Department for Environment, Food and Rural Affairs

The Expert Committee on Pesticide Residues in Food (PRiF)

Report on the pesticide residues monitoring programme: Quarter 4 2016

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Summary Findings

PRiF is an expert committee of Defra. This is our fourth quarterly report for 2016. During this year's surveillance programme we are looking for a range of up to 374 pesticides in our fruit and vegetable surveys.

This quarter's programme surveyed 1,376 samples of 32 different foods: apples, apricots, beans with pods, bread, breakfast cereal, cabbage, cashew nuts, cheese (buffalo, goats & ewes), cooked meat, fish (sea), grapefruit, grapes, leeks, lettuce, milk, non-dairy milk, okra, pasta, peaches & nectarines, pears, peppers, popcorn, pork, pork (processed), potatoes, prepared fresh fruit, rye, rye flour, speciality vegetables, strawberries, tomatoes, tomatoes (processed) and wine. The results show 69 samples contained residues above the maximum permitted levels.

A screening risk assessment is done for each residue in each commodity to identify residue levels that could lead to intakes above the relevant reference doses. Detailed risk assessments are then produced for every case where the actual residue level found could lead to an intake above the acute reference dose. We have looked carefully at all these findings including the risk assessments provided by the Health and Safety Executive's Chemicals Regulation Division (HSE).

In most cases the presence of the residues found would be unlikely to have had any effect on the health of the people who ate the food. We found a residue in one sample of papri beans (beans with pods) where short-lived and reversible effects were possible. We also found a residue in one sample of grapefruit where short-lived and reversiable effects were possible if the grapefruit were eaten with the peel left on.

We have published full details of suppliers and retailers of the food sampled in an annex to this report. We have asked suppliers and the authorities of the exporting countries for an explanation of our findings – any responses we received are at Appendix D.

We have updated the "surveillance programme" section of our introduction, to include more information on the evidence base behind and the other factors used in choosing which surveys make up our annual programme.

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 Health and Safety Executive), the samplers from the market research organisation and Defra officials who have collected the samples and laboratory staff across the UK who undertook the analysis.

Dr Paul Brantom
Chairman of the Expert Committee on Pesticide Residues in Food

Section I - Introduction

Background

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

In the food industry of today the production environment can be managed from the preparation of seeds used for crops, through to growth, harvesting and storage of the produce.

One of the ways the food industry controls the environment in which foodstuffs are produced is by applying pesticides. They help farmers and growers maximise the production of food stuffs 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. Biological and physical (cultural) controls are also used to protect crops or as part of an integrated system.

As pesticides are used to control unwanted pests, weeds and diseases, 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 or ornamental crops in the UK without 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. Naturally derived and synthetic pesticides are subject to the same regulation.

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 pesticide residues in foodstuffs is the Health and Safety Executive. Defra's Expert Committee on Pesticide Residues in Food (PRiF) 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.

Defra's Expert Committee on Pesticide Residues in Food (PRiF)

The Expert Committee on Pesticide Residues in Food was established in 2011. Our members have a broad range of expertise relating to the food supply industry. The main function of the Committee is to oversee Government's £2 million pesticide residues surveillance programme. Previously this work was carried out by the Pesticide Residues Committee.

Our Chairman, Dr Paul Brantom is an independent consultant in toxicological risk assessment. The Committee also includes members with expertise in toxicology, food production and supply as well as two public interest experts.

Information on the membership of the PRiF is also available on the PRiF's website: https://www.gov.uk/government/groups/expert-committee-on-pesticide-residues-in-food-prif

Our role is to advise Ministers, the Director of the Health and Safety Executive (HSE) and the Chief Executive of 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 that:

- maximum residue levels of pesticides are being respected;
- users of pesticides are complying with conditions of use specified in the authorisation; and
- people's 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 certified laboratories for residues of up to 393 pesticides. This list is updated each calendar year which means that direct comparison with previous surveys is not always possible for new pesticides added to the list. The sampling and analysis is carried out in accordance with commoninternational standards.

All EU and EFTA countries are legally required to take part in the European Co-ordinated Monitoring Programme, this means each year testing a list of foods for particular pesticide residues. In 2016 the EU surveys are of: apples, cabbage, leeks, lettuce, milk, peaches & nectarines, rye, strawberries, tomatoes and wine. The number of samples to be analysed is greater for the countries with larger populations (such as the UK).

All EU countries EU and EFTA countries are also required to have a national monitoring programme. The UK programme ensures all the major components of the national diet are sampled (milk, bread, potatoes, fruit and vegetables, cereals and related products, and animal products). The programme is not designed to provide a statistical representation of residues in our diet. Our programme is based on risk and so the programme looks more at those commodities most likely to contain residues. Some commodities are surveyed every year, whilst others are surveyed less frequently, for example once every three years; this is what we call the rolling programme.

We publish (as papers for our meetings) the draft plans we discuss for each year's UK programme, including the information we looked at supporting those plans. As well as our own previous findings, the information we consider includes published findings from other monitoring systems in countries that typically supply relevant foods to the UK, border control findings from across the EU but in particular from UK ports and information supplied by the food industry about their own testing programmes. We also need to take account of the financial, scientific and logistical constraints on the programme. As well as updating this information and intelligence base annually, we ask stakeholders for comments on the draft programme as a whole before it is finalised.

Reporting the results

Results by food commodity

- We include information about the survey (for instance where samples came from) for each commodity
- Detailed tabulated results are at the back of this report - these tables are also available for download from our website
- We summarise our findings and any follow-up action taken.

Risk assessments – single residues

- All results are screened by HSE to check for intakes above the Acute Reference Dose (ARfD). HSE assumes a relatively high level of intake and also assumes that most produce is eaten whole including peel/skin even when these are rarely consumed
- Where intakes above the ARfD are identified, we consider a detailed risk assessment prepared by HSE (at Section II of this report).
- Our observations and the follow-up action taken are summarised in the section for that food.

Risk assessments – multiple combined residues

- Residues of more than one pesticide from the same category/class of particular categories of pesticides, which have a similar toxicological mode of action, are screened by HSE to check for intakes above the combined Acute Reference Dose (ARfD).
- Where combined intakes above the combined ARfD are identified, we consider a detailed combined risk assessment prepared by HSE (at Section II of this report).
- Our observations and any follow-up action taken are summarised in the section for that food commodity.

Risk assessment - conclusions

- Where, in the light of current knowledge and considering the usual level of scientific uncertainty (or precaution) the intake will not cause ill health the conclusion will say no effect on health is expected.
- Where, in the light of current knowledge and considering a slightly higher level of scientific uncertainty (or less precaution) the intake is not likely to cause ill health, the conclusion will be less definite and state that an effect on health is unlikely.
- Where scientific uncertainty is greater more information is provided.

Residues in UK produce of pesticides which are not approved for use on that crop in the UK.

- All residues found in UK-produced foods are checked by HSE to make sure the pesticide is approved for use.
- Where no UK approval is identified, details of the sample are referred to HSE's Enforcement Section for follow up.
- Our observations and any follow-up action taken to date are summarised in the section for that food commodity. We may have to withhold details of samples while investigations are underway, in which case the details will be published in a later report.

Residues above the MRL, after taking into account measurement uncertainty

- Samples containing residues above the MRL are listed at Appendix B, and those which are clearly above the MRL after taking into account measurement uncertainty of plus or minus 50% are highlighted.
- Our observations and any follow-up action taken are summarised in the section for that food commodity.

The results in our reports are rounded for publication but not adjusted for measurement uncertainty.

We apply measurement uncertainty only to decide whether to highlight a result as over the MRL in the brand name annex. To do this we use the actual value reported by the laboratory before rounding. If after taking measurement uncertainty into account that value is found to be over the MRL the result will be highlighted in the brand name annex.

For example:

- The lab reports the results of duplicate analysis of a residue above an MRL at 0.023 mg/kg and 0.025 mg/kg giving an average value of 0.024mg/kg. For reporting purpose this value would be 0.02 mg/kg.
- If measurement uncertainty is then applied to the reported value of 0.02 mg/kg it could take the value to between 0.01 - 0.03 mg/kg. If the MRL is 0.01 mg/kg the lower value would be at the MRL and there is no exceedance.
- However if measurement uncertainty is applied to the measured result, eg 0.024 mg/kg the value could then be in the range of 0.012 – 0.036 mg/kg. In this case the lower value is above the MRL and so will be treated as an exceedance.

Residues in organic food

- We monitor pesticide residues in all the UK food supply, including organic food.
- We are not responsible for checking compliance with the rules associated with organic production. However, when we do detect residues in an organic food we explain whether or not those residues indicate a breach of the rules and inform Defra's Organic Farming Branch.

Brand Name Annex

- Full brand name details for samples included in this report are published in a brand name annex. Within this annex, samples with results of interest are highlighted.
- Brand name details are only published when enough follow-up work is completed for us to be reasonably sure whether a breach of the law or good practice has occurred. Therefore sometimes brand name details are withheld pending completion of this work but are published in a later report.

Current Issues

Chlorate

We are testing a limited number of foods for chlorate for the first time in 2016, to provide evidence that it is necessary to review the existing default MRL in order to take account of non-pesticide sources. The pesticide sodium chlorate is a residual broad action weed killer, which is not authorised for use in the EU.
Far more likely sources in food are from chlorine-based treatments of drinking and irrigation water as well as chlorine-based surface disinfectants, which are widely used to ensure microbiological safety. We agree with HSE and the FSA that the current MRL needs to take account of these often essential and unavoidable sources.

Our results will add to a growing body of evidence, from both official monitoring across the EU and from the food and farming industries

Meanwhile we are advised by HSE that although the statutory default level of 0.01 mg/kg applies to chlorate in all foods under Regulation 396/2005, Member State authorities can exercise judgement on whether goods they find in exceedance of the MRL can be marketed in their territories. Those judgements are based on specific assessments of risk for the consumer, as allowed for in Article 14 of EC Regulation 178/2002 (laying down the general principles of EU food law and food safety). In particular, consideration of the safety of any residues detected will take into account the 2015 opinion of the EFSA Panel on Contaminants in the Food Chain Risks for public health related to the presence of chlorate in food[1]

In the meantime, Member States and trade bodies have submitted sets of monitoring data to support the future setting of substantive MRLs. These data are being considered by the Commission and EFSA. They were due to be discussed at the June meeting of the Standing Committee on Plants Animals Feed and Food (Pesticide Residues section)[2]; but this was not possible due to other pressing issues. Chlorate was again posted on the agenda for the September meeting, although again no substantial developments were reported.
The continuing suspension of the enforcement of chlorate MRLs means that more time is available to generate additional data and to refine national positions.
HSE and FSA continue to encourage those UK trading bodies and individual companies interested in the outcome of the MRL setting process to generate data in support of appropriate MRLs. If additional data are generated they should ideally cover residues arising across the EU rather than limited to the UK and, where possible, data should identify the treatment histories (timing and nature of sanitation practices etc.) that have contributed to the residues arising.

The Commission has indicated that trade bodies will be formally consulted on any substantive levels that are proposed, which may give further opportunities to submit data and/or reasoned arguments. The Commission has not stated when the consultation is likely to take place. HSE and the Food Standards Agency are providing updates on this process.[3]

Both the PRiF and Advisory Committee on Microbiological Safety of Food (ACMSF) are taking an active interest in these on-going developments, as well as the separate discussions on the setting of MRLs for biocides.

[11] EFSA Journal 2015;13(6):4135 [103 pp.]
http://ec.europa.eu/food/plant/standing_committees/sc_phytopharmaceuticals/index_en.htm
[2] (Agendas and summaries are published by eth European Commision at
http://ec.europa.eu/food/plant/standing_committees/sc_phytopharmaceuticals/index_en.htm

Residues below the MRL that exceed the ARfD

When MRLs are agreed at the EU level they are set at levels that are compatible with consumer safety. Occasionally, assessment of PRiF monitoring samples containing residues below or at the MRL will show consumer intakes could potentially be above the ARfD. This situation typically arises because of one of three reasons:

- the ARfD may have been lowered because of new information but there is a delay before MRLs have been reassessed or new MRLs are put in place;
- during the MRLs process the risk assessments are currently based on the highest residue level observed in residues trials used to support the MRL which will often be less than the actual MRL (it is expected that most residues found will be below the MRL, and if for this reason there are later samples which give intakes above the ARfD the numbers are expected to be low);
- the agreed EU approach might assume the commodity is peeled and data are used to reduce the intake in the risk assessment at the time of setting MRLs, whereas in the PRiF work risk assessments for the whole commodity are presented as routine and, if information showing the effects of processing on residues level is available to PRiF, a refined assessment is presented.

The first two of these reasons are common to EU assessments and the third represents a difference between the approach used by HSE for the risk assessment and that used at the time the MRL is set. We will highlight how our assessments differ from that done at the EU level so that readers are aware of the basis of the evaluation.

BAC (benzalkonium chloride) and DDAC (didecyldimethylammonium chloride)

BAC and DDAC are quaternary ammonium compounds (QAC) widely used as disinfectants. However, such products may also be used as pesticides and so any residues in food are covered by the law on pesticide (plant protection products) residues. Since November 2014 the MRLs for BAC and DDAC in all foods is 0.1 mg/kg.

In the monitoring programme we have looked for QACs in fruit and vegetable surveys and some dairy surveys, we find very few residues of QACs above the MRL in these surveys. This is the first year we have looked for QACs in meat products, we expect to find residues of BAC and DDAC due to their use as disinfectants.

Historic issues

DDT

The use of DDT is banned or heavily restricted in many countries. It isn't allowed for use on food crops any more but it is still used in some countries outside the EU as a public health insecticide. Residues of DDT take a long time to break down in the environment and can accumulate in fatty tissue which is a major reason that it has been banned in the EU and many other countries.

Due to the bans and restrictions on use, the levels in food have decreased substantially since the 1960s and 1970s. Even so, because it takes a long time to breakdown we do expect, and do see, occasional DDT residues in our monitoring results. Overall, the incidence and the size of residues have fallen steadily over time, which is what we would expect. In recent years none of our findings were unusual, unexpected or of concern. We can tell from the chemical form that we detect whether the residues we have found are from historic use (which is what we usually find). We explain this every time we publish DDT results to try to make it as clear as we can that the results show food producers are not using DDT today. However, there are occasional media stories about DDT and various links and associations, which do not make this distinction.

The residues we find nowadays are at levels that would not be expected to have any effect on health, either in the short term or in the long term, when checked against today's understanding of

the effect of DDT on health. As a committee, we take care to ensure we look thoroughly at this, and the Food Standards Agency is also actively involved in our considerations.

Apple results

Introduction
We have surveyed apples every year since 1995 due to their importance in our diet. The survey includes both eating (dessert) and cooking apples. This year apples are being monitored across the EU as part of the EU co-ordinated multi-annual control programme.

Survey design
We are sampling and reporting apples in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought the apple samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 5 at page 87
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
24 samples were tested for up to 370 pesticide residues

Origin of samples
Eating

- 6 samples came from the UK
- 6 samples were imported from outside the EU
- 12 samples came from the EU

Residues found

- 5 samples contained no residues from those sought
- 19 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 2 samples were labelled as organic. Neither contained residues from those sought

Multiple residues
12 samples contained residues of more than one pesticide

- 6 samples contained 2 residues
- 2 samples contained 3 residues
- 2 samples contained 4 residues
- 1 sample contained 6 residues
- 1 sample contained 7 residues

Risk assessments

Number of risk assessments
The laboratory detected 22 different pesticide residues. Following the Health and Safety Executive (HSE)’s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Apricot results

Introduction
We last surveyed apricots in 2013. We survey apricots as part of our rolling programme of commodities. The survey can include both fresh and dried apricots.

Survey design
We are sampling and reporting apricots in quarter three and four of 2016. This is the second part of the survey and covers samples collected between October and December.

The apricot samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 6 at page 93
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
43 samples were tested for up to 368 pesticide residues

Origin of samples
Dried
- 3 samples came from the UK
- 27 samples were imported from outside the EU

Fresh
- 11 samples were imported from outside the EU
- 2 samples came from the EU

Residues found
- 2 samples contained no residues from those sought
- 41 samples contained residues above the reporting level
- 1 sample contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
32 samples contained residues of more than one pesticide
- 1 sample contained 2 residues
- 7 samples contained 3 residues
- 9 samples contained 4 residues
- 13 samples contained 5 residues
- 2 samples contained 6 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residues above the MRL in apricots

- 1 sample of fresh apricots from South Africa contained a residue of thiabendazole at 0.06 mg/kg. The MRL is 0.05* mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 20 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. Some of these residues are from pesticides which belong to similar chemical groups, and may have similar toxicological effects. So the risk assessors needed to consider their possible impacts on human health, both on their own and in combination.

HSE carried out a combined risk assessment of the relevant samples. We would not expect any of these combinations to have an effect on health.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Beans with pods results

Introduction
We have surveyed beans with pods every year since 2008 as we continue to find a high incidence of issues with this commodity.

The survey covers both green beans (runner, French, dwarf and string) and speciality beans (yard long, lima, guar and valore). The speciality beans are varieties that are not commonly grown in Europe.

Due to the high incidents of non-compliance in beans with pods additional import controls have been placed on beans from certain countries before entry in to the EU. When the samples in this report were collected, import controls were in place for yard long beans from Dominican Republic and Thailand, which are subject to 20% import control checks for pesticide residues and 50% of yard long beans from Cambodia are subject to import control checks.

Survey design
We are sampling and reporting beans with pods in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

The bean samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

We are publishing results for this survey on our website as part of the rolling reporting programme. The results in this report may have already been published.

Further details
Full details of pesticides we looked for and the residues we found are in Table 7 at page 99
Risk assessments carried out by HSE are at page 73
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
Triazophos
One sample of beans with pods contained a residue of triazophos at a level where the effect on health needed to be considered in more detail. The highest level detected was 3.5 mg/kg. HSE undertook a risk assessment and concluded that any effect on health would be short-lived and reversible.

Results

When samples were taken
Between October and November 2016

Number of samples
26 samples were tested for up to 360 pesticide residues

Origin of samples
Green Beans
- 1 sample came from the UK
- 12 samples were imported from outside the EU

Speciality Beans
- 13 samples were imported from outside the EU

Residues found
- 4 samples contained no residues from those sought
- 22 samples contained residues above the reporting level

- 10 samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
13 samples contained residues of more than one pesticide
- 2 samples contained 2 residues
- 4 samples contained 3 residues
- 1 sample contained 4 residues
- 4 samples contained 6 residues
- 1 sample contained 9 residues
- 1 sample contained 10 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 17 residues above the MRL in beans with pods
- 1 sample from Malaysia contained a residue of diafenthiuron at 0.02 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from Malaysia contained residues of
  - Chlorfenapyr at 0.03 mg/kg, the MRL is 0.01* mg/kg
  - Dithiocarbamates at 3 mg/kg, the MRL is 1 mg/kg
- 1 sample from Malaysia contained a residue of dithiocarbamates at 1.1 mg/kg. The MRL is 1 mg/kg.
- 1 sample from India contained residues of
  - Carbendazim at 0.4 mg/kg, the MRL is 0.2 mg/kg
  - Profenofos at 0.07 mg/kg, the MRL is 0.01* mg/kg.
- 3 samples from India contained a residue of dimethoate at 0.03 mg/kg, 0.04 mg/kg and 0.1 mg/kg. The MRL is 0.02* mg/kg.
- 1 sample from India contained residue of
  - Carbendazim at 0.5 mg/kg, the MRL is 0.2 mg/kg
  - Dithiocarbamates at 1.3 mg/kg, the MRL is 1 mg/kg
  - Fenvalerate & esfenvalerate at 1 mg/kg, the MRL is 0.1 mg/kg
  - Triazophos at 3.5 mg/kg, the MRL is 0.01* mg/kg.
- 1 sample from Malaysia contained a residue of flutriafol at 0.02 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from India contained residues of
  - Acephate at 0.2 mg/kg, the MRL is 0.01* mg/kg
  - Chlorpyrifos at 0.2 mg/kg, the MRL is 0.05* mg/kg
  - Methamidophos at 0.02 mg/kg, the MRL is 0.01* mg/kg.

Risk assessments (see Section II on page 73 for full risk assessments)

Number of risk assessments
The laboratory detected 34 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment. One sample contained a residue of triazophos at a level where the effect on health needed to be considered in more detail.

Triazophos risk assessment
1 sample contained triazophos at levels where we need to consider the effect on health in more detail. The highest level detected was 3.5 mg/kg

The intakes for all of the consumer groups exceeded the ARfD. The highest intake was for infants and toddlers.

If infants or toddlers ate large portions of beans with pods containing triazophos at 3.5 mg/kg, their intake of triazophos could be 17.5 times the JMPR (Joint FAO/WHO meetings on pesticides) Acute Reference Dose (ARfD). An EU ARfD has not been set because triazophos has not been assessed at an EU level. However the JMPR has assessed triazophos and recommended an

* **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) as specified in EC Regulation 396/2005.

Acute Reference Dose (ARfD) of 0.001 mg/kg bw/d based on data from a repeat dose study using human volunteers. The use of human data allows an appropriate factor to account for possible differences in susceptibility between people. In this case the factor used was 12.5, rather than the usual 10, as a consequence of additional rounding in the full calculation. The intake for infants and toddlers is 1.44 times higher than a dose of 0.0125 mg/kg bw/d, which caused no observed adverse effect in a three week human volunteer study.

Because the ARfD was based on a repeat dose study it is likely to be more conservative than the usual basis of a single dose study. Furthermore the JMPR evaluation for triazophos reported a small preliminary study using four human volunteers in which intakes up to 0.05 mg/kg bw/day for 5 days (50 times the eventual ARfD and 2.8 times higher than the intake for infants and toddlers for this sample) did not give rise to noticeable inhibition of red blood cell acetylcholinesterase.

On this basis we consider that some sensitive people might experience transient effects on health associated with acetylcholinesterase inhibitionsuch as salivation, lethargy and gastrointestinal disturbance after eating large portions (97.5th percentile consumption) of beans with pods containing the highest levels found in this report. Such effects would be expected to be short-lived and reversible.

When the beans are cooked, it is possible that the residue of triazophos would be further reduced, but we cannot quantify this. There are no specific processing data that considers cooking food with triazophos residues. A study on the effect of high temperatures on degradation of triazophos itself indicates that such a reduction would be quite moderate (72% degradation after 20 minutes in aqueous solution at 100°C).

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. Some of these residues are from pesticides which belong to similar chemical groups, and may have similar toxicological effects. So the risk assessors needed to consider their possible impacts on human health, both on their own and in combination.

HSE carried out a combined risk assessment of the relevant samples. We would not expect any of these combinations to have an effect on health.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

RASFFs issued
The EU issued a notification for the following samples through the EC's Rapid Alert System for Food and Feed (RASFF) (see glossary for more details)

- 1 sample from India contained triazophos at 3.5 mg/kg.

Bread results

Introduction
As bread is an important staple in our diets, we survey it every year. Each year we include ordinary bread and a type of speciality bread in the survey.

This year the speciality bread we are surveying includes types such as ciabatta, focaccia, naan, pitta, rye, soda and tortilla wraps.

Survey design
We are sampling and reporting bread in quarters three and four of 2016. This is the second part of the survey and covers samples collected between October and December.

A market research company bought the bread samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 8 at page 107
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
109 samples were tested for up to 370 pesticide residues

Origin of samples
Ordinary Bread: Other
- 8 samples came from the UK

Ordinary Bread: White
- 43 samples came from the UK
- 1 sample came from the EU

Ordinary Bread: Wholemeal
- 20 samples came from the UK
- 1 sample came from the EU

Speciality Bread: Bagels
- 1 sample came from the UK

Speciality Bread: Other
- 33 samples came from the UK
- 1 sample came from the EU

Speciality Bread: Pitta
- 1 sample came from the UK

The country of origin on the packaging does not necessarily indicate where the wheat was grown. It may be where the bread was made or where it was packed for consumer purchase.

Residues found
- 18 samples contained no residues from those sought
- 91 samples contained residues above the reporting level
- None of the samples contained residues above the MRL. We have taken account of how processing (milling and baking) affects residue levels by adjusting the relevant grain MRLs using processing factors (see table 8d on page 115 for details).
- None of the samples were labelled as organic.

Multiple residues
22 samples contained residues of more than one pesticide

- 15 samples contained 2 residues
- 5 samples contained 3 residues
- 2 samples contained 4 residues

Risk assessments

Number of risk assessments
The laboratory detected 8 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. Some of these residues are from pesticides which belong to similar chemical groups, and may have similar toxicological effects. So the risk assessors needed to consider their possible impacts on human health, both on their own and in combination.

HSE carried out a combined risk assessment of the relevant samples. We would not expect any of these combinations to have an effect on health.

Breakfast cereal results

Introduction
We last surveyed breakfast cereal in 2008. This survey looks specifically at wholegrain cereals and includes porridge oats, bran flakes, cornflakes, multigrain hoops, shredded wheat, wheatgerm, weetabix and granola.

We have previously found residues of chlormequat, glyphosate, hydrogen phosphide and pirimiphos-methyl, these pesticides are widely used in the production and storage of cereal crops.

Survey design
These results are for the entire survey and covers samples collected between October and December.

A market research company bought all the breakfast cereal samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 9 at page 116
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between January and November 2016

Number of samples
96 samples were tested for up to 369 pesticide residues

Origin of samples
Bran
- 32 samples came from the UK

Corn/Maize
- 4 samples came from the UK

Oats
- 14 samples came from the UK
- 1 sample came from the EU

Other
- 12 samples came from the UK

Rice
- 3 samples came from the UK

Wheat
- 30 samples came from the UK

The country of origin on the packaging does not necessarily indicate where the cereal was grown. It may be where the cereal was processed or where it was packed for consumer purchase.

Residues found
- 6 samples contained no residues from those sought
- 90 samples contained residues above the reporting level
- None of the samples contained residues above the MRL. We have taken account of how processing affects residue levels by adjusting the relevant grain MRLs using processing factors (a MRL with a flour processing factor has been used for the wheat based cereals as this is the most appropriate value, see table 9d on page 124 for details).
- 1 sample was labelled as organic. It contained a residue from those sought

Multiple residues
63 samples contained residues of more than one pesticide

- 34 samples contained 2 residues
- 25 samples contained 3 residues
- 3 samples contained 4 residues
- 1 sample contained 5 residues

Risk assessments

Number of risk assessments
The laboratory detected 10 different pesticide residues. Following the C Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Organic sample with residue of chlormequat
The Secretariat has written to the supplier of the sample of organic porridge oats with a residue of chlormequat which is not permitted in organic food production. Defra's Organic Farming branch and the organic certification organisation were also informed.

Further investigation: suspected illegal use
We have passed details of 3 samples of wheat based cereals from the UK that contained a residue of chlorpropham which is not approved for use on wheat in the UK to HSE. HSE is investigating; brand name details will not be published until the investigations are complete.

Cabbage results

Introduction
We last surveyed cabbage in 2013. This year cabbage is being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

The survey is of head cabbage only, that is types in which the central leaves form a head, such as white, red, savoy, green and pointed cabbages. It does not include similar vegetables that form no head or only a very loose head, such as kale, borekale, spring greens or collard greens.

Survey design
We are sampling and reporting on cabbages in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought all the cabbage samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 10 at page 125
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
24 samples were tested for up to 359 pesticide residues

Origin of samples
- 23 samples came from the UK
- 1 sample came from the EU

Residues found
- 19 samples contained no residues from those sought
- 5 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 1 sample was labelled as organic. It didn’t contain any residues from those sought

Multiple residues
3 samples contained residues of more than one pesticide
- 2 samples contained 2 residues
- 1 sample contained 3 residues

Risk assessments

Number of risk assessments
The laboratory detected 6 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Cashew nuts results

Introduction
This is the first time we have done a specific cashew nut survey, however it was included in the tree nuts without shells survey in 2013. This survey included any type of plain, salted, roasted or flavoured cashew nut.

Survey design
We sampled cashew nuts in quarter two of 2016, reporting in quarter four. This survey covers samples collected between April and June.

A market research company bought all the cashew nut samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 11 at page 129
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between April and May 2016

Number of samples
48 samples were tested for up to 367 pesticide residues

Origin of samples

- 26 samples came from the UK
- 10 samples were imported from outside the EU
- 12 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the nuts were grown. It may be where they were prepared or where they were packed for consumer purchase.

Residues found

- 42 samples contained no residues from those sought
- 6 samples contained residues above the reporting level
- 3 samples contained residues above the MRL
- 2 samples were labelled as organic. Neither contained residues from those sought

Multiple residues
None of the samples contained residues of more than one pesticide

Residues measured above the MRL (see Appendix B)
The laboratory detected 3 residues above the MRL in cashew nuts

- 2 samples from Poland contained a residue of chlorpyrifos at 0.07 mg/kg and 0.2 mg/kg. The MRL is 0.05* mg/kg.
- 1 sample from UK contained a residue of BAC at 0.2 mg/kg. The MRL is 0.1 mg/kg

Risk assessments

Number of risk assessments
The laboratory detected 3 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health. certification organisation were also informed.

* **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) as specified in EC Regulation 396/2005.

Cheese (buffalo, goats & ewes) results

Introduction
We survey a different type of cheese each year, this year we are surveying cheese that has been produced from sheep's, goat's or buffalo milk.

Survey design
We are sampling and reporting cheese in quarters three and four of 2016. This is the second part of the survey and covers samples collected between October and December.

A market research agency bought the cheese samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 12 at page 134
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Chlorate
We found chlorate over the default MRL in 17 samples. However we do not think that these findings should be treated as breaches of the legislation, and we have not highlighted them as such in the brand name annex.

We are testing a limited number of foods for chlorate for the first time in 2016, to provide evidence on consumer safety and confirm that it is necessary to review the existing default MRL in order to take account of non-pesticide sources. In particular, chlorine-based treatments of drinking and irrigation water as well as chlorine-based surface disinfectants are widely used to ensure microbiological safety. We agree with HSE and the FSA that the current MRL does not take account of these often unavoidable sources.

This adds to a growing body of evidence, from both official monitoring across the EU and from the food and farming industries.

Following the HSE's risk assessment, we do not expect any of the residues we found to have an effect on health. The residues are more likely to come from key microbiological safety practices rather than pesticide use, so we do not think any change in production practice by the brand-owners or manufacturers is needed in response to these findings. More information on chlorate is available on page 8.

Results

When samples were taken
Between October and November 2016

Number of samples
48 samples were tested for up to 84 pesticide residues

Origin of samples
Buffalo
- 4 samples came from the EU

Goats
- 17 samples came from the UK
- 22 samples came from the EU

Sheep
- 1 sample came from the UK
- 4 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the milk was from. It may be where the cheese was made or where it was packed for consumer purchase.

Residues found

- 22 samples contained no residues from those sought
- 26 samples contained residues above the reporting level
- 22 samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues

8 samples contained residues of more than one pesticide

- 8 samples contained 2 residues

Residues measured above the MRL (see Appendix B)

The laboratory detected 23 residues above the MRL in cheese

- 3 samples from Italy contained a residue of Chlorate at 0.08 mg/kg, 0.2 mg/kg and 0.6 mg/kg. The MRL is 0.01* mg/kg.
- 12 samples from France contained a residue of chlorate, 3 were at 0.02 mg/kg, 2 were at 0.05 mg/kg, 2 were at 0.09 mg/kg, 2 were at 0.1 mg/kg, the others were at 0.03 mg/kg, 0.04 mg/kg and 0.07 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from UK contained a residue of chlorate at 0.02 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from France contained residues of
  - Chlorate at 0.04 mg/kg, the MRL is 0.01*
  - DDAC at 0.2 mg/kg, the MRL is 0.1 mg/kg
- 3 samples from UK contained a residue of BAC at 0.2 mg/kg. The MRL is 0.1 mg/kg.
- 2 samples from France contained a residue of DDAC at 0.3 mg/kg and 0.4 mg/kg. The MRL is 0.1 mg/kg.

We do not think that the findings of chlorate should be treated as breaches of the legislation – see our summary statement above.

Risk assessments

Number of risk assessments

The laboratory detected 3 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments

Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Cooked meat results

Introduction
This survey includes any cooked ready to eat meats. This is the first survey of cooked meats and includes; beef, chicken, ham, pastrami, pork and turkey. Samples do not include any other added ingredients such as breadcrumbs.

Survey design
We are sampling and reporting on cooked meat in quarters two and four of 2016. This is the second part of the report and covers samples collected between October and December.

A market research company bought the cooked meat samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 13 at page 137
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
No residues were detected at or above the reporting limit.

Results

When samples were taken
Between October and November 2016

Number of samples
30 samples were tested for up to 35 pesticide residues

Origin of samples
Beef
- 2 samples came from the UK
- 1 sample was imported from outside the EU

Chicken
- 4 samples came from the UK
- 2 samples were imported from outside the EU

Ham
- 18 samples came from the UK
- 2 samples came from the EU

Turkey
- 1 sample came from the UK

The country of origin on the packaging does not necessarily indicate where the animal was raised. It may be where the meat was processed or where it was packed for consumer purchase.

Residues found
- 30 samples contained no residues from those sought
- None of the samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
None of the samples contained residues of more than one pesticide

Risk assessments

Number of risk assessments
The laboratory did not detect any residues, so we did not do a risk assessment.

Fish (sea) results

Introduction
This is the first time we have done a specific sea fish survey, however the types of fish included in the survey have been sampled in other surveys such as the white fish in 2014. This survey can include any wild or farmed varieties such as bass, cod, coley, haddock, hake, halibut, monkfish, plaice, seabream and whiting.

Survey design
We are sampling and reporting sea fish in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought the sea fish samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 14 at page 138
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

DDT
1 sample contained a residue of DDT. The use of DDT is banned or heavily restricted in many countries because the residues take a long time to breakdown in the environment and can accumulate in fatty tissue.

An interpretation of the analytical results shows that the only DDT residue found was in the form of DDE which indicates historical use. More information about DDT residues is in the historical issues section on page 9 of this report.

The residue would not be expected to have any effect on health, either in the short term of the long term.

Results

When samples were taken
Between October and November 2016

Number of samples
24 samples were tested for up to 35 pesticide residues

Origin of samples
Cod
- 1 sample came from the UK
- 7 samples were imported from outside the EU
- 2 samples came from the EU

Haddock
- 1 sample came from the UK
- 4 samples were imported from outside the EU
- 1 sample came from the EU

Hake
- 3 samples were imported from outside the EU
- 1 sample came from the EU

Plaice
- 2 samples were imported from outside the EU

Sea bass
- 1 sample was imported from outside the EU

White Fish

- 1 sample was imported from outside the EU

The country of origin on the packaging does not necessarily indicate where the fish was from. It may be where the fish was prepared or where it was packed for consumer purchase.

Residues found

- 23 samples contained no residues from those sought
- 1 sample contained a residue above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Risk assessments

Number of risk assessments

The laboratory detected 1 pesticide residue. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Grapefruit results

Introduction
We last surveyed grapefruit in 2009. We survey grapefruit as part of our rolling programme of commodities.

Survey design
We are sampling grapefruit in every quarter of 2016 and reporting in quarters two and four. This is the second part of the survey and covers samples collected between July and December.

The Rural Payment Agency's Horticultural Marketing Inspectors collected the grapefruit samples from a range of points in the supply chain (wholesale markets, retail depots, ports and import points).

Further details
Full details of pesticides we looked for and the residues we found are in Table 15 at page 142
Risk assessments carried out by HSE are at page 74
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
Based on the Health and Safety Executive's risk assessment of the residues detected (see risk assessments in Section II) we consider that an effect on health is unlikely if the peel is not consumed. In the unlikely event that all of the peel is eaten, we consider that some people might experience loss of appetite after eating large portions (97.5th percentile consumption) of grapefruit containing the highest level of thiabendazole of 7.8 mg/kg found in this report. Such effects would be expected to be minor, short-lived and reversible.

Results

When samples were taken
Between July and November 2016

Number of samples
42 samples were tested for up to 363 pesticide residues

Origin of samples
- 40 samples were imported from outside the EU
- 2 samples came from the EU

Residues found
- 1 sample contained no residues from those sought
- 41 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- 1 sample was labelled as organic. It didn't contain any residues from those sought

Multiple residues
40 samples contained residues of more than one pesticide
- 2 samples contained 2 residues
- 10 samples contained 3 residues
- 16 samples contained 4 residues
- 7 samples contained 5 residues
- 4 samples contained 8 residues
- 1 sample contained 9 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residue above the MRL in grapefruit
- 1 sample from South Africa contained a residue of thiabendazole at 7.8 mg/kg. The MRL is 5 mg/kg.

Risk assessments (see Section II on page 74 for full risk assessments)

Number of risk assessments

The laboratory detected 21 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we consider an effect on health unlikely.

Chlorpyrifos risk assessment

1 sample contained chlorpyrifos at a level where we need to consider the effect on health in more detail. The highest level detected was 0.3 mg/kg

The risk assessments detailed below refer to the EU acute Reference Dose 2015 value but also consider the risks based on the existing JMPR value which was based on data which examined impacts upon humans. HSE think that relevant human toxicology data can be used to calculate the possible impacts of residues in food on humans and based on this assessment do not expect an effect on health.

Assessment A using the ARfD set in the EU

Grapefruit flesh after peeling

EU MRL risk assessment usually assumes that grapefruits are peeled before consumption. After peeling only 3% of the residue remains (EFSA, 2015), the highest intake is below 0.005 mg/kg bw/d, and there are no exceedances of the ARfD.

However, assuming that consumers eat all the peel, intakes for infants exceed the acute reference dose of 0.005 mg/kg bw/day.

Whole grapefruit, including all the peel

The intakes for infants exceeded the EU ARfD. If infants ate large portions of grapefruit containing chlorpyrifos at 0.3 mg/kg, their intake of chlorpyrifos could be 320% of the EU Acute Reference Dose. This intake is 31 times lower than a dose which caused no observed adverse effects in a single dose rat study. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account the uncertainties caused by using animal data and possible differences in susceptibility between people. We consider the likelihood of an effect on health to be low, given the remaining factor of 31. This is because an adverse effect on health would rely on:

1) a susceptible individual eating a large quantity of the product which in turn had the highest levels of residue (i.e. 7 times the maximum value found in monitoring) ; and
2) the actual difference in susceptibility between that individual and rats being higher than the factor we are left with in this situation; and
3) the critical NOAEL (No Observable Adverse Effect Level) being close to the actual doses needed to produce an adverse effect in the animals studied.

Furthermore, HSE consider that the EU ARfD was derived using a particularly sensitive approach since red blood cell cholinesterase inhibition was used as the end-point.

In conclusion we consider that some people might experience effects on health associated with cholinesterase inhibition such as salivation, intestinal disturbances or sweating after eating large portions (97.5th percentile consumption) of grapefruit including all the peel containing the highest levels found in this report, but we consider the likelihood of an effect on health to be low. Such effects would be expected to be minor, short-lived, and reversible.

Assessment B with reference to the ARfD set by the JMPR

The intakes for infants exceeded the EU ARfD. If infants ate large portions of grapefruit, including all of the peel, containing chlorpyrifos at 0.3 mg/kg, their intake of chlorpyrifos could be 320% of the Acute Reference Dose. However, the EU ARfD was set without taking into account

scientifically valid data from studies using human volunteers. The JMPR (Joint FAO/WHO meetings on pesticides) has recommended a higher Acute Reference Dose (ARfD) of 0.1 mg/kg bw/d using that human data. This value allows an appropriate factor (10) to account for possible differences in susceptibility between people. Intakes in all groups are within the JMPR ARfD. Based on this assessment we do not expect an effect on health.

Conclusion
HSE accept that relevant human toxicology data can be used to calculate the possible impacts of residues in food on humans and based on this assessment do not expect an effect on health.

Imazalil risk assessment
37 samples contained imazalil at levels where we need to consider the effect on health in more detail. The highest level detected was 3.2 mg/kg

Grapefruit flesh after peeling

The EU MRL risk assessment assumes that grapefruits are peeled before consumption. After peeling only 7% of the residue remains (EU, 2010), the highest intake is below 0.05 mg/kg bw/d, and there are no exceedances of either ARfD.

However, assuming that consumers eat all the peel, intakes for infants exceed the acute reference dose of 0.1 mg/kg bw/day (for the general population excluding pregnant and nursing women).

Whole grapefruit, including all the peel

Pregnant and nursing women

The intakes for adults, (elderly) and 11-14 year old children, are all below the ARfD of 0.05 mg/kg bw/d for pregnant and nursing females.

General population

The intakes for infants exceed the ARfD of 0.1 mg/kg bw/d for the general population.

If infants ate large portions of grapefruit containing imazalil at 3.2 mg/kg their intake could be 170% of the Acute Reference Dose of 0.1 mg/kg bw/day. This intake is 62 times lower than a dose which caused no observed adverse effects in a rabbit developmental study, used as the basis of the ARfD. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account uncertainties caused by using animal data and possible differences in susceptibility between people. We consider the reduced factor of 62 still enough to make an effect on health unlikely.

This estimate assumes that peel of the fruit is consumed. However if the peel is not consumed then the risk assessment that is the basis for the MRL applies (see the first paragraph of this assessment) and intakes in all groups are within both ARfDs and an effect on health is not expected.

Thiabendazole risk assessment
3 samples contained thiabendazole at levels where we need to consider the effect on health in more detail. The highest level detected was 7.8 mg/kg

Grapefruit flesh after peeling

The EU MRL risk assessment assumes that grapefruits are peeled before consumption. After peeling only 2% of the residue remains (EFSA, 2016), the highest intake is below 0.1 mg/kg bw/d[$], and there are no exceedances of either ARfD.

However, assuming that consumers eat all the peel, intakes for infants, 7-10 year olds and adults exceed the acute reference dose of 0.1 mg/kg bw/day. The highest intake is for infants.

Whole grapefruit, including all the peel

If infants ate large portions of grapefruit containing thiabendazole at 7.8 mg/kg their intake could be 430% of the Acute Reference Dose. This intake is 23 times lower than a dose which caused no observed adverse effects in a developmental study in rats over 11 days. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account the uncertainties caused by using animal data and possible differences in susceptibility between people. We consider this significant reduction in the factor of 100 to a level of 23 undesirable.

Assuming all the peel is eaten, we consider that some people might experience loss of appetite after eating large portions (97.5th percentile consumption) of grapefruit containing the highest levels found in this report. Such effects would be expected to be minor/short-lived/ and reversible.

This estimate assumes that peel of the fruit is consumed. However if the peel is not consumed then the risk assessment that is the basis for the MRL applies (see the first paragraph of this assessment) and intakes in all groups are within the ARfD and an effect on health is not expected.

Combined risk assessments (see page 70 for more information on the methodology used)
Multiple residues with no similar effects

Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Grape results

Introduction
We have been surveying grapes every year since 2001. We continue to monitor grapes as a large number of pesticides are used on the crop.

In 2015, 58 samples contained a residue of ethephon, three of those samples were above the MRL. Ethephon is used to ripen red grapes on the vine.

Survey design
We are sampling and reporting grapes in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

The grape samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

We are publishing results for this survey on our website as part of the rolling reporting programme. The results in this report may have already been published.

