



Report on Results

National Residue Survey 2005–2006

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Background

Residues and contaminants

The National Residue Survey (NRS) was established under the *National Residue Survey Administration Act 1992 (Cwlth)* for the purpose of monitoring and reporting the level of contaminants in food, inputs to production and/or the environment. The term 'residue' is used in this report to apply to both residues and contaminants.^a

Residues are classified as being *present* if their concentration is greater than the limit of reporting (LOR)^b established for NRS purposes. NRS typically sets the LOR at 10% to 20% of the Australian Standard^c maximum residue limit (MRL),^d extraneous residue limit (ERL)^e or maximum level (ML).^f

Residues, health and trade

In agriculture, the term *residue* is generally used to describe a small amount of a chemical or its breakdown products that remain in or on a product. In the context of food concerns, the term *residue* also includes metals or other chemicals such as mycotoxins. These may be present in food either through natural circumstances or as a consequence of industrial or agricultural activities.

Conventional agricultural systems depend extensively on the use of a wide range of agricultural and veterinary chemicals. Current analytical technology can detect such chemicals at very low concentrations. It is therefore to be expected that a wide range of chemicals will be detected in agricultural products and, in fact, in all products of the natural environment.

Under these circumstances the detection of a residue is not a matter of concern, except when the use of the relevant chemical is unauthorised, or its concentration is greater than a limit set in either the context of trade (domestic, export or import) or human health.

^a See page 183 for definition of the terms residue and contaminant.

^b See page 184.

^c See page 184.

^d See page 183.

^e See page 183.

^f See page 184.

In reality, human health is rarely an issue since Australian Standards for residues (MRLs) are set at levels necessary to meet health needs. Detection levels are usually less than the MRL, but even detections over the MRL are normally low with regard to health concerns. This means that an occasional detection at or just above the MRL is not likely to cause any adverse health effects when the product is consumed. Food standards take into account residue levels that are normally likely to occur (environmental contaminants) and the amount that should not be exceeded if good agricultural practices have been followed (agricultural and veterinary [agvet] chemicals). Climate, geography, pests, diseases and products vary from country to country and as a consequence the limits set for particular residues in certain products in different countries may vary.

The general purposes of random residue monitoring are to:

- provide an estimate of the occurrence of residues in products (using systems based on sampling and statistical probability)
- confirm (or otherwise) that residues in products are below set limits
- alert responsible government authorities and industry if, and when, limits are exceeded, so that corrective action can be taken.

Where residue levels that exceed Australian Standards are found in NRS samples, traceback activities are the responsibility of the state or territory government authority from which the samples originate (see pages 60-61 for further details of the traceback process).

Setting of Australian Standards

Maximum residue limits (MRLs), extraneous residue limits (ERLs) and maximum levels (MLs) become Australian Standards in the Australia New Zealand Food Standards Code (the Code) upon gazettal following consideration by Food Standards Australia New Zealand (FSANZ) and the Australia New Zealand Food Regulation Ministerial Council (ANZFRMC).

MRLs are set for all agvet chemicals registered for use in Australia. The Australian Pesticides & Veterinary Medicines Authority (APVMA) has a major role in this process. MRLs are proposed by APVMA at levels not likely to be exceeded if agvet chemicals are used in accordance with on-label directions, and have been shown by dietary exposure assessment to not pose a risk to human health. The term good agricultural (or veterinary) practice is applied to the use of agvet chemicals in accordance with their label directions.

All MRLs proposed by APVMA for food, agricultural commodities and animal feed are published in the APVMA MRL Standard. MRLs for food commodities are then considered by FSANZ and, if endorsed by ANZFRMC, are adopted into the Code. NRS monitors residue levels against MRLs listed in the Code. However, where APVMA has established an MRL that has not yet been adopted into the Code, this fact is taken into consideration by NRS when interpreting the significance of any results that fall between existing and proposed MRLs.

ERLs are in a separate schedule within the Code.

MLs are set only where they serve an effective risk management function and only for foods that provide a significant contribution to dietary exposure to a particular contaminant. MLs are set at levels that are consistent with the protection of public health and safety, and are reasonably achievable through sound production and natural resource management practices.

Interpreting the presence of residues in the absence of an Australian Standard

The Code specifies that where no MRL or ERL has been set for a particular agvet chemical residue in a particular food, there must be no detectable level of that residue present, and therefore any detectable residue is unacceptable. By contrast, where no ML has been set for a particular environmental contaminant in a food, food producers are expected to keep the level of contaminants as low as reasonably achievable, but it is accepted that a low level of contamination may be unavoidable.

In the results tables, the following terms are used to indicate residue standards that have not been established for a specific chemical–matrix combination:

- ‘not set’ for an agvet chemical in an edible matrix
- ‘nil’ for an agvet chemical in a non-edible matrix
- ‘no limit’ for an environmental contaminant in an edible matrix.

Sample collection

Sample collection rates are based on production levels of the agricultural commodity in Australia, or are as directed to accommodate overseas market access requirements if the commodity is to be exported. Sample requests are generated by NRS and forwarded to sample collection points.

Meat product samples for residue monitoring are sent from collection points to a central receive and dispatch facility within NRS, where they are sorted into batches and forwarded to appropriate laboratories for testing. Authorised government officers at export abattoirs and quality control staff at domestic abattoirs collect the samples.

In the sampling plan for random monitoring of meat, the allocation of samples to abattoirs is affected by the numbers and species of animals being slaughtered at each abattoir. The distribution is designed so that the probability of an abattoir being selected for sampling is proportional to the commodity throughput of that abattoir. Sample requests are sent to abattoirs each month, specifying the kind of product required and the production period during which samples are to be taken. Animals for sampling are then selected at random along the slaughter chain.

Honey samples are collected by officers of state and territory government authorities at appropriate stages of the production chain and are sent directly to laboratories for analysis.

Poultry and egg samples are collected by quality assurance officers at the relevant establishments and are forwarded either to the NRS central receipt and dispatch facility or are sent directly to the laboratories.

Samples for the fish (wildcaught) random monitoring project are collected from fish establishments by officers from the Australian Quarantine and Inspection Service (AQIS), NRS staff or state or territory government authorities. The samples are forwarded directly to the central receipt dispatch facility or are sent directly to the laboratories.

In the random monitoring project for plant-based commodities, authorised government officers, NRS staff and industry quality-control staff collect grain and horticulture samples at appropriate locations (e.g. export grain terminals, domestic grain establishments, flour mills, processing plants, produce packing houses and wholesale markets). Arrangements for sample collection vary with the commodity being tested, but NRS methods always include procedures to minimise any bias in sampling.

Export grain is sampled at terminals as ships are loaded. Each sample is collected, usually using automatic sampling equipment, as bulk grain is moved. Samples of wheat due to be milled (and the products derived from this process) are collected from domestic flourmills on randomly selected dates. Milled flour and bran samples are derived from sampled wheat so that the results provide information on the relative concentration of residues in each fraction. Grain is also sampled on delivery to domestic end users such as stock feed manufacturers, maltsters, feedlots, oilseed processors and processors of oats for human consumption.

Grain and horticulture samples are boxed and freighted overnight directly to the appropriate laboratory. Up to two different laboratories may conduct the various grain and horticulture analyses. The first laboratory is responsible for sample registration and forwarding samples to the other laboratory (if relevant).

Chemical–commodity selection

Chemical–commodity combinations are selected on the basis of risk profiles. Those combinations of highest risk are identified for inclusion in NRS residue monitoring projects. In developing risk profiles, the main factors considered are:

- international and/or domestic perceptions of the chemical–commodity combination as a possible public health hazard
- the likelihood of residues occurring in the product (potential for misuse; persistence in the crop, animal or environment; extent of use; and use patterns)
- the extent and results of previous monitoring for the chemical–commodity combination
- the Australian Standards for residues and market access requirements of trading partners
- factors such as the availability of suitable sampling and analytical methods.

Importing countries sometimes require analyses for particular chemicals of concern in their country. Consequently, in its residue monitoring projects NRS may test for chemicals not registered for use in Australia.

Choice of matrix for analysis

The matrix (tissue or material) expected to contain the highest concentration of a residue is usually selected for analysis. The matrix may be inedible, and does not necessarily represent the part most likely to be eaten (e.g. fat is analysed for pesticides; kidney is analysed for antibiotics; liver is analysed for metals; and, for some hormonal growth promotants, the matrix chosen for testing is urine or faeces). The levels of chemicals detected in such material are usually much higher than in meat.

Sources of residues

The results of NRS residue monitoring helps audit the use of currently registered agvet chemicals in Australia. At present, chemicals that may be detected include:

- antibiotics used to control microbial diseases in animals
- anthelmintics used to control internal parasites in animals
- hormonal growth promotants used as veterinary medicines or to improve growth in livestock
- fungicides used to control fungal diseases in plants and plant products
- insecticides and acaricides used to control insect and mite pests in crops, to protect grain, and to control external parasites on animals
- fumigants used as grain protectants, and to sterilise soil, storage sheds, animal houses and bee hives
- herbicides used to control weeds in crops.

Other sources of residues include those from the unintended exposure of plants and animals to chemicals that are no longer registered for use in Australia. Such chemicals include some organochlorine (OC) pesticides and polychlorinated biphenyl (PCB) compounds. These can remain in the soil for long periods, and livestock can accidentally ingest or come into contact with them and become contaminated.

Environmental contaminants

In this report, the term 'environmental contaminant' refers to those chemicals in the natural environment that may contaminate agricultural produce. Such chemicals include some metals, some naturally occurring mycotoxins and some persistent organic pollutants. In this report, the results for OCs are included with the pesticide results, as although they can be considered environmental contaminants, their presence in the environment is the result of past use as a pesticide.

Traceback of samples

When a sample is detected with a residue that is above an Australian Standard or defined residue action level,[§] the laboratory immediately notifies NRS, which then informs the

[§] See page 184.

relevant state or territory government authority. State or territory government authority staff then trace the sample back to its property of origin. Subsequent actions depend on both the chemical detected and the commodity in which it is found, and are specified by state or territory government authority legislation. Action varies from simple advice in the case of a minor problem, to quarantining the property concerned, or prosecution where serious contamination has occurred. NRS is notified of traceback activities and findings.

Summary of results

Overall results from random monitoring projects

During 2005–2006, 19 344 samples were collected from 21 animal products (meat, honey, egg and fish) and 15 plant products (grain and horticulture) for NRS random monitoring projects.^h In all, 325 241 analyses were undertaken on these samples.

Results of these analyses are compared with the Australian Standards applicable to the levels of residues or contaminants that are legally permissible in food. These standards are included in the Australia New Zealand Food Standards Code.

Eleven samples had residues of agvet chemicals above Australian Standards (MRL/ERL) limits. Three of these samples had residues where no Australian Standard is set. These detections are deemed contraventions.

Nineteen samples contained environmental contaminants (metals) with residues above Australian standards (ML). These detections are deemed contraventions.

Results tables

The results of the residue testing analyses are shown in the tables following specific discussions concerning residue detections in the main groups of commodities (meat, honey, egg, fish, grain and horticulture). Throughout the tables, wherever applicable, the naming of chemicals follows the residue definitions within the FSANZ Food Standards Code. Acronyms on the tables are defined in the abbreviations and acronyms pages that start on page 185.

Random monitoring (animal products)

Meat

Residue monitoring projects covered 11 meat commodities and 14 272 samples. The projects for beef, sheep and pig with 5 543, 4 692 and 2 871 samples respectively were the largest individual projects. In all, 187 947 analyses were undertaken.

^h See page 63.

Five residues were found that exceeded Australian Standards for agvet chemicals in edible tissue.

In non-edible matrices (urine and faeces of cattle, pig and horse), 199 detections were made. Australian Standards are not established for such non-edible matrices.

Eight sheep liver samples had cadmium levels that exceeded the Australian Standard (ML) of 1.25 mg/kg. Two lead residues in cattle livers, one lead residue in sheep liver and one lead residue in pig liver were higher than the ML of 0.5 mg/kg.

Honey

Of the 75 honey samples tested and 975 analyses undertaken, none showed antibiotic residues above Australian Standards. Honey samples were tested for metals (selenium, zinc, aluminium and lead). Although metal detections were common, they were at expected levels for honey.

Egg

Of the 75 samples tested and 1 000 analyses carried out, only two samples showed agvet chemical residue levels above the Australian Standard.

Fish

Eight wildcaught fish commodities were measured for residues and/or environmental contaminants: 523 analyses were undertaken on 119 samples. Seven environmental metal contaminants above the Australian Standard were detected.

Random monitoring (plant products)

Grain

The grain random monitoring project covered 10 commodities, with 4 241 samples being collected and 134 681 analyses undertaken. Wheat grain and its products (bran and flour) contributed the largest number of samples. There were four residues of agricultural chemicals detected above Australian Standards (MRL/ERL).

Horticulture

The horticulture residue monitoring project covered four commodities (apple and pear, blueberry, macadamia nut, onion) involving 562 samples and 20 719 analyses. No agricultural chemical residues were detected above the relevant Australian Standards (MRL/ERL).

Summary of results for all random monitoring projects

The table on page 63 summarises the results of analyses from the major commodity groupings. Detailed tables and explanations of results for each NRS random monitoring project undertaken during the financial year 2005–2006 are presented in the following pages of this report.

Commodity	Total samples ^a	Total analyses ^b	Agvet residues >Aust Std (MRL/ERL) ^c	Number of residues in inedible tissue ^c	Number of environmental contaminants >Aust Std (ML) ^d
ANIMAL PRODUCTS					
<i>Meat</i>					
Cattle	5 543	78 384	2	104	2
Sheep	4 692	58 253	0	2	9
Pig	2 871	26 920	0	93	1
Poultry	334	9 411	0	nt	nt
Goat	249	3 819	3	nt	0 ^d
Horse	141	2 189	0	0	0 ^d
Other meat species (includes ratite)	442	8 971	0	nt ^e	0
<i>Honey</i>	75	975	0	0	0
<i>Egg</i>	75	1 000	2	0	nt
<i>Fish (wildcaught)</i>	119	688	0 ^f	nt	7
PLANT PRODUCTS					
<i>Cereals</i>					
Cereal grain	3 498	91 304	2	0	0
Flour and bran	280	9 943	2	0	0
Pulses	273	7 732	0	0	0
Canola	190	5 033	0	0	0
<i>Horticulture</i>					
Apple and pear	318	13 038	0	0	nt
Onion	94	5 505	0	0	nt
Macadamia nut	120	1 920	0	0	nt
Blueberry	30	156	0	0	nt
Total all products	19 344	325 241	11	199	19

nt Not tested

a Total number of samples collected from each species or commodity. For meat products, these samples may be from muscle (meat), fat, kidney, liver, urine or faeces.

b Most samples are analysed for more than one chemical. This is the total number of chemical–commodity combinations that were specifically tested in each product type.

c Number of residues observed above the Australian Standard (MRL or ERL), or the total number of residue detections for samples of inedible tissue (urine and faeces). Standards are not established in Australia for residues in urine and faeces, however samples of urine and faeces are analysed for some, generally unregistered, chemicals. Detection of a registered agvet chemical, or of a chemical that may be produced endogenously, in urine or faeces is not necessarily an indicator of illicit agvet chemical use. Individual samples may contain more than one residue.

d MLs are not established for the contaminants included in this testing plan for horse or goat, other than for PCBs, of which no residues were found.

e For deer, five urine samples were tested for β -agonists and five urine samples for hormones, with no residues found.

f Some species were tested for environmental contaminants only.

