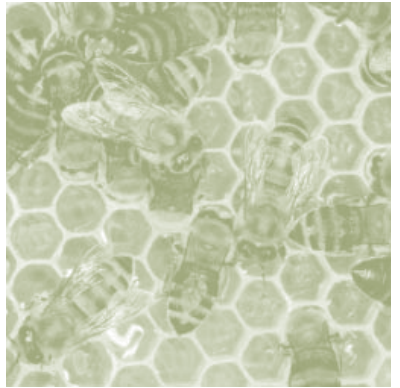
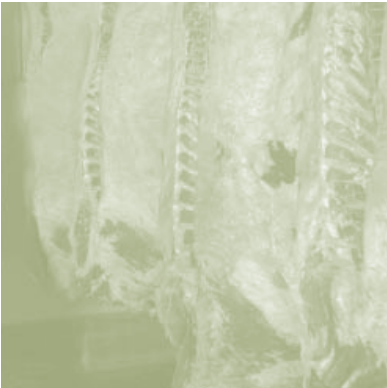




National Residue Survey

Annual Report 2004-05



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Reporting requirements

Section 10 of the *National Residue Survey Administration Act 1992 (Cwlth)* states that:

As soon as practicable after the end of each financial year, the Minister is to cause a report to be laid before each House of the Parliament setting out details of the operation of the National Residue Survey Account including:

- (a) money paid into the NRS Account during that financial year; and
- (b) money paid out of the NRS Account during that financial year; and
- (c) financial statements relating to the NRS Account for that financial year; and
- (d) a description of activities undertaken in relation to the National Residue Survey during that financial year.

Responsible Minister

The Australian Government Minister for Agriculture, Fisheries and Forestry has delegated responsibility for the National Residue Survey to the Parliamentary Secretary.



Australian Government

Department of Agriculture, Fisheries and Forestry

Senator the Hon. Richard Colbeck
Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600

Dear Senator Colbeck

I am pleased to submit for tabling the National Residue Survey Annual Report 2004–2005.

During the year, 35 animal and plant commodities from participating industries (in all 20 322 samples) were tested in National Residue Survey monitoring projects, resulting in 343 593 analyses. In addition, specific project work was undertaken for the blueberry industry, the salmonid industry and the NSW Food Authority (a residue survey of oysters). Laboratory proficiency testing was undertaken for the dairy and wool industries, as well as a honey project for the National Association of Testing Authorities, Australia.

Existing NRS laboratory contracts expired on 30 June 2004, and sixteen laboratories were selected by tender to provide services from 1 July 2004 to 30 June 2006.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Steve McCutcheon'.

Steve McCutcheon
Executive Manager
Product Integrity, Animal and Plant Health Division

20 September 2005

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2004–2005 in brief

Total expenses for the National Residue Survey (NRS) in 2004–2005 were \$9.784 million, of which \$0.451 million from the Australian Government was used to fund the Community Service Obligations project. Participating industries provided \$8.912 million from levies and other contributions for the management and operation of NRS projects.

During 2004–2005, the NRS operations unit coordinated the collection of 20 322 samples from random monitoring projects, and the receipt of results from 2 129 samples from targeted monitoring, compliance testing and residue prevention projects.

Random residue monitoring projects were conducted for four animal products (meat, honey, egg and fish) and thirteen plant products (eight grain and five horticulture) and in all, 343 593 analyses were undertaken on these samples by contracted laboratories. Residues detected in these projects were as follows:

- 26 edible samples had residues of agricultural and veterinary (agvet) chemicals above Australian Standard limits (MRL/ERL) of which two were in samples for which there are no Australian Standards. These detections are all deemed to be contraventions.
- 61 non-edible animal samples (urine or faeces) contained residues that prompted traceback investigations. Australian Standards (MRL/ERL) are not established for urine or faeces due to their non-edible nature. These residue detections are therefore not deemed contraventions.
- 20 samples contained environmental contaminants (metals) with residues above Australian Standards (ML). These detections are deemed contraventions.
- Results of the random monitoring projects are shown in detail in the results report that begins on page 51. For further explanation of terms see definitions on pages 178–179.

Six targeted monitoring, compliance testing and residue prevention projects were undertaken on behalf of the beef and sheep industries (see pp. 32–34). Also, a small project was undertaken on behalf of the salmonid industry (see p. 35); NRS coordinated a special survey of oysters in NSW in collaboration with the NSW Food Authority (see p. 35); NRS coordinated data collection from farmed bluefin tuna for the National Dioxins Program (see p. 35), and also provided administrative support for a pilot surveillance program for antimicrobial resistance in bacteria of animal origin (see p. 35).

The NRS Seventh Term analytical contracts for laboratories commenced on 1 July 2004, and will end on 30 June 2006. Sample analysis under the new contracts commenced on 1 July 2004. Preparations are underway for the release of the Request for Tender for the analytical contract round to commence on 1 July 2006.

NRS sought accreditation with the National Association of Testing Authorities, Australia as a proficiency testing provider. Accreditation is expected for preparation of samples spiked individually. Approval of programs involving preparation of samples from bulk materials awaits resolution of homogeneity issues.

In 2004–2005, consultation continued with the grains industry concerning the possible expansion of the NRS grains monitoring project to include additional pulse and oilseed commodities in future years. In addition, a major blueberry producer funded a random residue monitoring project to cover blueberries grown and marketed by that company.

NRS undertook additional proficiency testing of laboratories analysing chemical residues on wool on behalf of Australian Wool Innovation Limited, and in milk on behalf of the Australian Milk Residue Analysis project run by Dairy Food Safety Victoria.

The NRS Advisory Panel (Panel) met by teleconference on 9 May 2005. The Panel was provided with an update on the operations of NRS and expected developments in 2005–2006.

Introduction

The National Residue Survey

The Australian Government established the National Residue Survey (NRS) in the early 1960s following concerns about pesticide residues detected in exported meat. Since then, NRS has expanded to test other animal, grain, horticulture, and fish (wildcaught and aquaculture) products. Testing now includes agricultural and veterinary chemical residues, as well as urban, rural and environmental contaminants. NRS is an operational unit of the Product Integrity, Animal and Plant Health Division of the Australian Department of Agriculture, Fisheries and Forestry (Department).

NRS random monitoring projects underpin the efforts of participating industries to gain or maintain market access. The efficient conduct of projects, delivery of high quality advice and the provision of reliable data assist in the resolution of residue-related trade incidents.

Residue monitoring is part of an overall national strategy to minimise chemical residues in produce. It can also identify potential problems including failure to comply with good agricultural practice, and can indicate where follow-up action is required to maintain Australia's reputation as a supplier of produce that meets market access requirements.

NRS legislation

The *National Residue Survey Administration Act 1992 (Cwlth)* (Act) established the NRS Account that funds NRS projects. The Act permits, with industry agreement, expenditure from the NRS Account for the prevention of contamination in food, inputs to production and/or the environment. Other legislation, including the *National Residue Survey (Customs) Levy Act 1998 (Cwlth)*, the *National Residue Survey (Excise) Levy Act 1998 (Cwlth)* and related levy imposition, levy collection, financial management and associated legislation, also relates to the management and governance of NRS projects.

NRS purpose

The primary purpose of NRS is to facilitate key export and domestic market access for participating industries by:

- providing residue testing services that are technically sound, risk-based and structured to meet market requirements within the specified budget
- providing scientific and policy advice on residues and contaminants to the Australian government and industry

- underpinning industry quality assurance projects
- providing support in residue-related trade incidents
- maintaining a database of residue test results for participating industries.

NRS projects

NRS projects involve random, targeted and compliance monitoring of commodities, and laboratory performance evaluation.

Random monitoring

Projects are designed to estimate the occurrence of a residue (or residues) in a commodity, by a randomised sampling process.

Targeted monitoring

Projects are designed to obtain more focused information about a known or potential residue problem, by a targeted (non-random) sampling process.

Compliance testing

Projects are part of regulatory control measures designed to prevent the normal marketing of products with a known contamination risk.

Residue prevention

Projects are designed to prevent or minimise the risks of unacceptable residues that may affect trade.

Consignment testing

Projects are designed to meet specific requirements of client industries for market access support (e.g. products where each consignment must be sampled prior to export).

Laboratory performance evaluation and proficiency testing

NRS supplies laboratory performance evaluation and proficiency testing services in support of participating industries, to the Australian Milk Residue Analysis (AMRA) project on behalf of dairy Food safety Victoria, and on behalf of Australian Wool Innovation (AWI) Limited.

NRS outputs

NRS delivers services to clients within the policy, legislative and administrative framework of the Australian Government. These services include:

- compiled data on the level of residues of agricultural and veterinary chemicals and environmental contaminants in food and inputs to production (including from the environment) that may affect Australian agricultural and fisheries industries

- targeted monitoring, compliance and residue prevention projects that support the management of identified residue or contamination issues for participating industries
- support for projects that underpin market access and industry quality assurance programs
- technical advice to industry and government on residue issues
- reports to Parliament, industry and other stakeholders on the financial management and results of residue monitoring projects
- policy advice and administrative support to Ministers and the Australian Government.

NRS provides consultative, efficient and cost-effective services to its clients by working cooperatively with other government agencies with complementary responsibilities. NRS management responds to the needs of industry and government through maintaining awareness of developments in its operating environment, undertaking risk assessments, and engaging in strategic business planning and operations. NRS employs a mix of appropriately qualified permanent and contract staff in order to fulfil these functions effectively.

NRS stakeholders

The key stakeholders of NRS are:

- Ministers
- participating industries
- Australian, state and territory government authorities
- trading partners
- the general community.

NRS testing data are used to facilitate marketing initiatives by participating industries, to underpin commodity-based quality assurance programs, and to assist in the resolution of residue-related trade incidents.

Industry participation

Industries participate in NRS residue monitoring projects to meet market access standards, export certification or national standards, or to assure customers of the quality of their product. NRS provides participating industries with results on the levels of residues and contaminants in their products.

The Australian Quarantine and Inspection Service (AQIS) uses NRS data when certifying the residue and contaminant status of certain commodities for export. From time to time,

trading partners audit the operation and results of NRS residue monitoring plans. Some countries require a government-based residue monitoring plan.

In the domestic meat market, participation in residue monitoring is a general requirement of the applicable Australian Standard for hygienic production of meat for human consumption. Industries that do not export a large percentage of their production may also use NRS monitoring results to support domestic quality assurance programs and other marketing initiatives, or to provide assurances to domestic consumers.

NRS structure

NRS Advisory Panel

The NRS Advisory Panel was established in 2004 to engage industry leaders and decision-makers on key NRS-related emerging and future issues. The Panel members provide advice on policy and administration, and assist with communication to stakeholders.

Membership of the Panel consists of:

- an independent chairperson
- individuals who represent the livestock, grain, horticulture and fish sectors of NRS' participating industries
- a scientific officer representing state and territory government authorities
- the NRS Director (*ex-officio*).

Funding and financial management

The NRS Special Account is established under the *National Residue Survey Administration Act 1992 (Cwlth)*. Payments from this Account may be spent in monitoring and reporting the level of residues and contaminants in applicable products¹ or from the environment, tracing and determining the sources and causes of these contaminants, and in investigating and preventing such residues and contaminants. NRS is accountable to Parliament as well as to participating industries because of the legislative base for its funding and operation.

The costs of NRS projects are met by industry levies, direct payments from industries and the community service obligation appropriation of the government.

¹ Projects for applicable products can be implemented only if the relevant body (as determined by the Minister) in the industry agrees to the projects.

Although NRS legislation does not require any industries to participate in NRS, several need to do so in order to meet requirements for market access or export certification, or to satisfy obligations under national standards.

To ensure equity, levies held in the NRS Account are accounted for on an industry-by-industry basis. Levy rates are reviewed annually in consultation with industry. Variation in seasonal production levels can have a marked effect on NRS income from levies. Target industry reserves are between 20 and 80 per cent of the annual project cost. The Department's Levies Revenue Service coordinates the collection of all levies across the Department on a fee-for-service basis. This arrangement minimises levy collection costs.

The Australian Government's general principles applying to all levies must be met before a new statutory levy, including an NRS levy on Departmental portfolio industries, can be introduced or an existing rate adjusted. The levy guidelines are aimed at ensuring comprehensive consultation is undertaken with potential levy payers before a change is made to levy arrangements.

An Australian Government appropriation is provided for community service obligations (CSO) that contribute to broader government and community objectives, and international commitments. CSO activities deliver technical and policy advice to Ministers and relevant government agencies, and contribute to the work of residue-related committees (e.g. the joint FAO/WHO Codex Alimentarius Commission [Codex]). CSO funds enable NRS officers to develop synergies between industry-funded projects and activities being undertaken in Australian and international fora, for the mutual benefit of industry and government. They also fund the input of NRS expertise into Departmental and governmental projects.

At export abattoirs, AQIS inspection staff provide in-kind assistance by collecting samples on behalf of NRS.

Outsourced service delivery

A number of outsourced services are purchased by NRS as part of an Australian Government initiative that privatised the delivery of generic administrative functions. The outsourced services delivered to NRS include information technology, financial transaction processing, recruitment, payroll and property management.

Analytical arrangements

NRS does not itself undertake chemical analyses. Instead, laboratories are contracted by NRS for two-year terms. Contracts for laboratory services are established by NRS through a

competitive tender process in keeping with Australian Government guidelines. Australian and state/territory government, Australian commercial and international laboratories hold contracts with NRS.

NRS conducts proficiency testing of laboratories to evaluate their relative performance and their competence to undertake specific chemical analyses. Proficiency testing promotes a high level of confidence in test results.

Project planning

NRS designs residue monitoring projects in consultation with industry and AQIS, including:

- determination of sampling rates
- selection of chemical–commodity combinations based on a range of factors including assessed risk.

In addition, NRS:

- designs and manages sampling procedures (e.g. sample collection, identification and dispatch to laboratories)
- manages and analyses data
- initiates tracebacks
- manages financial information.

Reporting

An operational and expenditure plan is prepared for each financial year in accordance with the legislative requirement for payments made from the NRS Account to be consistent with an expenditure plan approved by the Minister.

This annual report details the completed NRS projects outlined in the NRS Annual Operational and Expenditure Plan 2004–2005.

Data protection and privacy

Data from NRS residue monitoring projects are provided to participating industries and are published each year (see this report pp. 51–137). Information from NRS projects that identifies particular people or property is released only to Australian, state or territory government authorities responsible for the monitoring or regulation of agricultural and veterinary chemical residues and contaminants.