Further details
Full details of pesticides we looked for and the residues we found are in Table 16 at page 148
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
29 samples were tested for up to 374 pesticide residues

Origin of samples
- 13 samples were imported from outside the EU
- 16 samples came from the EU

Residues found
- 1 sample contained no residues from those sought
- 28 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
24 samples contained residues of more than one pesticide
- 3 samples contained 2 residues
- 3 samples contained 3 residues
- 8 samples contained 5 residues
- 5 samples contained 6 residues
- 4 samples contained 7 residues
- 1 sample contained 10 residues

Risk assessments

Number of risk assessments

The laboratory detected 40 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)

Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Leek results

Introduction
Leeks were last surveyed in 2013. This year they are being surveyed across the EU as part of the EU co-ordinated monitoring programme. The survey covers both leeks and mini or baby leeks.

Survey design
We are sampling and reporting leeks in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought all the leek samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 17 at page 157
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
25 samples were tested for up to 359 pesticide residues

Origin of samples
- 24 samples came from the UK
- 1 sample came from the EU

Residues found
- 18 samples contained no residues from those sought
- 7 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
4 samples contained residues of more than one pesticide
- 4 samples contained 2 residues

Risk assessments

Number of risk assessments
The laboratory detected 4 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 65 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Further investigation: suspected illegal use
We have passed details of 1 sample from the UK that contained a residue of ioxynil which is not approved for use on leeks in the UK to HSE. HSE is investigating; brand name details will not be published until the investigations are complete.

Lettuce results

Introduction
We have surveyed lettuce every year since 1990s when residues of unapproved pesticides were detected in the UK grown lettuces. This issue was subsequently resolved, we continue to monitor lettuces as a large number of pesticides are used on the crop. The survey covers both UK grown and imported lettuces.

This year lettuce is being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

Survey design
We are sampling and reporting lettuce in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought the lettuce samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 18 at page 161
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
18 samples were tested for up to 370 pesticide residues

Origin of samples
Iceberg
- 6 samples came from the UK
- 6 samples came from the EU

Little Gem
- 1 sample came from the EU

Other
- 2 samples came from the UK

Round
- 3 samples came from the UK

Residues found
- 4 samples contained no residues from those sought
- 14 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- None of the samples were labelled as organic.

Multiple residues
6 samples contained residues of more than one pesticide
- 1 sample contained 2 residues
- 1 sample contained 3 residues
- 1 sample contained 4 residues
- 2 samples contained 6 residues
- 1 sample contained 7 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residue above the MRL in lettuce

- 1 sample from UK contained a residue of propyzamide at 1.8 mg/kg. The MRL is 0.6 mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 22 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 65 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Milk results

Introduction
We have surveyed milk every year since 2000. The survey includes cow's milk, goat's milk and ewe's milk. This year milk is being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

The survey covers full fat and semi skimmed milk only. Skimmed milk is not included due to its low fat content (around 0.1%). Some pesticides are fat soluble and therefore not likely to be found in milk with such a low fat content, these are also the pesticides most commonly detected in animal products.

Survey design
We are sampling and reporting milk in quarters one, three and four of 2016. This is the third part of the survey and covers samples collected between October and December.

A market research company bought all the milk samples from retail outlets across the UK.

We are publishing results for this survey on our website as part of the rolling reporting programme. The results in this report may have already been published.

Further details
Full details of pesticides we looked for and the residues we found are in Table 19 at page 167
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
114 samples were tested for up to 86 pesticide residues

Origin of samples
Cows milk
- 101 samples came from the UK

Goats milk
- 13 samples came from the UK

Residues found
- 113 samples contained no residues from those sought
- 1 sample contained a residue above the reporting level
- None of the samples contained residues above the MRL
- 27 samples were labelled as organic. None contained residues from those sought

Multiple residues
None of the samples contained residues of more than one pesticide

Risk assessments

Number of risk assessments
The laboratory detected 1 pesticide residue. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Nut-based milk results

Introduction
This is the first survey of nut-based milk, the survey can include almond milk, cashew milk, coconut milk and hazelnut milk.

Survey design
These results are for the entire survey and covers samples collected in quarter two of 2016 between April and June.

A market research company bought the nut-based milk samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 20 at page 170
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
No residues were detected at or above the reporting limit.

Results

When samples were taken
Between April and May 2016

Number of samples
49 samples were tested for up to 368 pesticide residues

Origin of samples
Almond Milk

- 2 samples came from the UK
- 26 samples came from the EU

Coconut milk

- 1 sample came from the UK
- 1 sample was imported from outside the EU
- 5 samples came from the EU

Hazelnut Milk

- 8 samples came from the EU

Other

- 6 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the nut was from. It may be where the milk was made or where it was packed for consumer purchase.

Residues found

- 49 samples contained no residues from those sought
- None of the samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 2 samples were labelled as organic. Neither contained residues from those sought

Okra results

Introduction
We have surveyed okra every year since 2012 due to a high rate of non-compliance incidents.

Due to a high incidence of non-compliance, under EU regulation 885/2014 every shipment of fresh okra from India in to the EU is required to be pre-notified to port authorities and be accompanied by results of sampling and analysis done by the Indian authorities, or from any other country the okra had been shipped through. While the samples in this report were collected there were also increased import controls from okra from Vietnam which was subject to 50% import controls.

Survey design
We are sampling and reporting okra in quarters one, three and four of 2016. This is the third part of the survey and covers samples collected between October and December.

The okra samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

We are publishing results for this survey on our website as part of the rolling reporting programme. The results in this report may have already been published.

Further details
Full details of pesticides we looked for and the residues we found are in Table 21 at page 173
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
34 samples were tested for up to 369 pesticide residues

Origin of samples
Fresh
- 34 samples were imported from outside the EU

Residues found
- 16 samples contained no residues from those sought
- 18 samples contained residues above the reporting level
- 7 samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
7 samples contained residues of more than one pesticide
- 5 samples contained 2 residues
- 1 sample contained 3 residues
- 1 sample contained 5 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 8 residues above the MRL in okra

- 4 samples from India contained a residue of flonicamid at 0.04 mg/kg, 0.05 mg/kg, 0.07 mg/kg and 0.1 mg/kg. The MRL is 0.03* mg/kg.
- 2 sample from Honduras contained a residue of oxamyl at 0.02 mg/kg and 0.03 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from Jordan contained residues of
    - Dimethoate at 0.1 mg/kg, the MRL is 0.02* mg/kg
    - Imidacloprid at 1 mg/kg, the MRL is 0.5 mg/kg.

Risk assessments

Number of risk assessments

The laboratory detected 11 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)

Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Pasta results

Introduction
Pasta is sampled every few years as part of the rolling programme of commodities. It was last sampled in 2009 when we looked at dried pasta. This survey includes samples of both dried and fresh pasta.

Survey design
We are sampling and reporting on pasta in quarters two and four of 2016. This is the second part of the report and covers samples collected between October and December.

A market research company bought the pasta samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 22 at page 178
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between September and October 2016

Number of samples
36 samples were tested for up to 369 pesticide residues

Origin of samples

- 36 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the wheat was grown. It may be where the pasta was made or where it was packed for consumer purchase.

Residues found

- 25 samples contained no residues from those sought
- 11 samples contained residues above the reporting level
- None of the samples contained residues above the MRL. We have taken account of how processing affects residue levels by adjusting the relevant grain MRLs using processing factors (a MRL with a flour processing factor has been used for the wheat based cereals as this is the most appropriate value, see table 22d on page 183 for details).
- None of the samples were labelled as organic.

Multiple residues
2 samples contained residues of more than one pesticide

- 2 samples contained 2 residues

Risk assessments

Number of risk assessments
The laboratory detected 4 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Two samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Peaches & nectarines results

Introduction
We last surveyed peaches and nectarines in 2013. This year they are being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

Survey design
We are sampling and reporting peaches and nectarines in quarters one, three and four of 2016. This is the third part of the survey and covers samples collected between October and December.

The peaches and nectarine samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 23 at page 184
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
26 samples were tested for up to 369 pesticide residues

Origin of samples
Nectarines

- 8 samples were imported from outside the EU
- 6 samples came from the EU

Peaches

- 8 samples were imported from outside the EU
- 4 samples came from the EU

Residues found

- 4 samples contained no residues from those sought
- 22 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
20 samples contained residues of more than one pesticide

- 8 samples contained 2 residues
- 4 samples contained 3 residues
- 1 sample contained 4 residues
- 3 samples contained 5 residues
- 2 samples contained 6 residues
- 1 sample contained 7 residues
- 1 sample contained 8 residues

Risk assessments

Number of risk assessments
The laboratory detected 27 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Pear results

Introduction
We have surveyed pears every year since 2002 as they are widely consumed.

Survey design
We are sampling and reporting pears in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

The pear samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesale markets, retail depots, ports and import points) or they were bought by a market research company from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 24 at page 191
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
18 samples were tested for up to 370 pesticide residues

Origin of samples
- 4 samples came from the UK
- 14 samples came from the EU

Residues found
- 3 samples contained no residues from those sought
- 15 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 2 samples were labelled as organic. Neither contained residues from those sought

Multiple residues
13 samples contained residues of more than one pesticide
- 3 samples contained 2 residues
- 3 samples contained 3 residues
- 6 samples contained 4 residues
- 1 sample contained 6 residues

Risk assessments

Number of risk assessments
The laboratory detected 15 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Pepper results

Introduction
We have surveyed peppers every year since 2006 as there used to be a high non-compliance rate in UK surveys. Although the current compliance rate is high in the UK, results from other EU countries still find issues.

The survey can include sweet peppers, bell peppers and capsicum. It does not include chilli peppers.

Survey design
We are sampling and reporting peppers in quarters one, three and four of 2016. This is the third part of the survey and covers samples collected between October and December.

A market research company bought the pepper samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 25 at page 197
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
24 samples were tested for up to 370 pesticide residues

Origin of samples
Fresh

- 1 sample came from the UK
- 23 samples came from the EU

Residues found

- 10 samples contained no residues from those sought
- 14 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 1 sample was labelled as organic. It didn't contain any residues from those sought

Multiple residues
8 samples contained residues of more than one pesticide

- 4 samples contained 2 residues
- 2 samples contained 3 residues
- 2 samples contained 4 residues

Risk assessments

Number of risk assessments
The laboratory detected 15 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments
Some samples contained residues of more than one pesticide. Some of these residues are from pesticides which belong to similar chemical groups, and may have similar toxicological effects. So the risk assessors needed to consider their possible impacts on human health, both on their own and in combination.

HSE carried out a combined risk assessment of the relevant samples. We would not expect any of these combinations to have an effect on health.

Popcorn results

Introduction
This is the first survey of popcorn and includes already popped plain, salted or sweet popcorn but not mixed samples.

Survey design
These results are for the entire survey and covers samples collected in quarter two of 2016 between April and June.

A market research company bought the popcorn samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 26 at page 202
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
24 samples were tested for up to 370 pesticide residues

Origin of samples
24 samples came from the UK

The country of origin on the packaging does not necessarily indicate where the maize was grown. It may be where the popcorn was made or where it was packed for consumer purchase.

Residues found

- 21 samples contained no residues from those sought
- 3 samples contained residues above the reporting level
- 2 samples contained a residue above the MRL. We have taken account of how processing affects residue levels by adjusting the relevant maize MRLs using processing factors.
- None of the samples were labelled as organic.

Multiple residues
2 samples contained residues of more than one pesticide

- 2 samples contained 2 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 2 residues above the MRL in popcorn

- 2 samples from UK contained a residue of pirimiphos-methyl at 1.1 mg/kg and 1.5 mg/kg. The MRL is 0.6 mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 3 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Two samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the

Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Pork results

Introduction
We last surveyed pork in 2013 as part of a survey of pork and gammon. This year pork is being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

The survey can include raw joints, shoulders, roasts, chops, fillets, slices or steaks of pork.

Survey design
We are sampling and reporting pork in quarters three and four of 2016. This is the second part of the survey and covers samples collected between October and December.

A market research company bought all the pork samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 27 at page 207
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

BAC
4 samples of pork contained a residues of BAC, this is the first year that we have tested for QACs in meat products. More information is available at page 9

Results

When samples were taken
Between October and November 2016

Number of samples
53 samples were tested for up to 86 pesticide residues

Origin of samples
- 27 samples came from the UK
- 26 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the pig was raised. It may be where the meat was processed of where it was packed for consumer purchase.

Residues found
- 49 samples contained no residues from those sought
- 4 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- None of the samples were labelled as organic.

Multiple residues
None of the samples contained residues of more than one pesticide

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residues above the MRL in pork
- 1 samples from Germany contained a residue of BAC at 0.3 mg/kg. The MRL is 0.1 mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 1 residue. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Pork (processed) results

Introduction
We last surveyed pork (processed) in 2013. The survey covers samples of raw sausages, pork burgers, sausage meat, bacon or gammon. It does include smoked products but none that have any other added ingredients or flavours.

Survey design
We are sampling pork (processed) in quarters three and four of 2016, reporting in quarter four. This is the entire survey and covers samples collected between July and December.

A market research company bought all the pork (processed) samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 28 at page 210
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

BAC and DDAC
9 samples of processed pork results contained a residue of either BAC or DDAC. This is the first year that we have looked for QACs in meat products. More information is available at page 9

Results

When samples were taken
Between July and November 2016

Number of samples
90 samples were tested for up to 86 pesticide residues

Origin of samples
Bacon
- 8 samples came from the UK
- 22 samples came from the EU

Gammon
- 4 samples came from the UK
- 34 samples came from the EU

Sausage Meat
- 1 sample came from the EU

Sausages
- 21 samples came from the UK

The country of origin on the packaging does not necessarily indicate where the pig was raised. It may be where the meat was processed or where it was packed for consumer purchase.

Residues found
- 78 samples contained no residues from those sought
- 12 samples contained residues above the reporting level
- 4 samples contained residues above the MRL
- 1 sample was labelled as organic. It didn't contain any residues from those sought

Multiple residues
None of the samples contained residues of more than one pesticide

Residues measured above the MRL (see Appendix B)
The laboratory detected 4 residues above the MRL in processed pork

- 1 sample from The Netherlands contained a residue of BAC at 0.3 mg/kg. The MRL is 0.1 mg/kg.
- 2 samples from Denmark contained a residue of BAC at 0.2 mg/kg and 0.3 mg/kg. The MRL is 0.1 mg/kg.
- 1 sample from UK contained a residue of DDAC at 0.3 mg/kg. The MRL is 0.1 mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 2 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Potato results

Introduction
We monitor potatoes annually due to their importance as a staple part of the diet. The survey covers both maincrop (or ware) and new potatoes.

Survey design
We are sampling and reporting potatoes in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

The Animal and Plant Health Agency's Plant Health and Seed Inspectors collected the potato samples from a range of points in the supply chain (wholesalers, potato processors, ports and import points).

We are publishing results for this survey in our website as part of the rolling reporting programme. The results in this report may have already been published

Further details
Full details of pesticides we looked for and the residues we found are in Table 29 at page 213
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between September and December 2016

Number of samples
54 samples were tested for up to 370 pesticide residues

Origin of samples
Maincrop

- 53 samples came from the UK
- 1 sample came from the EU

Residues found

- 31 samples contained no residues from those sought
- 23 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- 1 sample was labelled as organic. It didn't contain any residues from those sought

Multiple residues
5 samples contained residues of more than one pesticide

- 3 samples contained 2 residues
- 2 samples contained 3 residues

Risk assessments

Number of risk assessments
The laboratory detected 9 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Prepared fresh fruit results

Introduction
We started surveying prepared fresh fruit in 2015. The survey can include any single fruit or mixed fruit that has been pre-prepared, for example fruit salad, sliced melon, pineapple cubes. The samples must all be fresh fruit and cannot include any tinned or jarred products.

This survey is being carried out as a follow-up from previous results from 2015 which found a high number of samples containing BAC & DDAC residues from their use as disinfectants, therefore, we are only testing the samples in this survey for BAC, DDAC and Chlorate.

Survey design
We are sampling and reporting prepared fresh fruit in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought all the prepared fresh fruit samples from retail outlets across the UK.

We are publishing results for this survey on our website as part of the rolling reporting programme. The results in this report may have already been published.

Further details
Full details of pesticides we looked for and the residues we found are in Table 30 at page 218
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Chlorate
We found chlorate over the default MRL in 4 samples. However we do not think that these findings should be treated as breaches of the legislation, and we have not highlighted them as such in the brand name annex.

We are testing a limited number of foods for chlorate for the first time in 2016, to provide evidence on consumer safety and confirm that it is necessary to review the existing default MRL in order to take account of non-pesticide sources. In particular, chlorine-based treatments of drinking and irrigation water as well as chlorine-based surface disinfectants are widely used to ensure microbiological safety. We agree with HSE and the FSA that the current MRL does not take account of these often unavoidable sources.

This adds to a growing body of evidence, from both official monitoring across the EU and from the food and farming industries.

Following the HSE's risk assessment, we do not expect any of the residues we found to have an effect on health. The residues are more likely to come from key microbiological safety practices rather than pesticide use, so we do not think any change in production practice by the brand-owners or manufacturers is needed in response to these findings. More information on chlorate is available on page 8.

Results

When samples were taken
Between October and November 2016

Number of samples
18 samples were tested for up to 3 pesticide residues

Origin of samples
Melon

- 1 sample came from the UK

Mixed
- 8 samples came from the UK

Pineapple
- 6 samples came from the UK
- 3 samples were imported from outside the EU

The country of origin on the packaging does not necessarily indicate where the fruit was grown. It may be where it was prepared or where it was packed for consumer purchase.

Residues found
- 13 samples contained no residues from those sought
- 5 samples contained residues above the reporting level
- 4 samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
None of the samples contained residues of more than one pesticide

Residues measured above the MRL (see Appendix B)
The laboratory detected 4 residues above the MRL in prepared fresh fruit
- 3 samples from UK contained a residue of chlorate, 2 were at 0.02 mg/kg and the other was at 0.03 mg/kg. The MRL is 0.01* mg/kg.
- 1 sample from Ghana contained a residues of chlorate at 0.02 mg/kg. The MRL is 0.01* mg/kg.

We do not think that the findings of chlorate should be treated as breaches of the legislation – see our summary statement above.

Risk assessments

Number of risk assessments
The laboratory detected 2 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Rye results

Introduction
This is the first time we have surveyed rye on its own, it has previously been part of the oats and rye survey. This year rye is being monitored across the EU as part of the EU co-ordinated multi-annual control programme,

Survey design
We are sampling and reporting rye in quarter four of 2016. This is the entire survey and covers samples collected between October and December.

We worked in co-operation with a commercial partner to collect the rye samples. As the samples were collected from farms and stores before the rye had been put in to the food supply chain, suppliers' details do not appear in the brand name annex in accordance with the PRiF's brand naming policy.

Further details
Full details of pesticides we looked for and the residues we found are in Table 31 at page 221
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
during December 2016

Number of samples
24 samples were tested for up to 370 pesticide residues

Origin of samples
- 24 samples came from the UK

Residues found
- 1 sample contained no residues from those sought
- 23 samples contained residues above the reporting level
- None of the samples contained residues above the MRL
- None of the samples were labelled as organic.

Multiple residues
18 samples contained residues of more than one pesticide
- 9 samples contained 2 residues
- 7 samples contained 3 residues
- 2 samples contained 4 residues

Risk assessments

Number of risk assessments
The laboratory detected 10 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Rye flour results

Introduction
This is the first time we have surveyed rye flour. This year rye is being monitored across the EU as part of the EU co-ordinated multi-annual control programme,

Survey design
We are sampling and reporting rye flour in quarter four of 2016. This is the entire survey and covers samples collected between October and December.

A market research company bought the flour samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 32 at page 226
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
37 samples were tested for up to 371 pesticide residues

Origin of samples
- 37 samples came from the UK

The country of origin on the packaging does not necessarily indicate where the rye was grown. It may be where it was milled or where the flour was packed for consumer purchase.

Residues found
- 25 samples contained no residues from those sought
- 12 samples contained residues above the reporting level
- 8 samples contained residues above the MRL
- 33 samples were labelled as organic.8 contained residues from those sought

Multiple residues
3 samples contained residues of more than one pesticide
- 3 samples contained 2 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 8 residues above the MRL in rye flour
- 7 samples from UK contained a residue of clothianidin at 0.04 mg/kg, 0.06 mg/kg, 0.08 mg/kg, 0.1 mg/kg, 0.1 mg/kg, 0.2 mg/kg and 0.2 mg/kg. The MRL is 0.02* mg/kg.
- 1 sample from UK contained a residue of chlorpropham at 0.04 mg/kg. The MRL is 0.01* mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 4 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

* **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) as specified in EC Regulation 396/2005.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Organic sample with residue of clothianidin
The Secretariat has written to the supplier of 7 samples of organic rye flour with a residue of clothianidin which is not permitted in organic food production. Defra's Organic Farming branch and the organic certification organisation were also informed.

Organic sample with residue of chlorpropham
The Secretariat has written to the supplier of a sample of organic rye flour with a residue of chlorpropham which is not permitted in organic food production. Defra's Organic Farming branch and the organic certification organisation were also informed.

Speciality vegetables results

Introduction
We first introduced speciality vegetables in the monitoring programme in 2009. The aim of the survey is to look at vegetables that otherwise may not be sampled. We have continued to survey them due to a high incidence of findings.

This year we have decided to look at leafy speciality vegetables, varieties can include chard, Chinese leaves, choi sum, methi, mitsuba, mustard greens, pan, pandandus leaf and vine leaves.

Survey design
We are sampling and reporting speciality vegetables in quarters three and four of 2016. This is the second part of the survey and covers samples bought between October and December.

The speciality vegetable samples were either collected by the Rural Payment Agency's Horticultural Marketing Inspectors from a range of points in the supply chain (wholesalers, retail depots, port and import points) or bought by a market research company from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 33 at page 231
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
21 samples were tested for up to 369 pesticide residues

Origin of samples
Banana Leaf
- 1 sample was imported from outside the EU

Chard
- 2 samples came from the UK

Chicory
- 2 samples came from the EU

Chinese Leaf
- 2 samples came from the UK
- 2 samples came from the EU

Choi sum
- 1 sample came from the EU

Kale
- 6 samples came from the UK

Pak Choi
- 2 samples came from the UK
- 2 samples came from the EU

Saag
- 1 sample came from the UK

Residues found
- 7 samples contained no residues from those sought
- 14 samples contained residues above the reporting level
- 2 samples contained residues above the MRL

- None of the samples were labelled as organic.

Multiple residues
9 samples contained residues of more than one pesticide
- 2 samples contained 2 residues
- 4 samples contained 3 residues
- 2 samples contained 4 residues
- 1 sample contained 5 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 3 residues above the MRL in speciality vegetables
- 1 sample of chard from UK contained residue of
  - Prothioconazole at 0.3 mg/kg, the MRL is 0.01* mg/kg;
  - Tebuconazole at 0.7 mg/kg, the MRL is 0.02* mg/kg.
- 1 sample of cavolo black leaf from the UK contained a residue of thiamethoxam at 0.03 mg/kg. The MRL is 0.02* mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 12 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
One/Some/All sample(s) contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Further investigation: suspected illegal use
We have passed details of 1 sample of chard from the UK that contained residues of prothioconazole and tebuconazole which is not approved for use on chard in the UK to HSE. HSE is investigating; brand name details will not be published until the investigations are complete.

* **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) as specified in EC Regulation 396/2005.

Strawberry results

Introduction
We last surveyed strawberries in 2013. This year strawberries are being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

Survey design
We are sampling and reporting strawberries in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought all the strawberry samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 34 at page 237
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and November 2016

Number of samples
24 samples were tested for up to 360 pesticide residues

Origin of samples
- 4 samples came from the UK
- 8 samples were imported from outside the EU
- 12 samples came from the EU

Residues found
- 4 samples contained no residues from those sought
- 20 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- None of the samples were labelled as organic.

Multiple residues
18 samples contained residues of more than one pesticide
- 4 samples contained 2 residues
- 3 samples contained 3 residues
- 8 samples contained 4 residues
- 1 sample contained 5 residues
- 1 sample contained 8 residues
- 1 sample contained 9 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residue above the MRL in strawberries
- 1 sample from Egypt contained a residue of methomyl at 0.1 mg/kg. The MRL is 0.02* mg/kg.

* **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) as specified in EC Regulation 396/2005.

Risk assessments

Number of risk assessments

The laboratory detected 24 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)

Some samples contained residues of more than one pesticide. Some of these residues are from pesticides which belong to similar chemical groups, and may have similar toxicological effects. So the risk assessors needed to consider their possible impacts on human health, both on their own and in combination.

HSE carried out a combined risk assessment of the relevant samples. We would not expect any of these combinations to have an effect on health.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

Tomato results

Introduction
We last surveyed tomatoes in 2013. This year they are being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

The survey covers beefsteak, plum, round, salad and tomatoes sold on the vine.

Survey design
We are sampling and reporting tomatoes in every quarter of 2016. This is the fourth part of the survey and covers samples collected between October and December.

A market research company bought all the tomato samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 35 at page 243
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between October and December 2016

Number of samples
24 samples were tested for up to 371 pesticide residues

Origin of samples
Cherry
- 1 sample came from the UK
- 2 samples were imported from outside the EU
- 7 samples came from the EU

Plum
- 3 samples were imported from outside the EU
- 2 samples came from the EU

Round
- 2 samples came from the UK
- 1 sample was imported from outside the EU
- 3 samples came from the EU

Vine
- 3 samples came from the EU

Residues found
- 4 samples contained no residues from those sought
- 20 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- None of the samples were labelled as organic.

Multiple residues
13 samples contained residues of more than one pesticide
- 6 samples contained 2 residues
- 1 sample contained 3 residues
- 2 samples contained 4 residues
- 3 samples contained 5 residues
- 1 sample contained 7 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 2 residues above the MRL in tomatoes

- 1 sample from Poland contained residues of
  - dinotefuran at 0.05 mg/kg, the MRL is 0.01* mg/kg.
  - pirimiphos-methyl at 0.1 mg/kg, the MRL is 0.01* mg/kg.

Risk assessments

Number of risk assessments
The laboratory detected 31 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)
Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent
The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Tomato (tinned) results

Introduction
We last surveyed tomatoes (tinned) in 2010. Samples are whole or chopped tomatoes, but they do not contain any other added ingredients.

Fresh tomatoes are regularly surveyed as part of the rolling programme of commodities and in 2012 we surveyed tomato products which included tomato sauce/ketchup, tomato puree and passata.

Survey design
These results are for the entire survey and covers samples collected in quarter two of 2016 between April and June.

A market research company bought the tinned tomatoes from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 36 at page 251
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between April and May 2016

Number of samples
24 samples were tested for up to 365 pesticide residues

Origin of samples
24 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the tomatoes were grown. It may be where they were processed or where they were packed for consumer purchase.

Residues found

- 23 samples contained no residues from those sought
- 1 sample contained a residue above the reporting level
- None of the samples contained residues above the MRL
- 3 samples were labelled as organic. None contained residues from those sought

Multiple residues
None of the samples contained residues of more than one pesticide

Risk assessments

Number of risk assessments
The laboratory detected 1 pesticide residue. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Wine results

Introduction
We last surveyed wine in 2013. This year wine is being surveyed across the EU as part of the EU co-ordinated multi-annual control programme.

The survey covers any red, white or rosé wine that has been made from grapes. The samples can be sparkling but cannot be champagne.

Survey design
We are sampling wine in quarters three and four of 2016, reporting in quarter four. This is the entire survey and covers samples collected between July and December.

A market research company bought the wine samples from retail outlets across the UK.

Further details
Full details of pesticides we looked for and the residues we found are in Table 37 at page 256
Suppliers details are in the Brand Name Annex

Conclusions

Summary statement
None of the residues detected by the laboratory would be expected to have an effect on health.

Results

When samples were taken
Between July and October 2016

Number of samples
96 samples were tested for up to 369 pesticide residues

Origin of samples
Red
- 23 samples were imported from outside the EU
- 21 samples came from the EU

Rose
- 3 samples were imported from outside the EU
- 4 samples came from the EU

White
- 17 samples were imported from outside the EU
- 28 samples came from the EU

The country of origin on the packaging does not necessarily indicate where the grapes were grown. It may be where the wine was produced or where it was packed for consumer purchase.

Residues found
- 72 samples contained no residues from those sought
- 24 samples contained residues above the reporting level
- 1 sample contained a residue above the MRL
- None of the samples were labelled as organic.

Multiple residues
13 samples contained residues of more than one pesticide
- 9 samples contained 2 residues
- 2 samples contained 3 residues
- 2 samples contained 4 residues

Residues measured above the MRL (see Appendix B)
The laboratory detected 1 residue above the MRL in wine

- 1 sample from Australia contained a residue of chlormequat at 0.2 mg/kg. The MRL is 0.05* mg/kg.

Risk assessments

Number of risk assessments

The laboratory detected 16 different pesticide residues. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health.

Combined risk assessments (see page 70 for more information on the methodology used)

Some samples contained residues of more than one pesticide. The pesticide residues found are not chemically related to each other and do not have the same toxicological effects. Following the Health and Safety Executive (HSE)'s risk assessment, we do not expect these residues to have an effect on health, either separately or in combination.

Follow up action

Letters sent

The Secretariat has written to the suppliers of the samples with residues above the MRL.

Any comments received are at Appendix D.

* **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) as specified in EC Regulation 396/2005.

Supplier Details

Introduction
The following information is available on each sample collected this quarter:

- Date and place of collection
- Description (e.g. 'runner bean', 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. 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 D.

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 takes samples of 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.

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.

Section II: HSE assessment of risk

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.

This section details how risks from dietary intakes are assessed.

When assessments are carried out
A screening assessment is done for each residue and commodity combination to identify residue levels that would lead to intakes above the relevant reference doses. Further information on this screening approach is available on request from HSE. Detailed assessments are then produced for every case where the actual residue level found could lead to an intake by any group above the reference dose.

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. The residue found is 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 average levels 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). More information on intake assessments is available on HSE's website: www.pesticides.gov.uk/guidance/industries/pesticides/topics/pesticide-approvals/pesticides-registration/data-requirements-handbook/consumer-intake-assessments-new-intake-calculation-models.

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. For a small number of pesticides the reference doses used have been determined by HSE. These have not been independently peer-reviewed and should therefore be regarded as provisional. Reference dose values are available on the EU website:
http://ec.europa.eu/sanco_pesticides/public/index.cfm?event=activesubstance.selection.

Although MRLs are not safety levels, an MRL would not be established if the residue concentrations measured in the supervised trials used to support 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 addition, 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 intake assessments 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. Long-term risk assessments have been carried out on a case-by-case basis, but are not routinely reported. Long-term exposure assessments are done using median residue levels, rather than using the highest residues found. Therefore, long-term risk assessments would only need to be carried out where data indicated a high proportion of samples contained residues above the MRL (this would result in a higher median residue level than that previously assessed when setting the MRL), or where there is no MRL and acute toxicology is not considered relevant for the particular pesticide concerned.

Where intakes exceed a reference dose, it is necessary for the underlying toxicological studies (animal studies) to be considered to enable the significance of such an exceedance to be understood. Toxicological studies are conducted using different doses to determine the nature of any ill health effects as well as the levels at which such effects can be expected to occur.

Toxicological studies are conducted using test animals to identify the highest experimental dose that causes no detectable adverse effects (the NOAEL). Where there is more than one relevant toxicological study, the lowest appropriate NOAEL for the most sensitive adverse effect is typically used. There is some uncertainty in extrapolating between animals and people and it is therefore important to use a 'safety factor' to account for sources of variation. This safety factor is incorporated (by dividing the NOAEL by the safety factor) in deriving a reference dose, either an ADI or an ARfD, to which consumer intakes are compared. A safety factor therefore extrapolates from the animal testing to the general population. Factors in the order of x100 are commonly used, x 10 for animal to man, and x10 for within human population differences in sensitivity. However, toxicologists may propose different values (e.g. from 5 to 1000) based on scientific reasoning in accordance with study designs and the quality of the data that has been generated from the studies.

In order to ensure exposures to pesticides do not pose unacceptable risk to humans a wide range of investigations are performed. Most of these are performed on experimental animals because the only end-points that can be examined in human volunteers are those involving observation or blood and urine sampling. Human volunteer studies involving pesticides are not generated in current regulatory work. There is debate at the international level as to whether human studies that have been generated should be used for risk assessment purposes. In the EU, the policy is not to use these data in assessments; the JMPR chose to apply judgement in the appropriate use of these data if available. The HSE risk assessments will usually refer to test animal species, such as dog, rat, and rabbit. All toxicological work is undertaken based on principles of minimising animal distress. Where scientifically valid human data are available the risk assessments will refer to these as they reduce the uncertainty in the assessment. Therefore, human data is only referred to in more limited circumstances.

Acute (short term) toxicology is not a concern 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, diphenylamine, furalaxyl, iprodione, kresoxim-methyl, pendimethalin, propargite, propyzamide, quintozene and tolclofos-methyl.

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.

Probabilistic Modelling
The standard calculations of consumer exposure use realistic consumption data and residue levels. However, they tend to overestimate intakes 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. 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. These techniques are not yet routinely used to estimate dietary intakes of pesticide residues in the EC.

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 was found (see Appendix D). 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 (FSA) asked the Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment to assess these concerns. Their report 2Risk 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/chemsafe/pesticides/pestmixbranch/. A number of research projects have been commissioned by the FSA to help progress the action plan; details can be found at http://www.food.gov.uk/multimedia/pdfs/ressurprjlistsep07 and http://www.food.gov.uk/science/research/researchinfo/researchportfolio/

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

(www.pesticides.gov.uk/guidance/industries/pesticides/topics/pesticide-approvals/pesticides-registration/data-requirements-handbook/toxicity-assessment-of-combinations-of-2-or-more-compounds-in-a-formulation).

We are keen to ensure our reports reflect consumer concerns. We therefore now regularly assess findings showing multiple residues of organophosphate and carbamate pesticides. Combined assessment is a new development in risk assessment, which is being taken forward at the international level, e.g. the European Food Safety Authority (EFSA) held a colloquium in 2006 and has set-up two working groups to help develop the methodology (http://www.efsa.europa.eu/en/events/event/colloque061128.htm; http://www.efsa.europa.eu/en/supporting/pub/117e.htm; http://www.efsa.europa.eu/en/efsajournal/pub/705.htm; http://www.efsa.europa.eu/en/efsajournal/pub/1167.htm). Further advances in risk assessment methodology will be taken into account in developing the approach to multiple risk assessments in the future.

Assessment of Risk to Human Health

Table 1: Short-term intake estimates

Screening assessments have been done for all acutely toxic and potentially acutely toxic pesticides to check that predicted intakes are within the ARfD (or ADI, as appropriate, where an ARfD is not available). An acute exposure assessment is not done for pesticides which are not acutely toxic where it has been established that an ARfD is not required. Toxicological endpoints can be found in the DG SANCO EU Pesticides database which is available at http://ec.europa.eu/food/plant/protection/evaluation/database_act_subs_en.htm

The screening assessment uses the internationally agreed approach to short-term (acute) consumer exposure assessment with UK food consumption data as detailed within the UK NESTI model which is available on the HSE website at http://www.pesticides.gov.uk/approvals.asp?id=1687.

A paper to explain the assessment of acute intakes can be found on our website:
http://www.pesticides.gov.uk/Resources/CRD/PRiF/Documents/Other/2013/PRiF%20Intake%20Assessments%20290113.pdf

For the Q4 (2016) assessments, the following approaches have been taken to refine the NESTI according to case-by-case issues and to ensure that appropriate consumption values are used for less frequently consumed commodities where available food consumption data may be limited:

- Data on dried apricots were used for dried apricots. Use of these consumption data was considered reasonable after comparison with alternative data. Data on apricots were used for fresh apricots.
- Data on beans with pods were used for okra and all forms of speciality beans.
- New consumption values were provided by the Food Standards Agency for grapefruit to identify the various contributions of grapefruit in the diet. The consumption values used here (and as in Q2 2016) cover consumption for fresh grapefruit excluding juice, canned grapefruit and grapefruit consumed in other recipe forms. For the current assessments, the consumer groups covered represent infants (4 to 18 months old), toddlers (1.5 to 3 years), 4-6 year olds, 7-10 year olds, 11-14 year olds, 15-18 year olds, and elderly. These are slightly different to the groups used previously. For the new survey data vegetarians, elderly residential and elderly in their own home are not reported separately. For some of the consumer subgroups, the number of grapefruit consumers in the surveys (from years 2008 to 2012) are very low e.g. infants which is not unexpected. The highest number of young consumers out of all the young consumer groups was three persons for infants (3 out of 2863 infant consumers). These data are used as they represent the best up to date data. Adults and elderly consume fresh grapefruit at a higher frequency (a higher number of consumers) than the other consumer groups, and of these adults is the most critical consumer group.
- Data on peaches were used for peaches and nectarines
- For potato/chlorpropham a variability factor of 3 was used, based on specific residues variability data for individual potato tubers.
- For all forms of pre-prepared fruits, data on apples without the use of a variability factor were used for screening purposes. As fruit pieces are small, a whole fruit consideration which takes account of unit to unit variability is not considered relevant; the consumption values for apple are likely to be reasonably protective compared to a number of different fruits consumed in this way.

- Data on fish were used for sea fish.
- Data on wheat were used for all forms of pasta.
- Data on bread were used for all forms of bread and speciality bread.
- Data on maize were used for popcorn.
- Data on tomatoes were used for tinned tomatoes.
- Data on cabbage were used for kale and Chinese leaf.
- Data on broccoli with a variability factor of 7 were used for choi sum and pak choi.
- UK data on cabbage and spinach, with EU data for chard that are considered to be more representative of expected consumption, were used for chard.
- Data on cheese were used for all forms of cheese.
- Data on wheat were used for screening purposes for all forms of breakfast cereals, since consumption of wheat is higher than other cereals.

Beans with pods risk assessment

Crop	Pesticide	Highest residue (mg/kg)	Intake (mg/kg bw/day)		ARfD (mg/kg bw/day)	Source
			Adult	Critical group†		
Beans with pods	Triazophos	3.5	0.0081	0.018 (infant) 0.018 (toddlers) 0.013 (4-6 year old child) 0.0097 (vegetarian) 0.0096 (15-18 year old child) 0.0081 (adult) 0.0076 (Elderly- own home) 0.0071 (7-10 year old child) 0.0069 (11-14 year old child) 0.0038 (Elderly- residential)	0.001	JMPR, 2002
Comment on risk assessment The intakes for all of the consumer groups exceeded the ARfD. The highest intake was for infants and toddlers.						

If infants or toddlers ate large portions of beans with pods containing triazophos at 3.5 mg/kg, their intake of triazophos could be 17.5 times the JMPR (Joint FAO/WHO meetings on pesticides) Acute Reference Dose (ARfD). An EU ARfD has not been set because triazophos has not been assessed at an EU level. However the JMPR has assessed triazophos and recommended an Acute Reference Dose (ARfD) of 0.001 mg/kg bw/d based on data from a repeat dose study using human volunteers. The use of human data allows an appropriate factor to account for possible differences in susceptibility between people. In this case the factor used was 12.5, rather than the usual 10, as a consequence of additional rounding in the full calculation. The intake for infants and toddlers is 1.44 times higher than a dose of 0.0125 mg/kg bw/d, which caused no observed adverse effect in a three week human volunteer study.

Because the ARfD was based on a repeat dose study it is likely to be more conservative than the usual basis of a single dose study. Furthermore the JMPR evaluation for triazophos reported a small preliminary study using four human volunteers in which intakes up to 0.05 mg/kg bw/day for 5 days (50 times the eventual ARfD and 2.8 times higher than the intake for infants and toddlers for this sample) did not give rise to noticeable inhibition of red blood cell acetylcholinesterase.

On this basis we consider that some sensitive people might experience transient effects on health associated with acetylcholinesterase inhibition such as salivation, lethargy and gastrointestinal disturbance after eating large portions (97.5th percentile consumption) of beans with pods containing the highest levels found in this report. Such effects would be expected to be short-lived and reversible.

When the beans are cooked, it is possible that the residue of triazophos would be further reduced, but we cannot quantify this. There are no specific processing data that considers cooking food with triazophos residues. A study on the effect of high temperatures on degradation of triazophos itself indicates that such a reduction would be quite moderate (72% degradation after 20 minutes in aqueous solution at 100°C).

Grapefruit risk assessment

Crop	Pesticide	Highest residue (mg/kg)	Intake (mg/kg bw/day)		ARfD (mg/kg bw/day)	Source
			Adult	Critical group[†]		
Grapefruit	Chlorpyrifos	0.3	0.0043	0.016 (infants)	0.005	EU, 2015

The risk assessments detailed below refer to the EU acute Reference Dose 2015 value but also consider the risks based on the existing JMPR value which was based on data which examined impacts upon humans. HSE accept that relevant human toxicology data can be used to calculate the possible impacts of residues in food on humans and based on this assessment do not expect an effect on health.

Assessment A using the ARfD set in the EU

Grapefruit flesh after peeling

EU MRL risk assessment usually assumes that grapefruits are peeled before consumption. After peeling only 3% of the residue remains (EFSA, 2015), the highest intake is below 0.005 mg/kg bw/d, and there are no exceedances of the ARfD.

However, assuming that consumers eat all the peel, intakes for infants exceed the acute reference dose of 0.005 mg/kg bw/day.

Whole grapefruit, including all the peel

The intakes for infants exceeded the EU ARfD. If infants ate large portions of grapefruit containing chlorpyrifos at 0.3 mg/kg, their intake of chlorpyrifos could be 320% of the EU Acute Reference Dose. This intake is 31 times lower than a dose which caused no observed adverse effects in a single dose rat study. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account the uncertainties caused by using animal data and possible differences in susceptibility between people. We consider the likelihood of an effect on health to be low, given the remaining factor of 31. This is because an adverse effect on health would rely on

1) a susceptible individual eating a large quantity of the product which in turn had the highest levels of residue (i.e. 7 times the maximum value found in monitoring) ; and
2) the actual difference in susceptibility between that individual and rats being higher than the factor we are left with in this situation; and
3) the critical NOAEL (No Observable Adverse Effect Level) being close to the actual doses needed to produce an adverse effect in the animals studied.

Furthermore, HSE consider that the EU ARfD was derived using a particularly sensitive approach since red blood cell cholinesterase inhibition was used as the end-point. This is a sensitive way to assess adverse effects due to cholinesterase inhibition.

In conclusion we consider that some people might experience effects associated with cholineresterase inhibition such as salivation, intestinal disturbances or sweating after eating large portions (97.5th percentile consumption) of grapefruit including all the peel containing the highest levels found in this report, but we consider the likelihood of an effect on health to be low. Such effects would be expected to be minor, short-lived, and reversible.

Assessment B with reference to the ARfD set by the JMPR

The intakes for infants exceeded the EU ARfD. If infants ate large portions of grapefruit, including all of the peel, containing chlorpyrifos at 0.3 mg/kg, their intake of chlorpyrifos could be 320% of the Acute Reference Dose. However, the EU ARfD was set without taking into account scientifically valid data from studies using human volunteers. The JMPR (Joint FAO/WHO meetings on pesticides) has recommended a higher Acute Reference Dose (ARfD) of 0.1 mg/kg bw/d using that human data. This value allows an appropriate factor (10) to account for possible differences in susceptibility between people. Intakes in all groups are within the JMPR ARfD. Based on this assessment we do not expect an effect on health.