Animal product results

Meat

The meat residue monitoring projects are designed to support the market access of participating industries to their principal export markets and also to provide information to domestic consumers of the residue levels in these commodities. The broad-based testing approach of the residue monitoring projects further provides evidence of good practice in the usage of agvet chemicals by the participating animal production industries. To address the specific residue monitoring requirements of importing countries, some chemicals are monitored that are not registered for use—nor are likely to be used—in Australian animal production systems.

During 2005–2006, 14 272 animal samples were collected. These samples were distributed between 11 meat commodities as shown below.

Cattle	5 543	Game pig	120
Sheep	4 692	Deer	115
Pig	2 871	Ratite (ostrich)	100
Poultry	334	Kangaroo	97
Goat	249	Buffalo	10
Horse	141		

Results of the analyses carried out on each meat commodity (in alphabetical order) are shown in the tables starting on page 69.

Overview

In the reporting period 2005–2006, 187 947 analyses were undertaken on 14 272 samples. Seventeen residues (five agvet chemicals and twelve metals) were found to be above applicable Australian Standards.

Australian Standards (MRLs and MLs) apply only to residues found in edible tissues. Some residue monitoring is undertaken in non-edible matrices for monitoring purposes because residues of monitored chemicals in these matrices can be an indication of illegal or inappropriate use of those chemicals. Sometimes standards have not been set for some environmental contaminants (such as metals) in a particular matrix (e.g. offal in a particular species).

In non-edible matrices, chemicals were detected in 199 samples. Detections of ractopamine in pig urine accounted for 93 of these detections. Ractopamine, a veterinary drug used to promote feed efficiency, is registered for use in pigs. The remaining 106 detections in non-

edible tissue were hormones in cattle and sheep urine (nine and two samples respectively), likely to be endogenous in origin, and zearalenone metabolites in cattle faeces likely to be from feed (95 samples) containing zearalenone. Traceback investigations are initiated only when there are reasonable grounds to believe the residue findings may have been the result of incorrect usage of an agvet chemical, as is discussed below.

Anthelmintics

Three classes of anthelmintics were monitored: macrocyclic lactones, benzimidazoles (triclabendazole in cattle and sheep), and salicylanilides (closantel in sheep). Samples tested were from cattle, sheep, pig, goat, horse, deer and ratite. Three liver samples from goats contained residues of moxidectin from 0.005 mg/kg to 0.012 mg/kg. There is no Australian Standard for moxidectin in goat liver, so these residues were regarded as contraventions. Although the results were consistent with the animals having been drenched, the exact circumstances relating to the contravention could not be confirmed. The relevant authorities were advised so they could take action to prevent further contraventions.

Antibiotics

Antibiotic chemicals are used in livestock to treat infections by micro-organisms (e.g. bacteria, protozoa, fungi) that cause a range of diseases.

Monitoring of antibiotic residues comprises a number of analytical and sampling regimes. A general antibiotics screen is performed on kidney and identifies the class of compound present (for example β -lactam, aminoglycoside, tetracycline or macrolide). Where the screen test identifies a class of compounds, confirmation and quantification is carried out by a specific high-performance liquid chromatography or gas chromatography method appropriate for the class of antibiotic.

Specific testing was undertaken for antibiotics including sulphonamides in kidney, and for chloramphenicol in muscle. Samples were tested from cattle, sheep, pig, poultry, horse, deer and ratites using the general screen for antibiotics. In addition, pig muscle was tested for dimetridazole. Two kidney samples from calves were found to have antibiotic residues above the relevant Australian Standards. One contained a residue of sulfadimidine (0.12 mg/kg) compared with the Australian Standard of 0.1 mg/kg. A traceback was initiated, but the source of the residue could not be established and the producer was sent an advisory letter. The second violative sample contained residues of neomycin (35.0 mg/kg), streptomycin (0.8 mg/kg), sulfadiazine (7.2 mg/kg) and sulfadimidine (17.0 mg/kg). These results were above the relevant Australian Standards of 10.0 mg/kg, 0.3 mg/kg, 0.1 mg/kg and 0.1 mg/kg respectively. The subsequent traceback could not establish the source of the residues with sufficient certainty for specific regulatory action. The producer was sent a warning letter by the state authority.

Hormones

Samples from edible (liver) and non-edible matrices (faeces and/or urine) of cattle, sheep and horse were tested for a range of hormonal growth promotants (HGPs). Several HGPs are registered for use in cattle in Australia. Where AQIS is required to certify a product as free of HGPs (e.g. for the European Union and some other markets), special production separation arrangements have been made. Hormone residues may occur legitimately in appropriately treated animals outside any HGP-free supply scheme, or may reflect endogenous production of these hormones (especially in young or pregnant animals), or can occur as a result of ingestion of naturally occurring chemicals with hormone-like characteristics (see zearalenone below).

Resorcyclic acid lactones (zeranol)

The HGP zeranol is closely related to the naturally occurring substance zearalenone. Zearalenone is a plant growth regulator produced by some plants and is also produced as a mycotoxin by *Fusarium* spp., which can infect feed sources (grain and pasture). Livestock can metabolise zearalenone to zeranol (α -zearalanol), taleranol (β -zearalanol), α -zearalenol, β -zearalenol and zearalanone. Hence zeranol residues can occur in livestock either as a result of treatment with a HGP or by ingestion of feed containing zearalenone.

Zeranol derived from the metabolism of zearalenone in ruminants is indistinguishable from zeranol residues resulting from treatment with a growth promotant. For compliance reasons, it is important to differentiate the presence of zeranol residues due to HGP administration, from those residues due to natural exposure to zearalenone. Differentiation is based on the profile of zeranol/zearalenone-related residues. When zeranol occurs with other zearalenone metabolites, it is more than likely due to the ingestion of feed containing zearalenone. When zeranol occurs in the absence of other zearalenone metabolites, it is suggestive of the administration of a HGP containing zeranol.

Two α -zearalanol detections were made in cattle faeces. These both occurred in the presence of other zearalenone metabolites, an expected finding for dietary exposure to feeds containing zearalenone.

Steroids

Many steroidal compounds included in the testing programmes may originate from either normal endocrine function (i.e. they are endogenous) or from the administration of veterinary drugs. There were nine hormone detections in cattle urine from seven animals. Two animals showed both 17α -boldenone and 17α 19-nortestosterone residues, two showed 17α -boldenone only and three showed 17α 19-nortestosterone only. At the levels detected, the residues were most likely from endogenous sex hormone production and tracebacks were not instigated.

Stilbenes

No residues of stilbenes were detected in cattle, horse, pig, poultry or sheep samples tested.

Other veterinary drugs

β -agonists

Some β -agonists are registered in different countries for use as growth promotants. There is currently one β -agonist, ractopamine, registered in Australia for use only in pigs for enhancement of feed utilisation. Low level detections of ractopamine were found in 93 samples of pig urine, but at the levels found there was no suspicion of misuse of this drug.

Non-steroidal anti-inflammatory drugs

No residues of flunixin, ketoprofen, oxyphenbutazone, phenylbutazone or tolfenamic acid were observed in any of the samples tested.

Pesticides

Organochlorines, organophosphates and synthetic pyrethroids

Organochlorines (OCs), organophosphates (OPs) and synthetic pyrethroid (SP) residues were monitored in 2 440 samples for all meat commodities except poultry, where no pesticide testing was undertaken.

Organochlorines

Persistent OCs such as DDT, dieldrin, heptachlor, hexachlorocyclohexane (HCH) and hexachlorobenzene (HCB) have not been available for use on livestock since the 1970s. However, they are still present in soils where they were used for spot and broadacre pest control. Grazing livestock can ingest soil contaminated with these persistent OC compounds.

Endosulfan, a relatively non-persistent OC, is registered for use on certain crops, but is not for use on livestock (see page 37 of this report for more details).

Low level OC residues were observed in a number of samples but no results were above the relevant Australian Standards.

Organophosphates

OPs are used to control external parasites such as buffalo fly, blowfly, ticks and lice and also as protectants for grain used in feeds. No residues above the Australian Standards were observed in any of the samples tested.

Synthetic pyrethroids

SPs are used as external parasiticides in livestock, insecticides on crops, and also as protectants for grain used in feeds. No residues above the Australian Standards were observed in any of the samples tested.

Benzoyl ureas and other pesticides

Monitoring was also undertaken for benzoyl-urea insect growth-regulators (chlorfluazuron, diflubenzuron, fluazuron and triflumuron) in cattle and sheep, as well as dicyclanil and cyromazine (including its metabolite, melamine) in sheep. No samples exceeded the respective Australian Standards for these chemicals in the species tested.

Environmental contaminants

The metal residue screen tests for cadmium, lead and mercury in liver. There were eight cadmium detections in sheep liver above the Australian Standard (ML) of 1.25 mg/kg. The residue levels ranged from 1.275 mg/kg to 3.72 mg/kg. Cadmium residues are commonly found in sheep offal, particularly in older animals across the southern states of Australia. A residue action level of 2.5 mg/kg has been agreed between NRS and state and territory government regulatory authorities for traceback purposes. Only one of the eight residue detections was above the action level. The traceback investigation revealed the use of phosphatic fertilisers as the most likely source of contamination.

There were four lead detections in liver above the Australian Standard (ML) of 0.5 mg/kg (two in cattle samples, one in a sheep sample and one in a pig sample). The residue levels ranged from 0.52 mg/kg to 0.71 mg/kg. Traceback investigations into the cattle samples identified access to sump oil and batteries as the source for one case. In the other case, no obvious source of heavy metals could be identified. A sample of bore water was analysed for lead in case of contamination, but only normal low levels were found in the water (<0.005 mg/l). The investigation into the sheep sample was also inconclusive. The source of contamination in the pig sample was identified as lead-based paint on iron sheets lining the pig shed. The remaining pigs were subsequently isolated from the shed.

Results tables

The summary of results from the analyses of meat products are presented in the following tables in alphabetical order by commodity. Throughout, the naming of chemicals follows the residue definitions within the FSANZ Food Standards Code. Acronyms on the tables are defined in the Abbreviations and acronyms section that starts on page 185.



BUFFALO						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	FAT	0.02	0.2	10	0	0
Chlordane	FAT	0.02	0.2	10	0	0
DDT	FAT	0.1	5	10	0	0
Endosulfan	FAT	0.02	0.2	10	0	0
HCB	FAT	0.02	1	10	0	0
HCH	FAT	0.02	0.3	10	0	0
Heptachlor	FAT	0.02	0.2	10	0	0
Lindane (γ -HCH)	FAT	0.1	2	10	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	0.2	10	0	0
Chlorpyrifos	FAT	0.1	0.5	10	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	10	0	0
Coumaphos	FAT	0.2	1	10	0	0
Diazinon	FAT	0.1	0.7	10	0	0
Ethion	FAT	0.1	2.5	10	0	0
Famphur	FAT	0.02	0.05	10	0	0
Fenitrothion	FAT	0.02	0.05	10	0	0
Fenthion	FAT	0.05	1	10	0	0
Malathion	FAT	0.2	1	10	0	0
Phosmet	FAT	0.1	1	10	0	0
Temphos	FAT	0.1	5	10	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	10	0	0
Bioresmethrin	FAT	0.02	Not set	10	0	0
Cyfluthrin	FAT	0.02	0.5	10	0	0
Cyhalothrin	FAT	0.02	0.5	10	0	0
Cypermethrin	FAT	0.02	0.5	10	0	0
Deltamethrin	FAT	0.02	0.5	10	0	0
Fenvalerate	FAT	0.02	1	10	0	0
Flumethrin	FAT	0.02	0.2	10	0	0
Permethrin	FAT	0.02	1	10	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	FAT	0.03	0.2	10	0	0
Aroclor 1260	FAT	0.03	0.2	10	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



CATTLE

CATTLE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Benzimidazoles</i>						
Triclabendazole	LIVER	0.1	2	320	1	0
<i>Imidazothiazoles</i>						
Levamisole	LIVER	0.02	1	194	0	0
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	0.1	321	0	0
Doramectin	LIVER	0.005	0.1	321	4	0
Emamectin	LIVER	0.005	0.01	321	0	0
Eprinomectin	LIVER	0.005	2	321	2	0
Ivermectin	LIVER	0.005	0.1	321	0	0
Moxidectin	LIVER	0.005	0.5	321	3	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	969	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	969	0	0
Gentamycin	KIDNEY	0.1	Not set	969	0	0
Neomycin	KIDNEY	0.1	10	969	3	1 ^a
Streptomycin	KIDNEY	0.1	0.3	969	1	1 ^b
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	324	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	969	0	0
Ampicillin	KIDNEY	0.01	Not set	969	0	0
Cloxacillin	KIDNEY	0.1	Not set	969	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	0.06	969	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	2	969	0	0
Cefuroxime	KIDNEY	0.1	0.1	969	0	0
Cephalonium	KIDNEY	0.1	0.1	969	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	969	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	969	0	0
Tilmicosin	KIDNEY	0.2	1	969	0	0
Tylosin	KIDNEY	0.1	0.1	969	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

^a Traceback inconclusive. Residue source could not be confirmed.

^b Traceback inconclusive. Residue source could not be confirmed.