NRS holds an extensive database of residue data in a wide range of commodities that can be drawn on by participating industries and governments for the purposes of gaining or maintaining market access or for setting and review of standards.

Fraud control

NRS operates under the fraud control plan of the Department.

The administrative arrangements for NRS involve additional responsibilities for financial management and the control of assets. These have required fraud management strategies for five areas identified as requiring scrutiny:

- building security (high risk)
- purchasing (including use of the Australian Government credit card) and payment of accounts (high risk)
- investment of industry funds (medium risk)
- asset control (medium risk)
- access to commercial-in-confidence information (low risk).

Key features of the overall strategy include segregating duties to avoid individuals carrying sole financial responsibility for transactions, enhancing the degree of independent checks on financial transactions, and raising staff awareness in order to prevent fraud. As insurance against external fraud, NRS generates and reconciles invoices from the laboratories (its main service providers) against actual test results received, thereby preventing double or unsubstantiated invoicing.

No instances of fraud were detected during 2004–2005.

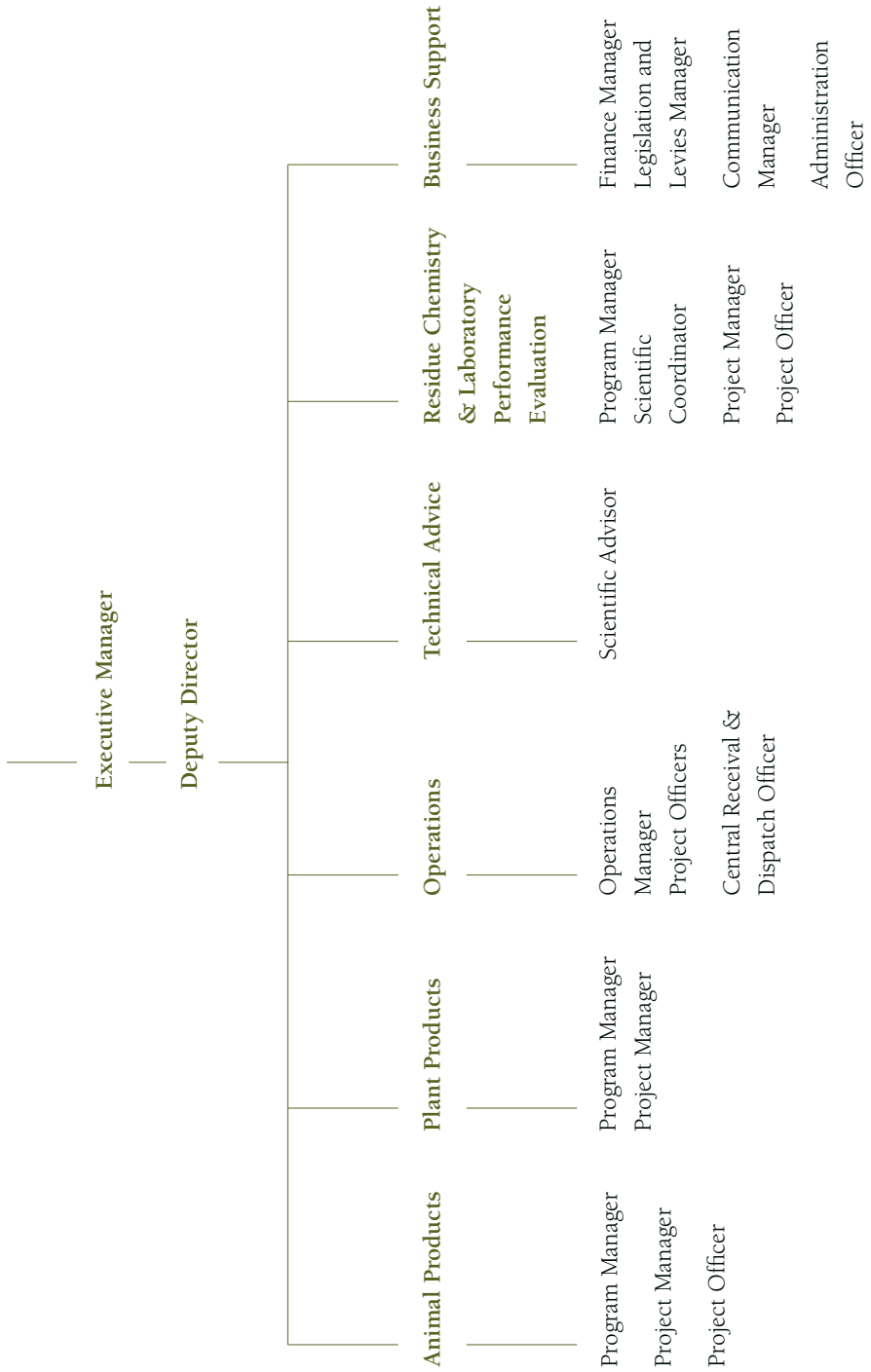
Client service charter

NRS staff provides professional, consultative, efficient and cost-effective services to clients. The NRS service charter covers specialist services provided to clients. The charter is to be read in conjunction with the Departmental charter, which covers Department-wide service standards. The charter is available on the NRS web site at <www.daff.gov.au/nrs>, or printed copies are available upon request by telephoning the NRS on +61 2 6272 3446.

Staffing

NRS has a flexible mix of appropriately qualified permanent and contract staff to match the requirements of the projects. NRS staff have a diversity of work-acquired skills and formal qualifications in chemistry, proficiency testing, analytical chemistry, laboratory management, entomology, veterinary science, agricultural science, biochemistry, law, economic forecasting, information technology, database and information management, contract management, business and finance, and education. NRS is actively engaged in the professional development and performance management of staff. NRS organisational structure is shown in the chart on page 12.

National Residue Survey Organisational Chart





Report on Operations

National Residue Survey 2004–2005

Report on Operations 2004–2005

The National Residue Survey facilitates export and domestic market access for participating industries by:

- providing residue testing services that are technically sound, risk-based and structured to meet market requirements within the specified budget
- providing scientific advice on residues and the management of residue-related issues.

Whole of NRS

The following outcomes, outputs, performance indicators and achievements are applicable to all NRS projects.

Outcomes

The outcomes of NRS projects are:

- support for access to international markets and for domestic marketing of Australian produce based on compliance with residue and contaminant standards
- reduced risk of non-compliance with residue standards as a result of compliance testing, targeted monitoring and residue prevention projects.

Outputs

NRS provides seven outputs to stakeholders within the existing policy, legislative and administrative framework:

- compiled data residue levels of agricultural and veterinary chemicals and environmental contaminants in agricultural and fish products of participating industries
- residue results that underpin market access and industry quality assurance programs
- compliance testing and targeted monitoring data that support the management of identified residue or contaminant issues for the participating industries
- technical and scientific advice to industry and government on residue and related issues
- reports to Parliament, industry and other stakeholders on the financial management, activities and results of the projects
- policy advice and administrative support to Ministers and government
- advice to relevant state/territory authorities concerning traceback activities and corrective measures for non-compliance.

Performance indicators and achievements

Performance indicators for components of the projects are presented in detail under individual projects.

Performance indicator one: *Acceptance by industry that NRS projects meet industry's market access and quality assurance requirements.*

Residue monitoring projects designed by NRS in consultation with industry take into account:

- industry and importing countries' testing requirements
- international trends in monitoring and food standards (e.g. growing concerns about persistent halogenated chemicals as environmental contaminants)
- sample numbers
- sampling methods
- analytical developments such as new methods of analysis or availability of new multi-residue methods
- availability of funds.

Review of residue monitoring projects for 2004–2006

In this review, each commodity's peak body or representative was consulted by NRS regarding the format, financial and operational requirements of the project. The review covered the residue monitoring plan 2004–2005; the analyte list for 2004–2006, and the level of industry reserves held in the NRS Account (hence ability to pay for desired residue monitoring projects). This information was used in preparatory work for development of the Eighth Term Request for Tender for contracting laboratories to undertake analysis of NRS residue monitoring samples in 2006–2008. The Seventh Term contracts commenced on 1 July 2004 and run for two years to 30 June 2006. Preliminary work has started on developing the Eighth Term contracts that begin on 1 July 2006. NRS has completed consultation with all stakeholders on a range of analyte changes in order to adhere to the NRS new project cycle and streamline the laboratory procurement process.

Residue monitoring plans for 2005–2006

Each commodity's peak body or representative was consulted by NRS regarding residue monitoring plans for 2005–2006. The consultation included discussion of the residue monitoring plan, the analyte list for 2005–2006 and the level of industry reserves held in the NRS Account. A proposal has been submitted to the European Commission (EC) through AQIS for modifications to the Australian meat residue testing program in 2006–2007 for European Union (EU) market access.

Performance indicator two: *Acceptance by the Australian, state and territory governments that results meet regulatory certification and standard setting.*

In 2004–2005, NRS results were used by:

- the Australian Quarantine and Inspection Service (AQIS) for export certification
- state and territory government authorities to oversight meat production for domestic consumption; SAFEMEAT² to monitor residue threats to the red meat industry
- Food Standards Australia New Zealand (FSANZ) in considering changes to the Australia New Zealand Food Standards Code (ANZFSC)
- the Australian Pesticides & Veterinary Medicines Authority (APVMA) in its review of particular registered chemicals
- Ministers and Australian state and territory government authorities involved in residue management issues.

Performance indicator three: *Acceptance by trading partners that NRS random monitoring projects meet their market access requirements.*

Residue monitoring plans 2005–2006 and results reports 2003–2004

Plans and results reports entitled *Monitoring of Chemical Residues in Farmed Animals, Farmed Game and Wild Game* were prepared by NRS and submitted to relevant authorities in the EU and the United States of America (US). Plans are cleared through SAFEMEAT. In addition to the EU and US, copies of plans are sent to authorities in Canada, Mexico, Switzerland, China and Russia through the relevant Australian overseas diplomatic posts.

The plan *Monitoring of Chemical Residues in Honey 2005–2006* and the results report for 2003–2004 were prepared by AQIS and submitted to the EU. NRS was responsible only for the operational part of this project.

International reviews of Australia's residue control systems

NRS provided presentations to visitors from the US, China, the EU, Korea and Malaysia.

On 23 December 2003 the Japanese Ministry of Health Labour and Welfare (MHLW) lifted the import inspection order that had previously applied to all consignments of Australian blueberries to Japan. In 2004–2005, a major producer of Australian blueberries requested

² SAFEMEAT is a partnership between the Australian meat and livestock industry and the Australian, state and territory governments.

the establishment of a random residue testing project to cover blueberries marketed by them. The Japanese MHLW has not raised further concerns since the December 2003 decision.

Performance indicator four: *Provision of timely and high quality technical and policy advice to support Ministers, industry and government.*

Technical and policy advice

NRS provided advice to the Minister and Parliamentary Secretary on:

- the business of government including tabling of National Residue Survey Annual Report 2003–2004; approval of National Residue Survey Operational and Expenditure Plan 2005–2006 (Plan); establishment, composition and activities of the Panel; and adjustment of levy rates
- expected changes in targeted testing practices on behalf of the Australian beef industry
- industry participation in NRS residue monitoring projects following the introduction of the new NRS cost allocation model from 1 July 2004.

Reports to Australian Government

NRS provided advice to various Divisions within the Department on a number of trade-related concerns for barley, wheat, blueberries, celeriac, pome fruit and stone fruit market access to Japan, China, Taiwan, Thailand and Korea.

NRS Advisory Panel

The Panel was established as an outcome of a Departmental review of NRS in 2002, to provide a forum for industry and state or territory government input and feedback. The Parliamentary Secretary approved the Panel membership. The Panel met by teleconference in May 2005. The meeting provided an opportunity to update Panel members on activities in NRS, and canvassed potential residue-related risks that might impinge on NRS operations.

International Food Standards

International Food Standards for 39 overseas countries are published on the NRS website at <www.daff.gov.au/nrs>. The page is updated regularly.

Review and advice provided to the Australian Pesticides & Veterinary Medicines Authority

NRS reviewed methodology and provided advice to APVMA on methods for the establishment of export slaughter intervals. NRS also discussed analytical methods and a number of other issues associated with residue analysis and reporting, and disclosure of methods with APVMA.

Methoprene in grain

NRS provided data on methoprene residues in grain from 1994–2003 (with the permission of the industry) to Dow AgriScience, to assist in discussions on the use of methoprene during the Codex Committee on Pesticide Residues/Joint Meetings on Pesticide Residues in October 2004 and April 2005.

Food Standards Australia New Zealand food surveillance network

NRS regularly participates and provides input to the network.

Codex Committees

NRS gave input to the Australian position on agenda items affecting the interests of Australia and industry to three Codex activities: the Codex Committee on Residues of Veterinary Drugs in Foods, the Codex Committee on Pesticide Residues and the Codex Meeting on Methods of Sampling and Analysis (see p. 48 for details).

Dioxin receptor chemical-activated luciferase gene expression (DR CALUX) project

NRS generated screening and instrumental confirmatory data as part of the DR CALUX dioxin project. Data were provided to Biodetection Systems in Holland and the Australian National Measurement Institute to seek their input into interpretation of results. The project sought to assess the appropriateness of DR CALUX as a screening technique for dioxin testing.

Dioxin testing of Australian farmed bluefin tuna

In July 2004, dioxin testing was completed on samples of Australian farmed southern bluefin tuna as part of the *National Dioxins Program* managed through the Department of the Environment and Heritage. NRS helped coordinate the data collection for that project. The tuna component was a follow-up to the other agricultural commodities that were analysed in 2002–2003 as part of the Program. Results from the dioxin testing in tuna compared favourably with international data reported from other countries and the levels found were well below the standards promulgated by the EU.

Pilot surveillance program for antimicrobial resistance in bacteria of animal origin

NRS provided administrative support for the *Pilot Surveillance Program for Antimicrobial Resistance in Bacteria of Animal Origin* coordinated by the Department's Product Integrity, Plant and Animal Health Division. The antimicrobial susceptibility testing data collection was completed and data stored in the NRS database for subsequent analysis. The data from this project will help to establish baselines that will assist the consideration and planning of future surveillance work on antimicrobial resistance in food-producing animals.

Flame retardants

NRS provided input into the Department of the Environment and Heritage interdepartmental working group on flame retardant residues.