Crop	Pesticide	Highest residue (mg/kg)	Intake (mg/kg bw/day)		ARfD (mg/kg bw/day)	Source
			Adult	Critical group†		
Grapefruit	Imazalil	3.2	0.046	0.17 (infants) 0.056 (7-10 year olds) 0.046 (adults) 0.035 (elderly) 0.034 (11-14 year olds)	General population 0.1 Pregnant and nursing females 0.05	EFSA, 2007

Comment on risk assessment

Grapefruit flesh after peeling

The EU MRL risk assessment assumes that grapefruits are peeled before consumption. After peeling only 7% of the residue remains (EU, 2010), the highest intake is below 0.05 mg/kg bw/d, and there are no exceedances of either ARfD.

However, assuming that consumers eat all the peel, intakes for infants exceed the acute reference dose of 0.1 mg/kg bw/day (for the general population excluding pregnant and nursing women).

Whole grapefruit, including all the peel

Pregnant and nursing women

The intakes for adults, (elderly) and 11-14 year old children, are all below the ARfD of 0.05 mg/kg bw/d for pregnant and nursing females.

General population

The intakes for infants exceed the ARfD of 0.1 mg/kg bw/d for the general population.

If infants ate large portions of grapefruit containing imazalil at 3.2 mg/kg their intake could be 170% of the Acute Reference Dose of 0.1 mg/kg bw/day. This intake is 62 times lower than a dose which caused no observed adverse effects in a rabbit developmental study, used as the basis of the ARfD. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account uncertainties caused by using animal data and possible differences in susceptibility between people. We consider the reduced factor of 62 still enough to make an effect on health unlikely.

This estimate assumes that peel of the fruit is consumed. However if the peel is not consumed then the risk assessment that is the basis for the MRL applies (see the first paragraph of this assessment) and intakes in all groups are within both ARfDs and an effect on health is not expected.

Crop	Pesticide	Highest residue (mg/kg)	Intake (mg/kg bw/day)		ARfD (mg/kg bw/day)	Source
			Adult	Critical group[†]		
Grapefruit	Thiabendazole	7.8	0.11	0.43 (infants) 0.14 (7-10 year olds) 0.11 (adults) 0.085 (elderly) 0.083 (11-14 year olds)	0.1[$]	EFSA, 2014

Comment on risk assessment

Grapefruit flesh after peeling

The EU MRL risk assessment assumes that grapefruits are peeled before consumption. After peeling only 2% of the residue remains (EFSA, 2016), the highest intake is below 0.1 mg/kg bw/d[$], and there are no exceedances of either ARfD.

However, assuming that consumers eat all the peel, intakes for infants, 7-10 year olds and adults exceed the acute reference dose of 0.1[$] mg/kg bw/day. The highest intake is for infants.

Whole grapefruit, including all the peel

If infants ate large portions of grapefruit containing thiabendazole at 7.8 mg/kg their intake could be 430% of the Acute Reference Dose. This intake is 23 times lower than a dose which caused no observed adverse effects in a developmental study in rats over 11 days. The European Food Safety Authority used this study as the basis of the ARfD.

Toxicologists usually apply a factor of 100 to this dose to take into account the uncertainties caused by using animal data and possible differences in susceptibility between people. We consider this significant reduction in the factor of 100 to a level of 23 undesirable.

Assuming all the peel is eaten, we consider that some people might experience loss of appetite after eating large portions (97.5th percentile consumption) of grapefruit containing the highest levels found in this report. Such effects would be expected to be minor, short-lived and reversible.

This estimate assumes that peel of the fruit is consumed. However if the peel is not consumed then the risk assessment that is the basis for the MRL applies (see the first paragraph of this assessment) and intakes in all groups are within the ARfD and an effect on health is not expected.

[†]Highest intake of all ten consumer groups, or intakes for all consumer groups that exceed the ARfD.

[$]In 2014, when EFSA (2014) proposed the new ARfD for thiabendazole, the EU Commission established that the revised reference value "will only trigger review of MRLs and shall only apply to the review of product authorization by the date of application of the legal act of renewal of approval of thiabendazole". EFSA published the MRL review in 2016 however new MRLs are yet to be implemented following this review.

Acute risk assessments for samples containing more than one organophosphorus/carbamate or captan/folpet or triazoles or carbendazim/thiophanate methyl following screening assessment.

Some samples contained residues of more than one pesticide. Whenever toxicologists expect these to add to each other's effect, (have the same toxicological mode of action), HSE carries out a risk assessment of the combined results. Where the sum of the individual intakes, expressed as a percentage of the respective ARfDs, is above 100% then the risk assessment is published in full.

The screening assessment of samples, which contained more than one pesticide from the above groups, did not indicate any exceedances of the ARfD.

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Appendix A

Table 2: Summary of Results

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	24	19	0	0	12	2	0
Apricots	43	40	1	0	32	0	0
Beans with pods	26	12	10	0	13	0	0
Bread	109	91	0	0	22	0	0
Breakfast Cereal	96	90	0	3	63	1	1
Cabbage	24	5	0	0	4	1	0
Cashew nuts	48	3	3	0	0	2	0
Cheese (buffalo, ewe's and goat's)	48	4	22	0	8	0	0
Cooked meat	30	0	0	0	0	0	0
Fish (sea)	24	1	0	0	0	0	0
Grapefruit	42	40	1	0	40	1	0
Grapes	29	28	0	0	24	0	0
Leeks	25	7	0	1	4	0	0
Lettuce	18	13	1	0	6	0	0
Milk	114	1	0	0	0	27	0
Non-dairy Milk	49	0	0	0	0	2	0
Okra	34	11	7	0	7	0	0
Pasta	36	11	0	0	2	0	0
Peaches & nectarines	26	22	0	0	20	0	0
Pears	18	15	0	0	13	2	0
Peppers	24	14	0	0	8	1	0
Popcorn	24	1	2	0	2	0	0
Pork	53	3	1	0	0	0	0
Pork products (processed)	90	8	4	0	0	1	0
Potatoes	54	23	0	0	5	1	0
Prepared fresh fruit	18	1	4	0	0	0	0
Rye	24	23	0	0	18	0	0

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
Rye Flour	37	4	8	0	3	33	8
Speciality vegetables	21	12	2	1	9	0	0
Strawberries	24	19	1	0	18	0	0
Tomatoes	24	19	1	0	13	0	0
Tomatoes (tinned)	24	1	0	0	0	3	0
Wine	96	23	1	0	13	0	0

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.

Appendix B

Table 3: Summary of Rapid Alerts Issued and samples with residues above the MRL

Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
4096/2016	**03/10/2016**	**Papri Beans**	**India**	**Quality Veg Suppliers**	**Units 14/16 St James's Market, Essex Street, Bradford BD4 7PN**		**Three Circles Exports Mumbai, India**	acetamiprid 0.01 (MRL = 0.15) **carbendazim 0.5 (MRL = 0.2)** chlorantraniliprole 0.2 (MRL = 0.8) deltamethrin 0.08 (MRL = 0.2) dithiocarbamates 1.3 (MRL = 1) flubendiamide 0.07 (MRL = 0.5) **fenvalerate & esfenvalerate (all isomers) 1 (MRL = 0.1)** lambda-cyhalothrin 0.06 (MRL = 0.2) **triazophos 3.5 (MRL = 0.01*)**

*** 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. However they may be permitted elsewhere.

Table 4: Summary of MRL Exceedances

Sample ID	Food	Country of Origin	Pesticide Detected	Residue Detected (mg/kg)	MRL (mg/kg)	MRL exceedance after allowing for measurement uncertainty
Apricots						
5319/2016	Fresh	South Africa	thiabendazole	0.06	0.05*	No
Beans with pods						
3703/2016	**Speciality Beans**	**Malaysia**	**flutriafol**	**0.02**	**0.01***	**Yes**
3749/2016	**Speciality Beans**	**Malaysia**	**diafenthiuron**	**0.02**	**0.01***	**Yes**
3751/2016	**Speciality Beans**	**India**	**acephate**	**0.2**	**0.01***	**Yes**
			chlorpyrifos	**0.2**	**0.05***	**Yes**
			methamidophos	**0.02**	**0.01***	**Yes**
4095/2016	Speciality Beans	India	dimethoate (sum)	0.04	0.02*	No
4096/2016	**Speciality Beans**	**India**	**carbendazim**	**0.5**	**0.2**	**Yes**
			dithiocarbamates	1.3	1	No
			fenvalerate & esfenvalerate (all isomers)	**1**	**0.1**	**Yes**
			triazophos	**3.5**	**0.01***	**Yes**
4099/2016	Speciality Beans	India	dimethoate (sum)	0.03	0.02*	No
4100/2016	**Speciality Beans**	**India**	**dimethoate (sum)**	**0.1**	**0.02***	**Yes**
4129/2016	**Speciality Beans**	**Malaysia**	**chlorfenapyr**	**0.3**	**0.01***	**Yes**
			dithiocarbamates	**3**	**1**	**Yes**
4729/2016	Speciality Beans	Malaysia	dithiocarbamates	1.1	1	No
4775/2016	**Speciality Beans**	**India**	**carbendazim**	**0.4**	**0.2**	**Yes**
			profenofos	**0.07**	**0.01***	**Yes**
Cheese (buffalo, ewe's and goat's)						
3208/2016	Buffalo	Italy	Chlorate	0.08	0.01	No
3273/2016	Buffalo	Italy	Chlorate	0.2	0.01	No
5188/2016	Buffalo	Italy	Chlorate	0.6	0.01	No
0543/2016	Goats	France	Chlorate	0.04	0.01	No
2416/2016	Goats	UK	BAC (sum)	0.2	0.1	No
2437/2016	Goats	France	Chlorate	0.09	0.01	No
2490/2016	Goats	France	Chlorate	0.05	0.01	No
2757/2016	Goats	France	Chlorate	0.02	0.01	No

Sample ID	Food	Country of Origin	Pesticide Detected	Residue Detected (mg/kg)	MRL (mg/kg)	MRL exceedance after allowing for measurement uncertainty
3147/2016	Goats	France	Chlorate	0.09	0.01	No
3234/2016	Goats	France	Chlorate	0.1	0.01	No
3235/2016	Goats	France	Chlorate	0.04	0.01	No
			DDAC (sum)	0.2	0.1	No
3250/2016	Goats	France	Chlorate	0.03	0.01	No
3251/2016	Goats	France	Chlorate	0.07	0.01	No
3379/2016	Goats	France	Chlorate	0.02	0.01	No
3397/2016	**Goats**	**France**	**DDAC (sum)**	**0.4**	**0.1**	**Yes**
3426/2016	Goats	UK	BAC (sum)	0.2	0.1	No
3461/2016	Goats	France	Chlorate	0.05	0.01	No
3491/2016	Goats	France	Chlorate	0.1	0.01	No
5187/2016	Goats	France	Chlorate	0.02	0.01	No
5200/2016	Goats	UK	Chlorate	0.02	0.01	No
2458/2016	**Sheep**	**France**	**DDAC (sum)**	**0.3**	**0.1**	**Yes**
3304/2016	Sheep	UK	BAC (sum)	0.2	0.1	No
			Grapefruit			
3650/2016	Marsh Grapefruit	South Africa	Thiabendazole	7.8	5	No
			Lettuce			
3201/2016	**Other**	**UK**	**Propyzamide**	**1.8**	**0.6**	**Yes**
			Cashew nuts			
0024/2016	Cashew Nuts	Poland	Chlorpyrifos	0.07	0.05*	No
0383/2016	**Cashew Nuts**	**Poland**	**Chlorpyrifos**	**0.2**	**0.05***	**Yes**
1599/2016	**Cashew Nuts**	**UK**	**BAC (sum)**	**0.2**	**0.1**	**Yes**
			Okra			
3705/2016	**Fresh**	**Honduras**	**Oxamyl**	**0.03**	**0.01***	**Yes**
3746/2016	Fresh	Honduras	Oxamyl	0.02	0.01*	No
3773/2016	**Fresh**	**Jordan**	**dimethoate (sum)**	**0.1**	**0.02***	**Yes**
			Imidacloprid	**1**	**0.5**	**Yes**
3879/2016	Fresh	India	flonicamid (sum)	0.05	0.03*	No
4050/2016	**Fresh**	**India**	**flonicamid (sum)**	**0.1**	**0.03***	**Yes**
4098/2016	**Fresh**	**India**	**flonicamid (sum)**	**0.07**	**0.03***	**Yes**
4105/2016	Fresh	India	flonicamid (sum)	0.04	0.03*	No

Sample ID	Food	Country of Origin	Pesticide Detected	Residue Detected (mg/kg)	MRL (mg/kg)	MRL exceedance after allowing for measurement uncertainty
			Popcorn			
5039/2016	Salted	UK	pirimiphos-methyl	1.5	0.6	No
5040/2016	Sweet & salty	UK	pirimiphos-methyl	1.1	0.6	No
			Pork			
5287/2016	**Pork Chops**	**Germany**	**BAC (sum)**	**0.3**	**0.1**	**Yes**
			Pork products (processed)			
0525/2016	**Gammon**	**the Netherlands**	**BAC (sum)**	**0.3**	**0.1**	**Yes**
0550/2016	**Gammon**	**Denmark**	**BAC (sum)**	**0.3**	**0.1**	**Yes**
0655/2016	Gammon	Denmark	BAC (sum)	0.2	0.1	No
1894/2016	**Sausages**	**UK**	**DDAC (sum)**	**0.3**	**0.1**	**Yes**
			Prepared fresh fruit			
1821/2016	Mixed	UK	Chlorate	0.03	0.01*	No
2295/2016	Mixed	UK	Chlorate	0.02	0.01*	No
5018/2016	Mixed	UK	Chlorate	0.02	0.01*	No
2415/2016	Pineapple	Ghana	Chlorate	0.02	0.01*	No
			Rye Flour			
3346/2016	**Wholemeal Rye Flour**	**UK**	**Clothianidin**	**0.1**	**0.02***	**Yes**
5075/2016	**Wholemeal Organic Rye Flour**	**UK**	**Clothianidin**	**0.04**	**0.02***	**Yes**
5185/2016	**Wholemeal Rye Flour**	**UK**	**chlorpropham (parent)**	**0.04**	**0.01***	**Yes**
5371/2016	**Wholemeal Rye Flour**	**UK**	**Clothianidin**	**0.2**	**0.02***	**Yes**
5399/2016	**Rye Flour**	**UK**	**Clothianidin**	**0.08**	**0.02***	**Yes**
5445/2016	**Wholemeal Rye Flour**	**UK**	**Clothianidin**	**0.2**	**0.02***	**Yes**
5447/2016	**Wholemeal Rye Flour**	**UK**	**Clothianidin**	**0.06**	**0.02***	**Yes**
5488/2016	**Wholemeal Rye Flour**	**UK**	**Clothianidin**	**0.1**	**0.02***	**Yes**
			Speciality vegetables			
4790/2016	**Chard**	**UK**	**Prothioconazole**	**0.3**	**0.01***	**Yes**
			Tebuconazole	**0.7**	**0.02***	**Yes**
3683/2016	Kale	UK	Thiamethoxam	0.03	0.02*	No
			Strawberries			
3016/2016	**Fortuna Strawberries**	**Egypt**	**methomyl (sum)**	**0.1**	**0.02***	**Yes**

Sample ID	Food	Country of Origin	Pesticide Detected	Residue Detected (mg/kg)	MRL (mg/kg)	MRL exceedance after allowing for measurement uncertainty
			Tomatoes			
3128/2016	Cherry	Poland	Dinotefuran	0.05	0.01*	Yes
			pirimiphos-methyl	0.1	0.01*	Yes
			Wine			
2972/2016	White	Australia	Chlormequat	0.2	0.05*	Yes

Appendix C: Pesticides Sought and Found in Individual Foodstuffs

Apples Table 5a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
APPLES, EATING UK: 6 samples analysed		
boscalid	<0.01 (i.e. not found)	3
(MRL = 2)	0.02 - 0.2	3
captan and folpet	<0.02 (i.e. not found)	4
(MRL = 3)	0.03, 0.1	2
chlorantraniliprole	<0.01 (i.e. not found)	4
(MRL = 0.5)	0.01	2
cypermethrin	<0.02 (i.e. not found)	5
(MRL = 1)	0.02	1
dithianon	<0.02 (i.e. not found)	5
(MRL = 3)	0.03	1
ethephon	<0.05 (i.e. not found)	5
(MRL = 0.6)	0.06	1
flonicamid (sum)	<0.01 (i.e. not found)	5
(MRL = 0.3)	0.01	1
indoxacarb	<0.01 (i.e. not found)	5
(MRL = 0.5)	0.03	1
myclobutanil	<0.01 (i.e. not found)	4
(MRL = 0.6)	0.01, 0.02	2
pyraclostrobin	<0.01 (i.e. not found)	3
(MRL = 0.5)	0.01 - 0.09	3
pyrimethanil	<0.01 (i.e. not found)	5
(MRL = 15)	0.01	1
spirodiclofen	<0.01 (i.e. not found)	5
(MRL = 0.8)	0.03	1
APPLES, EATING Imported (Non-EC): 6 samples analysed		
acetamiprid	<0.01 (i.e. not found)	5
(MRL = 0.8)	0.1	1
boscalid	<0.01 (i.e. not found)	5
(MRL = 2)	0.06	1
captan and folpet	<0.02 (i.e. not found)	4
(MRL = 3)	0.05, 0.2	2
dithiocarbamates	<0.05 (i.e. not found)	5
(MRL = 5)	0.2	1
iprodione	<0.01 (i.e. not found)	5
(MRL = 6)	0.03	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
methoxyfenozide	<0.01 (i.e. not found)	5
(MRL = 2)	0.02	1
pyraclostrobin	<0.01 (i.e. not found)	5
(MRL = 0.5)	0.04	1
pyrimethanil	<0.01 (i.e. not found)	4
(MRL = 15)	3.2, 3.6	2
tebufenozide	<0.01 (i.e. not found)	5
(MRL = 1)	0.03	1
APPLES, EATING Imported (EC): 12 samples analysed		
acetamiprid	<0.01 (i.e. not found)	11
(MRL = 0.8)	0.02	1
boscalid	<0.01 (i.e. not found)	11
(MRL = 2)	0.06	1
captan and folpet	<0.02 (i.e. not found)	10
(MRL = 3)	0.5	1
(MRL = 10)	0.1	1
dithianon	<0.02 (i.e. not found)	10
(MRL = 3)	0.08, 0.1	2
dodine	<0.02 (i.e. not found)	8
(MRL = 0.9)	0.02 - 0.2	4
fenoxycarb	<0.01 (i.e. not found)	11
(MRL = 1)	0.01	1
flonicamid (sum)	<0.01 (i.e. not found)	11
(MRL = 0.3)	0.02	1
fludioxonil	<0.01 (i.e. not found)	10
(MRL = 5)	0.01	2
tebufenpyrad	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.01	1
thiacloprid	<0.01 (i.e. not found)	11
(MRL = 0.3)	0.07	1

Imported (EC) samples of apples were from France (5), Italy (6), the Netherlands (1).
Imported (Non-EC) samples of apples were from Chile (1), New Zealand (3), Serbia (1), South Africa (1).
UK samples of apples (6).

Residues were distributed by country of origin, as follows:

acetamiprid	Chile (1), France (1)
boscalid	Italy (1), Serbia (1), UK (3)
captan and folpet	Italy (2), New Zealand (2), UK (2)
chlorantraniliprole	UK (2)
cypermethrin	UK (1)
dodine	Italy (4)
dithiocarbamates	South Africa (1)
dithianon	Italy (2), UK (1)
ethephon	UK (1)
fenoxycarb	France (1)
flonicamid (sum)	the Netherlands (1), UK (1)
fludioxonil	Italy (1), the Netherlands (1)
indoxacarb	UK (1)

iprodione	Chile (1)
methoxyfenozide	Chile (1)
myclobutanil	UK (2)
pyraclostrobin	Serbia (1), UK (3)
pyrimethanil	Chile (1), South Africa (1), UK (1)
spirodiclofen	UK (1)
tebufenozide	New Zealand (1)
tebufenpyrad	France (1)
thiacloprid	France (1)

No residues were found in 2 of the 6 UK eating samples
No residues were found in 1 of the 6 Imported (Non-EC) eating samples
No residues were found in 2 of the 12 Imported (EC) eating samples

Apples Table 5b. Residues detected in retail samples purchased between October and November 2016

Residues (1-7 compounds) were found in 19 of the 24 samples as follows:

Number of residues	Sample ID	Type of APPLES	Residues found (mg/kg)																					Country of origin
			ACET	BOS	CPFOL	CTP	CYP	DOD	DTC	DTN	ETH	FEO	FLC	FLUD	IDX	IPR	MXF	MYC	PYC	PYM	SPD	TBF	TEBF	THC	
(1)	2390/2016	EATING	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	New Zealand
	0958/2016	EATING	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	France
	3129/2016	EATING	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	France
	3202/2016	EATING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	France
	3297/2016	EATING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	France
	2296/2016	EATING	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	Italy
	2336/2016	EATING	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
(2)	3481/2016	EATING	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	UK
	2468/2016	EATING	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	New Zealand
	1375/2016	EATING	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	Serbia
	2009/2016	EATING	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	3.6	-	-	-	-	South Africa
	5363/2016	EATING	-	0.06	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
	3389/2016	EATING	-	-	-	-	-	-	-	-	-	-	0.02	0.01	-	-	-	-	-	-	-	-	-	-	the Netherlands
(3)	1959/2016	EATING	-	-	0.5	-	-	0.2	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
	5014/2016	EATING	-	-	0.1	-	-	0.04	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
(4)	3443/2016	EATING	-	0.02	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	0.01	0.01	-	-	-	-	UK
	3001/2016	EATING	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.02	-	-	3.2	-	-	-	-	Chile
(6)	2445/2016	EATING	-	0.09	0.03	0.01	-	-	-	-	-	-	0.01	-	-	-	-	0.01	0.03	-	-	-	-	-	UK
(7)	0526/2016	EATING	-	0.2	0.1	0.01	-	-	-	0.03	-	-	-	-	0.03	-	-	0.02	0.09	-	-	-	-	-	UK

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	BOS	boscalid	CPFOL	captan and folpet
CTP	chlorantraniliprole	CYP	cypermethrin	DOD	dodine
DTC	dithiocarbamates	DTN	dithianon	ETH	ethephon
FEO	fenoxycarb	FLC	flonicamid (sum)	FLUD	fludioxonil
IDX	indoxacarb	IPR	iprodione	MXF	methoxyfenozide
MYC	myclobutanil	PYC	pyraclostrobin	PYM	pyrimethanil
SPD	spirodiclofen	TBF	tebufenozide	TEBF	tebufenpyrad
THC	thiacloprid				

Apples Table 5c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)

(0.01)
chlorothalonil (0.02)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)

cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)

demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)

malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
napropamide (0.02)
nitenpyram (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebuthiuron (0.01)
tecnazene (0.01)

teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Apricots Table 6a. Residues detected in samples obtained between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
APRICOTS, DRIED UK: 3 samples analysed		
acetamiprid	<0.01 (i.e. not found)	1
(MRL = 4)	0.02, 0.03	2
carbendazim	<0.01 (i.e. not found)	0
(MRL = 1)	0.02 - 0.07	3
dithiocarbamates	<0.05 (i.e. not found)	1
(MRL = 10)	0.08, 0.09	2
dodine	<0.02 (i.e. not found)	0
(MRL = 0.5)	0.08 - 0.1	3
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	2
(MRL = 1)	0.04	1
APRICOTS, DRIED Imported (Non-EC): 27 samples analysed		
acetamiprid	<0.01 (i.e. not found)	6
(MRL = 4)	0.02 - 0.08	21
buprofezin	<0.01 (i.e. not found)	26
(MRL = 1)	0.01	1
carbendazim	<0.01 (i.e. not found)	13
(MRL = 1)	0.01 - 0.1	14
cypermethrin	<0.02 (i.e. not found)	15
(MRL = 10)	0.02 - 0.09	12
dithiocarbamates	<0.05 (i.e. not found)	3
(MRL = 10)	0.05 - 0.2	24
dodine	<0.02 (i.e. not found)	2
(MRL = 0.5)	0.04 - 0.3	25
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	21
(MRL = 1)	0.01 - 0.03	6
lambda-cyhalothrin	<0.02 (i.e. not found)	26
(MRL = 1)	0.05	1
malathion	<0.01 (i.e. not found)	25
(MRL = 0.1*)	0.01, 0.03	2
thiacloprid	<0.01 (i.e. not found)	21
(MRL = 2.5)	0.02 - 0.04	6
thiophanate-methyl	<0.01 (i.e. not found)	26
(MRL = 10)	0.02	1
trifloxystrobin	<0.01 (i.e. not found)	26
(MRL = 15)	0.02	1
APRICOTS, FRESH Imported (Non-EC): 11 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	1
(MRL = 2)	0.02 - 0.4	10

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
captan	<0.02 (i.e. not found)	10
(MRL = 6)	0.02	1
fludioxonil	<0.01 (i.e. not found)	10
(MRL = 5)	0.05	1
iprodione	<0.01 (i.e. not found)	10
(MRL = 6)	0.7	1
thiabendazole	<0.01 (i.e. not found)	10
(MRL = 0.05*)	0.06	1
APRICOTS, FRESH Imported (EC): 2 samples analysed		
deltamethrin	<0.02 (i.e. not found)	0
(MRL = 0.1)	0.04	2
fluopyram	<0.01 (i.e. not found)	0
(MRL = 1)	0.6, 0.7	2
tebuconazole	<0.01 (i.e. not found)	0
(MRL = 0.6)	0.05, 0.09	2

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of apricots were from Spain (2).
Imported (Non-EC) samples of apricots were from South Africa (11), Turkey (27).
UK samples of apricots (3).

Residues were distributed by country of origin, as follows:

acetamiprid	Turkey (21), UK (2)
azoxystrobin	South Africa (10)
buprofezin	Turkey (1)
captan	South Africa (1)
carbendazim	Turkey (14), UK (3)
cypermethrin	Turkey (12)
deltamethrin	Spain (2)
dodine	Turkey (25), UK (3)
dithiocarbamates	Turkey (24), UK (2)
fludioxonil	South Africa (1)
fenvalerate & esfenvalerate (all isomers	Turkey (6), UK (1)
fluopyram	Spain (2)
iprodione	South Africa (1)
lambda-cyhalothrin	Turkey (1)
malathion	Turkey (2)
tebuconazole	Spain (2)
thiabendazole	South Africa (1)
thiacloprid	Turkey (6)
thiophanate-methyl	Turkey (1)
trifloxystrobin	Turkey (1)

Residues were found in all of the 3 UK dried samples
No residues were found in 1 of the 27 Imported (Non-EC) dried samples
No residues were found in 1 of the 11 Imported (Non-EC) fresh samples
Residues were found in all of the 2 Imported (EC) fresh samples

Apricots Table 6b. Residues detected in samples obtained between October and December 2016

Residues (1-6 compounds) were found in 41 of the 43 samples as follows:

Number of residues	Sample ID	Type of APRICOTS	Residues found (mg/kg)																				Country of origin
			ACET	AZOX	BUF	CAP	CBZ	CYP	DEL	DOD	DTC	FLUD	FNV	FPYM	IPR	LCY	MAL	TBC	TBZ	THC	TME	TRFL	
(1)	1819/2016	FRESH	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5140/2016	FRESH	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5141/2016	FRESH	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5172/2016	FRESH	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5173/2016	FRESH	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5252/2016	FRESH	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5253/2016	FRESH	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5317/2016	FRESH	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5980/2016	FRESH	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
(2)	2308/2016	DRIED	-	-	-	-	0.07	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	UK
(3)	2324/2016	DRIED	-	-	-	-	0.01	-	-	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	Turkey
	3342/2016	DRIED	0.02	-	-	-	-	-	-	0.1	-	-	0.02	-	-	-	-	-	-	-	-	-	Turkey
	5163/2016	DRIED	0.04	-	-	-	-	-	-	0.05	0.06	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5271/2016	DRIED	-	-	-	-	0.06	0.05	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	Turkey
	5455/2016	DRIED	0.04	-	-	-	-	-	-	0.1	0.06	-	-	-	-	-	-	-	-	-	-	-	Turkey
	2391/2016	FRESH	-	-	-	-	-	-	0.04	-	-	-	-	0.7	-	-	-	0.05	-	-	-	-	Spain
	3002/2016	FRESH	-	-	-	-	-	-	0.04	-	-	-	-	0.6	-	-	-	0.09	-	-	-	-	Spain
(4)	5217/2016	DRIED	0.02	-	-	-	0.02	-	-	0.1	0.08	-	-	-	-	-	-	-	-	-	-	-	UK
	3253/2016	DRIED	0.02	-	-	-	0.01	-	-	0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5080/2016	DRIED	0.04	-	-	-	-	-	-	0.3	0.08	-	0.03	-	-	-	-	-	-	-	-	-	Turkey
	5196/2016	DRIED	0.03	-	-	-	0.08	-	-	0.3	0.1	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5236/2016	DRIED	0.03	-	-	-	0.1	-	-	0.04	0.1	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5237/2016	DRIED	0.03	-	-	-	-	-	-	0.09	0.05	-	-	-	-	-	-	-	-	0.02	-	-	Turkey
	5346/2016	DRIED	0.03	-	-	-	-	0.06	-	0.2	0.07	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5395/2016	DRIED	0.03	-	-	-	0.09	-	-	0.2	0.09	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5400/2016	DRIED	0.04	-	-	-	-	-	-	0.1	0.06	-	-	-	-	-	-	-	-	0.04	-	-	Turkey

Number of residues	Sample ID	Type of APRICOTS	Residues found (mg/kg)																			Country of origin
			ACET	AZOX	BUF	CAP	CBZ	CYP	DEL	DOD	DTC	FLUD	FNV	FPYM	IPR	LCY	MAL	TBC	TBZ	THC	TME	TRFL	
(5)	5199/2016	DRIED	0.03	-	-	-	0.02	-	-	0.08	0.09	-	0.04	-	-	-	-	-	-	-	-	-	UK
	5319/2016	FRESH	-	0.2	-	0.02	-	-	-	-	-	0.05	-	-	0.7	-	-	-	0.06	-	-	-	South Africa
	0620/2016	DRIED	0.02	-	-	-	0.01	0.02	-	0.04	0.07	-	-	-	-	-	-	-	-	-	-	-	Turkey
	2310/2016	DRIED	0.05	-	-	-	-	0.09	-	0.07	0.08	-	-	-	-	-	-	-	-	0.02	-	-	Turkey
	3238/2016	DRIED	0.04	-	-	-	-	0.09	-	0.1	0.1	-	-	-	-	-	-	-	-	0.04	-	-	Turkey
	3351/2016	DRIED	-	-	-	-	0.06	0.02	-	0.2	0.06	-	-	-	-	-	-	-	-	-	0.02	-	Turkey
	5081/2016	DRIED	-	-	-	-	0.03	-	-	0.1	0.05	-	-	-	-	-	0.03	-	-	-	-	0.02	Turkey
	5195/2016	DRIED	0.02	-	-	-	-	0.03	-	0.1	0.07	-	-	-	-	0.05	-	-	-	-	-	-	Turkey
	5270/2016	DRIED	-	-	-	-	0.02	0.02	-	0.3	0.08	-	-	-	-	-	0.01	-	-	-	-	-	Turkey
	5302/2016	DRIED	0.04	-	-	-	-	0.02	-	0.2	0.2	-	0.02	-	-	-	-	-	-	-	-	-	Turkey
	5303/2016	DRIED	0.08	-	-	-	0.02	-	-	0.08	0.08	-	0.02	-	-	-	-	-	-	-	-	-	Turkey
	5489/2016	DRIED	0.02	-	0.01	-	0.06	-	-	0.1	0.07	-	-	-	-	-	-	-	-	-	-	-	Turkey
	5490/2016	DRIED	0.04	-	-	-	-	0.03	-	0.1	0.06	-	0.01	-	-	-	-	-	-	-	-	-	Turkey
(6)	0621/2016	DRIED	0.04	-	-	-	0.05	0.02	-	0.04	0.1	-	0.03	-	-	-	-	-	-	-	-	-	Turkey
	2325/2016	DRIED	0.02	-	-	-	0.05	0.03	-	0.06	0.07	-	-	-	-	-	-	-	-	0.02	-	-	Turkey

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	AZOX	azoxystrobin	BUF	buprofezin
CAP	captan	CBZ	carbendazim	CYP	cypermethrin
DEL	deltamethrin	DOD	dodine	DTC	dithiocarbamates
FLUD	fludioxonil	FNV	fenvalerate & esfenvalerate (all isomers)	FPYM	fluopyram
IPR	iprodione	LCY	lambda-cyhalothrin	MAL	malathion
TBC	tebuconazole	TBZ	thiabendazole	THC	thiacloprid
TME	thiophanate-methyl	TRFL	trifloxystrobin		

Apricots Table 6c. Residues sought but not found in samples obtained between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)

chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)

DDT (sum) (0.01)

demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
mandipropamid (0.01)
MCPA only (0.01)

MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)

tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiamethoxam (0.01)
thiamethoxam (sum) (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Beans with pods Table 7a. Residues detected in samples obtained between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
BEANS WITH PODS, GREEN BEANS UK: 1 sample analysed		
azoxystrobin	<0.01 (i.e. not found)	0
(MRL = 3)	0.01	1
cyprodinil	<0.01 (i.e. not found)	0
(MRL = 2)	0.08	1
fludioxonil	<0.01 (i.e. not found)	0
(MRL = 1)	0.01	1
tebuconazole	<0.01 (i.e. not found)	0
(MRL = 2)	0.03	1
BEANS WITH PODS, GREEN BEANS Imported (Non-EC): 12 samples analysed		
acetamiprid	<0.01 (i.e. not found)	11
(MRL = 0.15)	0.01	1
azoxystrobin	<0.01 (i.e. not found)	11
(MRL = 3)	0.01	1
boscalid	<0.01 (i.e. not found)	11
(MRL = 5)	0.02	1
buprofezin	<0.01 (i.e. not found)	11
(MRL = 1)	0.03	1
chlorothalonil	<0.01 (i.e. not found)	11
(MRL = 5)	0.06	1
clothianidin	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.02	1
cypermethrin	<0.01 (i.e. not found)	11
(MRL = 0.7)	0.02	1
deltamethrin	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.01	1
dimethoate (sum)	<0.01 (i.e. not found)	11
(MRL = 0.02*)	0.01	1
imidacloprid	<0.01 (i.e. not found)	11
(MRL = 2)	0.05	1
iprodione	<0.01 (i.e. not found)	11
(MRL = 2)	0.1	1
lambda-cyhalothrin	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.04	1
thiamethoxam (sum)	<0.01 (i.e. not found)	11
(MRL = 0.3)	0.02	1
BEANS WITH PODS, SPECIALITY BEANS Imported (Non-EC): 13 samples analysed		
acephate	<0.01 (i.e. not found)	12
(MRL = 0.01*)	0.2	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
acetamiprid	<0.01 (i.e. not found)	11
(MRL = 0.15)	0.01, 0.02	2
azoxystrobin	<0.01 (i.e. not found)	12
(MRL = 3)	0.02	1
bifenthrin	<0.01 (i.e. not found)	12
(MRL = 0.5)	0.06	1
carbendazim	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.4, 0.5	2
carbofuran (sum)	<0.001 (i.e. not found)	12
(MRL = 0.01*)	0.001	1
chlorantraniliprole	<0.01 (i.e. not found)	7
(MRL = 0.8)	0.02 - 0.2	6
chlorfenapyr	<0.01 (i.e. not found)	12
(MRL = 0.01*)	0.3	1
chlorothalonil	<0.01 (i.e. not found)	12
(MRL = 5)	0.05	1
chlorpyrifos	<0.01 (i.e. not found)	10
(MRL = 0.05*)	0.01, 0.04	2
	0.2	1
cypermethrin	<0.01 (i.e. not found)	9
(MRL = 0.7)	0.03 - 0.3	4
cyromazine	<0.01 (i.e. not found)	12
(MRL = 5)	0.2	1
deltamethrin	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.07, 0.08	2
diafenthiuron	<0.01 (i.e. not found)	11
(MRL = 0.01*)	0.01	1
	0.02	1
difenoconazole	<0.01 (i.e. not found)	11
(MRL = 1)	0.02, 0.09	2
dimethoate (sum)	<0.01 (i.e. not found)	10
(MRL = 0.02*)	0.03 - 0.1	3
dithiocarbamates	<0.05 (i.e. not found)	5
(MRL = 1)	0.2 - 0.8	5
	1.1 - 3	3
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	12
(MRL = 0.1)	1	1
flubendiamide	<0.01 (i.e. not found)	11
(MRL = 0.5)	0.07, 0.2	2
flutriafol	<0.01 (i.e. not found)	12
(MRL = 0.01*)	0.02	1
imidacloprid	<0.01 (i.e. not found)	12
(MRL = 2)	0.02	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
lambda-cyhalothrin	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.01, 0.06	2
methamidophos	<0.01 (i.e. not found)	12
(MRL = 0.01*)	0.02	1
myclobutanil	<0.01 (i.e. not found)	11
(MRL = 0.8)	0.04, 0.2	2
profenofos	<0.01 (i.e. not found)	12
(MRL = 0.01*)	0.07	1
tebuconazole	<0.01 (i.e. not found)	11
(MRL = 2)	0.03, 0.06	2
triazophos	<0.01 (i.e. not found)	12
(MRL = 0.01*)	3.5	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (Non-EC) samples of beans with pods were from Egypt (3), Guatemala (1), India (8), Kenya (6), Malaysia (5), Tanzania (2).
UK samples of beans with pods (1).

