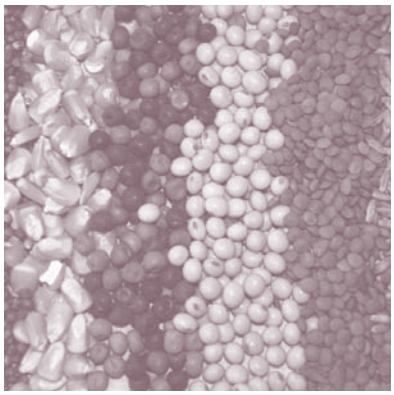

Plant product residue testing

Annual Report 2007–2008

Random monitoring

Random monitoring

Overview

Participation by the grains and horticultural industries in the National Residue Survey (NRS) plant product random residue monitoring program is based on marketing and trade-related decisions made by the participating industries. The primary function of NRS is to monitor chemical residues and environmental contaminants in the products of participating industries. Export and domestic marketing initiatives are underpinned by Australia's status as a producer of clean food. Surveys for chemical residues are important as a measure of overall product quality.

The 2007–2008 financial year was again marked by drought conditions in parts of Australia. The dry conditions meant that Australia's grain harvest was lower in terms of volume and exports for winter crops, and therefore sample numbers were also reduced. However, an above-average harvest was recorded for sorghum which provided an offset to stockfeed shortages.

Outputs

Outputs of the plant product random monitoring program are:

- provision to stakeholders of independent, authoritative and technically-sound residue data, reports and advice on Australian grain and horticultural products
- provision of residue monitoring data to meet the specific market access support requirements of participating industries.

Highlights

Grains

As a result of the comprehensive industry *2003 Grains Review* of the NRS grains project, an export container and bag sub-project was established in late 2004. Grain exports through containers and bags continue to grow, and now about 50 companies throughout Australia sample grain for residue testing when it is loaded into shipping containers and bags. The sub-project has increased its sample collection rates by over 300% in the past two years.

Acting upon a recommendation of the same review, NRS, in conjunction with industry and with relevant departmental input, drafted legislative changes to establish 0.015% *ad valorem* levies for 13 additional grains in the random residue testing program. These regulations came into effect from 1 July 2007. The new commodities in the program are coarse grains (maize and triticale), pulses (cow pea, faba bean, lentil, mung bean, navy bean, pigeon pea and vetch) and oilseeds (linseed, safflower, soybean and sunflower). However, no samples for cow pea, linseed, navy bean, pigeon pea, safflower or vetch were collected for residue testing during 2007–2008, due to low production volume in the drought conditions.

A mycotoxin monitoring project was again run during 2007–2008 for 150 grain samples. The sample collection method was altered to collect 6 kg samples instead of 1 kg samples in order to provide more homogenous and representative samples.

NRS also started a pilot targeted herbicide project in 2007–2008, in which 246 samples were analysed for a range of herbicides.

Horticulture

Following discussions with Apple and Pear Australia Limited, the apple and pear random monitoring project was continued at the level of the previous year (610 samples in all, comprising 469 apple and 141 pear samples). The project maintained the previous sampling regime in which approximately half the samples were collected by third-party samplers and the other half were collected from packing sheds. All samples were subjected to the same pesticide and environmental contaminant screen.

Performance

PERFORMANCE INDICATOR ONE	
Acceptance by participating industries and trading partners that the survey design for each commodity is technically sound, is risk based and is structured to meet its objectives within agreed budgets.	
Achievements	
Industry and trading partner acceptance of NRS monitoring projects	Residue monitoring projects for each grain and horticulture commodity within the program were designed, operated and reviewed by NRS, with the cooperation of, and to the satisfaction of, the peak industry bodies. Industry used the results of residue monitoring projects to underpin it's marketing and market access strategies. For example, commodity-specific results reports prepared for the grain industry are used by grain marketers and handlers such as AWB Limited, ABB Grain Limited, Co-operative Bulk Handling Ltd (WA) and GrainCorp to provide assurance to overseas customers that Australian grain is independently monitored for residues. Similarly, the macadamia nut, onion and pome fruit (apple and pear) industries utilise their respective commodity residue monitoring data to demonstrate to overseas markets their ongoing compliance with Australian Standards.
Chemical selection for the Ninth Term (2008–2011) laboratory contracts	Following extensive consultation with industry during 2007–2008, the relevant grain industry bodies agreed to the inclusion of many new chemicals to be analysed in grain samples during 2008–2011. The levels of reporting have also been adjusted (in some cases lowered) to reflect export market pesticide tolerances.
Horticulture project review	During 2007–2008, NRS reviewed the horticulture monitoring projects for apple and pear, onion, macadamia nut and blueberry. The review showed that sample numbers remained appropriate for forecast production levels and that sampling procedures required no revision. Industry participants remained satisfied with turnaround times for results and continued to find the international maximum residue limit (MRL) databases helpful for marketing purposes. Following consultation with industry representatives, minor adjustments were made to the pesticide screens to reflect changes in the registration of chemicals for use on particular crops, as well as chemicals with perceived market sensitivities.

PERFORMANCE INDICATOR TWO	
Delivery of projects in accordance with agreements between NRS and participating industries, including annually reviewed agreements with respect to: • sampling rates • turnaround time from sampling to presentation of test results • reporting of contraventions to regulatory authorities.	
Achievements	
Agreements with industry	NRS complied with all agreements for projects on behalf of industry, including visits to grain establishments. For example, visits to domestic grain establishments continued, to ensure that appropriately trained staff understood the agreed procedures and guidelines for obtaining grain samples.
Updated sample collection and operational guidelines provided to industry	During 2007–2008, NRS provided updated sample collection guidelines to relevant export and domestic grain and flour mill establishments. Also, plant product residue monitoring industries received updated operational documentation concerning current sampling regimes and handling requirements for samples. Industries reported that the sample collection and operational guidelines were an accurate reflection of agreed residue testing project requirements for 2007–2008.
Sampling rates	Within the constraints of product availability and other key parameters, including laboratory turnaround time, NRS achieved all agreed sampling rates. The sampling rates were comparable with previous years.
Reporting results to industry	Stakeholders received over 95% of export grain results and 96% of domestic grain results within agreed timeframes. The agreed target is 90%. One of the objectives of the ongoing visits to grain establishments is to examine adherence to sampling procedures and guidelines to ensure that the good record of reporting timeframes continues. Where appropriate, NRS provided results of horticulture testing to individual producers and/or packing sheds to support industry quality assurance programs within agreed general turnaround times.
Traceback and reporting residue contraventions	NRS reported contraventions to the relevant state or territory government regulatory authorities within agreed timeframes. State and territory governments have agreed to develop a policy framework for traceback of residue contraventions of Australian Standards and international detections. Through the State Residue Coordinator Forum, convened by NRS, traceback protocols are reviewed on an ongoing basis, and coordinators have the opportunity to raise concerns for discussion in relation to traceback investigations.

PERFORMANCE INDICATOR THREE	
Presentation of high-quality and timely plans and reports on results to trading partners, industry and government.	
Achievements	
Grain and horticulture reports	NRS routinely prepared plans and reports for participating industries. Industry-specific reports on results were prepared for all grain and horticulture products, with their preparation timed to coincide with relevant industry annual general meetings and/or executive meetings. Grain and horticulture marketing bodies use NRS reports to demonstrate the residue integrity of their products.
Reports to Australian Government	NRS provided advice to the Food and Product Safety and Integrity Branch of the Department for briefings to executive and government on market access to Japan, Taiwan, Thailand and Korea in relation to a number of commodities including canola, barley, wheat, and pome fruit, and more general issues relating to changes in food standards laws and changes to maximum residue limits.
Results of NRS plant products random residue monitoring projects 2007–2008	Detailed results of the grains random residue monitoring project can be found on pages 110–157 of this report and results of the horticulture project on pages 158–165. In addition, the results are posted on the NRS website.[1]

1 www.daff.gov.au/agriculture-food/nrs

PERFORMANCE INDICATOR FOUR	
Interaction and communication with participating industries is effective.	
Achievements	
Industry consultation	NRS consulted peak bodies of all participating grain and horticulture industries extensively to ensure that they remained informed of the operational, management and financial aspects of the residue monitoring projects. Each industry is routinely kept abreast of the progress of each project and advised of any difficulties as they arise.
Field tours of grain and shipping terminals	NRS continued field tours to domestic grain establishments, including stockfeed manufacturers, feedlots, maltsters and flour mills, to ensure that proper sampling procedures were known. Several new domestic establishments were added to the list of participants, including container exporters. Most establishments in Australia have now been visited by NRS staff. The grain industry fully supports the purpose of these field tours because they assist in ensuring the integrity of sampling.
Reviews	Following the *2003 Grains Review*, NRS continued to review further elements of the grains project that facilitated the export container and bag sub-project and increased the number of analytes in the pesticide screen. Results from the regular six-monthly reviews undertaken by W J Murray Consulting Services continued to confirm NRS's performance in meeting industry requirements for the operation and management of the program.
Presentations by NRS	NRS submitted the residue monitoring plan and to-date results of the 2006–2007 financial year to Apple and Pear Australia Limited (August 2007), the Apple and Pear Annual General Meeting and Conference (September 2007), the Grains Council Executive (November 2007), the Onion Industry Annual General Meeting (October 2007), the Australian Macadamia Society meeting (March 2008), and the National Working Party on Grain Protection (June 2008).
Awareness-raising articles	NRS officers submitted articles on NRS projects to *Onions Australia* and the *Tree Fruit Journal*.
Food standards for key markets	Food standards (macadamia nut, onion and pome fruit) for some key international markets are available on the NRS website.[2]

2 www.daff.gov.au/agriculture-food/nrs

Outlook

Grains

In 2007–2008, NRS continued to implement the recommendations of the *2003 Grains Review*, including sampling new grains commodities and monitoring bagged and containerised grains for export in accordance with industry requirements. The 13 new grain commodities that are being sampled include coarse grains (maize and triticale), pulses (cow pea, faba bean, lentil, mung bean, navy bean, pigeon pea, and vetch) and oilseeds (linseed, safflower, soybean and sunflower). Due to the ongoing effect of the drought, very few or, in some cases, no samples were collected from some of these commodities. Residue sampling of these commodities is expected to continue in future years.

Increased sample numbers in the export container and bag sub-project are a reflection of increasing trade by containers and changing wheat export conditions. Several companies are now accredited by Wheat Exports Australia to export bulk wheat. Consequently, after NRS–industry consultation, a strategy was implemented under which many more samples would be collected from containerised grain and, in particular, containerised wheat.

NRS, the Grains Council of Australia (GCA) and grain industry stakeholders are working together to coordinate some of the 'common good' tasks that were formerly provided to industry by AWB Limited (for example, the outturn for key wheat markets). These coordinating measures will address some of the market concerns expressed by industry stakeholders.

The pilot targeted herbicide testing project implemented in 2007–2008 by NRS, GCA and grain industry stakeholders will be continued in 2008–2009.

Horticulture

It is anticipated that sampling and analysis of the current five commodities will continue in 2008–2009.

The macadamia industry has decided to take an additional 80 grower samples in addition to the aggregated samples scheduled to be collected from macadamia nut processors. Results from these additional samples will provide evidence of appropriate chemical use within the industry on individual-grower basis. The additional grower samples started late in the 2007–2008 financial year and will continue in 2008–2009.

Possible new projects for 2008–2009

The strawberry, almond and hay industries are each considering undertaking chemical residue testing projects with NRS in 2008–2009, but have yet to make final decisions about proceeding. Should the projects proceed, they will be funded by a direct payment arrangement with each industry.

Residue testing

Sample collection and analysis

At the grain-handling establishments, samples are collected by personnel using NRS-specified protocols and procedures, and using sampling equipment supplied by NRS. 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 stockfeed manufacturers, maltsters, feedlots, oilseed processors and processors of oats for human consumption.

Horticultural products are sampled and collected by third-party agents at aggregation points such as packing sheds and markets. A component of the apple and pear project involves direct sampling at packing sheds.

Grain and horticulture samples are boxed and freighted overnight directly to the appropriate laboratory. Two 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 necessary.

Summary of results: all plant products

Residue monitoring in 2007–2008 for the grains project covered 20 commodities: barley, canola, chickpea, faba bean, field pea, lentil, lupin, maize, mung bean, oat, sorghum, soybean, sunflower, triticale, and wheat (grain, bran and flour), durum wheat (grain and bran), and semolina wheat. Wheat (51%) and barley (21%) comprised the largest proportion of samples collected. Small numbers and, in some cases, no samples were analysed for smaller volume grains, due to the ongoing effects of the drought. In all, 3 435 grain samples were tested. Sample numbers and results of residue testing for the grains project are shown in the summary table opposite.

In the horticulture project, five products were monitored for residues (apple, blueberry, macadamia nut, onion and pear), with 845 samples in all being analysed. The sample numbers and results of residue testing for each commodity are shown in the table opposite.

Detailed comments and results tables follow, starting on page 110 for grains and page 158 for horticulture products.