Performance indicator five: *Management of the projects in accordance with the Department's corporate governance framework.*

National Residue Survey Annual Report 2003–2004

The 2003–2004 report was tabled in Parliament on 6 October 2004. NRS again incorporated reports on operations, financial statements and results in a single document, after favourable feedback from clients in the previous year. This approach will be continued in future.

National Residue Survey Operational and Expenditure Plan 2005–2006

NRS consulted industry to define residue monitoring projects to fulfil market access requirements within the specified budgets, using the new NRS cost allocation model. The Plan was submitted to the Parliamentary Secretary, who approved it on 19 June 2004. Highlights included plans for random residue monitoring projects for animal and plant products, with the highest numbers of samples to be collected from cattle, pigs, sheep and grain. The overall number of participating industries is set to increase due to the expected introduction of additional grain, pulse and oilseeds in the plant products residue monitoring projects. Also, some of the industries with smaller projects in previous years (e.g. pecans and aquaculture) have decided to suspend or cease their participation, and are excluded from the Plan.

During 2005, the procurement process has commenced for the Eighth Term Chemical Analytical Testing Contracts that will run from 1 July 2006 to 30 June 2008. AWI Limited has contracted NRS to undertake proficiency testing of a series of international wool testing laboratories. Proficiency testing services provided by NRS to the dairy industry's Australian Milk Residue Analysis (AMRA) survey will continue this year. NRS is in the process of becoming accredited by the National Association of Testing Authorities (NATA) as a proficiency testing scheme provider.

Improvement in governance and business practices

The service charter, project planning schedule, guidelines for access to industry reserves in the NRS Account and management of ad hoc projects developed and approved during the first half of 2004 were put into action as standard operational practices during 2004–2005. Reviews will continue on these documents and changes will be made as appropriate to maximise the operational efficiency of NRS.

Improved governance and administrative framework

Improved practices for governance and business were endorsed by the NRS Advisory Panel on 28 June 2004. In July 2004, NRS sought and gained approval from the Parliamentary Secretary to adopt them as standard operational practice. Further changes in the NRS business structure and operations will be made to ensure NRS is best able to meet the needs of its stakeholder groups.

Performance indicator six: *Efficient and cost-effective delivery of the services to industry, within the policy, legislative and administrative framework of the Australian Government.*

Adoption and refinement of NRS costing model

During the 2004–2005 financial year, the new costing model was brought into operation. Allocation of costs is now primarily based on NRS resource usage, rather than based pro rata on numbers of samples, as it was in the previous system. Refinement of the model is continuing, and as a result, there has been some redistribution of costs between projects. Further refinement of the model is expected in order to achieve the intended objectives of an equitable distribution of NRS overhead costs to projects, based on the resources required to deliver each project.

NRS services

NRS core work involves testing for agricultural and veterinary chemical residues and environmental contaminants in animal and plant products. Product testing is undertaken through either random or specifically designed sampling protocols. Other projects within NRS, such as laboratory evaluation and business activities, support the core work of residue testing. In 2004–2005 there were seven projects:

- Animal product random monitoring
- Plant product random monitoring
- Targeted monitoring, compliance and residue prevention
- Laboratory performance evaluation and proficiency testing
- Externally-funded laboratory performance evaluations
- Business support
- Community service obligations.

Reports on the operations of each project are on the following pages, while the results of random monitoring projects for animal and plant products are presented in the results report that commences on page 51 of this publication.

Inputs and allocation of costs

All costs incurred by NRS, except those associated with community service obligations, are recovered through industry-based levies or direct payments by industry.

Costs associated with laboratory performance and business support projects form part of the indirect costs of other projects and appropriate proportions are included in the costs of those projects.

Targeted monitoring, compliance and residue testing, and externally funded laboratory evaluations operate as independent projects and are funded under contractual arrangements with relevant industries. The costs of these projects include an appropriate share of the costs of the laboratory performance and business support projects.

Indirect costs are allocated to projects on a percentage attribution basis. The relative proportion of samples collected in each of the sampling projects determines this percentage.

The new NRS cost attribution model based on resource use rather than sample numbers commenced on 1 July 2004.

Animal product random monitoring

Description

The animal product random monitoring project fulfils the requirements of:

- AQIS for export certification for market access
- trading partners
- state and territory government regulatory authorities in the licensing of domestic meat processing facilities³
- industry in supporting quality assurance initiatives.

Cattle, sheep and pig were the main animal product commodities monitored for residues. Other commodities were buffalo, camel, deer, game pig, goat, horse, kangaroo, ratite (emu and ostrich), poultry, honey, egg and fish (wildcaught).

³ Australian domestic meat processing facilities are required to comply with the appropriate Australian Standard: AS 4696-2002 Australian Standard for Hygienic Production and Transport of Meat Products for Human Consumption; AS 4465-2001/Amdt 1-2003 Australian Standard for the Construction of Premises and Hygienic Production of Poultry Meat for Human Consumption; AS 5010-2001 Australian Standard for the Hygienic Production of Ratite (Emu/Ostrich) Meat for Human Consumption; A 4464-1998 Australian Standard for the Hygienic Production of Game Meat.

A risk-based random monitoring project for nine species of wildcaught fish was endorsed during 2003–2004 by the Australian Seafood Industry Council and the AQIS Seafood Exporters Consultative Committee. During 2004–2005, eight species were sampled. No aquaculture random monitoring projects were carried out this year.

Outputs

Outputs of the animal product random monitoring program are:

- provision to stakeholders of independent, authoritative and technically sound residue data reports and advice on Australian livestock, game, fishery and animal products.
- provision of residue monitoring data to meet specific market access support requirements of participating industries and relevant industry client groups.

Performance indicators and achievements

Performance indicator one: *Acceptance by participating industries, AQIS and trading partners that each project is structured to meet its market access and assurance objectives within the specified budget.*

NRS used the market risk assessment framework relating to chemical residues along with the available budget to review and design a residue monitoring project for each animal product in consultation with each product's peak industry body. All projects met domestic market assurance or export market access requirements (as applicable) of each participating industry and/or AQIS certification requirements for product residue status. Trading partners, through receipt and acceptance of residue monitoring plans, accepted NRS residue monitoring projects (see **Performance indicator three** for details of plans).

The fish product project focused on supporting AQIS certification of the residue status of product bound for export. Representative fish species are sampled on a rotational basis (i.e. different species are selected for sampling each year) to fulfill market or trade requirements. This project met all marketing requirements.

Performance indicator two: *Delivery of projects in accordance with agreements between NRS and participating industries, including annually reviewed agreements with respect to:*

- *random monitoring sampling rates*
- *turnaround time from sampling to presentation of test results*
- *reporting contraventions to regulatory authorities.*

Residue monitoring project delivery to industry

Animal products residue monitoring projects were delivered according to mutual agreements between NRS and the industry. The industries were satisfied with the delivery of the projects in terms of sampling rates, results turnaround times and reporting of contraventions to state or territory government regulatory authorities.

Turnaround times

The times taken from sampling to presentation of test results were within agreed timeframes between NRS, samplers and analytical laboratories.

Reporting of contraventions

State or territory government regulatory authorities (as applicable) were notified in a timely and effective manner of any samples originating from within their jurisdiction that had residues greater than the Australian Standards.

Egg residue monitoring project

A small residue monitoring project (75 samples) commenced in July 2004. New quality and food safety programs have been developed by the egg industry to address business risks, and there is participation in residue monitoring due to increased interest in export markets.

Poultry residue monitoring project

The poultry industry agreed to a random residue testing project for selected antimicrobials and hormonal growth promotants.

Possum industry

No possum residue testing projects were undertaken in 2004–2005 because of a lack of overseas markets. Consignment testing was undertaken to assist one exporter with a trial shipment to an overseas customer.

Fish (wildcaught)

The increase in sampling rates instigated in 2003–2004 continued during 2004–2005. Samples were collected from finfish (blue grenadier, yellowfin tuna, alfonsino, swordfish), crustaceans (rock lobster, prawn) and molluscs (abalone and scallop).

Aquaculture industry

AQIS has made separate arrangements with the aquaculture industry for residue testing to meet EU market access requirements. NRS is not involved with these arrangements.

Performance indicator three: *Presentation of high quality and timely plans and reports on results to trading partners, industry and the Australian Government.*

Residue monitoring plans 2005–2006 and results reports 2003–2004

The meat residue monitoring plan for 2005–2006 and results report (compared with the residue plan for 2003–2004) were prepared by NRS. The residue plans for beef and sheepmeat were cleared through SAFEMEAT. NRS submitted copies of the plan and the results report to the EU and US, Canada, Mexico, Russia, Switzerland and China through the relevant overseas posts.

Equivalence between Australian and US residue plans

The Food Safety Inspection Service (FSIS) of the United States Department of Agriculture (USDA) continues to recognize Australia's residue testing program as equivalent to the US domestic residue testing program for market access purposes.

The European Union

Copies of the Annual Report 2003–2004 were presented to the EU, allowing the EC inspection authority to assess the Australian residue control system and sampling plan for equivalence.

Officials from the EC reviewed the Australian meat inspection system in 2005. Residue monitoring and controls were not a specific focus of the review, but technical issues raised by the review have been addressed. The EU continues to recognise the equivalency of the Australian residue monitoring program for access of Australian meat to the EU market.

A submission has been sent to the EC proposing changes to the residue plan for 2006–2008 for livestock products exported to the EU.

Acceptance of residue monitoring plans by AQIS and participating industries

NRS officers collaborated with AQIS and peak industry bodies in the design, conduct and review of the animal residue monitoring projects. A market risk assessment framework for inclusion or deletion of chemicals was endorsed by export advisory panels, SAFEMEAT (for red meat) and levy payers.

Industry receipt of plans and results reports

Commodity-specific residue monitoring results for 2003–2004 and the residue monitoring plan for 2005–2006 were presented to participating industries peak bodies at their annual general meetings, or as agreed. Quarterly financial reports were also presented to industry to improve stakeholder knowledge of their financial position.

Results of NRS animal product random residue monitoring projects for 2004–2005

Results from meat projects begin on page 61; results from the honey project are shown on page 95; egg results are on page 96–97, and results for fish projects begin on page 98.

Performance indicator four: *Interaction and communication with participating industries is effective.*

Presentations

NRS animal project officers attended and presented papers at conferences, peak industry and producer meetings throughout the year. These activities enabled face-to-face interaction with industry personnel, and facilitated discussions on the importance of NRS residue monitoring projects to industry and producers. Results of residue monitoring were also presented, and consultation undertaken regarding the design of residue monitoring projects. Key examples are presentations to peak bodies, and attendance at industry annual general meetings, and SAFEMEAT and Beef Industry Advisory Committee meetings.

Reports to fish industry representatives

NRS reported to the fish industry via the AQIS Seafood Export Consultative Committee and its Working Group. Industry-specific reports were prepared for the fish (wildcaught) random monitoring projects to coincide with industry representative body meetings.

Publications

The *National Residue Survey Annual Report 2003–2004*, containing results from 1 July 2003 to 30 June 2004, was delivered to industry by mailout and during presentations by NRS animal products staff.

Quarterly reporting of results to the beef, sheepmeat and pork industries continued in 2004–2005. Quarterly financial statements were also supplied to industry, to ensure that industry was regularly updated on the level of their reserves.

NRS officers wrote articles for industry yearbooks, such as Animal Health Australia's yearbook and the MIMS IVS Annual 2004 antibiotic residue minimisation pages.

Residue standards were displayed on the NRS website for importing countries for cattle, sheep and pigs at <www.daff.gov.au/nrs>. This information is for the guidance of NRS stakeholders only. NRS endeavours to keep this information as up-to-date as resources allow. Standards for importing countries for poultry, egg and fish products were regularly emailed to peak bodies. NRS cattle, pig, sheep and minor species residue monitoring results were published at quarterly intervals in the Animal Health Surveillance Quarterly published on the Animal Health Australia website at <www.animalhealthaustralia.com.au>.

Outlook

Pig residue monitoring project

NRS undertook work in response to an enquiry from a pork exporter about exporting to the EU. Some adjustment of the NRS residue testing project would be required to meet EU market access requirements.

Egg

The Australian Egg Corporation Limited has agreed to an expanded monitoring project (from 75 to 150 samples) for 2005–2006.

Poultry

The poultry industry has agreed to repeat the 2004–2005 project plan in 2005–2006.

Honey

The honey industry has agreed to run the 2004–2005 project plan again in 2005–2006. In addition, agreement has been reached with industry to use part of their reserves in the NRS Account for an Australian Honey Bee Industry Council sponsored project to investigate pyrrolizidine alkaloids in honey during 2005–2006.

Fish products (wildcaught)

NRS will continue residue monitoring for wildcaught species until 2007.

Aquaculture

AQIS currently coordinates testing for the aquaculture industry, to meet EU market access requirements, and it is anticipated that this will continue in 2005–2006.

Access to results

Meat and Livestock Australia Limited (MLA) and NRS are investigating the possibility that individual beef producers could be able to access their residue results through the National Livestock Identification System (NLIS) database managed by MLA.

Plant product random monitoring

Description

Residue monitoring was conducted in 2004–2005 for grains (wheat and its milled products, barley, oats, sorghum, lupins, field peas, canola and chickpeas), and the horticultural products apples and pears, onions, macadamia nuts and blueberries.

Participation by the grains and horticultural industries in the NRS random monitoring project is the result of marketing and trade-related decisions. Following the review of the grains project in 2003, and the decision to include further commodities, NRS began the implementation stage for the inclusion of faba bean, mung bean, lentils, cowpeas, navy beans, pigeon peas, vetch, sunflower, soybean, safflower, linseed, cereal rye and maize into the random monitoring project. A subproject for monitoring shipping containers and bag exports was also established.

Outputs

Outputs of the plant product random monitoring project are:

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

Performance indicators and achievements

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.*

Industry and trading partner acceptance of NRS monitoring projects

Residue monitoring projects for each grain and horticulture commodity were designed, operated and reviewed with the cooperation of and to the satisfaction of the peak industry bodies. Industry used the results of residue monitoring projects to underpin their 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, CBH WA and GrainCorp to provide assurance to overseas customers that Australian grain is independently monitored for residues. Similarly, the onion and macadamia industries utilise their respective commodity residue monitoring data to demonstrate to overseas markets their ongoing high compliance with Australian Standards.

