3) | 1243/2005 | - | - | - | - | - | - | - | 0.03 | - | - | 2 | - | - | 0.5 | Egypt |
| | 1563/2005 | 0.08 | - | - | - | - | - | - | - | - | - | 1.9 | - | - | 1.3 | Israel |
| | 2572/2005 | 0.3 | - | - | - | - | - | - | - | - | - | 1.6 | - | - | 0.8 | Israel |
| | 0702/2005 | - | 1 | - | - | - | - | - | - | - | - | 0.3 | - | - | 0.8 | Turkey |
| | 1213/2005 | - | 1.3 | - | - | - | 0.04 | - | - | - | - | 1.6 | - | - | - | Spain |
| | 2443/2005 | - | 2 | - | - | - | 0.1 | - | - | - | - | 0.9 | - | - | - | Spain |
| | 2552/2005 | - | - | - | - | - | 0.03 | - | - | - | - | 0.9 | - | 0.1 | - | Spain |
| | 4090/2005 | - | - | - | - | - | 0.1 | - | - | - | - | 0.7 | - | - | 0.1 | Spain |
| | 4163/2005 | - | 0.4 | - | - | - | 0.04 | - | - | - | - | 0.6 | - | - | - | Spain |
| (4) | 1183/2005 | 0.1 | - | - | - | - | 0.05 | - | - | - | - | 2.2 | - | - | 1.2 | Israel |
| | 2482/2005 | 0.1 | - | - | - | - | - | - | - | - | - | 1 | - | 0.06 | 0.8 | Israel |
| | 4363/2005 | 0.1 | - | - | - | - | - | - | - | - | - | 1.6 | - | 0.1 | 0.9 | Israel |
| | 0637/2005 | - | 4.4 | - | - | 0.07 | - | - | - | - | - | 0.9 | - | - | 0.09 | Spain |

**Table 19a Analysis of residues detected in retail samples of ORANGES obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24D | 2PP | BPP | CBF | CBZ | CPF | DIC | DIM | DIZ | FNT | IMZ | MAL | MDT | TBZ | |
| | 1033/2005 | - | - | - | 0.08 | - | 0.06 | - | - | - | - | 0.6 | - | - | 0.1 | Spain |
| | 2512/2005 | 0.2 | - | - | - | - | 0.03 | - | - | - | - | 1.8 | - | - | 1.8 | Spain |
| | 4038/2005 | 0.08 | - | - | - | - | 0.1 | - | - | - | - | 0.9 | - | - | 1.8 | Spain |
| | 4393/2005 | - | - | - | - | - | 0.04 | - | - | - | - | 1 | 0.02 | - | 1.8 | Spain |
| | 6608/2005 | - | - | - | 0.01 | - | 0.03 | 1.3 | - | - | - | 0.5 | - | - | - | Spain |
| (5) | 1273/2005 | - | 1.8 | - | - | - | - | - | - | 0.04 | - | 1 | 0.03 | - | 0.3 | Egypt |
| | 2217/2005 | - | - | - | - | - | 0.02 | - | - | - | - | 1.6 | 0.2 | 0.3 | 2 | Egypt |
| | 0608/2005 | 0.4 | - | - | - | - | 0.1 | - | - | - | - | 1.7 | - | 0.08 | 1.3 | Israel |
| | 6633/2005 | - | 1.1 | 0.8 | - | - | - | - | - | - | - | 1.2 | 0.05 | - | 1.1 | Cyprus |
| | 1623/2005 | 0.09 | 0.5 | - | - | - | - | - | - | - | - | 0.9 | - | 0.06 | 1.8 | Spain |
| | 4062/2005 | - | - | - | - | - | 0.1 | 0.2 | - | - | 0.03 | 1.1 | - | 0.08 | - | Spain |
| (7) | 1501/2005 | - | - | - | 0.04 | - | 0.05 | 0.08 | - | - | - | 1.6 | 0.03 | 0.09 | 1.8 | Spain |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| 24D | 2,4-D | 2PP | 2-phenylphenol | BPP | bromopropylate |
| CBF | carbofuran | CBZ | carbendazim | CPF | chlorpyrifos |
| DIC | dicofol | DIM | dimethoate | DIZ | diazinon |
| FNT | fenthion | IMZ | imazalil | MAL | malathion |
| MDT | methidathion | TBZ | thiabendazole | | |

**Table 19c Residues sought but not found in retail samples of ORANGES obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
biphenyl (0.05)
bitertanol (0.05)
bupirimate (0.05)
captan (0.02)
carbaryl (0.02)
chlorfenvinphos (0.02)
chlorobenzilate (0.05)
chlorothalonil (0.05)
chlorpropham (0.05)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
cyprodinil (0.05)
DDT (0.05)
deltamethrin (0.05)
dichlofluanid (0.05)
dichlorprop (0.05)
diphenylamine (0.05)
endosulfan (0.05)
ethion (0.02)
fenhexamid (0.05)
fenitrothion (0.02)
fenoxycarb (0.05)
fludioxonil (0.05)
folpet (0.02)
imidacloprid (0.05)
iprodione (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
mecarbam (0.02)
metalaxyl (0.05)
methamidophos (0.01)
methomyl (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
omethoate (0.02)
oxydemeton-methyl (0.02)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
permethrin (0.05)
phorate (0.05)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-ethyl (0.02)
pirimiphos-methyl (0.05)
prochloraz (0.1)
procymidone (0.02)
propargite (0.05)
propyzamide (0.05)
pyrimethanil (0.05)
pyriproxifen (0.05)
spiroxamine (0.05)
tetradifon (0.05)
tolclofos-methyl (0.01)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
vinclozolin (0.02)

**Table 20a Analysis of residues detected in samples of PEARS obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **PEARS, UK: 22 samples analysed** | | |
| carbendazim | <0.05 (i.e. not found) | 15 |
| (MRL = 2) | 0.1 - 0.5 | 7 |
| chlorpyrifos | <0.02 (i.e. not found) | 21 |
| (MRL = 0.5) | 0.03 | 1 |
| diphenylamine | <0.05 (i.e. not found) | 21 |
| (MRL = 10) | 0.2 | 1 |
| iprodione | <0.02 (i.e. not found) | 5 |
| (MRL = 10) | 0.02 - 4 | 17 |
| metalaxyl | <0.05 (i.e. not found) | 21 |
| (MRL = 1) | 0.09 | 1 |
| tolylfluanid | <0.05 (i.e. not found) | 21 |
| (CAC MRL = 5) | 0.06 | 1 |
| **PEARS, IMPORTED (NON-EC): 56 samples analysed** | | |
| azinphos-methyl | <0.02 (i.e. not found) | 33 |
| (MRL = 1) | 0.02 - 0.2 | 23 |
| captan | <0.02 (i.e. not found) | 54 |
| (MRL = 3) | 0.04, 0.3 | 2 |
| carbaryl | <0.02 (i.e. not found) | 52 |
| (MRL = 5) | 0.03 - 0.1 | 4 |
| carbendazim | <0.05 (i.e. not found) | 55 |
| (MRL = 2) | 0.1 | 1 |
| diphenylamine | <0.05 (i.e. not found) | 51 |
| (MRL = 10) | 0.2 - 2 | 5 |
| dithiocarbamates | <0.05 (i.e. not found) | 43 |
| (MRL = 3) | 0.1 - 0.5 | 13 |
| iprodione | <0.02 (i.e. not found) | 50 |
| (MRL = 10) | 0.03 - 0.4 | 6 |
| thiabendazole | <0.05 (i.e. not found) | 54 |
| (MRL = 5) | 0.2, 1 | 2 |
| **PEARS, IMPORTED (EC): 76 samples analysed** | | |
| azinphos-methyl | <0.02 (i.e. not found) | 75 |
| (MRL = 1) | 0.1 | 1 |
| captan | <0.02 (i.e. not found) | 48 |

**Table 20a Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| (MRL = 3) | 0.02 - 0.7 | 28 |
| carbaryl | <0.02 (i.e. not found) | 75 |
| (MRL = 5) | 0.03 | 1 |
| carbendazim | <0.05 (i.e. not found) | 26 |
| (MRL = 2) | 0.06 - 1 | 50 |
| chlormequat | <0.05 (i.e. not found) | 68 |
| (MRL = 0.3) | 0.7 – 0.2 | 8 |
| chlorpyrifos | <0.02 (i.e. not found) | 75 |
| (MRL = 0.5) | 0.05 | 1 |
| diphenylamine | <0.05 (i.e. not found) | 67 |
| (MRL = 10) | 0.3 - 0.8 | 9 |
| dithiocarbamates | <0.05 (i.e. not found) | 56 |
| (MRL = 3) | 0.05 – 0.8 | 20 |
| fenitrothion | <0.02 (i.e. not found) | 75 |
| (MRL = 0.5) | 0.05 | 1 |
| folpet | <0.02 (i.e. not found) | 68 |
| (No MRL) | 0.03 - 0.6 | 8 |
| imazalil | <0.05 (i.e. not found) | 67 |
| (MRL = 5) | 0.3 - 0.9 | 9 |
| iprodione | <0.02 (i.e. not found) | 75 |
| (MRL = 10) | 0.9 | 1 |
| malathion | <0.02 (i.e. not found) | 75 |
| (MRL = 0.5) | 0.04 | 1 |
| phosalone | <0.02 (i.e. not found) | 75 |
| (MRL = 2) | 0.04 | 1 |
| phosmet | <0.02 (i.e. not found) | 67 |
| (CAC MRL = 10) | 0.06 - 0.4 | 9 |
| pirimicarb | <0.02 (i.e. not found) | 74 |
| (CAC MRL = 1) | 0.02, 0.03 | 2 |
| procymidone | <0.02 (i.e. not found) | 73 |
| (MRL = 1) | 0.03 | 3 |
| tebuconazole | <0.05 (i.e. not found) | 75 |
| (CAC MRL = 0.5) | 0.1 | 1 |
| tolylfluanid | <0.05 (i.e. not found) | 23 |
| (CAC MRL = 5) | 0.05 – 0.5 | 53 |

Imported (EC) samples of pears were from Belgium (23), Italy (4), Portugal (9), the Netherlands (40). Imported (non-EC) samples of pears were from Argentina (5), Chile (2), New Zealand (1), South Africa (48).