Residues were distributed by country of origin, as follows:

acephate	India (1)
acetamiprid	India (2), Kenya (1)
azoxystrobin	India (1), Tanzania (1), UK (1)
bifenthrin	India (1)
boscalid	Guatemala (1)
buprofezin	Kenya (1)
carbofuran (sum)	Malaysia (1)
carbendazim	India (2)
chlorfenapyr	Malaysia (1)
chlorothalonil	Guatemala (1), Malaysia (1)
chlorpyrifos	India (3)
clothianidin	Kenya (1)
chlorantraniliprole	India (1), Malaysia (5)
cyprodinil	UK (1)
cypermethrin	Egypt (1), India (2), Malaysia (2)
cyromazine	Malaysia (1)
deltamethrin	India (1), Kenya (1), Malaysia (1)
diafenthiuron	Malaysia (2)
difenoconazole	Malaysia (2)
dimethoate (sum)	Egypt (1), India (3)
dithiocarbamates	India (3), Malaysia (5)
flubendiamide	India (2)
flutriafol	Malaysia (1)
fludioxonil	UK (1)
fenvalerate & esfenvalerate (all isomers	India (1)
imidacloprid	Kenya (1), Malaysia (1)
iprodione	Kenya (1)
lambda-cyhalothrin	India (1), Kenya (1), Malaysia (1)
methamidophos	India (1)
myclobutanil	Malaysia (2)
profenofos	India (1)
tebuconazole	India (1), Malaysia (1), UK (1)
thiamethoxam (sum)	Kenya (1)
triazophos	India (1)

Residues were found in all of the 1 UK green beans samples
No residues were found in 3 of the 12 Imported (Non-EC) green beans samples
No residues were found in 1 of the 13 Imported (Non-EC) speciality beans samples

Beans with pods Table 7b. Residues detected in samples obtained between October and November 2016

Residues (1-10 compounds) were found in 22 of the 26 samples as follows:

Number of residues	Sample ID	Type of BEANS WITH PODS	Residues found (mg/kg)																		
			ACE	ACET	AZOX	BIF	BOS	BUF	CBF_S	CBZ	CFR	CLN	CPF	CTH	CTP	CYD	CYP	CYZ	DEL	DFT	DIFC
(1)	3362/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-
	3485/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4095/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4099/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4100/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2470/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3394/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-
	3498/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0528/2016	GREEN BEANS	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(2)	2447/2016	GREEN BEANS	-	-	-	-	0.02	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-
	0959/2016	GREEN BEANS	-	0.01	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-
(3)	3751/2016	SPECIALITY BEANS	0.2	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
	4038/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	0.04	-	-	-	0.3	-	-	-	-
	4740/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-
	4027/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	-	-	0.07	-	-	-	-	-	0.09
(4)	2418/2016	GREEN BEANS	-	-	0.01	-	-	-	-	-	-	-	-	-	-	0.08	-	-	-	-	-
(6)	3703/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	0.03	-	-	0.01	-
	3749/2016	SPECIALITY BEANS	-	-	-	-	-	-	0.001	-	-	-	-	-	0.07	-	-	0.2	-	0.02	-
	4129/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	0.3	-	-	-	0.2	-	-	-	0.07	-	-
	4729/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	0.05	-	-	0.02	-	0.04	-	-	-	0.02

Number of residues	Sample ID	Type of BEANS WITH PODS	Residues found (mg/kg)																		
			ACE	ACET	AZOX	BIF	BOS	BUF	CBF_S	CBZ	CFR	CLN	CPF	CTH	CTP	CYD	CYP	CYZ	DEL	DFT	DIFC
(9)	4096/2016	SPECIALITY BEANS	-	0.01	-	-	-	-	-	0.5	-	-	-	-	0.2	-	-	-	0.08	-	-
(10)	4775/2016	SPECIALITY BEANS	-	0.02	0.02	0.06	-	-	-	0.4	-	-	0.01	-	-	-	0.07	-	-	-	-

Number of residues	Sample ID	Type of BEANS WITH PODS	Residues found (mg/kg)															Country of origin
			DIMSM	DTC	FLB	FLF	FLUD	FNV	IMI	IPR	LCY	MDP	MYC	PFS	TBC	THMSM	TRI	
(1)	3362/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Egypt
	3485/2016	GREEN BEANS	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Egypt
	4095/2016	SPECIALITY BEANS	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	India
	4099/2016	SPECIALITY BEANS	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	India
	4100/2016	SPECIALITY BEANS	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	India
	2470/2016	GREEN BEANS	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	Kenya
	3394/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kenya
	3498/2016	GREEN BEANS	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	Kenya
	0528/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Tanzania
(2)	2447/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Guatemala
	0959/2016	GREEN BEANS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kenya
(3)	3751/2016	SPECIALITY BEANS	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	India
	4038/2016	SPECIALITY BEANS	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	India
	4740/2016	GREEN BEANS	-	-	-	-	-	-	-	-	0.04	-	-	-	-	0.02	-	Kenya
	4027/2016	SPECIALITY BEANS	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	Malaysia
(4)	2418/2016	GREEN BEANS	-	-	-	-	0.01	-	-	-	-	-	-	-	0.03	-	-	UK
(6)	3703/2016	SPECIALITY BEANS	-	0.3	-	0.02	-	-	-	-	-	-	0.04	-	-	-	-	Malaysia

Number of residues	Sample ID	Type of BEANS WITH PODS	Residues found (mg/kg)														Country of origin
			DIMSM	DTC	FLB	FLF	FLUD	FNV	IMI	IPR	LCY	MDP	MYC	PFS	TBC	THMSM	TRI	
	3749/2016	SPECIALITY BEANS	-	0.3	-	-	-	-	-	-	-	-	0.2	-	-	-	-	Malaysia
	4129/2016	SPECIALITY BEANS	-	3	-	-	-	-	-	-	0.01	-	-	-	0.06	-	-	Malaysia
	4729/2016	SPECIALITY BEANS	-	1.1	-	-	-	-	0.02	-	-	-	-	-	-	-	-	Malaysia
(9)	4096/2016	SPECIALITY BEANS	-	1.3	0.07	-	-	1	-	-	0.06	-	-	-	-	-	3.5	India
(10)	4775/2016	SPECIALITY BEANS	-	0.8	0.2	-	-	-	-	-	-	-	-	0.07	0.03	-	-	India

The abbreviations used for the pesticide names are as follows:

ACE	acephate	ACET	acetamiprid	AZOX	azoxystrobin
BIF	bifenthrin	BOS	boscalid	BUF	buprofezin
CBF_S	carbofuran (sum)	CBZ	carbendazim	CFR	chlorfenapyr
CLN	chlorothalonil	CPF	chlorpyrifos	CTH	clothianidin
CTP	chlorantraniliprole	CYD	cyprodinil	CYP	cypermethrin
CYZ	cyromazine	DEL	deltamethrin	DFT	diafenthiuron
DIFC	difenoconazole	DIMSM	dimethoate (sum)	DTC	dithiocarbamates
FLB	flubendiamide	FLF	flutriafol	FLUD	fludioxonil
FNV	fenvalerate & esfenvalerate (all isomers)	IMI	imidacloprid	IPR	iprodione
LCY	lambda-cyhalothrin	MDP	methamidophos	MYC	myclobutanil
PFS	profenofos	TBC	tebuconazole	THMSM	thiamethoxam (sum)
TRI	triazophos				

Beans with pods Table 7c. Residues sought but not found in samples obtained between October and November 2016

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

2,4-D (sum) (0.02)
2,4-DB (0.01)
2-phenylphenol (0.01)
abamectin (sum) (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.01)
acrinathrin (0.01)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.01)
alpha-HCH (0.01)
ametoctradin (0.01)
aminocarb (0.01)
amitraz (0.01)
atrazine (0.01)
azinphos-ethyl (0.01)
azinphos-methyl (0.01)
BAC (sum) (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.05)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan and folpet (0.01)
carbaryl (0.01)
carbetamide (0.01)
carboxin (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenvinphos (0.01)
chlorfluazuron (0.01)
chloridazon (0.01)
chlorobenzilate (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.05)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
cinidon-ethyl (0.01)
clethodim (0.01)
clofentezine (0.01)
clomazone (0.01)
coumaphos (0.01)
crufomate (0.01)
cyanazine (0.01)
fenbutatin oxide (0.01)
fenhexamid (0.01)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenthion (sum) (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.01)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
flutolanil (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.01)
fosthiazate (0.01)
fuberidazole (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Haloxyfop-R methyl (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexaflumuron (0.01)
hexazinone (0.01)
hexythiazox (0.01)
imazalil (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.01)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.01)
phenthoate (0.01)
phorate (sum) (0.02)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
promecarb (0.01)
prometryn (0.01)
propamocarb (0.01)
propanil (0.01)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.01)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridaphenthion (0.01)
pyrifenox (0.01)
pyrimethanil (0.01)
pyriproxifen (0.01)
pyroxsulam (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.01)
Quinoclamine (0.01)
quinoxyfen (0.01)

cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.01)
cyflufenamid (0.01)
cyfluthrin (0.01)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
DDAC (sum) (0.01)
DDT (sum) (0.01)

desmedipham (0.01)
desmetryn (0.01)
diazinon (0.01)
dichlofluanid (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.02)
dicrotophos (0.01)
diethofencarb (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
dioxathion (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.05)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.01)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)

isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.01)
malathion (0.01)
mandipropamid (0.01)

MCPA (sum) (0.01)
MCPA only (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.01)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.01)
metconazole (0.02)
methabenzthiazuron (0.01)
methacrifos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.01)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
napropamide (0.01)
neburon (0.01)
nitenpyram (0.01)
nitrothal-isopropyl (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.01)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)

quintozene (sum) (0.01)
Quizalofop, incl. quizalfop-P (0.01)
rotenone (0.01)
simazine (0.01)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
terbacil (0.01)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbumeton (0.01)
terbuthylazine (0.01)
terbutryn (0.01)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.01)
thiacloprid (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.01)
triasulfuron (0.01)
triazamate (0.01)
triazamate (acid) (0.01)
triazamate (ester) (0.01)
trichlorfon (0.01)
triclopyr (0.05)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.05)
triticonazole (0.01)
tritosulfuron (0.01)
vamidothion (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Bread Table 8a. Residues detected in retail samples purchased between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
ORDINARY BREAD: OTHER UK: 8 samples analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 0.6)	0.03 - 0.06	8
chlorpyrifos-methyl	<0.01 (i.e. not found)	7
(MRL = 0.15)	0.04	1
cypermethrin	<0.02 (i.e. not found)	7
(No MRL)	0.02	1
flonicamid (sum)	<0.01 (i.e. not found)	7
(No MRL)	0.01	1
glyphosate	<0.1 (i.e. not found)	7
(MRL = 1.05)	0.1	1
pirimiphos-methyl	<0.01 (i.e. not found)	6
(MRL = 0.6)	0.2	2
ORDINARY BREAD: WHITE UK: 43 samples analysed		
chlormequat	<0.02 (i.e. not found)	16
(MRL = 0.6)	0.02 - 0.09	27
deltamethrin	<0.02 (i.e. not found)	42
(No MRL)	0.03	1
flonicamid (sum)	<0.01 (i.e. not found)	42
(No MRL)	0.02	1
glyphosate	<0.1 (i.e. not found)	41
(MRL = 1.05)	0.1, 0.2	2
pirimiphos-methyl	<0.01 (i.e. not found)	41
(MRL = 0.6)	0.02	2
ORDINARY BREAD: WHOLEMEAL UK: 20 samples analysed		
chlormequat	<0.02 (i.e. not found)	1
(MRL = 1)	0.02 - 0.1	19
chlorpyrifos-methyl	<0.01 (i.e. not found)	19
(MRL = 1.4)	0.01	1
glyphosate	<0.1 (i.e. not found)	11
(MRL = 3.6)	0.1 - 0.5	9
SPECIALITY BREAD: BAGELS UK: 1 sample analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 0.6)	0.06	1
SPECIALITY BREAD: OTHER UK: 33 samples analysed		
chlormequat	<0.02 (i.e. not found)	4
(MRL = 0.6)	0.02 - 0.1	29
deltamethrin	<0.02 (i.e. not found)	32
(No MRL)	0.04	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
flonicamid (sum)	<0.01 (i.e. not found)	32
(No MRL)	0.01	1
glyphosate	<0.1 (i.e. not found)	32
(MRL = 1.05)	0.1	1
mandipropamid	<0.01 (i.e. not found)	32
(No MRL)	0.03	1
pirimiphos-methyl	<0.01 (i.e. not found)	29
(MRL = 0.6)	0.01 - 0.03	4

SPECIALITY BREAD: PITTA UK: 1 sample analysed

chlormequat	<0.02 (i.e. not found)	0
(MRL = 0.6)	0.1	1

ORDINARY BREAD: WHITE Imported (EC): 1 sample analysed

chlormequat	<0.02 (i.e. not found)	0
(MRL = 0.6)	0.05	1
cypermethrin	<0.02 (i.e. not found)	0
(No MRL)	0.05	1
flonicamid (sum)	<0.01 (i.e. not found)	0
(No MRL)	0.06	1

ORDINARY BREAD: WHOLEMEAL Imported (EC): 1 sample analysed

chlormequat	<0.02 (i.e. not found)	0
(MRL = 1)	0.06	1
flonicamid (sum)	<0.01 (i.e. not found)	0
(No MRL)	0.02	1
glyphosate	<0.1 (i.e. not found)	0
(MRL = 3.6)	0.3	1

SPECIALITY BREAD: OTHER Imported (EC): 1 sample analysed

chlormequat	<0.02 (i.e. not found)	0
(MRL = 0.6)	0.02	1

Imported (EC) samples of bread were from EU (1), Ireland (2).
UK samples of bread (106).

Residues were distributed by country of origin, as follows:

chlormequat	EU (1), Ireland (2), UK (85)
chlorpyrifos-methyl	UK (2)
cypermethrin	Ireland (1), UK (1)
deltamethrin	UK (2)
flonicamid (sum)	Ireland (2), UK (3)
glyphosate	Ireland (1), UK (13)
mandipropamid	UK (1)
pirimiphos-methyl	UK (8)

Residues were found in all of the 8 UK ordinary bread: other samples
No residues were found in 14 of the 43 UK ordinary bread: white samples
Residues were found in all of the 20 UK ordinary bread: wholemeal samples
Residues were found in all of the 1 UK speciality bread: bagels samples
No residues were found in 4 of the 33 UK speciality bread: other samples
Residues were found in all of the 1 UK speciality bread: pitta samples
Residues were found in all of the 1 Imported (EC) ordinary bread: white samples
Residues were found in all of the 1 Imported (EC) ordinary bread: wholemeal samples
Residues were found in all of the 1 Imported (EC) speciality bread: other samples

Bread Table 8b. Residues detected in retail samples purchased between October and December 2016

Residues (1-4 compounds) were found in 91 of the 109 samples as follows:

Number of residues	Sample ID	Type of BREAD	Residues found (mg/kg)								Country of origin
			CLQ	CPFME	CYP	DEL	FLC	GLY	MDI	PIM	
(1)	0538/2016	ORDINARY BREAD: WHOLEMEAL	0.06	-	-	-	-	-	-	-	UK
	0539/2016	ORDINARY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	0540/2016	SPECIALITY BREAD: OTHER	0.05	-	-	-	-	-	-	-	UK
	1824/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	2014/2016	ORDINARY BREAD: WHOLEMEAL	0.1	-	-	-	-	-	-	-	UK
	2015/2016	ORDINARY BREAD: WHITE	0.05	-	-	-	-	-	-	-	UK
	2016/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	2017/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	UK
	2084/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	2085/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	2086/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	2151/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	UK
	2398/2016	ORDINARY BREAD: WHITE	0.03	-	-	-	-	-	-	-	UK
	2399/2016	SPECIALITY BREAD: OTHER	0.07	-	-	-	-	-	-	-	UK
	2431/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	2432/2016	ORDINARY BREAD: WHOLEMEAL	0.1	-	-	-	-	-	-	-	UK
	2433/2016	SPECIALITY BREAD: OTHER	0.1	-	-	-	-	-	-	-	UK
	2452/2016	ORDINARY BREAD: WHITE	0.03	-	-	-	-	-	-	-	UK
	2485/2016	ORDINARY BREAD: WHITE	0.05	-	-	-	-	-	-	-	UK
	2628/2016	ORDINARY BREAD: WHITE	0.02	-	-	-	-	-	-	-	UK
	2752/2016	ORDINARY BREAD: WHITE	-	-	-	0.03	-	-	-	-	UK
	2753/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	UK
	2791/2016	SPECIALITY BREAD: OTHER	0.04	-	-	-	-	-	-	-	UK
	2792/2016	ORDINARY BREAD: WHITE	0.05	-	-	-	-	-	-	-	UK
	3018/2016	ORDINARY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	3020/2016	SPECIALITY BREAD: OTHER	0.05	-	-	-	-	-	-	-	UK
	3138/2016	ORDINARY BREAD: WHITE	0.09	-	-	-	-	-	-	-	UK
	3139/2016	ORDINARY BREAD: WHITE	0.07	-	-	-	-	-	-	-	UK
	3198/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	3199/2016	ORDINARY BREAD: WHITE	0.05	-	-	-	-	-	-	-	UK
	3200/2016	SPECIALITY BREAD: OTHER	0.05	-	-	-	-	-	-	-	UK
	3261/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	UK
	3263/2016	ORDINARY BREAD: WHOLEMEAL	0.08	-	-	-	-	-	-	-	UK
	3266/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	3303/2016	ORDINARY BREAD: WHOLEMEAL	0.09	-	-	-	-	-	-	-	UK
	3323/2016	ORDINARY BREAD: WHOLEMEAL	0.1	-	-	-	-	-	-	-	UK
	3324/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK

Number of residues	Sample ID	Type of BREAD	Residues found (mg/kg)								Country of origin
			CLQ	CPFME	CYP	DEL	FLC	GLY	MDI	PIM	
	3343/2016	ORDINARY BREAD: WHOLEMEAL	-	-	-	-	-	0.5	-	-	UK
	3345/2016	SPECIALITY BREAD: OTHER	0.1	-	-	-	-	-	-	-	UK
	3371/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	3372/2016	SPECIALITY BREAD: OTHER	0.06	-	-	-	-	-	-	-	UK
	3381/2016	ORDINARY BREAD: WHOLEMEAL	0.09	-	-	-	-	-	-	-	UK
	3382/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	UK
	3416/2016	ORDINARY BREAD: WHOLEMEAL	0.09	-	-	-	-	-	-	-	UK
	3417/2016	ORDINARY BREAD: WHITE	0.02	-	-	-	-	-	-	-	UK
	3454/2016	SPECIALITY BREAD: OTHER	0.04	-	-	-	-	-	-	-	UK
	5011/2016	ORDINARY BREAD: OTHER	0.06	-	-	-	-	-	-	-	UK
	5148/2016	SPECIALITY BREAD: BAGELS	0.06	-	-	-	-	-	-	-	UK
	5179/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	5180/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	5242/2016	ORDINARY BREAD: WHOLEMEAL	0.05	-	-	-	-	-	-	-	UK
	5243/2016	SPECIALITY BREAD: OTHER	0.04	-	-	-	-	-	-	-	UK
	5248/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	5260/2016	ORDINARY BREAD: WHITE	0.02	-	-	-	-	-	-	-	UK
	5304/2016	ORDINARY BREAD: WHOLEMEAL	0.06	-	-	-	-	-	-	-	UK
	5305/2016	ORDINARY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	5306/2016	SPECIALITY BREAD: PITTA	0.1	-	-	-	-	-	-	-	UK
	5327/2016	ORDINARY BREAD: WHITE	0.02	-	-	-	-	-	-	-	UK
	5335/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	5356/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	5362/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	5394/2016	ORDINARY BREAD: WHITE	0.03	-	-	-	-	-	-	-	UK
	5401/2016	ORDINARY BREAD: OTHER	0.05	-	-	-	-	-	-	-	UK
	5453/2016	ORDINARY BREAD: WHITE	-	-	-	-	-	0.2	-	-	UK
	5491/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	-	UK
	5940/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	5975/2016	ORDINARY BREAD: WHOLEMEAL	0.08	-	-	-	-	-	-	-	UK
	5976/2016	ORDINARY BREAD: WHITE	0.04	-	-	-	-	-	-	-	UK
	5261/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	-	-	-	-	EU
(2)	2397/2016	ORDINARY BREAD: WHOLEMEAL	0.09	-	-	-	-	0.1	-	-	UK
	2453/2016	ORDINARY BREAD: OTHER	0.03	-	-	-	-	0.1	-	-	UK
	2454/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	0.03	-	UK
	2486/2016	ORDINARY BREAD: WHITE	0.05	-	-	-	-	-	-	0.02	UK
	2487/2016	SPECIALITY BREAD: OTHER	0.03	-	-	-	-	-	-	0.02	UK
	2627/2016	ORDINARY BREAD: WHOLEMEAL	0.09	-	-	-	-	0.2	-	-	UK
	2635/2016	SPECIALITY BREAD: OTHER	0.04	-	-	-	-	-	-	0.01	UK
	2790/2016	ORDINARY BREAD: WHOLEMEAL	0.1	-	-	-	-	0.2	-	-	UK
	3370/2016	ORDINARY BREAD: WHITE	0.06	-	-	-	-	0.1	-	-	UK

Number of residues	Sample ID	Type of BREAD	Residues found (mg/kg)								Country of origin
			CLQ	CPFME	CYP	DEL	FLC	GLY	MDI	PIM	
	3453/2016	ORDINARY BREAD: WHOLEMEAL	0.1	-	-	-	-	0.2	-	-	UK
	5012/2016	ORDINARY BREAD: WHOLEMEAL	0.03	-	-	-	-	0.5	-	-	UK
	5147/2016	ORDINARY BREAD: WHOLEMEAL	0.02	-	-	-	-	0.5	-	-	UK
	5178/2016	ORDINARY BREAD: WHOLEMEAL	0.05	-	-	-	-	0.3	-	-	UK
	5249/2016	SPECIALITY BREAD: OTHER	0.02	-	-	-	0.01	-	-	-	UK
	5452/2016	SPECIALITY BREAD: OTHER	0.06	-	-	-	-	-	-	0.03	UK
(3)	3452/2016	ORDINARY BREAD: WHITE	0.03	-	-	-	0.02	-	-	0.02	UK
	5360/2016	ORDINARY BREAD: OTHER	0.05	-	-	-	0.01	-	-	0.2	UK
	5454/2016	ORDINARY BREAD: WHOLEMEAL	0.08	0.01	-	-	-	0.1	-	-	UK
	5333/2016	ORDINARY BREAD: WHOLEMEAL	0.06	-	-	-	0.02	0.3	-	-	Ireland
	5334/2016	ORDINARY BREAD: WHITE	0.05	-	0.05	-	0.06	-	-	-	Ireland
(4)	2751/2016	ORDINARY BREAD: OTHER	0.06	0.04	0.02	-	-	-	-	0.2	UK
	3137/2016	SPECIALITY BREAD: OTHER	0.09	-	-	0.04	-	0.1	-	0.02	UK

The abbreviations used for the pesticide names are as follows:

CLQ	chlormequat	CPFME	chlorpyrifos-methyl	CYP	cypermethrin
DEL	deltamethrin	FLC	flonicamid (sum)	GLY	glyphosate
MDI	mandipropamid	PIM	pirimiphos-methyl		

Bread Table 8c. Residues sought but not found in retail samples purchased between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)

chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)

EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Bread Table 8d. Processing factors and MRLs used for bread

Bread type	Pesticide	Processing factor	MRL for unprocessed grain (mg/kg)	Bread MRL (mg/kg)
Wholemeal wheat bread	Chlormequat	0.5	2	1
	Chlorpyrifos-methyl	0.47	3	1.4
	Deltamethrin	0.84	2	1.68
	Glyphosate	0.36	10	3.6
	Pirimiphos methyl	0.43	5	2.15
Other wheat bread	Chlormequat	0.3	2	0.6
	Chlorpyrifos-methyl	0.05	3	0.15
	Deltamethrin	0.14	2	0.28
	Glyphosate	0.105 ‡	10	1.05
	Pirimiphos methyl	0.12	2	1.9
Wholemeal rye bread	Chlormequat	0.3	2	0.6
	Pirimiphos methyl	None found	2	2
Other rye bread	Chlormequat	0.99	2	2
	Pirimiphos methyl	None found	5	5

‡ This factor is for milling (flour production) only, used because no baking (bread production) factor was available.

Processing factors are taken from a compendium of publically available, authoritative processing factors published by the German regulatory authority for pesticides[4].

About processing factors

In nearly all cases the EU MRL is set for the food in its raw, unprocessed form (these foods are listed in Annex I of Regulation 396/2005), but is then applied to processed foods using appropriate processing factors. Processing factors take account of the effect of processing on the food as traded. Different forms of processing may remove, concentrate, or dilute residues, and the effect may vary depending on the food and the pesticide concerned.

Put another way, the use of processing factors enables checks that the original ingredient was compliant with MRLs. Food manufacturers should have information on the composition of their product - for instance, whether water is added/removed – that may assist in identifying appropriate processing factors and also have information on the compliance of the raw ingredients employed (in this case wheat or rye).

Suppliers and manufacturers must ensure that the raw materials and ingredients they supply or use to make processed food comply with MRLs *before processing*. It is an offence to use non-compliant food as a processed food ingredient. Processing cannot be used to make food compliant, and the compliance of processed foods should be checked using MRLs and relevant processing factors. Where processing affects residues, it is not appropriate to check results against unadjusted MRLs.

[4] *BfR compilation on processing factors for pesticide residues, dated 20.10.2011*
Downloaded from http://www.bfr.bund.de/en/pesticides-579.html on 7 January 2014

Breakfast Cereal Table 9a. Residues detected in retail samples purchased between January and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
BRAN UK: 32 samples analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 2)	0.08 - 0.4	32
chlorpropham (parent)	<0.01 (i.e. not found)	30
(No MRL)	0.01, 0.02	2
deltamethrin	<0.02 (i.e. not found)	31
(MRL = 0.62)	0.04	1
glyphosate	<0.1 (i.e. not found)	6
(MRL = 4.6)	0.1 - 0.8	26
mepiquat	<0.02 (i.e. not found)	26
(MRL = 3)	0.02 - 0.05	6
pirimiphos-methyl	<0.01 (i.e. not found)	21
(MRL = 3.8)	0.03 - 0.2	11
tebuconazole	<0.01 (i.e. not found)	30
(No MRL)	0.01	2
CORN/MAIZE UK: 4 samples analysed		
None found	-	4
OATS UK: 14 samples analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 9)	0.06 - 2.1	14
glyphosate	<0.1 (i.e. not found)	1
(MRL = 20)	0.1 - 1.8	13
mepiquat	<0.02 (i.e. not found)	3
(MRL = 2)	0.02 - 0.2	11
OTHER UK: 12 samples analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 2)	0.03 - 0.2	12
deltamethrin	<0.02 (i.e. not found)	11
(MRL = 0.62)	0.09	1
glyphosate	<0.1 (i.e. not found)	3
(MRL = 4.6)	0.1 - 0.3	9
mepiquat	<0.02 (i.e. not found)	11
(MRL = 3)	0.03	1
pirimiphos-methyl	<0.01 (i.e. not found)	11
(MRL = 3.8)	0.04	1
pyrethrins	<0.01 (i.e. not found)	11
(No MRL)	0.02	1
tricyclazole	<0.01 (i.e. not found)	11
(No MRL)	0.01	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
RICE UK: 3 samples analysed		
tebuconazole	<0.01 (i.e. not found)	2
(No MRL)	0.09	1
tricyclazole	<0.01 (i.e. not found)	2
(No MRL)	0.08	1
WHEAT UK: 30 samples analysed		
chlormequat	<0.02 (i.e. not found)	0
(MRL = 2)	0.03 - 0.2	30
chlorpropham (parent)	<0.01 (i.e. not found)	29
(No MRL)	0.01	1
deltamethrin	<0.02 (i.e. not found)	29
(MRL = 0.62)	0.04	1
glyphosate	<0.1 (i.e. not found)	27
(MRL = 4.6)	0.1 - 0.9	3
mepiquat	<0.02 (i.e. not found)	29
(MRL = 3)	0.02	1
tebuconazole	<0.01 (i.e. not found)	27
(No MRL)	0.01	3
OATS Imported (EC): 1 sample analysed		
boscalid	<0.01 (i.e. not found)	0
(MRL = 4)	0.01	1
chlormequat	<0.02 (i.e. not found)	0
(MRL = 9)	1.8	1

Imported (EC) samples of breakfast cereals (wholegrain) were from Ireland (1).
UK samples of breakfast cereals (wholegrain) (95).

Residues were distributed by country of origin, as follows:

boscalid	Ireland (1)
chlormequat	Ireland (1), UK (88)
chlorpropham (parent)	UK (3)
deltamethrin	UK (3)
glyphosate	UK (51)
mepiquat	UK (19)
pirimiphos-methyl	UK (12)
pyrethrins	UK (1)
tebuconazole	UK (6)
tricyclazole	UK (2)

Residues were found in all of the 32 UK bran samples
No residues were found in any of the UK corn/maize samples
Residues were found in all of the 14 UK oats samples
Residues were found in all of the 12 UK other samples
No residues were found in 2 of the 3 UK rice samples
Residues were found in all of the 30 UK wheat samples
Residues were found in all of the 1 Imported (EC) oats samples

Breakfast cereal Table 9b. Residues detected in retail samples purchased between January and November 2016

Residues (1-5 compounds) were found in 90 of the 96 samples as follows:

Number of residues	Sample ID	Type of BREAKFAST CEREALS (WHOLEGRAIN)	Residues found (mg/kg)										Country of origin
			BOS	CLQ	CPP_P	DEL	GLY	MPQ	PIM	PYTH	TBC	TCY	
(1)	1868/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	1871/2016	WHEAT	-	0.2	-	-	-	-	-	-	-	-	UK
	2317/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	2320/2016	WHEAT	-	0.09	-	-	-	-	-	-	-	-	UK
	2640/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	2642/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	2808/2016	WHEAT	-	0.04	-	-	-	-	-	-	-	-	UK
	3023/2016	WHEAT	-	0.03	-	-	-	-	-	-	-	-	UK
	3134/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	3226/2016	OATS	-	0.06	-	-	-	-	-	-	-	-	UK
	3256/2016	WHEAT	-	0.07	-	-	-	-	-	-	-	-	UK
	3267/2016	WHEAT	-	0.07	-	-	-	-	-	-	-	-	UK
	3268/2016	BRAN	-	0.09	-	-	-	-	-	-	-	-	UK
	3269/2016	WHEAT	-	0.03	-	-	-	-	-	-	-	-	UK
	3385/2016	BRAN	-	0.2	-	-	-	-	-	-	-	-	UK
	3386/2016	BRAN	-	0.1	-	-	-	-	-	-	-	-	UK
	3388/2016	WHEAT	-	0.07	-	-	-	-	-	-	-	-	UK
	3420/2016	WHEAT	-	0.09	-	-	-	-	-	-	-	-	UK
	3456/2016	OTHER	-	0.03	-	-	-	-	-	-	-	-	UK
	5010/2016	WHEAT	-	0.06	-	-	-	-	-	-	-	-	UK
	5151/2016	WHEAT	-	0.08	-	-	-	-	-	-	-	-	UK
	5183/2016	WHEAT	-	0.06	-	-	-	-	-	-	-	-	UK
	5184/2016	WHEAT	-	0.1	-	-	-	-	-	-	-	-	UK
	5221/2016	OTHER	-	0.06	-	-	-	-	-	-	-	-	UK
	5266/2016	WHEAT	-	0.04	-	-	-	-	-	-	-	-	UK
	5309/2016	WHEAT	-	0.07	-	-	-	-	-	-	-	-	UK
	5369/2016	WHEAT	-	0.09	-	-	-	-	-	-	-	-	UK
(2)	2019/2016	BRAN	-	0.3	-	-	0.5	-	-	-	-	-	UK
	2318/2016	BRAN	-	0.2	-	-	0.2	-	-	-	-	-	UK
	2807/2016	OATS	-	2.1	-	-	0.4	-	-	-	-	-	UK
	3021/2016	WHEAT	-	0.06	-	-	0.9	-	-	-	-	-	UK
	3022/2016	WHEAT	-	0.07	-	-	-	0.02	-	-	-	-	UK
	3025/2016	BRAN	-	0.08	-	-	0.1	-	-	-	-	-	UK
	3133/2016	OTHER	-	0.1	-	-	0.2	-	-	-	-	-	UK
	3228/2016	BRAN	-	0.09	-	-	-	-	-	-	0.01	-	UK

Number of residues	Sample ID	Type of BREAKFAST CEREALS (WHOLEGRAIN)	Residues found (mg/kg)										Country of origin
			BOS	CLQ	CPP_P	DEL	GLY	MPQ	PIM	PYTH	TBC	TCY	
	3229/2016	WHEAT	-	0.04	-	-	0.2	-	-	-	-	-	UK
	3264/2016	RICE	-	-	-	-	-	-	-	-	0.09	0.08	UK
	3374/2016	OATS	-	0.9	-	-	0.1	-	-	-	-	-	UK
	5005/2016	OTHER	-	0.04	-	-	0.1	-	-	-	-	-	UK
	5006/2016	WHEAT	-	0.09	0.01	-	-	-	-	-	-	-	UK
	5150/2016	BRAN	-	0.1	-	-	0.2	-	-	-	-	-	UK
	5152/2016	WHEAT	-	0.05	-	-	0.1	-	-	-	-	-	UK
	5181/2016	OTHER	-	0.2	-	-	0.2	-	-	-	-	-	UK
	5222/2016	WHEAT	-	0.2	-	-	-	-	-	-	0.01	-	UK
	5244/2016	BRAN	-	0.3	-	-	0.2	-	-	-	-	-	UK
	5262/2016	WHEAT	-	0.1	-	-	-	-	-	-	0.01	-	UK
	5263/2016	BRAN	-	0.4	-	-	0.2	-	-	-	-	-	UK
	5264/2016	BRAN	-	0.2	-	-	0.5	-	-	-	-	-	UK
	5265/2016	OTHER	-	0.2	-	-	0.1	-	-	-	-	-	UK
	5295/2016	BRAN	-	0.08	-	-	0.2	-	-	-	-	-	UK
	5296/2016	OTHER	-	0.1	-	-	0.1	-	-	-	-	-	UK
	5297/2016	WHEAT	-	0.2	-	0.04	-	-	-	-	-	-	UK
	5299/2016	BRAN	-	0.2	-	-	0.3	-	-	-	-	-	UK
	5307/2016	OTHER	-	0.1	-	-	0.3	-	-	-	-	-	UK
	5308/2016	BRAN	-	0.2	-	-	0.4	-	-	-	-	-	UK
	5311/2016	OTHER	-	0.2	-	-	0.3	-	-	-	-	-	UK
	5338/2016	BRAN	-	0.2	-	-	-	-	0.08	-	-	-	UK
	5366/2016	BRAN	-	0.1	-	-	0.1	-	-	-	-	-	UK
	5367/2016	OTHER	-	0.05	-	-	0.2	-	-	-	-	-	UK
	5370/2016	WHEAT	-	0.07	-	-	-	-	-	-	0.01	-	UK
	3326/2016	OATS	0.01	1.8	-	-	-	-	-	-	-	-	Ireland
(3)	0942/2016	OATS	-	1.1	-	-	0.5	0.04	-	-	-	-	UK
	1870/2016	BRAN	-	0.2	-	-	-	0.03	0.09	-	-	-	UK
	2018/2016	OATS	-	0.8	-	-	0.5	0.06	-	-	-	-	UK
	2020/2016	OATS	-	0.9	-	-	0.4	0.02	-	-	-	-	UK
	2319/2016	BRAN	-	0.09	-	-	0.1	-	0.07	-	-	-	UK
	2638/2016	OATS	-	1.3	-	-	0.7	0.08	-	-	-	-	UK
	2639/2016	BRAN	-	0.2	-	-	0.2	0.02	-	-	-	-	UK
	2793/2016	BRAN	-	0.4	-	-	0.3	0.03	-	-	-	-	UK
	3024/2016	BRAN	-	0.1	0.02	-	0.2	-	-	-	-	-	UK
	3227/2016	OATS	-	0.9	-	-	0.2	0.08	-	-	-	-	UK
	3257/2016	BRAN	-	0.1	0.01	-	0.2	-	-	-	-	-	UK
	3270/2016	OATS	-	1.6	-	-	0.4	0.2	-	-	-	-	UK
	3373/2016	OTHER	-	0.2	-	-	0.2	0.03	-	-	-	-	UK
	3375/2016	OATS	-	1.5	-	-	0.2	0.02	-	-	-	-	UK

Number of residues	Sample ID	Type of BREAKFAST CEREALS (WHOLEGRAIN)	Residues found (mg/kg)									Country of origin
			BOS	CLQ	CPP_P	DEL	GLY	MPQ	PIM	PYTH	TBC	TCY	
	3421/2016	OATS	-	1.1	-	-	1.8	0.1	-	-	-	-	UK
	3422/2016	OATS	-	1.4	-	-	0.7	0.1	-	-	-	-	UK
	3458/2016	OATS	-	1.8	-	-	1.1	0.1	-	-	-	-	UK
	5009/2016	BRAN	-	0.2	-	0.04	0.3	-	-	-	-	-	UK
	5149/2016	BRAN	-	0.1	-	-	0.2	-	0.07	-	-	-	UK
	5182/2016	BRAN	-	0.1	-	-	0.1	-	0.09	-	-	-	UK
	5223/2016	OATS	-	0.8	-	-	0.5	0.04	-	-	-	-	UK
	5245/2016	BRAN	-	0.1	-	-	0.2	-	0.1	-	-	-	UK
	5298/2016	BRAN	-	0.1	-	-	0.2	-	0.2	-	-	-	UK
	5310/2016	BRAN	-	0.1	-	-	0.2	-	0.03	-	-	-	UK
	5357/2016	BRAN	-	0.2	-	-	0.8	-	0.03	-	-	-	UK
(4)	3131/2016	BRAN	-	0.1	-	-	0.2	0.03	-	-	0.01	-	UK
	3132/2016	BRAN	-	0.1	-	-	0.3	0.05	0.1	-	-	-	UK
	3387/2016	BRAN	-	0.2	-	-	0.2	0.03	0.07	-	-	-	UK
(5)	5340/2016	OTHER	-	0.1	-	0.09	-	-	0.04	0.02	-	0.01	UK

The abbreviations used for the pesticide names are as follows:

BOS	boscalid	CLQ	chlormequat	CPP_P	chlorpropham (parent)
DEL	deltamethrin	GLY	glyphosate	MPQ	mepiquat
PIM	pirimiphos-methyl	PYTH	pyrethrins	TBC	tebuconazole
TCY	tricyclazole				

Breakfast cereal Table 9c. Residues sought but not found in retail samples purchased between January and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)

BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.02)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)

phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)

chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)

ethion (0.01)
ethirimol (0.01)
myclobutanil (0.01)
napropamide (0.02)
zoxamide (0.01)

Breakfast cereal Table 9d. Processing factors and MRLs used for flour

Flour type	Pesticide	Processing factor	MRL for unprocessed grain (mg/kg)	Flour MRL (mg/kg)
Wholemeal wheat flour	Glyphosate	0.46	10	4.6
	Pirimiphos methyl	0.76	5	3.8
	Pyrethrins	1	3	3
Other wheat flour	Glyphosate	0.105	10	1.05
	Pirimiphos methyl	0.19	5	0.95
	Pyrethrins	1	3	3

Processing factors are taken from a compendium of publically available, authoritative processing factors published by the German regulatory authority for pesticides[5].

About processing factors

In nearly all cases the EU MRL is set for the food in its raw, unprocessed form (these foods are listed in Annex I of Regulation 396/2005), but is then applied to processed foods using appropriate processing factors. Processing factors take account of the effect of processing on the food as traded. Different forms of processing may remove, concentrate, or dilute residues, and the effect may vary depending on the food and the pesticide concerned.

Put another way, the use of processing factors enables checks that the original ingredient was compliant with MRLs. Food manufacturers should have information on the composition of their product - for instance, whether water is added/removed – that may assist in identifying appropriate processing factors and also have information on the compliance of the raw ingredients employed (in this case wheat or rye).

Suppliers and manufacturers must ensure that the raw materials and ingredients they supply or use to make processed food comply with MRLs *before processing*. It is an offence to use non-compliant food as a processed food ingredient. Processing cannot be used to make food compliant, and the compliance of processed foods should be checked using MRLs and relevant processing factors. Where processing affects residues, it is not appropriate to check results against unadjusted MRLs.

[5] *BfR compilation on processing factors for pesticide residues, dated 20.10.2011*
Downloaded from http://www.bfr.bund.de/en/pesticides-579.html on 7 January 2014

Cabbage Table 10a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
CABBAGE, UK: 23 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	22
(MRL = 5)	0.02	1
boscalid	<0.01 (i.e. not found)	22
(MRL = 5)	0.04	1
metalaxyl	<0.01 (i.e. not found)	22
(MRL = 1)	0.01	1
prothioconazole	<0.01 (i.e. not found)	20
(MRL = 0.09)	0.01	1
(MRL = 0.09)	0.01, 0.02	2
tebuconazole	<0.01 (i.e. not found)	22
(MRL = 0.7)	0.03	1
thiamethoxam (sum)	<0.01 (i.e. not found)	21
(MRL = 0.02*)	0.01	2
CABBAGE, Imported (EC): 1 sample analysed		
None found	-	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of cabbage were from Spain (1).
UK samples of cabbage (23).

Residues were distributed by country of origin, as follows:

azoxystrobin	UK (1)
boscalid	UK (1)
metalaxyl	UK (1)
prothioconazole	UK (3)
tebuconazole	UK (1)
thiamethoxam (sum)	UK (2)

No residues were found in 18 of the 23 UK samples
No residues were found in any of the Imported (EC) samples

Cabbage Table 10b. Residues detected in retail samples purchased between October and November 2016

Residues (1-3 compounds) were found in 5 of the 24 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)						Country of origin
		AZOX	BOS	MTX	PZL	TBC	THMSM	
(1)	2421/2016	-	-	-	-	-	0.01	UK
	3409/2016	-	-	-	0.01	-	-	UK
(2)	3486/2016	0.02	-	-	0.02	-	-	UK
	4956/2016	-	0.04	-	0.01	-	-	UK
(3)	3363/2016	-	-	0.01	-	0.03	0.01	UK

The abbreviations used for the pesticide names are as follows:

AZOX	azoxystrobin	BOS	boscalid	MTX	metalaxyl
PZL	prothioconazole	TBC	tebuconazole	THMSM	thiamethoxam (sum)

Cabbage Table 10c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.02)
2,4-DB (0.01)
2-phenylphenol (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.01)
acrinathrin (0.01)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.01)
alpha-HCH (0.01)
ametoctradin (0.01)
aminocarb (0.01)
amitraz (0.01)
atrazine (0.01)
azinphos-ethyl (0.01)
azinphos-methyl (0.01)

BAC (sum) (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.05)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.01)
carbofuran (sum) (0.01)
carboxin (0.01)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chlorfluazuron (0.01)
chloridazon (0.01)
chlorobenzilate (0.01)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.05)

chlorpyrifos (0.01)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.01)
fenhexamid (0.01)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenthion (sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.01)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.01)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.01)
fosthiazate (0.01)
fuberidazole (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Haloxyfop-R methyl (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
nitrothal-isopropyl (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.01)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.01)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.01)
phenthoate (0.01)

phorate (sum) (0.02)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propamocarb (0.01)
propanil (0.01)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.01)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)

pyridaphenthion (0.01)

chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
cinidon-ethyl (0.01)
clethodim (0.01)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
crufomate (0.01)
cyanazine (0.01)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.01)
cyflufenamid (0.01)
cyfluthrin (0.01)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)

cypermethrin (0.01)
cyproconazole (0.01)
cyprodinil (0.01)
cyromazine (0.01)
DDAC (sum) (0.01)
DDT (sum) (0.01)
deltamethrin (0.01)
desmedipham (0.01)
desmetryn (0.01)
diazinon (0.01)
dichlofluanid (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.02)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
dioxathion (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.05)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.01)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
hexaflumuron (0.01)
hexazinone (0.01)
hexythiazox (0.01)
imazalil (0.01)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)

kresoxim-methyl (0.01)
lambda-cyhalothrin (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.01)
malathion (0.01)
mandipropamid (0.01)
MCPA (sum) (0.01)
MCPA only (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.01)
metamitron (0.01)
metazachlor (0.01)
metconazole (0.02)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.01)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.01)
neburon (0.01)
nitenpyram (0.01)
pyrifenox (0.01)
pyrimethanil (0.01)
pyriproxifen (0.01)
pyroxsulam (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.01)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
Quizalofop, incl. quizalfop-P (0.01)
rotenone (0.01)
simazine (0.01)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
terbacil (0.01)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbumeton (0.01)
terbuthylazine (0.01)
terbutryn (0.01)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.01)
thiacloprid (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.01)
triasulfuron (0.01)
triazamate (0.01)
triazamate (acid) (0.01)
triazamate (ester) (0.01)
triazophos (0.01)
trichlorfon (0.01)
triclopyr (0.05)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.05)
triticonazole (0.01)
tritosulfuron (0.01)
vamidothion (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Cashew nuts Table 11a. Residues detected in retail samples purchased between April and May 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
CASHEW NUTS UK: 26 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	25
(MRL = 0.1)	0.2	1
chlorpyrifos	<0.01 (i.e. not found)	25
(MRL = 0.05*)	0.02	1
cypermethrin	<0.01 (i.e. not found)	24
(MRL = 0.05*)	0.04, 0.05	2
CASHEW NUTS Imported (Non-EC): 10 samples analysed		
None found	-	10
CASHEW NUTS Imported (EC): 12 samples analysed		
chlorpyrifos	<0.01 (i.e. not found)	10
(MRL = 0.05*)	0.07, 0.2	2

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of nuts were from France (6), Ireland (4), Poland (2).
Imported (Non-EC) samples of nuts were from India (3), Vietnam (7).
UK samples of nuts (26).

Residues were distributed by country of origin, as follows:

BAC (sum)	UK (1)
chlorpyrifos	Poland (2), UK (1)
cypermethrin	UK (2)

No residues were found in 22 of the 26 UK cashew nuts samples
No residues were found in any of the Imported (Non-EC) cashew nuts samples
No residues were found in 10 of the 12 Imported (EC) cashew nuts samples

Cashew nuts Table 11b. Residues detected in retail samples purchased between April and May 2016

Residues (1-1 compounds) were found in 6 of the 48 samples as follows:

Number of residues	Sample ID	Type of NUTS	Residues found (mg/kg)			Country of origin
			BACSM	CPF	CYP	
(1)	0226/2016	CASHEW NUTS	-	-	0.05	UK
	0381/2016	CASHEW NUTS	-	0.02	-	UK
	1119/2016	CASHEW NUTS	-	-	0.04	UK
	1599/2016	CASHEW NUTS	0.2	-	-	UK
	0024/2016	CASHEW NUTS	-	0.07	-	Poland
	0383/2016	CASHEW NUTS	-	0.2	-	Poland

The abbreviations used for the pesticide names are as follows:

BACSM	BAC (sum)	CPF	chlorpyrifos	CYP	cypermethrin

Cashew nuts Table 11c. Residues sought but not found in retail samples purchased between April and May 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)

chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)

DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)

desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
inorganic bromide (20)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)

malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
pyrazophos (0.01)
pyrethrins (0.02)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)

tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)

ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Cheese Table 12a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
CHEESE, GOATS UK: 17 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	14
(MRL = 0.1)	0.06	1
	0.2	2
Chlorate	<0.01 (i.e. not found)	16
(MRL = 0.01)	0.02	1
CHEESE, SHEEP UK: 1 sample analysed		
BAC (sum)	<0.05 (i.e. not found)	0
(MRL = 0.1)	0.2	1
CHEESE, BUFFALO Imported (EC): 4 samples analysed		
Chlorate	<0.01 (i.e. not found)	1
(MRL = 0.01)	0.08 - 0.6	3
CHEESE, GOATS Imported (EC): 22 samples analysed		
Chlorate	<0.01 (i.e. not found)	7
(MRL = 0.01)	0.01	2
	0.02 - 0.1	13
DDAC (sum)	<0.05 (i.e. not found)	12
(MRL = 0.1)	0.06 - 0.1	8
	0.2, 0.4	2
CHEESE, SHEEP Imported (EC): 4 samples analysed		
DDAC (sum)	<0.05 (i.e. not found)	3
(MRL = 0.1)	0.3	1

Imported (EC) samples of cheese were from EU (2), France (21), Greece (2), Italy (4), the Netherlands (1).
UK samples of cheese (18).