Commodity	Number of samples[a]	Number of analyses[b]	Samples compliant with relevant standards (%)[c]
GRAINS PROJECTS			
COARSE GRAINS			
Barley	728	41 550	99.59
Maize	5	265	100.00
Oat	35	1 855	100.00
Sorghum	152	8 107	99.34
Triticale	1	53	100.00
Wheat (grain)	1 688	95 139	99.76
Wheat (bran)	193	10 454	99.48
Wheat (flour)	190	10 133	100.00
Wheat (semolina)	8	424	100.00
Wheat (durum)	5	459	100.00
Wheat (durum bran)	5	270	100.00
PULSES			
Faba bean	9	480	100.00
Field pea	25	1 344	100.00
Chickpea	22	1 495	100.00
Lentil	11	595	90.90
Lupin	12	742	100.00
Mung bean	1	53	0
OILSEEDS			
Canola	340	18 964	97.64
Soybean	3	159	100.0
Sunflower	2	106	100.0
Total grains	**3 435**	**192 647**	
HORTICULTURE PROJECT			
Apple	469	20 363	99.57
Blueberry	30	219	100.0
Macadamia nut	115	2 300	100.0
Onion	90	2 520	100.0
Pear	141	6 204	100.0
Total horticulture	**845**	**31 606**	
Total plant products	**4 280**	**224 253**	

[a] Total number of samples collected from commodity.

[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] Percentage of samples conforming to Australian Standards.

Discussion: grains results

The grain random monitoring project covered 20 commodities, with 3 435 samples collected and subjected to analysis. Wheat grain and its products (bran and flour) contributed the largest number of samples. There were 19 residues of agricultural chemicals detected above Australian Standards (maximum residue limit [MRL] and extraneous residue limit [ERL]). Of these, only three contraventions occurred in export grain.

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 pesticide screen was conducted on all 3 435 grain samples.

In export grains, there were three samples from export containers that did not comply with relevant Australian Standards. These residue contraventions were detections of the fungicide triadimefon in lentil (one), the synthetic pyrethroid phenothrin in barley (one), and the herbicide simazine in wheat grain (one). The traceback investigation for lentil was inconclusive, and the other two tracebacks have not been finalised as this report goes to print. However, it is suspected that the phenothrin/barley residue was a sample contamination rather than a residue in the commodity.

All but 16 domestic samples complied with ANZFSC. Of these, one violation occurred in the milled products sub-project and 15 in the domestic market sub-project.

There were two instances of sample contamination in sorghum and barley that were found to contain the household insecticide bioresmethrin. These samples came from a feedlot, and information from the sample collector indicated that the sampling equipment had been treated with a common fly spray. Another residue contravention in barley by the insecticide indoxacarb was also discovered in a feedlot, but the traceback is not complete at the time of printing this report.

In the oilseeds project, there were three residue detections of the insecticides carbaryl and three residue detections of chlorpyrifos-methyl, all found in canola delivered to an oilseed crusher from the same supplier. The source of contamination is unknown, but is likely to be from a storage bin that had previously been sprayed with these two compounds. Additionally, there were two detections of pesticides in canola. One triadimefon residue and one organochlorine residue were found in samples of canola delivered to an oilseed crusher. The triadimefon residue was found to be a cross-contamination: fertiliser previously treated with triadimefon had been passed through an auger, and then the canola was elevated through the same auger to storage without the equipment being cleaned. The producer is changing management practices in response to the traceback. The organochlorine residue had almost certainly arisen from an environmental contamination, possibly from the on-farm bulk storage shed.

The only sample of mung bean was found to contain the pesticide dichlorvos. Investigations revealed that the shed where the mung bean was stored had been treated with dichlorvos, and cross-contamination had occurred.

Three residues of the fungicide flutriafol were found in wheat grain delivered to stockfeed manufacturers. The exact reasons for these contaminations are unclear, but the most likely source of the residue is inappropriate on-farm practice, or seed dressing that came into contact with other grain.

One milled grain sample (wheat bran) contained a fenitrothion residue above the appropriate Australian Standard. The corresponding wheat and flour samples did not contain residues in excess of the MRL; therefore, the whole grain had been treated appropriately. When milled, any residue present in the grain as a whole (however small) tends to be retained in the bran fraction, and in this case that retention was in excess of the bran MRL.

Fumigants

During the reporting period, 96 grain samples were selected at random by the multi-residue screen-testing laboratory and forwarded to a phosphine testing laboratory to determine total phosphine residues. Any residues detected that are equal to or above 0.002 mg/kg initiate further analysis of the sample to determine the component of the residue due to unreacted phosphide and/or absorbed phosphine. There were no detections of phosphine residues above the action level of 0.002 mg/kg.

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. As mentioned above, there was one low-level detection of an organochlorine in canola which may have arisen from an environmental contamination.

Environmental contaminants

Tests for three environmental metal contaminants (cadmium, lead and mercury) were conducted on 297 samples. There were no detections of environmental contaminants above Australian maximum limits (MLs) in any grain sample tested.

Results for the grains products (in alphabetical order by commodity name) are shown in the tables that begin on page 112. The heading 'LOR' in the tables refers to the limit of reporting: this is the minimum concentration (mg/kg) of a residue used for reporting purposes. Results of analyses lower than the LOR are not included in this report. Typically, the LOR set by NRS is 10–20% of the respective MRL/ERL or ML.

Grains results tables

Barley	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	728	0	0
Chlordane	WHOLE	0.01	0.02	728	0	0
DDT	WHOLE	0.01	0.10	728	0	0
Endosulfan	WHOLE	0.01	0.10	728	0	0
Endrin	WHOLE	0.01	Not set	728	0	0
HCB	WHOLE	0.01	0.05	728	0	0
HCH	WHOLE	0.01	0.10	728	0	0
Heptachlor	WHOLE	0.01	0.02	728	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	728	0	0
Methoxychlor	WHOLE	0.02	Not set	728	0	0
Mirex	WHOLE	0.02	Not set	728	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	728	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	728	0	0
Chlorpyrifos	WHOLE	0.01	0.10	728	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	728	0	0
Diazinon	WHOLE	0.01	0.10	728	0	0
Dichlorvos	WHOLE	0.10	5.0	728	0	0
Dimethoate	WHOLE	0.05	0.05	728	0	0
Ethoprofos	WHOLE	0.01	0.005	728	0	0
Fenitrothion	WHOLE	0.10	10.0	728	0	0
Malathion	WHOLE	0.10	8.0	728	0	0
Methacrifos	WHOLE	0.10	Not set	728	0	0
Phosmet	WHOLE	0.05	0.05	728	0	0
Pirimiphos-methyl	WHOLE	0.10	7.0	728	0	0
Profenofos	WHOLE	0.01	Not set	728	0	0
Terbufos	WHOLE	0.01	0.01	728	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	728	0	0
Bioresmethrin	WHOLE	0.10	Not set	728	0	1[a]
Cyfluthrin	WHOLE	0.05	2.0	728	0	0
Cyhalothrin	WHOLE	0.02	0.2	728	0	0
Cypermethrin	WHOLE	0.01	1.0	728	0	0
Deltamethrin	WHOLE	0.10	2.0	728	0	0
Fenvalerate	WHOLE	0.10	2.0	728	0	0
Permethrin	WHOLE	0.10	2.0	728	0	0
Phenothrin	WHOLE	0.10	Not set	728	0	1[b]

Barley	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	5.0	728	0	0
Diflubenzuron	WHOLE	0.20	2.0	728	0	0
Fipronil	WHOLE	0.005	Not set	728	0	0
Indoxacarb	WHOLE	0.01	Not set	728	0	1[c]
Pyriproxyfen	WHOLE	0.05	Not set	728	0	0
Triflumuron	WHOLE	0.05	0.05	728	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	728	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	728	0	0
Flutriafol	WHOLE	0.01	0.20	728	0	0
Hexaconazole	WHOLE	0.05	Not set	728	0	0
Iprodione	WHOLE	0.01	Not set	728	0	0
Penconazole	WHOLE	0.05	Not set	728	0	0
Propiconazole	WHOLE	0.05	0.05	728	0	0
Tebuconazole	WHOLE	0.05	0.20	728	0	0
Triadimefon	WHOLE	0.10	0.50	728	0	0
HERBICIDES						
2,4-D	WHOLE	0.05	0.20	58	0	0
Amitrol	WHOLE	0.10	0.01	58	0	0
Atrazine	WHOLE	0.02	Not set	58	0	0
Carfentrazone-ethyl	WHOLE	0.05	0.05	58	0	0
Chlorsulfuron	WHOLE	0.05	0.05	58	0	0
Clethodim	WHOLE	0.10	0.10	58	0	0
Clodinafop-propargyl	WHOLE	0.05	Not set	58	0	0
Clopyralid	WHOLE	0.10	2.0	58	0	0
Dicamba	WHOLE	0.05	0.05	58	0	0
Diclofop-methyl	WHOLE	0.01	0.10	58	0	0
Diflufenican	WHOLE	0.02	0.05	58	0	0
Diquat	WHOLE	0.10	5.0	58	0	0
Diuron	WHOLE	0.05	0.10	58	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	0.01	58	0	0
Flamprop-M-methyl	WHOLE	0.05	Not set	58	0	0
Fluazifop-p-butyl	WHOLE	0.10	Not set	58	0	0
Glufosinate	WHOLE	0.05	Not set	58	0	0
Glyphosate	WHOLE	0.10	10.0	58	0	0
Haloxyfop	WHOLE	0.05	Not set	58	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	Not set	58	0	0
MCPA	WHOLE	0.02	0.02	58	0	0
Metolachlor	WHOLE	0.02	0.02	58	0	0
Metosulam	WHOLE	0.02	0.02	58	0	0
Metsulfuron-methyl	WHOLE	0.01	0.02	58	0	0
Paraquat	WHOLE	0.05	0.05	58	0	0

Barley	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Pendimethalin	WHOLE	0.05	0.05	58	0	0
Picloram	WHOLE	0.20	0.20	58	0	0
Simazine	WHOLE	0.01	Not set	58	0	0
Tralkoxydim	WHOLE	0.02	0.02	58	0	0
Triasulfuron	WHOLE	0.02	0.02	58	0	0
Triclopyr	WHOLE	0.02	Not set	58	0	0
Trifluralin	WHOLE	0.05	0.05	58	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.10	20	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGIST						
Piperonyl butoxide	WHOLE	1	20.0	728	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	54	n/a	n/a
Lead	WHOLE	0.01	0.20	54	0	0
Mercury	WHOLE	0.01	No limit	54	n/a	n/a

a – Contamination from flyspray on equipment.

b – Not finalised as report went to print, but possibly a sample contamination.

c – Traceback incomplete as report went to print.

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. The 'As low as reasonably achievable' principle applies. Detections 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 samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	not set	340	0	0
Chlordane	WHOLE	0.01	not set	340	0	0
DDT	WHOLE	0.01	not set	340	0	1[a]
Endosulfan	WHOLE	0.02	1.0	340	0	0
Endrin	WHOLE	0.01	not set	340	0	0
HCB	WHOLE	0.01	not set	340	0	0
HCH	WHOLE	0.01	not set	340	0	0
Heptachlor	WHOLE	0.01	not set	340	0	0
Lindane (γ-HCH)	WHOLE	0.01	0.05	340	0	0
Methoxychlor	WHOLE	0.01	not set	340	0	0
Mirex	WHOLE	0.01	not set	340	0	0
Organophosphates						
Azamethiphos	WHOLE	0.01	not set	340	0	0
Chlorfenvinphos	WHOLE	0.01	not set	340	0	0
Chlorpyrifos	WHOLE	0.01	0.05	340	0	0
Chlorpyrifos-methyl	WHOLE	0.01	not set	340	0	3[b]
Diazinon	WHOLE	0.01	not set	340	0	0
Dichlorvos	WHOLE	0.01	0.10	340	0	0
Dimethoate	WHOLE	0.01	0.10	340	0	0
Ethoprofos	WHOLE	0.01	not set	340	0	0
Fenitrothion	WHOLE	0.01	not set	340	1	0
Malathion	WHOLE	0.01	not set	340	0	0
Methacrifos	WHOLE	0.01	not set	340	0	0
Phosmet	WHOLE	0.05	not set	340	0	0
Pirimiphos-methyl	WHOLE	0.10	not set	340	0	0
Profenofos	WHOLE	0.01	not set	340	0	0
Terbufos	WHOLE	0.01	not set	340	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	340	0	0
Bioresmethrin	WHOLE	0.1	not set	340	0	0
Cyfluthrin	WHOLE	0.05	0.05	340	0	0
Cyhalothrin	WHOLE	0.02	0.02	340	0	0
Cypermethrin	WHOLE	0.01	0.20	340	0	0
Deltamethrin	WHOLE	0.10	0.10	340	0	0
Fenvalerate	WHOLE	0.10	0.50	340	0	0
Permethrin	WHOLE	0.10	0.20	340	0	0
Phenothrin	WHOLE	0.10	not set	340	0	0