CATTLE (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Sulfonamides						
Sulfadiazine	KIDNEY	0.05	0.1	969	2	1 ^c
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	969	2	2 ^d
Sulfadoxine	KIDNEY	0.05	0.1	969	0	0
Sulfafurazole	KIDNEY	0.05	Not set	969	0	0
Sulfamerazine	KIDNEY	0.05	Not set	969	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	969	0	0
Sulfapyridine	KIDNEY	0.05	Not set	969	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	969	0	0
Sulfathiazole	KIDNEY	0.05	Not set	969	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	969	0	0
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	969	0	0
Doxycycline	KIDNEY	0.05	Not set	969	0	0
Oxytetracycline	KIDNEY	0.1	0.6	969	1	0
Tetracycline	KIDNEY	0.1	Not set	969	0	0
HORMONES						
Corticosteroids						
Betamethasone	LIVER	0.002	Not set	321	0	0
Dexamethasone	LIVER	0.002	0.1	321	0	0
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	FAECES	0.002	Not defined	56	2 ^e	n/a
Zearalanol (α) (zeranol)	LIVER	0.002	0.02	331	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	314	5 ^f	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	314	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	314	4 ^f	n/a
Boldenone (17- β)	URINE	0.001	Not defined	314	0	n/a
Methandriol	URINE	0.005	Not defined	314	0	n/a
Stanozolol	URINE	0.001	Not defined	314	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	314	0	n/a
Trenbolone	FAECES	0.002	Not defined	56	0	n/a
Trenbolone	LIVER	0.002	0.01	314	1	0
Stilbenes						
Dienoestrol	FAECES	0.000	Not defined	56	0	n/a
Dienoestrol	LIVER	0.000	Not set	331	0	0
Diethylstilboestrol	FAECES	0.000	Not defined	56	0	n/a
Diethylstilboestrol	LIVER	0.000	Not set	331	0	0
Hexoestrol	FAECES	0.000	Not defined	56	0	n/a
Hexoestrol	LIVER	0.000	Not set	331	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.

c Traceback inconclusive. Residue source could not be confirmed.

d In both instances the traceback was inconclusive.

e Residues consistent with exposure to naturally contaminated feed (see text).

f Residues consistent with endogenous hormone production.



CATTLE

CATTLE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
OTHER VETERINARY DRUGS						
<i>β-agonists</i>						
Cimaterol	URINE	0.001	Not defined	319	0	n/a
Clenbuterol	URINE	0.001	Not defined	319	0	n/a
Mabuterol	URINE	0.001	Not defined	319	0	n/a
Ractopamine	URINE	0.001	Not defined	319	0	n/a
Salbutamol	URINE	0.001	Not defined	319	0	n/a
<i>Non-steroidal anti-inflammatory drugs</i>						
Flunixin	LIVER	0.01	0.02	321	0	0
Ketoprofen	LIVER	0.02	0.05	321	0	0
Oxyphenbutazone	LIVER	0.05	Not set	320	0	0
Phenylbutazone	LIVER	0.05	Not set	321	0	0
Tolfenamic acid	LIVER	0.005	0.01	320	0	0
PESTICIDES						
<i>Benzoyl ureas</i>						
Chlorfluazuron	FAT	0.01	1	320	0	0
Diflubenzuron	FAT	0.01	Not set	320	0	0
Fluazuron	FAT	0.01	7	320	4	0
Triflumuron	FAT	0.01	0.05	320	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	FAT	0.02	0.2	1 110	4	0
Chlordane	FAT	0.02	0.2	1 110	0	0
DDT	FAT	0.1	5	1 110	2	0
Endosulfan	FAT	0.02	0.2	1 110	0	0
HCB	FAT	0.02	1	1 110	0	0
HCH	FAT	0.02	0.3	1 110	0	0
Heptachlor	FAT	0.02	0.2	1 110	1	0
Lindane [γ-HCH]	FAT	0.1	2	1 110	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	0.2	1 110	1	0
Chlorpyrifos	FAT	0.1	0.5	1 110	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	1 110	0	0
Coumaphos	FAT	0.2	1	1 110	0	0
Diazinon	FAT	0.1	0.7	1 110	1	0
Ethion	FAT	0.1	2.5	1 110	2	0
Famphur	FAT	0.02	0.05	1 110	0	0
Fenitrothion	FAT	0.02	0.05	1 110	0	0
Fenthion	FAT	0.05	1	1 110	3	0
Malathion	FAT	0.2	1	1 110	0	0
Phosmet	FAT	0.1	1	1 110	0	0
Temephos	FAT	0.1	5	1 110	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.

**CATTLE** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	1 110	0	0
Bioresmethrin	FAT	0.02	Not set	1 110	0	0
Cyfluthrin	FAT	0.02	0.5	1 110	0	0
Cyhalothrin	FAT	0.02	0.5	1 110	0	0
Cypermethrin	FAT	0.02	0.5	1 110	5	0
Deltamethrin	FAT	0.02	0.5	1 110	2	0
Fenvalerate	FAT	0.02	1	1 110	2	0
Flumethrin	FAT	0.02	0.2	1 110	0	0
Permethrin	FAT	0.02	1	1 110	1	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	1 110	0	0
Aroclor 1260	FAT	0.03	0.2	1 110	1	0
Metals						
Cadmium	LIVER	0.02	1.25	323	202	0
Lead	LIVER	0.02	0.5	323	74	2 ^g
Mercury	LIVER	0.01	No limit	323	17	n/a
Mycotoxins						
Zearalanol (β) (talaranol)	FAECES	0.002	No limit	56	1	n/a
Zearalanol (β) (talaranol)	LIVER	0.002	No limit	331	0	n/a
Zearalanone	FAECES	0.002	No limit	56	0	n/a
Zearalanone	LIVER	0.002	No limit	331	0	n/a
Zearalenol (α)	FAECES	0.002	No limit	56	35	n/a
Zearalenol (α)	LIVER	0.002	No limit	331	8	n/a
Zearalenol (β)	FAECES	0.002	No limit	56	42	n/a
Zearalenol (β)	LIVER	0.002	No limit	331	23	n/a
Zearalenone	FAECES	0.002	No limit	56	15	n/a
Zearalenone	LIVER	0.002	No limit	331	5	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

g Access to batteries and oil sump identified in one instance and in the other no source of contamination was discovered.



DEER

DEER						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	25	0	0
Doramectin	LIVER	0.005	Not set	25	0	0
Emamectin	LIVER	0.005	0.01	25	0	0
Eprinomectin	LIVER	0.005	2	25	0	0
Ivermectin	LIVER	0.005	0.01	25	0	0
Moxidectin	LIVER	0.005	0.2	25	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	25	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	25	0	0
Gentamycin	KIDNEY	0.1	Not set	25	0	0
Neomycin	KIDNEY	0.1	Not set	25	0	0
Streptomycin	KIDNEY	0.1	0.3	25	0	0
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	10	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	25	0	0
Ampicillin	KIDNEY	0.01	Not set	25	0	0
Cloxacillin	KIDNEY	0.1	Not set	25	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	0.06	25	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	25	0	0
Cefuroxime	KIDNEY	0.1	Not set	25	0	0
Cephalonium	KIDNEY	0.1	Not set	25	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	25	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	25	0	0
Tilmicosin	KIDNEY	0.2	Not set	25	0	0
Tylosin	KIDNEY	0.1	Not set	25	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	25	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	25	0	0
Sulfadoxine	KIDNEY	0.05	0.1	25	0	0
Sulfafurazole	KIDNEY	0.05	Not set	25	0	0
Sulfamerazine	KIDNEY	0.05	Not set	25	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	25	0	0
Sulfapyridine	KIDNEY	0.05	Not set	25	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	25	0	0
Sulfathiazole	KIDNEY	0.05	Not set	25	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	25	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

**DEER** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	25	0	0
Doxycycline	KIDNEY	0.05	Not set	25	0	0
Oxytetracycline	KIDNEY	0.1	Not set	25	0	0
Tetracycline	KIDNEY	0.1	Not set	25	0	0
HORMONES						
Resorcyclic acid lactones						
Zearalanol (α) [zeranol]	LIVER	0.002	Not set	5	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	5	0	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	5	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	5	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	5	0	n/a
Methandriol	URINE	0.005	Not defined	5	0	n/a
Stanozolol	URINE	0.001	Not defined	5	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	5	0	n/a
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	5	0	0
Diethylstilboestrol	LIVER	0.000	Not set	5	0	0
Hexoestrol	LIVER	0.000	Not set	5	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	5	0	n/a
Clenbuterol	URINE	0.001	Not defined	5	0	n/a
Mabuterol	URINE	0.001	Not defined	5	0	n/a
Ractopamine	URINE	0.001	Not defined	5	0	n/a
Salbutamol	URINE	0.001	Not defined	5	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	5	0	0
Ketoprofen	LIVER	0.02	Not set	5	0	0
Oxyphenbutazone	LIVER	0.05	Not set	5	0	0
Phenylbutazone	LIVER	0.05	Not set	5	0	0
Tolfenamic acid	LIVER	0.005	Not set	5	0	0
PESTICIDES						
Organochlorines						
Aldrin and dieldrin	FAT	0.02	0.2	25	0	0
Chlordane	FAT	0.02	0.2	25	0	0
DDT	FAT	0.1	5	25	0	0
Endosulfan	FAT	0.02	0.2	25	0	0
HCB	FAT	0.02	1	25	0	0
HCH	FAT	0.02	0.3	25	0	0
Heptachlor	FAT	0.02	0.2	25	0	0
Lindane [γ -HCH]	FAT	0.1	2	25	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.



DEER

DEER <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	0.2	25	0	0
Chlorpyrifos	FAT	0.1	0.5	25	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	25	0	0
Coumaphos	FAT	0.2	Not set	25	0	0
Diazinon	FAT	0.1	0.7	25	0	0
Ethion	FAT	0.1	Not set	25	0	0
Famphur	FAT	0.02	Not set	25	0	0
Fenitrothion	FAT	0.02	0.05	25	0	0
Fenthion	FAT	0.05	Not set	25	0	0
Malathion	FAT	0.2	1	25	0	0
Phosmet	FAT	0.1	Not set	25	0	0
Temephos	FAT	0.1	Not set	25	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	25	0	0
Bioresmethrin	FAT	0.02	Not set	25	0	0
Cyfluthrin	FAT	0.02	0.5	25	0	0
Cyhalothrin	FAT	0.02	0.5	25	0	0
Cypermethrin	FAT	0.02	0.5	25	0	0
Deltamethrin	FAT	0.02	Not set	25	0	0
Fenvalerate	FAT	0.02	1	25	0	0
Flumethrin	FAT	0.02	Not set	25	0	0
Permethrin	FAT	0.02	1	25	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	25	0	0
Aroclor 1260	FAT	0.03	0.2	25	0	0
Metals						
Cadmium	LIVER	0.02	No limit	10	6	n/a
Lead	LIVER	0.02	No limit	10	2	n/a
Mercury	LIVER	0.01	No limit	10	0	n/a
Mycotoxins						
Zearalenol (β) [taleralanol]	LIVER	0.002	No limit	5	0	n/a
Zearalanone	LIVER	0.002	No limit	5	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	5	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	5	0	n/a
Zearalenone	LIVER	0.002	No limit	5	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



GAME PIG						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	FAT	0.02	0.2	75	0	0
Chlordane	FAT	0.02	0.2	75	0	0
DDT	FAT	0.1	5	75	1	0
Endosulfan	FAT	0.02	0.2	75	0	0
HCB	FAT	0.02	1	75	0	0
HCH	FAT	0.02	0.3	75	0	0
Heptachlor	FAT	0.02	0.2	75	0	0
Lindane (γ -HCH)	FAT	0.1	2	75	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	75	0	0
Chlorpyrifos	FAT	0.1	0.5	75	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	75	0	0
Coumaphos	FAT	0.2	0.5	75	0	0
Diazinon	FAT	0.1	0.7	75	0	0
Ethion	FAT	0.1	Not set	75	0	0
Famphur	FAT	0.02	Not set	75	0	0
Fenitrothion	FAT	0.02	0.05	75	0	0
Fenthion	FAT	0.05	0.5	75	0	0
Malathion	FAT	0.2	1	75	0	0
Phosmet	FAT	0.1	0.1	75	0	0
Temphos	FAT	0.1	Not set	75	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	75	0	0
Bioresmethrin	FAT	0.02	Not set	75	0	0
Cyfluthrin	FAT	0.02	0.5	75	0	0
Cyhalothrin	FAT	0.02	0.5	75	0	0
Cypermethrin	FAT	0.02	0.05	75	0	0
Deltamethrin	FAT	0.02	0.1	75	0	0
Fenvalerate	FAT	0.02	1	75	0	0
Flumethrin	FAT	0.02	Not set	75	0	0
Permethrin	FAT	0.02	1	75	0	0
<i>Other</i>						
Sodium fluoroacetate (1080)	MUSCLE	0.05	Not set	20	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	FAT	0.03	0.2	75	0	0
Aroclor 1260	FAT	0.03	0.2	75	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	1.25	25	17	0
Lead	LIVER	0.02	0.5	25	18	0
Mercury	LIVER	0.01	No limit	25	1	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



GOAT

GOAT						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	100	0	0
Doramectin	LIVER	0.005	Not set	100	0	0
Emamectin	LIVER	0.005	0.01	100	0	0
Eprinomectin	LIVER	0.005	Not set	100	0	0
Ivermectin	LIVER	0.005	Not set	100	0	0
Moxidectin	LIVER	0.005	Not set	100	3	3 ^a
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	FAT	0.02	0.2	99	0	0
Chlordane	FAT	0.02	0.2	99	0	0
DDT	FAT	0.1	5	99	0	0
Endosulfan	FAT	0.02	0.2	99	0	0
HCB	FAT	0.02	1	99	0	0
HCH	FAT	0.02	0.3	99	0	0
Heptachlor	FAT	0.02	0.2	99	0	0
Lindane (γ-HCH)	FAT	0.1	2	99	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	0.2	99	0	0
Chlorpyrifos	FAT	0.1	0.5	99	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	99	0	0
Coumaphos	FAT	0.2	0.5	99	0	0
Diazinon	FAT	0.1	0.7	99	0	0
Ethion	FAT	0.1	Not set	99	0	0
Famphur	FAT	0.02	Not set	99	0	0
Fenitrothion	FAT	0.02	0.05	99	0	0
Fenthion	FAT	0.05	Not set	99	0	0
Malathion	FAT	0.2	1	99	0	0
Phosmet	FAT	0.1	0.05	99	0	0
Temephos	FAT	0.1	Not set	99	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	99	0	0
Bioresmethrin	FAT	0.02	Not set	99	0	0
Cyfluthrin	FAT	0.02	0.5	99	0	0
Cyhalothrin	FAT	0.02	0.5	99	0	0
Cypermethrin	FAT	0.02	0.5	99	0	0
Deltamethrin	FAT	0.02	0.2	99	0	0
Fenvalerate	FAT	0.02	1	99	0	0
Flumethrin	FAT	0.02	Not set	99	0	0
Permethrin	FAT	0.02	1	99	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

a All three residues reported were from animals in the one consignment. The individual animals could not be identified.