**Table 20a** **Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

**Table 20a Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| azinphos-methyl | Argentina (2), Chile (2), Italy (1), South Africa (19) |
| captan | Argentina (1), Belgium (2), Chile (1), Italy (3), Portugal (7), the Netherlands (16) |
| carbaryl | Argentina (4), Portugal (1) |
| carbendazim | Belgium (18), South Africa (1), the Netherlands (32) |
| chlormequat | Belgium (3), the Netherlands (5) |
| chlorpyrifos | Italy (1) |
| diphenylamine | Chile (1), Portugal (9), South Africa (4) |
| dithiocarbamates | Belgium (6), Italy (2), Portugal (1), South Africa (13), the Netherlands (11) |
| fenitrothion | Italy (1) |
| folpet | Portugal (8) |
| imazalil | Portugal (9) |
| iprodione | South Africa (6), the Netherlands (1) |
| malathion | Portugal (1) |
| phosalone | Portugal (1) |
| phosmet | Portugal (9) |
| pirimicarb | Belgium (2) |
| Procymidone | Italy (3) |
| Tebuconazole | Italy (1) |
| Thiabendazole | Argentina (1), Chile (1) |
| Tolylfluanid | Belgium (21), Italy (2), the Netherlands (30) |

No residues were found in 3 of the 22 UK samples.
No residues were found in 19 of the 56 imported samples.
No residues were found in 1 of the 76 EC samples.
6 of UK produced samples were analysed for aldicarb.
19 of imported samples were analysed for aldicarb.
27 of EC produced samples. were analysed for aldicarb.
6 of UK produced samples were analysed for chlormequat.
19 of imported samples were analysed for chlormequat.
27 of EC produced samples. were analysed for chlormequat.
6 of UK produced samples were analysed for dithianon.
19 of imported samples were analysed for dithianon.
27 of EC produced samples. were analysed for dithianon.
6 of UK produced samples were analysed for dithiocarbamates.
19 of imported samples were analysed for dithiocarbamates.
27 of EC produced samples. were analysed for dithiocarbamates.
6 of UK produced samples were analysed for imidacloprid.
19 of imported samples were analysed for imidacloprid.
27 of EC produced samples. were analysed for imidacloprid.
6 of UK produced samples were analysed for methomyl.
19 of imported samples were analysed for methomyl.
27 of EC produced samples. were analysed for methomyl.
6 of UK produced samples were analysed for oxydemeton-methyl.
19 of imported samples were analysed for oxydemeton-methyl.
27 of EC produced samples. were analysed for oxydemeton-methyl.
6 of UK produced samples were analysed for phorate.
19 of imported samples were analysed for phorate.
27 of EC produced samples. were analysed for phorate.

**Table 20b. Residues detected in retail samples of PEARS obtained in January to June 2005**

Residues (1-6 compounds) were found in 131 of the 154 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CLQ | CPF | DPA | DTC | FNTT | FPET | IMZ | IPR | MAL | MTX | PCM | PHS | PIR | PMT | TBC | TBZ | TOL | |
| (1) | 0001/2005 | - | - | - | - | - | - | - | - | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | UK |
| | 0002/2005 | - | - | - | - | - | - | - | - | - | - | - | 2.6 | - | - | - | - | - | - | - | - | - | UK |
| | 0003/2005 | - | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 0014/2005 | - | - | - | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | UK |
| | 0030/2005 | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - | - | - | UK |
| | 0082/2005 | - | - | - | 0.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | UK |
| | 0201/2005 | - | - | - | - | - | - | - | - | - | - | - | 0.5 | - | - | - | - | - | - | - | - | - | UK |
| | 0221/2005 | - | - | - | - | - | - | - | - | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | UK |
| | 0232/2005 | - | - | - | - | - | - | - | - | - | - | - | 0.6 | - | - | - | - | - | - | - | - | - | UK |
| | 1268/2005 | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | UK |
| | 4109/2005 | - | - | - | - | - | - | - | - | - | - | - | 1.5 | - | - | - | - | - | - | - | - | - | UK |
| | 4162/2005 | - | - | - | - | - | - | - | - | - | - | - | 1.1 | - | - | - | - | - | - | - | - | - | UK |
| | 0162/2005 | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Argentina |
| | 0023/2005 | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0113/2005 | - | - | - | - | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0114/2005 | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0152/2005 | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0155/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0170/2005 | - | - | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0198/2005 | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0206/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0209/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0248/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0250/2005 | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0588/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0672/2005 | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0720/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0748/2005 | - | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 1075/2005 | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 1587/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2416/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 2536/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 6628/2005 | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0092/2005 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Belgium |

**Table 20b. Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CLQ | CPF | DPA | DTC | FNTT | FPET | IMZ | IPR | MAL | MTX | PCM | PHS | PIR | PMT | TBC | TBZ | TOL | |
| | 0095/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Belgium |
| | 0304/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 4134/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | Belgium |
| | 0007/2005 | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 4035/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 4135/2005 | - | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 6603/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | the Netherlands |
| (2) | 0163/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | 1.5 | - | - | - | - | - | - | - | - | - | UK |
| | 2506/2005 | - | - | - | 0.5 | - | - | - | - | - | - | - | 0.8 | - | - | - | - | - | - | - | - | - | UK |
| | 4085/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | UK |
| | 4110/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | 0.6 | - | - | - | - | - | - | - | - | - | UK |
| | 4161/2005 | - | - | - | - | - | 0.03 | - | - | - | - | - | 0.7 | - | - | - | - | - | - | - | - | - | UK |
| | 0066/2005 | 0.1 | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Argentina |
| | 0236/2005 | 0.05 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Argentina |
| | 0158/2005 | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | - | Chile |
| | 0005/2005 | - | - | - | - | - | - | - | 0.2 | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | South Africa |
| | 0061/2005 | 0.04 | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - | - | - | - | - | - | - | - | South Africa |
| | 0063/2005 | 0.06 | - | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0213/2005 | 0.04 | - | - | - | - | - | - | 0.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0628/2005 | - | - | - | - | - | - | 0.8 | - | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | South Africa |
| | 0629/2005 | 0.1 | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0789/2005 | - | - | - | - | - | - | 0.7 | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | South Africa |
| | 1028/2005 | 0.2 | - | - | - | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 1178/2005 | 0.06 | - | - | - | - | - | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | South Africa |
| | 1257/2005 | 0.03 | - | - | - | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | South Africa |
| | 0015/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | Belgium |
| | 0018/2005 | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 0041/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | Belgium |
| | 0081/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |
| | 0172/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 0186/2005 | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 0190/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |
| | 0205/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | Belgium |
| | 0211/2005 | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | Belgium |
| | 0366/2005 | - | - | - | - | - | - | - | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | 0.06 | Belgium |

**Table 20b. Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CLQ | CPF | DPA | DTC | FNTT | FPET | IMZ | IPR | MAL | MTX | PCM | PHS | PIR | PMT | TBC | TBZ | TOL | |
| | 1497/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |
| | 4084/2005 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | 0.2 | Belgium |
| | 4389/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |
| | 0072/2005 | 0.1 | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Italy |
| | 0112/2005 | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - | - | - | - | - | Italy |
| | 0044/2005 | - | 0.07 | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 0103/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 0153/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.09 | the Netherlands |
| | 0191/2005 | - | - | - | 0.4 | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 0384/2005 | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.05 | the Netherlands |
| | 0717/2005 | - | - | - | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 0747/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.08 | the Netherlands |
| | 1002/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.07 | the Netherlands |
| | 1052/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 1078/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 1256/2005 | - | 0.1 | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 1557/2005 | - | 0.2 | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 1616/2005 | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 2415/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | the Netherlands |
| | 2505/2005 | - | - | - | 0.5 | - | - | - | - | - | - | - | 0.9 | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 2535/2005 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 6627/2005 | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |

**Table 20b. Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CLQ | CPF | DPA | DTC | FNTT | FPET | IMZ | IPR | MAL | MTX | PCM | PHS | PIR | PMT | TBC | TBZ | TOL | |
| (3) | 0045/2005 | - | - | - | 0.1 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 0.06 | UK |
| | 0168/2005 | - | - | - | 0.4 | - | - | - | - | - | - | - | 1.6 | - | 0.09 | - | - | - | - | - | - | - | UK |
| | 0053/2005 | - | 0.3 | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | Argentina |
| | 2566/2005 | 0.07 | 0.04 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Chile |
| | 1077/2005 | - | - | - | - | - | - | 2 | 0.5 | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | South Africa |
| | 0027/2005 | - | 0.03 | - | 0.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 0029/2005 | - | - | - | 0.2 | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | Belgium |
| | 0087/2005 | - | - | - | 0.3 | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |
| | 0083/2005 | - | 0.06 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 0252/2005 | - | 0.2 | - | 1 | - | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 0303/2005 | - | 0.05 | - | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.09 | the Netherlands |
| | 0589/2005 | - | - | - | 0.2 | 0.07 | - | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | the Netherlands |
| | 0788/2005 | - | 0.04 | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | the Netherlands |
| | 1003/2005 | - | 0.04 | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | the Netherlands |
| | 1027/2005 | - | 0.2 | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 1179/2005 | - | - | - | 0.4 | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 1239/2005 | - | 0.04 | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | the Netherlands |
| | 1269/2005 | - | - | - | 0.1 | - | - | - | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | 0.09 | the Netherlands |
| | 1466/2005 | - | 0.03 | - | - | - | - | - | 0.08 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 1586/2005 | - | - | - | 0.2 | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | 0.06 | the Netherlands |
| | 2475/2005 | - | 0.09 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 2565/2005 | - | 0.04 | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | the Netherlands |
| | 4058/2005 | - | - | - | 0.2 | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| (4) | 0121/2005 | - | - | - | 0.4 | 0.1 | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | Belgium |