Canola	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.01	not set	340	0	3[b]
Diflubenzuron	WHOLE	0.01	not set	340	0	0
Fipronil	WHOLE	0.005	0.01	340	0	0
Indoxacarb	WHOLE	0.01	not set	340	0	0
Pyriproxyfen	WHOLE	0.05	not set	340	0	0
Triflumuron	WHOLE	0.01	not set	340	0	0
Insect growth regulators						
Methoprene	WHOLE	0.01	not set	340	0	0
FUNGICIDES						
Captafol	WHOLE	0.01	not set	340	0	0
Flutriafol	WHOLE	0.01	0.02	340	1	0
Hexaconazole	WHOLE	0.01	not set	340	0	0
Iprodione	WHOLE	0.01	0.50	340	0	0
Penconazole	WHOLE	0.01	not set	340	0	0
Propiconazole	WHOLE	0.01	not set	340	0	0
Tebuconazole	WHOLE	0.01	not set	340	0	0
Triadimefon	WHOLE	0.01	not set	340	0	1[c]
HERBICIDES						
2,4-D	WHOLE	0.05	0.05	27	0	0
Amitrol	WHOLE	0.10	Not set	27	0	0
Atrazine	WHOLE	0.02	0.02	27	0	0
Carfentrazone-ethyl	WHOLE	0.05	Not set	27	0	0
Clethodim	WHOLE	0.10	0.50	27	0	0
Chlorsulfuron	WHOLE	0.05	Not set	27	0	0
Clodinafop-propargyl	WHOLE	0.05	Not set	27	0	0
Clopyralid	WHOLE	0.10	0.50	27	0	0
Dicamba	WHOLE	0.05	Not set	27	0	0
Diclofop-methyl	WHOLE	0.01	0.10	27	0	0
Diflufenican	WHOLE	0.02	Not set	27	0	0
Diquat	WHOLE	0.10	5.0	27	0	0
Diuron	WHOLE	0.05	0.50	27	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	Not set	27	0	0
Flamprop-M-methyl	WHOLE	0.05	Not set	27	0	0
Fluazifop-p-butyl	WHOLE	0.1	0.50	27	0	0
Glufosinate	WHOLE	0.05	0.05	27	0	0
Glyphosate	WHOLE	0.10	2.0	27	0	0
Haloxyfop	WHOLE	0.05	0.10	27	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	Not set	27	0	0
MCPA	WHOLE	0.02	Not set	27	0	0
Metolachlor	WHOLE	0.02	0.02	27	0	0
Metosulam	WHOLE	0.02	Not set	27	0	0
Metsulfuron-methyl	WHOLE	0.01	Not set	27	0	0
Paraquat	WHOLE	0.05	Not set	27	0	0
Pendimethalin	WHOLE	0.05	0.05	27	0	0

Canola	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Picloram	WHOLE	0.20	Not set	27	0	0
Simazine	WHOLE	0.01	0.02	27	1	0
Tralkoxydim	WHOLE	0.02	Not set	27	0	0
Triasulfuron	WHOLE	0.02	Not set	27	0	0
Triclopyr	WHOLE	0.02	Not set	27	0	0
Trifluralin	WHOLE	0.05	0.05	27	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.01	5	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGIST						
Piperonyl butoxide	WHOLE	1.0	8.0	340	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	18	n/a	n/a
Lead	WHOLE	0.01	No limit	18	n/a	n/a
Mercury	WHOLE	0.01	No limit	18	n/a	n/a

a – Source of contamination unknown. Possible contamination on farm but unlikely.

b – Source of contamination unknown but probably from a contaminated bin which previously contained grain that had been sprayed with these two compounds. All six samples were fom the same supplier.

c – Source of contamination probably from a contaminated auger previously used for fertiliser treated with triadimefon. Grower was receptive to advice.

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. The 'As low as reasonably achievable' principle applies. Detections 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 samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	22	0	0
Chlordane	WHOLE	0.01	Not set	22	0	0
DDT	WHOLE	0.01	Not set	22	0	0
Endosulfan	WHOLE	0.01	0.10	22	0	0
Endrin	WHOLE	0.01	Not set	22	0	0
HCB	WHOLE	0.01	Not set	22	0	0
HCH	WHOLE	0.01	Not set	22	0	0
Heptachlor	WHOLE	0.01	Not set	22	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	22	0	0
Methoxychlor	WHOLE	0.01	Not set	22	0	0
Mirex	WHOLE	0.01	Not set	22	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	22	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	22	0	0
Chlorpyrifos	WHOLE	0.01	Not set	22	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	22	0	0
Diazinon	WHOLE	0.01	Not set	22	0	0
Dichlorvos	WHOLE	0.01	Not set	22	0	0
Dimethoate (RD)	WHOLE	0.05	Not set	22	0	0
Ethoprofos	WHOLE	0.005	Not set	22	0	0
Fenitrothion	WHOLE	0.10	0.10	22	0	0
Malathion	WHOLE	0.10	Not set	22	0	0
Methacrifos	WHOLE	0.10	Not set	22	0	0
Phosmet	WHOLE	0.05	Not set	22	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	22	0	0
Profenofos	WHOLE	0.01	Not set	22	0	0
Terbufos	WHOLE	0.01	Not set	22	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	22	0	0
Bioresmethrin	WHOLE	0.10	Not set	22	0	0
Cyfluthrin	WHOLE	0.05	0.50	22	0	0
Cyhalothrin	WHOLE	0.02	0.20	22	0	0
Cypermethrin	WHOLE	0.01	0.20	22	0	0
Deltamethrin	WHOLE	0.10	0.10	22	0	0
Fenvalerate	WHOLE	0.10	0.50	22	0	0
Permethrin	WHOLE	0.10	Not set	22	0	0
Phenothrin	WHOLE	0.10	Not set	22	0	0

Chickpea	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	22	0	0
Diflubenzuron	WHOLE	0.20	Not set	22	0	0
Fipronil	WHOLE	0.005	Not set	22	0	0
Indoxacarb	WHOLE	0.01	0.20	22	0	0
Pyriproxyfen	WHOLE	0.05	Not set	22	0	0
Triflumuron	WHOLE	0.05	Not set	22	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	22	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	22	0	0
Flutriafol	WHOLE	0.01	Not set	22	0	0
Hexaconazole	WHOLE	0.05	Not set	22	0	0
Iprodione	WHOLE	0.01	Not set	22	0	0
Penconazole	WHOLE	0.05	Not set	22	0	0
Propiconazole	WHOLE	0.05	Not set	22	0	0
Tebuconazole	WHOLE	0.05	Not set	22	0	0
Triadimefon	WHOLE	0.10	Not set	22	0	0
HERBICIDES						
2,4-D	WHOLE	0.05	0.05	10	0	0
Amitrol	WHOLE	0.10	Not set	10	0	0
Atrazine	WHOLE	0.02	Not set	10	0	0
Carfentrazone-ethyl	WHOLE	0.05	Not set	10	0	0
Chlorsulfuron	WHOLE	0.05	Not set	10	0	0
Clethodim	WHOLE	0.10	0.10	10	0	0
Clodinafop-propargyl	WHOLE	0.05	Not set	10	0	0
Clopyralid	WHOLE	0.10	Not set	10	0	0
Dicamba	WHOLE	0.05	Not set	10	0	0
Diclofop-methyl	WHOLE	0.01	Not set	10	0	0
Diflufenican	WHOLE	0.02	0.05	10	0	0
Diquat	WHOLE	0.10	1.00	10	0	0
Diuron	WHOLE	0.05	Not set	10	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	0.01	10	0	0
Flamprop-M-methyl	WHOLE	0.05	Not set	10	0	0
Fluazifop-p-butyl	WHOLE	0.10	0.50	10	0	0
Haloxyfop	WHOLE	0.05	0.10	10	0	0
Glufosinate	WHOLE	0.05	Not set	10	0	0
Glyphosate	WHOLE	0.10	2.0	10	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	Not set	10	0	0
MCPA	WHOLE	0.02	Not set	10	0	0
Metolachlor	WHOLE	0.02	Not set	10	0	0
Metosulam	WHOLE	0.02	Not set	10	0	0
Metsulfuron-methyl	WHOLE	0.01	0.05	10	0	0
Paraquat	WHOLE	0.05	1.0	10	0	0
Pendimethalin	WHOLE	0.05	0.05	10	0	0
Picloram	WHOLE	0.20	Not set	10	0	0
Simazine	WHOLE	0.01	0.05	10	0	0
Tralkoxydim	WHOLE	0.02	Not set	10	0	0
Triasulfuron	WHOLE	0.02	Not set	10	0	0
Triclopyr	WHOLE	0.02	Not set	10	0	0
Trifluralin	WHOLE	0.05	0.05	10	0	0

Chickpea	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
FUMIGANTS						
Phosphine	WHOLE	0.005	0.01	3	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	22		0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	2	n/a	n/a
Lead	WHOLE	0.01	0.20	2	0	0
Mercury	WHOLE	0.01	No limit	2	n/a	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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Faba bean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings - (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	9	0	0
Chlordane	WHOLE	0.01	Not set	9	0	0
DDT	WHOLE	0.01	Not set	9	0	0
Endosulfan	WHOLE	0.01	0.10	9	0	0
Endrin	WHOLE	0.01	Not set	9	0	0
HCB	WHOLE	0.01	Not set	9	0	0
HCH	WHOLE	0.01	Not set	9	0	0
Heptachlor	WHOLE	0.01	Not set	9	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	9	0	0
Methoxychlor	WHOLE	0.01	Not set	9	0	0
Mirex	WHOLE	0.01	Not set	9	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	9	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	9	0	0
Chlorpyrifos	WHOLE	0.01	Not set	9	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	9	0	0
Diazinon	WHOLE	0.01	Not set	9	0	0
Dichlorvos	WHOLE	0.10	Not set	9	0	0
Dimethoate	WHOLE	0.05	Not set	9	0	0
Ethoprofos	WHOLE	0.005	Not set	9	0	0
Fenitrothion	WHOLE	0.10	0.10	9	0	0
Malathion	WHOLE	0.10	Not set	9	0	0
Methacrifos	WHOLE	0.01	Not set	9	0	0
Phosmet	WHOLE	0.05	Not set	9	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	9	0	0
Profenofos	WHOLE	0.01	Not set	9	0	0
Terbufos	WHOLE	0.01	Not set	9	0	0

Faba bean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings - (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	9	0	0
Bioresmethrin	WHOLE	0.10	Not set	9	0	0
Cyfluthrin	WHOLE	0.05	0.50	9	0	0
Cyhalothrin	WHOLE	0.02	0.20	9	0	0
Cypermethrin	WHOLE	0.01	Not set	9	0	0
Deltamethrin	WHOLE	0.10	0.10	9	0	0
Fenvalerate	WHOLE	0.10	0.50	9	0	0
Permethrin	WHOLE	0.10	Not set	9	0	0
Phenothrin	WHOLE	0.10	Not set	9	0	0
Other						
Carbaryl	WHOLE	0.10	Not set	9	0	0
Diflubenzuron	WHOLE	0.20	Not set	9	0	0
Fipronil	WHOLE	0.005	Not set	9	0	0
Indoxacarb	WHOLE	0.01	0.20	9	0	0
Pyriproxyfen	WHOLE	0.05	Not set	9	0	0
Triflumuron	WHOLE	0.05	Not set	9	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	9	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	9	0	0
Flutriafol	WHOLE	0.01	Not set	9	0	0
Hexaconazole	WHOLE	0.05	Not set	9	0	0
Iprodione	WHOLE	0.01	0.20	9	0	0
Penconazole	WHOLE	0.05	Not set	9	0	0
Propiconazole	WHOLE	0.05	Not set	9	0	0
Tebuconazole	WHOLE	0.05	Not set	9	0	0
Triadimefon	WHOLE	0.10	Not set	9	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	9	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	1	n/a	n/a
Lead	WHOLE	0.01	0.20	1	0	0
Mercury	WHOLE	0.01	No limit	1	n/a	n/a

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

No limit – No standard applicable for the contaminant. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Field pea	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	25	0	0
Chlordane	WHOLE	0.01	Not set	25	0	0
DDT	WHOLE	0.01	Not set	25	0	0
Endosulfan	WHOLE	0.01	0.10	25	0	0
Endrin	WHOLE	0.01	Not set	25	0	0
HCB	WHOLE	0.01	Not set	25	0	0
HCH	WHOLE	0.01	Not set	25	0	0
Heptachlor	WHOLE	0.01	Not set	25	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	25	0	0
Methoxychlor	WHOLE	0.01	Not set	25	0	0
Mirex	WHOLE	0.01	Not set	25	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	25	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	25	0	0
Chlorpyrifos	WHOLE	0.01	Not set	25	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	25	0	0
Diazinon	WHOLE	0.01	Not set	25	0	0
Dichlorvos	WHOLE	0.10	Not set	25	0	0
Dimethoate	WHOLE	0.05	Not set	25	0	0
Ethoprofos	WHOLE	0.005	Not set	25	0	0
Fenitrothion	WHOLE	0.10	0.10	25	0	0
Malathion	WHOLE	0.10	Not set	25	0	0
Methacrifos	WHOLE	0.10	Not set	25	0	0
Phosmet	WHOLE	0.05	Not set	25	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	25	0	0
Profenofos	WHOLE	0.01	Not set	25	0	0
Terbufos	WHOLE	0.01	Not set	25	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.01	25	0	0
Bioresmethrin	WHOLE	0.10	Not set	25	0	0
Cyfluthrin	WHOLE	0.05	0.50	25	0	0
Cyhalothrin	WHOLE	0.02	0.20	25	0	0
Cypermethrin	WHOLE	0.01	0.05	25	0	0
Deltamethrin	WHOLE	0.10	0.10	25	0	0
Fenvalerate	WHOLE	0.10	0.50	25	0	0
Permethrin	WHOLE	0.10	Not set	25	0	0
Phenothrin	WHOLE	0.10	Not set	25	0	0