GOAT <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	FAT	0.03	0.2	99	0	0
Aroclor 1260	FAT	0.03	0.2	99	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	No limit	50	28	n/a
Lead	LIVER	0.02	No limit	50	13	n/a
Mercury	LIVER	0.01	No limit	50	1	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



HORSE

HORSE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	10	0	0
Doramectin	LIVER	0.005	Not set	10	0	0
Emamectin	LIVER	0.005	0.01	10	0	0
Eprinomectin	LIVER	0.005	Not set	10	0	0
Ivermectin	LIVER	0.005	0.01	10	0	0
Moxidectin	LIVER	0.005	Not set	10	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	40	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	40	0	0
Gentamycin	KIDNEY	0.1	Not set	40	0	0
Neomycin	KIDNEY	0.1	Not set	40	0	0
Streptomycin	KIDNEY	0.1	0.3	40	0	0
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	12	0	0
<i>β-lactams</i>						
Amoxycillin	KIDNEY	0.01	0.01	40	0	0
Ampicillin	KIDNEY	0.01	0.01	40	0	0
Cloxacillin	KIDNEY	0.1	Not set	40	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	0.06	40	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	40	0	0
Cefuroxime	KIDNEY	0.1	Not set	40	0	0
Cephalonium	KIDNEY	0.1	Not set	40	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	40	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	40	0	0
Tilmicosin	KIDNEY	0.2	Not set	40	0	0
Tylosin	KIDNEY	0.1	Not set	40	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	40	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	40	0	0
Sulfadoxine	KIDNEY	0.05	0.1	40	0	0
Sulfafurazole	KIDNEY	0.05	Not set	40	0	0
Sulfamerazine	KIDNEY	0.05	Not set	40	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	40	0	0
Sulfapyridine	KIDNEY	0.05	Not set	40	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	40	0	0
Sulfathiazole	KIDNEY	0.05	Not set	40	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	40	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



HORSE (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	40	0	0
Doxycycline	KIDNEY	0.05	Not set	40	0	0
Oxytetracycline	KIDNEY	0.1	Not set	40	0	0
Tetracycline	KIDNEY	0.1	Not set	40	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	10	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	10	0	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	10	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	10	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	10	0	n/a
Methandriol	URINE	0.005	Not defined	10	0	n/a
Stanozolol	URINE	0.001	Not defined	10	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	10	0	n/a
Trenbolone	LIVER	0.002	Not set	10	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	10	0	0
Diethylstilboestrol	LIVER	0.000	Not set	10	0	0
Hexoestrol	LIVER	0.000	Not set	10	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	10	0	n/a
Clenbuterol	URINE	0.001	Not defined	10	0	n/a
Mabuterol	URINE	0.001	Not defined	10	0	n/a
Ractopamine	URINE	0.001	Not defined	10	0	n/a
Salbutamol	URINE	0.001	Not defined	10	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	10	0	0
Ketoprofen	LIVER	0.02	Not set	10	0	0
Oxyphenbutazone	LIVER	0.05	Not set	9	0	0
Phenylbutazone	LIVER	0.05	Not set	10	0	0
Tolfenamic acid	LIVER	0.005	Not set	9	0	0
PESTICIDES						
Organochlorines						
Aldrin and dieldrin	FAT	0.02	0.2	19	0	0
Chlordane	FAT	0.02	0.2	19	0	0
DDT	FAT	0.1	5	19	0	0
Endosulfan	FAT	0.02	0.2	19	0	0
HCB	FAT	0.02	1	19	0	0
HCH	FAT	0.02	0.3	19	1	0
Heptachlor	FAT	0.02	0.2	19	0	0
Lindane [γ -HCH]	FAT	0.1	2	19	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.



HORSE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	Not set	19	0	0
Chlorpyrifos	FAT	0.1	0.5	19	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	19	0	0
Coumaphos	FAT	0.2	Not set	19	0	0
Diazinon	FAT	0.1	0.7	19	0	0
Ethion	FAT	0.1	Not set	19	0	0
Famphur	FAT	0.02	Not set	19	0	0
Fenitrothion	FAT	0.02	0.05	19	0	0
Fenthion	FAT	0.05	Not set	19	0	0
Malathion	FAT	0.2	1	19	0	0
Phosmet	FAT	0.1	Not set	19	0	0
Temephos	FAT	0.1	Not set	19	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	19	0	0
Bioresmethrin	FAT	0.02	Not set	19	0	0
Cyfluthrin	FAT	0.02	0.5	19	0	0
Cyhalothrin	FAT	0.02	0.5	19	0	0
Cypermethrin	FAT	0.02	0.05	19	0	0
Deltamethrin	FAT	0.02	Not set	19	0	0
Fenvalerate	FAT	0.02	1	19	0	0
Flumethrin	FAT	0.02	0.1	19	0	0
Permethrin	FAT	0.02	1	19	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	19	0	0
Aroclor 1260	FAT	0.03	0.2	19	0	0
Metals						
Cadmium	LIVER	0.02	No limit	20	20	n/a
Lead	LIVER	0.02	No limit	20	20	n/a
Mercury	LIVER	0.01	No limit	20	6	n/a
Mycotoxins						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	10	0	n/a
Zearalanone	LIVER	0.002	No limit	10	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	10	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	10	0	n/a
Zearalenone	LIVER	0.002	No limit	10	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



KANGAROO						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	FAT	0.02	0.2	75	0	0
Chlordane	FAT	0.02	0.2	75	0	0
DDT	FAT	0.1	5	75	1	0
Endosulfan	FAT	0.02	0.2	75	0	0
HCB	FAT	0.02	1	75	0	0
HCH	FAT	0.02	0.3	75	0	0
Heptachlor	FAT	0.02	0.2	75	0	0
Lindane (γ -HCH)	FAT	0.1	2	75	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	75	0	0
Chlorpyrifos	FAT	0.1	0.5	75	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	75	0	0
Coumaphos	FAT	0.2	Not set	75	0	0
Diazinon	FAT	0.1	0.7	75	0	0
Ethion	FAT	0.1	Not set	75	0	0
Famphur	FAT	0.02	Not set	75	0	0
Fenitrothion	FAT	0.02	0.05	75	0	0
Fenthion	FAT	0.05	Not set	75	0	0
Malathion	FAT	0.2	1	75	0	0
Phosmet	FAT	0.1	Not set	75	0	0
Temphos	FAT	0.1	Not set	75	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	75	0	0
Bioresmethrin	FAT	0.02	Not set	75	0	0
Cyfluthrin	FAT	0.02	0.5	75	0	0
Cyhalothrin	FAT	0.02	0.5	75	0	0
Cypermethrin	FAT	0.02	0.01	75	0	0
Deltamethrin	FAT	0.02	Not set	75	0	0
Fenvalerate	FAT	0.02	1	75	0	0
Flumethrin	FAT	0.02	Not set	75	0	0
Permethrin	FAT	0.02	1	75	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	FAT	0.03	0.2	75	0	0
Aroclor 1260	FAT	0.03	0.2	75	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	No limit	22	7	n/a
Lead	LIVER	0.02	No limit	22	19	n/a
Mercury	LIVER	0.01	No limit	22	1	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



PIG

PIG						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	0.02	291	0	0
Doramectin	LIVER	0.005	0.05	291	0	0
Emamectin	LIVER	0.005	0.01	291	0	0
Eprinomectin	LIVER	0.005	Not set	291	0	0
Ivermectin	LIVER	0.005	0.01	291	0	0
Moxidectin	LIVER	0.005	Not set	291	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	290	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	290	0	0
Gentamycin	KIDNEY	0.1	Not set	290	0	0
Neomycin	KIDNEY	0.1	10	290	1	0
Streptomycin	KIDNEY	0.1	0.3	290	0	0
<i>Antibiotics</i>						
Dimetridazole	MUSCLE	0.001	0.005	295	0	0
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	284	0	0
<i>β-lactams</i>						
Amoxycillin	KIDNEY	0.01	0.01	290	0	0
Ampicillin	KIDNEY	0.01	Not set	290	0	0
Cloxacillin	KIDNEY	0.1	Not set	290	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	0.06	290	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	290	0	0
Cefuroxime	KIDNEY	0.1	Not set	290	0	0
Cephalonium	KIDNEY	0.1	Not set	290	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	290	1	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	290	0	0
Tilmicosin	KIDNEY	0.2	1	290	0	0
Tylosin	KIDNEY	0.1	0.2	290	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	290	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	290	0	0
Sulfadoxine	KIDNEY	0.05	0.1	290	0	0
Sulfafurazole	KIDNEY	0.05	Not set	290	0	0
Sulfamerazine	KIDNEY	0.05	Not set	290	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	290	0	0
Sulfapyridine	KIDNEY	0.05	Not set	290	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	290	0	0
Sulfathiazole	KIDNEY	0.05	Not set	290	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	290	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



PIG

PIG (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	290	13	0
Doxycycline	KIDNEY	0.05	Not set	290	0	0
Oxytetracycline	KIDNEY	0.1	0.6	290	11	0
Tetracycline	KIDNEY	0.1	Not set	290	0	0
HORMONES						
Corticosteroids						
Betamethasone	LIVER	0.002	Not set	270	0	0
Dexamethasone	LIVER	0.002	0.1	270	0	0
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	291	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	291	0	0
Diethylstilboestrol	LIVER	0.000	Not set	291	0	0
Hexoestrol	LIVER	0.000	Not set	291	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	289	0	n/a
Clenbuterol	URINE	0.001	Not defined	289	0	n/a
Mabuterol	URINE	0.001	Not defined	289	0	n/a
Ractopamine	URINE	0.001	Not defined	289	93 ^a	n/a
Salbutamol	URINE	0.001	Not defined	289	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	289	0	0
Ketoprofen	LIVER	0.02	Not set	289	0	0
Oxyphenbutazone	LIVER	0.05	Not set	280	0	0
Phenylbutazone	LIVER	0.05	Not set	289	0	0
Tolfenamic acid	LIVER	0.005	0.1	280	0	0
PESTICIDES						
Organochlorines						
Aldrin and dieldrin	FAT	0.02	0.2	291	0	0
Chlordane	FAT	0.02	0.2	291	0	0
DDT	FAT	0.1	5	291	1	0
Endosulfan	FAT	0.02	0.2	291	0	0
HCB	FAT	0.02	1	291	0	0
HCH	FAT	0.02	0.3	291	0	0
Heptachlor	FAT	0.02	0.2	291	0	0
Lindane (γ -HCH)	FAT	0.1	2	291	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.

a Ractopamine registered for use in pigs (see text).



PIG

PIG (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	Not set	291	0	0
Chlorpyrifos	FAT	0.1	0.5	291	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	291	0	0
Coumaphos	FAT	0.2	0.5	291	0	0
Diazinon	FAT	0.1	0.7	291	0	0
Ethion	FAT	0.1	Not set	291	0	0
Famphur	FAT	0.02	Not set	291	0	0
Fenitrothion	FAT	0.02	0.05	291	0	0
Fenthion	FAT	0.05	0.5	291	0	0
Malathion	FAT	0.2	1	291	0	0
Phosmet	FAT	0.1	0.1	291	0	0
Temephos	FAT	0.1	Not set	291	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	291	0	0
Bioresmethrin	FAT	0.02	Not set	291	0	0
Cyfluthrin	FAT	0.02	0.5	291	0	0
Cyhalothrin	FAT	0.02	0.5	291	0	0
Cypermethrin	FAT	0.02	0.05	291	0	0
Deltamethrin	FAT	0.02	0.1	291	0	0
Fenvalerate	FAT	0.02	1	291	1	0
Flumethrin	FAT	0.02	Not set	291	0	0
Permethrin	FAT	0.02	1	291	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	291	0	0
Aroclor 1260	FAT	0.03	0.2	291	0	0
Metals						
Cadmium	LIVER	0.02	1.25	281	135	0
Lead	LIVER	0.02	0.5	281	23	1 ^b
Mercury	LIVER	0.01	No limit	281	45	n/a
Mycotoxins						
Zearalanol (β) [taleranol]	LIVER	0.002	No limit	291	0	n/a
Zearalanone	LIVER	0.002	No limit	291	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	291	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	291	1	n/a
Zearalenone	LIVER	0.002	No limit	291	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

b Piggery shed lined with iron sheets painted with lead based paint. Pigs isolated from shed.



POULTRY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	LIVER	0.5	1	305	0	0
Dihydrostreptomycin	LIVER	0.1	Not set	305	0	0
Gentamycin	LIVER	0.1	Not set	305	0	0
Neomycin	LIVER	0.1	0.5	305	0	0
Streptomycin	LIVER	0.1	Not set	305	0	0
<i>β-lactams</i>						
Amoxicillin	LIVER	0.01	0.01	305	0	0
Ampicillin	LIVER	0.01	Not set	305	0	0
Cloxacillin	LIVER	0.1	Not set	305	0	0
Penicillin G (benzylpenicillin)	LIVER	0.01	Not set	305	0	0
<i>Cephalosporins</i>						
Ceftiofur	LIVER	0.2	Not set	305	0	0
Cefuroxime	LIVER	0.1	Not set	305	0	0
Cephalonium	LIVER	0.1	Not set	305	0	0
<i>Lincosamides</i>						
Lincomycin	LIVER	0.05	0.1	305	0	0
<i>Macrolides</i>						
Erythromycin	LIVER	0.1	0.3	305	0	0
Tilmicosin	LIVER	0.2	Not set	305	0	0
Tylosin	LIVER	0.1	0.2	305	0	0
<i>Sulfonamides</i>						
Sulfadiazine	LIVER	0.05	0.1	305	0	0
Sulfadimidine (sulfamethazine)	LIVER	0.05	0.1	305	0	0
Sulfadoxine	LIVER	0.05	Not set	305	0	0
Sulfafurazole	LIVER	0.05	Not set	305	0	0
Sulfamerazine	LIVER	0.05	Not set	305	0	0
Sulfamethoxydiazine	LIVER	0.05	Not set	305	0	0
Sulfapyridine	LIVER	0.05	Not set	305	0	0
Sulfaquinoxaline	LIVER	0.05	0.1	305	0	0
Sulfathiazole	LIVER	0.05	Not set	305	0	0
Sulfatroxazole	LIVER	0.05	Not set	305	0	0
<i>Tetracyclines</i>						
Chlortetracycline	LIVER	0.05	0.6	305	0	0
Doxycycline	LIVER	0.05	Not set	305	0	0
Oxytetracycline	LIVER	0.1	0.6	305	0	0
Tetracycline	LIVER	0.1	Not set	305	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



POULTRY

POULTRY <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
HORMONES						
<i>Resorcylic acid lactones</i>						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	29	0	0
<i>Stilbenes</i>						
Dienoestrol	LIVER	0.000	Not set	29	0	0
Diethylstilboestrol	LIVER	0.000	Not set	29	0	0
Hexoestrol	LIVER	0.000	Not set	29	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Mycotoxins</i>						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	29	0	n/a
Zearalanone	LIVER	0.002	No limit	29	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	29	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	29	0	n/a
Zearalenone	LIVER	0.002	No limit	29	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