Residues were distributed by country of origin, as follows:

BAC (sum)	UK (4)
Chlorate	EU (1), France (14), Italy (3), UK (1)
DDAC (sum)	France (11)

No residues were found in 13 of the 17 UK goats samples
Residues were found in all of the 1 UK sheep samples
No residues were found in 1 of the 4 Imported (EC) buffalo samples
No residues were found in 5 of the 22 Imported (EC) goats samples
No residues were found in 3 of the 4 Imported (EC) sheep samples

Cheese Table 12b. Residues detected in retail samples purchased between October and November 2016

Residues (1-2 compounds) were found in 26 of the 48 samples as follows:

Number of residues	Sample ID	Type of CHEESE	Residues found (mg/kg)			Country of origin
			BACSM	CLOR	DDAC	
(1)	2416/2016	GOATS	0.2	-	-	UK
	3304/2016	SHEEP	0.2	-	-	UK
	3332/2016	GOATS	0.06	-	-	UK
	3426/2016	GOATS	0.2	-	-	UK
	5200/2016	GOATS	-	0.02	-	UK
	5218/2016	GOATS	-	0.01	-	EU
	2417/2016	GOATS	-	-	0.1	France
	2436/2016	GOATS	-	-	0.07	France
	2437/2016	GOATS	-	0.09	-	France
	2458/2016	SHEEP	-	-	0.3	France
	2490/2016	GOATS	-	0.05	-	France
	2757/2016	GOATS	-	0.02	-	France
	3250/2016	GOATS	-	0.03	-	France
	3251/2016	GOATS	-	0.07	-	France
	3491/2016	GOATS	-	0.1	-	France
	3208/2016	BUFFALO	-	0.08	-	Italy
	3273/2016	BUFFALO	-	0.2	-	Italy
	5188/2016	BUFFALO	-	0.6	-	Italy
(2)	0543/2016	GOATS	-	0.04	0.06	France
	3147/2016	GOATS	-	0.09	0.1	France
	3234/2016	GOATS	-	0.1	0.1	France
	3235/2016	GOATS	-	0.04	0.2	France
	3379/2016	GOATS	-	0.02	0.1	France
	3397/2016	GOATS	-	0.01	0.4	France
	3461/2016	GOATS	-	0.05	0.08	France
	5187/2016	GOATS	-	0.02	0.1	France

The abbreviations used for the pesticide names are as follows:

BACSM BAC (sum) CLOR Chlorate DDAC DDAC (sum)

Cheese Table 12c. Residues sought but not found in retail samples purchased between October and November 2016

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

abamectin (sum) (0.01)
acephate (0.01)
aldrin and dieldrin (0.002)
alpha-HCH (0.002)
azamethiphos (0.01)
azinphos-ethyl (0.005)
benfuracarb (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
boscalid (0.01)
bromophos-ethyl (0.002)
cadusafos (0.002)
carbaryl (0.002)
carbendazim (0.01)
carbofuran (sum) (0.002)
carbosulfan (0.002)
chlordane (sum) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
coumaphos (0.002)
cyfluthrin (0.002)
cypermethrin (0.005)
cyproconazole (0.01)
DDT (sum) (0.002)
deltamethrin (0.005)
diazinon (0.002)
dichlorvos (0.01)
diflubenzuron (0.01)
endosulfan (sum) (0.002)
endrin (0.002)
epoxiconazole (0.01)
ethoprophos (0.002)
etofenprox (0.01)
famoxadone (0.01)
fenitrothion (0.002)
fenpropimorph (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.002)
fluazifop-p-butyl (sum) (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.002)
hexachlorobenzene (0.002)
hexachlorocyclohexane (sum) (0.002)
indoxacarb (0.01)
lambda-cyhalothrin (0.005)
lindane (0.002)
malathion (0.01)
metaflumizone (0.01)
metazachlor (0.002)
methacrifos (0.002)
methamidophos (0.01)
methidathion (0.002)
methoxychlor (0.002)
nitrofen (0.01)
parathion (0.005)
parathion-methyl (sum) (0.002)
permethrin (0.005)
phoxim (0.01)
pirimicarb (sum) (0.002)
pirimiphos-methyl (0.002)
prochloraz (parent only) (0.01)
profenofos (0.01)
propetamphos (0.005)
propoxur (0.002)
prothioconazole (0.01)
pyrazophos (0.002)
quintozene (sum) (0.002)
spinosad (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tecnazene (0.002)
teflubenzuron (0.01)
tetrachlorvinphos (0.002)
tetraconazole (0.01)
thiacloprid (0.01)
triazophos (0.002)
vinclozolin (sum) (0.002)

Cooked Meat Table 13a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
BEEF UK: 2 samples analysed		
None found	-	2
CHICKEN UK: 4 samples analysed		
None found	-	4
HAM UK: 18 samples analysed		
None found	-	18
TURKEY UK: 1 sample analysed		
None found	-	1
BEEF Imported (Non-EC): 1 sample analysed		
None found	-	1
CHICKEN Imported (Non-EC): 2 samples analysed		
None found	-	2
HAM Imported (EC): 2 samples analysed		
None found	-	2

Imported (EC) samples of cooked meat were from Denmark (1), Poland (1).
Imported (Non-EC) samples of cooked meat were from Brazil (1), Thailand (2).
UK samples of cooked meat (25).

No residues were found in any of the UK beef samples
No residues were found in any of the UK chicken samples
No residues were found in any of the UK ham samples
No residues were found in any of the UK turkey samples
No residues were found in any of the Imported (Non-EC) beef samples
No residues were found in any of the Imported (Non-EC) chicken samples
No residues were found in any of the Imported (EC) ham samples

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

aldrin and dieldrin (0.002)
alpha-HCH (0.002)
azinphos-ethyl (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
chlordane (animal products) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
cyfluthrin (0.005)
cypermethrin (0.005)
DDT (sum) (0.002)
deltamethrin (0.005)
diazinon (0.002)
endosulfan (sum) (0.002)
endrin (0.002)
fenvalerate & esfenvalerate (all isomers (0.005)
Heptachlor (sum) (0.002)
hexachlorobenzene (0.002)
lindane (0.002)
methacrifos (0.002)
methidathion (0.002)
methoxychlor (0.002)
nitrofen (0.002)
parathion (0.002)
parathion-methyl (sum) (0.002)
permethrin (0.005)
pirimiphos-methyl (0.002)
profenofos (0.002)
pyrazophos (0.002)
quintozene (sum) (0.002)
resmethrin (0.005)
tecnazene (0.002)
triazophos (0.002)

Fish (sea) Table 14a.Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
COD UK: 1 sample analysed		
None found	-	1
HADDOCK UK: 1 sample analysed		
None found	-	1
COD Imported (Non-EC): 7 samples analysed		
None found	-	7
HADDOCK Imported (Non-EC): 4 samples analysed		
None found	-	4
HAKE Imported (Non-EC): 3 samples analysed		
None found	-	3
PLAICE Imported (Non-EC): 2 samples analysed		
None found	-	2
SEA BASS Imported (Non-EC): 1 sample analysed		
DDT (sum)	<0.002 (i.e. not found)	0
(No MRL)	0.01	1
WHITE FISH Imported (Non-EC): 1 sample analysed		
None found	-	1
COD Imported (EC): 2 samples analysed		
None found	-	2
HADDOCK Imported (EC): 1 sample analysed		
None found	-	1
HAKE Imported (EC): 1 sample analysed		
None found	-	1

Imported (EC) samples of sea fish were from Ireland (2), Poland (2).
Imported (Non-EC) samples of sea fish were from Alaska (1), China (1), North East Atlantic (12), Norway (1), Norwegian Sea (1), Pacific Ocean (1), Turkey (1).
UK samples of sea fish (2).

Residues were distributed by country of origin, as follows:
DDT (sum) Turkey (1)

No residues were found in any of the UK cod samples
No residues were found in any of the UK haddock samples
No residues were found in any of the Imported (Non-EC) cod samples
No residues were found in any of the Imported (Non-EC) haddock samples
No residues were found in any of the Imported (Non-EC) hake samples
No residues were found in any of the Imported (Non-EC) plaice samples

Residues were found in all of the 1 Imported (Non-EC) sea bass samples
No residues were found in any of the Imported (Non-EC) white fish samples
No residues were found in any of the Imported (EC) cod samples
No residues were found in any of the Imported (EC) haddock samples
No residues were found in any of the Imported (EC) hake samples

Fish (sea) Table 14b. Residues detected in retail samples purchased between October and November 2016

Residue (1 compound) was found in 1 of the 24 samples as follows:

Number of residues	Sample ID	Type of SEA FISH	Residues found (mg/kg) DDT	Country of origin
(1)	3277/2016	SEA BASS	0.01	Turkey

The abbreviations used for the pesticide names are as follows:

DDT DDT (sum)

Fish (sea) Table 14c.Residues sought but not found in retail samples purchased between October and November 2016

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

aldrin and dieldrin (0.002)
alpha-HCH (0.002)
azinphos-ethyl (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
chlordane (animal products) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
cyfluthrin (0.005)
cypermethrin (0.005)
deltamethrin (0.005)
diazinon (0.002)
endosulfan (sum) (0.002)
endrin (0.002)
fenvalerate & esfenvalerate (all isomers (0.005)
Heptachlor (sum) (0.002)
hexachlorobenzene (0.002)
lindane (0.002)
methacrifos (0.002)
methidathion (0.002)
methoxychlor (0.002)
nitrofen (0.002)
parathion (0.002)
parathion-methyl (sum) (0.002)
permethrin (0.005)
pirimiphos-methyl (0.002)
profenofos (0.002)
pyrazophos (0.002)
quintozene (sum) (0.002)
resmethrin (0.005)
tecnazene (0.002)
triazophos (0.002)

Grapefruit Table 15a. Residues detected in samples obtained between July and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
GRAPEFRUIT, Imported (Non-EC): 40 samples analysed		
2,4-D (sum)	<0.02 (i.e. not found)	26
(MRL = 1)	0.05 - 0.3	14
acetamiprid	<0.01 (i.e. not found)	38
(MRL = 0.9)	0.02, 0.2	2
azoxystrobin	<0.01 (i.e. not found)	36
(MRL = 15)	0.01 - 0.04	4
buprofezin	<0.01 (i.e. not found)	37
(MRL = 1)	0.01 - 0.02	3
chlorpyrifos	<0.01 (i.e. not found)	31
(MRL = 0.3)	0.01 - 0.3	9
cypermethrin	<0.01 (i.e. not found)	39
(MRL = 2)	0.01	1
DDAC (sum)	<0.01 (i.e. not found)	39
(MRL = 0.1)	0.01	1
dithiocarbamates	<0.05 (i.e. not found)	26
(MRL = 5)	0.06 - 0.2	14
fenbutatin oxide	<0.01 (i.e. not found)	39
(MRL = 5)	0.03	1
fenpropathrin	<0.01 (i.e. not found)	39
(MRL = 2)	0.05	1
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	39
(MRL = 0.02*)	0.01	1
imazalil	<0.01 (i.e. not found)	1
(MRL = 5)	0.5 - 3.2	39
imidacloprid	<0.01 (i.e. not found)	26
(MRL = 1)	0.01 - 0.06	14
methoxyfenozide	<0.01 (i.e. not found)	38
(MRL = 2)	0.01, 0.07	2
prochloraz (parent only)	<0.01 (i.e. not found)	38
(MRL = 10)	0.05, 0.09	2
propiconazole	<0.01 (i.e. not found)	39
(MRL = 6)	0.02	1
pyraclostrobin	<0.01 (i.e. not found)	19
(MRL = 1)	0.02 - 0.08	21
pyrimethanil	<0.01 (i.e. not found)	32
(MRL = 8)	0.01 - 2.1	8
pyriproxifen	<0.01 (i.e. not found)	31
(MRL = 0.6)	0.01 - 0.04	9

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
thiabendazole	<0.01 (i.e. not found)	19
(MRL = 5)	0.06 - 4.8	20
	7.8	1
trifloxystrobin	<0.01 (i.e. not found)	38
(MRL = 0.5)	0.02	2
GRAPEFRUIT, Imported (EC): 2 samples analysed		
chlorpyrifos	<0.01 (i.e. not found)	1
(MRL = 0.3)	0.03	1
imazalil	<0.01 (i.e. not found)	0
(MRL = 5)	0.5	2
imidacloprid	<0.01 (i.e. not found)	1
(MRL = 1)	0.04	1
pyriproxifen	<0.01 (i.e. not found)	1
(MRL = 0.6)	0.02	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of grapefruit were from Spain (2).
Imported (Non-EC) samples of grapefruit were from Israel (5), Mexico (2), South Africa (26), Swaziland (6), Turkey (1).

Residues were distributed by country of origin, as follows:

2,4-D (sum)	South Africa (8), Swaziland (6)
acetamiprid	South Africa (1), Turkey (1)
azoxystrobin	South Africa (4)
buprofezin	South Africa (3)
chlorpyrifos	South Africa (3), Spain (1), Swaziland (5), Turkey (1)
cypermethrin	South Africa (1)
DDAC (sum)	South Africa (1)
dithiocarbamates	South Africa (14)
fenbutatin oxide	Turkey (1)
fenpropathrin	South Africa (1)
fenvalerate & esfenvalerate (all isomers	Turkey (1)
imidacloprid	Israel (5), South Africa (6), Spain (1), Swaziland (3)
imazalil	Israel (5), Mexico (2), South Africa (25), Spain (2), Swaziland (6), Turkey (1)
methoxyfenozide	South Africa (2)
propiconazole	South Africa (1)
prochloraz (parent only)	South Africa (2)
pyraclostrobin	South Africa (15), Swaziland (6)
pyrimethanil	South Africa (7), Turkey (1)
pyriproxifen	Israel (2), South Africa (4), Spain (1), Swaziland (2), Turkey (1)
thiabendazole	Israel (5), Mexico (2), South Africa (13), Turkey (1)
trifloxystrobin	South Africa (2)

No residues were found in 1 of the 40 Imported (Non-EC) samples
Residues were found in all of the 2 Imported (EC) samples

Grapefruit Table 15b. Residues detected in samples obtained between July and November 2016

Residues (1-9 compounds) were found in 41 of the 42 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)																					Country of origin
		24DS	ACET	AZOX	BUF	CPF	CYP	DDAC	DTC	FNBT	FNPP	FNV	IMI	IMZ	MXF	PCZ	PRZA	PYC	PYM	PYX	TBZ	TRFL	
(1)	3785/2016	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	Spain
(2)	3676/2016	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	0.4	-	Mexico
	3868/2016	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	1.5	-	Mexico
(3)	3566/2016	-	-	-	-	-	-	-	-	-	-	-	0.06	3.2	-	-	-	-	-	-	0.9	-	Israel
	3870/2016	-	-	-	-	-	-	-	-	-	-	-	0.01	2.8	-	-	-	-	-	-	1.9	-	Israel
	4008/2016	-	-	-	-	-	-	-	-	-	-	-	0.03	2.5	-	-	-	-	-	-	1.3	-	Israel
	3581/2016	-	-	-	-	-	-	-	0.1	-	-	-	-	0.9	-	-	-	0.08	-	-	-	-	South Africa
	3610/2016	0.08	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	0.07	-	-	-	South Africa
	3644/2016	0.2	-	-	-	-	-	-	-	-	-	-	-	2.7	-	-	-	-	-	-	0.5	-	South Africa
	3656/2016	-	-	-	-	-	-	-	0.1	-	-	-	-	0.7	-	-	-	0.04	-	-	-	-	South Africa
	3837/2016	-	-	-	-	-	-	-	0.09	-	-	-	-	1.1	-	-	-	0.04	-	-	-	-	South Africa
	3884/2016	-	-	-	-	-	-	-	0.1	-	-	-	-	1.4	-	-	-	0.05	-	-	-	-	South Africa
	4006/2016	-	-	-	-	-	-	-	-	-	-	-	0.04	0.9	-	-	-	-	-	-	4.8	-	South Africa
(4)	3753/2016	-	-	-	-	-	-	-	-	-	-	-	0.02	2	-	-	-	-	-	0.03	1.6	-	Israel
	4732/2016	-	-	-	-	-	-	-	-	-	-	-	0.02	1.7	-	-	-	-	-	0.04	1.5	-	Israel
	3564/2016	0.1	0.02	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	0.01	-	-	-	South Africa
	3609/2016	0.2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1.4	-	0.2	-	South Africa
	3649/2016	-	-	-	-	-	-	-	-	-	-	-	0.06	2.4	-	-	-	0.04	-	-	2.5	-	South Africa
	3799/2016	-	-	-	0.01	-	-	-	0.2	-	-	-	-	1.1	-	-	-	0.07	-	-	-	-	South Africa
	3802/2016	-	-	0.04	-	0.02	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	0.02	South Africa
	3816/2016	-	-	-	-	-	-	-	-	-	-	-	0.01	0.8	-	-	-	0.02	-	-	2.1	-	South Africa
	3839/2016	-	-	-	-	-	-	-	-	-	-	-	0.02	0.6	-	-	-	0.05	-	-	1.5	-	South Africa
	3847/2016	-	-	-	-	-	0.01	-	0.06	-	-	-	-	1.5	-	-	-	-	-	-	0.3	-	South Africa
	3867/2016	-	-	-	-	-	-	-	0.2	-	-	-	-	1.7	0.07	-	-	0.07	-	-	-	-	South Africa
	3885/2016	-	-	-	-	-	-	-	0.09	-	-	-	-	0.5	-	-	-	0.06	-	-	0.06	-	South Africa
	4546/2016	-	-	-	-	0.02	-	-	-	-	-	-	-	0.9	-	-	-	0.04	-	0.02	-	-	South Africa
	3633/2016	0.05	-	-	-	0.01	-	-	-	-	-	-	-	1.3	-	-	-	0.03	-	-	-	-	Swaziland
	3685/2016	0.1	-	-	-	-	-	-	-	-	-	-	0.02	1.9	-	-	-	0.05	-	-	-	-	Swaziland
	3907/2016	-	-	-	-	0.03	-	-	-	-	-	-	0.04	0.5	-	-	-	-	-	0.02	-	-	Spain
(5)	3681/2016	-	-	-	0.01	-	-	-	0.2	-	-	-	-	2.4	-	-	0.09	0.06	-	-	-	-	South Africa
	3933/2016	-	-	0.03	-	0.02	-	-	-	-	-	-	-	1.7	-	-	-	-	-	0.02	-	0.02	South Africa
	4547/2016	-	-	0.01	-	-	-	-	0.08	-	-	-	-	2.1	-	-	-	-	0.02	-	4.7	-	South Africa
	3624/2016	0.1	-	-	-	0.01	-	-	-	-	-	-	0.01	1.4	-	-	-	0.03	-	-	-	-	Swaziland
	3774/2016	0.07	-	-	-	0.02	-	-	-	-	-	-	-	0.9	-	-	-	0.05	-	0.03	-	-	Swaziland
	3871/2016	0.06	-	-	-	0.01	-	-	-	-	-	-	0.03	1.1	-	-	-	0.06	-	-	-	-	Swaziland
	3965/2016	0.07	-	-	-	0.02	-	-	-	-	-	-	-	0.9	-	-	-	0.07	-	0.03	-	-	Swaziland
(8)	3505/2016	0.1	-	-	-	-	-	-	0.1	-	-	-	0.03	1.8	0.01	-	-	0.03	1.3	-	1	-	South Africa
	3650/2016	0.3	-	-	0.02	-	-	-	0.2	-	-	-	-	2.2	-	-	-	0.02	2.1	0.03	7.8	-	South Africa
	3936/2016	0.07	-	-	-	-	-	0.01	0.1	-	0.05	-	-	2.1	-	-	0.05	0.03	-	-	0.5	-	South Africa
	4103/2016	-	0.2	-	-	0.3	-	-	-	0.03	-	0.01	-	0.9	-	-	-	-	0.01	0.03	1.2	-	Turkey

Number of residues	Sample ID	Residues found (mg/kg)																				Country of origin
		24DS	ACET	AZOX	BUF	CPF	CYP	DDAC	DTC	FNBT	FNPP	FNV	IMI	IMZ	MXF	PCZ	PRZA	PYC	PYM	PYX	TBZ	TRFL	
(9)	3814/2016	0.08	-	0.02	-	-	-	-	0.09	-	-	-	0.02	1	-	0.02	-	-	0.02	0.01	0.3	-	South Africa

The abbreviations used for the pesticide names are as follows:

24DS	2,4-D (sum)	ACET	acetamiprid	AZOX	azoxystrobin
BUF	buprofezin	CPF	chlorpyrifos	CYP	cypermethrin
DDAC	DDAC (sum)	DTC	dithiocarbamates	FNBT	fenbutatin oxide
FNPP	fenpropathrin	FNV	fenvalerate & esfenvalerate (all isomers)	IMI	imidacloprid
IMZ	imazalil	MXF	methoxyfenozide	PCZ	propiconazole
PRZA	prochloraz (parent only)	PYC	pyraclostrobin	PYM	pyrimethanil
PYX	pyriproxifen	TBZ	thiabendazole	TRFL	trifloxystrobin

Grapefruit Table15 c. Residues sought but not found in samples obtained between July and November 2016

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

2,4-DB (0.01)
2-phenylphenol (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.01)
acrinathrin (0.01)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.01)
alpha-HCH (0.01)
ametoctradin (0.01)
aminocarb (0.01)
amitraz (0.01)
atrazine (0.01)
azinphos-ethyl (0.01)
azinphos-methyl (0.01)
BAC (sum) (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.05)
boscalid (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.01)
carbofuran (sum) (0.01)
carboxin (0.01)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chlorfluazuron (0.01)
chloridazon (0.01)
chlorobenzilate (0.01)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.05)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
etofenprox (0.01)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenhexamid (0.01)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenthion (sum) (0.01)
fipronil (sum) (0.01)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.01)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.01)
fosthiazate (0.01)
fuberidazole (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Haloxyfop-R methyl (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexaflumuron (0.01)
hexazinone (0.01)
hexythiazox (0.01)
nitrothal-isopropyl (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.01)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.01)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.01)
phenthoate (0.01)
phorate (sum) (0.02)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propamocarb (0.01)
propanil (0.01)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridaphenthion (0.01)
pyrifenox (0.01)
pyroxsulam (0.01)
quassia (0.01)

cinidon-ethyl (0.01)
clethodim (0.01)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
crufomate (0.01)
cyanazine (0.01)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.01)
cyflufenamid (0.01)
cyfluthrin (0.01)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.01)
cyromazine (0.01)
DDT (sum) (0.01)
deltamethrin (0.01)
desmedipham (0.01)
desmetryn (0.01)
diafenthiuron (0.01)
diazinon (0.01)
dichlofluanid (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.02)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
dioxathion (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
dithianon (0.01)
diuron (0.01)
dodine (0.05)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.01)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.01)
malathion (0.01)
mandipropamid (0.01)
MCPA (sum) (0.01)
MCPA only (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.01)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.01)
metconazole (0.02)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.01)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.01)
neburon (0.01)
nitenpyram (0.01)
quinalphos (0.01)
quinmerac (0.01)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
Quizalofop, incl. quizalfop-P (0.01)
rotenone (0.01)
simazine (0.01)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
terbacil (0.01)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbumeton (0.01)
terbuthylazine (0.01)
terbutryn (0.01)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiacloprid (0.01)
thiamethoxam (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.01)
triasulfuron (0.01)
triazamate (0.01)
triazamate (acid) (0.01)
triazamate (ester) (0.01)
triazophos (0.01)
trichlorfon (0.01)
triclopyr (0.05)
tricyclazole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.05)
triticonazole (0.01)
tritosulfuron (0.01)
vamidothion (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Grapes Table 16a. Residues detected in samples obtained between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
GRAPES, Imported (Non-EC): 13 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	12
(MRL = 2)	0.01	1
boscalid	<0.01 (i.e. not found)	6
(MRL = 5)	0.03 - 0.2	7
chlorantraniliprole	<0.01 (i.e. not found)	12
(MRL = 1)	0.08	1
cyflufenamid	<0.01 (i.e. not found)	12
(MRL = 0.15)	0.03	1
cypermethrin	<0.02 (i.e. not found)	12
(MRL = 0.5)	0.05	1
difenoconazole	<0.01 (i.e. not found)	12
(MRL = 3)	0.04	1
dithiocarbamates	<0.05 (i.e. not found)	12
(MRL = 5)	0.2	1
ethephon	<0.05 (i.e. not found)	9
(MRL = 1)	0.1 - 0.5	4
fenhexamid	<0.02 (i.e. not found)	11
(MRL = 15)	0.2, 1.1	2
formetanate	<0.01 (i.e. not found)	12
(MRL = 0.1)	0.02	1
imidacloprid	<0.01 (i.e. not found)	11
(MRL = 1)	0.03, 0.05	2
indoxacarb	<0.01 (i.e. not found)	12
(MRL = 2)	0.01	1
iprodione	<0.01 (i.e. not found)	12
(MRL = 20)	0.4	1
kresoxim-methyl	<0.01 (i.e. not found)	12
(MRL = 1)	0.02	1
lufenuron	<0.02 (i.e. not found)	12
(MRL = 1)	0.02	1
metalaxyl	<0.01 (i.e. not found)	12
(MRL = 2)	0.04	1
methoxyfenozide	<0.01 (i.e. not found)	12
(MRL = 1)	0.04	1
metrafenone	<0.01 (i.e. not found)	12
(MRL = 7)	0.02	1
penconazole	<0.01 (i.e. not found)	11
(MRL = 0.2)	0.02, 0.03	2
pyraclostrobin	<0.01 (i.e. not found)	10
(MRL = 1)	0.02 - 0.07	3

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
pyrimethanil	<0.01 (i.e. not found)	11
(MRL = 5)	0.4, 0.7	2
spirotetramat (sum)	<0.01 (i.e. not found)	12
(MRL = 2)	0.03	1
tebuconazole	<0.01 (i.e. not found)	11
(MRL = 0.5)	0.02, 0.3	2
trifloxystrobin	<0.01 (i.e. not found)	12
(MRL = 3)	0.03	1
GRAPES, Imported (EC): 16 samples analysed		
ametoctradin	<0.01 (i.e. not found)	15
(MRL = 6)	0.4	1
azoxystrobin	<0.01 (i.e. not found)	15
(MRL = 2)	0.03	1
boscalid	<0.01 (i.e. not found)	5
(MRL = 5)	0.05 - 2.3	11
bupirimate	<0.01 (i.e. not found)	15
(MRL = 1.5)	0.01	1
cyflufenamid	<0.01 (i.e. not found)	15
(MRL = 0.15)	0.05	1
cyfluthrin	<0.02 (i.e. not found)	15
(MRL = 0.3)	0.03	1
cypermethrin	<0.02 (i.e. not found)	15
(MRL = 0.5)	0.4	1
cyprodinil	<0.02 (i.e. not found)	13
(MRL = 3)	0.1 - 2.9	3
deltamethrin	<0.02 (i.e. not found)	12
(MRL = 0.2)	0.04 - 0.1	4
dimethomorph	<0.01 (i.e. not found)	9
(MRL = 3)	0.04 - 1.2	7
dithiocarbamates	<0.05 (i.e. not found)	12
(MRL = 5)	0.1 - 0.2	4
ethephon	<0.05 (i.e. not found)	10
(MRL = 1)	0.1 - 0.5	6
famoxadone	<0.01 (i.e. not found)	15
(MRL = 2)	0.02	1
fenhexamid	<0.02 (i.e. not found)	14
(MRL = 15)	0.03, 0.8	2
fludioxonil	<0.01 (i.e. not found)	12
(MRL = 5)	0.08 - 2.8	4
fluopicolide	<0.01 (i.e. not found)	15
(MRL = 2)	0.04	1
fluopyram	<0.01 (i.e. not found)	15

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
(MRL = 1.5)	0.02	1
imidacloprid	<0.01 (i.e. not found)	10
(MRL = 1)	0.01 - 0.03	6
mandipropamid	<0.01 (i.e. not found)	15
(MRL = 2)	0.2	1
metalaxyl	<0.01 (i.e. not found)	14
(MRL = 2)	0.01, 0.2	2
methoxyfenozide	<0.01 (i.e. not found)	15
(MRL = 1)	0.01	1
metrafenone	<0.01 (i.e. not found)	9
(MRL = 7)	0.01 - 0.6	7
myclobutanil	<0.01 (i.e. not found)	13
(MRL = 1)	0.02 - 0.2	3
penconazole	<0.01 (i.e. not found)	15
(MRL = 0.2)	0.02	1
quinoxyfen	<0.01 (i.e. not found)	15
(MRL = 1)	0.03	1
spirotetramat (sum)	<0.01 (i.e. not found)	8
(MRL = 2)	0.01 - 0.1	8
spiroxamine	<0.01 (i.e. not found)	14
(MRL = 0.6)	0.2	1
(MRL = 1)	0.03	1
thiamethoxam	<0.01 (i.e. not found)	15
(MRL = 0.4)	0.02	1
trifloxystrobin	<0.01 (i.e. not found)	13
(MRL = 3)	0.08 - 0.3	3
zoxamide	<0.01 (i.e. not found)	15
(MRL = 5)	0.2	1

Imported (EC) samples of grapes were from Greece (3), Italy (1), Portugal (1), Spain (11).
Imported (Non-EC) samples of grapes were from Brazil (5), Lebanon (1), Macedonia (1), Namibia (2), Peru (3), USA (1).

Residues were distributed by country of origin, as follows:

ametoctradin	Greece (1)
azoxystrobin	Brazil (1), Portugal (1)
boscalid	Greece (2), Italy (1), Lebanon (1), Macedonia (1), Namibia (2), Peru (2), Spain (8), USA (1)
bupirimate	Greece (1)
cyflufenamid	Greece (1), USA (1)
chlorantraniliprole	USA (1)
cyprodinil	Spain (3)
cyfluthrin	Spain (1)
cypermethrin	Greece (1), Macedonia (1)
deltamethrin	Spain (4)
difenoconazole	Lebanon (1)
dimethomorph	Italy (1), Spain (6)
dithiocarbamates	Greece (2), Italy (1), Macedonia (1), Spain (1)
ethephon	Brazil (2), Greece (1), Peru (2), Spain (5)
famoxadone	Greece (1)

fludioxonil	Greece (1), Spain (3)
formetanate	Brazil (1)
fenhexamid	Namibia (1), Peru (1), Portugal (1), Spain (1)
fluopicolide	Portugal (1)
fluopyram	Spain (1)
indoxacarb	Brazil (1)
imidacloprid	Lebanon (1), Peru (1), Spain (6)
iprodione	Namibia (1)
kresoxim-methyl	Namibia (1)
lufenuron	Lebanon (1)
mandipropamid	Greece (1)
metrafenone	Greece (2), Spain (5), USA (1)
metalaxyl	Italy (1), Peru (1), Spain (1)
methoxyfenozide	Italy (1), Macedonia (1)
myclobutanil	Spain (3)
penconazole	Italy (1), Namibia (2)
pyraclostrobin	Macedonia (1), Peru (1), USA (1)
pyrimethanil	Macedonia (1), Namibia (1)
quinoxyfen	Greece (1)
spiroxamine	Greece (2)
spirotetramat (sum)	Peru (1), Spain (8)
tebuconazole	Macedonia (1), USA (1)
thiamethoxam	Greece (1)
trifloxystrobin	Lebanon (1), Spain (3)
zoxamide	Spain (1)

No residues were found in 1 of the 13 Imported (Non-EC) samples
Residues were found in all of the 16 Imported (EC) samples

Grapes Table 16b. Residues detected in samples obtained between October and December 2016

Residues (1-10 compounds) were found in 28 of the 29 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)																			
		AMTD	AZOX	BOS	BUP	CFF	CTP	CYD	CYF	CYP	DEL	DIFC	DMR	DTC	ETH	FAX	FLUD	FMT	FNHX	FPC	FPYM
(1)	3645/2016	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4036/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-
	4737/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4799/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(2)	4801/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	0.02	-	-	-
	3647/2016	-	-	0.1	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-
	3836/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(3)	4802/2016	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-
	4033/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-
	4005/2016	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.04	-
(5)	3628/2016	-	-	0.05	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-
	3983/2016	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3784/2016	-	-	0.05	-	-	-	-	-	0.4	-	-	-	0.1	0.4	-	-	-	-	-	-
	3968/2016	-	-	1.4	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	0.8	-	-
	3980/2016	-	-	1.8	-	-	-	-	0.03	-	-	-	-	-	0.3	-	-	-	-	-	-
	4146/2016	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
	4541/2016	-	-	1.4	-	-	-	-	-	-	0.09	-	-	0.2	-	-	-	-	-	-	-
	4764/2016	-	-	1.3	-	-	-	-	-	-	-	-	0.2	-	0.1	-	-	-	-	-	-
(6)	4798/2016	-	-	0.2	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	1.1	-	-
	3804/2016	-	-	0.2	-	0.03	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3780/2016	-	-	0.4	-	-	-	-	-	-	-	-	0.1	0.2	-	-	-	-	-	-	-
	3806/2016	-	-	0.09	-	-	-	-	-	-	-	-	0.1	-	0.3	-	-	-	-	-	-
	4110/2016	-	-	2.3	-	-	-	-	-	-	0.04	-	-	-	0.5	-	-	-	-	-	-
(7)	4543/2016	-	-	0.2	-	-	-	-	-	0.05	-	-	-	0.2	-	-	-	-	-	-	-
	3812/2016	-	-	1.3	-	-	-	0.7	-	-	0.09	-	-	-	-	-	0.3	-	-	-	-
	4730/2016	-	-	-	-	-	-	0.1	-	-	-	-	0.4	-	-	-	0.08	-	-	-	-
	4769/2016	-	-	0.2	-	-	-	2.9	-	-	0.1	-	0.04	-	0.3	-	1.5	-	-	-	0.02
(10)	3788/2016	0.4	-	0.07	0.01	0.05	-	-	-	-	-	-	-	0.1	-	-	2.8	-	-	-	-

Number of residues	Sample ID	Residues found (mg/kg)																				Country of origin
		IDX	IMI	IPR	KREM	LFN	MDI	MTF	MTX	MXF	MYC	PNZ	PYC	PYM	QINO	SPI	STTPS	TBC	THM	TRFL	ZOX	
(1)	3645/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Brazil
	4036/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Brazil
	4737/2016	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Brazil
	4799/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	Peru
(2)	4801/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Brazil
	3647/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Peru
	3836/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	0.08	-	Spain
(3)	4802/2016	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	Namibia
	4033/2016	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	0.02	-	-	Greece
	4005/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Portugal
(5)	3628/2016	-	0.05	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	Lebanon
	3983/2016	-	-	0.4	0.02	-	-	-	-	-	-	0.03	-	0.7	-	-	-	-	-	-	-	Namibia
	3784/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	Greece
	3968/2016	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	Spain
	3980/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	-	-	0.2	Spain
	4146/2016	-	0.03	-	-	-	-	0.6	-	-	0.03	-	-	-	-	-	0.1	-	-	-	-	Spain
	4541/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	0.2	-	Spain
	4764/2016	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	Spain
(6)	4798/2016	-	0.03	-	-	-	-	-	0.04	-	-	-	0.07	-	-	-	-	-	-	-	-	Peru
	3804/2016	-	-	-	-	-	-	0.02	-	-	-	-	0.02	-	-	-	-	0.3	-	-	-	USA
	3780/2016	-	-	-	-	-	-	-	0.2	0.01	-	0.02	-	-	-	-	-	-	-	-	-	Italy
	3806/2016	-	0.02	-	-	-	-	0.01	-	-	0.2	-	-	-	-	-	-	-	-	-	-	Spain
	4110/2016	-	0.01	-	-	-	-	0.04	0.01	-	-	-	-	-	-	-	-	-	-	-	-	Spain
(7)	4543/2016	-	-	-	-	-	-	-	-	0.04	-	-	0.02	0.4	-	-	-	0.02	-	-	-	Macedonia
	3812/2016	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	0.01	-	-	0.3	-	Spain
	4730/2016	-	0.03	-	-	-	-	0.5	-	-	0.02	-	-	-	-	-	0.03	-	-	-	-	Spain
	4769/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Spain
(10)	3788/2016	-	-	-	-	-	0.2	0.1	-	-	-	-	-	-	0.03	0.2	-	-	-	-	-	Greece

The abbreviations used for the pesticide names are as follows:

AMTD	ametoctradin	AZOX	azoxystrobin	BOS	boscalid	BUP	bupirimate
CFF	cyflufenamid	CTP	chlorantraniliprole	CYD	cyprodinil	CYF	cyfluthrin
CYP	cypermethrin	DEL	deltamethrin	DIFC	difenoconazole	DMR	dimethomorph
DTC	dithiocarbamates	ETH	ethephon	FAX	famoxadone	FLUD	fludioxonil
FMT	formetanate	FNHX	fenhexamid	FPC	fluopicolide	FPYM	fluopyram
IDX	indoxacarb	IMI	imidacloprid	IPR	iprodione	KREM	kresoxim-methyl
LFN	lufenuron	MDI	mandipropamid	MTF	metrafenone	MTX	metalaxyl
MXF	methoxyfenozide	MYC	myclobutanil	PNZ	penconazole	PYC	pyraclostrobin
PYM	pyrimethanil	QINO	quinoxyfen	SPI	spiroxamine	STTPS	spirotetramat (sum)
TBC	tebuconazole	THM	thiamethoxam	TRFL	trifloxystrobin	ZOX	zoxamide

Grapes Table 16c. Residues sought but not found in samples obtained between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlormequat (0.02)
chlorobenzilate (0.02)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)

chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlortoluron (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)

cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)

cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)

hexythiazox (0.01)
imazalil (0.02)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)

malathion (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)

pyridaphenthion (0.01)
pyrifenox (0.02)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)

tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
Thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)

Leeks Table 17a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
LEEKS, UK: 24 samples analysed		
boscalid	<0.01 (i.e. not found)	23
(MRL = 9)	0.03	1
ioxynil	<0.01 (i.e. not found)	23
(MRL = 3)	0.01	1
propamocarb	<0.01 (i.e. not found)	20
(MRL = 20)	0.06 - 0.1	4
tebuconazole	<0.01 (i.e. not found)	19
(MRL = 0.6)	0.01 - 0.06	5
LEEKS, Imported (EC): 1 samples analysed		
None found	-	1

Imported (EC) samples of leeks were from Ireland (1).
UK samples of leeks (24).

Residues were distributed by country of origin, as follows:

boscalid	UK (1)
ioxynil	UK (1)
propamocarb	UK (4)
tebuconazole	UK (5)

No residues were found in 17 of the 24 UK samples
No residues were found in any of the Imported (EC) samples

Leeks Table 17b. Residues detected in retail samples purchased between October and November 2016

Residues (1-2 compounds) were found in 7 of the 25 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)				Country of origin
		BOS	IOX	PCB	TBC	
(1)	3365/2016	-	-	0.06	-	UK
	5246/2016	0.03	-	-	-	UK
	5284/2016	-	-	-	0.02	UK
(2)	3013/2016	-	-	0.06	0.01	UK
	3447/2016	-	0.01	-	0.05	UK
	4958/2016	-	-	0.07	0.02	UK
	4966/2016	-	-	0.1	0.06	UK

The abbreviations used for the pesticide names are as follows:

BOS	boscalid	IOX	ioxynil	PCB	propamocarb
TBC	tebuconazole				

Leeks Table 17c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.02)
2,4-DB (0.01)
2-phenylphenol (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.01)
acrinathrin (0.01)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.01)
alpha-HCH (0.01)
ametoctradin (0.01)
aminocarb (0.01)
amitraz (0.01)
atrazine (0.01)
azinphos-ethyl (0.01)
azinphos-methyl (0.01)
azoxystrobin (0.01)
BAC (sum) (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.05)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.01)
carbofuran (sum) (0.01)
carboxin (0.01)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chlorfluazuron (0.01)
chloridazon (0.01)
chlorobenzilate (0.01)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.05)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.01)
fenhexamid (0.01)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenthion (sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.01)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.01)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.01)
fosthiazate (0.01)
fuberidazole (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Haloxyfop-R methyl (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
nitrothal-isopropyl (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.01)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.01)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.01)
phenthoate (0.01)
phorate (sum) (0.02)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propanil (0.01)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.01)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridaphenthion (0.01)

chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
cinidon-ethyl (0.01)
clethodim (0.01)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
crufomate (0.01)
cyanazine (0.01)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.01)
cyflufenamid (0.01)
cyfluthrin (0.01)
cyhalofop-butyl (sum) (0.01)

cymoxanil (0.01)
cypermethrin (0.01)
cyproconazole (0.01)
cyprodinil (0.01)
cyromazine (0.01)
DDAC (sum) (0.01)
DDT (sum) (0.01)
deltamethrin (0.01)
desmedipham (0.01)
desmetryn (0.01)
diazinon (0.01)
dichlofluanid (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.02)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
dioxathion (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.05)
emamectin benzoate (0.01)
endosulfan (sum) (0.01)
endrin (0.01)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
hexaflumuron (0.01)
hexazinone (0.01)
hexythiazox (0.01)
imazalil (0.01)
imidacloprid (0.01)
indoxacarb (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)

lambda-cyhalothrin (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.01)
malathion (0.01)
mandipropamid (0.01)
MCPA (sum) (0.01)
MCPA only (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.01)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.01)
metconazole (0.02)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.01)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.01)
neburon (0.01)
nitenpyram (0.01)
pyrifenox (0.01)
pyrimethanil (0.01)
pyriproxifen (0.01)
pyroxsulam (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.01)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
Quizalofop, incl. quizalfop-P (0.01)
rotenone (0.01)
simazine (0.01)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
terbacil (0.01)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbumeton (0.01)
terbuthylazine (0.01)
terbutryn (0.01)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.01)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.01)
triasulfuron (0.01)
triazamate (0.01)
triazamate (acid) (0.01)
triazamate (ester) (0.01)
triazophos (0.01)
trichlorfon (0.01)
triclopyr (0.05)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.05)
triticonazole (0.01)
tritosulfuron (0.01)
vamidothion (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Lettuce Table 18a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
ICEBERG UK: 6 samples analysed		
spirotetramat (sum)	<0.01 (i.e. not found)	4
(MRL = 7)	0.02	2
thiamethoxam	<0.01 (i.e. not found)	5
(MRL = 5)	0.01	1
OTHER UK: 2 samples analysed		
cyprodinil	<0.02 (i.e. not found)	1
(MRL = 15)	0.07	1
indoxacarb	<0.01 (i.e. not found)	1
(MRL = 3)	0.02	1
propyzamide	<0.01 (i.e. not found)	1
(MRL = 0.6)	1.8	1
ROUND UK: 3 samples analysed		
acetamiprid	<0.01 (i.e. not found)	2
(MRL = 3)	0.05	1
azoxystrobin	<0.01 (i.e. not found)	2
(MRL = 15)	0.2	1
boscalid	<0.01 (i.e. not found)	2
(MRL = 50)	0.06	1
cyprodinil	<0.02 (i.e. not found)	2
(MRL = 15)	0.4	1
fludioxonil	<0.01 (i.e. not found)	2
(MRL = 40)	0.7	1
iprodione	<0.01 (i.e. not found)	1
(MRL = 25)	0.01, 0.1	2
mandipropamid	<0.01 (i.e. not found)	2
(MRL = 25)	0.01	1
propamocarb	<0.01 (i.e. not found)	1
(MRL = 40)	0.01, 0.03	2
propyzamide	<0.01 (i.e. not found)	2
(MRL = 0.6)	0.02	1
thiacloprid	<0.01 (i.e. not found)	2
(MRL = 1)	0.03	1
ICEBERG Imported (EC): 6 samples analysed		
chlorantraniliprole	<0.01 (i.e. not found)	5
(MRL = 20)	0.02	1
cypermethrin	<0.02 (i.e. not found)	5
(MRL = 2)	0.05	1
cyprodinil	<0.02 (i.e. not found)	5

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
(MRL = 15)	0.02	1
dimethomorph	<0.01 (i.e. not found)	4
(MRL = 15)	0.01, 0.02	2
dithiocarbamates	<0.05 (i.e. not found)	5
(MRL = 5)	0.07	1
flutriafol	<0.01 (i.e. not found)	5
(MRL = 0.01*)	0.01	1
imidacloprid	<0.01 (i.e. not found)	5
(MRL = 2)	0.2	1
indoxacarb	<0.01 (i.e. not found)	5
(MRL = 3)	0.02	1
mandipropamid	<0.01 (i.e. not found)	5
(MRL = 25)	0.01	1
metalaxyl	<0.01 (i.e. not found)	5
(MRL = 3)	0.03	1
propamocarb	<0.01 (i.e. not found)	3
(MRL = 40)	0.1	3
pyraclostrobin	<0.01 (i.e. not found)	5
(MRL = 2)	0.01	1
spinosad	<0.01 (i.e. not found)	4
(MRL = 10)	0.01, 0.02	2
LITTLE GEM Imported (EC): 1 sample analysed		
imidacloprid	<0.01 (i.e. not found)	0
(MRL = 2)	0.02	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of lettuce were from Spain (7).
UK samples of lettuce (11).