Field pea	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	25	0	0
Diflubenzuron	WHOLE	0.20	Not set	25	0	0
Fipronil	WHOLE	0.005	Not set	25	0	0
Indoxacarb	WHOLE	0.01	0.20	25	0	0
Pyriproxyfen	WHOLE	0.05	Not set	25	0	0
Triflumuron	WHOLE	0.05	Not set	25	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	25	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	25	0	0
Flutriafol	WHOLE	0.01	Not set	25	0	0
Hexaconazole	WHOLE	0.05	Not set	25	0	0
Iprodione	WHOLE	0.01	Not set	25	0	0
Penconazole	WHOLE	0.05	Not set	25	0	0
Propiconazole	WHOLE	0.05	Not set	25	0	0
Tebuconazole	WHOLE	0.05	Not set	25	0	0
Triadimefon	WHOLE	0.10	0.10	25	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.01	1	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	25	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	6	n/a	n/a
Lead	WHOLE	0.01	0.20	6	0	0
Mercury	WHOLE	0.01	No limit	6	n/a	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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Lentil	Matrix	LOR (mg/kg)	Aust.Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	11	0	0
Chlordane	WHOLE	0.01	Not set	11	0	0
DDT	WHOLE	0.01	Not set	11	0	0
Endosulfan	WHOLE	0.01	0.10	11	0	0
Endrin	WHOLE	0.01	Not set	11	0	0
HCB	WHOLE	0.01	Not set	11	0	0
HCH	WHOLE	0.01	Not set	11	0	0
Heptachlor	WHOLE	0.01	Not set	11	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	11	0	0
Methoxychlor	WHOLE	0.01	Not set	11	0	0
Mirex	WHOLE	0.01	Not set	11	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	11	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	11	0	0
Chlorpyrifos	WHOLE	0.01	Not set	11	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	11	0	0
Diazinon	WHOLE	0.01	Not set	11	0	0
Dichlorvos	WHOLE	0.10	2.0	11	0	0
Dimethoate	WHOLE	0.05	Not set	11	0	0
Ethoprofos	WHOLE	0.005	Not set	11	0	0
Fenitrothion	WHOLE	0.10	0.10	11	0	0
Malathion	WHOLE	0.10	8.0	11	0	0
Methacrifos	WHOLE	0.01	Not set	11	0	0
Phosmet	WHOLE	0.05	Not set	11	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	11	0	0
Profenofos	WHOLE	0.01	Not set	11	0	0
Terbufos	WHOLE	0.01	Not set	11	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	11	0	0
Bioresmethrin	WHOLE	0.10	Not set	11	0	0
Cyfluthrin	WHOLE	0.05	0.50	11	0	0
Cyhalothrin	WHOLE	0.02	0.20	11	0	0
Cypermethrin	WHOLE	0.01	Not set	11	0	0
Deltamethrin	WHOLE	0.10	0.10	11	0	0
Fenvalerate	WHOLE	0.10	0.50	11	0	0
Permethrin	WHOLE	0.10	Not set	11	0	0
Phenothrin	WHOLE	0.10	Not set	11	0	0

Lentil	Matrix	LOR (mg/kg)	Aust.Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	11	0	0
Diflubenzuron	WHOLE	0.20	Not set	11	0	0
Fipronil	WHOLE	0.005	Not set	11	0	0
Indoxacarb	WHOLE	0.01	0.20	11	0	0
Pyriproxyfen	WHOLE	0.05	Not set	11	0	0
Triflumuron	WHOLE	0.05	Not set	11	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	11	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	11	0	0
Flutriafol	WHOLE	0.01	Not set	11	0	0
Hexaconazole	WHOLE	0.05	Not set	11	0	0
Iprodione	WHOLE	0.01	Not set	11	0	0
Penconazole	WHOLE	0.05	Not set	11	0	0
Propiconazole	WHOLE	0.05	Not set	11	0	0
Tebuconazole	WHOLE	0.05	Not set	11	0	0
Triadimefon	WHOLE	0.10	Not set	11	0	1
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	11	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	4	n/a	n/a
Lead	WHOLE	0.01	0.20	4	0	0
Mercury	WHOLE	0.01	No limit	4	n/a	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. The 'As low as reasonably achievable' principle applies. Detections 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)	No of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	12	0	0
Chlordane	WHOLE	0.01	Not set	12	0	0
DDT	WHOLE	0.01	Not set	12	0	0
Endosulfan	WHOLE	0.01	0.10	12	0	0
Endrin	WHOLE	0.01	Not set	12	0	0
HCB	WHOLE	0.01	Not set	12	0	0
HCH	WHOLE	0.01	Not set	12	0	0
Heptachlor	WHOLE	0.01	Not set	12	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	12	0	0
Methoxychlor	WHOLE	0.01	Not set	12	0	0
Mirex	WHOLE	0.01	Not set	12	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	12	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	12	0	0
Chlorpyrifos	WHOLE	0.01	Not set	12	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	12	0	0
Diazinon	WHOLE	0.01	Not set	12	0	0
Dichlorvos	WHOLE	0.10	Not set	12	0	0
Dimethoate	WHOLE	0.05	0.50	12	0	0
Ethoprofos	WHOLE	0.005	Not set	12	0	0
Fenitrothion	WHOLE	0.10	0.10	12	0	0
Glufosinate	WHOLE	0.05	Not set	3	0	0
Malathion	WHOLE	0.10	Not set	12	0	0
Methacrifos	WHOLE	0.10	Not set	12	0	0
Phosmet	WHOLE	0.05	Not set	12	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	12	0	0
Profenofos	WHOLE	0.01	Not set	12	0	0
Terbufos	WHOLE	0.01	Not set	12	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	12	0	0
Bioresmethrin	WHOLE	0.10	Not set	12	0	0
Cyfluthrin	WHOLE	0.05	0.50	12	0	0
Cyhalothrin	WHOLE	0.02	0.20	12	0	0
Cypermethrin	WHOLE	0.01	0.01	12	0	0
Deltamethrin	WHOLE	0.10	0.10	12	0	0
Fenvalerate	WHOLE	0.10	0.50	12	0	0
Permethrin	WHOLE	0.10	0.10	12	0	0
Phenothrin	WHOLE	0.10	Not set	12	0	0

Lupin	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	No of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	12	0	0
Diflubenzuron	WHOLE	0.20	Not set	12	0	0
Fipronil	WHOLE	0.005	Not set	12	0	0
Indoxacarb	WHOLE	0.01	0.20	12	0	0
Pyriproxyfen	WHOLE	0.05	Not set	12	0	0
Triflumuron	WHOLE	0.05	Not set	12	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	12	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	12	0	0
Flutriafol	WHOLE	0.01	Not set	12	0	0
Hexaconazole	WHOLE	0.05	Not set	12	0	0
Iprodione	WHOLE	0.01	0.10	12	0	0
Penconazole	WHOLE	0.05	Not set	12	0	0
Propiconazole	WHOLE	0.05	Not set	12	0	0
Tebuconazole	WHOLE	0.05	Not set	12	0	0
Triadimefon	WHOLE	0.10	Not set	12	0	0
HERBICIDES						
2,4-D	WHOLE	0.05	0.05	3	0	0
Amitrol	WHOLE	0.10	Not set	3	0	0
Atrazine	WHOLE	0.02	0.02	3	0	0
Carfentrazone-ethyl	WHOLE	0.05	Not set	3	0	0
Chlorsulfuron	WHOLE	0.05	Not set	3	0	0
Clethodim	WHOLE	0.10	0.20	3	0	0
Clodinafop-propargyl	WHOLE	0.05	Not set	3	0	0
Clopyralid	WHOLE	0.10	Not set	3	0	0
Dicamba	WHOLE	0.05	Not set	3	0	0
Diclofop-methyl	WHOLE	0.01	0.10	3	0	0
Diflufenican	WHOLE	0.02	0.05	3	0	0
Diquat	WHOLE	0.10	1.0	3	0	0
Diuron	WHOLE	0.05	Not set	3	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	Not set	3	0	0
Flamprop-M-methyl	WHOLE	0.05	0.05	3	0	0
Fluazifop-p-butyl	WHOLE	0.10	0.50	3	0	0
Glyphosate	WHOLE	0.10	0.10	3	0	0
Haloxyfop	WHOLE	0.05	0.10	3	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	Not set	3	0	0
MCPA	WHOLE	0.02	Not set	3	0	0
Metolachlor	WHOLE	0.02	Not set	3	0	0
Metosulam	WHOLE	0.02	Not set	3	0	0
Metsulfuron-methyl	WHOLE	0.01	Not set	3	0	0

Lupin	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	No of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Paraquat	WHOLE	0.05	1.0	3	0	0
Pendimethalin	WHOLE	0.05	0.05	3	0	0
Picloram	WHOLE	0.20	Not set	3	0	0
Simazine	WHOLE	0.01	0.05	3	0	0
Tralkoxydim	WHOLE	0.02	Not set	3	0	0
Triasulfuron	WHOLE	0.02	Not set	3	0	0
Triclopyr	WHOLE	0.02	Not set	3	0	0
Trifluralin	WHOLE	0.05	0.05	3	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.01	4	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	12	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	2	0	0
Lead	WHOLE	0.01	0.20	2	0	0
Mercury	WHOLE	0.01	No limit	2	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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

Maize	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	5	0	0
Chlordane	WHOLE	0.01	0.02	5	0	0
DDT	WHOLE	0.01	0.10	5	0	0
Endosulfan	WHOLE	0.01	0.10	5	0	0
Endrin	WHOLE	0.01	Not set	5	0	0
HCB	WHOLE	0.01	0.05	5	0	0
HCH	WHOLE	0.01	0.10	5	0	0
Heptachlor	WHOLE	0.01	0.02	5	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	5	0	0
Methoxychlor	WHOLE	0.01	Not set	5	0	0
Mirex	WHOLE	0.01	Not set	5	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	5	0	0
Chlorfenvinphos	WHOLE	0.05	0.05	5	0	0
Chlorpyrifos	WHOLE	0.01	0.10	5	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10	5	0	0
Diazinon	WHOLE	0.01	0.10	5	0	0
Dichlorvos	WHOLE	0.10	5.0	5	0	0
Dimethoate (RD)	WHOLE	0.05	0.05	5	0	0
Ethoprofos	WHOLE	0.005	0.005	5	0	0
Fenitrothion	WHOLE	0.10	10.0	5	0	0
Malathion	WHOLE	0.10	8.0	5	0	0
Methacrifos	WHOLE	0.01	Not set	5	0	0
Phosmet	WHOLE	0.05	0.05	5	0	0
Pirimiphos-methyl	WHOLE	0.10	7.0	5	0	0
Profenofos	WHOLE	0.01	Not set	5	0	0
Terbufos	WHOLE	0.01	0.01	5	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	5	0	0
Bioresmethrin	WHOLE	0.10	Not set	5	0	0
Cyfluthrin	WHOLE	0.05	2.0	5	0	0
Cyhalothrin	WHOLE	0.02	Not set	5	0	0
Cypermethrin	WHOLE	0.01	1.0	5	0	0
Deltamethrin	WHOLE	0.10	2.0	5	0	0
Fenvalerate	WHOLE	0.10	2.0	5	0	0
Permethrin	WHOLE	0.10	2.0	5	0	0
Phenothrin	WHOLE	0.10	Not set	5	0	0

Maize	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Fipronil	WHOLE	0.005	Not set	5	0	0
Pyriproxyfen	WHOLE	0.05	Not set	5	0	0
Indoxacarb	WHOLE	0.01	Not set	5	0	0
Diflubenzuron	WHOLE	0.20	2.0	5	0	0
Triflumuron	WHOLE	0.05	0.05	5	0	0
Carbaryl	WHOLE	0.10	5.0	5	0	0
Methoprene	WHOLE	0.10	2.0	5	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	5	0	0
Flutriafol	WHOLE	0.01	0.02	5	0	0
Hexaconazole	WHOLE	0.05	Not set	5	0	0
Iprodione	WHOLE	0.01	Not set	5	0	0
Penconazole	WHOLE	0.05	Not set	5	0	0
Propiconazole	WHOLE	0.05	0.05	5	0	0
Tebuconazole	WHOLE	0.05	0.20	5	0	0
Triadimefon	WHOLE	0.10	0.50	5	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	20.0	5	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.