RATITE (OSTRICH)						
	Matrix	LOR mg/kg	AUST Std mg/kg	Number of analyses	Number of residues	Number > AUST Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	20	0	0
Doramectin	LIVER	0.005	Not set	20	0	0
Emamectin	LIVER	0.005	Not set	20	0	0
Eprinomectin	LIVER	0.005	Not set	20	0	0
Ivermectin	LIVER	0.005	Not set	20	0	0
Moxidectin	LIVER	0.005	Not set	20	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	1	17	0	0
Dihydrostreptomycin	KIDNEY	0.1	Not set	17	0	0
Gentamycin	KIDNEY	0.1	Not set	17	0	0
Neomycin	KIDNEY	0.1	10	17	0	0
Streptomycin	KIDNEY	0.1	Not set	17	0	0
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	10	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	17	0	0
Ampicillin	KIDNEY	0.01	Not set	17	0	0
Cloxacillin	KIDNEY	0.1	Not set	17	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	Not set	17	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	17	0	0
Cefuroxime	KIDNEY	0.1	Not set	17	0	0
Cephalonium	KIDNEY	0.1	Not set	17	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.1	17	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	17	0	0
Tilmicosin	KIDNEY	0.2	Not set	17	0	0
Tylosin	KIDNEY	0.1	0.2	17	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	17	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	17	0	0
Sulfadoxine	KIDNEY	0.05	Not set	17	0	0
Sulfafurazole	KIDNEY	0.05	Not set	17	0	0
Sulfamerazine	KIDNEY	0.05	Not set	17	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	17	0	0
Sulfapyridine	KIDNEY	0.05	Not set	17	0	0
Sulfaquinoxaline	KIDNEY	0.05	0.1	17	0	0
Sulfathiazole	KIDNEY	0.05	Not set	17	0	0
Sulfatroxazole	KIDNEY	0.05	Not set	17	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



RATITE (OSTRICH) (continued)						
	Matrix	LOR mg/kg	AUST Std mg/kg	Number of analyses	Number of residues	Number > AUST Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	17	0	0
Doxycycline	KIDNEY	0.05	Not set	17	0	0
Oxytetracycline	KIDNEY	0.1	0.6	17	0	0
Tetracycline	KIDNEY	0.1	Not set	17	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	5	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	5	0	0
Diethylstilboestrol	LIVER	0.000	Not set	5	0	0
Hexoestrol	LIVER	0.000	Not set	5	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	MUSCLE	0.001	Not set	10	0	0
Clenbuterol	MUSCLE	0.001	Not set	10	0	0
Mabuterol	MUSCLE	0.001	Not set	10	0	0
Ractopamine	MUSCLE	0.001	Not set	10	0	0
Salbutamol	MUSCLE	0.001	Not set	10	0	0
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	10	0	0
Ketoprofen	LIVER	0.02	Not set	10	0	0
Oxyphenbutazone	LIVER	0.05	Not set	10	0	0
Phenylbutazone	LIVER	0.05	Not set	10	0	0
Tolfenamic acid	LIVER	0.005	Not set	10	0	0
PESTICIDES						
Organochlorines						
Aldrin and dieldrin	FAT	0.02	0.2	22	0	0
Chlordane	FAT	0.02	Not set	22	0	0
DDT	FAT	0.1	5	22	3	0
Endosulfan	FAT	0.02	0.2	22	0	0
HCB	FAT	0.02	1	22	0	0
HCH	FAT	0.02	0.3	22	1	0
Heptachlor	FAT	0.02	0.2	22	0	0
Lindane (γ -HCH)	FAT	0.1	0.7	22	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



RATITE (OSTRICH) (continued)						
	Matrix	LOR mg/kg	AUST Std mg/kg	Number of analyses	Number of residues	Number > AUST Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	Not set	22	0	0
Chlorpyrifos	FAT	0.1	0.1	22	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	22	0	0
Coumaphos	FAT	0.2	1	22	0	0
Diazinon	FAT	0.1	0.05	22	0	0
Ethion	FAT	0.1	Not set	22	0	0
Famphur	FAT	0.02	Not set	22	0	0
Fenitrothion	FAT	0.02	0.05	22	0	0
Fenthion	FAT	0.05	0.05	22	0	0
Malathion	FAT	0.2	1	22	0	0
Phosmet	FAT	0.1	Not set	22	0	0
Temphos	FAT	0.1	Not set	22	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	0.05	22	0	0
Bioresmethrin	FAT	0.02	Not set	22	0	0
Cyfluthrin	FAT	0.02	0.01	22	0	0
Cyhalothrin	FAT	0.02	0.02	22	0	0
Cypermethrin	FAT	0.02	0.05	22	0	0
Deltamethrin	FAT	0.02	0.01	22	0	0
Fenvalerate	FAT	0.02	0.05	22	0	0
Flumethrin	FAT	0.02	Not set	22	0	0
Permethrin	FAT	0.02	0.1	22	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	22	0	0
Aroclor 1260	FAT	0.03	0.2	22	0	0
Metals						
Cadmium	LIVER	0.02	No limit	6	1	n/a
Lead	LIVER	0.02	0.5	6	5	0
Mercury	LIVER	0.01	No limit	6	1	n/a
Mycotoxins						
Zearalanol (β) (talcranol)	LIVER	0.002	No limit	5	0	n/a
Zearalanone	LIVER	0.002	No limit	5	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	5	1	n/a
Zearalenol (β)	LIVER	0.002	No limit	5	1	n/a
Zearalenone	LIVER	0.002	No limit	5	1	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



SHEEP

SHEEP						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Benzimidazoles</i>						
Triclabendazole	LIVER	0.1	2	200	0	0
<i>Imidazothiazoles</i>						
Levamisole	LIVER	0.02	1	200	3	0
Macrocyclic lactones						
Abamectin	LIVER	0.005	0.05	300	0	0
Doramectin	LIVER	0.005	0.05	300	0	0
Emamectin	LIVER	0.005	0.01	300	0	0
Eprinomectin	LIVER	0.005	Not set	300	0	0
Ivermectin	LIVER	0.005	0.015	300	0	0
Moxidectin	LIVER	0.005	0.05	300	5	0
<i>Salicylanilides</i>						
Closantel	LIVER	0.1	5	201	2	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	799	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	799	0	0
Gentamycin	KIDNEY	0.1	Not set	799	0	0
Neomycin	KIDNEY	0.1	10	799	0	0
Streptomycin	KIDNEY	0.1	0.3	799	0	0
<i>Antimicrobials</i>						
Chloramphenicol	MUSCLE	0.000	Not set	337	0	0
<i>β-Lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	799	0	0
Ampicillin	KIDNEY	0.01	Not set	799	0	0
Cloxacillin	KIDNEY	0.1	Not set	799	0	0
Penicillin G (benzylpenicillin)	KIDNEY	0.01	0.06	799	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	799	0	0
Cefuroxime	KIDNEY	0.1	Not set	799	0	0
Cephalonium	KIDNEY	0.1	Not set	799	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	Not set	799	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	799	0	0
Tilmicosin	KIDNEY	0.2	Not set	799	0	0
Tylosin	KIDNEY	0.1	Not set	799	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

**SHEEP** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Sulfonamides						
Sulfadiazine	KIDNEY	0.05	0.1	799	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	799	0	0
Sulfadoxine	KIDNEY	0.05	0.1	799	0	0
Sulfafurazole	KIDNEY	0.05	Not set	799	0	0
Sulfamerazine	KIDNEY	0.05	Not set	799	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	799	0	0
Sulfapyridine	KIDNEY	0.05	Not set	799	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	799	0	0
Sulfathiazole	KIDNEY	0.05	Not set	799	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	799	0	0
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	799	0	0
Doxycycline	KIDNEY	0.05	Not set	799	0	0
Oxytetracycline	KIDNEY	0.1	0.6	799	0	0
Tetracycline	KIDNEY	0.1	Not set	799	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	261	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	147	2 ^a	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	147	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	147	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	147	0	n/a
Methandriol	URINE	0.005	Not defined	147	0	n/a
Stanozolol	URINE	0.001	Not defined	147	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	147	0	n/a
Trenbolone	LIVER	0.002	Not set	136	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	261	0	0
Diethylstilboestrol	LIVER	0.000	Not set	261	0	0
Hexoestrol	LIVER	0.000	Not set	261	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	342	0	n/a
Clenbuterol	URINE	0.001	Not defined	342	0	n/a
Mabuterol	URINE	0.001	Not defined	342	0	n/a
Ractopamine	URINE	0.001	Not defined	342	0	n/a
Salbutamol	URINE	0.001	Not defined	342	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Not defined Standards not established in urine and faeces.

n/a Australian Standard does not apply. No limit set or defined.

a Residues consistent with endogenous hormone production.



SHEEP

SHEEP (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	297	0	0
Ketoprofen	LIVER	0.02	Not set	297	0	0
Oxyphenbutazone	LIVER	0.05	Not set	290	0	0
Phenylbutazone	LIVER	0.05	Not set	297	0	0
Tolfenamic acid	LIVER	0.005	Not set	290	0	0
PESTICIDES						
Amidines						
Cyromazine	KIDNEY	0.05	0.2	302	0	0
Dicyclanil	KIDNEY	0.05	0.3	302	0	0
Melamine	KIDNEY	0.05	Not set	302	0	0
Benzoyl ureas						
Chlorfluazuron	FAT	0.01	Not set	295	0	0
Diflubenzuron	FAT	0.01	0.05	295	1	0
Fluazuron	FAT	0.01	Not set	295	0	0
Triflumuron	FAT	0.01	2	295	8	0
Organochlorines						
Aldrin and dieldrin	FAT	0.02	0.2	714	1	0
Chlordane	FAT	0.02	0.2	714	0	0
DDT	FAT	0.1	5	714	4	0
Endosulfan	FAT	0.02	0.2	714	0	0
HCB	FAT	0.02	1	714	0	0
HCH	FAT	0.02	0.3	714	0	0
Heptachlor	FAT	0.02	0.2	714	0	0
Lindane (γ-HCH)	FAT	0.1	2	714	0	0
Organophosphates						
Chlorfenvinphos	FAT	0.05	0.2	714	0	0
Chlorpyrifos	FAT	0.1	0.5	714	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	714	0	0
Coumaphos	FAT	0.2	0.5	714	0	0
Diazinon	FAT	0.1	0.7	714	2	0
Ethion	FAT	0.1	Not set	714	0	0
Famphur	FAT	0.02	Not set	714	0	0
Fenitrothion	FAT	0.02	0.05	714	0	0
Fenthion	FAT	0.05	0.2	714	0	0
Malathion	FAT	0.2	1	714	0	0
Phosmet	FAT	0.1	0.05	714	0	0
Temephos	FAT	0.1	3	714	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

**SHEEP** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	714	0	0
Bioresmethrin	FAT	0.02	Not set	714	0	0
Cyfluthrin	FAT	0.02	0.5	714	0	0
Cyhalothrin	FAT	0.02	0.5	714	0	0
Cypermethrin	FAT	0.02	0.5	714	1	0
Deltamethrin	FAT	0.02	0.2	714	0	0
Fenvalerate	FAT	0.02	1	714	0	0
Flumethrin	FAT	0.02	Not set	714	0	0
Permethrin	FAT	0.02	1	714	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	FAT	0.03	0.2	714	0	0
Aroclor 1260	FAT	0.03	0.2	714	0	0
Metals						
Cadmium	LIVER	0.02	1.25	297	255	8 ^b
Lead	LIVER	0.02	0.5	297	154	1 ^c
Mercury	LIVER	0.01	No limit	297	26	n/a
Mycotoxins						
Zearalanol (β) (talaranol)	LIVER	0.002	No limit	261	0	n/a
Zearalanone	LIVER	0.002	No limit	261	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	261	2	n/a
Zearalenol (β)	LIVER	0.002	No limit	261	6	n/a
Zearalenone	LIVER	0.002	No limit	261	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

b Use of phosphorus fertilizers in the area believed to be the source of residue in one instance. The other seven instances were below the action level for traceback (see text).

c Traceback inconclusive. Residue source could not be confirmed.



Honey

During the reporting period 2005–2006, 75 honey samples were subject to 13 analyses. All samples analysed complied with Australian Standards. The results of the analyses are shown in the table below.

HONEY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Dihydrostreptomycin	WHOLE	0.2	Not set	75	0	0
Neomycin	WHOLE	0.2	Not set	75	0	0
Streptomycin	WHOLE	0.2	Not set	75	0	0
<i>Sulfonamides</i>						
Sulfadiazine	WHOLE	0.05	Not set	75	0	0
Sulfadimidine (sulfamethazine)	WHOLE	0.05	Not set	75	0	0
Sulfamerazine	WHOLE	0.05	Not set	75	0	0
<i>Tetracyclines</i>						
Chlortetracycline	WHOLE	0.05	Not set	75	0	0
Oxytetracycline	WHOLE	0.02	0.3	75	0	0
Tetracycline	WHOLE	0.05	Not set	75	0	0
MACRONUTRIENT METALS						
<i>Metals</i>						
Selenium	WHOLE	0.01	Not set	75	24	n/a
Zinc	WHOLE	0.05	Not set	75	75	n/a
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Aluminium	WHOLE	0.2	No limit	75	72	n/a
Lead	WHOLE	0.01	No limit	75	64	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



Egg

EGG

During 2005–2006, 75 egg samples were subject to 21 analyses. Two samples showed residue levels of anticoccidials above the Australian Standard and were found to be the result of a mix-up with feed. The results of the analyses are shown in the table below.

EGG						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTIBIOTICS						
Aminoglycosides						
Apramycin	WHOLE	0.5	Not set	25	0	0
Dihydrostreptomycin	WHOLE	0.1	Not set	25	0	0
Gentamycin	WHOLE	0.1	Not set	25	0	0
Neomycin	WHOLE	0.1	0.5	25	0	0
Streptomycin	WHOLE	0.1	Not set	25	0	0
<i>β</i>-lactams						
Amoxicillin	WHOLE	0.01	0.01	25	0	0
Ampicillin	WHOLE	0.01	Not set	25	0	0
Cloxacillin	WHOLE	0.1	Not set	25	0	0
Penicillin G (benzylpenicillin)	WHOLE	0.01	Not set	25	0	0
Cephalosporins						
Ceftiofur	WHOLE	0.2	Not set	25	0	0
Cefuroxime	WHOLE	0.1	Not set	25	0	0
Cephalonium	WHOLE	0.1	Not set	25	0	0
Lincosamides						
Lincomycin	WHOLE	0.05	0.2	25	0	0
Macrolides						
Erythromycin	WHOLE	0.1	Not set	25	0	0
Tilmicosin	WHOLE	0.2	Not set	25	0	0
Tylosin	WHOLE	0.1	0.2	25	0	0
Nitrofurans						
1-Aminohydantoin (AHD)	WHOLE	0.001	Not set	25	0	0
3-Amino-2-oxazolidinone (AOZ)	WHOLE	0.001	Not set	25	0	0
3-Amino-5-morpholinomethyl-1,3-oxazolidin-2-one	WHOLE	0.001	Not set	25	0	0
Semicarbazide (SEM)	WHOLE	0.001	Not set	25	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



EGG

EGG (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Sulfonamides						
Sulfadiazine	WHOLE	0.05	0.02	25	0	0
Sulfadimidine (sulfamethazine)	WHOLE	0.05	0.01	25	0	0
Sulfadoxine	WHOLE	0.05	Not set	25	0	0
Sulfafurazole	WHOLE	0.05	Not set	25	0	0
Sulfamerazine	WHOLE	0.05	Not set	25	0	0
Sulfamethoxydiazine	WHOLE	0.05	Not set	25	0	0
Sulfapyridine	WHOLE	0.05	Not set	25	0	0
Sulfaquinoxaline	WHOLE	0.05	0.01	25	0	0
Sulfathiazole	WHOLE	0.05	Not set	25	0	0
Sulfatroxazole	WHOLE	0.05	Not set	25	0	0
Tetracyclines						
Chlortetracycline	WHOLE	0.05	0.2	25	0	0
Doxycycline	WHOLE	0.05	Not set	25	0	0
Oxytetracycline	WHOLE	0.1	Not set	25	0	0
Tetracycline	WHOLE	0.1	Not set	25	0	0
ANTICOCCIDIALS						
Amprolium	WHOLE	0.03	4	25	0	0
Lasalocid	WHOLE	0.03	0.05	25	2	0
Monensin	WHOLE	0.03	Not set	25	0	0
Narasin	WHOLE	0.03	Not set	25	0	0
Nicarbazin	WHOLE	0.03	Not set	25	2	2 ^a
Salinomycin	WHOLE	0.03	0.02	25	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

a In both instances the residues were found to be the result of possible mix-up with feed.