Chemical selection for the Seventh Term (2004–2006) laboratory contracts

Following extensive consultation with industry during 2003–2004, the relevant grain industry bodies agreed to the inclusion of several new chemicals to be analysed in grain samples.

New grain commodities and sample collection points

The report of the 2003 Grain Review was submitted to the Grains Council of Australia (GCA) in January 2004. In March 2004 the Grains Council Executive endorsed the recommendations of the review to include new commodities (faba bean, mung bean, lentils, cowpeas, navy beans, pigeon peas, vetch, sunflower, soybean, safflower, linseed, cereal rye and maize) as well as the current program participants (wheat, barley, oats, sorghum, lupins, field peas, chickpeas and canola) in the random monitoring program. NRS was given permission to undertake the work. Preparation of an industry submission has commenced, supporting the establishment of NRS levies to fund the inclusion of these further grain commodities into the existing NRS grains project. Also, a subproject commenced for random monitoring of grain shipping containers and bags for export. GCA indicated that the export container project should be funded from within the existing grains budget, while the funding for monitoring the new commodities would be through a 0.015% NRS levy on those commodities.

Horticulture project review

During 2004–2005, 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 overseas 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.*

Updated sample collection and operational guidelines provided to industry

During 2004–2005, updated sample collection guidelines were provided 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 2004–2005.

Agreements with industry

NRS complied with all agreements for projects on behalf of industry. For example, NRS commenced a round of visits to domestic grain establishments, similar to that undertaken for all grain export terminals, to ensure appropriately trained grain sampling staff understood agreed procedures and guidelines. The grain industry is fully supportive of such ongoing site visits that ensure the integrity of the grain residue testing project is maintained.

Sampling rates

Within the constraints of product availability and other key parameters including laboratory turnaround time, all agreed sampling rates were achieved. The sampling rates were comparable with previous years.

Reporting results to industry

Stakeholders received over 92% of export grain results and 94% of domestic grain results fortnightly, within agreed timeframes. The target was 90%. Where appropriate, results of horticulture testing were provided to individual producers and/or packing sheds to support industry quality assurance programs within agreed general turnaround times. 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.

Reporting residue contraventions

Contraventions were reported to the relevant state or territory government regulatory authorities within agreed timeframes. State and territory government authorities signed memoranda of understanding (MOUs) for traceback of residue contraventions of Australian Standards. Through the State Residue Coordinator Forum convened by NRS, MOUs 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.*

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.

Blueberry market access to Japan

Following the decision by the Japanese Ministry of Health Labour and Welfare to lift a consignment testing requirement for Australian blueberries to Japan, the blueberry producer involved approached NRS to establish a random residue testing project for blueberries produced at two sites. The project was designed to run throughout the blueberry harvest period from September 2004 to February 2005. Its main objective was to allow the blueberry producer to demonstrate to its overseas markets (including Japan) the ongoing high quality of its blueberries. The producer reported a high degree of satisfaction with the NRS project.

Reports to Australian Government

NRS provided advice to the Product and Safety Integrity Branch of the Department for briefings to executive and government on market access to Japan, China, Taiwan, Thailand and Korea in relation to a number of commodities including barley, wheat, blueberries, celeriac, pome fruit and stone fruit, and more general issues relating to changes in food standards laws and changes to maximum residue limits.

Results of NRS plant products residue monitoring projects 2004–2005

Results of the grain random residue monitoring projects can be found on pages 107–129 of this report for and results of the horticulture projects on pages 130–137.

Performance indicator four: *Interaction and communication with participating industries is effective.*

Industry consultation

Peak bodies of all participating grain and horticulture industries were extensively consulted 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

Following field tours of all 18 grain export terminals around Australia, NRS commenced a series of field tours to all domestic grain establishments including stockfeed manufacturers, feedlots, maltsters and flour mills. To date, all domestic establishments in Western Australia have been visited by NRS staff. The grain industry fully supports the purpose of these field tours.

Reviews

Following the 2003 comprehensive review of the grains program, NRS continued to review further elements of the program with a view to establishing program efficiencies which could allow re-allocation of funds to the export container project and to increase the number of analytes in the pesticide screen.

Presentations by NRS

The residue monitoring plan and to-date results of the 2004–2005 financial year were presented to industry to Apple and Pear Australia Limited (August 2004); the Apple and Pear Annual General Meeting and Conference (September 2004); at the Grains Council Executive Meeting (October 2004); the Onion Industry Annual General Meeting (October 2004); the Australian Macadamia Society Annual General Meeting (October 2004); Grains Week 2005 (April 2005); and the National Working Party on Grain Protection (June 2005). Further presentations on the work and role of NRS were made to Apple and Pear Australia Limited in August 2004 and to the Grains Council Executive in March 2005.

Awareness-raising articles

NRS submitted articles to *Onions Australia* (Volume 21 2005) and the *Tree Fruit Journal* (June 2005) on NRS projects.

Food standards for key markets

Web links for the food standards databases of 39 countries and the food standards for some key international markets for macadamia nuts, onion and pome fruit (apple and pear) are published on the NRS website at <www.daff.gov.au/nrs>.

Outlook

Grains

In 2004–2005, NRS implemented the recommendations of the 2003 Grains Review to include monitoring of the new grains commodities and the export bagged and containerised grains. It was agreed that the new grains participation can be funded through the establishment of NRS levies for the range of new grain commodities to be included in the NRS grains program. The export container/bag project is being funded from existing resources.

Targeted monitoring, compliance testing and residue prevention projects

Description

Targeted monitoring, compliance testing, and residue prevention projects are designed to meet particular management objectives relating to chemical residues in Australian products that pose a high or a potential risk to access for export and domestic markets.

Outputs

Reports and advice on results were distributed to stakeholders on a regular basis.

Performance indicators and achievements

Performance indicator one: *Delivery of projects in accordance with agreements between NRS and participating industries, in consultation with AQIS/regulatory authorities including annually reviewed agreements, with respect to:*

- *project design*
- *turnaround time from sampling to presentation of test results*
- *reporting of contraventions to regulatory authorities.*

Sampling design and turnaround times (if applicable)

Outcomes were achieved consistent with the plan for each project.

Reporting of residue levels exceeding Australian Standards

Contraventions were reported to NRS by contracted laboratories within agreed timeframes. NRS sent the details to state or territory government regulatory authorities (as applicable) and to industry for traceback. Results of the traceback and actions taken to prevent future residue incidents were reported back to NRS by the government regulatory authorities (if applicable).

Performance indicator two: *Presentation of high quality and timely plans and reports on results to industry and government, and where relevant, trading partners; and* **Performance indicator three:** *Interaction and communication with industry and government participants is direct and effective.*

Planning, reporting, interaction and communication activities included the following projects.

National Organochlorine Residue Management project

The National Organochlorine Residue Management (NORM) project focuses on minimising the risks of organochlorine (OC) residues in beef. The beef industry and the state governments jointly fund NORM. Besides testing cattle from at-risk properties at abattoirs for OC residues (compliance testing), the project focuses on developing on-farm property management plans to minimise the risk of livestock grazing OC-contaminated land. NRS has responsibility for national coordination of the project and manages the financial disbursements to state and territory governments and laboratories.

The SAFEMEAT Targeted Testing Working Group (TTWG) (for which NRS provided secretariat and technical support) has been meeting regularly to formulate an operational overhaul of the NORM project. Industry and state and territory governments are represented on the committee. Changes to NORM have been implemented progressively from July 2004, with the new operational arrangements applying fully from 1 January 2006.

National Antibacterial Residue Minimisation project

The National Antibacterial Residue Minimisation (NARM) project focuses on the minimisation of antibacterial residues in cattle (including bobby calves) using advisory, analytical and regulatory techniques. The beef industry and Australian state, and territory governments are project partners. NRS has responsibility for national coordination of the project and management of financial disbursements to the state and territory governments. This project is currently under review by SAFEMEAT. The TTWG is considering changes to the operational arrangements for this project, with a view to improving its effectiveness and efficiency in the use of industry funds. Implementation of these changes is planned for 2006.

Targeted Antibacterial Residue Testing project

The Targeted Antibacterial Residue Testing (TART) project focuses on animals at abattoirs suspected by veterinary inspectors of having received recent antibacterial treatment. The project combines targeted testing, quality assurance, extension and regulation to minimise antibacterial residues in beef. NRS coordinates the project and manages the financial disbursements to state and territory governments and laboratories. Like the NARM project, this project is currently under review by SAFEMEAT, and operational changes are due to be implemented in 2006.

NRS is providing support to the SAFEMEAT TTWG in its review of the operational arrangements for the NARM and TART projects.

Endosulfan residues in beef

Endosulfan is an insecticide widely used on cotton and other field crops and orchards. It has the potential to contaminate cattle when they graze pasture or crops sprayed with endosulfan or are fed contaminated feedstuffs. Endosulfan use is related to pest outbreaks. The project has operated for a number of years, and is reviewed by SAFEMEAT each year. For the past three years, where residue risks have been low because of past actions to mitigate risk and because of seasonal circumstances, project activity has revolved around the monitoring of endosulfan use during the summer growing season for cotton and horticultural crops through a SAFEMEAT-convened working group. NRS chairs the working group, which reports regularly to SAFEMEAT between October and February, with decisions on any actions dependent on assessment of contemporary residue risks. NRS continues to have responsibility for national coordination of the project.

Hormonal Growth Promotant audit project

The EC prohibits the importation of animals treated with hormonal growth promotants (HGP) and their products. Australia has developed a HGP-free accreditation scheme that allows Australian cattle producers to supply the EC market. On-farm third-party (Ausmeat) audits are used to monitor compliance with accreditation requirements. NRS manages the testing of samples taken during these audits and disburses industry funds to Ausmeat, state and territory governments, AQIS and APVMA to pay for compliance audits performed on various aspects of the project.

Livestock Production Assurance scheme

Through the Sheepmeat Council of Australia, the sheepmeat industry funded its participation in the Livestock Production Assurance (LPA) scheme from its funds in the NRS Account. LPA for the sheepmeat industry underpins the sheep National Vendor Declaration (NVD) form by encouraging sheepmeat producers to maintain auditable records to support statements made in the NVD. The NVD helps the industry to manage a range of contaminant risks that can affect the industry, by improving information about risks along the sheepmeat supply chain. The costs to individual sheepmeat producers of participation in LPA were met from sheepmeat funds held in the NRS Account. In supporting the sheep NVD, LPA activities are directed at preventing contaminants in sheepmeat products that have the potential to cause loss of confidence by consumers in both domestic and overseas markets.

Printing National Vendor Declaration forms

There was carry-over expenditure for the printing of both cattle and sheep NVD forms from the preceding year. There was no activity in these projects during 2004–2005.

Salmonid residue testing project

NRS conducted a specific project for the Tasmanian Salmonid Growers Association to survey ten samples of salmon and five samples of sea trout for persistent organic pollutants, selected antimicrobials and environmental metals. All samples were free from antimicrobials, had no detectable levels of persistent organic pollutants, and levels of metals were below Australian Standards. These data should assist the salmonid industry to address consumer concerns or market access issues for their product should questions arise in the future.

Oyster residue testing project

The NSW Food Authority commissioned NRS to monitor 45 samples of oysters for persistent organic pollutants including polychlorinated biphenyls (PCBs) and environmental metals (arsenic, cadmium, copper, lead, mercury, selenium and zinc). All samples complied with Australian Standards.

Dioxin testing of Australian farmed bluefin tuna

In July 2004, dioxin testing was completed on Australian farmed southern bluefin tuna as part of the *National Dioxins Program* managed through the Department of the Environment and Heritage. NRS helped coordinate the data collection for the project. The tuna component was a follow-up to the agricultural commodities that were analysed in 2002–2003. The results of the testing in tuna compared favourably with international data reported from other countries and the levels found were well below the standards promulgated by the EU.

Pilot surveillance program for antimicrobial resistance in bacteria of animal origin

NRS provided administrative support for the *Pilot Surveillance Program for Antimicrobial Resistance in Bacteria of Animal Origin* coordinated by the Department's Product Integrity, Plant and Animal Health Division. The antimicrobial susceptibility testing data collection was completed and data stored in the NRS database for subsequent analysis. The data from this project will help to establish baselines that will assist the consideration and planning of future surveillance work on antimicrobial resistance in food-producing animals.

Contingency for emergency responses

Residue incidents, particularly those involving overseas markets, require decisive, effective and well-coordinated action on the part of industry and governments to minimise the immediate and longer-term economic impacts on the affected industry. Protecting market access and preserving the reputation of industry as providers of low residue status produce is the paramount objective of industry and governments. NRS is able to respond to contingencies, but only to the extent that there are sufficient funds in each industry's reserves in the NRS Account.

Outlook

National Organochlorine Residue Management project changes

SAFEMEAT is continuing the review of operational arrangements of the NORM project. T5/M tail tag testing ceased on 1 July 2004. Further changes to the NORM project are to be progressively introduced from 1 January 2006.

Cattle National Vendor Declarations

NRS will cease funding the production of cattle NVDs from 1 July 2005.

Laboratory performance evaluation and proficiency testing

Description

NRS procures analytical services by contracting public and private sector laboratories to analyse samples for chemical residues. Laboratories are selected by competitive tender based on suitable proficiency, accreditation to an international standard and offering best value for money.

The NRS Seventh Term contracts with participating analytical laboratories commenced on 1 July 2004, and continue for two years to 30 June 2006. Laboratory proficiency testing (PT) takes place according to the schedules outlined in the NRS Proficiency Tests Handbook (Eighth edition, September 2003) at seasonal intervals or eight-, six- or three-monthly periods.

In late 2003, NRS began establishing procedures and preparing documentation in order to gain National Association of Testing Authorities (NATA) accreditation as a proficiency test provider according to the criteria set out in the International Laboratory Accreditation Cooperation (ILAC) G:13 document *Guidelines for the Requirements for the Competence of Providers of Proficiency Testing Schemes*.

Accreditation is important to ensure that NRS PT is recognised within the laboratory community in terms of meeting internationally accepted standards in both technical competence and the ability to establish the proficiency of participating laboratories. Accreditation is also essential if NRS is to continue providing PT services to industries outside NRS, because fee-for-service clients will increasingly require that the PT provider be accredited to international standards.