Mung bean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	1	0	0
Chlordane	WHOLE	0.01	Not set	1	0	0
DDT	WHOLE	0.01	Not set	1	0	0
Endosulfan	WHOLE	0.01	0.10	1	0	0
Endrin	WHOLE	0.01	Not set	1	0	0
HCB	WHOLE	0.01	Not set	1	0	0
HCH	WHOLE	0.01	Not set	1	0	0
Heptachlor	WHOLE	0.01	Not set	1	0	0
Lindane (γ-HCH)	WHOLE	0.02	Not set	1	0	0
Methoxychlor	WHOLE	0.01	Not set	1	0	0
Mirex	WHOLE	0.01	Not set	1	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	1	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	1	0	0
Chlorpyrifos	WHOLE	0.01	Not set	1	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	1	0	0
Diazinon	WHOLE	0.01	Not set	1	0	0
Dichlorvos	WHOLE	0.10	Not set	1	0	1[a]
Dimethoate (RD)	WHOLE	0.05	Not set	1	0	0
Ethoprofos	WHOLE	0.005	Not set	1	0	0
Fenitrothion	WHOLE	0.10	0.10	1	0	0
Malathion	WHOLE	0.10	Not set	1	0	0
Methacrifos	WHOLE	0.01	Not set	1	0	
Phosmet	WHOLE	0.05	Not set	1	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	1	0	0
Profenofos	WHOLE	0.01	Not set	1	0	0
Terbufos	WHOLE	0.01	Not set	1	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	1	0	0
Bioresmethrin	WHOLE	0.10	Not set	1	0	0
Cyfluthrin	WHOLE	0.05	0.50	1	0	0
Cyhalothrin	WHOLE	0.02	0.20	1	0	0
Cypermethrin	WHOLE	0.01	0.05	1	0	0
Deltamethrin	WHOLE	0.10	0.10	1	0	0
Fenvalerate	WHOLE	0.10	0.50	1	0	0
Permethrin	WHOLE	0.10	0.10	1	0	0
Phenothrin	WHOLE	0.10	Not set	1	0	0

Mung bean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	1	0	0
Diflubenzuron	WHOLE	0.20	Not set	1	0	0
Fipronil	WHOLE	0.005	Not set	1	0	0
Indoxacarb	WHOLE	0.01	0.20	1	0	0
Pyriproxyfen	WHOLE	0.05	Not set	1	0	0
Triflumuron	WHOLE	0.05	Not set	1	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	1	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	1	0	0
Flutriafol	WHOLE	0.01	Not set	1	0	0
Hexaconazole	WHOLE	0.05	Not set	1	0	0
Iprodione	WHOLE	0.01	0.20	1	0	0
Penconazole	WHOLE	0.05	Not set	1	0	0
Propiconazole	WHOLE	0.05	Not set	1	0	0
Tebuconazole	WHOLE	0.05	Not set	1	0	0
Triadimefon	WHOLE	0.10	Not set	1	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	1	0	0

a – Investigations revealed that the shed where the mung bean was stored had been treated with dichlorvos, and cross-contamination had occurred.

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	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	35	0	0
Chlordane	WHOLE	0.01	0.02	35	0	0
DDT	WHOLE	0.01	0.10	35	0	0
Endosulfan	WHOLE	0.01	0.10	35	0	0
Endrin	WHOLE	0.01	Not set	35	0	0
HCB	WHOLE	0.01	0.05	35	0	0
HCH	WHOLE	0.01	0.10	35	0	0
Heptachlor	WHOLE	0.01	0.02	35	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	35	0	0
Methoxychlor	WHOLE	0.01	Not set	35	0	0
Mirex	WHOLE	0.01	Not set	35	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	35	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	35	0	0
Chlorpyrifos	WHOLE	0.01	0.10	35	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	35	0	0
Diazinon	WHOLE	0.01	0.10	35	0	0
Dichlorvos	WHOLE	0.10	5.0	35	0	0
Dimethoate (RD)	WHOLE	0.05	0.05	35	0	0
Ethoprofos	WHOLE	0.005	0.005	35	0	0
Fenitrothion	WHOLE	0.10	10.0	35	0	0
Malathion	WHOLE	0.10	8.0	35	0	0
Methacrifos	WHOLE	0.10	Not set	35	0	0
Phosmet	WHOLE	0.05	0.05	35	0	0
Pirimiphos-methyl	WHOLE	0.10	7.0	35	0	0
Profenofos	WHOLE	0.01	Not set	35	0	0
Terbufos	WHOLE	0.01	0.01	35	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	35	0	0
Bioresmethrin	WHOLE	0.10	Not set	35	0	0
Cyfluthrin	WHOLE	0.05	2.0	35	0	0
Cyhalothrin	WHOLE	0.02	Not set	35	0	0
Cypermethrin	WHOLE	0.01	1.0	35	0	0
Deltamethrin	WHOLE	0.10	2.0	35	0	0
Fenvalerate	WHOLE	0.10	2.0	35	0	0
Permethrin	WHOLE	0.10	2.0	35	0	0
Phenothrin	WHOLE	0.10	Not set	35	0	0

Oat	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	5.0	35	0	0
Diflubenzuron	WHOLE	0.20	2.0	35	0	0
Fipronil	WHOLE	0.005	Not set	35	0	0
Indoxacarb	WHOLE	0.01	Not set	35	0	0
Pyriproxyfen	WHOLE	0.05	Not set	35	0	0
Triflumuron	WHOLE	0.05	0.05	35	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	35	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	35	0	0
Flutriafol	WHOLE	0.01	0.02	35	0	0
Hexaconazole	WHOLE	0.05	Not set	35	0	0
Iprodione	WHOLE	0.01	Not set	35	0	0
Penconazole	WHOLE	0.05	Not set	35	0	0
Propiconazole	WHOLE	0.05	0.05	35	0	0
Tebuconazole	WHOLE	0.05	0.20	35	0	0
Triadimefon	WHOLE	0.10	0.50	35	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.10	7	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	20.0	35	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	5	n/a	n/a
Lead	WHOLE	0.01	0.20	5	4	0
Mercury	WHOLE	0.01	No limit	5	n/a	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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Sorghum	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	Number > Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	152	0	0
Chlordane	WHOLE	0.01	0.02	152	0	0
DDT	WHOLE	0.01	0.10	152	0	0
Endosulfan	WHOLE	0.01	0.10	152	0	0
Endrin	WHOLE	0.01	Not set	152	0	0
HCB	WHOLE	0.01	0.05	152	0	0
HCH	WHOLE	0.01	0.10	152	0	0
Heptachlor	WHOLE	0.01	0.02	152	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	152	0	0
Methoxychlor	WHOLE	0.01	Not set	152	0	0
Mirex	WHOLE	0.001	Not set	152	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	152	0	0
Chlorfenvinphos	WHOLE	0.10	Not set	152	0	0
Chlorpyrifos	WHOLE	0.01	3.0	152	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	152	0	0
Diazinon	WHOLE	0.01	0.10	152	0	0
Dichlorvos	WHOLE	0.10	5.0	152	0	0
Dimethoate (RD)	WHOLE	0.05	0.05	152	0	0
Ethoprofos	WHOLE	0.005	0.005	152	0	0
Fenitrothion	WHOLE	0.10	10.0	152	0	0
Malathion	WHOLE	0.10	8.0	152	0	0
Methacrifos	WHOLE	0.10	Not set	152	0	0
Phosmet	WHOLE	0.05	0.05	152	0	0
Pirimiphos-methyl	WHOLE	0.10	10.0	152	0	0
Profenofos	WHOLE	0.01	Not set	152	0	0
Terbufos	WHOLE	0.01	0.01	152	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	152	0	0
Bioresmethrin	WHOLE	0.10	Not set	152	0	1[a]
Cyfluthrin	WHOLE	0.05	2.0	152	0	0
Cyhalothrin	WHOLE	0.02	0.5	152	0	0
Cypermethrin	WHOLE	0.01	1.0	152	0	0
Deltamethrin	WHOLE	0.10	2.0	152	0	0
Fenvalerate	WHOLE	0.10	2.0	152	0	0
Permethrin	WHOLE	0.10	2.0	152	0	0
Phenothrin	WHOLE	0.10	Not set	152	0	0

Sorghum	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	Number > Aust. Std
Other						
Carbaryl	WHOLE	0.10	5.0	152	0	0
Diflubenzuron	WHOLE	0.20	2.0	152	0	0
Fipronil	WHOLE	0.005	0.01	152	0	0
Indoxacarb	WHOLE	0.01	Not set	152	0	0
Pyriproxyfen	WHOLE	0.05	Not set	152	0	0
Triflumuron	WHOLE	0.05	0.05	152	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	152	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	152	0	0
Flutriafol	WHOLE	0.01	0.02	152	0	0
Hexaconazole	WHOLE	0.05	Not set	152	0	0
Iprodione	WHOLE	0.01	Not set	152	0	0
Penconazole	WHOLE	0.05	Not set	152	0	0
Propiconazole	WHOLE	0.05	0.05	152	0	0
Tebuconazole	WHOLE	0.05	0.20	152	0	0
Triadimefon	WHOLE	0.10	0.50	152	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.10	9	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	20.0	152	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	14	n/a	n/a
Lead	WHOLE	0.01	0.20	14	0	0
Mercury	WHOLE	0.01	No limit	14	n/a	n/a

a – Sample contamination by flyspray.

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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Soybean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
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	0.01	0.10	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	0.02	3	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.05	3	0	0
Methoxychlor	WHOLE	0.01	Not set	3	0	0
Mirex	WHOLE	0.01	Not set	3	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	3	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	3	0	0
Chlorpyrifos	WHOLE	0.01	Not set	3	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	3	0	0
Diazinon	WHOLE	0.01	Not set	3	0	0
Dichlorvos	WHOLE	0.10	2.0	3	0	0
Dimethoate (RD)	WHOLE	0.05	Not set	3	0	0
Ethoprofos	WHOLE	0.005	Not set	3	0	0
Fenitrothion	WHOLE	0.10	0.10	3	0	0
Malathion	WHOLE	0.10	Not set	3	0	0
Methacrifos	WHOLE	0.01	Not set	3	0	0
Phosmet	WHOLE	0.05	Not set	3	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	3	0	0
Profenofos	WHOLE	0.01	Not set	3	0	0
Terbufos	WHOLE	0.01	Not set	3	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	0.02	3	0	0
Bioresmethrin	WHOLE	0.10	Not set	3	0	0
Cyfluthrin	WHOLE	0.05	0.50	3	0	0
Cyhalothrin	WHOLE	0.02	0.02	3	0	0
Cypermethrin	WHOLE	0.01	0.05	3	0	0
Deltamethrin	WHOLE	0.10	0.10	3	0	0
Fenvalerate	WHOLE	0.10	0.50	3	0	0
Permethrin	WHOLE	0.10	0.10	3	0	0
Phenothrin	WHOLE	0.10	Not set	3	0	0

Soybean	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	Not set	3	0	0
Diflubenzuron	WHOLE	0.20	Not set	3	0	0
Fipronil	WHOLE	0.005	Not set	3	0	0
Indoxacarb	WHOLE	0.01	0.20	3	0	0
Pyriproxyfen	WHOLE	0.05	Not set	3	0	0
Triflumuron	WHOLE	0.05	Not set	3	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	3	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	3	0	0
Flutriafol	WHOLE	0.01	Not set	3	0	0
Hexaconazole	WHOLE	0.05	Not set	3	0	0
Iprodione	WHOLE	0.01	0.05	3	0	0
Penconazole	WHOLE	0.05	Not set	3	0	0
Propiconazole	WHOLE	0.05	Not set	3	0	0
Tebuconazole	WHOLE	0.05	Not set	3	0	0
Triadimefon	WHOLE	0.10	Not set	3	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	Not set	3	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.

Sunflower	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	Not set	2	0	0
Chlordane	WHOLE	0.01	Not set	2	0	0
DDT	WHOLE	0.01	Not set	2	0	0
Endosulfan	WHOLE	0.02	1.0	2	0	0
Endrin	WHOLE	0.01	Not set	2	0	0
HCB	WHOLE	0.01	Not set	2	0	0
HCH	WHOLE	0.01	Not set	2	0	0
Heptachlor	WHOLE	0.01	Not set	2	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.05	2	0	0
Methoxychlor	WHOLE	0.01	Not set	2	0	0
Mirex	WHOLE	0.001	Not set	2	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	Not set	2	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	2	0	0
Chlorpyrifos	WHOLE	0.01	0.05	2	0	0
Chlorpyrifos-methyl	WHOLE	0.10	Not set	2	0	0
Diazinon	WHOLE	0.01	Not set	2	0	0
Dichlorvos	WHOLE	0.10	Not set	2	0	0
Dimethoate	WHOLE	0.05	0.10	2	0	0
Ethoprofos	WHOLE	0.005	Not set	2	0	0
Fenitrothion	WHOLE	0.10	0.10	2	0	0
Malathion	WHOLE	0.10	Not set	2	0	0
Methacrifos	WHOLE	0.01	Not set	2	0	0
Phosmet	WHOLE	0.05	Not set	2	0	0
Pirimiphos-methyl	WHOLE	0.10	Not set	2	0	0
Profenofos	WHOLE	0.01	Not set	2	0	0
Terbufos	WHOLE	0.01	0.05	2	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	Not set	2	0	0
Bioresmethrin	WHOLE	0.10	Not set	2	0	0
Cyfluthrin	WHOLE	0.05	Not set	2	0	0
Cyhalothrin	WHOLE	0.02	0.01	2	0	0
Cypermethrin	WHOLE	0.01	0.10	2	0	0
Deltamethrin	WHOLE	0.10	0.10	2	0	0
Fenvalerate	WHOLE	0.10	0.50	2	0	0
Permethrin	WHOLE	0.10	0.20	2	0	0
Phenothrin	WHOLE	0.10	Not set	2	0	0

Sunflower	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Fipronil	WHOLE	0.005	0.01	2	0	0
Pyriproxyfen	WHOLE	0.05	Not set	2	0	0
Indoxacarb	WHOLE	0.01	1.0	2	0	0
Diflubenzuron	WHOLE	0.20	Not set	2	0	0
Triflumuron	WHOLE	0.05	Not set	2	0	0
Carbaryl	WHOLE	0.10	1.0	2	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	Not set	2	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	2	0	0
Flutriafol	WHOLE	0.01	Not set	2	0	0
Hexaconazole	WHOLE	0.05	Not set	2	0	0
Iprodione	WHOLE	0.01	0.05	2	0	0
Penconazole	WHOLE	0.05	Not set	2	0	0
Propiconazole	WHOLE	0.05	Not set	2	0	0
Tebuconazole	WHOLE	0.05	Not set	2	0	0
Triadimefon	WHOLE	0.10	Not set	2	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	8.0	2	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.