**Table 20b. Residues detected in retail samples of PEARS obtained in January to June 2005 *continued***

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | | | | | | | | | | | | | | | | | Country of origin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZM | CAP | CBY | CBZ | CLQ | CPF | DPA | DTC | FNTT | FPET | IMZ | IPR | MAL | MTX | PCM | PHS | PIR | PMT | TBC | TBZ | TOL | |
| | 0281/2005 | - | - | - | 0.2 | 0.2 | - | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | Belgium |
| | 0017/2005 | - | 0.4 | - | - | - | - | - | 0.8 | - | - | - | - | - | - | 0.03 | - | - | - | - | - | 0.1 | Italy |
| | 0056/2005 | - | 0.08 | - | - | - | - | 0.8 | - | - | - | 0.9 | - | - | - | - | - | - | 0.2 | - | - | - | Portugal |
| | 0212/2005 | - | - | - | - | - | - | 0.8 | - | - | 0.2 | 0.3 | - | - | - | - | - | - | 0.06 | - | - | - | Portugal |
| | 4059/2005 | - | - | - | - | - | - | 0.8 | - | - | 0.3 | 0.4 | - | - | - | - | - | - | 0.1 | - | - | - | Portugal |
| | 0004/2005 | - | 0.5 | - | 0.2 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | the Netherlands |
| | 0253/2005 | - | - | - | 0.2 | 0.2 | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | the Netherlands |
| | 2219/2005 | - | 0.04 | - | - | 0.09 | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | 0.06 | the Netherlands |
| (5) | 0203/2005 | - | - | - | 0.4 | 0.2 | - | - | 0.06 | - | - | - | - | - | - | - | - | 0.03 | - | - | - | 0.4 | Belgium |
| | 0055/2005 | - | 0.04 | - | - | - | - | 0.6 | - | - | 0.07 | 0.6 | - | - | - | - | - | - | 0.1 | - | - | - | Portugal |
| | 0222/2005 | - | 0.7 | - | - | - | - | 0.4 | - | - | 0.3 | 0.9 | - | - | - | - | - | - | 0.3 | - | - | - | Portugal |
| (6) | 1208/2005 | - | - | - | - | - | 0.05 | - | 0.3 | 0.05 | - | - | - | - | - | 0.03 | - | - | - | 0.1 | - | 0.07 | Italy |
| | 0120/2005 | - | 0.03 | - | - | - | - | 0.3 | - | - | 0.03 | 0.4 | - | - | - | - | 0.04 | - | 0.09 | - | - | - | Portugal |
| | 0214/2005 | - | 0.1 | - | - | - | - | 0.6 | - | - | 0.04 | 0.3 | - | 0.04 | - | - | - | - | 0.4 | - | - | - | Portugal |
| | 4358/2005 | - | 0.3 | 0.03 | - | - | - | 0.7 | - | - | 0.4 | 0.5 | - | - | - | - | - | - | 0.1 | - | - | - | Portugal |
| | 4359/2005 | - | 0.4 | - | - | - | - | 0.4 | 0.09 | - | 0.6 | 0.5 | - | - | - | - | - | - | 0.2 | - | - | - | Portugal |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| AZM | azinphos-methyl | CAP | captan | CBY | carbaryl |
| CBZ | carbendazim | CLQ | chlormequat | CPF | chlorpyrifos |
| DPA | diphenylamine | DTC | dithiocarbamates | FNTT | fenitrothion |
| FPET | folpet | IMZ | imazalil | IPR | iprodione |
| MAL | malathion | MTX | metalaxyl | PCM | procymidone |
| PHS | phosalone | PIR | pirimicarb | PMT | phosmet |
| TBC | tebuconazole | TBZ | thiabendazole | TOL | tolylfluanid |

**Table 20c. Residues sought but not found in retail samples of PEARS obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
biphenyl (0.05)
bromopropylate (0.05)
bupirimate (0.05)
chlorothalonil (0.05)
chlorpyrifos-methyl (0.02)
cypermethrin (0.05)
cyprodinil (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dicofol (0.05)
dimethoate (0.02)
dithianon (0.05)
dodine (0.05)
endosulfan (0.05)
ethion (0.02)
fenbuconazole (0.05)
fenhexamid (0.05)
fludioxonil (0.05)
fosthiazate (0.02)
imidacloprid (0.05)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
mecarbam (0.02)
methamidophos (0.01)
methidathion (0.02)
methomyl (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
omethoate (0.02)
oxydemeton-methyl (0.02)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
permethrin (0.05)
phorate (0.02)
pirimiphos-ethyl (0.02)
pirimiphos-methyl (0.02)
propargite (0.05)
propyzamide (0.05)
pyrimethanil (0.05)
spiroxamine (0.05)
tebufenpyrad (0.05)
tetradifon (0.05)
tolclofos-methyl (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazamate (0.02)
triazophos (0.02)
trifloxystrobin (0.05)
vinclozolin (0.02)

**Table 21a Analysis of residues detected in samples of POTATOES obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **POTATOES, MAINCROP, UK: 52 samples analysed** | | |
| aldicarb | <0.02 (i.e. not found) | 51 |
| (MRL = 0.5) | 0.02 | 1 |
| chlorpropham | <0.05 (i.e. not found) | 27 |
| (No MRL) | 0.08 - 6.4 | 25 |
| maleic hydrazide | <1 (i.e. not found) | 39 |
| (MRL = 50) | 1.4 - 14 | 13 |
| **POTATOES, MAINCROP, IMPORTED (NON-EC): 6 samples analysed** | | |
| none found | - | 6 |
| **POTATOES, NEW, IMPORTED (NON-EC): 10 samples analysed** | | |
| none found | - | 10 |
| **POTATOES, MAINCROP, IMPORTED (EC): 1 sample analysed** | | |
| chlorpropham | 0.5 | 1 |
| (No MRL) | | |
| **POTATOES, NEW, IMPORTED (EC): 2 samples analysed** | | |
| none found | - | 2 |

Imported (EC) samples of maincrop potatoes part 1 were from the Netherlands (1).
Imported (EC) samples of new potatoes part 1 were from Cyprus (1), Spain (1).
Imported (non-EC) samples of maincrop potatoes part 1 were from Egypt (2), Israel (4).
Imported (non-EC) samples of new potatoes part 1 were from Cuba (1), Egypt (1), Israel (6), Morocco (2).

Residues were distributed by country of origin, as follows:
chlorpropham the Netherlands (1)

No residues were found in 22 of the 52 UK maincrop potatoes samples.
No residues were found in any of the imported maincrop potatoes samples.
No residues were found in any of the imported new potatoes samples.
Residues were found in the EC maincrop potatoes sample.
No residues were found in any of the EC new potatoes samples.
27 of UK produced samples were analysed for dithiocarbamates.
1 of imported samples were analysed for dithiocarbamates.
5 of imported samples were analysed for dithiocarbamates.
1 of EC produced samples. were analysed for dithiocarbamates.
Residues of dithiocarbamates were sought in samples from IMPORTED (NON-EC) only.

**Table 21b Residues detected in samples of POTATOES obtained in January to June 2005**

Residues (1-2 compounds) were found in 31 of the 71 samples as follows:

| Number of residues | PRC Sample ID | Type of POTATOES | Residues found (mg/kg) | | | Country of origin |
|---|---|---|---|---|---|---|
| | | | ALD | CPP | MH | |
| (1) | 0401/2005 | MAINCROP | - | 4.4 | - | UK |
| | 0411/2005 | MAINCROP | - | 0.3 | - | UK |
| | 0422/2005 | MAINCROP | - | - | 6.9 | UK |
| | 0423/2005 | MAINCROP | - | 1.6 | - | UK |
| | 0448/2005 | MAINCROP | - | 1.9 | - | UK |
| | 0456/2005 | MAINCROP | - | - | 13 | UK |
| | 0458/2005 | MAINCROP | - | 0.9 | - | UK |
| | 0463/2005 | MAINCROP | - | 1.6 | - | UK |
| | 0468/2005 | MAINCROP | - | 0.08 | - | UK |
| | 0483/2005 | MAINCROP | - | 6.4 | - | UK |
| | 0490/2005 | MAINCROP | - | - | 6.1 | UK |
| | 0497/2005 | MAINCROP | - | 4.1 | - | UK |
| | 0503/2005 | MAINCROP | - | 4.5 | - | UK |
| | 0507/2005 | MAINCROP | - | 1.6 | - | UK |
| | 0528/2005 | MAINCROP | - | 3.9 | - | UK |
| | 0533/2005 | MAINCROP | - | 0.1 | - | UK |
| | 0534/2005 | MAINCROP | - | 2.4 | - | UK |
| | 0543/2005 | MAINCROP | - | 0.6 | - | UK |
| | 0550/2005 | MAINCROP | - | 6.2 | - | UK |
| | 1101/2005 | MAINCROP | - | 0.2 | - | UK |
| | 1118/2005 | MAINCROP | - | - | 14 | UK |
| | 0487/2005 | MAINCROP | - | 0.5 | - | the Netherlands |
| (2) | 0402/2005 | MAINCROP | - | 0.4 | 7 | UK |
| | 0508/2005 | MAINCROP | - | 0.4 | 7.1 | UK |
| | 0509/2005 | MAINCROP | - | 1.7 | 9.5 | UK |
| | 0529/2005 | MAINCROP | 0.02 | - | 1.4 | UK |
| | 0542/2005 | MAINCROP | - | 1.8 | 12 | UK |
| | 0544/2005 | MAINCROP | - | 0.7 | 11 | UK |
| | 1105/2005 | MAINCROP | - | 0.1 | 8.8 | UK |
| | 1109/2005 | MAINCROP | - | 2.2 | 2.5 | UK |
| | 1113/2005 | MAINCROP | - | 0.5 | 12 | UK |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| ALD | aldicarb | CPP | chlorpropham | MH | maleic hydrazide |

**Table 21c. Residues sought but not found in samples of POTATOES obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
cadusafos (0.01)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
chlorothalonil (0.05)
chlorpropham (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
cymoxanil (0.05)
cypermethrin (0.05)
cyprodinil (0.05)
deltamethrin (0.05)
diazinon (0.02)
dichlofluanid (0.05)
dicofol (0.05)
dimethoate (0.02)
dithiocarbamates (0.05)
endosulfan (0.05)
famoxadone (0.05)
fenhexamid (0.05)
fipronil (0.05)
fludioxonil (0.05)
folpet (0.02)
fosthiazate (0.02)
imazalil (0.05)
imidacloprid (0.05)
iprodione (0.02)
kresoxim-methyl (0.05)
lambda-cyhalothrin (0.05)
lindane (0.05)
malathion (0.02)
maleic hydrazide (1)
mecarbam (0.02)
metalaxyl (0.05)
methamidophos (0.02)
methidathion (0.02)
methomyl (0.02)
myclobutanil (0.05)
omethoate (0.02)
oxadixyl (0.05)
oxydemeton-methyl (0.02)
parathion (0.02)
permethrin (0.05)
phorate (0.02)
phosalone (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.02)
procymidone (0.02)
propargite (0.05)
propham (0.05)
propyzamide (0.05)
pyrimethanil (0.05)
spiroxamine (0.05)
tecnazene (0.05)
thiabendazole (0.05)
tolclofos-methyl (0.05)
tolylfluanid (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
vinclozolin (0.02)

**Table 22a. Analysis of residues detected in retail samples of SPINACH obtained in January to June 2005**

| Commodity/Pesticide | Concentration range (mg/kg) | Number of samples in range |
|---|---|---|
| **SPINACH UK: 9 samples analysed** | | |
| cypermethrin | <0.05 (i.e. not found) | 8 |
| (MRL = 0.5) | 0.09 | 1 |
| **SPINACH IMPORTED (NON-EC): 1 sample analysed** | | |
| cypermethrin | 1.8 | 1 |
| (MRL = 0.5) | | |
| **SPINACH UNKNOWN: 1 sample analysed** | | |
| none found | - | 1 |
| **SPINACH IMPORTED (EC): 24 samples analysed** | | |
| cypermethrin | <0.05 (i.e. not found) | 21 |
| (MRL = 0.5) | 0.2 | 1 |
| | 0.8 | 2 |
| deltamethrin | <0.05 (i.e. not found) | 23 |
| (MRL = 0.5) | 0.2 | 1 |
| lambda-cyhalothrin | <0.05 (i.e. not found) | 23 |
| (MRL = 0.5) | 0.1 | 1 |
| methomyl | <0.02 (i.e. not found) | 23 |
| (MRL = 2) | 0.04 | 1 |

Imported (EC) samples of spinach were from Belgium (1), France (1), Italy (2), Portugal (4), Spain (16).
Imported (non-EC) samples of spinach part 1 were from USA (1).