Residues were distributed by country of origin, as follows:

acetamiprid	UK (1)
azoxystrobin	UK (1)
boscalid	UK (1)
chlorantraniliprole	Spain (1)
cyprodinil	Spain (1), UK (2)
cypermethrin	Spain (1)
dimethomorph	Spain (2)
dithiocarbamates	Spain (1)
flutriafol	Spain (1)
fludioxonil	UK (1)
indoxacarb	Spain (1), UK (1)
imidacloprid	Spain (2)
iprodione	UK (2)
mandipropamid	Spain (1), UK (1)
metalaxyl	Spain (1)
propamocarb	Spain (3), UK (2)
propyzamide	UK (2)
pyraclostrobin	Spain (1)
spinosad	Spain (2)
spirotetramat (sum)	UK (2)

thiacloprid	UK (1)
thiamethoxam	UK (1)

No residues were found in 3 of the 6 UK iceberg samples
Residues were found in all of the 2 UK other samples
Residues were found in all of the 3 UK round samples
No residues were found in 1 of the 6 Imported (EC) iceberg samples
Residues were found in all of the 1 Imported (EC) little gem samples

Lettuce Table 18b. Residues detected in retail samples purchased between October and November 2016

Residues (1-7 compounds) were found in 14 of the 18 samples as follows:

Number of residues	Sample ID	Type of LETTUCE	Residues found (mg/kg)																					Country of origin
			ACET	AZOX	BOS	CTP	CYD	CYP	DMR	DTC	FLF	FLUD	IDX	IMI	IPR	MDI	MTX	PCB	PPZ	PYC	SPN	STTPS	THC	THM	
(1)	0790/2016	ICEBERG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	UK
	2010/2016	ICEBERG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	UK
	2413/2016	OTHER	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	UK
	2423/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	UK
	2630/2016	ICEBERG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	UK
	2788/2016	LITTLE GEM	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	Spain
	2789/2016	ICEBERG	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	Spain
	5174/2016	ICEBERG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	Spain
(2)	3201/2016	OTHER	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	UK
(3)	5142/2016	ICEBERG	-	-	-	-	0.02	-	0.01	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	Spain
(4)	0532/2016	ROUND	-	0.2	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.01	-	-	-	-	0.03	-	UK
(6)	3252/2016	ICEBERG	-	-	-	0.02	-	-	0.02	-	-	-	-	-	-	0.01	-	0.1	-	0.01	0.01	-	-	-	Spain
	3298/2016	ICEBERG	-	-	-	-	-	0.05	-	0.07	0.01	-	0.02	-	-	-	0.03	-	-	-	0.02	-	-	-	Spain
(7)	1822/2016	ROUND	0.05	-	0.06	-	0.4	-	-	-	-	0.7	-	-	0.01	-	-	0.03	0.02	-	-	-	-	-	UK

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	AZOX	azoxystrobin	BOS	boscalid
CTP	chlorantraniliprole	CYD	cyprodinil	CYP	cypermethrin
DMR	dimethomorph	DTC	dithiocarbamates	FLF	flutriafol
FLUD	fludioxonil	IDX	indoxacarb	IMI	imidacloprid
IPR	iprodione	MDI	mandipropamid	MTX	metalaxyl
PCB	propamocarb	PPZ	propyzamide	PYC	pyraclostrobin
SPN	spinosad	STTPS	spirotetramat (sum)	THC	thiacloprid
THM	thiamethoxam				

Lettuce Table 18c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)
pyrethrins (0.01)

chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
inorganic bromide (20)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spirodiclofen (0.01)
spiromesifen (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Milk Table 19a. Residues detected in retail samples purchased between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
COWS MILK UK: 101 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	100
(MRL = 0.1)	0.1	1
GOATS MILK UK: 13 samples analysed		
None found	-	13

UK samples of milk (114).

Residues were distributed by country of origin, as follows:
BAC (sum) UK (1)

No residues were found in 100 of the 101 UK cows milk samples
No residues were found in any of the UK goats milk samples

Milk Table 19b. Residues detected in retail samples purchased between October and December 2016

Residue (1 compound) was found in 1 of the 114 samples as follows:

Number of residues	Sample ID	Type of MILK	Residues found (mg/kg) BACSM	Country of origin
(1)	3211/2016	COWS MILK	0.1	UK

The abbreviations used for the pesticide names are as follows:

BACSM BAC (sum)

Milk Table 19c. Residues sought but not found in retail samples purchased between October and December 2016

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

abamectin (sum) (0.01)
acephate (0.01)
aldrin and dieldrin (0.002)
alpha-HCH (0.005)
azamethiphos (0.01)
azinphos-ethyl (0.005)
benfuracarb (0.002)
beta-HCH (0.005)
bifenthrin (0.005)
boscalid (0.01)
bromophos-ethyl (0.002)
cadusafos (0.002)
carbaryl (0.002)
carbendazim (0.01)
carbofuran (sum) (0.002)
carbosulfan (0.002)
chlordane (sum) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpropham (sum) (0.005)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
coumaphos (0.002)
cyfluthrin (0.002)
cypermethrin (0.005)
cyproconazole (0.01)
DDAC (sum) (0.05)
DDT (sum) (0.005)
deltamethrin (0.005)
diazinon (0.005)
dichlorvos (0.01)
diflubenzuron (0.01)
endosulfan (sum) (0.005)
endrin (0.002)
epoxiconazole (0.01)
ethoprophos (0.002)
etofenprox (0.01)
famoxadone (0.01)
fenitrothion (0.002)
fenpropimorph (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.005)
fluazifop-p-butyl (sum) (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.005)
hexachlorobenzene (0.005)
hexachlorocyclohexane (sum) (0.005)
indoxacarb (0.01)
lambda-cyhalothrin (0.005)
lindane (0.002)
malathion (0.01)
metaflumizone (0.01)
metazachlor (0.002)
methacrifos (0.002)
methamidophos (0.01)
methidathion (0.002)
methoxychlor (0.005)
nitrofen (0.01)
parathion (0.005)
parathion-methyl (sum) (0.002)
pendimethalin (0.005)
permethrin (0.005)
phoxim (0.01)
pirimicarb (sum) (0.002)
pirimiphos-methyl (0.005)
prochloraz (parent only) (0.01)
profenofos (0.01)
propetamphos (0.002)
propoxur (0.002)
prothioconazole (0.01)
pyrazophos (0.002)
quintozene (sum) (0.002)
resmethrin (0.01)
spinosad (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tecnazene (0.002)
teflubenzuron (0.01)
tetrachlorvinphos (0.002)
tetraconazole (0.01)
thiacloprid (0.01)
triazophos (0.002)
vinclozolin (sum) (0.002)

Nut-based milk Table 20a. Residues detected in retail samples purchased between April and May 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
ALMOND MILK UK: 2 samples analysed		
None found	-	2
COCONUT MILK UK: 1 sample analysed		
None found	-	1
COCONUT MILK Imported (Non-EC): 1 sample analysed		
None found	-	1
ALMOND MILK Imported (EC): 26 samples analysed		
None found	-	26
COCONUT MILK Imported (EC): 5 samples analysed		
None found	-	5
HAZELNUT MILK Imported (EC): 8 samples analysed		
None found	-	8
OTHER Imported (EC): 6 samples analysed		
None found	-	6

Imported (EC) samples of non-dairy milk were from Belgium (1), EC (1), EU (39), France (2), Germany (2).
Imported (Non-EC) samples of non-dairy milk were from Indonesia (1).
UK samples of non-dairy milk (3).

No residues were found in any of the UK almond milk samples
No residues were found in any of the UK coconut milk samples
No residues were found in any of the Imported (Non-EC) coconut milk samples
No residues were found in any of the Imported (EC) almond milk samples
No residues were found in any of the Imported (EC) coconut milk samples
No residues were found in any of the Imported (EC) hazelnut milk samples
No residues were found in any of the Imported (EC) other samples

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)

allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
inorganic bromide (20)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)

cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)

cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)

desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)

lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)

tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Okra Table 21a. Residues detected in samples obtained between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
OKRA, FRESH Imported (Non-EC): 34 samples analysed		
acetamiprid	<0.01 (i.e. not found)	30
(MRL = 0.2)	0.01 - 0.05	4
chlorantraniliprole	<0.01 (i.e. not found)	32
(MRL = 0.6)	0.01, 0.03	2
cypermethrin	<0.02 (i.e. not found)	32
(MRL = 0.5)	0.1, 0.4	2
diflubenzuron	<0.01 (i.e. not found)	33
(MRL = 0.05*)	0.02	1
dimethoate (sum)	<0.01 (i.e. not found)	32
(MRL = 0.02*)	0.01	1
	0.1	1
emamectin	<0.01 (i.e. not found)	33
(MRL = 0.02)	0.02	1
flonicamid (sum)	<0.01 (i.e. not found)	28
(MRL = 0.03*)	0.01	2
	0.04	1
(MRL = 0.03*)	0.05 - 0.1	3
imidacloprid	<0.01 (i.e. not found)	27
(MRL = 0.5)	0.02 - 0.2	6
	1	1
indoxacarb	<0.01 (i.e. not found)	33
(MRL = 0.02*)	0.01	1
methomyl (sum)	<0.01 (i.e. not found)	33
(MRL = 0.02*)	0.02	1
oxamyl	<0.01 (i.e. not found)	32
(MRL = 0.01*)	0.02, 0.03	2

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (Non-EC) samples of okra were from Honduras (5), India (19), Jordan (10).

Residues were distributed by country of origin, as follows:

acetamiprid	Jordan (4)
chlorantraniliprole	India (2)
cypermethrin	Jordan (2)
diflubenzuron	Jordan (1)
dimethoate (sum)	Jordan (2)
emamectin	India (1)
flonicamid (sum)	India (6)
indoxacarb	Jordan (1)
imidacloprid	Honduras (1), India (3), Jordan (3)
methomyl (sum)	Jordan (1)
oxamyl	Honduras (2)

No residues were found in 16 of the 34 Imported (Non-EC) fresh samples

Okra Table 21b. Residues detected in samples obtained between October and December 2016

Residues (1-5 compounds) were found in 18 of the 34 samples as follows:

Number of residues	Sample ID	Type of OKRA	Residues found (mg/kg)											Country of origin
			ACET	CTP	CYP	DIF	DIMSM	EMB	FLC	IDX	IMI	METHS	OXY	
(1)	3746/2016	FRESH	-	-	-	-	-	-	-	-	-	-	0.02	Honduras
	3879/2016	FRESH	-	-	-	-	-	-	0.05	-	-	-	-	India
	4050/2016	FRESH	-	-	-	-	-	-	0.1	-	-	-	-	India
	4098/2016	FRESH	-	-	-	-	-	-	0.07	-	-	-	-	India
	4107/2016	FRESH	-	-	-	-	-	-	0.01	-	-	-	-	India
	4765/2016	FRESH	-	-	-	-	-	-	-	-	0.03	-	-	India
	4777/2016	FRESH	-	0.03	-	-	-	-	-	-	-	-	-	India
	4787/2016	FRESH	-	0.01	-	-	-	-	-	-	-	-	-	India
	4789/2016	FRESH	-	-	-	-	-	-	-	-	0.02	-	-	India
	3706/2016	FRESH	-	-	-	0.02	-	-	-	-	-	-	-	Jordan
	4049/2016	FRESH	-	-	-	-	-	-	-	-	0.1	-	-	Jordan
(2)	3705/2016	FRESH	-	-	-	-	-	-	-	-	0.02	-	0.03	Honduras
	4104/2016	FRESH	-	-	-	-	-	-	0.01	-	0.02	-	-	India
	4105/2016	FRESH	-	-	-	-	-	0.02	0.04	-	-	-	-	India
	3745/2016	FRESH	0.05	-	-	-	0.01	-	-	-	-	-	-	Jordan
	4778/2016	FRESH	0.03	-	-	-	-	-	-	0.01	-	-	-	Jordan
(3)	4097/2016	FRESH	0.03	-	0.1	-	-	-	-	-	0.2	-	-	Jordan
(5)	3773/2016	FRESH	0.01	-	0.4	-	0.1	-	-	-	1	0.02	-	Jordan

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	CTP	chlorantraniliprole	CYP	cypermethrin
DIF	diflubenzuron	DIMSM	dimethoate (sum)	EMB	emamectin
FLC	flonicamid (sum)	IDX	indoxacarb	IMI	imidacloprid
METHS	methomyl (sum)	OXY	oxamyl		

Okra Table 21c. Residues sought but not found in samples obtained between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)

(0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlortoluron (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)

cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)

DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
dithiocarbamates (0.05)
diuron (0.01)
dodine (0.02)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)

malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)

tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)

ethiofencarb (parent) (0.01)
ethion (0.01)
nitrothal-isopropyl (0.01)
zoxamide (0.01)

Pasta Table 22a. Residues detected in retail samples purchased between September and October 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
PASTA, Imported (EC): 36 samples analysed		
cypermethrin	<0.02 (i.e. not found)	35
(MRL = 2)	0.03	1
glyphosate	<0.1 (i.e. not found)	32
(MRL = 1.05)	0.1 - 0.3	4
pirimiphos-methyl	<0.01 (i.e. not found)	30
(MRL = 0.95)	0.01 - 0.08	6
pyrethrins	<0.01 (i.e. not found)	34
(MRL = 3)	0.01, 0.03	2

Imported (EC) samples of pasta were from Italy (36).

Residues were distributed by country of origin, as follows:

cypermethrin	Italy (1)
glyphosate	Italy (4)
pirimiphos-methyl	Italy (6)
pyrethrins	Italy (2)

No residues were found in 25 of the 36 Imported (EC) samples

Pasta Table 22b. Residues detected in retail samples purchased between September and October 2016

Residues (1-2 compounds) were found in 11 of the 36 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)				Country of origin
		CYP	GLY	PIM	PYTH	
(1)	0352/2016	-	-	0.02	-	Italy
	0944/2016	-	-	0.05	-	Italy
	2152/2016	-	-	0.01	-	Italy
	2401/2016	-	-	0.03	-	Italy
	2489/2016	-	-	-	0.01	Italy
	2754/2016	-	0.1	-	-	Italy
	2755/2016	-	-	0.02	-	Italy
	3225/2016	-	0.3	-	-	Italy
	3330/2016	-	0.2	-	-	Italy
(2)	2434/2016	0.03	-	-	0.03	Italy
	3272/2016	-	0.1	0.08	-	Italy

The abbreviations used for the pesticide names are as follows:

CYP	cypermethrin	GLY	glyphosate	PIM	pirimiphos-methyl
PYTH	pyrethrins				

Pasta Table 22c. Residues sought but not found in retail samples purchased between September and October 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)

chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlormequat (0.02)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.02)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)

endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Pasta Table 22d. Processing factors and MRLs used for flour

Flour type	Pesticide	Processing factor	MRL for unprocessed grain (mg/kg)	Flour MRL (mg/kg)
Wholemeal wheat flour	Glyphosate	0.46	10	4.6
	Pirimiphos methyl	0.76	5	3.8
	Pyrethrins	1	3	3
Other wheat flour	Glyphosate	0.105	10	1.05
	Pirimiphos methyl	0.19	5	0.95
	Pyrethrins	1	3	3

Processing factors are taken from a compendium of publically available, authoritative processing factors published by the German regulatory authority for pesticides[6].

About processing factors

In nearly all cases the EU MRL is set for the food in its raw, unprocessed form (these foods are listed in Annex I of Regulation 396/2005), but is then applied to processed foods using appropriate processing factors. Processing factors take account of the effect of processing on the food as traded. Different forms of processing may remove, concentrate, or dilute residues, and the effect may vary depending on the food and the pesticide concerned.

Put another way, the use of processing factors enables checks that the original ingredient was compliant with MRLs. Food manufacturers should have information on the composition of their product - for instance, whether water is added/removed – that may assist in identifying appropriate processing factors and also have information on the compliance of the raw ingredients employed (in this case wheat or rye).

Suppliers and manufacturers must ensure that the raw materials and ingredients they supply or use to make processed food comply with MRLs *before processing*. It is an offence to use non-compliant food as a processed food ingredient. Processing cannot be used to make food compliant, and the compliance of processed foods should be checked using MRLs and relevant processing factors. Where processing affects residues, it is not appropriate to check results against unadjusted MRLs.

[6] *BfR compilation on processing factors for pesticide residues, dated 20.10.2011*
Downloaded from http://www.bfr.bund.de/en/pesticides-579.html on 7 January 2014

Peaches & nectarines Table 23a. Residues detected in samples obtained between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
NECTARINES Imported (Non-EC): 8 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	6
(MRL = 2)	0.03, 0.04	2
cypermethrin	<0.02 (i.e. not found)	7
(MRL = 2)	0.03	1
dithiocarbamates	<0.05 (i.e. not found)	7
(MRL = 2)	0.1	1
fludioxonil	<0.01 (i.e. not found)	2
(MRL = 10)	0.05 - 1	6
pyrethrins	<0.01 (i.e. not found)	7
(MRL = 1)	0.02	1
pyrimethanil	<0.01 (i.e. not found)	5
(MRL = 10)	0.5 - 1	3
tau-fluvalinate	<0.01 (i.e. not found)	7
(MRL = 0.3)	0.04	1
PEACHES Imported (Non-EC): 8 samples analysed		
dithiocarbamates	<0.05 (i.e. not found)	7
(MRL = 2)	0.2	1
fenbuconazole	<0.01 (i.e. not found)	6
(MRL = 0.5)	0.02, 0.03	2
fludioxonil	<0.01 (i.e. not found)	4
(MRL = 10)	0.1 - 0.6	4
indoxacarb	<0.01 (i.e. not found)	7
(MRL = 1)	0.1	1
iprodione	<0.01 (i.e. not found)	5
(MRL = 10)	0.1 - 0.6	3
propiconazole	<0.01 (i.e. not found)	7
(MRL = 5)	0.01	1
pyrimethanil	<0.01 (i.e. not found)	7
(MRL = 10)	0.7	1
thiacloprid	<0.01 (i.e. not found)	7
(MRL = 0.5)	0.01	1
NECTARINES Imported (EC): 6 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	5
(MRL = 0.1)	0.06	1
boscalid	<0.01 (i.e. not found)	5
(MRL = 5)	0.02	1
captan	<0.02 (i.e. not found)	5
(MRL = 4)	0.03	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
cypermethrin	<0.02 (i.e. not found)	3
(MRL = 2)	0.03 - 0.07	3
deltamethrin	<0.02 (i.e. not found)	5
(MRL = 0.1)	0.02	1
dithiocarbamates	<0.05 (i.e. not found)	5
(MRL = 2)	0.05	1
etofenprox	<0.01 (i.e. not found)	4
(MRL = 0.6)	0.02, 0.05	2
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	5
(MRL = 0.2)	0.01	1
fludioxonil	<0.01 (i.e. not found)	1
(MRL = 10)	0.02 - 0.3	5
fluopyram	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.1	3
lambda-cyhalothrin	<0.02 (i.e. not found)	5
(MRL = 0.2)	0.02	1
phosmet (sum)	<0.01 (i.e. not found)	5
(MRL = 1)	0.02	1
spinosad	<0.01 (i.e. not found)	4
(MRL = 0.6)	0.02, 0.03	2
tebuconazole	<0.01 (i.e. not found)	2
(MRL = 0.6)	0.04 - 0.1	4
PEACHES Imported (EC): 4 samples analysed		
boscalid	<0.01 (i.e. not found)	2
(MRL = 5)	0.05, 0.1	2
cyfluthrin	<0.02 (i.e. not found)	3
(MRL = 0.3)	0.03	1
cyprodinil	<0.02 (i.e. not found)	3
(MRL = 2)	0.5	1
deltamethrin	<0.02 (i.e. not found)	2
(MRL = 0.1)	0.03	2
dithiocarbamates	<0.05 (i.e. not found)	2
(MRL = 2)	0.09, 0.2	2
etofenprox	<0.01 (i.e. not found)	3
(MRL = 0.6)	0.04	1
fenbuconazole	<0.01 (i.e. not found)	3
(MRL = 0.5)	0.05	1
fenvalerate & esfenvalerate (all isomers)	<0.01 (i.e. not found)	3
(MRL = 0.2)	0.02	1
fludioxonil	<0.01 (i.e. not found)	1
(MRL = 10)	0.1 - 4.2	3

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
fluopyram	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.2	1
imidacloprid	<0.01 (i.e. not found)	3
(MRL = 0.5)	0.02	1
pyraclostrobin	<0.01 (i.e. not found)	3
(MRL = 0.3)	0.09	1
spinosad	<0.01 (i.e. not found)	3
(MRL = 0.6)	0.01	1
tebuconazole	<0.01 (i.e. not found)	2
(MRL = 0.6)	0.01, 0.1	2

Imported (EC) samples of peaches and nectarines were from Spain (10).
Imported (Non-EC) samples of peaches and nectarines were from South Africa (14), Zimbabwe (2).

Residues were distributed by country of origin, as follows:

azoxystrobin	South Africa (2)
BAC (sum)	Spain (1)
boscalid	Spain (3)
captan	Spain (1)
cyprodinil	Spain (1)
cyfluthrin	Spain (1)
cypermethrin	South Africa (1), Spain (3)
deltamethrin	Spain (3)
dithiocarbamates	South Africa (2), Spain (3)
etofenprox	Spain (3)
fenbuconazole	South Africa (2), Spain (1)
fludioxonil	South Africa (10), Spain (8)
fenvalerate & esfenvalerate (all isomers	Spain (2)
fluopyram	Spain (4)
indoxacarb	South Africa (1)
imidacloprid	Spain (1)
iprodione	South Africa (2), Zimbabwe (1)
lambda-cyhalothrin	Spain (1)
propiconazole	South Africa (1)
phosmet (sum)	Spain (1)
pyraclostrobin	Spain (1)
pyrimethanil	South Africa (3), Zimbabwe (1)
pyrethrins	South Africa (1)
spinosad	Spain (3)
tau-fluvalinate	South Africa (1)
tebuconazole	Spain (6)
thiacloprid	South Africa (1)

No residues were found in 2 of the 8 Imported (Non-EC) nectarines samples
No residues were found in 2 of the 8 Imported (Non-EC) peaches samples
Residues were found in all of the 6 Imported (EC) nectarines samples
Residues were found in all of the 4 Imported (EC) peaches samples

Peaches& nectarines Table 23b. Residues detected in samples obtained between October and November 2016

Residues (1-8 compounds) were found in 22 of the 26 samples as follows:

Number of residues	Sample ID	Type Of peaches and nectarines	Residues found (mg/kg)																										Country of origin
			AZOX	BACSM	BOS	CAP	CYD	CYF	CYP	DEL	DTC	EFX	FENB	FLUD	FNV	FPYM	IDX	IMI	IPR	LCY	PCZ	PMT	PYC	PYM	PYTH	SPN	TAUF	TBC	THC	
(1)	5175/2016	Peaches	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5364/2016	Peaches	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
(2)	1820/2016	Nectarines	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	South Africa
	3967/2016	Nectarines	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	South Africa
	5143/2016	Nectarines	-	-	-	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	South Africa
	5293/2016	Nectarines	0.04	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	5322/2016	Peaches	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	South Africa
	5323/2016	Nectarines	0.03	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Africa
	4034/2016	Peaches	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.7	-	-	-	-	-	Zimbabwe
	3872/2016	Nectarines	-	-	0.02	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Spain
(3)	5330/2016	Peaches	-	-	-	-	-	-	-	-	-	-	0.03	0.1	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	South Africa
	3966/2016	Nectarines	-	-	-	-	-	-	0.03	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	Spain
	4007/2016	Peaches	-	-	0.05	-	-	-	-	-	-	0.04	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Spain
	4035/2016	Peaches	-	-	-	-	-	-	-	0.03	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	Spain
(4)	3646/2016	Nectarines	-	-	-	-	-	-	0.07	-	-	-	-	0.3	-	0.1	-	-	-	-	-	-	-	-	-	-	-	0.04	-	Spain
(5)	3014/2016	Peaches	-	-	-	-	-	-	-	-	0.2	-	-	0.2	-	-	0.1	-	-	-	0.01	-	-	-	-	-	-	-	0.01	South Africa
	5256/2016	Nectarines	-	-	-	-	-	-	0.03	-	0.1	-	-	0.1	-	-	-	-	-	-	-	-	-	1	-	-	0.04	-	-	South Africa
	3865/2016	Nectarines	-	-	-	-	-	-	-	-	-	0.02	-	0.02	-	0.1	-	-	-	-	-	-	-	-	-	0.03	-	0.07	-	Spain
(6)	3567/2016	Nectarines	-	-	-	0.03	-	-	0.04	-	0.05	-	-	0.06	-	-	-	-	-	-	-	0.02	-	-	-	-	-	0.05	-	Spain
	4713/2016	Peaches	-	-	-	-	0.5	0.03	-	-	0.09	-	-	0.3	0.02	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	Spain
(7)	4542/2016	Nectarines	-	0.06	-	-	-	-	-	-	-	0.05	-	0.1	0.01	0.1	-	-	-	0.02	-	-	-	-	-	-	-	0.1	-	Spain
(8)	3666/2016	Peaches	-	-	0.1	-	-	-	-	0.03	0.2	-	-	0.1	-	0.2	-	0.02	-	-	-	-	0.09	-	-	-	-	0.1	-	Spain

The abbreviations used for the pesticide names are as follows:

AZOX azoxystrobin BACSM BAC (sum) BOS boscalid CAP captan CYD cyprodinil

CYF	cyfluthrin	CYP	cypermethrin	DEL	deltamethrin	DTC	dithiocarbamates	EFX	etofenprox
FENB	fenbuconazole	FLUD	fludioxonil	FNV	fenvalerate & esfenvalerate (all isomers)	FPYM	fluopyram	IDX	indoxacarb
IMI	imidacloprid	IPR	iprodione	LCY	lambda-cyhalothrin	PCZ	propiconazole	PMT	phosmet (sum)
PYC	pyraclostrobin	PYM	pyrimethanil	PYTH	pyrethrins	SPN	spinosad	TAUF	tau-fluvalinate
TBC	tebuconazole	THC	thiacloprid						

Peaches & nectarines Table 23c. Residues sought but not found in samples obtained between October and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)

chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cyproconazole (0.01)

cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
demeton-S-methyl (0.01)

desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
dithianon (0.02)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)

hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)

malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)

pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)

teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Pears Table 24a. Residues detected in samples obtained between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
PEARS, UK: 4 samples analysed		
boscalid	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.08	1
chlorantraniliprole	<0.01 (i.e. not found)	3
(MRL = 0.5)	0.01	1
difenoconazole	<0.01 (i.e. not found)	3
(MRL = 0.8)	0.01	1
dithiocarbamates	<0.05 (i.e. not found)	3
(MRL = 5)	0.07	1
indoxacarb	<0.01 (i.e. not found)	2
(MRL = 0.5)	0.02	2
pyraclostrobin	<0.01 (i.e. not found)	3
(MRL = 0.5)	0.03	1
PEARS, Imported (EC): 14 samples analysed		
boscalid	<0.01 (i.e. not found)	6
(MRL = 1.5)	0.03 - 0.2	8
captan and folpet	<0.02 (i.e. not found)	6
(MRL = 3)	0.02 - 0.4	5
(MRL = 10)	0.03 - 0.07	3
chlormequat	<0.02 (i.e. not found)	12
(MRL = 0.1)	0.02, 0.05	2
cyprodinil	<0.02 (i.e. not found)	13
(MRL = 2)	0.02	1
diflubenzuron	<0.01 (i.e. not found)	13
(MRL = 5)	0.01	1
dithiocarbamates	<0.05 (i.e. not found)	11
(MRL = 5)	0.08 - 0.8	3
fenoxycarb	<0.01 (i.e. not found)	12
(MRL = 1)	0.02, 0.03	2
fludioxonil	<0.01 (i.e. not found)	10
(MRL = 5)	0.02 - 0.1	4
propiconazole	<0.01 (i.e. not found)	13
(MRL = 0.05*)	0.01	1
pyraclostrobin	<0.01 (i.e. not found)	7
(MRL = 0.5)	0.01 - 0.05	7
tebuconazole	<0.01 (i.e. not found)	13
(MRL = 0.3)	0.07	1
trifloxystrobin	<0.01 (i.e. not found)	12
(MRL = 0.7)	0.02, 0.1	2

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of pears were from Belgium (6), Portugal (2), the Netherlands (6).
UK samples of pears (4).

Residues were distributed by country of origin, as follows:

boscalid	Belgium (3), Portugal (1), the Netherlands (4), UK (1)
chlormequat	Belgium (2)
captan and folpet	Belgium (5), the Netherlands (3)
chlorantraniliprole	UK (1)
cyprodinil	Belgium (1)
diflubenzuron	Portugal (1)
difenoconazole	UK (1)
dithiocarbamates	Belgium (1), Portugal (1), the Netherlands (1), UK (1)
fenoxycarb	Portugal (2)
fludioxonil	Belgium (2), Portugal (1), the Netherlands (1)
indoxacarb	UK (2)
propiconazole	the Netherlands (1)
pyraclostrobin	Belgium (3), the Netherlands (4), UK (1)
tebuconazole	Portugal (1)
trifloxystrobin	Portugal (2)

No residues were found in 1 of the 4 UK samples
No residues were found in 2 of the 14 Imported (EC) samples

Pears Table 24b. Residues detected in samples obtained between October and November 2016

Residues (1-6 compounds) were found in 15 of the 18 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)														Country of origin
		BOS	CLQ	CPFOL	CTP	CYD	DIF	DIFC	DTC	FEO	FLUD	IDX	PCZ	PYC	TBC	TRFL	
(1)	1818/2016	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	UK
	3206/2016	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	Belgium
(2)	5365/2016	-	-	-	0.01	-	-	-	0.07	-	-	-	-	-	-	-	UK
	3299/2016	-	0.02	0.08	-	-	-	-	-	-	-	-	-	-	-	-	Belgium
	3366/2016	0.05	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	the Netherlands
(3)	1376/2016	0.2	-	-	-	-	-	-	0.08	-	-	-	-	0.05	-	-	Belgium
	3258/2016	-	-	0.03	-	0.02	-	-	-	-	0.04	-	-	-	-	-	Belgium
	2297/2016	-	-	-	-	-	0.01	-	-	0.03	-	-	-	-	-	0.02	Portugal
(4)	3391/2016	0.08	-	-	-	-	-	0.01	-	-	-	0.02	-	0.03	-	-	UK
	2011/2016	0.1	-	0.02	-	-	-	-	-	-	0.02	-	-	0.05	-	-	Belgium
	3318/2016	0.1	0.05	0.03	-	-	-	-	-	-	-	-	-	0.04	-	-	Belgium
	2633/2016	0.1	-	0.4	-	-	-	-	-	-	0.1	-	-	0.05	-	-	the Netherlands
	3130/2016	0.03	-	0.06	-	-	-	-	-	-	-	-	0.01	0.01	-	-	the Netherlands
	5015/2016	0.06	-	0.07	-	-	-	-	0.09	-	-	-	-	0.03	-	-	the Netherlands
(6)	3412/2016	0.03	-	-	-	-	-	-	0.8	0.02	0.05	-	-	-	0.07	0.1	Portugal

The abbreviations used for the pesticide names are as follows:

BOS	boscalid	CLQ	chlormequat	CPFOL	captan and folpet
CTP	chlorantraniliprole	CYD	cyprodinil	DIF	diflubenzuron
DIFC	difenoconazole	DTC	dithiocarbamates	FEO	fenoxycarb
FLUD	fludioxonil	IDX	indoxacarb	PCZ	propiconazole
PYC	pyraclostrobin	TBC	tebuconazole	TRFL	trifloxystrobin

Pears Table 24c. Residues sought but not found in samples obtained between October and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)

chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)

cyromazine (0.02)
DDAC (sum) (0.05)

DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)

MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)

tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

ethirimol (0.01)

Peppers Table 25a. Residues detected in retail samples purchased between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
PEPPERS, FRESH UK: 1 sample analysed		
None found	-	1
PEPPERS, FRESH Imported (EC): 23 samples analysed		
acetamiprid	<0.01 (i.e. not found)	22
(MRL = 0.3)	0.02	1
boscalid	<0.01 (i.e. not found)	22
(MRL = 3)	0.02	1
etridiazole	<0.02 (i.e. not found)	22
(MRL = 0.1)	0.04	1
fenhexamid	<0.02 (i.e. not found)	21
(MRL = 3)	0.06	2
flubendiamide	<0.01 (i.e. not found)	22
(MRL = 0.2)	0.01	1
flutriafol	<0.01 (i.e. not found)	20
(MRL = 1)	0.01 - 0.07	3
indoxacarb	<0.01 (i.e. not found)	20
(MRL = 0.3)	0.01 - 0.03	3
myclobutanil	<0.01 (i.e. not found)	21
(MRL = 0.5)	0.01	2
propamocarb	<0.01 (i.e. not found)	20
(MRL = 3)	0.01 - 0.02	3
pymetrozine	<0.01 (i.e. not found)	22
(MRL = 3)	0.04	1
pyridalyl	<0.01 (i.e. not found)	22
(MRL = 2)	0.01	1
spiromesifen	<0.01 (i.e. not found)	20
(MRL = 0.5)	0.01 - 0.02	3
spirotetramat (sum)	<0.01 (i.e. not found)	22
(MRL = 2)	0.02	1
teflubenzuron	<0.01 (i.e. not found)	20
(MRL = 1.5)	0.01 - 0.03	3
triadimefon & triadimenol	<0.01 (i.e. not found)	21
(MRL = 1)	0.01	2

Imported (EC) samples of peppers were from Spain (9), the Netherlands (14).
UK samples of peppers (1).

Residues were distributed by country of origin, as follows:

acetamiprid	the Netherlands (1)
boscalid	the Netherlands (1)
etridiazole	Spain (1)
flubendiamide	Spain (1)

flutriafol	Spain (3)
fenhexamid	Spain (2)
indoxacarb	Spain (1), the Netherlands (2)
myclobutanil	Spain (2)
propamocarb	Spain (1), the Netherlands (2)
pyridalyl	the Netherlands (1)
pymetrozine	the Netherlands (1)
spiromesifen	Spain (3)
spirotetramat (sum)	Spain (1)
teflubenzuron	the Netherlands (3)
triadimefon & triadimenol	Spain (2)

No residues were found in any of the UK fresh samples
No residues were found in 9 of the 23 Imported (EC) fresh samples

Peppers Table 25b. Residues detected in retail samples purchased between October and December 2016

Residues (1-4 compounds) were found in 14 of the 24 samples as follows:

Number of residues	Sample ID	Type of PEPPERS	Residues found (mg/kg)														Country of origin
			ACET	BOS	ETDZ	FLB	FLF	FNHX	IDX	MYC	PCB	PYDL	PYMT	SPM	STTPS	TEFB	TRSP	
(1)	0533/2016	FRESH	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	Spain
	3300/2016	FRESH	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	Spain
	2012/2016	FRESH	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	the Netherlands
	2481/2016	FRESH	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	the Netherlands
	2632/2016	FRESH	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	the Netherlands
	3413/2016	FRESH	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	the Netherlands
(2)	3449/2016	FRESH	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	0.01	Spain
	3803/2016	FRESH	-	-	-	-	0.01	-	-	-	-	-	-	-	0.02	-	-	Spain
	3319/2016	FRESH	-	0.02	-	-	-	-	-	-	0.01	-	-	-	-	-	-	the Netherlands
	3390/2016	FRESH	0.02	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	the Netherlands
(3)	3849/2016	FRESH	-	-	-	-	-	-	-	0.01	-	-	-	0.02	-	-	0.01	Spain
	5016/2016	FRESH	-	-	-	-	-	-	0.02	-	-	-	0.04	-	-	0.03	-	the Netherlands
(4)	3689/2016	FRESH	-	-	-	0.01	0.07	0.06	0.03	-	-	-	-	-	-	-	-	Spain
	3979/2016	FRESH	-	-	0.04	-	0.03	0.06	-	0.01	-	-	-	-	-	-	-	Spain

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	BOS	boscalid	ETDZ	etridiazole
FLB	flubendiamide	FLF	flutriafol	FNHX	fenhexamid
IDX	indoxacarb	MYC	myclobutanil	PCB	propamocarb
PYDL	pyridalyl	PYMT	pymetrozine	SPM	spiromesifen
STTPS	spirotetramat (sum)	TEFB	teflubenzuron	TRSP	triadimefon & triadimenol

Peppers Table 25c. Residues sought but not found in retail samples purchased between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethephon (0.05)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
Monuron (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pyraclostrobin (0.01)

chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
dithiocarbamates (0.05)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Popcorn Table 26a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
POPCORN, UK: 24 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	23
(MRL = 0.1)	0.09	1
deltamethrin	<0.02 (i.e. not found)	22
(MRL = 2.4)	0.1, 0.2	2
pirimiphos-methyl	<0.01 (i.e. not found)	22
(MRL = 0.6)	1.1, 1.5	2

UK samples of popcorn (24).

Residues were distributed by country of origin, as follows:

BAC (sum)	UK (1)
deltamethrin	UK (2)
pirimiphos-methyl	UK (2)

No residues were found in 21 of the 24 UK samples

Popcorn Table 26b. Residues detected in retail samples purchased between October and November 2016

Residues (1-2 compounds) were found in 3 of the 24 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)			Country of origin
		BACSM	DEL	PIM	
(1)	5065/2016	0.09	-	-	UK
(2)	5039/2016	-	0.2	1.5	UK
	5040/2016	-	0.1	1.1	UK

The abbreviations used for the pesticide names are as follows:

BACSM	BAC (sum)	DEL	deltamethrin	PIM	pirimiphos-methyl

Popcorn Table 26c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)

benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)

ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
glyphosate (0.1)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)

nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)

phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)

chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)

epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Pork Table 27a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
PORK, UK: 27 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	25
(MRL = 0.1)	0.05, 0.08	2
PORK, Imported (EC): 26 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	24
(MRL = 0.1)	0.08	1
	0.3	1

Imported (EC) samples of pork were from Belgium (2), Denmark (10), France (2), Germany (8), Spain (1), the Netherlands (3).
UK samples of pork (27).

Residues were distributed by country of origin, as follows:
BAC (sum) Germany (1), Spain (1), UK (2)

No residues were found in 25 of the 27 UK samples
No residues were found in 24 of the 26 Imported (EC) samples

Pork Table 27b. Residues detected in retail samples purchased between October and November 2016

Residues (1-1 compounds) were found in 4 of the 53 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg) BACSM	Country of origin
(1)	2465/2016	0.08	UK
	3006/2016	0.05	UK
	5287/2016	0.3	Germany
	3212/2016	0.08	Spain

The abbreviations used for the pesticide names are as follows:

BACSM BAC (sum)

Pork Table 27c. Residues sought but not found in retail samples purchased between October and November 2016

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

abamectin (sum) (0.01)
acephate (0.01)
aldrin and dieldrin (0.002)
alpha-HCH (0.002)
azamethiphos (0.01)
azinphos-ethyl (0.005)
benfuracarb (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
boscalid (0.01)
bromophos-ethyl (0.002)
cadusafos (0.002)
carbaryl (0.002)
carbendazim (0.01)
carbofuran (sum) (0.002)
carbosulfan (0.002)
chlordane (sum) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpropham (sum) (0.01)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
coumaphos (0.002)
cyfluthrin (0.002)
cypermethrin (0.005)
cyproconazole (0.01)
DDAC (sum) (0.05)
DDT (sum) (0.002)
deltamethrin (0.005)
diazinon (0.002)
dichlorvos (0.01)
diflubenzuron (0.01)
endosulfan (sum) (0.002)
endrin (0.002)
epoxiconazole (0.01)
ethoprophos (0.002)
etofenprox (0.01)
famoxadone (0.01)
fenitrothion (0.002)
fenpropimorph (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.002)
fluazifop-p-butyl (sum) (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.002)
hexachlorobenzene (0.002)
hexachlorocyclohexane (sum) (0.002)
indoxacarb (0.01)
lambda-cyhalothrin (0.005)
lindane (0.002)
malathion (0.01)
metaflumizone (0.01)
metazachlor (0.002)
methacrifos (0.002)
methamidophos (0.01)
methidathion (0.002)
methoxychlor (0.002)
nitrofen (0.01)
parathion (0.005)
parathion-methyl (sum) (0.002)
pendimethalin (0.005)
permethrin (0.005)
phoxim (0.01)
pirimicarb (sum) (0.002)
pirimiphos-methyl (0.002)
prochloraz (parent only) (0.01)
profenofos (0.01)
propetamphos (0.002)
propoxur (0.002)
prothioconazole (0.01)
pyrazophos (0.002)
quintozene (sum) (0.002)
resmethrin (0.01)
spinosad (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tecnazene (0.002)
teflubenzuron (0.01)
tetrachlorvinphos (0.002)
tetraconazole (0.01)
thiacloprid (0.01)
triazophos (0.002)
vinclozolin (sum) (0.002)

Pork (processed) Table 28a. Residues detected in retail samples purchased between July and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
BACON UK: 8 samples analysed		
None found	-	8
GAMMON UK: 4 samples analysed		
None found	-	4
SAUSAGES UK: 21 samples analysed		
DDAC (sum)	<0.05 (i.e. not found)	20
(MRL = 0.1)	0.3	1
pirimiphos-methyl	<0.002 (i.e. not found)	18
(No MRL)	0.04 - 0.07	3
BACON Imported (EC): 22 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	21
(MRL = 0.1)	0.07	1
GAMMON Imported (EC): 34 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	27
(MRL = 0.1)	0.06 - 0.08	4
	0.2 - 0.3	3
SAUSAGE MEAT Imported (EC): 1 sample analysed		
None found	-	1

Imported (EC) samples of pork products (processed) were from Denmark (24), EU (8), Ireland (4), the Netherlands (21).
UK samples of pork products (processed) (33).