Triticale	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	1	0	0
Chlordane	WHOLE	0.01	0.02	1	0	0
DDT	WHOLE	0.01	0.10	1	0	0
Endosulfan	WHOLE	0.01	0.10	1	0	0
Endrin	WHOLE	0.01	Not set	1	0	0
HCB	WHOLE	0.01	0.05	1	0	0
HCH	WHOLE	0.01	0.10	1	0	0
Heptachlor	WHOLE	0.01	0.02	1	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	1	0	0
Methoxychlor	WHOLE	0.01	Not set	1	0	0
Mirex	WHOLE	0.01	Not set	1	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	1	0	0
Chlorfenvinphos	WHOLE	0.05	Not set	1	0	0
Chlorpyrifos	WHOLE	0.01	0.10	1	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	1	0	0
Diazinon	WHOLE	0.01	0.10	1	0	0
Dichlorvos	WHOLE	0.10	5.0	1	0	0
Dimethoate (RD)	WHOLE	0.05	0.05	1	0	0
Ethoprofos	WHOLE	0.005	0.005	1	0	0
Fenitrothion	WHOLE	0.10	10.0	1	0	0
Malathion	WHOLE	0.10	8.0	1	0	0
Methacrifos	WHOLE	0.01	Not set	1	0	0
Phosmet	WHOLE	0.05	0.05	1	0	0
Pirimiphos-methyl	WHOLE	0.10	10.0	1	0	0
Profenofos	WHOLE	0.01	Not set	1	0	0
Terbufos	WHOLE	0.01	0.01	1	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	1	0	0
Bioresmethrin	WHOLE	0.10	Not set	1	0	0
Cyfluthrin	WHOLE	0.05	2.0	1	0	0
Cyhalothrin	WHOLE	0.02	Not set	1	0	0
Cypermethrin	WHOLE	0.01	1.0	1	1	0
Deltamethrin	WHOLE	0.10	2.0	1	0	0
Fenvalerate	WHOLE	0.10	2.0	1	0	0
Permethrin	WHOLE	0.10	2.0	1	0	0
Phenothrin	WHOLE	0.10	Not set	1	0	0

Triticale	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Fipronil	WHOLE	0.005	Not set	1	0	0
Pyriproxyfen	WHOLE	0.05	Not set	1	0	0
Indoxacarb	WHOLE	0.01	Not set	1	0	0
Diflubenzuron	WHOLE	0.20	2.0	1	0	0
Triflumuron	WHOLE	0.05	0.05	1	0	0
Carbaryl	WHOLE	0.10	5.0	1	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	1	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	1	0	0
Flutriafol	WHOLE	0.01	0.02	1	0	0
Hexaconazole	WHOLE	0.05	Not set	1	0	0
Iprodione	WHOLE	0.01	Not set	1	0	0
Penconazole	WHOLE	0.05	Not set	1	0	0
Propiconazole	WHOLE	0.05	0.05	1	0	0
Tebuconazole	WHOLE	0.05	0.20	1	0	0
Triadimefon	WHOLE	0.10	0.50	1	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	20.0	1	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)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	1 688	0	0
Chlordane	WHOLE	0.01	0.02	1 688	0	0
DDT	WHOLE	0.01	0.10	1 688	0	0
Endosulfan	WHOLE	0.01	0.10	1 688	0	0
Endrin	WHOLE	0.01	not set	1 688	0	0
HCB	WHOLE	0.01	0.05	1 688	0	0
HCH	WHOLE	0.01	0.10	1 688	0	0
Heptachlor	WHOLE	0.01	0.02	1 688	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.10	1 688	0	0
Methoxychlor	WHOLE	0.01	not set	1 688	0	0
Mirex	WHOLE	0.01	not set	1 688	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	1 688	0	0
Chlorfenvinphos	WHOLE	0.10	0.05	1 688	0	0
Chlorpyrifos	WHOLE	0.10	10.0	1 688	0	0
Chlorpyrifos-methyl	WHOLE	0.01	10.0	1 688	1	0
Diazinon	WHOLE	0.10	5.0	1 688	0	0
Dichlorvos	WHOLE	0.01	5.0	1 688	0	0
Dimethoate	WHOLE	0.05	0.05	1 688	0	0
Ethoprofos	WHOLE	0.05	0.05	1 688	0	0
Fenitrothion	WHOLE	0.01	10.0	1 688	2	0
Malathion	WHOLE	0.10	8.0	1 688	0	0
Methacrifos	WHOLE	0.10	Not set	1 688	0	0
Phosmet	WHOLE	0.05	0.05	1 688	0	0
Pirimiphos-methyl	WHOLE	0.10	10.0	1 688	0	0
Profenofos	WHOLE	0.01	Not set	1 688	0	0
Terbufos	WHOLE	0.01	0.01	1 688	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	1 688	0	0
Bioresmethrin	WHOLE	0.10	Not set	1 688	0	0
Cyfluthrin	WHOLE	0.05	2.0	1 688	0	0
Cyhalothrin	WHOLE	0.02	0.05	1 688	0	0
Cypermethrin	WHOLE	0.01	0.20	1 688	0	0
Deltamethrin	WHOLE	0.10	2.0	1 688	0	0
Fenvalerate	WHOLE	0.10	2.0	1 688	0	0
Permethrin	WHOLE	0.10	2.0	1 688	0	0
Phenothrin	WHOLE	0.10	2.0	1 688	0	0

Wheat (grain)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.01	5.0	1 688	0	0
Diflubenzuron	WHOLE	0.20	2.0	1 688	0	0
Fipronil	WHOLE	0.005	Not set	1 688	0	0
Indoxacarb	WHOLE	0.01	Not set	1 688	0	0
Pyriproxyfen	WHOLE	0.05	not set	1 688	0	0
Triflumuron	WHOLE	0.05	0.05	1 688	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	1 688	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	1 688	0	0
Flutriafol	WHOLE	0.01	0.02	1 688	2	3[abc]
Hexaconazole	WHOLE	0.01	Not set	1 688	0	0
Iprodione	WHOLE	0.05	Not set	1 688	0	0
Penconazole	WHOLE	0.05	Not set	1 688	0	0
Propiconazole	WHOLE	0.05	0.01	1 688	0	0
Tebuconazole	WHOLE	0.05	0.20	1 688	0	0
Triadimefon	WHOLE	0.10	0.50	1 688	0	0
HERBICIDES						
2,4-D	WHOLE	0.01	0.20	147	0	0
Amitrol	WHOLE	0.10	0.01	147	0	0
Atrazine	WHOLE	0.01	not set	147	0	0
Carfentrazone-ethyl	WHOLE	0.01	0.05	147	0	0
Chlorsulfuron	WHOLE	0.01	0.01	147	0	0
Clethodim	WHOLE	0.01	0.10	147	0	0
Clodinafop-propargyl	WHOLE	0.01	0.05	147	0	0
Clopyralid	WHOLE	0.10	2.0	147	0	0
Dicamba	WHOLE	0.01	0.05	147	0	0
Diclofop-methyl	WHOLE	0.01	0.10	147	0	0
Diflufenican	WHOLE	0.01	Not set	147	0	0
Diquat	WHOLE	0.01	2.0	147	0	0
Diuron	WHOLE	0.05	0.10	147	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	0.01	147	0	0
Flamprop-M-methyl	WHOLE	0.01	0.05	147	0	0
Fluazifop-p-butyl	WHOLE	0.01	Not set	147	0	0
Glufosinate	WHOLE	0.05	Not set	147	0	0
Glyphosate	WHOLE	0.10	5.0	147	0	0
Haloxyfop	WHOLE	0.05	Not set	147	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	0.01	147	0	0
MCPA	WHOLE	0.01	0.02	147	0	0
Metolachlor	WHOLE	0.02	0.02	147	0	0
Metosulam	WHOLE	0.02	0.02	147	0	0
Metsulfuron-methyl	WHOLE	0.01	0.02	147	0	0
Paraquat	WHOLE	0.01	0.05	147	0	0
Pendimethalin	WHOLE	0.05	0.05	147	0	0
Picloram	WHOLE	0.01	0.20	147	0	0
Simazine	WHOLE	0.01	not set	147	0	1[d]
Tralkoxydim	WHOLE	0.02	0.02	147	0	0
Triasulfuron	WHOLE	0.02	0.02	147	0	0
Triclopyr	WHOLE	0.02	Not set	147	0	0

Wheat (grain)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Trifluralin	WHOLE	0.01	0.05	147	0	0
FUMIGANTS						
Phosphine	WHOLE	0.005	0.10	47	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGIST						
Piperonyl butoxide	WHOLE	1.0	20.0	1 688	0	0
ENVIRONMENTAL CONTAMINANTS						
Cadmium	WHOLE	0.01	0.10	189	3	0
Lead	WHOLE	0.01	0.20	189	0	0
Mercury	WHOLE	0.01	No limit	189	n/a	n/a

a, b, c – Traceback revealed that contamination was probably from inapproriate on-farm practice, or from contact with seed dressing.

d – Reason not finalised as report went to print.

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. The 'As low as reasonably achievable' principle applies. Detections 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 samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	193	0	0
Chlordane	WHOLE	0.01	0.02	193	0	0
DDT	WHOLE	0.01	0.10	193	0	0
Endosulfan	WHOLE	0.01	0.10	193	0	0
Endrin	WHOLE	0.01	Not set	193	0	0
HCB	WHOLE	0.01	0.05	193	0	0
HCH	WHOLE	0.01	0.10	193	0	0
Heptachlor	WHOLE	0.01	0.02	193	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	193	0	0
Methoxychlor	WHOLE	0.05	Not set	193	0	0
Mirex	WHOLE	0.05	Not set	193	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.50	193	0	0
Chlorfenvinphos	WHOLE	0.10	0.05	193	0	0
Chlorpyrifos	WHOLE	0.01	0.10	193	1	0
Chlorpyrifos-methyl	WHOLE	0.10	20.0	193	6	0
Diazinon	WHOLE	0.01	0.10	193	0	0
Dichlorvos	WHOLE	0.10	10.0	193	0	0
Dimethoate	WHOLE	0.05	0.05	193	0	0
Ethoprofos	WHOLE	0.005	0.005	193	0	0
Fenitrothion	WHOLE	0.10	20.0	193	1	1[a]
Malathion	WHOLE	0.10	20.0	193	0	0
Methacrifos	WHOLE	0.10	Not set	193	0	0
Phosmet	WHOLE	0.05	0.05	193	0	0
Pirimiphos-methyl	WHOLE	0.10	20.0	193	0	0
Profenofos	WHOLE	0.01	Not set	193	0	0
Terbufos	WHOLE	0.01	0.01	193	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	193	0	0
Bioresmethrin	WHOLE	0.10	Not set	193	0	0
Cyfluthrin	WHOLE	0.05	5.0	193	0	0
Cyhalothrin	WHOLE	0.02	0.05	193	0	0
Cypermethrin	WHOLE	0.01	0.20	193	0	0
Deltamethrin	WHOLE	0.10	5.0	193	1	0
Fenvalerate	WHOLE	0.10	5.0	193	0	0
Permethrin	WHOLE	0.10	5.0	193	0	0
Phenothrin	WHOLE	0.10	5.0	193	0	0

Wheat (bran)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	20.0	193	0	0
Diflubenzuron	WHOLE	0.20	5.0	193	0	0
Fipronil	WHOLE	0.005	Not set	193	0	0
Indoxacarb	WHOLE	0.01	Not set	193	0	0
Pyriproxyfen	WHOLE	0.05	Not set	193	0	0
Triflumuron	WHOLE	0.05	0.05	193	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	5.0	193	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	193	0	0
Flutriafol	WHOLE	0.01	0.02	193	0	0
Hexaconazole	WHOLE	0.05	Not set	193	0	0
Iprodione	WHOLE	0.01	Not set	193	0	0
Penconazole	WHOLE	0.05	Not set	193	0	0
Propiconazole	WHOLE	0.05	0.05	193	0	0
Tebuconazole	WHOLE	0.05	0.20	193	0	0
Triadimefon	WHOLE	0.10	0.50	193	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	40.0	193	1	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	No limit	1	n/a	n/a
Lead	WHOLE	0.01	0.20	1	0	0
Mercury	WHOLE	0.01	No limit	1	n/a	n/a

a – Residue due to accumulation in bran fraction.