The NRS system was assessed in April 2005 by NATA against the requirements of ILAC G:13 2000 and accreditation is expected for all programs involving the preparation of

samples spiked individually. Approval of programs involving the preparation of test samples from bulk materials has also been recommended pending the resolution of issues relating to establishing their homogeneity.

In order to maintain credibility and impartiality of the laboratory performance assessments, all samples required for PT were prepared by NRS staff utilising the laboratory facilities of the Therapeutic Goods Administration (TGA).

Advice was provided on all aspects of residue chemistry to other areas of the Department as well as to other Australian, state and territory government authorities.

Outputs

This project provides sustainable access to technically competent and cost-effective laboratories.

Performance indicators and achievements

Performance indicator one: *Confirmation of the scientific integrity of NRS analytical results by the conduct of performance testing to assess and monitor the proficiency of laboratories, thus ensuring the international acceptance of NRS data.*

Intra-laboratory check sample data

NRS contract laboratories are required to implement a comprehensive intra-laboratory check sample regime in addition to their normal laboratory quality assurance measures. All intra-laboratory sample data from contract laboratories were reviewed by NRS for the period 1 July 2004 to 1 January 2005. Intra-laboratory data relating to the period 1 January to 30 June 2005 will be reviewed during July 2005. Real time notification of intra-laboratory check sample performance continued during 2004–2005.

National Association of Testing Authorities accreditation of contract laboratories

All NRS-contracted laboratories must achieve and maintain NATA (or equivalent) accreditation and operate within a comprehensive quality assurance/quality control system.

Performance monitoring using proficiency testing

Contracted laboratories analysed a standard set of samples that were either residue-free or had been spiked with a known amount of residue or residues. All PT samples were prepared by NRS staff at the TGA laboratory facilities in Canberra. Laboratories were assessed on their ability to detect, identify and quantify any residues present in the samples and appropriately report these results.

Either the NRS or the NRS Laboratory Performance Evaluation (LPE) Committee assesses all proficiency test results. The LPE Committee is chaired by the manager of the NRS Residue Chemistry and Laboratory Performance Evaluation (RC-LPE) team and includes representatives from NATA, the National Analytical Reference Laboratory, the TGA and an independent chemical consultative organisation, with support from officers employed by the NRS.

During 2004–2005, PT was successfully used to ensure that the required standard of analytical performance expected of an NRS contract laboratory was maintained for all laboratories delivering analytical services to the NRS.

Performance indicator two: *Procurement of laboratory services that provide the best value for money and meet corporate governance requirements.*

NRS Seventh Term contracts

Tender applications for the NRS Seventh Term contracts closed on 21 April 2004. These contracts commenced on 1 July 2004, and run for two years to 30 June 2006.

Selection of laboratories for NRS contracted laboratories Seventh Term

Tendering laboratories undertook pre-tender proficiency testing rounds. RC-LPE evaluated all technical aspects of the tender applications and provided this information to the NRS tender panel. The panel met to select laboratories on the basis of technical competency and value for money, according to departmental procedures. Successful laboratories were notified and engaged under Seventh Term contracts that were drawn up to commence on 1 July 2004.

Contract laboratory visits

RC-LPE staff members visited all new Seventh Term contract laboratories in the first part of the new contract period to:

- outline NRS requirements for testing of NRS samples
- indicate how results should be reported
- answer any queries regarding the operational requirements of the contract.

Three additional contract laboratories were also visited during 2004–2005 to review their compliance with NRS contract laboratory requirements.

Guidelines for contract laboratories

The updated guidelines (July 2004) contain all specifications and requirements for laboratory analyses and reporting to be undertaken by the contract laboratories. All contracted laboratories were sent a copy before the commencement of the new contracts.

Performance indicator three: *Validation that laboratory assessments in proficiency tests and in contracted work accord with agreed scientific standards.*

National Association of Testing Authorities proficiency testing accreditation

RC-LPE continued work towards becoming accredited as a provider of PT services. Accreditation will support provision of PT services to contracted laboratories and external clients. Two internal and two external audits as well as a management review were held in 2004–2005. The NRS system was assessed in April 2005 by NATA against the relevant international standard (ILAC G:13 2000) and accreditation as a proficiency testing scheme provider has been recommended for all programs involving the preparation of samples spiked individually. Approval of programs involving the preparation of test samples from bulk materials has also been recommended pending the resolution of issues relating to the establishment of their homogeneity.

Performance indicator four: *Approval by domestic and overseas clients of the NRS system of using outsourced laboratory services based on public tender, proficiency testing and ongoing monitoring of performance.*

United States Department of Agriculture Food Safety Inspection Service equivalence

NRS is awaiting a determination on Australia's submission clarifying equivalence, following an audit of NRS laboratory processes by the USDA FSIS in 2003.

Thailand workshop

A presentation 'Laboratory Procurement and Performance Evaluation of Contracted Laboratories' was given in Thailand at a workshop on *Laboratory Cooperation to Boost Technical Competency and Recognition*.

National Association of Testing Authorities training

Two staff successfully completed a NATA course *Quality Management in the Laboratory*.

Performance indicator five: *Responsiveness in a timely and effective manner to emerging needs.*

Arsenic in seafood

NRS provided input into discussions regarding the analysis of inorganic arsenic in seafood with AQIS, the Queensland Department of Primary Industries and Fisheries and other interested parties.

Outlook

Eighth Term (2006–2008) laboratory contracts

The process for selection of the Eighth Term contracts has started: new contracts will begin on 1 July 2006 and run until 30 June 2008.

Pre-tender PT for the 2006–2008 contract period will run from August to October 2005. This process requires the preparation of several thousand PT samples, as well as the collation and evaluation of the corresponding results. All information regarding laboratory performance will be provided as input into the tender evaluation process.

Externally funded laboratory performance evaluation

Description

The efficiency and acceptability of industry-operated monitoring projects and quality assurance systems requires the cost-effective selection of analytical laboratories and confidence in the validity of analytical results.

NRS has developed arrangements for its own residue monitoring projects and through using established methodologies is well placed to undertake such evaluations for industry clients on a full cost-recovery basis.

Dairy project

During 2004–2005, NRS undertook contractual laboratory performance evaluations (LPEs) for the dairy industry. Dairy Food Safety Victoria (DFSV), which coordinates the Australian Milk Residue Analysis (AMRA) project on behalf of the Australian Dairy Authorities Standards Committee, has agreed to the details of a proposed laboratory performance evaluation arrangement for 2005–2006. The primary purpose of the project is to provide DFSV with verification of the performance of laboratories contracted for the AMRA project.

Wool project

During 2004–2005, Australian Wool Innovation Limited (AWI) recontracted NRS to provide a PT service for three years involving both national and international laboratories testing raw wool for residues of pesticides and insect growth regulators.

Satisfactory performance in on-going PT will also become mandatory for any laboratory wishing to be licensed by the International Wool Textile Organisation (IWTO) for the purpose of testing raw wool for chemical residues. The wool testing program is seen by both AWI and IWTO as central to all efforts to identify and market low residue and 'ecowools' globally and to ensure that the wool trade can rely on testing from all parts of the global supply chain.

Australia, as the supplier of the cleanest wool in the world, has a significant interest in providing assurance to customers that the claimed residue status of its wool is correct. It is equally important that chemical analyses from laboratories in other wool-growing countries can also be demonstrated to be technically valid.

Nitrofurans metabolites in honey project

NRS was contracted by NATA to provide a one-off PT program involving nitrofurans metabolites in honey. Ten laboratories participated in the program: Australia (four), Germany (two), New Zealand (one), Canada (one) and the United Kingdom (two). The PT program was successfully completed and the final report published in June 2005. A presentation on the PT program will be given at a PT conference to be held in China in September 2005.

Outputs

Externally funded laboratory performance evaluation provides:

- increasing national and international confidence in, and acceptance of, industry-operated monitoring systems and quality assurance schemes
- support of NATA's accreditation activities relating to analytical testing laboratories
- maximisation of national benefits resulting from NRS 'in-house' expertise and experience.

Performance indicators and achievements

Performance indicator one: Compliance with contracts with individual industries; and

Performance indicator two: Satisfaction by clients with the services provided.

Milk proficiency testing

Two milk LPE rounds for laboratories contracted by DFSV were completed in September 2004 and April 2005. Reports for each round were provided to DFSV within the scheduled time frame and DFSV were satisfied with the service provided to them.

Wool proficiency testing

Round Zero—a familiarisation round—was completed successfully in March 2005. All scheduled timeframes were met and AWI approved the submitted milestone report.

Outlook

Milk laboratory performance evaluation

DFSV have again contracted NRS to provide a milk LPE program involving two rounds in 2005–2006.

Wool laboratory proficiency testing

The wool PT program will continue until 2007, and will involve two rounds in 2005–2006.

Business support

Description

This project covers functions that support the delivery of all NRS activities. These functions include financial management and accountability, human resources management, operations associated with sample collection and distribution, database management, legislation management and communication.

Outputs

The business project supported NRS in the following activities:

- provision of all support services required for the efficient conduct of the NRS
- accounting fully to industry clients and government
- cost-effective management of the acquisition of samples and data

- ongoing monitoring of levy rates and consultation with industries on necessary changes
- national and international communication, including an annual report to Parliament.

Performance indicators and achievements

Performance indicator one: *Operation of all financial reporting, auditing and management systems is transparent, effective, and efficient.*

NRS funds are managed in accordance with the Act and the *Financial Management and Accountability Act 1997 (Cwlth)*. Each participating industry is consulted on the level of reserves it wishes to maintain in the NRS Account with the aim of providing for contingencies, yet providing the best use of industry funds. Tendering and contractual arrangements for the supply of services are managed in accordance with Australian Government Purchasing Guidelines.

Risk assessment and control strategy

A risk assessment and control strategy was prepared for all participating industries' commodities based on financial, operational and business aspects.

Commodities' financial statements and budgets

These were provided to industry for the financial year 2003–2004 and on a quarterly basis to those industries requiring them in 2004–2005.

Annual contracts for residue monitoring under direct payment

Residue analysis was undertaken through MOUs for the camel and blueberry residue monitoring projects.

NRS costing model

A new cost attribution model was developed and implemented, based on the use of services. Further refinement of the model will occur during 2005–2006, to ensure overhead costs are distributed equitably between industry projects, based on resources required to deliver the projects.

Outsourced service delivery

Through the Department, outsourced services delivered to NRS include information technology, financial transaction processing, legal services, recruitment, payroll and property management. Maintenance of the NRS database is also contracted to an external information technology provider.

Performance indicator two: *Management of staffing and staff performance management are effective and efficient.*

NRS requires an appropriate and flexible mix of staff with technical and administrative skills. Contract staff are used to meet short-term needs. Through performance agreements, coupled with ongoing appraisal and development, NRS seeks to ensure that it has the committed and skilled staff needed to achieve its objectives efficiently and effectively. Business support activities for NRS were reorganised in 2004–2005. The finance manager position is retained with some adjustment of duties. Business activities related to human resource and other resource management matters have been incorporated into the newly established division of Product Integrity, Animal and Plant Health. The Deputy Director of NRS has assumed a more direct oversighting role in the financial and business support activities pertaining to NRS.

Employment conditions

The Deputy Director of NRS was employed under an Australian Workplace Agreement. All other senior (i.e. non-Senior Executive Service) staff were employed under the Department's Certified Agreement 2003-2006, and are bound by its terms and conditions.

Performance indicator three: *Review and adjustment of levy arrangements is conducted efficiently and consistent with government guidelines.*

Review of operative levy rates

All industries were consulted to ensure that current reserves in the NRS Account were adequate to cater for residue monitoring projects conducted in 2004–2005, and into the future. Levies paid by each industry are monitored continually and assessed using forecast production levels. Industries are consulted and advised if changes to levy rates are required.

NRS projects operate on a full cost recovery basis, with the costs of the services funded by relevant industries. If a new activity is required by an industry already involved with NRS, then in most cases existing industry funds could be used to support the new activity while adjusted levy arrangements were established. However, if services were required by an industry that was not already funding a NRS activity, then the new service would require some funding before the service could commence. Depending on circumstances, this could be achieved by the implementation of a levy coupled with a direct payment sufficient to initiate activity by NRS.

Animal products

There were no levy adjustments this year.

Plant products

There were no levy adjustments this year.

Performance indicator four: *Collection of samples, transfer of samples to laboratories and receipt of analytical data is managed efficiently;* and **Performance indicator five:** *Entering of analytical data is achieved within one working day of receipt.*

Sample collection and data management

During 2004–2005 the operations unit coordinated the collection of 20 322 samples for the residue random monitoring projects and entered the laboratory results from the samples into the NRS database. In addition, the operations unit managed the receipt of results from 2 129 samples from the targeted monitoring, compliance testing and residue prevention projects. All analytical results were entered within one day of receipt. Results of all chemical analyses are stored in the NRS database.

Generation of sample requests, data receipt, payment to service providers and data storage, processing and retrieval are automated using the NRS database.

Sample requests for random monitoring projects are generated by the NRS operations unit. Details of the samples to be collected are sent to collection points for action.

For surveillance, compliance and residue prevention projects, samples are collected according to specific project rules and NRS is responsible only for processing of laboratory results.

Samples are sent either directly to specified laboratories or to the NRS central receipt and dispatch facility for aggregation, repacking and forwarding to laboratories.

Laboratories report analytical results to NRS electronically. Results are validated through checking by NRS operations staff before being entered into the database. The detection of any residues above permitted levels is reported to appropriate regulatory authorities within agreed timeframes to enable required actions including prompt traceback investigations.

Database

NRS holds extensive data on residue levels in a wide range of commodities. This information may be accessed by industry and government for purposes related to market access and for the setting and review of standards. The data are managed under the 'Release of Information' requirements of the Act to ensure data integrity. Also, NRS adheres to national privacy principles.

The NRS database is being rewritten using the .NET® Microsoft development platform to increase stability and performance, and to improve its potential to adapt to future business requirements, particularly internet applications. For example, it could be possible to make NRS data available to producers through the web.

Performance indicator five: *Delivery of high quality and timely publications.*

The National Residue Survey Annual Report 2003-2004

This report again combined the report on operations and the financial statements with the results of the residue monitoring projects, following positive feedback from the previous year. This approach will be continued in future years.

The Parliamentary Secretary approved tabling of the report on 29 September 2004, and the report was tabled on 6 October 2004. Following tabling, the report was distributed to approximately 900 stakeholders, and was added to the website.