Residues were distributed by country of origin, as follows:

| | |
|---|---|
| Cypermethrin | Spain (3), USA (1) |
| Deltamethrin | Portugal (1) |
| lambda-cyhalothrin | Spain (1) |
| Methomyl | Spain (1) |

No residues were found in 8 of the 9 UK samples.
Residues were found in the imported sample.
No residues were found in the sample of unknown origin.
No residues were found in 18 of the 24 EC samples.

**Table 22b. Residues detected in retail samples of SPINACH obtained in January to June 2005**

Residues (1 compounds) were found in 8 of the 35 samples as follows:

| Number of residues | PRC Sample ID | Residues found (mg/kg) | | | | Country of origin |
|---|---|---|---|---|---|---|
| | | CYP | DEL | LCY | METH | |
| (1) | 1009/2005 | 0.09 | - | - | - | UK |
| | 1184/2005 | 1.8 | - | - | - | USA |
| | 2424/2005 | - | 0.2 | - | - | Portugal |
| | 2544/2005 | 0.2 | - | - | - | Spain |
| | 4063/2005 | - | - | 0.1 | - | Spain |
| | 4091/2005 | - | - | - | 0.04 | Spain |
| | 4139/2005 | 0.8 | - | - | - | Spain |
| | 4166/2005 | 0.8 | - | - | - | Spain |

The abbreviations used for the pesticide names are as follows:

| | | | | | |
|---|---|---|---|---|---|
| CYP | cypermethrin | DEL | deltamethrin | LCY | lambda-cyhalothrin |
| METH | methomyl | | | | |

**Table 22c Residues sought but not found in retail samples of SPINACH obtained in January to June 2005**

The following pesticide(s) were actively sought but not found at or above their reporting limits (in parentheses in mg/kg):

acephate (0.02)
aldicarb (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.05)
bendiocarb (0.02)
bifenthrin (0.05)
bromopropylate (0.05)
bupirimate (0.05)
buprofezin (0.05)
captan (0.02)
carbaryl (0.02)
carbendazim (0.05)
carbofuran (0.01)
chlorfenvinphos (0.02)
chlorothalonil (0.05)
chlorpropham (0.05)
chlorpyrifos (0.02)
chlorpyrifos-methyl (0.02)
chlozolinate (0.02)
cyfluthrin (0.05)
cyprodinil (0.05)
DDT (0.05)
demeton-s-methyl (0.02)
diazinon (0.02)
dichlorvos (0.02)
dicloran (0.05)
dicofol (0.05)
dimethoate (0.02)
diphenylamine (0.05)
endosulfan (0.02)
ethoprophos (0.02)
fenhexamid (0.05)
fenitrothion (0.02)
fenpropathrin (0.05)
fenpropimorph (0.05)
fludioxonil (0.05)
flurochloridone (0.02)
flusilazole (0.05)
folpet (0.02)
fonofos (0.02)
furalaxyl (0.05)
heptenophos (0.02)
imazalil (0.05)
imidacloprid (0.05)
iprodione (0.02)
kresoxim-methyl (0.05)
lindane (0.05)
malathion (0.02)
mecarbam (0.02)
mepanipyrim (0.05)
metalaxyl (0.05)
methamidophos (0.01)
methidathion (0.02)
monocrotophos (0.02)
myclobutanil (0.05)
ofurace (0.05)
omethoate (0.02)
oxadixyl (0.05)
paclobutrazol (0.05)
parathion (0.02)
parathion-methyl (0.02)
penconazole (0.05)
pendimethalin (0.05)
permethrin (0.05)
phenthoate (0.02)
phorate (0.05)
phosalone (0.02)
phosmet (0.02)
phosphamidon (0.02)
pirimicarb (0.02)
pirimiphos-methyl (0.05)
prochloraz (0.1)
procymidone (0.02)
profenofos (0.02)
propargite (0.05)
propiconazole (0.05)
propoxur (0.02)
propyzamide (0.05)
prothiofos (0.05)
pyrazophos (0.02)
pyridaphenthion (0.02)
pyrifenox (0.05)
pyrimethanil (0.05)
quinalphos (0.02)
quintozene (0.05)
simazine (0.1)
spiroxamine (0.05)
tebuconazole (0.05)
tebufenpyrad (0.05)
tecnazene (0.05)
tefluthrin (0.02)
tetrachlorvinphos (0.05)
tetradifon (0.05)
thiabendazole (0.05)
tolclofos-methyl (0.05)
triadimefon (0.05)
triadimenol (0.05)
triazophos (0.02)
trifloxystrobin (0.05)
trifluralin (0.05)
vinclozolin (0.02)

**APPENDIX D**

**ASSESSMENT OF RISK TO HUMAN HEALTH (findings where no MRL, MRL exceeded or ARfD may be exceeded)**

**Table C:** Short-term intake estimates

| Crop | Pesticide | Highest residue (mg/kg) | Intake (mg/kg bw/day) | | ARfD (mg/kg bw/day) | Source | Comment on risk assessment |
|---|---|---|---|---|---|---|---|
| | | | Adult | Critical group[1] | | | |
| Apple | | | | | | | |
| Apple | Folpet [10] | 0.08 | 0.0012 | 0.0078 (infant) | 0.1 | EU, 2004 | All intakes are below the ARfD for folpet, therefore there are no concerns for consumer health. |
| Apple | Carbendazim [10] | 0.6 | 0.0088 | 0.059 (infants) toddler – 0.043 4-6 year olds – 0.033 7-10 year olds – 0.025 | 0.02 | EU, 2004 (provisional) | The intakes for infants, toddlers, 4-6 year olds and 7-10 year olds were 3.0, 2.2, 1.7 and 1.3 times the ARfD of 0.02 mg/kg bw/day respectively, based on the highest carbendazim residue found in apple. The highest intake is a two hundreth of the daily dose (10 mg/kg bw) which was given to rats in a developmental study (with dosing over 10 days during gestation), without any adverse effect. Therefore, although the predicted intakes for infants, toddlers, 4-6 year olds and 7-10 year olds represent a reduction in the usual safety margin, they do not present a health concern. |
| Apple | Dithiocarbamates [10] | 1.6[4] | 0.023 | 0.16 (infant) toddler – 0.12 4-6 year olds – 0.089 | 0.08 | EU, 2004 | The intakes for infants, toddlers and 4-6 year olds were 2.0, 1.5 and 1.1 times the ARfD of 0.08 mg/kg bw/day respectively, based on the highest □omm.□carbamates residue found in apple. The highest intake is a fiftieth of the daily dose (8 mg/kg bw) which was given to rats in a developmental study (with dosing over 10 days during gestation), without any adverse effect. Therefore, although the predicted intakes for infants, toddlers and 4-6 year olds represent a reduction in the usual safety margin, they |