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. The 'As low as reasonably achievable' principle applies. Detections 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)	No of Samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	190	0	0
Chlordane	WHOLE	0.01	0.02	190	0	0
DDT	WHOLE	0.01	0.10	190	0	0
Endosulfan	WHOLE	0.01	0.10	190	0	0
Endrin	WHOLE	0.01	Not set	190	0	0
HCB	WHOLE	0.01	0.05	190	0	0
HCH	WHOLE	0.01	0.10	190	0	0
Heptachlor	WHOLE	0.01	0.02	190	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	190	0	0
Methoxychlor	WHOLE	0.01	Not set	190	0	0
Mirex	WHOLE	0.01	Not set	190	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	190	0	0
Chlorfenvinphos	WHOLE	0.10	0.05	190	0	0
Chlorpyrifos	WHOLE	0.01	0.10	190	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10	190	0	0
Diazinon	WHOLE	0.01	0.10	190	0	0
Dichlorvos	WHOLE	0.10	5.0	190	0	0
Dimethoate (RD)	WHOLE	0.05	0.05	190	0	0
Ethoprofos	WHOLE	0.005	0.005	190	0	0
Fenitrothion	WHOLE	0.10	10.0	190	0	0
Malathion	WHOLE	0.10	8.0	190	0	0
Methacrifos	WHOLE	0.10	Not set	190	0	0
Phosmet	WHOLE	0.05	0.05	190	0	0
Pirimiphos-methyl	WHOLE	0.10	10	190	0	0
Profenofos	WHOLE	0.01	Not set	190	0	0
Terbufos	WHOLE	0.01	0.01	190	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	190	0	0
Bioresmethrin	WHOLE	0.10	Not set	190	0	0
Cyfluthrin	WHOLE	0.05	2.0	190	0	0
Cyhalothrin	WHOLE	0.02	0.05	190	0	0
Cypermethrin	WHOLE	0.01	0.20	190	0	0
Deltamethrin	WHOLE	0.10	2.0	190	0	0
Fenvalerate	WHOLE	0.10	2.0	190	0	0
Permethrin	WHOLE	0.10	2.0	190	0	0
Phenothrin	WHOLE	0.10	2.0	190	0	0

Wheat (flour)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	No of Samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	5.0	190	0	0
Diflubenzuron	WHOLE	0.20	2.0	190	0	0
Fipronil	WHOLE	0.005	Not set	190	0	0
Indoxacarb	WHOLE	0.01	Not set	190	0	0
Pyriproxyfen	WHOLE	0.05	Not set	190	0	0
Triflumuron	WHOLE	0.05	0.05	190	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	190	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	190	0	0
Flutriafol	WHOLE	0.01	0.02	190	0	0
Hexaconazole	WHOLE	0.05	Not set	190	0	0
Iprodione	WHOLE	0.01	Not set	190	0	0
Penconazole	WHOLE	0.05	Not set	190	0	0
Propiconazole	WHOLE	0.05	0.05	190	0	0
Tebuconazole	WHOLE	0.05	0.20	190	0	0
Triadimefon	WHOLE	0.10	0.50	190	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGIST						
Piperonyl butoxide	WHOLE	1.0	20.0	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 Australian New Zealand Food Standards Code.

Wheat (durum)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	8	0	0
Chlordane	WHOLE	0.01	0.02	8	0	0
DDT	WHOLE	0.01	0.10	8	0	0
Endosulfan	WHOLE	0.01	0.10	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	0.10	8	0	0
Heptachlor	WHOLE	0.01	0.02	8	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.10	8	0	0
Methoxychlor	WHOLE	0.01	not set	8	0	0
Mirex	WHOLE	0.01	not set	8	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	8	0	0
Chlorfenvinphos	WHOLE	0.10	0.05	8	0	0
Chlorpyrifos	WHOLE	0.10	10.0	8	0	0
Chlorpyrifos-methyl	WHOLE	0.01	10.0	8	1	0
Diazinon	WHOLE	0.10	5.0	8	0	0
Dichlorvos	WHOLE	0.01	5.0	8	0	0
Dimethoate	WHOLE	0.05	0.05	8	0	0
Ethoprofos	WHOLE	0.05	0.05	8	0	0
Fenitrothion	WHOLE	0.01	10.0	8	2	0
Malathion	WHOLE	0.10	8.0	8	0	0
Methacrifos	WHOLE	0.10	Not set	8	0	0
Phosmet	WHOLE	0.05	0.05	8	0	0
Pirimiphos-methyl	WHOLE	0.10	10.0	8	0	0
Profenofos	WHOLE	0.01	Not set	8	0	0
Terbufos	WHOLE	0.01	0.01	8	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	8	0	0
Bioresmethrin	WHOLE	0.10	Not set	8	0	0
Cyfluthrin	WHOLE	0.05	2.0	8	0	0
Cyhalothrin	WHOLE	0.02	0.05	8	0	0
Cypermethrin	WHOLE	0.01	0.20	8	0	0
Deltamethrin	WHOLE	0.10	2.0	8	0	0
Fenvalerate	WHOLE	0.10	2.0	8	0	0
Permethrin	WHOLE	0.10	2.0	8	0	0
Phenothrin	WHOLE	0.10	2.0	8	0	0

Wheat (durum)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.01	5.0	8	0	0
Diflubenzuron	WHOLE	0.20	2.0	8	0	0
Fipronil	WHOLE	0.005	Not set	8	0	0
Indoxacarb	WHOLE	0.01	Not set	8	0	0
Pyriproxyfen	WHOLE	0.05	not set	8	0	0
Triflumuron	WHOLE	0.05	0.05	8	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	8	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	8	0	0
Flutriafol	WHOLE	0.01	0.02	8	2	0
Hexaconazole	WHOLE	0.01	Not set	8	0	0
Iprodione	WHOLE	0.05	Not set	8	0	0
Penconazole	WHOLE	0.05	Not set	8	0	0
Propiconazole	WHOLE	0.05	0.01	8	0	0
Tebuconazole	WHOLE	0.05	0.20	8	0	0
Triadimefon	WHOLE	0.10	0.50	8	0	0
HERBICIDES						
2,4-D	WHOLE	0.01	0.20	1	0	0
Amitrol	WHOLE	0.10	0.01	1	0	0
Atrazine	WHOLE	0.01	not set	1	0	0
Carfentrazone-ethyl	WHOLE	0.01	0.05	1	0	0
Chlorsulfuron	WHOLE	0.01	0.01	1	0	0
Clethodim	WHOLE	0.01	0.10	1	0	0
Clodinafop-propargyl	WHOLE	0.01	0.05	1	0	0
Clopyralid	WHOLE	0.10	2.0	1	0	0
Dicamba	WHOLE	0.01	0.05	1	0	0
Diclofop-methyl	WHOLE	0.01	0.10	1	0	0
Diflufenican	WHOLE	0.01	Not set	1	0	0
Diquat	WHOLE	0.01	2.0	1	0	0
Diuron	WHOLE	0.05	0.10	1	0	0
Fenoxaprop-P-ethyl	WHOLE	0.01	0.01	1	0	0
Flamprop-M-methyl	WHOLE	0.01	0.05	1	0	0
Fluazifop-p-butyl	WHOLE	0.01	Not set	1	0	0
Glufosinate	WHOLE	0.05	Not set	1	0	0
Glyphosate	WHOLE	0.10	5.0	1	0	0
Haloxyfop	WHOLE	0.05	Not set	1	0	0
Iodsulfuron-methyl-sodium	WHOLE	0.01	0.01	1	0	0
MCPA	WHOLE	0.01	0.02	1	0	0
Metolachlor	WHOLE	0.02	0.02	1	0	0
Metosulam	WHOLE	0.02	0.02	1	0	0
Metsulfuron-methyl	WHOLE	0.01	0.02	1	0	0
Paraquat	WHOLE	0.01	0.05	1	0	0

Wheat (durum)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Pendimethalin	WHOLE	0.05	0.05	1	0	0
Picloram	WHOLE	0.01	0.20	1	0	0
Simazine	WHOLE	0.01	not set	1	0	1[a]
Tralkoxydim	WHOLE	0.02	0.02	1	0	0
Triasulfuron	WHOLE	0.02	0.02	1	0	0
Triclopyr	WHOLE	0.02	Not set	1	0	0
Trifluralin	WHOLE	0.01	0.05	1	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGIST						
Piperonyl butoxide	WHOLE	1.0	20.0	8	0	0
ENVIRONMENTAL CONTAMINANTS						
METALS						
Cadmium	WHOLE	0.01	0.10	1	0	0
Lead	WHOLE	0.01	0.20	1	0	0
Mercury	WHOLE	0.01	No limit	1	n/a	n/a

a – Traceback not finalised as report goes to print.

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. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

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

Wheat (durum bran)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	5	0	0
Chlordane	WHOLE	0.01	0.02	5	0	0
DDT	WHOLE	0.01	0.10	5	0	0
Endosulfan	WHOLE	0.01	0.10	5	0	0
Endrin	WHOLE	0.01	Not set	5	0	0
HCB	WHOLE	0.01	0.05	5	0	0
HCH	WHOLE	0.01	0.10	5	0	0
Heptachlor	WHOLE	0.01	0.02	5	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	5	0	0
Methoxychlor	WHOLE	0.00	Not set	5	0	0
Mirex	WHOLE	0.01	Not set	5	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.50	5	0	0
Chlorfenvinphos	WHOLE	0.05	0.05	5	0	0
Chlorpyrifos	WHOLE	0.01	0.10	5	0	0
Chlorpyrifos-methyl	WHOLE	0.10	20.0	5	0	0
Diazinon	WHOLE	0.01	0.10	5	0	0
Dichlorvos	WHOLE	0.10	10.0	5	0	0
Dimethoate	WHOLE	0.05	0.05	5	0	0
Ethoprofos	WHOLE	0.01	0.005	5	0	0
Fenitrothion	WHOLE	0.10	20.0	5	0	0
Malathion	WHOLE	0.10	20.0	5	0	0
Methacrifos	WHOLE	0.01	Not set	5	0	0
Phosmet	WHOLE	0.05	0.05	5	0	0
Pirimiphos-methyl	WHOLE	0.10	20	5	0	0
Profenofos	WHOLE	0.01	Not set	5	0	0
Terbufos	WHOLE	0.01	0.01	5	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	5	0	0
Bioresmethrin	WHOLE	0.10	Not set	5	0	0
Cyfluthrin	WHOLE	0.05	5.0	5	0	0
Cyhalothrin	WHOLE	0.02	0.05	5	0	0
Cypermethrin	WHOLE	0.01	0.20	5	0	0
Deltamethrin	WHOLE	0.10	5.0	5	0	0
Fenvalerate	WHOLE	0.10	5.0	5	0	0
Permethrin	WHOLE	0.10	5.0	5	0	0
Phenothrin	WHOLE	0.10	5.0	5	0	0

Wheat (durum bran)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	20.0	5	0	0
Diflubenzuron	WHOLE	0.20	5.0	5	0	0
Fipronil	WHOLE	0.01	Not set	5	0	0
Indoxacarb	WHOLE	0.01	Not set	5	0	0
Pyriproxyfen	WHOLE	0.05	Not set	5	0	0
Triflumuron	WHOLE	0.05	0.05	5	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	5.0	5	0	0
FUNGICIDES						
Captafol	WHOLE	0.05	Not set	5	0	0
Flutriafol	WHOLE	0.01	0.02	5	0	0
Hexaconazole	WHOLE	0.05	Not set	5	0	0
Iprodione	WHOLE	0.01	Not set	5	0	0
Penconazole	WHOLE	0.05	Not set	5	0	0
Propiconazole	WHOLE	0.05	0.05	5	0	0
Tebuconazole	WHOLE	0.05	0.20	5	0	0
Triadimefon	WHOLE	0.10	0.50	5	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	40.0	5	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 (semolina)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
INSECTICIDES						
Organochlorines						
Aldrin and dieldrin	WHOLE	0.01	0.02	8	0	0
Chlordane	WHOLE	0.01	0.02	8	0	0
DDT	WHOLE	0.01	0.10	8	0	0
Endosulfan	WHOLE	0.01	0.10	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	0.10	8	0	0
Heptachlor	WHOLE	0.01	0.02	8	0	0
Lindane (γ-HCH)	WHOLE	0.02	0.50	8	0	0
Methoxychlor	WHOLE	0.05	Not set	8	0	0
Mirex	WHOLE	0.01	Not set	8	0	0
Organophosphates						
Azamethiphos	WHOLE	0.10	0.10	8	0	0
Chlorfenvinphos	WHOLE	0.05	0.05	8	0	0
Chlorpyrifos	WHOLE	0.01	0.10	8	0	0
Chlorpyrifos-methyl	WHOLE	0.10	10.0	8	3	0
Diazinon	WHOLE	0.01	0.10	8	0	0
Dichlorvos	WHOLE	0.10	5.0	8	0	0
Dimethoate	WHOLE	0.05	0.05	8	0	0
Ethoprofos	WHOLE	0.005	0.005	8	0	0
Fenitrothion	WHOLE	0.10	10.0	8	0	0
Malathion	WHOLE	0.10	8.0	8	0	0
Methacrifos	WHOLE	0.10	Not set	8	0	0
Phosmet	WHOLE	0.05	0.05	8	0	0
Pirimiphos-methyl	WHOLE	0.10	10.0	8	0	0
Profenofos	WHOLE	0.01	Not set	8	0	0
Terbufos	WHOLE	0.01	0.01	8	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.01	2.0	8	0	0
Bioresmethrin	WHOLE	0.10	Not set	8	0	0
Cyfluthrin	WHOLE	0.05	2.0	8	0	0
Cyhalothrin	WHOLE	0.02	0.05	8	0	0
Cypermethrin	WHOLE	0.01	0.20	8	0	0
Deltamethrin	WHOLE	0.10	2.0	8	0	0
Fenvalerate	WHOLE	0.10	2.0	8	0	0
Permethrin	WHOLE	0.10	2.0	8	0	0
Phenothrin	WHOLE	0.10	2.0	8	0	0

Wheat (semolina)	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Other						
Carbaryl	WHOLE	0.10	5.0	8	0	0
Diflubenzuron	WHOLE	0.20	2.0	8	0	0
Fipronil	WHOLE	0.005	Not set	8	0	0
Indoxacarb	WHOLE	0.01	Not set	8	0	0
Pyriproxyfen	WHOLE	0.05	Not set	8	0	0
Triflumuron	WHOLE	0.05	0.05	8	0	0
Insect growth regulators						
Methoprene	WHOLE	0.10	2.0	8	0	0
Fungicides						
Captafol	WHOLE	0.05	Not set	8	0	0
Flutriafol	WHOLE	0.01	0.02	8	0	0
Hexaconazole	WHOLE	0.05	Not set	8	0	0
Iprodione	WHOLE	0.01	Not set	8	0	0
Penconazole	WHOLE	0.05	Not set	8	0	0
Propiconazole	WHOLE	0.05	0.05	8	0	0
Tebuconazole	WHOLE	0.05	0.20	8	0	0
Triadimefon	WHOLE	0.10	0.50	8	0	0
PHYSIOLOGICAL MODIFIERS						
SYNERGISTS						
Piperonyl butoxide	WHOLE	1.0	20.0	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.