NRS results reporting

The use of tabular formats simplifying commodity results has continued, with care also being given to the consistency of chemical naming across commodities. Commodity reports are generated automatically from the NRS database.

NRS brochure

The brochure (March 2005) has been published both on paper and electronically on the web. Copies are used by staff on field visits to grain terminals and other sites of importance, as well as laboratories. NRS laboratory assessment staff use the brochures on visits, and copies are available for NRS visitors.

Awareness-raising articles

NRS submitted articles concerning NRS projects to *Onions Australia* (Volume 21 2005) and *Tree Fruit Journal* (June 2005).

Conference papers

Papers were presented at the Apple and Pear Annual General Meeting and Conference (September 2004); the Grains Council Executive Meeting (October 2004); the Onion Industry Annual General Meeting (October 2004); the Australian Macadamia Society Annual General Meeting (October 2004); Grains Week 2005 (June 2005); and the National Working Party on Grain Protection (June 2005). Papers were also presented by NRS staff at CHEMCERT.

Food standards for key markets

Overseas MRL databases and web links for overseas authorities are published on the NRS website for 39 countries. These are regularly maintained and updated. Updating continues on the links to international food standards for importing countries' MRL sites.

Outlook

NRS will continue to review its structure and operations to provide the most effective delivery of services to its clients. Further refinement of the cost model will be undertaken to achieve the most appropriate allocation of costs, and minimise the risk of cross-subsidisation between projects.

Community service obligations

Description

Appropriation funding is provided to NRS for certain residue-related projects that fall outside the cost-recovered residue monitoring projects and surveillance, compliance and residue prevention projects. These projects include:

- advising Ministers and assisting them to provide high quality service to the public
- providing scientific information to the portfolio on chemical residue issues
- participating in and providing technical input to relevant national and international committees such as the Primary Industries Ministerial Council, the Australia New Zealand Food Regulation Ministerial Council and their associated standing committees, as well as Codex
- facilitating cooperation and information exchange between the NRS, and Australian, state and territory government authorities that are involved in residue-related activities
- complying with government legislative requirements and contributing to the effectiveness of relevant government policies
- conducting residue-related investigations in the public interest.

Outputs

NRS community service outputs are:

- policy and technical advice to government and government agencies
- participation in residue-related national and international committees
- participation in and compliance with general government legislative and administrative requirements
- management of levy-related legislation.

Performance indicators and achievements

Performance indicator one: *Timely provision of high quality policy and technical advice to Ministers and relevant government agencies.*

All NRS policy and technical advice to the Minister or the Parliamentary Secretary was of high quality, accurate and timely. Issues addressed included OC residue management in the NORM project and adjustment of the apple and pear levy.

Performance indicator two: *Effective participation in Codex and other national and international fora.*

NRS was represented on three delegations to Codex committees. NRS participated in pre-planning meetings and the development of responses to papers for an Australian delegation brief prepared for the 15th meeting of the Codex Committee on Residues of Veterinary Drugs in Foods. NRS was represented in the Australian delegation at the meeting (Washington DC, October 2004).

The NRS representative to the Codex Committee on Pesticide Residues attended the 37th meeting (The Hague, Netherlands, 18–23 April 2005). In addition, the officer chaired the Ad Hoc Working Group on Priorities.

An NRS officer attended the Codex Meeting on Methods of Analysis and Sampling as part of the Australian delegation, and provided input into the development of Australia's position on a number of issues relevant to NRS, particularly acceptance of analytical methods, establishment of performance criteria for analytical methods and resolution of disputes over analytical results.

Performance indicator three: *Productive working relationships with relevant Australian, state and territory government authorities on residue management issues.*

Meetings and teleconferences

NRS liaised with state and territory government regulatory authority residue coordinators for meat and plant products. The key issues addressed were traceback investigation agreements, information sharing on respective residue testing projects, and communication strategies to facilitate responses to international residue violation matters.

Violations of food standards

During 2004–2005 there were no international residue-related trade incidents of which NRS was made aware.

Performance indicator four: *Effective and efficient management of levy-related legislation, general legislative issues and other government business relevant to the NRS project.*

Levy consultation

A full review of levy receipts for 2003–2004 was completed and consultation initiated with those industries where levy change may be necessary to maintain industry reserves in the NRS Account at levels that would sustain their testing projects for 2004–2005 and beyond. Two Apple and Pear Bills (Customs and Excise) were introduced into Parliament on 23 June 2005 to increase the industry levy in order to sustain testing activity into the future.

Performance indicator five: *Effective and efficient conduct of investigations on residue-related issues yielding national benefits.*

Residue incident tracebacks

All tracebacks were undertaken in accordance with the MOUs signed by the state and territory governments.

Residue incidents in exported produce

State or territory government regulatory residue coordinators (as applicable) were informed when Australian produce that exceeded residue standards was detected by importing countries.

Management of horticultural produce residue incidents

Formal arrangements for the timely management of international incidents that result from the export of Australian horticultural produce have been established. NRS worked on this issue cooperatively with other areas of the Department, Horticulture Australia Limited, horticultural industries and state and territory governments.

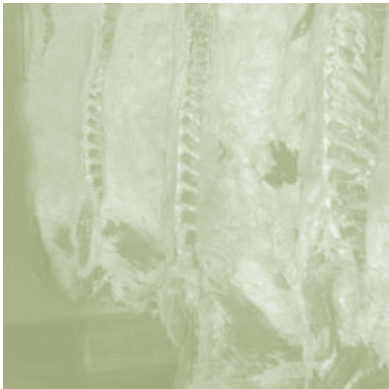
Residue-related investigation in the public interest

During 2004–2005 several samples tested for antimicrobials were reported with unidentified biological responses (UBRs). Based on operational criteria, three samples were sent to laboratories for further investigation, but the cause of the UBRs could not be confirmed.

Outlook

Laboratory capacity

NRS contracts laboratories to perform analytical work for the residue testing programs. However, a sufficient pool of capable laboratories is needed to compete for the work. Also, there needs to be a contingent capability for such laboratory work, should there be a significant residue incident that could, for instance, threaten overseas market access. The role of government in providing laboratory services is diminishing at both the Australian Government and state levels. Concern has been expressed that the pool of available laboratories in Australia may have contracted over the past ten years, and the capacity to respond to any sudden increase in demand for testing is reduced. NRS is undertaking a project to review the existing laboratory analytical capability for its residue testing programs, and will also assess the factors likely to operate in the next ten years that may affect residue and contaminant testing capacity and the ability of Australian systems to meet present and future analytical requirements for the agricultural export industries.



Report on Results

National Residue Survey 2004–2005

Report on Results 2004–2005

Background

Residues and contaminants

The National Residue Survey (NRS) was established under the *National Residue Survey Administration Act 1992 (Cwlth)* for the purpose of monitoring and reporting the level of contaminants⁴ in food, inputs to production and/or the environment. The term 'residue' is used in this report to apply to both residues and contaminants.

Residues are classified as being *present* if their concentration is greater than the limit of reporting (LOR)⁵ established for NRS purposes. NRS typically sets the LOR at 10 to 20 per cent of the Australian Standard⁶ maximum residue limit (MRL)⁷, extraneous residue limit (ERL)⁸ or maximum level (ML)⁹.

Residues, health and trade

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

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

⁴ See pp. 178–179 for definition of the terms residue and contaminant.

⁵ See p. 179.

⁶ See p. 179.

⁷ See p. 178.

⁸ See p. 178.

⁹ See p. 179.

Under these circumstances the detection of a residue is not a matter of concern, except when the use of the relevant chemical is unauthorised, or its concentration is greater than a limit set in either the context of trade (domestic, export or import) or human health. In reality, human health is rarely an issue since Australian Standards for residues (MRLs) are set at levels necessary to meet health needs. Detection levels are usually less than the MRL, but even detections over the MRL are still low with regard to health concerns. This means that an occasional detection at or just above the MRL is not likely to cause any adverse health effects when the product is consumed. Food standards take into account residue levels that are normally likely to occur (environmental contaminants) and the amount that should not be exceeded if good agricultural practices have been followed (agvet chemicals). Climate, geography, pests, diseases and products vary from country to country and as a consequence there may be different limits set for particular residues in certain products in different countries.

The general purposes of residue monitoring are to:

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

Where residue levels that exceed Australian Standards are found in NRS samples, traceback activities are the responsibility of the state or territory government authority from which the samples originate (See p. 57 for further details about the traceback process).

Setting of Australian Standards

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

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

All MRLs proposed by APVMA for food, agricultural commodities and animal feed are published in the APVMA MRL Standard. MRLs for food commodities are then considered

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

ERLs are in a separate schedule within the Code.

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

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

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

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

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

Sample collection

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

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

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

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

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

Samples for the fish (wild-caught) random monitoring project are collected from fish establishments by officers from the Australian Quarantine and Inspection Service (AQIS), NRS or state or territory government authorities. The samples are forwarded directly to the laboratories.

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

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

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

Chemical–commodity selection

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

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

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

Matrix analysed

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

Sources of residues

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

- antibiotics used to control microbial diseases in animals
- anthelmintics used to control internal parasites in animals
- hormonal growth promotants used as veterinary medicines or to improve growth in livestock
- fungicides used to control fungal diseases in plants and plant products
- insecticides and acaricides used to control insect and mite pests in crops, to protect grain, and to control external parasites on animals

- fumigants used as grain protectants, and to sterilise soil, storage sheds, animal houses and bee hives
- herbicides used to control weeds in crops.

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

Environmental contaminants

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

Traceback of samples

When a sample is detected with a residue that is above an Australian Standard or defined residue action level the laboratory immediately notifies NRS, which then informs the relevant state or territory government authority. State or territory government authority staff then trace the sample back to its property of origin. Subsequent actions depend on both the chemical detected and the commodity in which it is found, and are specified by state or territory government authority legislation. Action varies from simple advice in the case of a minor problem, to quarantining the property, or prosecution where serious contamination has occurred. NRS is notified of traceback activities and findings.

Summary of results

Overall results

During 2004–2005, 20 322 samples were collected from 22 animal products (meat, honey, egg and fish) and 14 plant products (grain and horticulture) for NRS random monitoring projects¹¹. In all, 343 593 analyses were undertaken on these samples.

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

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

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

Random monitoring (animal products)

Meat

Residue monitoring projects covered 12 meat commodities and 14 503 samples. The projects for beef, sheep and pig with 5 581, 4 627 and 3 001 samples respectively were the largest individual projects. In all, 190 163 analyses were undertaken.

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

In non-edible matrices (urine and faeces of cattle, pig and horse), 61 detections were made. Australian Standards are not established for such non-edible matrices. Five sheep liver samples had cadmium levels that exceeded the (ML) of 1.25 mg/kg. Three lead residues in sheep livers and one lead residue in game pig liver were higher than the ML (0.5 mg/kg).

Honey

Of the 72 honey samples tested and 936 analyses undertaken, none showed antibiotic residues above Australian Standards. Honey samples were tested for metals (selenium, zinc, aluminium and lead). Although metal detections were common, they were at expected levels for honey.

¹¹ See pp. 21–31.

Egg

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

Fish

Eight wildcaught fish commodities were measured for residues: 523 analyses were undertaken on 125 samples. Ten environmental metal contaminants above the Australian Standard were detected.

Random monitoring (plant products)**Grain**

The grain random monitoring project covered 10 commodities, with 4 974 samples being collected and 132 857 analyses undertaken. Wheat grain and its products (bran and flour) contributed the largest number of samples. There were 20 residues of agricultural chemicals detected above Australian Standards (MRL/ERL). Only one sample showed an environmental metal contamination level above the Australian Standard.

Horticulture

The horticulture residue monitoring project covered four commodities (apple and pear, blueberry, macadamia nut, onion) involving 573 samples and 18 115 analyses. One agricultural chemical residue was detected above the Australian Standard (MRL/ERL).

Targeted monitoring, compliance and residue prevention projects

Results of these projects (where applicable) are given in the Report on Operations (see p. 32).

Summary of results for all random monitoring projects

The table on the next page summarises the results of analyses from the major commodity groupings. Detailed tables and explanations of results for each NRS random monitoring project undertaken during the financial year 2004–2005 are presented in the following pages of this report.

Commodity	Total samples ^a	Total analyses ^b	Agvet residues > Aust Std [MRL/ERL] ^c	Number of residues in inedible tissue ^e	Number of environmental contaminants > Aust Std (ML)
ANIMAL PRODUCTS					
<i>Meat</i>					
Cattle	5 581	77 524	2	4	0
Sheep	4 627	57 939	0	0	8
Pig	3 001	27 986	2	57	0
Poultry	430	12 270	0	nt	nt
Goat	249	3 819	0	nt	0 ^d
Horse	143	2 256	0	0	0 ^d
Other meat species (includes ratite)	472	8 368	0	nt ^e	1
<i>Honey</i>	72	936	0	0	0
<i>Egg</i>	75	1 000	2	0	nt
<i>Fish (wildcaught)</i>	125	523	0	0	10
PLANT PRODUCTS					
<i>Cereal</i>					
Cereal grain	4 386	116 623	16	0	1
Flour and bran	188	5 108	1	0	0
Pulses	166	4 761	1	0	0
Canola	234	6 365	1	0	0
<i>Horticulture</i>					
Apple and pear	292	12 848	1	0	nt
Onion	101	2 981	0	0	nt
Macadamia nut	120	1 920	0	0	nt
Blueberry	60	366	0	0	nt
Total all products	20 322	343 593	26	61	20

- a Total number of samples collected from each species or commodity. For meat products these samples may be from muscle (meat), fat, kidney, liver, urine or faeces
- b Most samples are analysed for more than one chemical. This is the total number of chemical–commodity combinations that were specifically tested in each product type.
- c Number of residues observed above the Australian Standard (MRL or ERL), or the total number of residue detections for samples of inedible tissue (urine and faeces). Standards are not established in Australia for residues in urine and faeces, however samples of urine and faeces are analysed for some, generally unregistered, chemicals. Detection of a registered agvet chemical, or of a chemical that may be produced endogenously, in urine or faeces is not necessarily an indicator of illicit agvet chemical use. Individual samples may contain more than one residue.
- d MLs are not established for the contaminants included in this testing plan for horse or goat, other than for PCBs, of which no residues were found.
- e For deer, five urine samples were tested for β -agonists and five urine samples for hormones, with no residues found.
- nt Not tested

Animal product results

Meat

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

During 2004–2005, 14 503 samples were collected. These samples were distributed between 12 meat commodities as shown below.