| Crop | Pesticide | Highest residue (mg/kg) | Intake (mg/kg bw/day) | | ARfD (mg/kg bw/day) | Source | Comment on risk assessment |
|---|---|---|---|---|---|---|---|
| | | | Adult | Critical group[1] | | | |
| | | | | | | | do not present a health concern. |
| Apple | Phosmet [10] | 0.07 | 0.001 | 0.0069 (infant) | 0.2 | JMPR 2003 | All the intakes were below the ArfD for phosmet, therefore no concern for consumer health. |
| Beans | | | | | | | |
| Beans, green | Carbendazim | 2.3 | 0.0066 | 0.012 (Infants) | 0.02 | EU, 2004 (provisional) | All the intakes were below the ArfD for carbendazim, therefore no concern for consumer health. |
| Beans, green | Chlorothalonil | 0.1 | 0.00029 | 0.0005 (infants) | 0.015 | EU, 2002 (provisional) | All the intakes were below the ArfD for chlorothalonil, therefore no concern for consumer health. |
| Beans, green | Chlorpyrifos | 0.2 | 0.00057 | 0.001 (infants) | 0.1 | ACP, 2000 | All the intakes were below the ArfD for chlorpyrifos, therefore no concern for consumer health. |
| Beans, green | Dicofol | 0.8 | 0.0023 | 0.004 (infants) | 0.1 | PSD, 2001 | All the intakes were below the ArfD for dicofol, therefore no concern for consumer health. |
| Beans, green | Dicrotophos | 0.2 | 0.00057 | 0.001 (infants) | 0.0017 | PSD 2005 (source EPA) | All the intakes were below the ArfD for dicrotophos, therefore no concern for consumer health. |
| Beans, green | Dimethoate | 0.62[8] | 0.0018 | 0.0031 (infants) | 0.03 | ACP, 2001 | All the intakes were below the ArfD for dimethoate, therefore no concern for consumer health. |
| Beans, green | Fenvalerate | 0.4 | 0.0011 | 0.002 (infants) | Not available | - | An acute reference dose for fenvalerate is not available. However, there is no human health concern as all the intakes were below the ADI (0.02 mg/kg bw/day – JMPR, 1986) so there is no concern for consumer health. |
| Beans, green | Methamidophos | 1.8 | 0.0051 | 0.009 (infants) | 0.01 | JMPR, 2003 | All the intakes were below the ArfD for methamidophos, therefore no concern for consumer health. |
| Beans, green | Monocrotophos | 0.1 | 0.00029 | 0.0005 (infants) | 0.002 | JMPR, 1995 | All the intakes were below the ArfD for monocrotophos, therefore no concern for consumer health. |
| Beans, green | Profenophos | 0.1 | 0.00029 | 0.0005 (infants) | 0.005 | PSD, 1999 (source EPA) | All the intakes were below the ArfD for profenophos, therefore no concern for consumer health. |
| Beans, green | Tetradifon | 0.3 | 0.00086 | 0.0015 | 0.1 | PSD, 2002 | All the intakes were below the ArfD for tetradifon, therefore no concern for consumer health. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Beans, green | Dithiocarbamates | 0.8[2] | 0.0023 | 0.004 (infant) | 0.08 | EU, 2004 | All the intakes were below the ArfD for dithiocarbamates, therefore no concern for consumer health. |
| Bran | | | | | | | |
| Bran | Chlormequat | 6.6 | 0.011 | 0.031 (4-6 year olds) | 0.05 | JMPR, 1999 | All the intakes were below the ARfD for chlormequat, therefore no concern for consumer health. |
| Bran | Chlorpyrifos-methyl | 0.02 | 0.00003 | 0.00009 (4-6 year olds) | 0.01 | ACP, 2001 | All the intakes were below the ARfD for chlorpyrifos-methyl, therefore no concern for consumer health. |
| Bran | Glyphosate | 5.7 | 0.0094 | 0.026 (4-6 year olds) | Not required | EU, 2002 | Assessment of mammalian toxicology data shows glyphosate not to be acutely toxic. Intakes were calculated and were all below the ADI (0.3 mg/kg bw/day – EU, 2002) so there is no concern for consumer health. |
| Bran | Malathion | 0.3 | 0.00049 | 0.0014 (4-6 year olds) | 1.5 | ACP, 2001 | All the intakes were below the ARfD for malathion, therefore no concern for consumer health. |
| Bran | Mepiquat chloride | 0.3 | 0.00049 | 0.0014 (4-6 year olds) | 0.6 | PSD, 2005 | All the intakes were below the ARfD for mepiquat chloride, therefore no concern for consumer health. |
| Bran | Pirimiphos-methyl | 0.4 | 0.00066 | 0.0019 (4-6 year olds) | 0.15 | ACP, 2002 | All the intakes were below the ARfD for pirimiphos-methyl, therefore no concern for consumer health. |
| Courgette | | | | | | | |
| Courgette | Dimethoate | 0.05 | 0.00061 | 0.0023 (toddler) | 0.03 | ACP, 2001 | All the intakes were below the ARfD for dimethoate, therefore no concern for consumer health. |
| Courgette | Oxamyl | 0.06 | 0.00073 | 0.0028 (toddler) | 0.006 | ACP, 2002 | All the intakes were below the ARfD for oxamyl, therefore no concern for consumer health. |
| Cucumber | | | | | | | |
| Cucumber | Cyprodonil | 0.06 | 0.00037 | 0.0018 (toddler) | Not required | JMPR, 2003 | Assessment of mammalian toxicology data shows cyprodinil not to be acutely toxic. Intakes were calculated and were all below the ADI (0.03 mg/kg bw/day – JMPR, 2003) so there is no concern for consumer health. |
| Exotic Fruit | | | | | | | |
| Passion fruit | Difenoconazole | 0.07 | 0.000048 | 0.00022 (7-10 year olds) | Not required | PSD, 2002 | Assessment of mammalian toxicology data shows difenoconazole not to be acutely toxic. Intakes were calculated and were all below the ADI (0.01 mg/kg bw/day – ACP 1999) so there is no concern for consumer health. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Passion fruit | Dithiocarbamates | 0.4[2] | 0.00027 | 0.0012 (7-10 year olds) | 0.08 | EU, 2004 | All the intakes were below the ArfD for dithiocarbamates, therefore no concern for consumer health. |
| Passion fruit | Folpet | 0.07 | 0.000048 | 0.00022 (7-10 year olds) | 0.2 | JMPR, 2004 | All intakes are below the ArfD for folpet, therefore there are no concerns for consumer health. |
| Persimmon[9] | Dimethoate | 0.34[7] | 0.0053 | 0.016 (toddler) | 0.03 | ACP, 2001 | All the intakes were below the ArfD for dimethoate, therefore no concern for consumer health. |
| Persimmon[9] | Prochloraz | 0.2 | 0.0031 | 0.0095 (toddler) | 0.1 | PSD, 2000 | All the intakes were below the ArfD for prochloraz, therefore no concern for consumer health. |
| Pomegranate | Dithiocarbamates | 0.16[3] | 0.0024 | 0.0044 11-14 year olds) | 0.08 | EU, 2004 | All the intakes were below the ArfD for dithiocarbamates, therefore no concern for consumer health. |
| Pomegranate | Ethion | 0.05 | 0.00075 | 0.0014 (11-14 year olds) | 0.015 | ACP, 1999 | All the intakes were below the ArfD for ethion, therefore no concern for consumer health. |
| Grapes | | | | | | | |
| Grape | Carbendazim [10] | 0.3 | 0.0068 | 0.018 (toddler) | 0.02 | EU, 2004 (provisional) | All the intakes were below the ARfD for carbendazim, therefore no concern for consumer health. |
| Grape | Dithiocarbamates [10] | 0.2[5] | 0.0045 | 0.012 (toddler) | 0.08 | EU, 2004 | All the intakes were below the ARfD for dithiocarbamates, therefore no concern for consumer health. |
| Oily fish | | | | | | | |
| Fish | Chlordane | 0.005 | 0.00003 | 0.00005 (infants) | Not available | - | An acute reference dose for chlordane is not available. However, there is no human health concern as all the intakes were below the ADI (0.0005 mg/kg bw/day – JMPR, 1994) so there is no concern for consumer health. |
| Fish | DDT | 0.01 | 0.00005 | 0.00009 (Infants) | Not required | JMPR, 2000 | Assessment of mammalian toxicology data shows DDT not to be acutely toxic. Intakes were calculated and were all below the ADI (0.01 mg/kg bw/day – JMPR, 2000) so there is no concern for consumer health. |
| Fish | Dieldrin | 0.005 | 0.00003 | 0.00005 (infants) | 0.006 | PSD, 2003 | All the intakes were below the ARfD for dieldrin, therefore no concern for consumer health. |
| Fish | HCB | 0.004 | 0.00002 | 0.00003 (infants) | Not available | - | An acute reference dose for HCB is not available. However, there is no human health concern as all the intakes were below the ADI (0.0005 mg/kg bw/day – |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | PSD, 2000) so there is no concern for consumer health. |
| Oranges | | | | | | | |
| Orange | Diazinon | 0.04 | 0.00087 | 0.0053 (infant) | 0.03 | JMPR, 2001 | All the intakes were below the ArfD for diazinon, therefore no concern for consumer health. |
| Orange | Dimethoate | 0.03 | 0.00066 | 0.004 (infant) | 0.03 | ACP, 2001 | All the intakes were below the ArfD for dimethoate, therefore no concern for consumer health. |
| Orange | Carbofuran [10] | 0.08 | 0.0017 | 0.011 (infants) | 0.009 | JMPR, 2002 | The intake for infants was 1.2 times the ArfD of 0.009 mg/kg bw/day respectively, based on the highest carbofuran residue found in orange. However, processing studies (JMPR, 1997) gave a transfer factor (amount of residues in the whole orange compared to the pulp) of 0.09 for pulp. Applying the transfer factor gives a residue in pulp of 0.007 mg/kg and revised intakes of up to 11% of carbofuran acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety. |
| Orange | Methidathion [10] | 0.3 | 0.0066 | 0.04 (infants) toddler – 0.03 4-6 year olds – 0.022 7-10 year olds – 0.015 11-14 year olds – 0.011 | 0.01 | ACP, 1999 | The intakes for infants, toddler, 4-6 year olds, 7-10 year olds and 11-14 year olds were 4, 3, 2.2, 1.5 and 1.1 times the ArfD of 0.01 mg/kg bw/day respectively, based on the highest methidathion residue found in orange. However, processing studies (JMPR, 1992) gave a transfer factor of 0.14 (indicating the vast majority of the residue is in the peel) for orange pulp. Applying the transfer factor gives a residue in pulp of 0.04 mg/kg and revised intakes of up to 53% of methidathion acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety. |
| Orange | Fenthion [10] | 0.3 | 0.0066 | 0.04 (infants) toddler – 0.03 4-6 year olds – 0.022 7-10 year olds – 0.015 11-14 year | 0.01 | JMPR, 1997 | The intakes for infants, toddler, 4-6 year olds, 7-10 year olds and 11-14 year olds were 4, 3, 2.2, 1.5 and 1.1 times the ArfD of 0.01 mg/kg bw/day respectively, based on the highest fenthion residue found in orange. However, processing studies (EU, 1996) gave a transfer factor of 0.07 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.02 mg/kg and revised intakes of up to 27% of |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | olds – 0.011 | | | fenthion acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety. |
| Orange | Carbendazim [10] | 0.1 | 0.0022 | 0.013 (infant) | 0.02 | EU, 2004 (provisional) | All the intakes were below the ArfD for carbendazim, therefore no concern for consumer health. |
| Pears | | | | | | | |
| Pear | Folpet [10] | 0.6 | 0.01 | 0.046 (toddler) | 0.2 | JMPR, 2004 | All intakes are below the ArfD for folpet, therefore there are no concerns for consumer health. |
| Pear | Carbendazim [10] | 1.0 | 0.016 | 0.077 (toddler) infant – 0.072 4-6 year olds – 0.054 7-10 year olds – 0.036 11-14 year olds – 0.024 | 0.02 | EU, 2004 (provisional) | The intakes for infants, toddlers, 4-6 year olds, 7-10 year olds and 11-14 year olds were 3.6, 3.9, 2.7, 1.8 and 1.2 times the ArfD of 0.02 mg/kg bw/day respectively, based on the highest carbendazim residue found in pear. The highest intake is a hundredth of the daily dose (10 mg/kg bw) which was given to rats in a developmental study (with dosing over 10 days during gestation), without any adverse effect. Therefore, although the predicted intakes for infants, toddlers, 4-6 year olds, 7-10 year olds and 11-14 year olds represent a reduction in the usual safety margin, they do not present a health concern. |
| Pear | Dithiocarbamates [10] | 1.6[4] | 0.027 | 0.12 (toddlers) infant – 0.12 4-6 year olds – 0.087 | 0.08 | EU, 2004 | The intakes for infants, toddlers and 4-6 year olds were 1.5, 1.5 and 1.1 times the ArfD of 0.08 mg/kg bw/day respectively, based on the highest □omm.□carbamates residue found in pear. The highest intake is a seventieth of the daily dose (8 mg/kg bw) which was given to rats in a developmental study (with dosing over 10 days during gestation), without any adverse effect. Therefore, although the predicted intakes for infants, toddlers and 4-6 year olds represent a reduction in the usual safety margin, they do not present a health concern. |
| Pear | Phosmet [10] | 0.4 | 0.0066 | 0.031 (toddler) | 0.2 | JMPR 2003 | All the intakes were below the ArfD for phosmet, therefore no concern for consumer health. |
| Potatoes | | | | | | | |
| Potato[6] | Chlorpropham | 6.4 | 0.1 | 0.48 (infants) | 0.5 | EU, 2003 | All the intakes were below the ArfD for chlorpropham, therefore no concern for consumer health. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Potato | Aldicarb [10] | 0.02 | 0.00072 | 0.0044 (infant) | 0.003 | JMPR, 1995 | After multiplying the highest residue by 10 (to account for possible variability), the intake for infants is 1.5 times the ArfD.<br><br>This is 7 times lower than the dose which caused no effects in a human volunteer study. The ArfD was set on the basis of the NOAEL for inhibition of erythrocyte acetylcholinesterase activity in a single oral dose human volunteer study, using a safety factor of 10 to account for variation in susceptibility between individuals.<br><br>When considering intakes up to 7 times the ArfD in infants and children from consumption of bananas, potatoes, carrots, and oranges the EU Scientific Committee on Plants (SCP), concluded that taking into account what was known of the relative sensitivity of children and adults to cholinesterase inhibition by aldicarb, the metabolism of aldicarb and the inter-individual difference in sensitivity and kinetics of cholinesterase inhibition by aldicarb, there was no appreciable health risk for young children and infants.<br><br>In addition, the SCP noted “the real significance of the intakes is (therefore) governed by the probability of these intakes actually occurring in the real life”, and they considered a probabilistic dietary exposure analysis for aldicarb residues in food. They concluded that this indicated that the acute dietary risk for adults and young children appear to be acceptable, (EU 18/12/1998 – available at: http://europa.eu.int/□omm./food/fs/sc/scp/out27_en.html<br><br>Therefore, although the predicted intake for infants represent a reduction in the usual safety margins, they do not present a health concern. |

| Spinach | | | | | | | |
|---|---|---|---|---|---|---|---|
| Spinach | Cypermethrin | 1.8 | 0.02 | 0.051 (4-6 year olds) | 0.2 | EU, 2005 | All the intakes were below the ArfD for cypermethrin, therefore no concern for consumer health. |
| Spinach | Lambda-Cyhalothrin | 0.1 | 0.0011 | 0.0028 (4-6 year olds) | 0.0075 | EU, 2001 | All the intakes were below the ArfD for lambda-cyhalothrin, therefore no concern for consumer health. |

[1] Highest intake of all nine consumer groups and the other groups that exceeded the ARfD.