Residues were distributed by country of origin, as follows:

BAC (sum)	Denmark (4), EU (1), the Netherlands (3)
DDAC (sum)	UK (1)
pirimiphos-methyl	UK (3)

No residues were found in any of the UK bacon samples
No residues were found in any of the UK gammon samples
No residues were found in 17 of the 21 UK sausages samples
No residues were found in 21 of the 22 Imported (EC) bacon samples
No residues were found in 27 of the 34 Imported (EC) gammon samples
No residues were found in any of the Imported (EC) sausage meat samples

Pork (processed) Table 28b. Residues detected in retail samples purchased between July and November 2016

Residues (1-1 compounds) were found in 12 of the 90 samples as follows:

Number of residues	Sample ID	Type of PORK PRODUCTS (PROCESSED)	Residues found (mg/kg)			Country of origin
			BACSM	DDAC	PIM	
(1)	0654/2016	SAUSAGES	-	-	0.07	UK
	0983/2016	SAUSAGES	-	-	0.05	UK
	1894/2016	SAUSAGES	-	0.3	-	UK
	2816/2016	SAUSAGES	-	-	0.04	UK
	0550/2016	GAMMON	0.3	-	-	Denmark
	0583/2016	GAMMON	0.06	-	-	Denmark
	0655/2016	GAMMON	0.2	-	-	Denmark
	0963/2016	GAMMON	0.08	-	-	Denmark
	0956/2016	GAMMON	0.06	-	-	EU
	0525/2016	GAMMON	0.3	-	-	the Netherlands
	2134/2016	GAMMON	0.07	-	-	the Netherlands
	2427/2016	BACON	0.07	-	-	the Netherlands

The abbreviations used for the pesticide names are as follows:

BACSM	BAC (sum)	DDAC	DDAC (sum)	PIM	pirimiphos-methyl

Pork (processed) Table 28c. Residues sought but not found in retail samples purchased between July and November 2016

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

abamectin (sum) (0.01)
acephate (0.01)
aldrin and dieldrin (0.002)
alpha-HCH (0.002)
azamethiphos (0.01)
azinphos-ethyl (0.005)
benfuracarb (0.002)
beta-HCH (0.002)
bifenthrin (0.005)
boscalid (0.01)
bromophos-ethyl (0.002)
cadusafos (0.002)
carbaryl (0.002)
carbendazim (0.01)
carbofuran (sum) (0.002)
carbosulfan (0.002)
chlordane (sum) (0.002)
chlorfenvinphos (0.002)
chlorobenzilate (0.002)
chlorpropham (sum) (0.005)
chlorpyrifos (0.002)
chlorpyrifos-methyl (0.002)
coumaphos (0.002)
cyfluthrin (0.002)
cypermethrin (0.005)
cyproconazole (0.01)
DDT (sum) (0.002)
deltamethrin (0.005)
diazinon (0.002)
dichlorvos (0.01)
diflubenzuron (0.01)
endosulfan (sum) (0.002)
endrin (0.002)
epoxiconazole (0.01)
ethoprophos (0.002)
etofenprox (0.01)
famoxadone (0.01)
fenitrothion (0.002)
fenpropimorph (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.002)
fluazifop-p-butyl (sum) (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.002)
hexachlorobenzene (0.002)
hexachlorocyclohexane (sum) (0.002)
indoxacarb (0.01)
lambda-cyhalothrin (0.005)
lindane (0.002)
malathion (0.01)
metaflumizone (0.01)
metazachlor (0.002)
methacrifos (0.002)
methamidophos (0.01)
methidathion (0.002)
methoxychlor (0.002)
nitrofen (0.01)
parathion (0.005)
parathion-methyl (sum) (0.002)
pendimethalin (0.005)
permethrin (0.005)
phoxim (0.01)
pirimicarb (sum) (0.002)
prochloraz (parent only) (0.01)
profenofos (0.01)
propetamphos (0.002)
propoxur (0.002)
prothioconazole (0.01)
pyrazophos (0.002)
quintozene (sum) (0.002)
resmethrin (0.01)
spinosad (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tecnazene (0.002)
teflubenzuron (0.01)
tetrachlorvinphos (0.002)
tetraconazole (0.01)
thiacloprid (0.01)
triazophos (0.002)
vinclozolin (sum) (0.002)

Potatoes Table 29a. Residues detected in samples obtained between September and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
POTATOES, MAINCROP UK: 53 samples analysed		
Chlorpropham (potato definition)	<0.05 (i.e. not found)	43
(MRL = 10)	0.06 - 5	10
flonicamid (sum)	<0.01 (i.e. not found)	49
(MRL = 0.09)	0.02	2
(MRL = 0.09)	0.04, 0.05	2
flutolanil	<0.01 (i.e. not found)	52
(MRL = 0.1)	0.02	1
imazalil	<0.02 (i.e. not found)	52
(MRL = 3)	0.03	1
maleic hydrazide	<1 (i.e. not found)	47
(MRL = 50)	2.4 - 11	6
pencycuron	<0.01 (i.e. not found)	52
(MRL = 0.1)	0.04	1
propamocarb	<0.01 (i.e. not found)	48
(MRL = 0.3)	0.01	5
thiabendazole	<0.02 (i.e. not found)	52
(MRL = 15)	0.2	1
POTATOES, MAINCROP Imported (EC): 1 sample analysed		
imidacloprid	<0.01 (i.e. not found)	0
(MRL = 0.5)	0.02	1

Imported (EC) samples of potatoes were from Italy (1).
UK samples of potatoes (53).

Residues were distributed by country of origin, as follows:

Chlorpropham (potato definition)	UK (10)
flonicamid (sum)	UK (4)
flutolanil	UK (1)
imidacloprid	Italy (1)
imazalil	UK (1)
maleic hydrazide	UK (6)
propamocarb	UK (5)
pencycuron	UK (1)
thiabendazole	UK (1)

No residues were found in 31 of the 53 UK maincrop samples
Residues were found in all of the 1 Imported (EC) maincrop samples

Potatoes Table 29b. Residues detected in samples of obtained between September and December 2016

Residues (1-3 compounds) were found in 23 of the 54 samples as follows:

Number of residues	Sample ID	Type of POTATOES	Residues found (mg/kg)									Country of origin
			CPPOT	FLC	FLT	IMI	IMZ	MH	PCB	PNY	TBZ	
(1)	4157/2016	MAINCROP	-	-	-	-	-	8.5	-	-	-	UK
	4162/2016	MAINCROP	-	-	-	-	-	-	0.01	-	-	UK
	4165/2016	MAINCROP	1.2	-	-	-	-	-	-	-	-	UK
	4166/2016	MAINCROP	4	-	-	-	-	-	-	-	-	UK
	4183/2016	MAINCROP	-	-	-	-	-	-	0.01	-	-	UK
	4189/2016	MAINCROP	-	-	0.02	-	-	-	-	-	-	UK
	4210/2016	MAINCROP	0.06	-	-	-	-	-	-	-	-	UK
	4232/2016	MAINCROP	-	-	-	-	-	11	-	-	-	UK
	4248/2016	MAINCROP	-	-	-	-	-	-	0.01	-	-	UK
	4251/2016	MAINCROP	3.5	-	-	-	-	-	-	-	-	UK
	4266/2016	MAINCROP	1.7	-	-	-	-	-	-	-	-	UK
	4270/2016	MAINCROP	-	-	-	-	-	-	-	0.04	-	UK
	4283/2016	MAINCROP	-	0.02	-	-	-	-	-	-	-	UK
	4290/2016	MAINCROP	-	-	-	-	-	8.7	-	-	-	UK
	4302/2016	MAINCROP	-	0.04	-	-	-	-	-	-	-	UK
	4312/2016	MAINCROP	2.1	-	-	-	-	-	-	-	-	UK
	4915/2016	MAINCROP	-	-	-	-	-	8.8	-	-	-	UK
	4284/2016	MAINCROP	-	-	-	0.02	-	-	-	-	-	Italy
(2)	4188/2016	MAINCROP	3	-	-	-	-	-	0.01	-	-	UK
	4206/2016	MAINCROP	5	-	-	-	-	4.7	-	-	-	UK
	4297/2016	MAINCROP	0.4	-	-	-	-	2.4	-	-	-	UK
(3)	4250/2016	MAINCROP	-	0.05	-	-	0.03	-	-	-	0.2	UK
	4296/2016	MAINCROP	1.2	0.02	-	-	-	-	0.01	-	-	UK

The abbreviations used for the pesticide names are as follows:

CPPOT	Chlorpropham (potato definition)	FLC	flonicamid (sum)	FLT	flutolanil
IMI	imidacloprid	IMZ	imazalil	MH	maleic hydrazide
PCB	propamocarb	PNY	pencycuron	TBZ	thiabendazole

Potaotes Table 29c. Residues sought but not found in samples obtained between September and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propanil (0.02)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)

chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlortoluron (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)

endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
myclobutanil (0.01)
napropamide (0.02)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Prepared fresh fruit Table 30a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
MELON UK: 1 sample analysed		
None found	-	1
MIXED UK: 8 samples analysed		
Chlorate	<0.01 (i.e. not found)	5
(MRL = 0.01*)	0.02 - 0.03	3
PINEAPPLE UK: 6 samples analysed		
None found	-	6
PINEAPPLE Imported (Non-EC): 3 samples analysed		
Chlorate	<0.01 (i.e. not found)	2
(MRL = 0.01*)	0.02	1
DDAC (sum)	<0.01 (i.e. not found)	2
(MRL = 0.1)	0.01	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (Non-EC) samples of prepared fresh fruit were from Costa Rica (2), Ghana (1).
UK samples of prepared fresh fruit (15).

Residues were distributed by country of origin, as follows:

Chlorate	Ghana (1), UK (3)
DDAC (sum)	Costa Rica (1)

No residues were found in any of the UK melon samples
No residues were found in 5 of the 8 UK mixed samples
No residues were found in any of the UK pineapple samples
No residues were found in 1 of the 3 Imported (Non-EC) pineapple samples

Prepared fresh fruit Table 30b. Residues detected in retail samples purchased between October and November 2016

Residues (1-1 compounds) were found in 5 of the 18 samples as follows:

Number of residues	Sample ID	Type of PREPARED FRESH FRUIT	Residues found (mg/kg)		Country of origin
			CLOR	DDAC	
(1)	1821/2016	MIXED	0.03	-	UK
	2295/2016	MIXED	0.02	-	UK
	5018/2016	MIXED	0.02	-	UK
	3368/2016	PINEAPPLE	-	0.01	Costa Rica
	2415/2016	PINEAPPLE	0.02	-	Ghana

The abbreviations used for the pesticide names are as follows:

CLOR Chlorate DDAC DDAC (sum)

Prepared fresh fruit Table 30c. Residues sought but not found in retail samples purchased between October and November 2016

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

BAC (sum) (0.01)

Rye Table 31a. Residues detected in samples obtained during December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
RYE, UK: 24 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	23
(MRL = 0.5)	0.01	1
chlormequat	<0.02 (i.e. not found)	5
(MRL = 3)	0.04 - 0.5	19
deltamethrin	<0.02 (i.e. not found)	22
(MRL = 2)	0.05, 0.2	2
epoxiconazole	<0.01 (i.e. not found)	23
(MRL = 0.6)	0.2	1
fenpropimorph	<0.01 (i.e. not found)	23
(MRL = 0.5)	0.02	1
glyphosate	<0.1 (i.e. not found)	19
(MRL = 10)	0.5 - 1.2	5
isopyrazam	<0.01 (i.e. not found)	23
(MRL = 0.2)	0.05	1
kresoxim-methyl	<0.01 (i.e. not found)	23
(MRL = 0.08)	0.04	1
mepiquat	<0.02 (i.e. not found)	13
(MRL = 3)	0.05 - 0.3	11
tebuconazole	<0.01 (i.e. not found)	14
(MRL = 0.3)	0.01 - 0.04	10

UK samples of rye (24).

Residues were distributed by country of origin, as follows:

azoxystrobin	UK (1)
chlormequat	UK (19)
deltamethrin	UK (2)
epoxiconazole	UK (1)
fenpropimorph	UK (1)
glyphosate	UK (5)
isopyrazam	UK (1)
kresoxim-methyl	UK (1)
mepiquat	UK (11)
tebuconazole	UK (10)

No residues were found in 1 of the 24 UK samples

Rye Table 31b. Residues detected in samples obtained during December 2016

Residues (1-4 compounds) were found in 23 of the 24 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)										Country of origin
		AZOX	CLQ	DEL	EPX	FNPM	GLY	IPZM	KREM	MPQ	TBC	
(1)	4929/2016	-	0.2	-	-	-	-	-	-	-	-	UK
	4933/2016	-	0.3	-	-	-	-	-	-	-	-	UK
	4941/2016	-	-	0.2	-	-	-	-	-	-	-	UK
	4946/2016	-	-	-	-	-	-	-	-	-	0.03	UK
	4947/2016	-	-	-	-	-	-	-	-	0.06	-	UK
(2)	4931/2016	-	0.1	-	-	-	-	-	-	-	0.04	UK
	4932/2016	-	0.5	-	-	-	-	-	-	-	0.01	UK
	4935/2016	-	0.07	-	-	-	-	-	-	0.1	-	UK
	4936/2016	-	0.1	-	-	-	-	0.05	-	-	-	UK
	4939/2016	-	0.08	-	-	-	-	-	-	0.2	-	UK
	4940/2016	-	-	-	-	-	-	-	-	0.06	0.03	UK
	4944/2016	0.01	0.08	-	-	-	-	-	-	-	-	UK
	4945/2016	-	0.07	-	-	-	1	-	-	-	-	UK
	4949/2016	-	0.2	-	-	-	-	-	-	0.3	-	UK
(3)	4930/2016	-	0.3	-	-	-	0.5	-	-	-	0.02	UK
	4934/2016	-	0.1	-	-	-	-	-	-	0.2	0.01	UK
	4938/2016	-	0.1	-	-	-	1.1	-	-	0.1	-	UK
	4942/2016	-	0.09	-	-	-	-	-	-	0.05	0.01	UK
	4943/2016	-	0.07	-	-	-	1.2	-	-	-	0.01	UK
	4948/2016	-	0.04	-	-	-	-	-	-	0.1	0.02	UK
	4950/2016	-	0.3	-	-	-	1	-	-	0.08	-	UK
(4)	4937/2016	-	0.2	-	0.2	0.02	-	-	0.04	-	-	UK
	4951/2016	-	0.1	0.05	-	-	-	-	-	0.06	0.02	UK

The abbreviations used for the pesticide names are as follows:

AZOX	azoxystrobin	CLQ	chlormequat	DEL	deltamethrin
EPX	epoxiconazole	FNPM	fenpropimorph	GLY	glyphosate
IPZM	isopyrazam	KREM	kresoxim-methyl	MPQ	mepiquat
TBC	tebuconazole				

Rye Table 31c. Residues sought but not found in samples obtained during December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)
pyrazophos (0.01)

chlorfenvinphos (0.01)
chloridazon (0.01)

chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)

cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)

DDT (sum) (0.01)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
dithiocarbamates (0.05)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
EPTC (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)

malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
pyrethrins (0.01)
pyridaben (0.01)

pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)

tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)

ethephon (0.05)
ethiofencarb (parent) (0.01)
napropamide (0.02)
nitenpyram (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Rye flour Table 32a. Residues detected in retail samples purchased between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
RYE FLOUR, UK: 37 samples analysed		
chlormequat	<0.02 (i.e. not found)	33
(MRL = 3)	0.1 - 0.5	4
chlorpropham (parent)	<0.01 (i.e. not found)	36
(MRL = 0.01*)	0.04	1
clothianidin	<0.01 (i.e. not found)	30
(MRL = 0.02*)	0.04 - 0.2	7
mepiquat	<0.02 (i.e. not found)	34
(MRL = 3)	0.02 - 0.04	3

NOTE: * Indicates MRL is set to the Limit of Determination.

UK samples of rye flour (37).

Residues were distributed by country of origin, as follows:

chlormequat	UK (4)
chlorpropham (parent)	UK (1)
clothianidin	UK (7)
mepiquat	UK (3)

No residues were found in 25 of the 37 UK samples

Rye flour Table 32b. Residues detected in retail samples purchased between October and December 2016

Residues (1-2 compounds) were found in 12 of the 37 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)				Country of origin
		CLQ	CPP_P	CTH	MPQ	
(1)	2322/2016	0.4	-	-	-	UK
	3346/2016	-	-	0.1	-	UK
	5075/2016	-	-	0.04	-	UK
	5185/2016	-	0.04	-	-	UK
	5371/2016	-	-	0.2	-	UK
	5399/2016	-	-	0.08	-	UK
	5445/2016	-	-	0.2	-	UK
	5447/2016	-	-	0.06	-	UK
	5488/2016	-	-	0.1	-	UK
(2)	3348/2016	0.4	-	-	0.02	UK
	5948/2016	0.1	-	-	0.04	UK
	5949/2016	0.5	-	-	0.03	UK

The abbreviations used for the pesticide names are as follows:

CLQ	chlormequat	CPP_P	chlorpropham (parent)	CTH	clothianidin
MPQ	mepiquat				

Rye flour Table 32c. Residues sought but not found in retail samples purchased between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
glyphosate (0.1)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)

chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
dithiocarbamates (0.05)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)

epoxiconazole (0.01)
EPTC (0.01)
ethephon (0.05)
ethiofencarb (parent) (0.01)
ethion (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Speciality Vegetables Table 33a. Residues detected in samples obtained between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
CHARD UK: 2 samples analysed		
boscalid	<0.01 (i.e. not found)	1
(MRL = 30)	0.4	1
prothioconazole	<0.01 (i.e. not found)	1
(MRL = 0.01*)	0.3	1
tebuconazole	<0.01 (i.e. not found)	1
(MRL = 0.02*)	0.7	1
CHINESE LEAF UK: 2 samples analysed		
spirotetramat (sum)	<0.01 (i.e. not found)	0
(MRL = 7)	0.01, 0.05	2
KALE UK: 6 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	5
(MRL = 6)	0.05	1
boscalid	<0.01 (i.e. not found)	3
(MRL = 9)	0.1 - 0.6	3
difenoconazole	<0.01 (i.e. not found)	5
(MRL = 2)	0.05	1
dithiocarbamates	<0.05 (i.e. not found)	5
(MRL = 0.5)	0.06	1
metalaxyl	<0.01 (i.e. not found)	5
(MRL = 0.2)	0.03	1
pyraclostrobin	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.02 - 0.05	3
spirotetramat (sum)	<0.01 (i.e. not found)	5
(MRL = 7)	0.01	1
thiamethoxam	<0.01 (i.e. not found)	3
(MRL = 0.02*)	0.01	2
	0.03	1
triallate	<0.02 (i.e. not found)	4
(MRL = 0.1*)	0.02, 0.03	2
PAK CHOI UK: 2 samples analysed		
difenoconazole	<0.01 (i.e. not found)	0
(MRL = 2)	0.07, 0.1	2
dithiocarbamates	<0.05 (i.e. not found)	0
(MRL = 0.5)	0.2, 0.3	2
spirotetramat (sum)	<0.01 (i.e. not found)	0
(MRL = 7)	0.3, 0.5	2
SAAG UK: 1 sample analysed		
None found	-	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
BANANA LEAF Imported (Non-EC): 1 sample analysed		
None found	-	1
CHICORY Imported (EC): 2 samples analysed		
None found	-	2
CHINESE LEAF Imported (EC): 2 samples analysed		
dithiocarbamates	<0.05 (i.e. not found)	1
(MRL = 0.5)	0.09	1
spirotetramat (sum)	<0.01 (i.e. not found)	1
(MRL = 7)	0.03	1
thiamethoxam	<0.01 (i.e. not found)	1
(MRL = 0.02*)	0.01	1
CHOI SUM Imported (EC): 1 sample analysed		
chlorantraniliprole	<0.01 (i.e. not found)	0
(MRL = 1)	0.03	1
PAK CHOI Imported (EC): 2 samples analysed		
chlorantraniliprole	<0.01 (i.e. not found)	1
(MRL = 20)	0.03	1
dithiocarbamates	<0.05 (i.e. not found)	1
(MRL = 0.5)	0.06	1
spirotetramat (sum)	<0.01 (i.e. not found)	1
(MRL = 7)	0.02	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of speciality vegetables were from Portugal (1), Spain (3), the Netherlands (3).
Imported (Non-EC) samples of speciality vegetables were from Thailand (1).
UK samples of speciality vegetables (13).

Residues were distributed by country of origin, as follows:

azoxystrobin	UK (1)
boscalid	UK (4)
chlorantraniliprole	Spain (2)
difenoconazole	UK (3)
dithiocarbamates	Spain (1), the Netherlands (1), UK (3)
metalaxyl	UK (1)
pyraclostrobin	UK (3)
prothioconazole	UK (1)
spirotetramat (sum)	Portugal (1), Spain (1), UK (5)
tebuconazole	UK (1)
thiamethoxam	the Netherlands (1), UK (3)
triallate	UK (2)

No residues were found in 1 of the 2 UK chard samples
Residues were found in all of the 2 UK chinese leaf samples
No residues were found in 1 of the 6 UK kale samples
Residues were found in all of the 2 UK pak choi samples
No residues were found in any of the UK saag samples
No residues were found in any of the Imported (Non-EC) banana leaf samples
No residues were found in any of the Imported (EC) chicory samples
Residues were found in all of the 2 Imported (EC) chinese leaf samples
Residues were found in all of the 1 Imported (EC) choi sum samples
No residues were found in 1 of the 2 Imported (EC) pak choi samples

Speciality vegetables Table 33b. Residues detected in samples obtained between October and December 2016

Residues (1-5 compounds) were found in 14 of the 21 samples as follows:

Number of residues	Sample ID	Type of SPECIALITY VEGETABLES	Residues found (mg/kg)												Country of origin
			AZOX	BOS	CTP	DIFC	DTC	MTX	PYC	PZL	STTPS	TBC	THM	TLL	
(1)	3782/2016	KALE	-	-	-	-	0.06	-	-	-	-	-	-	-	UK
	3977/2016	CHINESE LEAF	-	-	-	-	-	-	-	-	0.01	-	-	-	UK
	3982/2016	CHINESE LEAF	-	-	-	-	-	-	-	-	0.05	-	-	-	UK
	3662/2016	CHINESE LEAF	-	-	-	-	-	-	-	-	0.03	-	-	-	Portugal
	4731/2016	CHOI SUM	-	-	0.03	-	-	-	-	-	-	-	-	-	Spain
(2)	4766/2016	KALE	0.05	-	-	0.05	-	-	-	-	-	-	-	-	UK
	3978/2016	CHINESE LEAF	-	-	-	-	0.09	-	-	-	-	-	0.01	-	the Netherlands
(3)	3657/2016	PAK CHOI	-	-	-	0.1	0.2	-	-	-	0.5	-	-	-	UK
	3778/2016	PAK CHOI	-	-	-	0.07	0.3	-	-	-	0.3	-	-	-	UK
	4790/2016	CHARD	-	0.4	-	-	-	-	-	0.3	-	0.7	-	-	UK
	3791/2016	PAK CHOI	-	-	0.03	-	0.06	-	-	-	0.02	-	-	-	Spain
(4)	3683/2016	KALE	-	0.6	-	-	-	0.03	0.03	-	-	-	0.03	-	UK
	3908/2016	KALE	-	0.3	-	-	-	-	0.05	-	-	-	0.01	0.02	UK
(5)	3664/2016	KALE	-	0.1	-	-	-	-	0.02	-	0.01	-	0.01	0.03	UK

The abbreviations used for the pesticide names are as follows:

AZOX	azoxystrobin	BOS	boscalid	CTP	chlorantraniliprole
DIFC	difenoconazole	DTC	dithiocarbamates	MTX	metalaxyl
PYC	pyraclostrobin	PZL	prothioconazole	STTPS	spirotetramat (sum)
TBC	tebuconazole	THM	thiamethoxam	TLL	triallate

Speciality vegetables Table 33c. Residues detected in samples obtained between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothiofos (0.01)

chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
pymetrozine (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)

ethiofencarb (parent) (0.01) Monuron (0.01) zoxamide (0.01)

Strawberries Table 34a. Residues detected in retail samples purchased between October and November 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
STRAWBERRIES, UK: 4 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	2
(MRL = 10)	0.07, 0.2	2
boscalid	<0.01 (i.e. not found)	3
(MRL = 6)	0.6	1
bupirimate	<0.01 (i.e. not found)	1
(MRL = 2)	0.07 - 0.2	3
cyprodinil	<0.01 (i.e. not found)	2
(MRL = 5)	0.01, 0.06	2
ethirimol	<0.01 (i.e. not found)	2
(MRL = 0.2)	0.02, 0.03	2
fenhexamid	<0.01 (i.e. not found)	0
(MRL = 10)	0.03 - 0.5	4
fenpyrazamine	<0.01 (i.e. not found)	3
(MRL = 3)	0.1	1
fludioxonil	<0.01 (i.e. not found)	2
(MRL = 4)	0.02, 0.07	2
iprodione	<0.01 (i.e. not found)	2
(MRL = 20)	0.1, 0.8	2
kresoxim-methyl	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.05	1
mepanipyrim (sum)	<0.01 (i.e. not found)	3
(MRL = 3)	0.04	1
myclobutanil	<0.01 (i.e. not found)	1
(MRL = 1)	0.03 - 0.2	3
pyraclostrobin	<0.01 (i.e. not found)	3
(MRL = 1.5)	0.2	1
thiacloprid	<0.01 (i.e. not found)	3
(MRL = 1)	0.07	1
STRAWBERRIES, Imported (Non-EC): 8 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	7
(MRL = 10)	0.04	1
captan and folpet	<0.01 (i.e. not found)	7
(MRL = 1.5)	0.06	1
chlorpyrifos-methyl	<0.01 (i.e. not found)	7
(MRL = 0.5)	0.04	1
fenhexamid	<0.01 (i.e. not found)	7
(MRL = 10)	0.6	1
iprodione	<0.01 (i.e. not found)	7
(MRL = 20)	0.05	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
lambda-cyhalothrin	<0.01 (i.e. not found)	7
(MRL = 0.5)	0.02	1
methomyl (sum)	<0.01 (i.e. not found)	7
(MRL = 0.02*)	0.1	1
myclobutanil	<0.01 (i.e. not found)	7
(MRL = 1)	0.06	1
STRAWBERRIES, Imported (EC): 12 samples analysed		
boscalid	<0.01 (i.e. not found)	8
(MRL = 6)	0.02 - 0.1	4
captan and folpet	<0.01 (i.e. not found)	11
(MRL = 1.5)	0.02	1
cyprodinil	<0.01 (i.e. not found)	11
(MRL = 5)	0.1	1
fenhexamid	<0.01 (i.e. not found)	11
(MRL = 10)	0.03	1
fludioxonil	<0.01 (i.e. not found)	11
(MRL = 4)	0.1	1
fluopyram	<0.01 (i.e. not found)	2
(MRL = 2)	0.02 - 0.3	10
hexythiazox	<0.01 (i.e. not found)	11
(MRL = 0.5)	0.01	1
iprodione	<0.01 (i.e. not found)	11
(MRL = 20)	0.01	1
kresoxim-methyl	<0.01 (i.e. not found)	11
(MRL = 1.5)	0.02	1
metrafenone	<0.01 (i.e. not found)	10
(MRL = 0.6)	0.03	2
pirimicarb (sum)	<0.01 (i.e. not found)	11
(MRL = 1.5)	0.04	1
pyraclostrobin	<0.01 (i.e. not found)	10
(MRL = 1.5)	0.03, 0.04	2
spiromesifen	<0.01 (i.e. not found)	10
(MRL = 1)	0.03, 0.05	2
thiacloprid	<0.01 (i.e. not found)	4
(MRL = 1)	0.01 - 0.08	8
trifloxystrobin	<0.01 (i.e. not found)	9
(MRL = 1)	0.01 - 0.07	3

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of strawberries were from Belgium (2), the Netherlands (10).
Imported (Non-EC) samples of strawberries were from Egypt (7), Morocco (1).
UK samples of strawberries (4).

Residues were distributed by country of origin, as follows:

azoxystrobin	Morocco (1), UK (2)
boscalid	Belgium (1), the Netherlands (3), UK (1)
bupirimate	UK (3)
chlorpyrifos-methyl	Egypt (1)
captan and folpet	Egypt (1), the Netherlands (1)
cyprodinil	the Netherlands (1), UK (2)
ethirimol	UK (2)
fludioxonil	the Netherlands (1), UK (2)
fenhexamid	Belgium (1), Morocco (1), UK (4)
fluopyram	Belgium (2), the Netherlands (8)
fenpyrazamine	UK (1)
hexythiazox	the Netherlands (1)
iprodione	Morocco (1), the Netherlands (1), UK (2)
kresoxim-methyl	the Netherlands (1), UK (1)
lambda-cyhalothrin	Egypt (1)
mepanipyrim (sum)	UK (1)
methomyl (sum)	Egypt (1)
metrafenone	the Netherlands (2)
myclobutanil	Morocco (1), UK (3)
pirimicarb (sum)	the Netherlands (1)
pyraclostrobin	the Netherlands (2), UK (1)
spiromesifen	Belgium (1), the Netherlands (1)
thiacloprid	Belgium (2), the Netherlands (6), UK (1)
trifloxystrobin	the Netherlands (3)

Residues were found in all of the 4 UK samples
No residues were found in 4 of the 8 Imported (Non-EC) samples
Residues were found in all of the 12 Imported (EC) samples

Strawberries Table 34b. Residues detected in retail samples purchased between October and November 2016

Residues (1-9 compounds) were found in 20 of the 24 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg)																							Country of origin
		AZOX	BOS	BUP	CPFME	CPFOL	CYD	EHM	FLUD	FNHX	FPYM	FPZM	HEX	IPR	KREM	LCY	MEPSM	METHS	MTF	MYC	PIR	PYC	SPM	THC	TRFL	
(1)	3016/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	Egypt
	4961/2016	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Egypt
(2)	5228/2016	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	Egypt
	3321/2016	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	the Netherlands
	3369/2016	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	the Netherlands
	4957/2016	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	the Netherlands
(3)	5285/2016	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	0.03	0.04	-	Belgium
	3499/2016	-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.02	-	-	-	-	-	-	-	-	0.06	-	the Netherlands
	4960/2016	-	-	-	-	-	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	0.05	0.08	-	the Netherlands
(4)	2483/2016	-	0.6	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	0.1	-	0.2	-	-	-	UK
	4962/2016	0.04	-	-	-	-	-	-	-	0.6	-	-	-	0.05	-	-	-	-	-	0.06	-	-	-	-	-	Morocco
	5230/2016	-	0.03	-	-	-	-	-	-	0.03	0.02	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	Belgium
	0535/2016	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	0.03	-	-	-	-	0.05	0.02	the Netherlands
	2450/2016	-	0.1	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	0.04	-	-	0.01	the Netherlands
	3437/2016	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	0.03	-	0.04	-	-	0.03	-	the Netherlands
	3451/2016	-	0.1	-	-	-	-	-	-	-	0.04	-	-	0.01	-	-	-	-	-	-	-	0.03	-	-	-	the Netherlands
	4964/2016	-	0.02	-	-	-	0.1	-	0.1	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	the Netherlands
(5)	2541/2016	0.07	-	0.1	-	-	-	0.03	-	0.2	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	UK
(8)	2768/2016	-	-	0.07	-	-	0.01	-	0.02	0.03	-	0.1	-	0.1	-	-	0.04	-	-	0.03	-	-	-	-	-	UK
(9)	2414/2016	0.2	-	0.2	-	-	0.06	0.02	0.07	0.5	-	-	-	0.8	-	-	-	-	-	0.2	-	-	-	0.07	-	UK

The abbreviations used for the pesticide names are as follows:

AZOX	azoxystrobin	BOS	boscalid	BUP	bupirimate	CPFME	chlorpyrifos-methyl	CPFOL	captan and folpet
CYD	cyprodinil	EHM	ethirimol	FLUD	fludioxonil	FNHX	fenhexamid	FPYM	fluopyram
FPZM	fenpyrazamine	HEX	hexythiazox	IPR	iprodione	KREM	kresoxim-methyl	LCY	lambda-cyhalothrin
MEPSM	mepanipyrim (sum)	METHS	methomyl (sum)	MTF	metrafenone	MYC	myclobutanil	PIR	pirimicarb (sum)
PYC	pyraclostrobin	SPM	spiromesifen	THC	thiacloprid	TRFL	trifloxystrobin		

Strawberries Table 34c. Residues sought but not found in retail samples purchased between October and November 2016

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

2,4-D (sum) (0.02)
2,4-DB (0.01)
2-phenylphenol (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.01)
acrinathrin (0.01)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.01)
alpha-HCH (0.01)
ametoctradin (0.01)
aminocarb (0.01)
amitraz (0.01)
atrazine (0.01)
azinphos-ethyl (0.01)
azinphos-methyl (0.01)
BAC (sum) (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.05)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
buprofezin (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.01)
carbofuran (sum) (0.01)
carboxin (0.01)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chlorfluazuron (0.01)
chloridazon (0.01)
chlorobenzilate (0.01)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.05)
chlorpyrifos (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.01)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenthion (sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.01)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.01)
fluometuron (0.01)
fluopicolide (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
formothion (0.01)
fosthiazate (0.01)
fuberidazole (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Haloxyfop-R methyl (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexaflumuron (0.01)
hexazinone (0.01)
Oxadiargyl (0.01)
oxadiazon (0.01)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.01)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.01)
phenthoate (0.01)
phorate (sum) (0.02)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propamocarb (0.01)
propanil (0.01)
propaquizafop (0.01)
propargite (0.01)
propetamphos (0.01)
propham (0.01)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridaphenthion (0.01)
pyrifenox (0.01)
pyrimethanil (0.01)
pyriproxifen (0.01)
pyroxsulam (0.01)

chromafenozide (0.01)
cinidon-ethyl (0.01)
clethodim (0.01)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
crufomate (0.01)
cyanazine (0.01)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.01)
cyflufenamid (0.01)
cyfluthrin (0.01)

cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.01)
cyproconazole (0.01)
cyromazine (0.01)
DDAC (sum) (0.01)
DDT (sum) (0.01)
deltamethrin (0.01)
desmedipham (0.01)
desmetryn (0.01)
diafenthiuron (0.01)
diazinon (0.01)
dichlofluanid (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.02)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
dioxathion (0.01)
diphenylamine (0.05)
disulfoton (sum) (0.01)
dithiocarbamates (0.05)
diuron (0.01)
dodine (0.05)
emamectin benzoate (0.01)
endosulfan (sum) (0.01)
endrin (0.01)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)

imazalil (0.01)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)

isoxaflutole (0.01)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.01)
malathion (0.01)
mandipropamid (0.01)
MCPA (sum) (0.01)
MCPA only (0.01)
mecarbam (0.01)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.01)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.01)
metconazole (0.02)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metribuzin (0.01)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
napropamide (0.01)
neburon (0.01)
nitenpyram (0.01)
nitrothal-isopropyl (0.01)
nuarimol (0.01)
ofurace (0.01)

quassia (0.01)
quinalphos (0.01)
quinmerac (0.01)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
Quizalofop, incl. quizalfop-P (0.01)
rotenone (0.01)
simazine (0.01)
spinosad (0.01)
spirodiclofen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
terbacil (0.01)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbumeton (0.01)
terbuthylazine (0.01)
terbutryn (0.01)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.01)
triasulfuron (0.01)
triazamate (0.01)
triazamate (acid) (0.01)
triazamate (ester) (0.01)
triazophos (0.01)
trichlorfon (0.01)
triclopyr (0.05)
tricyclazole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.05)
triticonazole (0.01)
tritosulfuron (0.01)
vamidothion (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Tomatoes Table 35a. Residues detected in samples obtained between October and December 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
CHERRY UK: 1 sample analysed		
None found	-	1
ROUND UK: 2 samples analysed		
ethephon	<0.05 (i.e. not found)	1
(MRL = 1)	0.3	1
spiromesifen	<0.01 (i.e. not found)	1
(MRL = 1)	0.02	1
CHERRY Imported (Non-EC): 2 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	1
(MRL = 3)	0.03	1
chlorantraniliprole	<0.01 (i.e. not found)	1
(MRL = 0.6)	0.01	1
difenoconazole	<0.01 (i.e. not found)	1
(MRL = 2)	0.05	1
dithiocarbamates	<0.05 (i.e. not found)	1
(MRL = 3)	0.09	1
metalaxyl	<0.01 (i.e. not found)	1
(MRL = 0.2)	0.07	1
spiromesifen	<0.01 (i.e. not found)	1
(MRL = 1)	0.08	1
PLUM Imported (Non-EC): 3 samples analysed		
cyprodinil	<0.02 (i.e. not found)	2
(MRL = 1.5)	0.2	1
dimethomorph	<0.01 (i.e. not found)	2
(MRL = 1)	0.02	1
dithiocarbamates	<0.05 (i.e. not found)	1
(MRL = 3)	0.08, 0.2	2
fludioxonil	<0.01 (i.e. not found)	2
(MRL = 3)	0.05	1
metalaxyl	<0.01 (i.e. not found)	2
(MRL = 0.2)	0.07	1
ROUND Imported (Non-EC): 1 sample analysed		
chlorantraniliprole	<0.01 (i.e. not found)	0
(MRL = 0.6)	0.01	1
flonicamid (sum)	<0.01 (i.e. not found)	0
(MRL = 0.5)	0.02	1
CHERRY Imported (EC): 7 samples analysed		
acetamiprid	<0.01 (i.e. not found)	6

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
(MRL = 0.2)	0.01	1
bifenthrin	<0.01 (i.e. not found)	6
(MRL = 0.3)	0.1	1
bupirimate	<0.01 (i.e. not found)	6
(MRL = 2)	0.02	1
buprofezin	<0.01 (i.e. not found)	6
(MRL = 1)	0.02	1
cymoxanil	<0.01 (i.e. not found)	6
(MRL = 0.2)	0.01	1
dinotefuran	<0.01 (i.e. not found)	6
(MRL = 0.01*)	0.05	1
fenpyrazamine	<0.01 (i.e. not found)	6
(MRL = 3)	0.2	1
flonicamid (sum)	<0.01 (i.e. not found)	4
(MRL = 0.5)	0.02 - 0.2	3
fluopyram	<0.01 (i.e. not found)	6
(MRL = 0.9)	0.03	1
myclobutanil	<0.01 (i.e. not found)	6
(MRL = 0.3)	0.02	1
pirimiphos-methyl	<0.01 (i.e. not found)	6
(MRL = 0.01*)	0.1	1
pyridaben	<0.01 (i.e. not found)	6
(MRL = 0.3)	0.02	1
pyridalyl	<0.01 (i.e. not found)	6
(MRL = 1)	0.04	1
pyriproxifen	<0.01 (i.e. not found)	5
(MRL = 1)	0.01, 0.04	2
spiromesifen	<0.01 (i.e. not found)	6
(MRL = 1)	0.03	1
teflubenzuron	<0.01 (i.e. not found)	5
(MRL = 1.5)	0.01	2
thiacloprid	<0.01 (i.e. not found)	6
(MRL = 0.5)	0.01	1
PLUM Imported (EC): 2 samples analysed		
azoxystrobin	<0.01 (i.e. not found)	1
(MRL = 3)	0.06	1
fenpyroximate	<0.01 (i.e. not found)	1
(MRL = 0.2)	0.02	1
flonicamid (sum)	<0.01 (i.e. not found)	1
(MRL = 0.5)	0.2	1
propamocarb	<0.01 (i.e. not found)	1
(MRL = 4)	0.1	1

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
pyriproxifen	<0.01 (i.e. not found)	1
(MRL = 1)	0.03	1
spinosad	<0.01 (i.e. not found)	1
(MRL = 0.7)	0.02	1
spirotetramat (sum)	<0.01 (i.e. not found)	1
(MRL = 2)	0.02	1
ROUND Imported (EC): 3 samples analysed		
ethephon	<0.05 (i.e. not found)	2
(MRL = 1)	0.2	1
flonicamid (sum)	<0.01 (i.e. not found)	2
(MRL = 0.5)	0.2	1
triadimefon & triadimenol	<0.01 (i.e. not found)	2
(MRL = 1)	0.02	1
VINE Imported (EC): 3 samples analysed		
fluopyram	<0.01 (i.e. not found)	2
(MRL = 0.9)	0.03	1
pyriproxifen	<0.01 (i.e. not found)	2
(MRL = 1)	0.01	1
spinosad	<0.01 (i.e. not found)	2
(MRL = 0.7)	0.01	1
spiromesifen	<0.01 (i.e. not found)	1
(MRL = 1)	0.01, 0.1	2

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of tomato were from Belgium (1), Italy (1), Poland (2), Spain (6), the Netherlands (5).
Imported (Non-EC) samples of tomato were from Morocco (6).
UK samples of tomato (3).