Commodity	Sample numbers	Commodity	Sample numbers
Cattle	5 581	Game pig	120
Sheep	4 627	Deer	116
Pig	3 001	Ratite (ostrich and emu)	111
Poultry	430	Kangaroo	100
Goat	249	Camel	15
Horse	143	Buffalo	10

Results of the analyses carried out on each meat commodity (in alphabetical order) are shown in the tables starting on page 66.

Overview

In the reporting period 2004–2005, 190 157 analyses were undertaken on 14 503 samples. Thirteen residues (four agvet chemicals and nine metals) were found to be above applicable Australian Standards.

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

In non-edible matrices, chemicals were detected in 61 samples. Detections of ractopamine in pig urine accounted for 57 of these detections. Ractopamine, a veterinary drug used to promote feed efficiency, is registered for use in pigs. The remaining three detections in non-edible tissue were hormones in cattle urine, and likely to be endogenous in origin.

Traceback investigations are initiated only when there are reasonable grounds to believe the residue finding may have been the result of incorrect usage of an agvet chemical, as is discussed below.

Anthelmintics

Three classes of anthelmintics were monitored: macrocyclic lactones, benzimidazoles (triclabendazole in cattle and sheep), and salicylanilides (closantel in sheep). Samples tested were from cattle, sheep, pig, goat, horse, deer and ratite. One pig liver sample contained a residue of ivermectin (0.015 mg/kg), above the Australian Standard of 0.01 mg/kg. Traceback confirmed that the pig had been accidentally sold for slaughter before the expiry of the withholding period. The state authority issued the producer with a warning letter.

Antibiotics

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

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

Specific testing was undertaken for antibiotics including sulphonamides in kidney, and for chloramphenicol in muscle. Samples were tested from cattle, sheep, pig, poultry, horse, deer and ratites using the general screen for antibiotics. In addition, pig muscle was tested for dimetridazole. One residue contravention of sulfadimidine was found in pig (0.11 mg/kg) compared with the Australian standard of 0.1 mg/kg. A traceback was initiated, but the reason for the contravention could not be conclusively determined. The state authority issued a warning letter to the producer.

Hormones

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

Resorcyclic acid lactones (zearanol)

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

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

One α -zearalanol (zearanol) residue was found in a cattle liver. The residue was found in association with other zearalenone metabolites, which was strongly indicative of natural exposure via feed. A number of other zearalenone and metabolite detections were made in cattle faeces and in cattle, horse, sheep and pig liver without the α -zearalanol residue being found. This is the expected finding for dietary exposure to feeds containing zearalenone.

Steroids

Many steroidal compounds included in the testing programs may originate from either normal endocrine function (i.e. they are endogenous) or from the administration of veterinary drugs. There were two hormone detections in cattle urine, one of 17α -boldenone and $17\alpha,19$ -nortestosterone, and another of $17\alpha,19$ -nortestosterone only. At the levels detected, the residues were most likely from endogenous sex hormone production and tracebacks were not instigated.

Stilbenes

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

Other veterinary drugs

β -agonists

Some β -agonists are registered in different countries for use as growth promotants. There is currently one β -agonist, ractopamine, registered in Australia for use only in pigs for enhancement of feed utilisation. Low level detections of ractopamine were found in 57 samples of pig urine, but at the levels found there was no suspicion of misuse of this drug.

Non-steroidal anti-inflammatory drugs

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

Pesticides

Organochlorines, organophosphates and synthetic pyrethroids

Organochlorines (OCs), organophosphates (OPs) and synthetic pyrethroid (SP) residues were monitored in 2 464 samples for all meat commodities except kangaroos (where SPs were not included in the testing plan) and poultry, where no pesticide testing was undertaken.

Organochlorines

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

Low level OC residues were observed in a number of samples, and two cattle samples were found to contain residues of aldrin/dieldrin (0.24 and 1.3 mg/kg respectively) at levels above the Australian Standard of 0.2 mg/kg. Tracebacks were initiated, one of which (0.24 mg/kg sample) was not complete at the time of writing this report. Grazing of a heavily contaminated site at least 60 days prior to slaughter was confirmed as the source of the residue in the other sample (1.3 mg/kg). That property was issued with an infringement notice by the state authority and placed in the National Organochlorine Residue Management (NORM) project (see p. 33 of this report) that manages and restricts access of livestock to OC-contaminated land in Australia.

Endosulfan, a relatively non-persistent OC, is registered for use on certain crops, but is not for use on livestock (see p. 34 of this report for more details).

Organophosphates

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

Synthetic pyrethroids

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

Benzoyl ureas and other pesticides

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

Environmental contaminants

The metal residue screen tests for cadmium, lead and mercury in liver. There were five cadmium detections in sheep liver above the Australian Standard (ML) of 1.25 mg/kg. The residue levels ranged from 1.3 mg/kg to 1.7 mg/kg. Cadmium residues are commonly found in sheep offal, particularly in older animals across the southern states of Australia. A residue action level of 2.5 mg/kg has been agreed between NRS and state and territory government regulatory authorities for traceback purposes. None of the five residue detections were above the action level, so tracebacks were not initiated for these detections.

There were lead detections in liver above the Australian Standard (ML) of 0.5 mg/kg for sheep (three samples) and game pig (one sample). The residue levels ranged from 0.65 mg/kg to 1.1 mg/kg. During the year the agreed residue action level was reduced to 0.5 mg/kg (previously 1.0 mg/kg). Tracebacks were not instigated for two of the sheep detections as they were below the residue action level in force at the time. The traceback on the remaining sheep sample was completed, showing that batteries had been dumped in the area to which the sheep had access. The state authority issued a warning letter to the producer. Traceback on the game pig sample was inconclusive as the source of the animal could not be confirmed.



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

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



CAMEL						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and Dieldrin	FAT	0.02	0.2	10	0	0
Chlordane	FAT	0.02	0.2	10	0	0
DDT	FAT	0.1	5	10	0	0
Endosulfan	FAT	0.02	0.2	10	0	0
HCB	FAT	0.02	1	10	0	0
HCH	FAT	0.02	0.3	10	0	0
Heptachlor	FAT	0.02	0.2	10	0	0
Lindane (γ HCH)	FAT	0.1	2	10	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	10	0	0
Chlorpyrifos	FAT	0.1	0.5	10	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	10	0	0
Coumaphos	FAT	0.2	Not set	10	0	0
Diazinon	FAT	0.1	0.7	10	0	0
Ethion	FAT	0.1	Not set	10	0	0
Famphur	FAT	0.02	Not set	10	0	0
Fenitrothion	FAT	0.02	0.05	10	0	0
Fenthion	FAT	0.05	Not set	10	0	0
Malathion	FAT	0.2	1	10	0	0
Phosmet	FAT	0.1	Not set	10	0	0
Temephos	FAT	0.1	Not set	10	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	10	0	0
Bioresmethrin	FAT	0.02	Not set	10	0	0
Cyfluthrin	FAT	0.02	0.5	10	0	0
Cyhalothrin	FAT	0.02	0.5	10	0	0
Cypermethrin	FAT	0.02	0.01	10	0	0
Deltamethrin	FAT	0.02	Not set	10	0	0
Fenvalerate	FAT	0.02	1	10	0	0
Flumethrin	FAT	0.02	Not set	10	0	0
Permethrin	98145.451	0.02	1	10	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	10	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	10	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	No limit	5	5	n/a
Lead	LIVER	0.02	No limit	5	3	n/a
Mercury	LIVER	0.01	No limit	5	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



CATTLE

CATTLE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Benzimidazoles</i>						
Triclabendazole	LIVER	0.1	2	317	0	0
<i>Imidazothiazoles</i>						
Levamisole	LIVER	0.02	1	206	0	0
Macrocyclic lactones						
Abamectin	LIVER	0.005	0.1	329	0	0
Doramectin	LIVER	0.005	0.1	329	2	0
Emamectin	LIVER	0.005	0.01	329	0	0
Eprinomectin	LIVER	0.005	2	329	1	0
Ivermectin	LIVER	0.005	0.1	329	2	0
Moxidectin	LIVER	0.005	0.5	329	4	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	941	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	941	0	0
Gentamycin	KIDNEY	0.1	Not set	941	0	0
Neomycin	KIDNEY	0.1	0.5	941	1	0
Streptomycin	KIDNEY	0.1	0.3	941	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	941	0	0
Ampicillin	KIDNEY	0.01	Not set	941	0	0
Benzylpenicillin (penicillin G)	KIDNEY	0.01	0.06	941	0	0
Cloxacillin	KIDNEY	0.1	Not set	941	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	2	935	0	0
Cefuroxime	KIDNEY	0.1	0.1	935	0	0
Cephalonium	KIDNEY	0.1	0.1	935	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	941	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	941	0	0
Tilmicosin	KIDNEY	0.2	1	941	0	0
Tylosin	KIDNEY	0.1	0.1	941	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	941	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	941	0	0
Sulfadoxine	KIDNEY	0.05	0.1	941	0	0
Sulfafurazole	KIDNEY	0.05	Not set	941	0	0
Sulfamerazine	KIDNEY	0.05	Not set	935	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	935	0	0
Sulfapyridine	KIDNEY	0.05	Not set	935	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	941	0	0
Sulfathiazole	KIDNEY	0.05	Not set	935	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	941	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.

**CATTLE** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	941	0	0
Doxycycline	KIDNEY	0.05	Not set	935	0	0
Oxytetracycline	KIDNEY	0.1	0.6	941	0	0
Tetracycline	KIDNEY	0.1	Not set	941	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	319	0	0
HORMONES						
Corticosteroids						
Betamethasone	LIVER	0.002	Not set	331	0	0
Dexamethasone	LIVER	0.002	0.1	331	0	0
Resorcylic acid lactones						
Zearalanol (α) [zeranol]	FAECES	0.002	Not defined	64	1 ^a	n/a
Zearalanol (α) [zeranol]	LIVER	0.002	0.02	346	1	0
Steroids						
19-Nortestosterone [17- α]	URINE	0.001	Not defined	314	2 ^b	n/a
19-Nortestosterone [17- α]	URINE	0.001	Not defined	314	0	n/a
Boldenone [17- α]	URINE	0.001	Not defined	314	1 ^b	n/a
Boldenone [17- β]	URINE	0.001	Not defined	314	0	n/a
Methandriol	URINE	0.005	Not defined	314	0	n/a
Stanozolol	URINE	0.001	Not defined	314	0	n/a
Stanozolol [16-hydroxy]	URINE	0.001	Not defined	314	0	n/a
Trenbolone	FAECES	0.002	Not defined	64	0	n/a
Trenbolone	LIVER	0.002	0.01	326	0	0
Stilbenes						
Dienoestrol	FAECES	0.000	Not defined	64	0	n/a
Dienoestrol	LIVER	0.000	Not set	346	0	0
Diethylstilboestrol	FAECES	0.000	Not defined	64	0	n/a
Diethylstilboestrol	LIVER	0.000	Not set	346	0	0
Hexoestrol	FAECES	0.000	Not defined	64	0	n/a
Hexoestrol	LIVER	0.000	Not set	346	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	331	0	n/a
Clenbuterol	URINE	0.001	Not defined	331	0	n/a
Mabuterol	URINE	0.001	Not defined	331	0	n/a
Ractopamine	URINE	0.001	Not defined	331	0	n/a
Salbutamol	URINE	0.001	Not defined	331	0	n/a

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

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.

Not defined Standards not established in urine and faeces.

^a residues consistent with exposure to naturally contaminated feed (see text).

^b residues consistent with endogenous hormone production.



CATTLE

CATTLE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	0.02	326	0	0
Ketoprofen	LIVER	0.02	0.05	326	0	0
Oxyphenbutazone	LIVER	0.05	Not set	326	0	0
Phenylbutazone	LIVER	0.05	Not set	326	0	0
Tolfenamic Acid	LIVER	0.005	0.01	326	0	0
PESTICIDES						
Benzoyl ureas						
Chlorfluazuron	FAT	0.01	1	343	0	0
Diflubenzuron	FAT	0.01	0.02	343	0	0
Fluazuron	FAT	0.01	7	343	13	0
Triflumuron	FAT	0.01	0.05	343	0	0
Organochlorines						
Aldrin and Dieldrin	FAT	0.02	0.2	1 096	6	2 ^c
Chlordane	FAT	0.02	0.2	1 096	0	0
DDT	FAT	0.1	5	1 096	8	0
Endosulfan	FAT	0.02	0.2	1 096	0	0
HCB	FAT	0.02	1	1 096	0	0
HCH	FAT	0.02	0.3	1 096	1	0
Heptachlor	FAT	0.02	0.2	1 096	0	0
Lindan (γ HCH)	FAT	0.1	2	1 096	0	0
Organophosphates						
Chlorfenvinphos	FAT	0.05	0.2	1 096	3	0
Chlorpyrifos	FAT	0.1	0.5	1 096	1	0
Chlorpyrifos-methyl	FAT	0.02	0.05	1 096	0	0
Coumaphos	FAT	0.2	1	1 096	0	0
Diazinon	FAT	0.1	0.7	1 096	0	0
Ethion	FAT	0.1	2.5	1 096	0	0
Famphur	FAT	0.02	0.05	1 096	0	0
Fenitrothion	FAT	0.02	0.05	1 096	0	0
Fenthion	FAT	0.05	1	1 096	1	0
Malathion	FAT	0.2	1	1 096	0	0
Phosmet	FAT	0.1	1	1 096	0	0
Temephos	FAT	0.1	5	1 096	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.

c Grazing a contaminated site was the confirmed source of aldrin/dieldrin for one of the samples, with the property placed in the NORM program. The traceback for the second sample has not been completed at the time this report was prepared (see text).