Discussion: horticulture results

The horticulture residue monitoring project covered five commodities (apple, pear, blueberry, macadamia nut and onion) involving 845 samples in all.

No agricultural chemical residues were detected at concentrations above the relevant Australian Standards in macadamia nut, blueberry, pear and onion.

There were two detections above the MRL in apple. Both these detections were for the synthetic pyrethroid bifenthrin. These contraventions were attributed to incorrect advice being given by a chemical reseller, and remedial action by the producer has taken place.

Horticulture results tables

Results for the horticultural products (in alphabetical order by commodity name) are shown in the following tables.

Apple	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
ACARICIDES						
Chlorfenapyr	WHOLE	0.10	0.5	469	0	0
Fenpyroximate	WHOLE	0.05	0.3	469	0	0
Indoxacarb	WHOLE	0.10	2.0	469	0	0
Propargite	WHOLE	0.10	3.0	469	3	0
Tebufenozide	WHOLE	0.10	1.0	469	0	0
Tebufenpyrad	WHOLE	0.05	1.0	469	0	0
Thiacloprid	WHOLE	0.05	1.0	469	0	0
Benzimadazoles						
Thiabendazole	WHOLE	0.20	10.0	469	0	0
Carbamates						
Carbaryl	WHOLE	0.10	5.00	469	0	0
Fenoxycarb	WHOLE	0.10	2.0	469	0	0
Pirimicarb	WHOLE	0.10	0.50	469	0	0
FUNGICIDES						
Captan	WHOLE	0.05	10.0	469	0	0
Carbendazim	WHOLE	0.20	5.0	469	0	0
Difenoconazole	WHOLE	0.05	0.30	469	0	0
Dithiocarbamates	WHOLE	0.20	3.0	469	0	0
Dodine	WHOLE	0.10	5.0	469	0	0
Fenarimol	WHOLE	0.05	5.0	469	0	0
Imazalil	WHOLE	0.10	3.0	469	0	0
Iprodione	WHOLE	0.10	0.10	469	25	0
Kresoxsim-methyl	WHOLE	0.05	0.10	469	0	0
Trifloxystrobin	WHOLE	0.10	0.30	469	0	0
Organochlorines						
Aldrin and dieldrin	WHOLE	0.05	0.05	469	0	0
DDT	WHOLE	0.05	1.0	469	0	0
Dicofol	WHOLE	0.05	5.0	469	0	0
Endosulfan	WHOLE	0.05	2.0	469	0	0
Heptachlor	WHOLE	0.05	not set	469	0	0
Lindane (γ-HCH)	WHOLE	0.05	2.0	469	0	0

Apple	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Organophosphates						
Azinphos-methyl	WHOLE	0.05	2.0	469	0	0
Chlorpyrifos	WHOLE	0.05	0.50	469	0	0
Dimethoate (RD)	WHOLE	0.05	5.0	469	0	0
Fenitrothion	WHOLE	0.05	0.50	469	0	0
Fenthion	WHOLE	0.05	2.0	469	0	0
Malathion	WHOLE	0.05	2.0	469	0	0
Methidathion	WHOLE	0.05	0.20	469	0	0
Parathion	WHOLE	0.05	not set	469	0	0
Parathion-methyl	WHOLE	0.05	0.50	469	0	0
Prothiofos	WHOLE	0.05	0.05	469	0	0
Trichlorfon	WHOLE	0.05	0.10	469	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.02	0.05	469	3	2[a]
Cypermethrin	WHOLE	0.10	1.0	469	0	0
Other						
Spinosad	WHOLE	0.05	0.50	469	0	0
PHYSIOLOGICAL MODIFIERS						
Scald inhibitors						
Diphenylamine	WHOLE	0.05	10.0	469	3	0

a – Incorrect advice given. Problem rectified.

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 samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
Acaricides						
Tebufenozide	WHOLE	0.05	2.0	30	0	0
Carbamates						
Methomyl	WHOLE	0.05	2.0	30	0	0
Fungicides						
Captan	WHOLE	0.30	20.0	30	0	0
Dithiocarbamates	WHOLE	0.02	10.0	3	0	0
Propiconazole	WHOLE	0.05	2.0	30	0	0
Organophosphates						
Dimethoate	WHOLE	0.02	5.0	30	0	0
Malathion	WHOLE	0.10	0.50	30	0	0
Omethoate	WHOLE	0.02	2.0	30	0	0
Other						
Spinosad	WHOLE	0.10	0.70	30	0	0

Macadamia Nut	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
Acaricides						
Tebufenozide	WHOLE KERNEL	0.02	0.05	115	0	0
Carbamates						
Carbaryl	WHOLE KERNEL	0.20	1.0	115	0	0
Fungicides						
Carbendazim	WHOLE KERNEL	0.10	0.10	115	0	0
Iprodione	WHOLE KERNEL	0.01	0.01	115	0	0
Metalaxyl	WHOLE KERNEL	0.20	1.0	115	0	0
Herbicides						
Diquat	WHOLE KERNEL	0.02	0.05	20	0	0
Glufosinate	WHOLE KERNEL	0.02	0.10	20	0	0
Glyphosate	WHOLE KERNEL	0.10	0.20	20	0	0
Paraquat	WHOLE KERNEL	0.02	0.05	20	0	0
Oxyfluorfen	WHOLE KERNEL	0.05	0.05	115	0	0
Organochlorines						
Endosulfan	WHOLE KERNEL	0.05	0.05	115	0	0
Organophosphates						
Azinphos-methyl	WHOLE KERNEL	0.01	0.01	115	0	0
Chlorpyrifos	WHOLE KERNEL	0.02	Not set	115	0	0
Diazinon	WHOLE KERNEL	0.05	0.10	115	0	0
Methidathion	WHOLE KERNEL	0.01	0.01	115	0	0
Trichlorfon	WHOLE KERNEL	0.05	0.10	115	0	0
Synthetic pyrethroids						
Cyfluthrin	WHOLE KERNEL	0.05	0.05	115	0	0
Deltamethrin	WHOLE KERNEL	0.05	Not set	115	0	0
Permethrin	WHOLE KERNEL	0.05	Not set	115	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 samples tested	Analytical findings - (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
Fungicides						
Benalaxyl	WHOLE	0.05	0.10	90	0	0
Carbendazim	WHOLE	0.10	3.0	90	0	0
Dimethomorph	WHOLE	0.05	0.05	90	0	0
Dithiocarbamates	WHOLE	0.20	4.0	90	0	0
Metalaxyl	WHOLE	0.05	0.10	90	0	0
Procymidone	WHOLE	0.10	0.20	90	0	0
Tebuconazole	WHOLE	0.01	0.01	90	0	0
Herbicides						
Ioxynil	WHOLE	0.02	0.02	90	0	0
Methabenzthiazuron	WHOLE	0.02	0.05	90	0	0
Oxyfluorfen	WHOLE	0.05	0.05	90	0	0
Pendimethalin	WHOLE	0.05	0.05	90	0	0
Organochlorines						
Aldrin and dieldrin	WHOLE	0.05	0.10	90	0	0
DDT	WHOLE	0.05	1.00	90	0	0
Dicofol	WHOLE	0.30	5.00	90	0	0
Endosulfan	WHOLE	0.05	0.20	90	0	0
Endrin	WHOLE	0.05	Not set	90	0	0
HCH	WHOLE	0.05	Not set	90	0	0
Heptachlor	WHOLE	0.05	0.05	90	0	0
Lindane (γ-HCH)	WHOLE	0.10	2.0	90	0	0
Organophosphates						
Chlorpyrifos	WHOLE	0.01	0.01	90	0	0
Diazinon	WHOLE	0.10	0.70	90	0	0
Dimethoate (RD)	WHOLE	0.10	2.0	90	0	0
Fenamiphos	WHOLE	0.02	0.05	90	0	0
Malathion	WHOLE	0.10	2.0	90	0	0
Methidathion	WHOLE	0.01	0.01	90	0	0
Parathion-methyl	WHOLE	0.10	Not set	90	0	0
Phorate	WHOLE	0.10	0.50	90	0	0
Synthetic pyrethroids						
Cypermethrin	WHOLE	0.01	0.01	90	0	0
ENVIRONMENTAL CONTAMINANTS						
Metals						
Cadmium	WHOLE	0.01	No limit	38	n/a	n/a
Mercury	WHOLE	0.01	No limit	38	n/a	n/a
Lead	WHOLE	0.01	No limit	38	n/a	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.

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

No limit – No standard applicable for the contaminant. The 'As low as reasonably achievable' principle applies. Detections at low levels are allowable.

Pear	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
PESTICIDES						
Acaricides						
Chlorfenapyr	WHOLE	0.10	0.50	141	0	0
Fenpyroximate	WHOLE	0.05	0.30	141	0	0
Indoxacarb	WHOLE	0.10	2.0	141	0	0
Propargite	WHOLE	0.10	3.0	141	0	0
Tebufenozide	WHOLE	0.10	1.0	141	0	0
Tebufenpyrad	WHOLE	0.05	1.0	141	0	0
Thiacloprid	WHOLE	0.05	1.0	141	0	0
Benzimadazoles						
Thiabendazole	WHOLE	0.20	10.0	141	0	0
Carbamates						
Carbaryl	WHOLE	0.10	5.0	141	0	0
Fenoxycarb	WHOLE	0.10	2.0	141	0	0
Pirimicarb	WHOLE	0.10	0.50	141	0	0
Fungicides						
Captan	WHOLE	0.05	10.00	141	0	0
Carbendazim	WHOLE	0.20	5.0	141	0	0
Difenoconazole	WHOLE	0.05	0.30	141	0	0
Dithiocarbamates	WHOLE	0.20	3.0	141	0	0
Dodine	WHOLE			141	0	0
Fenarimol	WHOLE	0.05	0.20	141	0	0
Imazalil	WHOLE	0.10	5.0	141	4	0
Iprodione	WHOLE	0.10	3.0	141	7	0
Kresoxsim-methyl	WHOLE	0.05	0.10	141	0	0
Trifloxystrobin	WHOLE	0.10	0.30	141	0	0
Organochlorines						
Aldrin and dieldrin	WHOLE	0.05	0.05	141	0	0
DDT	WHOLE	0.05	1.0	141	0	0
Dicofol	WHOLE	0.05	5.0	141	0	0
Endosulfan	WHOLE	0.05	1.0	141	0	0
Heptachlor	WHOLE	0.05	Not set	141	0	0
Lindane (γ-HCH)	WHOLE	0.05	0.50	141	0	0

Pear	Matrix	LOR (mg/kg)	Aust. Std (mg/kg)	Number of samples tested	Analytical findings (number of samples)	
					> half Aust. Std to ≤ Aust. Std	> Aust. Std
Organophosphates						
Azinphos-methyl	WHOLE	0.05	2.0	141	0	0
Chlorpyrifos	WHOLE	0.05	0.50	141	0	0
Dimethoate (RD)	WHOLE	0.05	5.0	141	0	0
Fenitrothion	WHOLE	0.05	0.10	141	0	0
Fenthion	WHOLE	0.05	2.0	141	0	0
Malathion	WHOLE	0.05	0.50	141	0	0
Methidathion	WHOLE	0.05	0.20	141	0	0
Parathion	WHOLE	0.05	Not set	141	0	0
Parathion-methyl	WHOLE	0.05	0.50	141	1	0
Prothiofos	WHOLE	0.02	0.05	141	2	0
Trichlorfon	WHOLE	0.05	0.10	141	0	0
Synthetic pyrethroids						
Bifenthrin	WHOLE	0.02	0.50	141	0	0
Cypermethrin	WHOLE	0.10	1.0	141	0	0
Other						
Spinosad	WHOLE	0.05	0.50	141	0	0
PHYSIOLOGICAL MODIFIERS						
Scald inhibitors						
Diphenylamine	WHOLE	0.05	7.0	141	11	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.