Fish

The fish products (wildcaught) residue random monitoring projects were designed to meet AQIS export certification and EU requirements. Eight exported wildcaught seafood products (119 samples and 688 analytical results) from 17 species (as shown in the table below) were sampled and tested for persistent organic pollutants, including PCBs (Aroclors), environmental contaminants and heavy metals. Eight samples from the fish programme were analysed for dioxins and dioxin-like PCBs by Biodetection Systems in Holland using the DR CALUX[®] technique. Not all products were tested for all classes of chemicals.

The selected wildcaught species are representatives of molluscs, crustaceans and finfish that in turn represent various levels of the food chain. Selected species, which are reviewed and varied each year, are sampled from a wide range of biogeographical regions. The results of analyses provide long-term information that can be used to develop a residue profile of each area.

During 2005–2006 samples were collected from each taxonomic group as listed below.

GROUP	SPECIES	NUMBER OF SAMPLES
Molluscs		
Abalone	<i>Haliotis laevigata</i>	17
	<i>Haliotis rubra</i>	19
Scallop	<i>Amusium balotti</i>	5
	<i>Pecten fumatus</i>	2
Crustaceans		
Rock lobster	<i>Jasus edwardsii</i>	12
	<i>Jasus verreauxi</i>	4
	<i>Panulirus cygnus</i>	3
	<i>Panulirus ornatus</i>	5
Prawn	<i>Metapenaeus endeavouri</i>	1
	<i>Panaeus esculentus</i>	10
	<i>Panaeus latisulcatus</i>	5
	<i>Panaeus merguinsis</i>	2
	<i>Panaeus plepejus</i>	7
Finfish		
Blue grenadier	<i>Macruronus novaezelandiae</i>	4
Saddletail snapper	<i>Lutjanus malabaricus</i>	10
Swordfish	<i>Xiphias gladius</i>	6
Yellowfin tuna	<i>Thunnus albacares</i>	7
Total samples		119

All samples tested complied with Australian standards (MRLs or ML as applicable) except for scallop, swordfish and tuna. One of the seven scallop samples tested for inorganic arsenic was above the Australian standard (1 mg/kg). Four of the swordfish samples and two of the yellowfin tuna tested for total mercury and methyl-mercury were above the Australian standard (1 mg/kg). The results tables follow in alphabetical order by common name.



ABALONE

ABALONE

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
Metals						
Antimony	MUSCLE	0.01	No limit	17	0	n/a
Arsenic (inorganic)	MUSCLE	0.05	1	36	2	0
Cadmium	MUSCLE	0.01	2	17	16	0
Chromium	MUSCLE	0.05	No limit	17	10	n/a
Lead	MUSCLE	0.01	2	17	1	0

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



BLUE GRENADE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	MUSCLE	0.02	0.1	4	0	0
Chlordane	MUSCLE	0.02	0.05	4	0	0
DDT	MUSCLE	0.02	1	4	0	0
Endrin	MUSCLE	0.02	Not set	4	0	0
HCB	MUSCLE	0.02	0.1	4	0	0
Heptachlor	MUSCLE	0.02	0.05	4	0	0
Mirex	MUSCLE	0.05	Not set	4	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	MUSCLE	0.03	0.5	4	0	0
Aroclor 1260	MUSCLE	0.03	0.5	4	0	0
<i>Dioxins</i>						
Dioxins and PCBs	MUSCLE	0.00	No limit	2	2	n/a
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	2	0	n/a
Arsenic (inorganic)	MUSCLE	0.01	2	2	1	0
Cadmium	MUSCLE	0.01	No limit	2	0	n/a
Chromium	MUSCLE	0.05	No limit	2	0	n/a
Lead	MUSCLE	0.01	0.5	2	0	0
Mercury	MUSCLE	0.01	1	2	2	0
Methyl-mercury	MUSCLE	0.03	0.5	2	2	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



PRAWN

PRAWN						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
Metals						
Antimony	FLESH	0.01	No limit	25	0	n/a
Arsenic (inorganic)	FLESH	0.05	2	25	2	0
Cadmium	FLESH	0.01	No limit	25	25	n/a
Chromium	FLESH	0.05	No limit	25	0	n/a
Lead	FLESH	0.01	No limit	25	3	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



ROCK LOBSTER						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	FLESH	0.01	No limit	13	0	n/a
Arsenic (inorganic)	FLESH	0.05	2	24	6	0
Cadmium	FLESH	0.01	No limit	13	3	n/a
Chromium	FLESH	0.05	No limit	13	0	n/a
Lead	FLESH	0.01	No limit	13	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



SADDLETAIL SNAPPER

SADDLETAIL SNAPPER						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	MUSCLE	0.02	0.1	10	0	0
Chlordane	MUSCLE	0.02	0.05	10	0	0
DDT	MUSCLE	0.02	1	10	0	0
Endrin	MUSCLE	0.02	Not set	10	0	0
HCB	MUSCLE	0.02	0.1	10	0	0
Heptachlor	MUSCLE	0.02	0.05	10	0	0
Mirex	MUSCLE	0.05	Not set	10	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	MUSCLE	0.03	0.5	10	0	0
Aroclor 1260	MUSCLE	0.03	0.5	10	0	0
<i>Dioxins</i>						
Dioxins and PCBs	MUSCLE	0.000	No limit	2	1	n/a
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	5	0	n/a
Arsenic (inorganic)	MUSCLE	0.01	2	5	0	0
Cadmium	MUSCLE	0.01	No limit	5	0	n/a
Chromium	MUSCLE	0.05	No limit	5	1	n/a
Lead	MUSCLE	0.01	0.5	5	1	0
Mercury	MUSCLE	0.01	1	8	8	0
Methyl-mercury	MUSCLE	0.025	0.5	8	8	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



SCALLOP						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	3	0	n/a
Arsenic (inorganic)	MUSCLE	0.05	1	7	3	1 ^a
Cadmium	MUSCLE	0.01	2	3	3	0
Chromium	MUSCLE	0.05	No limit	3	1	n/a
Lead	MUSCLE	0.01	2	3	2	0

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*

n/a *Australian Standard does not apply. No limit set or defined.*

a *Results notified to relevant authorities.*



SWORDFISH

SWORDFISH						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	MUSCLE	0.02	0.1	6	0	0
Chlordane	MUSCLE	0.02	0.05	6	0	0
DDT	MUSCLE	0.02	1	6	1	0
Endrin	MUSCLE	0.02	Not set	6	0	0
HCB	MUSCLE	0.02	0.1	6	0	0
Heptachlor	MUSCLE	0.02	0.05	6	0	0
Mirex	MUSCLE	0.05	Not set	6	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	MUSCLE	0.03	0.5	6	0	0
Aroclor 1260	MUSCLE	0.03	0.5	6	0	0
<i>Dioxins</i>						
Dioxins and PCBs	MUSCLE	0.000	No limit	2	2	n/a
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	4	0	n/a
Arsenic (inorganic)	MUSCLE	0.01	2	3	1	0
Cadmium	MUSCLE	0.01	No limit	4	4	n/a
Chromium	MUSCLE	0.05	No limit	4	1	n/a
Lead	MUSCLE	0.01	0.5	4	1	0
Mercury	MUSCLE	0.01	1	6	6	4 ^a
Methyl-mercury	MUSCLE	0.025	1	6	6	3 ^a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

a Results notified to relevant authorities. Levels for both total mercury and methyl-mercury were above the ML (1 mg/kg) in samples that were tested for both forms of mercury.



YELLOWFIN TUNA						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	MUSCLE	0.02	0.1	6	0	0
Chlordane	MUSCLE	0.02	0.05	6	0	0
DDT	MUSCLE	0.02	1	6	0	0
Endrin	MUSCLE	0.02	Not set	6	0	0
HCB	MUSCLE	0.02	0.1	6	0	0
Heptachlor	MUSCLE	0.02	0.05	6	0	0
Mirex	MUSCLE	0.05	Not set	6	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	MUSCLE	0.03	0.5	6	0	0
Aroclor 1260	MUSCLE	0.03	0.5	6	0	0
<i>Dioxins</i>						
Dioxins and PCBs	MUSCLE	0.000	No limit	2	2	n/a
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	5	0	n/a
Arsenic (inorganic)	MUSCLE	0.01	2	5	0	0
Cadmium	MUSCLE	0.01	No limit	5	5	n/a
Chromium	MUSCLE	0.05	No limit	5	1	n/a
Lead	MUSCLE	0.01	0.5	5	0	0
Mercury	MUSCLE	0.01	1	7	7	2 ^a
Methyl-mercury	MUSCLE	0.025	1	7	7	2 ^a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.

a Results notified to relevant authorities. Levels for both total mercury and methyl-mercury were above the ML (1 mg/kg) in samples that were tested for both forms of mercury.

Plant product results

Grain

During 2005–2006, 4 241 samples of grain were collected from ten grain commodities as shown in the table below.

Commodity	Sample numbers	Commodity	Sample numbers
Wheat (grain)	2 528	Sorghum	136
Wheat (bran)	141	Lupin	89
Wheat (flour)	139	Field pea	40
Barley	902	Oat	68
Canola	190	Chickpea	8

The results tables for grain (in alphabetical order by commodity name) begin on page 110.

Pesticides

A range of pesticides is used either in-crop or for post-harvest grain protection. A multi-residue screen is used to detect residues of such chemicals registered for use in Australia, as well as some chemicals of concern to industry that are registered in overseas markets for use on grains. The principal groups of pesticides covered are organophosphate insecticides, synthetic pyrethroid insecticides, carbamate insecticides, insect growth regulators, other insecticides and some fungicides. The screen was conducted on all 4 241 samples.

All but four samples complied with Australian Food Standards. In the grain project there were no residue violations in the bulk export subproject, two violations in the milled products subproject and two violations in the domestic subproject.

No residue violations were found in any samples of barley, chickpeas, field peas and lupins.

There were two residue violations of the insecticide chlorpyrifos in wheat bran, one violation from cypermethrin residue in wheat and one residue violation from dichlorvos in wheat.

Only two milled grain samples (wheat bran) of the 423 randomly collected samples taken during the reporting period contained residues above the appropriate Australian Standard. The bran samples contained chlorpyrifos residues of 0.11 and 0.36 mg/kg compared with the MRL of 0.1 mg/kg. The corresponding wheat and flour samples did not contain residues in excess of the MRL. The traceback investigation was inconclusive as more than 100 growers supplied grain to the flour mill involved.

The violative residue of cypermethrin in wheat of 0.54 mg/kg (corresponding MRL is 0.2 mg/kg) is still undergoing traceback. However the mill reported that that seed (pickled) grains could be seen in the larger sample from which the NRS sub-sample was taken.

Dichlorvos residues of 576 mg/kg were detected in wheat (MRL is 5.0 mg/kg). The traceback investigation could not explain how this gross violation occurred. The investigation officer interviewed all parties and examined the relevant documentation. Traceback data indicated that the chemical was applied at the correct rate and in accordance with the label. By implication, it would appear that the violation occurred through misapplication or lack of adherence to instructions on the label. However, investigations failed to reveal the place or timing of the misapplication.

Fumigants

During the reporting period, 97 grain samples were selected at random by the multi-residue screen testing laboratory and forwarded to the phosphine testing laboratory, to determine total phosphine residues. Where residues were detected equal to or above 0.002 mg/kg, the original sample underwent further analysis to determine the component of the residue due to unreacted phosphide and/or absorbed phosphine. There were no detections or contraventions above 20% of the MRL.

Organochlorines

This test covers a range of chemicals that were once widely used in agriculture and are known to persist in the environment. In addition to detecting these older organochlorine pesticides, the test method also covers endosulfan, a relatively non-persistent organochlorine registered for broadacre agricultural uses.

There were no detections of organochlorines in any grain sample tested.