[2] Residues are determined as carbon disulphide which is a common product from different dithiocarbamates, for the risk assessment the highest possible equivalent dithiocarbamate residue is calculated (in this case 0.4 mg/kg based on a carbon disulphide residue of 0.2 mg/kg) and this is compared to the lowest ARfD from the group

[3] Residues are determined as carbon disulphide which is a common product from different dithiocarbamates, for the risk assessment the highest possible equivalent dithiocarbamate residue is calculated (in this case 0.16 mg/kg based on a carbon disulphide residue of 0.08 mg/kg) and this is compared to the lowest ARfD from the group

[4] Residues are determined as carbon disulphide which is a common product from different dithiocarbamates, for the risk assessment the highest possible equivalent dithiocarbamate residue is calculated (in this case 1.6 mg/kg based on a carbon disulphide residue of 0.8 mg/kg) and this is compared to the lowest ARfD from the group

[5] Residues are determined as carbon disulphide which is a common product from different dithiocarbamates, for the risk assessment the highest possible equivalent dithiocarbamate residue is calculated (in this case 0.2 mg/kg based on a carbon disulphide residue of 0.1 mg/kg) and this is compared to the lowest ARfD from the group

[6] A specific variability factor of 3.4, derived from individual tuber data provided for the EU Review was used

[7] Overall dimethoate residue = 0.04 mg/kg dimethoate residue + (omethoate residue 0.05 mg/kg x 6 [conversion factor]) = 0.04 + (6 x 0.05) = 0.34 mg/kg

[8] Overall dimethoate residue = 0.2 mg/kg dimethoate residue + (omethoate residue 0.07 mg/kg x 6 [conversion factor]) = 0.2 + (6 x 0.07) = 0.62 mg/kg

[9] Consumption data for peach was used, due to no data being available for Sharon fruit apart from unit weight 0.375kg which was used in the calculation along with a variability factor of 5

[10] Risk Assessing Acute Reference Dose Exceedances. New ARfDs are established relatively early in the EC review programme of active substances as part of the consideration of human toxicological effects. However, MRLs for individual commodities are established after a decision has been taken whether or not to include an active substance on the European 'positive list' of authorised substances (Annex I to Directive 91/414/EEC). There can be a time delay extending to many years between establishing the ARfD for an active substance and establishing corresponding, new MRLs in the legislation of member states. Where this situation arises we have decided to undertake additional risk assessments even when residue levels are below the MRL. This will allow us to keep track of the EC process and where necessary seek the early consideration of existing MRLs to reflect any concerns that we have.

***Acute risk assessments for samples containing more than one organophosphorus/carbamate pesticide***

Apples containing azinphos-methyl and carbaryl and chlorpyrifos

Azinphos-methyl (0.07 mg/kg of commodity), carbaryl (0.05 mg/kg of commodity) and chlorpyrifos (0.04 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for azinphos-methyl are up to 69% of the azinphos-methyl acute reference dose (0.01 mg/kg body weight/day, EU provisional 2004), the intakes for carbaryl are up to 3% of the carbaryl acute reference dose (0.2 mg/kg body weight/day, JMPR 2001) and the intakes of chlorpyrifos are up to 4% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000). Therefore, the presence of azinphos-methyl, carbaryl and chlorpyrifos in the same sample does not lead to a combined intake that is of concern for human health.

Apples containing azinphos-methyl and phosmet

Azinphos-methyl (0.09 mg/kg of commodity) and phosmet (0.07 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for azinphos-methyl are up to 88% of the azinphos-methyl acute reference dose (0.01 mg/kg body weight/day, EU provisional 2004) and the intakes of phosmet are up to 3% of the phosmet acute reference dose (0.2 mg/kg body weight/day, JMPR 2003). Therefore, the presence of azinphos-methyl and phosmet in the same sample does not lead to a combined intake that is of concern for human health.

Oranges containing diazinon and malathion

Diazinon (0.04 mg/kg of commodity) and malathion (0.03 mg/kg of commodity), - On carrying out a combined risk assessment, the intakes for diazinon are up to 18% of the diazinon acute reference dose (0.03 mg/kg body weight/day, JMPR 2001) and the intakes of malathion are up to 0.3% of the malathion acute reference dose (1.5 mg/kg body weight/day, ACP 2001). Therefore, the presence of diazinon and malathion in the same sample does not lead to a combined intake that is of concern for human health.

Oranges containing carbofuran, chlopyrifos, malathion and methidathion

Carbofuran (0.04 mg/kg of commodity), chlorpyrifos (0.05 mg/kg of commodity), malathion (0.03 mg/kg of commodity) and methidathion (0.09 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for carbofuran are up to 61% of the carbofuran acute reference dose (0.009 mg/kg body weight/day, JMPR 2002), the intakes of chlorpyrifos are up to 7% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000), the intakes for malathion are up to 0.3% of the malathion acute reference dose (1.5 mg/kg body weight/day, ACP 2001) and the intakes of methidathion are up to 120% of the methidathion acute reference dose (0.01 mg/kg body weight/day, ACP 1999). The presence of chlopyrifos and malathion in the sample do not significantly contribute to the overall combined intake when compared to carbofuran and methidathion. For methidation, processing studies (JMPR, 1992) indicate that residues in the peel are at least 25 times higher than in the pulp (peel accounts for on average 29% of the mass of an orange) giving a transfer factor of 0.14. Applying the transfer factor gives a residue in pulp of 0.01 mg/kg and revised intakes of up to 13% of methidathion acute reference

dose. In the case of carbofuran processing studies (JMPR, 1997) gave a transfer factor of 0.09 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.004 mg/kg and revised intakes of up to 6% of carbofuran acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety.

Oranges containing carbofuran,and chlopyrifos

Carbofuran (0.08 mg/kg of commodity) and chlorpyrifos (0.06 mg/kg of commodity), - On carrying out a combined risk assessment, the intakes for carbofuran are up to 120% of the carbofuran acute reference dose (0.009 mg/kg body weight/day, JMPR 2002) and the intakes of chlorpyrifos are up to 8% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000). The presence of chlopyrifos in the sample does not significantly contribute to the overall combined intake when compared to carbofuran. For carbofuran processing studies (JMPR, 1997) gave a transfer factor of 0.09 for pulp. Applying the transfer factor gives a residue in pulp of 0.007 mg/kg and revised intakes of up to 12% of carbofuran acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety.

Oranges containing chlopyrifos and fenthion

Chlorpyrifos (0.06 mg/kg of commodity) and fenthion (0.3 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for chlorpyrifos are up to 8% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000) and the intakes of fenthion are up to 400% of the fenthion acute reference dose (0.01 mg/kg body weight/day, JMPR 1997). The presence of chlopyrifos in the sample does not significantly contribute to the overall combined intake when compared to fenthion. For fenthion, processing studies (EU, 1996) gave a transfer factor of 0.07 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.02 mg/kg and revised intakes of up to 27% of fenthion acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety.

Oranges containing chlopyrifos, malathion and methidathion

Chlorpyrifos (0.02 mg/kg of commodity), malathion (0.2 mg/kg of commodity) and methidathion (0.3 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes of chlorpyrifos are up to 3% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000), the intakes for malathion are up to 2% of the malathion acute reference dose (1.5 mg/kg body weight/day, ACP 2001) and the intakes of methidathion are up to 400% of the methidathion acute reference dose (0.01 mg/kg body weight/day, ACP 1999). The presence of chlopyrifos and malathion in the sample do not significantly contribute to the overall combined intake when compared to methidathion. For methidation, processing studies (JMPR, 1992) gave a transfer factor of 0.14 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.04 mg/kg and revised intakes of up to 53% of methidathion acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety.

Oranges containing chlopyrifos, fenthion and methidathion

Chlorpyrifos (0.1 mg/kg of commodity), fenthion (0.03 mg/kg of commodity) and methidathion (0.08 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for chlorpyrifos are up to 13% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000), the intakes of fenthion are up to 40% of the fenthion acute reference dose (0.01 mg/kg body weight/day, JMPR 1997) and the intakes of methidathion are up to 110% of the methidathion acute reference dose (0.01 mg/kg body weight/day, ACP 1999). The presence of chlopyrifos in the sample does not significantly contribute to the overall combined intake when compared to fenthion and methidathion. In the case of fenthion, processing studies (EU, 1996) gave a transfer factor of 0.07 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.002 mg/kg and revised intakes of up to 3% of fenthion acute reference dose. For methidathion, processing studies (JMPR, 1992) gave a transfer factor of 0.14 for orange pulp. Applying the transfer factor gives a residue in pulp of 0.01 mg/kg and revised intakes of up to 13% of methidathion acute reference dose. Therefore, although the margins of safety have been eroded, there are no expected concerns for consumer safety.

Beans podded containing chlorpyrifos, methamidophos and omethoate (residue converted to dimethoate for risk assessment purposes)

Chlorpyrifos (0.2 mg/kg of commodity), methamidophos (1.8 mg/kg) and dimethoate (omethoate residue 0.02 mg/kg x 6 = 0.12 mg/kg) - On carrying out a combined risk assessment, the intakes for chlorpyrifos are up to 10% of the chlorpyrifos acute reference dose (0.1 mg/kg body weight/day, ACP 2000), the intakes of methamidophos are up to 90% of the methamidophos acute reference dose (0.01 mg/kg body weight/day, JMPR 2003) and the intakes of dimethoate are up to 2% of the dimethoate acute reference dose (0.03 mg/kg body weight/day, ACP 2001). The combined intake of the three pesticides just exceeds 100% at 102%, with methamidophos accounting for up to 90%. The acute reference dose for methamidophos is derived from a human volunteer study, with no adverse effects being observed at a dose of 0.3 mg/kg bw/day (intakes are up to 3% of the no effect level). Therefore, although safety margins have been slightly eroded, the presence of chlorpyrifos, methamidophos and omethoate in the same sample does not lead to a combined intake that is of concern for human health.