Residues were distributed by country of origin, as follows:

acetamiprid	Poland (1)
azoxystrobin	Morocco (1), Spain (1)
bifenthrin	Poland (1)
buprofezin	Italy (1)
bupirimate	Poland (1)
chlorantraniliprole	Morocco (2)
cyprodinil	Morocco (1)
cymoxanil	Italy (1)
difenoconazole	Morocco (1)
dimethomorph	Morocco (1)
dinotefuran	Poland (1)
dithiocarbamates	Morocco (3)
ethephon	Belgium (1), UK (1)
flonicamid (sum)	Belgium (1), Italy (1), Morocco (1), Poland (1), Spain (2)
fludioxonil	Morocco (1)
fenpyroximate	Spain (1)
fenpyrazamine	Italy (1)
fluopyram	the Netherlands (2)
metalaxyl	Morocco (2)
myclobutanil	Italy (1)
propamocarb	Spain (1)
pirimiphos-methyl	Poland (1)

pyridaben	Italy (1)
pyridalyl	the Netherlands (1)
pyriproxifen	Italy (1), Spain (2), the Netherlands (1)
spiromesifen	Morocco (1), the Netherlands (3), UK (1)
spinosad	Spain (1), the Netherlands (1)
spirotetramat (sum)	Spain (1)
teflubenzuron	the Netherlands (2)
thiacloprid	Spain (1)
triadimefon & triadimenol	Spain (1)

No residues were found in any of the UK cherry samples
Residues were found in all of the 2 UK round samples
Residues were found in all of the 2 Imported (Non-EC) cherry samples
No residues were found in 1 of the 3 Imported (Non-EC) plum samples
Residues were found in all of the 1 Imported (Non-EC) round samples
Residues were found in all of the 7 Imported (EC) cherry samples
Residues were found in all of the 2 Imported (EC) plum samples
No residues were found in 1 of the 3 Imported (EC) round samples
No residues were found in 1 of the 3 Imported (EC) vine samples

Tomatoes Table 35b. Residues detected in samples obtained between October and December 2016

Residues (1-7 compounds) were found in 20 of the 24 samples as follows:

Number of residues	Sample ID	Type of TOMATO	Residues found (mg/kg)																			
			ACET	AZOX	BIF	BUF	BUP	CTP	CYD	CYM	DIFC	DMR	DNFN	DTC	ETH	FLC	FLUD	FNPY	FNPZ	FPYM	MTX	MYC
(1)	2396/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3301/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-
	3969/2016	PLUM	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
	2013/2016	CHERRY	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0536/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-
	3787/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2796/2016	VINE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(2)	3688/2016	ROUND	-	-	-	-	-	0.01	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-
	4734/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	0.09	-	-	-	-	-	-	0.07	-
	4783/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	-	-	-	-	-	-
	2799/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3874/2016	PLUM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3205/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-
(3)	2631/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(4)	2430/2016	CHERRY	-	0.03	-	-	-	0.01	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
	2451/2016	VINE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-
(5)	4809/2016	PLUM	-	-	-	-	-	-	0.2	-	-	0.02	-	0.08	-	-	0.05	-	-	-	0.07	-
	3128/2016	CHERRY	0.01	-	0.1	-	-	-	-	-	-	-	0.05	-	-	0.2	-	-	-	-	-	-
	4106/2016	PLUM	-	0.06	-	-	-	-	-	-	-	-	-	-	-	0.2	-	0.02	-	-	-	-
(7)	3781/2016	CHERRY	-	-	-	0.02	-	-	-	0.01	-	-	-	-	-	0.02	-	-	0.2	-	-	0.02

Number of residues	Sample ID	Type of TOMATO	Residues found (mg/kg)										Country of origin
			PCB	PIM	PYB	PYDL	PYX	SPM	SPN	STTPS	TEFB	THC	TRSP	
(1)	2396/2016	ROUND	-	-	-	-	-	0.02	-	-	-	-	-	UK
	3301/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	UK
	3969/2016	PLUM	-	-	-	-	-	-	-	-	-	-	-	Morocco
	2013/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	Poland
	0536/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	Spain
	3787/2016	ROUND	-	-	-	-	-	-	-	-	-	-	0.02	Spain
	2796/2016	VINE	-	-	-	-	-	0.01	-	-	-	-	-	the Netherlands
(2)	3688/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	Morocco
	4734/2016	CHERRY	-	-	-	-	-	-	-	-	-	-	-	Morocco
	4783/2016	ROUND	-	-	-	-	-	-	-	-	-	-	-	Belgium
	2799/2016	CHERRY	-	-	-	-	0.04	-	-	-	-	0.01	-	Spain

Number of residues	Sample ID	Type of TOMATO	Residues found (mg/kg)											Country of origin
			PCB	PIM	PYB	PYDL	PYX	SPM	SPN	STTPS	TEFB	THC	TRSP	
	3874/2016	PLUM	0.1	-	-	-	-	-	0.02	-	-	-	-	Spain
	3205/2016	CHERRY	-	-	-	-	-	-	-	-	0.01	-	-	the Netherlands
(3)	2631/2016	CHERRY	-	-	-	0.04	-	0.03	-	-	0.01	-	-	the Netherlands
(4)	2430/2016	CHERRY	-	-	-	-	-	0.08	-	-	-	-	-	Morocco
	2451/2016	VINE	-	-	-	-	0.01	0.1	0.01	-	-	-	-	the Netherlands
(5)	4809/2016	PLUM	-	-	-	-	-	-	-	-	-	-	-	Morocco
	3128/2016	CHERRY	-	0.1	-	-	-	-	-	-	-	-	-	Poland
	4106/2016	PLUM	-	-	-	-	0.03	-	-	0.02	-	-	-	Spain
(7)	3781/2016	CHERRY	-	-	0.02	-	0.01	-	-	-	-	-	-	Italy

The abbreviations used for the pesticide names are as follows:

ACET	acetamiprid	AZOX	azoxystrobin	BIF	bifenthrin
BUF	buprofezin	BUP	bupirimate	CTP	chlorantraniliprole
CYD	cyprodinil	CYM	cymoxanil	DIFC	difenoconazole
DMR	dimethomorph	DNFN	dinotefuran	DTC	dithiocarbamates
ETH	ethephon	FLC	flonicamid (sum)	FLUD	fludioxonil
FNPY	fenpyroximate	FNPZ	fenpyrazamine	FPYM	fluopyram
MTX	metalaxyl	MYC	myclobutanil	PCB	propamocarb
PIM	pirimiphos-methyl	PYB	pyridaben	PYDL	pyridalyl
PYX	pyriproxifen	SPM	spiromesifen	SPN	spinosad
STTPS	spirotetramat (sum)	TEFB	teflubenzuron	THC	thiacloprid
TRSP	triadimefon & triadimenol				

Tomatoes Table 35c. Residues sought but not found in samples obtained between October and December 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)

BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)

chloridazon (0.01)
chlormequat (0.02)
chlorobenzilate (0.02)
chlorothalonil (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
napropamide (0.02)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)

penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)

prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)

chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cypermethrin (0.02)
cyproconazole (0.01)

cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)

desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethirimol (0.01)

imidacloprid (0.01)
indoxacarb (0.01)
inorganic bromide (20)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)

lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)

pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.02)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinomethionate (0.02)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spirodiclofen (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)

tecnazene (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Tomatoes (tinned) Table 36a. Residues detected in retail samples purchased between April and May 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
TOMATOES (tinned), Imported (EC): 24 samples analysed		
flonicamid (sum)	<0.01 (i.e. not found)	23
(MRL = 0.3)	0.01	1

Imported (EC) samples of tomatoes (processed) were from Italy (24).

Residues were distributed by country of origin, as follows:
flonicamid (sum) Italy (1)

No residues were found in 23 of the 24 Imported (EC) samples

Tomatoes (tinned) Table 36b. Residues detected in retail samples purchased between April and May 2016

Residue (1 compound) was found in 1 of the 24 samples as follows:

Number of residues	Sample ID	Residues found (mg/kg) FLC	Country of origin
(1)	1611/2016	0.01	Italy

The abbreviations used for the pesticide names are as follows:

FLC flonicamid (sum)

Tomatoes (tinned) Table 36c. Residues sought but not found in retail samples purchased between April and May 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
BAC (sum) (0.05)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
boscalid (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
carbaryl (0.01)
carbendazim (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
ethion (0.01)
ethirimol (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenhexamid (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyrazamine (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopicolide (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)
pyraclostrobin (0.01)

chlorfenvinphos (0.01)
chloridazon (0.01)
chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimethomorph (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprodione (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metalaxyl (0.01)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
methoxyfenozide (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyrimethanil (0.01)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
resmethrin (0.02)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spirotetramat (sum) (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebuconazole (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
thiophanate-methyl (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)

EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
ethiofencarb (parent) (0.01)
myclobutanil (0.01)
napropamide (0.02)
nitenpyram (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Wine Table 37a. Residues detected in retail samples purchased between July and October 2016

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
RED Imported (Non-EC): 23 samples analysed		
BAC (sum)	<0.05 (i.e. not found)	22
(MRL = 0.1)	0.1	1
boscalid	<0.01 (i.e. not found)	21
(MRL = 5)	0.02, 0.03	2
dimethomorph	<0.01 (i.e. not found)	22
(MRL = 3)	0.02	1
methoxyfenozide	<0.01 (i.e. not found)	20
(MRL = 1)	0.02 - 0.04	3
tebuconazole	<0.01 (i.e. not found)	22
(MRL = 1)	0.01	1
ROSE Imported (Non-EC): 3 samples analysed		
boscalid	<0.01 (i.e. not found)	1
(MRL = 5)	0.03	2
methoxyfenozide	<0.01 (i.e. not found)	1
(MRL = 1)	0.02, 0.05	2
spirotetramat (sum)	<0.01 (i.e. not found)	2
(MRL = 2)	0.01	1
WHITE Imported (Non-EC): 17 samples analysed		
boscalid	<0.01 (i.e. not found)	16
(MRL = 5)	0.04	1
chlormequat	<0.01 (i.e. not found)	16
(MRL = 0.05*)	0.2	1
dimethomorph	<0.01 (i.e. not found)	15
(MRL = 3)	0.01, 0.02	2
iprodione	<0.01 (i.e. not found)	16
(MRL = 20)	0.02	1
metalaxyl	<0.01 (i.e. not found)	16
(MRL = 1)	0.05	1
methoxyfenozide	<0.01 (i.e. not found)	14
(MRL = 1)	0.02 - 0.03	3
pyrimethanil	<0.01 (i.e. not found)	16
(MRL = 5)	0.05	1
spirotetramat (sum)	<0.01 (i.e. not found)	16
(MRL = 2)	0.01	1
RED Imported (EC): 21 samples analysed		
boscalid	<0.01 (i.e. not found)	20
(MRL = 5)	0.01	1
carbendazim	<0.01 (i.e. not found)	20

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
(MRL = 0.5)	0.03	1
dimethomorph	<0.01 (i.e. not found)	20
(MRL = 3)	0.02	1
fenhexamid	<0.02 (i.e. not found)	20
(MRL = 15)	0.03	1
fenpyrazamine	<0.01 (i.e. not found)	20
(MRL = 3)	0.01	1
metalaxyl	<0.01 (i.e. not found)	18
(MRL = 1)	0.01 - 0.03	3
methoxyfenozide	<0.01 (i.e. not found)	20
(MRL = 1)	0.01	1
pyrimethanil	<0.01 (i.e. not found)	20
(MRL = 5)	0.02	1
ROSE Imported (EC): 4 samples analysed		
thiophanate-methyl	<0.01 (i.e. not found)	3
(MRL = 3)	0.01	1
WHITE Imported (EC): 28 samples analysed		
boscalid	<0.01 (i.e. not found)	27
(MRL = 5)	0.01	1
dimethomorph	<0.01 (i.e. not found)	27
(MRL = 3)	0.01	1
ethirimol	<0.01 (i.e. not found)	27
(MRL = 0.5)	0.01	1
fenhexamid	<0.02 (i.e. not found)	27
(MRL = 15)	0.04	1
fluopicolide	<0.01 (i.e. not found)	27
(MRL = 2)	0.1	1
metalaxyl	<0.01 (i.e. not found)	26
(MRL = 1)	0.01	2
methoxyfenozide	<0.01 (i.e. not found)	27
(MRL = 1)	0.01	1

NOTE: * Indicates MRL is set to the Limit of Determination.

Imported (EC) samples of wine were from France (2), Germany (5), Hungary (3), Italy (16), Portugal (1), Spain (26). Imported (Non-EC) samples of wine were from Argentina (1), Australia (13), Chile (6), New Zealand (1), South Africa (14), USA (7), Yemen (1).

Residues were distributed by country of origin, as follows:

BAC (sum)	South Africa (1)
boscalid	France (1), Germany (1), USA (5)
carbendazim	Hungary (1)
chlormequat	Australia (1)
dimethomorph	Italy (2), South Africa (3)
ethirimol	Italy (1)
fenhexamid	Germany (1), Hungary (1)
fenpyrazamine	Italy (1)

fluopicolide	Italy (1)
iprodione	Chile (1)
metalaxyl	Australia (1), Italy (4), Spain (1)
methoxyfenozide	Chile (1), Germany (1), Italy (1), USA (7)
pyrimethanil	Australia (1), Italy (1)
spirotetramat (sum)	USA (2)
tebuconazole	Chile (1)
thiophanate-methyl	Portugal (1)

No residues were found in 18 of the 23 Imported (Non-EC) red samples
No residues were found in 1 of the 3 Imported (Non-EC) rose samples
No residues were found in 10 of the 17 Imported (Non-EC) white samples
No residues were found in 16 of the 21 Imported (EC) red samples
No residues were found in 3 of the 4 Imported (EC) rose samples
No residues were found in 24 of the 28 Imported (EC) white samples

Wine Table 37b. Residues detected in retail samples purchased between July and October 2016

Residues (1-4 compounds) were found in 24 of the 96 samples as follows:

Number of residues	Sample ID	Type of WINE	Residues found (mg/kg)															Country of origin
			BACSM	BOS	CBZ	CLQ	DMR	EHM	FNHX	FNPZ	FPC	IPR	MTX	MXF	PYM	STTPS	TBC	TME	
(1)	2095/2016	WHITE	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	Chile
	2098/2016	RED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	Chile
	2971/2016	RED	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	Chile
	2094/2016	WHITE	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	South Africa
	3085/2016	WHITE	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	South Africa
	2970/2016	WHITE	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	USA
	5048/2016	RED	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	France
	2942/2016	WHITE	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Germany
	2965/2016	WHITE	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	Italy
	2966/2016	ROSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	Portugal
	5047/2016	RED	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	Spain
(2)	2975/2016	RED	0.1	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	South Africa
	2692/2016	WHITE	-	-	-	-	-	-	-	-	-	-	-	0.02	-	0.01	-	-	USA
	2913/2016	ROSE	-	0.03	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	USA
	2915/2016	WHITE	-	0.04	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	USA
	2969/2016	RED	-	0.03	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	USA
	3910/2016	RED	-	0.02	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	USA
	2964/2016	WHITE	-	-	-	-	-	-	0.04	-	-	-	-	0.01	-	-	-	-	Germany
	2686/2016	RED	-	-	0.03	-	-	-	0.03	-	-	-	-	-	-	-	-	-	Hungary
	3059/2016	RED	-	-	-	-	-	-	-	-	-	-	0.03	0.01	-	-	-	-	Italy
(3)	2972/2016	WHITE	-	-	-	0.2	-	-	-	-	-	-	0.05	-	0.05	-	-	-	Australia
	2097/2016	ROSE	-	0.03	-	-	-	-	-	-	-	-	-	0.02	-	0.01	-	-	USA
(4)	2104/2016	WHITE	-	-	-	-	0.01	0.01	-	-	0.1	-	0.01	-	-	-	-	-	Italy
	2977/2016	RED	-	-	-	-	0.02	-	-	0.01	-	-	0.01	-	0.02	-	-	-	Italy

The abbreviations used for the pesticide names are as follows:

BACSM	BAC (sum)	BOS	boscalid	CBZ	carbendazim
CLQ	chlormequat	DMR	dimethomorph	EHM	ethirimol
FNHX	fenhexamid	FNPZ	fenpyrazamine	FPC	fluopicolide
IPR	iprodione	MTX	metalaxyl	MXF	methoxyfenozide
PYM	pyrimethanil	STTPS	spirotetramat (sum)	TBC	tebuconazole
TME	thiophanate-methyl				

Wine Table 37c. Residues sought but not found in retail samples purchased between July and October 2016

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

2,4-D (sum) (0.01)
2,4-DB (0.01)
2-phenylphenol (0.02)
6-benzyladenine (0.01)
abamectin (sum) (0.01)
acephate (0.01)
acetamiprid (0.01)
acetochlor (0.01)
acibenzolar-s-methyl (0.01)
aclonifen (0.02)
acrinathrin (0.02)
alachlor (0.01)
aldicarb (sum) (0.01)
aldrin and dieldrin (0.01)
allethrin (0.02)
alpha-HCH (0.01)
ametoctradin (0.01)
amidosulfuron (0.01)
amitraz (0.01)
asulam (0.02)
atrazine (0.01)
azinphos-ethyl (0.02)
azinphos-methyl (0.02)
azoxystrobin (0.01)
benalaxyl (0.01)
bendiocarb (0.01)
benfuracarb (0.001)
benthiavalicarb (sum) (0.01)
beta-HCH (0.01)
bifenox (0.02)
bifenthrin (0.01)
biphenyl (0.01)
bispyribac-sodium (0.01)
bitertanol (0.01)
bixafen (0.01)
bromophos-ethyl (0.01)
bromopropylate (0.01)
bromoxynil (0.01)
bromuconazole (0.01)
bupirimate (0.01)
buprofezin (0.01)
butachlor (0.01)
butocarboxim (parent) (0.01)
butoxycarboxim (0.01)
cadusafos (0.01)
captan (0.02)
carbaryl (0.01)
carbetamide (0.02)
carbofuran (sum) (0.001)
carbosulfan (0.001)
carboxin (0.02)
chlorantraniliprole (0.01)
chlorbufam (0.01)
chlordane (sum) (0.01)
chlorfenapyr (0.01)
chlorfenvinphos (0.01)
chloridazon (0.01)
ethephon (0.05)
ethiofencarb (parent) (0.01)
ethion (0.01)
ethofumesate (0.01)
ethoprophos (0.01)
etofenprox (0.01)
etoxazole (0.01)
etridiazole (0.02)
etrimfos (0.01)
famoxadone (0.01)
fenamidone (0.01)
fenamiphos (sum) (0.01)
fenarimol (0.01)
fenazaquin (0.01)
fenbuconazole (0.01)
fenbutatin oxide (0.02)
fenitrothion (0.01)
fenoxycarb (0.01)
fenpropathrin (0.01)
fenpropidin (0.01)
fenpropimorph (0.01)
fenpyroximate (0.01)
fensulfothion (sum) (0.01)
fenthion (partial sum) (0.01)
fenvalerate & esfenvalerate (all isomers (0.01)
fipronil (sum) (0.005)
flonicamid (sum) (0.01)
fluazifop-p-butyl (sum) (0.01)
fluazinam (0.01)
flubendiamide (0.01)
flucythrinate (0.01)
fludioxonil (0.01)
flufenacet (0.01)
flufenoxuron (0.02)
fluometuron (0.01)
fluopyram (0.01)
fluoxastrobin (0.01)
fluquinconazole (0.01)
flurochloridone (0.02)
fluroxypyr (sum) (0.02)
flusilazole (0.01)
flutolanil (0.01)
flutriafol (0.01)
fluxapyroxad (0.01)
folpet (0.01)
fonofos (0.01)
formetanate (0.01)
fosthiazate (0.01)
furalaxyl (0.01)
furathiocarb (0.001)
furmecyclox (0.01)
halofenozide (0.01)
halosulfuron-methyl (0.01)
haloxyfop (sum) (0.01)
Heptachlor (sum) (0.01)
heptenophos (0.01)
hexachlorobenzene (0.01)
nitenpyram (0.01)
nitrofen (0.02)
nitrothal-isopropyl (0.01)
Novaluron (0.01)
nuarimol (0.01)
ofurace (0.01)
Oxadiargyl (0.01)
oxadiazon (0.02)
oxadixyl (0.01)
oxamyl (0.01)
oxasulfuron (0.01)
oxydemeton-methyl (sum) (0.01)
oxyfluorfen (0.02)
paclobutrazol (0.01)
parathion (0.01)
parathion-methyl (sum) (0.01)
penconazole (0.01)
pencycuron (0.01)
pendimethalin (0.01)
penflufen (0.01)
pentanochlor (0.01)
penthiopyrad (0.01)
permethrin (0.01)
phenmedipham (0.02)
phenthoate (0.01)
phorate (partial sum) (0.01)
phosalone (0.01)
phosmet (sum) (0.01)
phosphamidon (0.01)
phoxim (0.01)
picolinafen (0.01)
picoxystrobin (0.01)
piperonyl butoxide (0.01)
pirimicarb (sum) (0.01)
pirimiphos-ethyl (0.01)
pirimiphos-methyl (0.01)
prochloraz (parent only) (0.01)
procymidone (0.01)
profenofos (0.01)
promecarb (0.01)
prometryn (0.01)
propachlor (0.01)
propamocarb (0.01)
propanil (0.02)
propaquizafop (0.02)
propargite (0.01)
propetamphos (0.01)
propham (0.02)
propiconazole (0.01)
propoxur (0.01)
propyzamide (0.01)
proquinazid (0.01)
prosulfocarb (0.01)
prosulfuron (0.01)
prothioconazole (0.01)
prothiofos (0.01)
pymetrozine (0.01)

chlorobenzilate (0.02)
chlorothalonil (0.01)
chlorotoluron (0.01)
chlorpropham (sum) (0.01)
chlorpyrifos (0.01)
chlorpyrifos-methyl (0.01)
chlorthal-dimethyl (0.01)
chlozolinate (0.01)
chromafenozide (0.01)
clethodim (0.02)
clofentezine (0.01)
clomazone (0.01)
clothianidin (0.01)
coumaphos (0.01)
cyanazine (0.02)
cyazofamid (0.01)
cycloate (0.01)
cycloxydim (0.02)
cyflufenamid (0.01)
cyfluthrin (0.02)
cyhalofop-butyl (sum) (0.01)
cymoxanil (0.01)
cypermethrin (0.02)
cyproconazole (0.01)
cyprodinil (0.02)
cyromazine (0.02)
DDAC (sum) (0.05)
DDT (sum) (0.01)
deltamethrin (0.02)
demeton-S-methyl (0.01)
desmedipham (0.02)
diafenthiuron (0.02)
diazinon (0.01)
dichlobenil (0.01)
dichlofluanid (0.01)
dichlofluanid and DMSA (0.01)
dichlorprop (0.01)
dichlorvos (0.01)
diclobutrazol (0.01)
dicloran (0.01)
dicofol (sum) (0.01)
dicrotophos (0.01)
diethofencarb (0.01)
difenoconazole (0.01)
diflubenzuron (0.01)
diflufenican (0.01)
dimethenamid (0.01)
dimethoate (sum) (0.01)
dimoxystrobin (0.01)
diniconazole (0.01)
dinotefuran (0.01)
diphenylamine (0.02)
disulfoton (sum) (0.01)
diuron (0.01)
dodine (0.02)
emamectin (0.01)
endosulfan (sum) (0.01)
endrin (0.02)
EPN (0.01)
epoxiconazole (0.01)
EPTC (0.01)
hexachlorocyclohexane (sum) (0.01)
hexaconazole (0.01)
hexazinone (0.02)
hexythiazox (0.01)
imazalil (0.02)
imidacloprid (0.01)
indoxacarb (0.01)
ioxynil (0.01)
iprovalicarb (0.01)
isazophos (0.01)
isocarbophos (0.01)
isofenphos (0.01)
isofenphos-methyl (0.01)
isoprocarb (0.01)
isoprothiolane (0.01)
isoproturon (0.01)
isopyrazam (0.01)
isoxaben (0.01)
isoxaflutole (0.01)
kresoxim-methyl (0.01)
lambda-cyhalothrin (0.02)
lenacil (0.01)
lindane (0.01)
linuron (0.01)
lufenuron (0.02)
malathion (0.01)
mandipropamid (0.01)
MCPA only (0.01)
MCPA, MCPB and MCPA thioethyl expressed (0.01)
mecarbam (0.01)
mepanipyrim (sum) (0.01)
mephosfolan (0.02)
mepiquat (0.02)
mepronil (0.01)
mesosulfuron-methyl (0.01)
metaflumizone (0.02)
metamitron (0.01)
metazachlor (0.02)
metconazole (0.01)
methabenzthiazuron (0.01)
methacrifos (0.01)
methamidophos (0.01)
methidathion (0.01)
methiocarb (sum) (0.01)
methomyl (sum) (0.01)
methoxychlor (0.01)
metobromuron (0.01)
metolachlor (0.01)
metolcarb (0.01)
metosulam (0.01)
metoxuron (0.01)
metrafenone (0.01)
metribuzin (0.02)
metsulfuron-methyl (0.01)
mevinphos (0.01)
molinate (0.01)
monocrotophos (0.01)
monolinuron (0.01)
Monuron (0.01)
myclobutanil (0.01)
napropamide (0.02)
pyraclostrobin (0.01)
pyrazophos (0.01)
pyrethrins (0.01)
pyridaben (0.01)
pyridalyl (0.01)
pyridaphenthion (0.01)
pyrifenox (0.02)
pyriproxifen (0.01)
quassia (0.01)
quinalphos (0.01)
quinmerac (0.02)
Quinoclamine (0.01)
quinoxyfen (0.01)
quintozene (sum) (0.01)
rimsulfuron (0.01)
rotenone (0.01)
simazine (0.02)
spinosad (0.01)
spirodiclofen (0.01)
spiromesifen (0.01)
spiroxamine (0.01)
sulcotrione (0.02)
sum of butocarboxim and butocarboxim sul (0.01)
tau-fluvalinate (0.01)
tebufenozide (0.01)
tebufenpyrad (0.01)
tebuthiuron (0.01)
tecnazene (0.01)
teflubenzuron (0.01)
tefluthrin (0.01)
tepraloxydim (0.02)
terbufos (0.01)
Terbufos (sum not defintion) (0.01)
terbuthylazine (0.02)
terbutryn (0.02)
tetrachlorvinphos (0.01)
tetraconazole (0.01)
tetradifon (0.01)
tetramethrin (0.01)
thiabendazole (0.02)
thiacloprid (0.01)
thiamethoxam (sum) (0.01)
tolclofos-methyl (0.01)
tolfenpyrad (0.01)
tolylfluanid (sum) (0.01)
triadimefon & triadimenol (0.01)
triallate (0.02)
triasulfuron (0.02)
triazamate (0.01)
triazophos (0.01)
triclopyr (0.02)
tricyclazole (0.01)
trifloxystrobin (0.01)
triflumizole (0.01)
triflumuron (0.01)
trifluralin (0.01)
triforine (0.01)
triticonazole (0.01)
vinclozolin (sum) (0.01)
zoxamide (0.01)

Appendix D: Additional Action Taken

Action taken by HSE

HSE wrote to:

- the suppliers of all samples containing residues above the MRL
- the authorities of the exporting countries of all samples containing residues above the MRL
- The suppliers of UK samples that contained residues that were not approved for that crop.
- the Organics branch of Defra about samples that were labelled as organic and contained residues of pesticides not approved for organic production
- The suppliers and certification organisation of all organic samples containing residues of pesticides not approved for organic production.

Recipients of the letters are given 4 weeks to provide a statement for inclusion in the report. The Expert Committee on Pesticide Residues in Food reviews any replies received.

Sample numbers 3235/2016, 2757/2016, 3147/2016, 3251/2016, 3250/2016: Cheese with residues of chlorate above the MRL
Response from Asda

We are concerned that the residue was detected but re-assured that as you state that this does not pose any risk to the consumer.
Our investigation has confirmed the following:

- QAC's are used in dairies to manage risk associated with slow vat but rinsing is completed before contact with foodstuffs and we believe that the most likely route for chlorate contamination is via process and hygiene water.
- We are working with our suppliers to understand the scope and extent of these issues and what options are open to us to resolve.
- We work and continue to understand the source of chlorate contamination.
- Our UK packing operation has confirmed that they do not use any QAC.

I would like to emphasise that ASDA is committed to selling cheeses that have been produced in line with good manufacturing, good hygiene practice and residue legislation.

Sample number 5287/2016: Pork with a residue of BAC above the MRL
Response from Asda

We are concerned that the residue was detected, but re-assured that as you state that this does not pose any risk to the consumer.
The processor has confirmed that they do not use any hygiene chemicals that contain BAC, although our investigation confirmed that the final packer has only recently removed QAC compounds from their site.
Our sample test did not detect any residue when analysed.
I would like to emphasise that ASDA is committed to selling meats that has been produced in line with good manufacturing, good hygiene practice and residue legislation.

Sample number 0655/2016: Pork (processed) with a residues of BAC above the MRL
Response from Asda

We are concerned that the residue was detected, but re-assured that as you state that this does not pose any risk to the consumer.
Our investigation has confirmed the following:
The curer and processor have confirmed that they do use hygiene chemicals which contain BAC, although, the site have reassured us of the controls that are in place to manage this risk. However, we continue to work with the supplier to ensure that if any gaps are highlighted, that these are addressed promptly.
Our slicing operation confirmed that they do not use BAC.
Our own sample of meat did not detect any residue when analysed.
I would like to emphasise that ASDA is committed to selling meats that has been produced in line with good manufacturing, good hygiene practice and residue legislation.

Appendix E: Pesticides analysed as multi-component analytes and their reporting limits

Why some results cover more than one substance

Both the legal controls and our analytical tests are aimed at checking food for the presence of residues of specific pesticides. Residues are the chemical traces left behind after pesticides are used. In most cases the residue of a pesticide is measured by first identifying the pesticide and then measuring the quantity of that pesticide in the food itself. But for some pesticides the residue remaining in the food is known to be chemically different from the original pesticide and so the laboratory needs to looks for more than one component. There are various reasons why this happens, for example:

- the animal or plant can change the pesticide into related chemicals
- the pesticide can change in the environment into related chemicals
- some pesticides are mixtures of chemicals , so the relevant components of the mixture need to be checked for
- in the laboratory sample preparation and/or analysis may change pesticides into related chemicals
- related chemicals may be pesticides in their own right

The MRL setting process takes account of all these issues. The EU may set a complex residue definition to ensure that the identity and quantity of the residue found is representative of the pesticide present. A complex residue definition may be set where it is necessary for safety reasons or to be able to accurately identify the pesticide residue present in the food. This definition usually includes the actual pesticide, plus other related chemicals. These residues are usually reported together as a "sum". Sometimes different foods need different definitions because different pesticide residues are known to occur in that food. For instances, plants and animals may metabolise a pesticide differently, which forms different residues.

The full definitions of pesticides that we have found in our surveys are described in the table below. If you would like more detail about a particular residue definition, please get in touch. You can email us at prif@hse.gov.uk and other contact details are on the back cover.

Where the detailed individual analysis results tell us something useful, we mention that in our conclusions.

How we calculate sums

Unless the definition says otherwise, the summed result is a simple addition. For individual components that are not detected that result is treated as a zero.

Where a residue definition says "expressed as", that means that the individual component results are adjusted by molecular weight before being added together. The residue definition is set this way so that the final calculated result for the whole definition is an expression of the level of the most toxic component, and so that value can be used directly in consumer risk assessment without further adjustment.

The EU Reference Laboratories for pesticide residues have an e-learning package aimed at analytical chemists on this very technical subject at http://www.eupt.es/e-learning/.

Complex residue definitions used in our reports

There are a large number of pesticides used and types of food in the world. So other complex residue definitions may apply to food/pesticide combinations not yet considered by PRiF. You can look up all the EU MRL definitions for pesticide residues at the European Commission's pesticide database at http://ec.europa.eu/food/plant/pesticides/pesticides_database/index_en.htm

Short name we use in our reports	Legal residue definition – These definitions apply to all foods unless otherwise stated
2,4-D (sum)	2,4-D (sum of 2,4-D and its esters expressed as 2,4-D)
abamectin (sum)	Abamectin (sum of Avermectin B1a, AvermectinB1b and delta-8,9 isomer of Avermectin B1a)
aldicarb (sum)	Aldicarb (sum of Aldicarb, its sulfoxide and its sulfone, expressed as Aldicarb)
aldrin and dieldrin	Aldrin and Dieldrin (Aldrin and dieldrin combined expressed as dieldrin), aka dieldrin (sum)
amitraz	Amitraz (amitraz including the metabolites containing the 2,4 - dimethylaniline moiety expressed as amitraz)
BAC (sum)	Benzalkonium chloride (mixture of alkylbenzyldimethylammonium chlorides with alkyl chain lengths of C_8, C_{10}, C_{12}, C_{14}, C_{16} and C_{18})
benthiavalicarb (sum)	Benthiavalicarb (Benthiavalicarb-isopropyl (KIF-230 R-L) and its enantiomer (KIF-230 S-D) and diastereomers (KIF-230 R-L and KIF-230 S-D)
bixan (animal products)	Sum of bixafen and desmethyl bixafen expressed as bixafen This definition applies to animal products only
captan and folpet	Sum of captan and folpet aka captan/folpet This definition applies only to pome fruit (fruits such as apples and pears), strawberries, raspberries, currants, tomatoes and beans. For all other foods there are separate MRLs for captan only and for folpet only.
carbendazim (animal products)	Carbendazim and thiophanate-methyl, expressed as carbendazim
Carbendazim (sum)	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)
carbofuran (sum)	Carbofuran (sum of carbofuran and 3-hydroxy-carbofuran expressed as carbofuran)
chlordane (animal products)	Chlordane (sum of cis- and trans-isomers and oxychlordane expressed as chlordane) This definition applies to animal products only
chlordane (sum)	Chlordane (sum of cis- and trans- isomers) This definition applies to all foods except animal products
chlorpropham (potatoes)	Chlorpropham only This definition applies only to potatoes
chlorpropham (sum for animal products)	Chlorpropham and 4-hydroxychlorpropham-O-sulphonic acid (4-HSA),expressed as chlorpropham This definition applies only to animal products
chlorpropham (sum)	Chlorpropham (Chlorpropham and 3-chloroaniline, expressed as Chlorpropham) This definition applies to all foods except potatoes and animal products

Short name we use in our reports	Legal residue definition – These definitions apply to all foods unless otherwise stated
DDAC (sum)	Didecyldimethylammonium chloride (mixture of alkyl-quaternary ammonium salts with alkyl chain lengths of C_8, C_{10} and C_{12})
DDT (sum)	DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT)
dichlorprop	Sum of Dichlorprop, including dichlorprop-p and its conjugates, expressed as dichlorprop
dicofol (sum)	Dicofol (sum of p, p' and o,p' isomers)
dimethenamid	Dimethenamid–p (Dimethenamid-p including other mixtures of constituent isomers (sum of isomers))
dimethoate (sum)	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)
disulfoton (sum)	Disulfoton (sum of disulfoton, disulfoton sulfoxide and disulfoton sulfone expressed as disulfoton)
dithiocarbamates	Dithiocarbamates are a group of pesticides that are chemically similar. Testing for them individually in routine analysis is not possible, so MRLs are set for a test for the group.
endosulfan (sum)	Endosulfan (sum of alpha- and beta-isomers and endosulfan-sulphate expresses as endosulfan)
fenamiphos (sum)	Fenamiphos (sum of fenamiphos and its sulphoxide and sulphone expressed as fenamiphos)
fenchlorphos (sum)	Fenchlorphos (sum of fenchlorphos and fenchlorphos oxon expressed as fenchlorphos)
fensulfothion (sum)	Fensulfothion (sum of fensulfothion, its oxygen analogue and their sulfones, expressed as fensulfothion).
fenthion (sum)	Fenthion (fenthion and its oxygen analogue, their sulfoxides and sulfone expressed as parent)
fenvalerate & esfenvalerate (all isomers)	Fenvalerate (any ratio of constituent isomers (RR, SS, RS & SR) including esfenvalerate)
fipronil (infant food)	Sum of fipronil and fipronil-desulfinyl, expressed as fipronil This definition applies to foods for babies only
fipronil (sum)	Fipronil (sum Fipronil and sulfone metabolite (MB46136) expressed as Fipronil) This definition applies to all foods except foods for babies
flonicamid (sum)	Flonicamid (sum of flonicamid, TNFG and TNFA) This definition applies to all food except animal prodcuts
fluazifop-p-butyl (sum)	Fluazifop-P-butyl (fluazifop acid (free and conjugate))
haloxyfop (sum)	Haloxyfop including haloxyfop-R (Haloxyfop-R methyl ester, haloxyfop-R and conjugates of haloxyfop-R expressed as haloxyfop-R)
Heptachlor (infant food)	Sum of heptachlor and trans heptachlor epoxide This definition applies to foods for babies only
Heptachlor (sum)	Heptachlor (sum of heptachlor and heptachlor epoxide expressed as heptachlor) This definition applies to all foods except infant foods

Short name we use in our reports	Legal residue definition – These definitions apply to all foods unless otherwise stated
hexachlorocyclohexane (sum)	Hexachlorocyclohexane (HCH), sum of isomers, except the gamma isomer This definition applies to all foods except animal products (For animal products the alpha and beta isomers have separate MRls)
malathion	Malathion (sum of malathion and malaoxon expressed as malathion)
MCPA (animal prdocuts)	[Residue defintion, animal products] MCPA, MCPB and MCPA thioethyl expressed as MCPA This definition applies to animal products only
MCPA (sum)	MCPA and MCPB (MCPA, MCPB including their salts, esters and conjugates expressed as MCPA) This definition applies to all foods except animal prdoucts
mepanipyrim (sum)	Mepanipyrim and its metabolite (2-anilino-4-(2-hydroxypropyl)-6-methylpyrimidine) expressed as mepanipyrim
methiocarb (sum)	Methiocarb (sum of methiocarb and methiocarb sulfoxide and sulfone, expressed as methiocarb)
methomyl (sum)	Sum of methomyl and thiodicarb expressed as methomyl
oxydemeton-methyl (sum)	Oxydemeton-methyl (sum of oxydemeton-methyl and demeton-S-methylsulfone expressed as oxydemeton-methyl)
parathion-methyl (sum)	Parathion-methyl (sum of Parathion-methyl and paraoxon-methyl expressed as Parathion-methyl)
Permethrin	Permethrin (sum of isomers)
phorate (sum)	Phorate (sum of phorate, its oxygen analogue and their sulfones expressed as phorate)
phosmet (sum)	Phosmet (phosmet and phosmet oxon expressed as phosmet) This definition applies to all foods except animal products
pirimicarb (sum)	Pirimicarb (sum of Pirimicarb and Desmethyl pirimicarb expressed as Pirimicarb)
Prothioconazole (sum)	Prothioconazole (sum of prothioconazole-desthio and its glucuronide conjugate, expressed as prothioconazoledesthio) This definition applies to animal products only
PTU & propineb	Sum of PTU and propineb This definition applies to food for babies only
quintozene (sum)	Quintozene (sum of quintozene and pentachloro-aniline expressed as quintozene)
Prochloraz (sum)	Prochloraz (sum of prochloraz and its metabolites containing the 2,4,6-Trichlorophenol moiety expressed as prochloraz)
Terbufos (sum)	Terbufos (sum of terbufos, its sulfoxide and sulfone This definition applies only to foods for babies
thiamethoxam (sum)	Thiametoxam (sum of thiametoxam and clothianidin expressed as thiametoxam) There are also separate clothianidin MRLs
tolylfluanid (sum)	Tolylfluanid (Sum of tolylfluanid and dimethylaminosulfotoluidide expressed as tolylfluanid)

Short name we use in our reports	Legal residue definition – These definitions apply to all foods unless otherwise stated
triadimefon & triadimenol	Triadimefon and triademenol
vinclozolin (animal products)	Vinclozolin, iprodione, procymidone, sum of compounds and all metabolites containing the 3,5-dichloroaniline moiety expressed as 3,5-dichloroaniline This definition applies to animal products only
vinclozolin (sum)	Vinclozolin (sum of vinclozolin and all metabolites containing the 3,5-dichloraniniline moiety, expressed as vinclozolin) This definition applies to all foods except animal products

Glossary

This is a 'standard' glossary which defines the key terms used in the PRiF 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.

Acetylcholine: Acetylcholine is a neurotransmitter, a chemical that carries signals through the nervous system. *See cholingeric*

Acetylcholinesterase: This is an enzyme which degrades acetylcholine and is involved in the regulation of nerve impulses.

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.

As a matter of policy the EU does not use NOAELs from tests that involve deliberate administration of pesticides to humans to determine ADIs and ARfDs. However, where such data have been ethically and scientifically derived some authorities, e.g. the World Health Organization, do consider such data. Where human data are used there is usually less uncertainty in the resulting reference value compared to extrapolating from animal tests to humans, and a lower uncertainty factor (most often 10) is used to account for the variation in sensitivity between individuals.

The initial risk assessments in PRiF reports use the agreed EU reference values. However, where intakes are above the EU value and a reference value based on acceptable human data is available a refined assessment, which is a more appropriate indicator of the risk, is also reported.

Analyte: This is the name for the substance that the PRiF 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.

COLEACP (Europe-Africa-Caribbean-Pacific Liaison Committee): It aims to promote the competitive export of fresh fruit, vegetables, flowers and ornamental plants from the ACP. Its specialised information and advisory services are open to all ACP companies in the horticultural export sector and are financed by the European Commission. It has two overriding objectives to enable ACP companies to comply with European food safety and traceability requirements and to consolidate the position of small-scale producers in the ACP horticultural export sector.

Cholinergic: In relation to the animal nervous system, processes and structures are cholinergic if they release or use acetylcholine.

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 PRiF uses the 97.5th 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.

Human Data: See under Acute Reference Dose

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 PRiF report the country from where the produce has been imported only if this is clear from the packaging or labelling.

JMPR: Joint FAO/WHO Meeting on Pesticide Residues, which conducts scientific evaluations of pesticide residues in food.

Limit of Quantification (LOQ): The limit of quantification 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 Level (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.

Futher information on MRLs can be found at:
www.pesticides.gov.uk/guidance/industries/pesticides/topics/food-safety/maximum-residue-levels

Maximum Residue Limits (CODEX or CAC): In cases where there is 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.

UKT MRL: For certain pesticide a temporary national MRL has been set. UKT MRLs are worked out by HSE. The level indicates the amount of residue expected when the pesticide is applied in accordance with good agricultural practice (GAP). The UK has a number of UKT MRLs, these take precedence over provisional EC levels.

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.

Multiple Residues: In this report this term is used to describe when more than one pesticide is found in an individual food sample. It may have arisen because the crop was treated at different times with pesticides applied singularly, or when pesticides are applied as mixtures (several pesticides mixed in the spray tank at the same time) or the marketed pesticide product contains more than one pesticide or any combination of these three situations. Mixtures may be used in response to specific pest pressures and also as part of strategies to minimise pesticide resistance building up on pest populations.

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: www.pesticides.gov.uk/guidance/industries/pesticides/topics/pesticide-approvals/pesticides-registration/applicant-guide/the-applicant-guide-contents.

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: www.pesticides.gov.uk/guidance/industries/pesticides/topics/pesticide-approvals/pesticides-registration/applicant-guide/the-applicant-guide-contents.

Neurotoxicity: Neurotoxicity is the effect of substances (called neurotoxins) which alter the normal working of an animal's nervous systems and/or damage the nervous tissue.

No Observed Adverse Effect Level (NOAEL): The greatest concentration or amount of a substance, found by experiment or observation, which causes no detectable adverse alteration of morphology, functional capacity, growth, development or life span of the target organism under defined conditions of exposure.

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 PRiF 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.

Parent: The chemical form of a pesticide as applied to plants, as opposed to metabolites and breakdown products.

Percentile: A percentile is a value that divides a sample of measurements at a specific point when they are listed in ascending order of magnitude. For example, the 97.5th percentile from a food consumption survey is a value that is equal to or more than 97.5% of the measurements and equal to or less than 2.5% of the measurements. So in a sample of 40 daily food consumption values, the 97.5th percentile is equal to or more

than 39 of the measurements. Such high percentile estimates of food consumption are used in risk assessments as they are more protective than using average consumption levels.

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 PRiF 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.

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. HSE notify the Food Standards Agency of any residues where the predicted intakes are above the ARfD. RASFFs are only raised when a potential consumer risk has been identified. In general, for intakes exceeding the ARfD by more than 1.1 times, the FSA will raise a RASFF. If a significant consumer health concern has been identified, then the product will be withdrawn/recalled and the FSA will also issue a food alert.

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.

Safety Factor: Values used in extrapolation from experimental studies in animals (usually 100) or humans (usually 10) to the population: for PRiF assessments this represents a value by which the NOAEL is divided to derive an ADI or ARfD. The value depends on the nature of the effect, the dose-response relationship, and the quality of the toxicological information available. The use of such a factor accounts for possible differences in susceptibility between the animal species tested and humans, and for variation between different individuals in the population. The terms 'uncertainty factor' and 'assessment factor' are also sometimes used for this factor; the PRiF will use 'safety factor'.

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 HSE 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.

Follow-up from Previous Reports

Quarter 1 2016

Lettuce

Cypermethrin: Sample number 0150/2016
We passed details of a sample of lettuce from UK that contained cypermethrin to HSE. HSE's enquiries are not yet complete; an update will appear in a future report.

Potatoes

MCPS, MSPB and MCPA thioethyl expressed as MCPA: Sample number 4308/2016
We passed details of a sample of potatoes from UK that contained MCPA to HSE. HSE's enquiries are not yet complete; an update will appear in a future report.

Quarter 2 2016

Strawberries

Fluopyram: Sample number 2520/2016
We passed details of a sample of strawberry from UK that contained fluopyram to HSE. HSE's enquiries are not yet complete; an update will appear in a future report.

Quarter 3 2016

Speciality Vegetables

Oxadixyl: Sample number 3783/2016
We passed details of a sample of pak choi from UK that contained oxadixyl to HSE. HSE's enquiries are not yet complete; an update will appear in a future report.

Quarter 1 of 2017 will look at residues in:

Apples	Beans with Pods	Carrots
Cauliflower	Cucumber	Fish (oily)
Grapes	Kiwi Fruit	Lamb/Mutton
Lettuce	Milk	Okra
Onions	Oranges	Pears
Peppers	Potatoes	Poultry Meat
Prepared Fresh Fruit	Rice	Speciality Beans (dried)

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

Please contact:

Expert Committee on Pesticide Residues in Food
HSE's Chemicals Regulation Division
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Or visit our website at:

https://www.gov.uk/government/groups/expert-committee-on-pesticide-residues-in-food-prif