Environmental contaminants

Tests for a range of environmental metal contaminants were conducted on 159 samples. There were no detections of environmental contaminants in any grain sample tested



BARLEY

BARLEY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	905	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	905	3	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	18	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.2	905	1	0
Iprodione	WHOLE	0.01	Not set	905	0	0
Tebuconazole	WHOLE	0.05	0.2	905	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	905	70	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	74	0	0
Chlordane	WHOLE	0.01	0.02	74	0	0
DDT	WHOLE	0.01	0.1	74	0	0
Endosulfan	WHOLE	0.02	0.2	74	0	0
Endrin	WHOLE	0.01	Not set	74	0	0
HCB	WHOLE	0.01	0.05	74	0	0
HCH	WHOLE	0.01	0.1	74	0	0
Heptachlor	WHOLE	0.01	0.02	74	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	74	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	905	0	0
Chlorpyrifos	WHOLE	0.01	0.1	905	1	0
Chlorpyrifos-methyl	WHOLE	0.1	10	905	9	0
Diazinon	WHOLE	0.01	0.1	905	0	0
Dichlorvos	WHOLE	0.1	5	905	20	0
Fenitrothion	WHOLE	0.1	10	905	153	0
Malathion	WHOLE	0.1	8	905	0	0
Pirimiphos-methyl	WHOLE	0.1	7	905	2	0
Profenofos	WHOLE	0.01	Not set	905	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	905	0	0
Bioresmethrin	WHOLE	0.1	Not set	905	0	0
Cyfluthrin	WHOLE	0.1	2	905	0	0
Cypermethrin	WHOLE	0.01	1	905	37	0
Deltamethrin	WHOLE	0.1	2	905	0	0
Fenvalerate	WHOLE	0.1	2	905	0	0
Permethrin	WHOLE	0.1	2	905	0	0
Phenothrin	WHOLE	0.1	Not set	905	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



BARLEY <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Other						
Fipronil	WHOLE	0.005	Not set	905	0	0
PHYSIOLOGICAL MODIFIERS						
Synergists						
Piperonyl butoxide	WHOLE	1	20	905	0	0
Chlorinated biphenyls						
Aroclor 1254	WHOLE	0.05	No limit	74	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	74	0	n/a
Metals						
Cadmium	WHOLE	0.01	No limit	33	12	n/a
Lead	WHOLE	0.01	0.2	33	12	0
Mercury	WHOLE	0.01	No limit	33	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



CANOLA						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	190	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	Not set	190	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	9	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	190	0	0
Iprodione	WHOLE	0.01	0.5	190	1	0
Tebuconazole	WHOLE	0.05	Not set	190	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	190	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	23	0	0
Chlordane	WHOLE	0.01	Not set	23	0	0
DDT	WHOLE	0.01	Not set	23	0	0
Endosulfan	WHOLE	0.02	1	23	0	0
Endrin	WHOLE	0.01	Not set	23	0	0
HCB	WHOLE	0.01	Not set	23	0	0
HCH	WHOLE	0.01	Not set	23	0	0
Heptachlor	WHOLE	0.01	Not set	23	0	0
Lindane [γ -HCH]	WHOLE	0.02	0.05	23	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	190	0	0
Chlorpyrifos	WHOLE	0.01	0.05	190	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	190	0	0
Diazinon	WHOLE	0.01	Not set	190	0	0
Dichlorvos	WHOLE	0.1	0.1	190	0	0
Fenitrothion	WHOLE	0.1	Not set	190	0	0
Malathion	WHOLE	0.1	Not set	190	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	190	0	0
Profenofos	WHOLE	0.01	Not set	190	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	190	0	0
Bioresmethrin	WHOLE	0.1	Not set	190	0	0
Cyfluthrin	WHOLE	0.1	0.05	190	0	0
Cypermethrin	WHOLE	0.01	0.2	190	13	0
Deltamethrin	WHOLE	0.1	0.1	190	0	0
Fenvalerate	WHOLE	0.1	0.5	190	0	0
Permethrin	WHOLE	0.1	0.2	190	0	0
Phenothrin	WHOLE	0.1	Not set	190	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



CANOLA <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Other						
Fipronil	WHOLE	0.005	0.01	190	0	0
PHYSIOLOGICAL MODIFIERS						
Synergists						
Piperonyl butoxide	WHOLE	1	8	190	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	WHOLE	0.05	No limit	23	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	23	0	n/a
Metals						
Cadmium	WHOLE	0.01	No limit	7	7	n/a
Lead	WHOLE	0.01	No limit	7	4	n/a
Mercury	WHOLE	0.01	No limit	7	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



CHICKPEA						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	0.2	8	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	Not set	8	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	1	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	8	0	0
Iprodione	WHOLE	0.01	Not set	8	0	0
Tebuconazole	WHOLE	0.05	Not set	8	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	8	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	3	0	0
Chlordane	WHOLE	0.01	Not set	3	0	0
DDT	WHOLE	0.01	Not set	3	0	0
Endosulfan	WHOLE	0.02	1	3	0	0
Endrin	WHOLE	0.01	Not set	3	0	0
HCB	WHOLE	0.01	Not set	3	0	0
HCH	WHOLE	0.01	Not set	3	0	0
Heptachlor	WHOLE	0.01	Not set	3	0	0
Lindane (γ -HCH)	WHOLE	0.02	Not set	3	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	8	0	0
Chlorpyrifos	WHOLE	0.01	Not set	8	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	8	0	0
Diazinon	WHOLE	0.01	Not set	8	0	0
Dichlorvos	WHOLE	0.1	Not set	8	0	0
Fenitrothion	WHOLE	0.1	Not set	8	0	0
Malathion	WHOLE	0.1	Not set	8	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	8	0	0
Profenofos	WHOLE	0.01	Not set	8	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	8	0	0
Bioresmethrin	WHOLE	0.1	Not set	8	0	0
Cyfluthrin	WHOLE	0.1	0.5	8	0	0
Cypermethrin	WHOLE	0.01	0.2	8	0	0
Deltamethrin	WHOLE	0.1	0.1	8	0	0
Fenvalerate	WHOLE	0.1	0.5	8	0	0
Permethrin	WHOLE	0.1	Not set	8	0	0
Phenothrin	WHOLE	0.1	Not set	8	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



CHICKPEA <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Other						
Fipronil	WHOLE	0.005	Not set	8	0	0
PHYSIOLOGICAL MODIFIERS						
Synergists						
Piperonyl butoxide	WHOLE	1	Not set	8	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	WHOLE	0.05	No limit	3	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	3	0	n/a
Metals						
Cadmium	WHOLE	0.01	No limit	1	1	n/a
Lead	WHOLE	0.01	0.2	1	0	0
Mercury	WHOLE	0.01	No limit	1	0	n/a
<i>Not set</i>	<i>No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.</i>					
<i>No limit</i>	<i>No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.</i>					
<i>n/a</i>	<i>Australian Standard does not apply. No limit set or defined.</i>					



FIELD PEA

FIELD PEA						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	40	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	Not set	40	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	8	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	40	0	0
Iprodione	WHOLE	0.01	Not set	40	0	0
Tebuconazole	WHOLE	0.05	Not set	40	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	40	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	20	0	0
Chlordane	WHOLE	0.01	Not set	20	0	0
DDT	WHOLE	0.01	Not set	20	0	0
Endosulfan	WHOLE	0.02	1	20	0	0
Endrin	WHOLE	0.01	Not set	20	0	0
HCB	WHOLE	0.01	Not set	20	0	0
HCH	WHOLE	0.01	Not set	20	0	0
Heptachlor	WHOLE	0.01	Not set	20	0	0
Lindane (γ -HCH)	WHOLE	0.02	Not set	20	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	40	0	0
Chlorpyrifos	WHOLE	0.01	Not set	40	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	40	0	0
Diazinon	WHOLE	0.01	Not set	40	0	0
Dichlorvos	WHOLE	0.1	Not set	40	0	0
Fenitrothion	WHOLE	0.1	Not set	40	0	0
Malathion	WHOLE	0.1	Not set	40	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	40	0	0
Profenofos	WHOLE	0.01	Not set	40	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.01	40	0	0
Bioresmethrin	WHOLE	0.1	Not set	40	0	0
Cyfluthrin	WHOLE	0.1	0.5	40	0	0
Cypermethrin	WHOLE	0.01	0.05	40	0	0
Deltamethrin	WHOLE	0.1	0.1	40	0	0
Fenvalerate	WHOLE	0.1	0.5	40	0	0
Permethrin	WHOLE	0.1	Not set	40	0	0
Phenothrin	WHOLE	0.1	Not set	40	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



FIELD PEA <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Other						
Fipronil	WHOLE	0.005	Not set	40	0	0
PHYSIOLOGICAL MODIFIERS						
Synergists						
Piperonyl butoxide	WHOLE	1	Not set	40	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	WHOLE	0.05	No limit	20	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	20	0	n/a
METALS						
Cadmium	WHOLE	0.01	No limit	2	2	n/a
Lead	WHOLE	0.01	0.2	2	0	0
Mercury	WHOLE	0.01	No limit	2	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



LUPIN						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	89	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	Not set	89	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	6	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	89	0	0
Iprodione	WHOLE	0.01	0.1	89	1	0
Tebuconazole	WHOLE	0.05	Not set	89	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	89	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	23	0	0
Chlordane	WHOLE	0.01	Not set	23	0	0
DDT	WHOLE	0.01	Not set	23	0	0
Endosulfan	WHOLE	0.02	1	23	0	0
Endrin	WHOLE	0.01	Not set	23	0	0
HCB	WHOLE	0.01	Not set	23	0	0
HCH	WHOLE	0.01	Not set	23	0	0
Heptachlor	WHOLE	0.01	Not set	23	0	0
Lindane [γ -HCH]	WHOLE	0.02	Not set	23	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	89	0	0
Chlorpyrifos	WHOLE	0.01	Not set	89	0	0
Chlorpyrifos-methyl	WHOLE	0.1	10	89	0	0
Diazinon	WHOLE	0.01	Not set	89	0	0
Dichlorvos	WHOLE	0.1	Not set	89	0	0
Fenitrothion	WHOLE	0.1	Not set	89	0	0
Malathion	WHOLE	0.1	Not set	89	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	89	0	0
Profenofos	WHOLE	0.01	Not set	89	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	89	0	0
Bioresmethrin	WHOLE	0.1	Not set	89	0	0
Cyfluthrin	WHOLE	0.1	0.5	89	0	0
Cypermethrin	WHOLE	0.01	0.01	89	0	0
Deltamethrin	WHOLE	0.1	0.1	89	0	0
Fenvalerate	WHOLE	0.1	0.5	89	0	0
Permethrin	WHOLE	0.1	0.1	89	0	0
Phenothrin	WHOLE	0.1	Not set	89	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



LUPIN <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Other						
Fipronil	WHOLE	0.005	Not set	89	0	0
PHYSIOLOGICAL MODIFIERS						
Synergists						
Piperonyl butoxide	WHOLE	1	Not set	89	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
Aroclor 1254	WHOLE	0.05	No limit	23	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	23	0	n/a
Metals						
Cadmium	WHOLE	0.01	No limit	3	3	n/a
Lead	WHOLE	0.01	0.2	3	0	0
Mercury	WHOLE	0.01	No limit	3	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



OAT

OAT						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	68	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	68	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	6	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	68	0	0
Iprodione	WHOLE	0.01	Not set	68	0	0
Tebuconazole	WHOLE	0.05	0.2	68	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	68	10	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	17	0	0
Chlordane	WHOLE	0.01	0.02	17	0	0
DDT	WHOLE	0.01	0.1	17	0	0
Endosulfan	WHOLE	0.02	0.2	17	0	0
Endrin	WHOLE	0.01	Not set	17	0	0
HCB	WHOLE	0.01	0.05	17	0	0
HCH	WHOLE	0.01	0.1	17	0	0
Heptachlor	WHOLE	0.01	0.02	17	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	17	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	68	0	0
Chlorpyrifos	WHOLE	0.01	0.1	68	0	0
Chlorpyrifos-methyl	WHOLE	0.1	10	68	0	0
Diazinon	WHOLE	0.01	0.1	68	0	0
Dichlorvos	WHOLE	0.1	5	68	3	0
Fenitrothion	WHOLE	0.1	10	68	13	0
Malathion	WHOLE	0.1	8	68	0	0
Pirimiphos-methyl	WHOLE	0.1	7	68	0	0
Profenofos	WHOLE	0.01	Not set	68	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	68	0	0
Bioresmethrin	WHOLE	0.1	Not set	68	0	0
Cyfluthrin	WHOLE	0.1	2	68	0	0
Cypermethrin	WHOLE	0.01	1	68	3	0
Deltamethrin	WHOLE	0.1	2	68	0	0
Fenvalerate	WHOLE	0.1	2	68	0	0
Permethrin	WHOLE	0.1	2	68	0	0
Phenothrin	WHOLE	0.1	Not set	68	0	0
<i>Other</i>						
Fipronil	WHOLE	0.005	Not set	68	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



OAT

OAT <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	68	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	WHOLE	0.05	No limit	17	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	17	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	2	0	n/a
Lead	WHOLE	0.01	0.2	2	1	0
Mercury	WHOLE	0.01	No limit	2	0	n/a
<i>No limit</i>	<i>No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.</i>					
<i>n/a</i>	<i>Australian Standard does not apply. No limit set or defined.</i>					



SORGHUM						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	136	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	136	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	7	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	136	0	0
Iprodione	WHOLE	0.01	Not set	136	0	0
Tebuconazole	WHOLE	0.05	0.2	136	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	136	27	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	32	0	0
Chlordane	WHOLE	0.01	0.02	32	0	0
DDT	WHOLE	0.01	0.1	32	0	0
Endosulfan	WHOLE	0.02	0.2	32	0	0
Endrin	WHOLE	0.01	Not set	32	0	0
HCB	WHOLE	0.01	0.05	32	0	0
HCH	WHOLE	0.01	0.1	32	0	0
Heptachlor	WHOLE	0.01	0.02	32	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	32	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	136	0	0
Chlorpyrifos	WHOLE	0.01	3	136	4	0
Chlorpyrifos-methyl	WHOLE	0.1	10	136	15	0
Diazinon	WHOLE	0.01	0.1	136	0	0
Dichlorvos	WHOLE	0.1	5	136	6	0
Fenitrothion	WHOLE	0.1	10	136	12	0
Malathion	WHOLE	0.1	8	136	0	0
Pirimiphos-methyl	WHOLE	0.1	10	136	6	0
Profenofos	WHOLE	0.01	Not set	136	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	136	1	0
Bioresmethrin	WHOLE	0.1	Not set	136	0	0
Cyfluthrin	WHOLE	0.1	5	136	0	0
Cypermethrin	WHOLE	0.01	1	136	1	0
Deltamethrin	WHOLE	0.1	2	136	0	0
Fenvalerate	WHOLE	0.1	2	136	0	0
Permethrin	WHOLE	0.1	2	136	0	0
Phenothrin	WHOLE	0.1	Not set	136	0	0
<i>Other</i>						
Fipronil	WHOLE	0.005	0.01	136	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

**SORGHUM** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	136	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	WHOLE	0.05	No limit	32	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	32	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	3	1	n/a
Lead	WHOLE	0.01	0.2	3	1	0
Mercury	WHOLE	0.01	No limit	3	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



WHEAT (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	2 537	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	2 537	0	0
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	48	1	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	2 537	0	0
Iprodione	WHOLE	0.01	Not set	2 537	0	0
Tebuconazole	WHOLE	0.05	0.2	2 537	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	2 537	183	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	186	0	0
Chlordane	WHOLE	0.01	0.02	186	0	0
DDT	WHOLE	0.01	0.1	186	0	0
Endosulfan	WHOLE	0.02	0.2	186	0	0
Endrin	WHOLE	0.01	Not set	186	0	0
HCB	WHOLE	0.01	0.05	186	0	0
HCH	WHOLE	0.01	0.1	186	0	0
Heptachlor	WHOLE	0.01	0.02	186	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	186	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	2 537	0	0
Chlorpyrifos	WHOLE	0.01	0.1	2 537	34	0
Chlorpyrifos-methyl	WHOLE	0.1	10	2 537	294	0
Diazinon	WHOLE	0.01	0.1	2 537	0	0
Dichlorvos	WHOLE	0.1	5	2 537	56	1
Fenitrothion	WHOLE	0.1	10	2 537	174	0
Malathion	WHOLE	0.1	8	2 537	0	0
Pirimiphos-methyl	WHOLE	0.1	10	2 537	7	0
Profenofos	WHOLE	0.01	Not set	2 537	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	2 537	0	0
Bioresmethrin	WHOLE	0.1	Not set	2 537	0	0
Cyfluthrin	WHOLE	0.1	2	2 537	0	0
Cypermethrin	WHOLE	0.01	0.2	2 537	1	1
Deltamethrin	WHOLE	0.1	2	2 537	5	0
Fenvalerate	WHOLE	0.1	2	2 537	0	0
Permethrin	WHOLE	0.1	2	2 537	1	0
Phenothrin	WHOLE	0.1	2	2 537	0	0
<i>Other</i>						
Fipronil	WHOLE	0.005	Not set	2 537	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