Beans podded containing dicrotophos and dimethoate (plus omethoate)

Dicrotophos (0.2 mg/kg of commodity) and dimethoate (0.56 mg/kg [0.02 mg/kg dimethoate + {0.09 mg/kg omethoate x 6}] of commodity) - On carrying out a combined risk assessment, the intakes for dicrotophos are up to 59% of the dicrotophos acute reference dose (0.0017 mg/kg body weight/day, PSD 2005) and the intakes of dimethoate (plus omethoate) are up to 9% of the dimethoate acute reference dose (0.03 mg/kg body weight/day, ACP 2001). Therefore, the presence of dicrotophos and dimethoate in the same sample does not lead to a combined intake that is of concern for human health.

Bran containing malathion and pirimiphos-methyl

Malathion (0.3 mg/kg of commodity) and pirimiphos-methyl (0.2 mg/kg of commodity) - On carrying out a combined risk assessment, the intakes for malathion are up to 0.1% of the malathion acute reference dose (1.5 mg/kg body weight/day, ACP 2001) and the intakes of

pirimiphos-methyl are up to 1% of the pirimiphos-methyl acute reference dose (0.15 mg/kg body weight/day, ACP 2002). Therefore, the presence of malathion and pirimiphos-methyl in the same sample does not lead to a combined intake that is of concern for human health.

## APPENDIX E

## ADDITIONAL ACTION TAKEN (INCLUDING COMMENTS RECEIVED FROM THE SUPPLIERS)

**Action taken by PSD**

PSD wrote to the suppliers of samples containing residues above the MRL and UK samples containing residues of pesticides not approved for use on that crop. We also wrote to ACORS about the organic sample where a residue was detected.

**Action taken by the Food Standards Agency**

The Food Standards Agency have notified the European Commission (EC) of the results relating to Carbofuran at 0.08 mg/kg in oranges, under the Rapid Alert System for Food and Feeding Stuffs (RASFF) procedures- wait to see if Rapid Alert issued

**Comments from suppliers**

**Beans (green)**

**Response from Marks and Spencer (PRC Sample Number 1581/2005)**

These Fine Beans were imported by Flamingo UK on 20th March 2005. Our traceability shows the beans were grown by Vegpro on Olerai Farm in Kenya. We have a declaration, signed before the beginning of the season, from Vegpro to Flamingo agreeing which pesticides were to be used – Dimethoate was not approved. The crop records for this consignment (code 10156) confirm that no Dimethoate was sprayed. Pesticide store records show that Dimethoate is not kept on farm. All previous pesticide residue testing show no residues of Dimethoate. Photocopies of this evidence has been sent to you.

Based on the above information, we would request that your archive batch of this sample is re-tested to confirm this result.

The Marks & Spencer Fresh Produce team take great pride in our leading standard performance on banning pesticides and reducing pesticide residues. We are therefore taking this matter very seriously, and look forward to working with you to ensure this matter is resolved.

**Cucumbers**

Response from Waitrose (PRC Sample Number 0587/2005)

Our investigation has shown that this residue is not there as a result of illegal use of a pesticide. This residue is quite simply indicative of the use of rubber gloves at the grower's nursery. This is a well-known and well-documented phenomenon which was discussed at length at a PRC meeting only two years ago.

Our supplier has recommended the use of alternatives to rubber gloves to its growers in order to avoid similar future confusion".

Comment: We note that this sample was taken before the HDC guidance on gloves use in cucumber production was circulated. We hope that adherence to the HDC advice will have the desired effect on the detection of dithiocarbamate residues in UK cucumbers.

**Exotic fruit (passion fruit, pomegranates and persimmon)**

Response from Waitrose (PRC Sample Number 4261/2005)

Given our work in reducing the use of chemicals and the depth of our own pesticide monitoring programme we are very disappointed to hear of the residues found on a sample of our sharon fruit. We note the conclusion of your risk assessment that indicates there need not be any concerns over people's health, even so, we have carried out a detailed investigation with our supplier. As a result of this we have decided to source sharon fruit that has not been treated with dimethoate and, in order to keep a close eye on this, we have agreed that an increased number of laboratory tests be carried out".

Spinach

Response from Waitrose (PRC Sample Number 4166/2005)

We can confirm that this crop had alpha-cypermethrin applied to it. The grower is one with whom we have a history of satisfactory supply, they operate to a high standard being EUREP-GAP accredited and are regularly inspected by our own Technologists. The compound was applied by a qualified operator using modern calibrated equipment. The harvest interval for this compound is two days, this crop was harvested seven days after application. During the season review for Spain with our supplier we have agreed to voluntarily extend harvest intervals for some compounds to minimise the risk of residues occurring.

Our supplier has in place a comprehensive risk-assessed pesticide residue screening programme which showed no problems on a batch from the same grower just prior to the one in question. Consequently we are disappointed to hear of this result and will continue our work with suppliers to minimise residues in our products.

## APPENDIX F

## PESTICIDES ANALYSED AS MULTI-COMPONENT ANALYTES AND THEIR REPORTING LIMITS

To find the limit present of most pesticides that are sought in the PRC programme it is usually necessary to only look for the named pesticide itself. However, some pesticides degrade or break down into other products in the food. To gain a full picture of the total residue present it is necessary to analyse both the residue found as the original pesticide (known as the 'parent') and the break-down products. Pesticides which fall into this category are said to have multi-component analytes. MRLs will have been set based on the total pesticide present, and therefore residues found are reported as a total of the components found above the individual analyte reporting limits. The following table presents the reporting limits for the different components of the pesticides that we looked for (see Appendix C) which have multi-component analytes:

| Pesticide | Individual Analyte Components | Reporting Limits (mg/kg)* | Remarks |
|---|---|---|---|
| aldicarb | aldicarb<br>aldicarb sulphoxide<br>aldicarb sulphone | 0.02<br>0.02<br>0.02<br><br>0.02 (common moiety method) | Aldicarb is often determined as multi-component analytes as the three separate components. On some occasions an alternative (common moiety) analytical method that analyses all three components together as a single analyte is used. |
| carbofuran | carbofuran<br>carbofuran (3-hydroxy) | 0.01<br>0.01 | |
| chlordane | chlordane (cis)<br>chlordane (trans)<br>oxychlordane | 0.002 or 0.02 each analyte (animal products except milk)<br><br>0.001 each analyte (milk)<br><br>0.01 each analyte (cream, infant food)<br><br>0.0025 each analyte (infant formula) | |
| DDT | o,p'-DDT<br>p,p'-DDD<br>p,p'-DDE<br>p,p'-DDT<br><br>o,p'-DDT<br>p,p'-DDD<br>p,p'-DDE<br>p,p'-DDT | 0.05 each analyte (fruit and vegetables and fruit juice)<br><br>0.002 or 0.02 each analyte (animal products)<br><br>0.01 each analyte (cream, infant formula) | |
| dieldrin | aldrin<br>dieldrin | 0.05 each analyte (swede)<br><br>0.002 or 0.02 each analyte (animal products)<br><br>0.01 each analyte (cream, infant food)<br><br>0.001 each analyte (infant formula) | |
| dimethoate & omethoate | dimethoate<br>omethoate | 0.02 each analyte (fruit and vegetables) | Dimethoate is metabolised to omethoate, although as both are pesticides in their own right they are reported separately.<br><br>The residue definition for dimethoate (and omethoate) is: dimethoate (sum of dimethoate and omethoate expressed as dimethoate). |

| | | | |
|---|---|---|---|
| disulfoton | disulfoton<br>disulfoton sulphone<br>disulfoton sulfoxide | 0.01<br>0.01<br>0.01 | |
| endosulfan | endosulfan I<br>endosulfan II<br>endosulfan sulphate | 0.05 each analyte<br>(fruit and vegetables, fruit juice)<br><br>0.002 or 0.02 each analyte (animal products)<br><br>0.01 each analyte (cream, infant food, infant formula) | |
| fenamiphos | fenamiphos<br>fenamiphos sulphone<br>fenamiphos sulfoxide | 0.01<br>0.01<br>0.01 | |
| heptachlor | heptachlor<br>heptachlor epoxide (trans) | 0.002 or 0.02 each analyte (animal products)<br><br>0.01 each analyte<br>(cream, infant food)<br><br>0.001 each analyte<br>(infant formula) | |
| oxydemeton- | oxydemeton-methyl<br>demeton-S-methylsulfone | 0.01 each analyte (infant food) | Demeton-s-methyl is metabolised to oxydemeton-methyl and demeton-S-methylsulfone, although as both are pesticides in their own right they are reported separately.<br><br>The residue definition for oxydemeton-methyl is: sum of oxydemeton methyl and demeton-S-methylsulfone expressed as oxydemeton methyl |
| phorate | phorate<br>phorate sulphone<br>phorate sulfoxide | 0.01 each analyte (swede)<br><br>0.01 each analyte (infant formula) | |
| quintozene | quintozene<br>pentachloroanaline | 0.02 each analyte<br>(lettuce & fruit juice) | |
| triadimefon & triadimenol | Triadimefon and triadimenol | 0.05<br>0.05 | Triadimefon is metabolised to triadimenol, although as both are pesticides in their own right they are reported separately.<br><br>The residue definition for triadimefon and triadimenol is: triadimefon and triadimenol (sum of triadimefon and triadimenol) |

* An exception to these Reporting Limits is for infant foods where all individual analytes for multi-component pesticides have an RL of 0.01 mg/kg

For animal products, the 10 x lower Reporting Limits applies if the result is being expressed on a whole product basis (this usually applies when a food item contains <10% fat)

# GLOSSARY

This is a 'standard' glossary which defines the key terms used in the PRC reports. Not all the terms listed here are used in this particular report.

**Acceptable Daily Intake (ADI):** This is the amount of a chemical which can be consumed every day for a lifetime in the practical certainty, on the basis of all known facts, that no harm will result. It is expressed in milligrams of the chemical per kilogram of body weight of the consumer. The starting point for the derivation of the ADI is usually the 'no observed adverse effect level' (NOAEL) that has been observed in animal studies for toxicity. This is then divided by an uncertainty factor (most often 100) to allow for the possibility that animals may be less sensitive than humans and also to account for possible variation in sensitivity between individuals. The studies from which NOAELs and hence ADIs are derived take into account any impurities in the pesticide active substance as manufactured, and also any toxic breakdown products of the pesticide.

**Acute Reference Dose (ARfD):** The definition of the ARfD is similar to that of the ADI, but it relates to the amount of a chemical that can be taken in at one meal or on one day without appreciable health risk to the consumer. It is normally derived by applying an appropriate uncertainty factor to the lowest NOAEL in studies that assess acute toxicity or developmental toxicity.

**Analyte:** This is the name for the substance that the PRC surveys look for and measure if present; it could be a pesticide itself or a product from a pesticide when it is degraded, or metabolised.

**Cryogenic Milling:** Processing of commodities at very low temperatures can be achieved by milling/grinding pre-frozen samples in the presence of dry ice, a procedure known as 'cryogenic milling'.

**Good Agricultural Practice in the Use of Pesticides (GAP):** The nationally authorised safe uses of pesticides under conditions necessary for effective and reliable pest control (the way products should be used according to the statutory conditions of approval which are stated on the label). GAP encompasses a range of pesticide applications up to the highest authorised rates of use, applied in a manner which leaves a residue which is the smallest practicable. Authorised safe uses are determined at the national level and include nationally registered recommended uses, which take into account public and occupational health and environmental safety considerations. Actual conditions include any stage in the production, storage, transport, distribution and processing of food commodities and animal feed.

**High-level Consumer:** A term used in UK risk assessment calculations to describe the amount of food consumed by a person. In line with internationally agreed approaches, the PRC uses the 97.5$^{th}$ percentile value, which is generally about three times the average amount consumed. This takes account of different eating patterns that may occur throughout the population.

**Import Tolerance:** an MRL set for imported products where the use of the active substance in a plant protection product on a commodity is not authorised in the European Community (EC) or an existing EC MRL is not sufficient to meet the needs of international trade. All import tolerances are assessed for consumer safety.

**Imported:** The tables in the reports record whether the sample was of UK origin, or imported. This can mean different things depending on the commodity. See also 'Origin'. The PRC report the country from where the produce has been imported only if this is clear from the packaging or labelling.

**Limit of Determination (LOD):** The limit of determination is the lowest concentration of a pesticide residue or contaminant that can be routinely identified and quantitatively measured in a specified food, agricultural commodity or animal feed with an acceptable degree of certainty by the method of analysis.

**Maximum Residue Limit (MRL):** The maximum concentration of a pesticide residue (expressed as mg/kg) legally permitted in or on food commodities and animal feeds. MRLs are based on good

agricultural practice data and residues in foods derived from commodities that comply with the respective MRLs are intended to be toxicologically acceptable.

MRLs are intended primarily as a check that GAP is being followed and to assist international trade in produce treated with pesticides. **MRLs are not in themselves 'safety limits'**, and exposure to residues in excess of an MRL does not automatically imply a hazard to health.

The MRLs applicable in the UK are now largely set under EC legislation.

Website link: www.pesticides.gov.uk/food_Industry.asp?id=548

**Maximum Residue Limits (CODEX or CAC):** In cases where there are no UK or EC MRLs, the acceptability of residues may be judged against Codex Maximum Residue Limits. Although not embodied in UK statute, Codex limits are taken as presumptive standards. These limits give an indication of the likely highest residue that should occur in edible crops. These are based on worldwide uses and the residues trials data to support those uses, at the time of evaluation (date of setting the limits is specified and thus the Maximum Residue Limit applicable up to that year, but will not take into account subsequent approved uses.)

There are occasions where the MRL that has been set by Codex may not reflect current UK Good Agricultural Practice (e.g. the Codex MRLs for dithiocarbamates and propamocarb on lettuce). In such circumstances it is possible to exceed the Codex MRL through a UK approved use. This factor needs to be taken into account when assessing results.

**Maximum Residue Levels set at the LOD (LOD MRL):** For some pesticides and commodities, insufficient trials data are available on which to set a maximum residue level or there may be no use of the pesticide on that crop. In these cases, the MRL may be set at a default level, i.e. at the limit of determination (LOD) where analytical methods can reasonably detect the presence of the pesticide. **These MRLs are not based on Good Agricultural Practice (GAP).**

**MRL exceedances:** When a residue is found at a level higher than that set for the MRL.

**MRL Exceedances and Relationship with the Acceptable Daily Intake (ADI):** Before permitting any use of a pesticide, a detailed assessment is made to ensure that residues in foods derived from commodities comply with MRLs and will not give rise to unacceptable risks to consumers. MRLs do take account of consumer safety aspects and, in effect, are set at levels below safety limits. However, MRLs must not be confused with safety limits, which are expressed in terms of the acceptable daily intake (ADI) of a particular pesticide residue from all sources. The ADI (expressed as mg/kg bw/day) is the amount of chemical that can be consumed every day of an individual's entire lifetime in the practical certainty, on the basis of all known facts, that no harm will result. See ADI for further information.

Whenever unexpectedly high or unusual residues occur during monitoring, the risk to consumers, from exposure to residues at the highest levels found, is assessed by comparison of predicted intakes with the ADI or ARfD as appropriate.

**No MRL:** For certain pesticides, an MRL may not have been set.

**Extraneous Residue Limit (ERL):** An ERL refers to a pesticide residue or a contaminant arising from environmental sources (including former agricultural uses) other than the use of a pesticide or a contaminant substance directly or indirectly on the commodity. It is the maximum concentration of a pesticide residue or contaminant that is recommended by the Codex Alimentarius Commission (CAC) to be legally permitted or recognised as acceptable in or on a food, agricultural commodity or animal feed.

**Metabolite:** A degradation or conversion product from a pesticide when it is metabolised.

**NEDI:** National Estimate of Daily Intake. An estimate of intake of pesticide in the diet over the long-term to compare to the ADI. The NEDI is based on median or mean residue levels and a high level consumption ($97.5^{th}$ percentile value) for the daily amounts of the food item consumed over the long term. For further details on the calculation of NEDIs please refer to section 3 of the data requirements handbook: http://www.pesticides.gov.uk/applicant_guide.asp

**NESTI:** National Estimate of Short Term Intake. An estimate of peak intake of pesticide in the diet to compare to the ARfD. The NESTI is based on the highest residue found multiplied by a variability factor (see glossary description) and a high level consumption (97.5$^{th}$ percentile value) for the amount of the food item consumed over a single day. For further details on the calculation of NESTIs please refer to section 3 of the data requirements handbook: http://www.pesticides.gov.uk/applicant_guide.asp

**No Observed Adverse Effect Level (NOAEL):** The highest level of continual exposure to a chemical which causes no significant adverse effect on morphology, biochemistry, functional capacity, growth, development or life span of individuals of the target species which may be animal or human.

**Origin:** The brand name annex reports the origins of the samples tested. This can mean different things depending on the commodity. For example, butter is often labelled as 'UK origin'; however, the majority of it comes in bulk from New Zealand and is split into smaller blocks and packaged in the UK. Lettuce is a fresh produce and 'UK origin' usually means that it has been grown and packaged in the UK. Processed commodities such as cereal bars often contain multiple raw ingredients, each of which may come from a different source/origin. Therefore, the origin of the produce usually reflects the place where it was manufactured. The PRC report the origin as stated on the packaging or labelling of the commodity concerned, unless other more accurate information is available to indicate that the origin is from elsewhere. Some products are listed as 'unknown origin' because the labelling does not give this information.

**Permitted Level (PL):** The permitted levels (expressed as mg/kg), in specific commodities, of some substances which can be classified as pesticides but are controlled under the Miscellaneous Food Additives Regulations 1995 (S.I. 1995 No. 3187).

**Pesticide:** A pesticide is any substance, preparation or organism prepared or used for destroying any pest. The majority of pesticides sought by the PRC in its monitoring are those used to control pests in agricultural crops, although non-agricultural products may be included where there is a specific reason for doing so, e.g. where there are implications in terms of possible intakes of residues.

**Probabilistic Modelling:** The usual estimates of consumer exposure use single high values for both consumption amounts and residue levels. Whilst these are based on realistic UK dietary survey data and residue levels, they tend to overestimate most representative intakes. This is because they do not take into account actual variations in both amounts consumed and residue levels. Probabilistic modelling is a technique that considers all the possible different combinations of consumption and residue levels. This provides information on the probability of particular intakes occurring.

**Provisional Tolerable Daily Intake:** This is used in the same way as an ADI.

**Rapid Alert System for Food and Feed (RASFF):** The European Commission operates an EU rapid alert system for food, which was set up in 1992. This provides the competent authorities in the Member States of the European Union with the means of notifying cases where high residues of pesticides have been found in imported samples. Since its introduction this system has proved a successful method for disseminating information between Members States allowing swift action where necessary.

**Relationship between GAP and MRLs:** The MRL can be defined as the maximum concentration of a pesticide residue (expressed as mg/kg) likely to occur in or on food commodities and animal feeds, after the use of the pesticide according to the GAP.

**Reporting Limit:** The reporting limit is the lowest calibrated level employed during analysis to detect residues. The reporting limit may vary slightly from laboratory to laboratory depending on the equipment available and operating procedures used.

**'None were Detected above the Set RL':** This term is used in the Brand Name Annex, where no residues were found above their reporting limit.

**Residue:** Residues may be present in vegetable and animal products following the application(s) of a pesticide(s). They may not only include the pesticide that was applied but other degradation or reaction products and metabolites that may be of toxicological significance. The levels or amounts of residues present are expressed in milligrams of the chemical in a kilogram of crop/food/commodity (mg/kg), or parts per million.

**Risk Assessment:** A risk assessment is carried out when residues are found in foods to determine whether, at the levels found, they present a concern for consumer health or not. Consumer risk assessments are routinely conducted as part of the approval process for pesticides and are based on residue trials. Approval of a pesticide is only recommended when the consumer risk is acceptable.

**Sample:** The nature of all samples is as designated in the EC's 'sampling' Directive – 2002/63/EC. Examples are: apple – at least 10 apples weighing at least 1 kg; grapes – at least 5 bunches, weighing at least 2 kg.

**Specific Off-Label Approval (SOLA):** For many reasons, label recommendations of approved pesticides do not cover the control of every problem which may arise. This is particularly true for crops that are grown on a comparatively small scale in the UK as well as for sporadic pests and diseases. It is for this reason that the extrapolations presented in the Long Term Arrangements for Extension of Use have been developed. If these do not address particular needs growers or their representatives may apply to PSD for a specific off-label approval (SOLA).

**Technical Exceedances:** When an MRL has been set at the LOD because there have been no data to support a higher level. In the context of this report, 'technical exceedances' always relate to produce from third countries.

**Variability Factor:** A value that describes the variation in residue levels between the highest unit level and the average level in samples made up of many units. Internationally this is agreed to be the 97.5th percentile unit residue level divided by the average of the sum. The variability factor multiplied by the measured residue level from a composite sample (i.e. a sample made up by mixing several units before analysis) gives an estimate of the likely higher residue levels that may have occurred in individual units. These estimated higher levels are used in short-term risk assessments involving fruit and vegetables where consumers eat only a portion of a single item, e.g. melon, or a small number of units e.g. apples and potatoes.

**Ware:** Ware potatoes, sometimes referred to as main crop potatoes, are harvested between August and November, and are available throughout the period August to June because they are stored under controlled temperature after October.

**Our next report is due to be published in early March 2006**

**Quarter 3 of 2005 will look at residues in:**

| | | |
|---|---|---|
| beans | fruit juice | olive oil and other oils |
| bread | garlic | onions (salad and bulb) |
| butter | kidney | (tinned) pears |
| cereal grains | milk | rice |
| eggs | mushrooms | tea |

**Our next open meeting will be on 10 May 2006 in the Bristol area.**
**Entry will by ticket only.**
**If you would like us to send you more details nearer the time please contact us (details below)**

**For further details on information contained in this report, previous surveys or information concerning pesticide residues in food**

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