WHEAT (GRAIN) <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	2 537	6	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	WHOLE	0.05	No limit	186	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	186	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	0.1	110	89	0
Lead	WHOLE	0.01	0.2	110	27	0
Mercury	WHOLE	0.01	No limit	110	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



WHEAT (BRAN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	141	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	20	141	1	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	141	0	0
Iprodione	WHOLE	0.01	Not set	141	0	0
Tebuconazole	WHOLE	0.05	0.2	141	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	5	141	69	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	8	0	0
Chlordane	WHOLE	0.01	0.02	8	0	0
DDT	WHOLE	0.01	0.1	8	0	0
Endosulfan	WHOLE	0.02	0.2	8	0	0
Endrin	WHOLE	0.01	Not set	8	0	0
HCB	WHOLE	0.01	0.05	8	0	0
HCH	WHOLE	0.01	0.1	8	0	0
Heptachlor	WHOLE	0.01	0.02	8	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	8	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.5	141	0	0
Chlorpyrifos	WHOLE	0.01	0.1	141	28	2
Chlorpyrifos-methyl	WHOLE	0.1	20	141	65	0
Diazinon	WHOLE	0.01	0.1	141	1	0
Dichlorvos	WHOLE	0.1	10	141	8	0
Fenitrothion	WHOLE	0.1	20	141	47	0
Malathion	WHOLE	0.1	20	141	0	0
Pirimiphos-methyl	WHOLE	0.1	20	141	7	0
Profenofos	WHOLE	0.01	Not set	141	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	141	0	0
Bioresmethrin	WHOLE	0.1	Not set	141	0	0
Cyfluthrin	WHOLE	0.1	5	141	0	0
Cypermethrin	WHOLE	0.01	0.2	141	0	0
Deltamethrin	WHOLE	0.1	5	141	0	0
Fenvalerate	WHOLE	0.1	5	141	0	0
Permethrin	WHOLE	0.1	5	141	0	0
Phenothrin	WHOLE	0.1	5	141	0	0
<i>Other</i>						
Fipronil	WHOLE	0.005	Not set	141	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



WHEAT (BRAN) (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	40	141	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	WHOLE	0.05	No limit	8	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	8	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*



WHEAT (FLOUR)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Indoxacarb	WHOLE	0.01	Not set	139	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	139	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	139	0	0
Iprodione	WHOLE	0.01	Not set	139	0	0
Tebuconazole	WHOLE	0.05	0.2	139	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	139	23	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	8	0	0
Chlordane	WHOLE	0.01	0.02	8	0	0
DDT	WHOLE	0.01	0.1	8	0	0
Endosulfan	WHOLE	0.02	0.2	8	0	0
Endrin	WHOLE	0.01	Not set	8	0	0
HCB	WHOLE	0.01	0.05	8	0	0
HCH	WHOLE	0.01	0.1	8	0	0
Heptachlor	WHOLE	0.01	0.02	8	0	0
Lindane (γ -HCH)	WHOLE	0.02	0.5	8	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	139	0	0
Chlorpyrifos	WHOLE	0.01	0.1	139	2	0
Chlorpyrifos-methyl	WHOLE	0.1	10	139	38	0
Diazinon	WHOLE	0.01	0.1	139	0	0
Dichlorvos	WHOLE	0.1	5	139	0	0
Fenitrothion	WHOLE	0.1	10	139	16	0
Malathion	WHOLE	0.1	8	139	0	0
Pirimiphos-methyl	WHOLE	0.1	10	139	2	0
Profenofos	WHOLE	0.01	Not set	139	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	139	0	0
Bioresmethrin	WHOLE	0.1	Not set	139	0	0
Cyfluthrin	WHOLE	0.1	2	139	0	0
Cypermethrin	WHOLE	0.01	0.2	139	0	0
Deltamethrin	WHOLE	0.1	2	139	0	0
Fenvalerate	WHOLE	0.1	2	139	0	0
Permethrin	WHOLE	0.1	2	139	0	0
Phenothrin	WHOLE	0.1	2	139	0	0
<i>Other</i>						
Fipronil	WHOLE	0.005	Not set	139	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



WHEAT (FLOUR)

WHEAT (FLOUR) (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	139	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
Aroclor 1254	WHOLE	0.05	No limit	8	0	n/a
Aroclor 1260	WHOLE	0.05	No limit	8	0	n/a

No limit *No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.*
n/a *Australian Standard does not apply. No limit set or defined.*

Horticulture

The numbers of horticulture samples collected during 2005–2006 are shown in the following table.

Commodity	Number of samples
Apple and pear	318
Macadamia nut	120
Onion	94
Blueberry	30
Total	562

Results tables for horticultural products (in alphabetical order by commodity name) are shown on the tables that begin on page 135.

Residues of a number of crop protection chemicals were detected in apples, blueberries and pears. All were below relevant Australian Standards.



APPLE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Chlorfenapyr	WHOLE	0.1	0.5	250	1	0
Fenpyroximate	WHOLE	0.05	0.3	250	0	0
Indoxacarb	WHOLE	0.1	2	250	0	0
Propargite	WHOLE	0.1	3	250	42	0
Tebufenozide	WHOLE	0.1	1	250	0	0
Tebufenpyrad	WHOLE	0.05	1	250	3	0
<i>Benzimidazoles</i>						
Thiabendazole	WHOLE	0.2	10	250	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	250	3	0
Fenoxycarb	WHOLE	0.1	2	250	2	0
Pirimicarb	WHOLE	0.1	0.5	250	0	0
<i>Fungicides</i>						
Captan	WHOLE	0.05	10	250	2	0
Carbendazim	WHOLE	0.2	5	250	75	0
Difenoconazole	WHOLE	0.05	0.3	250	0	0
Dithiocarbamates	WHOLE	0.2	3	250	38	0
Fenarimol	WHOLE	0.05	0.2	250	0	0
Hexaconazole	WHOLE	0.02	0.1	250	0	0
Imazalil	WHOLE	0.1	5	250	9	0
Iprodione	WHOLE	0.1	3	250	99	0
Procymidone	WHOLE	0.1	1	250	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.05	250	0	0
DDT	WHOLE	0.05	1	250	0	0
Dicofol	WHOLE	0.05	5	250	0	0
Endosulfan	WHOLE	0.05	2	250	0	0
Heptachlor	WHOLE	0.05	Not set	250	0	0
Lindane (γ-HCH)	WHOLE	0.05	2	250	0	0
<i>Organophosphates</i>						
Azinphos-methyl	WHOLE	0.05	2	250	19	0
Chlorpyrifos	WHOLE	0.05	0.5	250	31	0
Diazinon	WHOLE	0.05	0.5	250	0	0
Dimethoate	WHOLE	0.05	5	250	8	0
Fenitrothion	WHOLE	0.05	0.5	250	0	0
Fenthion	WHOLE	0.05	2	250	2	0
Malathion	WHOLE	0.05	2	250	0	0
Methidathion	WHOLE	0.05	0.2	250	0	0
Parathion	WHOLE	0.05	Not set	250	0	0
Parathion-methyl	WHOLE	0.05	0.5	250	15	0
Prothiofos	WHOLE	0.02	0.05	250	0	0
Trichlorfon	WHOLE	0.05	0.1	250	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



APPLE

APPLE (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.02	0.05	250	1	0
Cypermethrin	WHOLE	0.1	1	250	0	0
Other						
Spinosad	WHOLE	0.05	0.5	250	0	0
PHYSIOLOGICAL MODIFIERS						
Scald inhibitors						
Diphenylamine	WHOLE	0.05	10	250	143	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



BLUEBERRY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Tebufenozide	WHOLE	0.05	2	30	3	0
<i>Fungicides</i>						
Captan	WHOLE	0.3	20	30	3	0
Dithiocarbamates	WHOLE	0.02	10	6	5	0
Propiconazole	WHOLE	0.05	2	30	1	0
<i>Organophosphates</i>						
Dimethoate	WHOLE	0.02	5	30	15	0
Malathion	WHOLE	0.1	0.5	30	0	0



MACADAMIA NUT						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Tebufenozide	WHOLE	0.02	0.05	120	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.2	1	120	0	0
<i>Fungicides</i>						
Carbendazim	WHOLE	0.1	0.1	120	0	0
Iprodione	WHOLE	0.01	0.01	120	0	0
Metalaxyl	WHOLE	0.2	1	120	0	0
<i>Herbicides</i>						
Oxyfluorfen	WHOLE	0.05	0.05	120	0	0
<i>Organochlorines</i>						
Endosulfan	WHOLE	0.05	2	120	0	0
<i>Organophosphates</i>						
Acephate	WHOLE	0.05	0.1	120	0	0
Azinphos-methyl	WHOLE	0.01	0.01	120	0	0
Chlorpyrifos	WHOLE	0.02	Not set	120	0	0
Diazinon	WHOLE	0.05	0.1	120	0	0
Methidathion	WHOLE	0.01	0.01	120	0	0
Trichlorfon	WHOLE	0.05	0.1	120	0	0
<i>Synthetic pyrethroids</i>						
Cyfluthrin	WHOLE	0.05	0.05	120	0	0
Deltamethrin	WHOLE	0.05	Not set	120	0	0
Permethrin	WHOLE	0.05	Not set	120	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.



ONION						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Benalaxyl	WHOLE	0.05	0.1	94	0	0
Carbendazim	WHOLE	0.1	3	94	0	0
Dimethomorph	WHOLE	0.05	0.05	94	0	0
Dithiocarbamates	WHOLE	0.2	4	94	0	0
Metalaxyl	WHOLE	0.05	0.1	94	0	0
Procymidone	WHOLE	0.1	0.2	94	0	0
Tebuconazole	WHOLE	0.01	0.01	94	0	0
<i>Herbicides</i>						
Ioxynil	WHOLE	0.02	0.02	94	0	0
Methabenzthiazuron	WHOLE	0.02	0.05	94	0	0
Oxyfluorfen	WHOLE	0.05	0.05	94	0	0
Pendimethalin	WHOLE	0.05	0.05	94	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.1	94	0	0
DDT	WHOLE	0.05	1	94	0	0
Dicofol	WHOLE	0.3	5	94	0	0
Endosulfan	WHOLE	0.05	0.2	94	0	0
Endrin	WHOLE	0.05	Not set	94	0	0
HCH	WHOLE	0.05	Not set	94	0	0
Heptachlor	WHOLE	0.05	0.05	94	0	0
Lindane [γ -HCH]	WHOLE	0.1	2	94	0	0
<i>Organophosphates</i>						
Chlorpyrifos	WHOLE	0.01	0.01	94	0	0
Diazinon	WHOLE	0.1	0.7	94	0	0
Dimethoate	WHOLE	0.1	2	94	0	0
Fenamiphos	WHOLE	0.02	0.05	94	0	0
Malathion	WHOLE	0.1	2	94	0	0
Methidathion	WHOLE	0.01	0.01	94	0	0
Parathion-methyl	WHOLE	0.1	Not set	94	0	0
Phorate	WHOLE	0.1	0.5	94	0	0
<i>Synthetic pyrethroids</i>						
Cypermethrin	WHOLE	0.01	0.01	94	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	45	12	n/a
Lead	WHOLE	0.01	0.100	45	2	0
Mercury	WHOLE	0.01	No limit	45	0	n/a

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

No limit No standard applicable for the contaminant. Detections of the contaminant at low levels are allowable.

n/a Australian Standard does not apply. No limit set or defined.



PEAR

PEAR						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Acaricides</i>						
Chlorfenapyr	WHOLE	0.1	0.5	68	0	0
Fenpyroximate	WHOLE	0.05	0.3	68	0	0
Indoxacarb	WHOLE	0.1	2	68	0	0
Propargite	WHOLE	0.1	3	68	2	0
Tebufenozide	WHOLE	0.1	1	68	0	0
Tebufenpyrad	WHOLE	0.05	1	68	0	0
<i>Benzimidazoles</i>						
Thiabendazole	WHOLE	0.2	10	68	0	0
<i>Carbamates</i>						
Carbaryl	WHOLE	0.1	5	68	4	0
Fenoxycarb	WHOLE	0.1	2	68	2	0
Pirimicarb	WHOLE	0.1	0.5	68	0	0
<i>Fungicides</i>						
Captan	WHOLE	0.05	10	68	0	0
Carbendazim	WHOLE	0.2	5	68	19	0
Difenoconazole	WHOLE	0.05	0.3	68	0	0
Dithiocarbamates	WHOLE	0.2	3	68	16	0
Fenarimol	WHOLE	0.05	0.2	68	0	0
Hexaconazole	WHOLE	0.02	0.1	68	0	0
Imazalil	WHOLE	0.1	5	68	26	0
Iprodione	WHOLE	0.1	3	68	42	0
Procymidone	WHOLE	0.1	1	68	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.05	68	0	0
DDT	WHOLE	0.05	1	68	0	0
Dicofol	WHOLE	0.05	5	68	0	0
Endosulfan	WHOLE	0.05	2	68	0	0
Heptachlor	WHOLE	0.05	Not set	68	0	0
Lindane (γ -HCH)	WHOLE	0.05	0.5	68	0	0
<i>Organophosphates</i>						
Azinphos-methyl	WHOLE	0.05	2	68	10	0
Chlorpyrifos	WHOLE	0.05	0.5	68	2	0
Diazinon	WHOLE	0.05	0.5	68	0	0
Dimethoate	WHOLE	0.05	5	68	1	0
Fenitrothion	WHOLE	0.05	0.1	68	0	0
Fenthion	WHOLE	0.05	2	68	0	0
Malathion	WHOLE	0.05	0.5	68	0	0
Methidathion	WHOLE	0.05	0.2	68	0	0
Parathion	WHOLE	0.05	Not set	68	0	0
Parathion-methyl	WHOLE	0.05	0.5	68	6	0
Prothiofos	WHOLE	0.02	0.05	68	0	0
Trichlorfon	WHOLE	0.05	0.1	68	0	0

Not set No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

**PEAR** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.02	0.5	68	0	0
Cypermethrin	WHOLE	0.1	1	68	0	0
Other						
Spinosad	WHOLE	0.05	0.5	68	0	0
PHYSIOLOGICAL MODIFIERS						
Scald inhibitors						
Diphenylamine	WHOLE	0.05	7	68	56	0

Not set *No standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.*