**CATTLE** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	1 096	0	0
Bioresmethrin	FAT	0.02	Not set	1 096	0	0
Cyfluthrin	FAT	0.02	0.5	1 096	0	0
Cyhalothrin	FAT	0.02	0.5	1 096	0	0
Cypermethrin	FAT	0.02	0.5	1 096	1	0
Deltamethrin	FAT	0.02	0.5	1 096	1	0
Fenvalerate	FAT	0.02	1	1 096	1	0
Flumethrin	FAT	0.02	0.2	1 096	0	0
Permethrin	FAT	0.02	1	1 096	1	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
PCBs Aroclor 1254	FAT	0.03	0.2	1 096	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	1 096	0	0
Metals						
Cadmium	LIVER	0.02	1.25	318	204	0
Lead	LIVER	0.02	0.5	318	72	0
Mercury	LIVER	0.01	No limit	318	7	n/a
Mycotoxins						
Zearalanol (β) (talaranol)	FAECES	0.002	No limit	64	0	n/a
Zearalanol (β) (talaranol)	LIVER	0.002	No limit	346	0	n/a
Zearalanone	FAECES	0.002	No limit	63	0	n/a
Zearalanone	LIVER	0.002	No limit	346	0	n/a
Zearalanol (α)	FAECES	0.002	No limit	64	43	n/a
Zearalanol (α)	LIVER	0.002	No limit	346	9	n/a
Zearalanol (β)	FAECES	0.002	No limit	64	53	n/a
Zearalanol (β)	LIVER	0.002	No limit	346	26	n/a
Zearalanone	FAECES	0.002	No limit	64	31	n/a
Zearalanone	LIVER	0.002	No limit	346	2	n/a

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

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. Detections of the contaminant at low levels are allowable.



DEER

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

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

**DEER** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	25	0	0
Doxycycline	KIDNEY	0.05	Not set	25	0	0
Oxytetracycline	KIDNEY	0.1	Not set	25	0	0
Tetracycline	KIDNEY	0.1	Not set	25	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	10	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) [zeranol]	LIVER	0.002	Not set	5	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	5	0	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	5	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	5	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	5	0	n/a
Methandriol	URINE	0.005	Not defined	5	0	n/a
Stanozolol	URINE	0.001	Not defined	5	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	5	0	n/a
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	5	0	0
Diethylstilboestrol	LIVER	0.000	Not set	5	0	0
Hexoestrol	LIVER	0.000	Not set	5	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	5	0	n/a
Clenbuterol	URINE	0.001	Not defined	5	0	n/a
Mabuterol	URINE	0.001	Not defined	5	0	n/a
Ractopamine	URINE	0.001	Not defined	5	0	n/a
Salbutamol	URINE	0.001	Not defined	5	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	5	0	0
Ketoprofen	LIVER	0.02	Not set	5	0	0
Oxyphenbutazone	LIVER	0.05	Not set	5	0	0
Phenylbutazone	LIVER	0.05	Not set	5	0	0
Tolfenamic Acid	LIVER	0.005	Not set	5	0	0

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

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.

Not defined Standards not established in urine and faeces.



DEER

DEER (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and Dieldrin	FAT	0.02	0.2	26	0	0
Chlordane	FAT	0.02	0.2	26	0	0
DDT	FAT	0.1	5	26	0	0
Endosulfan	FAT	0.02	0.2	26	0	0
HCB	FAT	0.02	1	26	0	0
HCH	FAT	0.02	0.3	26	0	0
Heptachlor	FAT	0.02	0.2	26	0	0
Lindane (γ HCH)	FAT	0.1	2	26	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	0.2	26	0	0
Chlorpyrifos	FAT	0.1	0.5	26	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	26	0	0
Coumaphos	FAT	0.2	Not set	26	0	0
Diazinon	FAT	0.1	0.7	26	0	0
Ethion	FAT	0.1	Not set	26	0	0
Famphur	FAT	0.02	Not set	26	0	0
Fenitrothion	FAT	0.02	0.05	26	0	0
Fenthion	FAT	0.05	Not set	26	0	0
Malathion	FAT	0.2	1	26	0	0
Phosmet	FAT	0.1	Not set	26	0	0
Temephos	FAT	0.1	Not set	26	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	26	0	0
Bioresmethrin	FAT	0.02	Not set	26	0	0
Cyfluthrin	FAT	0.02	0.5	26	0	0
Cyhalothrin	FAT	0.02	0.5	26	0	0
Cypermethrin	FAT	0.02	0.5	26	0	0
Deltamethrin	FAT	0.02	Not set	26	0	0
Fenvalerate	FAT	0.02	1	26	0	0
Flumethrin	FAT	0.02	Not set	26	0	0
Permethrin	FAT	0.02	1	26	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	26	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	26	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	No limit	10	4	n/a
Lead	LIVER	0.02	No limit	10	7	n/a
Mercury	LIVER	0.01	No limit	10	0	n/a
<i>Mycotoxins</i>						
Zearalanol (β) (taleralanol)	LIVER	0.002	No limit	5	0	n/a
Zearalanone	LIVER	0.002	No limit	5	0	n/a
Zearalenol (δ)	LIVER	0.002	No limit	5	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	5	0	n/a
Zearalenone	LIVER	0.002	No limit	5	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



GAME PIG						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and Dieldrin	FAT	0.02	0.2	75	0	0
Chlordane	FAT	0.02	0.2	75	1	0
DDT	FAT	0.1	5	75	1	0
Endosulfan	FAT	0.02	0.2	75	0	0
HCB	FAT	0.02	1	75	1	0
HCH	FAT	0.02	0.3	75	0	0
Heptachlor	FAT	0.02	0.2	75	0	0
Lindane (γ HCH)	FAT	0.1	2	75	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	75	0	0
Chlorpyrifos	FAT	0.1	0.5	75	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	75	0	0
Coumaphos	FAT	0.2	0.5	75	0	0
Diazinon	FAT	0.1	0.7	75	0	0
Ethion	FAT	0.1	Not set	75	0	0
Famphur	FAT	0.02	Not set	75	0	0
Fenitrothion	FAT	0.02	0.05	75	0	0
Fenthion	FAT	0.05	0.5	75	0	0
Malathion	FAT	0.2	1	75	0	0
Phosmet	FAT	0.1	0.1	75	0	0
Temephos	FAT	0.1	Not set	75	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	75	0	0
Bioresmethrin	FAT	0.02	Not set	75	0	0
Cyfluthrin	FAT	0.02	0.5	75	0	0
Cyhalothrin	FAT	0.02	0.5	75	0	0
Cypermethrin	FAT	0.02	0.05	75	0	0
Deltamethrin	FAT	0.02	0.1	75	0	0
Fenvalerate	FAT	0.02	1	75	0	0
Flumethrin	FAT	0.02	Not set	75	0	0
Permethrin	FAT	0.02	1	75	0	0
<i>Other</i>						
Sodium fluoroacetate (1080)	MUSCLE	0.05	Not set	20	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	75	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	75	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	1.25	25	9	0
Lead	LIVER	0.02	0.5	25	20	1 ^a
Mercury	LIVER	0.01	No limit	25	5	n/a

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

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

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

a Traceback inconclusive. Source of animal could not be confirmed.



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

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

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

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



GOAT

GOAT <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	99	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	99	0	0
Metals						
Cadmium	LIVER	0.02	No limit	50	18	n/a
Lead	LIVER	0.02	No limit	50	15	n/a
Mercury	LIVER	0.01	No limit	50	1	n/a

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

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



HORSE

HORSE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	10	0	0
Doramectin	LIVER	0.005	Not set	10	0	0
Emamectin	LIVER	0.005	0.01	10	0	0
Eprinomectin	LIVER	0.005	Not set	10	0	0
Ivermectin	LIVER	0.005	0.01	10	0	0
Moxidectin	LIVER	0.005	Not set	10	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	42	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	42	0	0
Gentamycin	KIDNEY	0.1	Not set	42	0	0
Neomycin	KIDNEY	0.1	0.5	42	0	0
Streptomycin	KIDNEY	0.1	0.3	42	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	42	0	0
Ampicillin	KIDNEY	0.01	0.01	42	0	0
Benzylpenicillin (penicillin G)	KIDNEY	0.01	0.06	42	0	0
Cloxacillin	KIDNEY	0.1	Not set	42	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	41	0	0
Cefuroxime	KIDNEY	0.1	Not set	41	0	0
Cephalonium	KIDNEY	0.1	Not set	41	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	42	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	42	0	0
Tilmicosin	KIDNEY	0.2	Not set	42	0	0
Tylosin	KIDNEY	0.1	Not set	42	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	42	0	0
Sulfadimidine [sulfamethazine]	KIDNEY	0.05	0.1	42	0	0
Sulfadoxine	KIDNEY	0.05	0.1	42	0	0
Sulfafurazole	KIDNEY	0.05	Not set	42	0	0
Sulfamerazine	KIDNEY	0.05	Not set	41	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	41	0	0
Sulfapyridine	KIDNEY	0.05	Not set	41	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	42	0	0
Sulfathiazole	KIDNEY	0.05	Not set	41	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	42	0	0

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

**HORSE** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	42	0	0
Doxycycline	KIDNEY	0.05	Not set	41	0	0
Oxytetracycline	KIDNEY	0.1	Not set	42	0	0
Tetracycline	KIDNEY	0.1	Not set	42	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	10	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) [zeranol]	LIVER	0.002	Not set	11	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	10	0	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	10	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	10	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	10	0	n/a
Methandriol	URINE	0.005	Not defined	10	0	n/a
Stanozolol	URINE	0.001	Not defined	10	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	10	0	n/a
Trenbolone	LIVER	0.002	Not set	11	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	11	0	0
Diethylstilboestrol	LIVER	0.000	Not set	11	0	0
Hexoestrol	LIVER	0.000	Not set	11	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	10	0	n/a
Clenbuterol	URINE	0.001	Not defined	10	0	n/a
Mabuterol	URINE	0.001	Not defined	10	0	n/a
Ractopamine	URINE	0.001	Not defined	10	0	n/a
Salbutamol	URINE	0.001	Not defined	10	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	11	0	0
Ketoprofen	LIVER	0.02	Not set	11	0	0
Oxyphenbutazone	LIVER	0.05	Not set	11	0	0
Phenylbutazone	LIVER	0.05	Not set	11	0	0
Tolfenamic Acid	LIVER	0.005	Not set	11	0	0

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

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.

Not defined Standards not established in urine and faeces.



HORSE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and Dieldrin	FAT	0.02	0.2	19	1	0
Chlordane	FAT	0.02	0.2	19	0	0
DDT	FAT	0.1	5	19	0	0
Endosulfan	FAT	0.02	0.2	19	0	0
HCB	FAT	0.02	1	19	0	0
HCH	FAT	0.02	0.3	19	0	0
Heptachlor	FAT	0.02	0.2	19	0	0
Lindane (γ HCH)	FAT	0.1	2	19	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	19	0	0
Chlorpyrifos	FAT	0.1	0.5	19	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	19	0	0
Coumaphos	FAT	0.2	Not set	19	0	0
Diazinon	FAT	0.1	0.7	19	0	0
Ethion	FAT	0.1	Not set	19	0	0
Famphur	FAT	0.02	Not set	19	0	0
Fenitrothion	FAT	0.02	0.05	19	0	0
Fenthion	FAT	0.05	Not set	19	0	0
Malathion	FAT	0.2	1	19	0	0
Phosmet	FAT	0.1	Not set	19	0	0
Temephos	FAT	0.1	Not set	19	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	FAT	0.02	2	19	0	0
Bioresmethrin	FAT	0.02	Not set	19	0	0
Cyfluthrin	FAT	0.02	0.5	19	0	0
Cyhalothrin	FAT	0.02	0.5	19	0	0
Cypermethrin	FAT	0.02	0.05	19	0	0
Deltamethrin	FAT	0.02	Not set	19	0	0
Fenvalerate	FAT	0.02	1	19	0	0
Flumethrin	FAT	0.02	0.1	19	0	0
Permethrin	FAT	0.02	1	19	0	0

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

**HORSE** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	19	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	19	0	0
Metals						
Cadmium	LIVER	0.02	No limit	20	20	n/a
Lead	LIVER	0.02	No limit	20	19	n/a
Mercury	LIVER	0.01	No limit	20	10	n/a
Mycotoxins						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	11	0	n/a
Zearalanone	LIVER	0.002	No limit	11	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	11	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	11	1	n/a
Zearalenone	LIVER	0.002	No limit	11	0	n/a

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

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



KANGAROO						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and Dieldrin	FAT	0.02	0.2	75	0	0
Chlordane	FAT	0.02	0.2	75	0	0
DDT	FAT	0.1	5	75	0	0
Endosulfan	FAT	0.02	0.2	75	0	0
HCB	FAT	0.02	1	75	0	0
HCH	FAT	0.02	0.3	75	0	0
Heptachlor	FAT	0.02	0.2	75	0	0
Lindane (γ HCH)	FAT	0.1	2	75	0	0
<i>Organophosphates</i>						
Chlorfenvinphos	FAT	0.05	Not set	75	0	0
Chlorpyrifos	FAT	0.1	0.5	75	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	75	0	0
Coumaphos	FAT	0.2	Not set	75	0	0
Diazinon	FAT	0.1	0.7	75	0	0
Ethion	FAT	0.1	Not set	75	0	0
Famphur	FAT	0.02	Not set	75	0	0
Fenitrothion	FAT	0.02	0.05	75	0	0
Fenthion	FAT	0.05	Not set	75	0	0
Malathion	FAT	0.2	1	75	0	0
Phosmet	FAT	0.1	Not set	75	0	0
Temephos	FAT	0.1	Not set	75	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs Aroclor 1254	FAT	0.03	0.2	75	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	75	0	0
<i>Metals</i>						
Cadmium	LIVER	0.02	No limit	25	8	n/a
Lead	LIVER	0.02	No limit	25	19	n/a
Mercury	LIVER	0.01	No limit	25	2	n/a

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

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

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



PIG

PIG						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocytic lactones</i>						
Abamectin	LIVER	0.005	0.02	300	0	0
Doramectin	LIVER	0.005	0.05	300	0	0
Emamectin	LIVER	0.005	0.01	300	0	0
Eprinomectin	LIVER	0.005	Not set	300	0	0
Ivermectin	LIVER	0.005	0.01	300	1	1 ^a
Moxidectin	LIVER	0.005	Not set	300	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	305	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	305	0	0
Gentamycin	KIDNEY	0.1	Not set	305	0	0
Neomycin	KIDNEY	0.1	0.5	305	0	0
Streptomycin	KIDNEY	0.1	0.3	305	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	305	0	0
Ampicillin	KIDNEY	0.01	Not set	305	0	0
Benzylpenicillin (penicillin G)	KIDNEY	0.01	0.06	305	0	0
Cloxacillin	KIDNEY	0.1	Not set	305	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	303	0	0
Cefuroxime	KIDNEY	0.1	Not set	303	0	0
Cephalonium	KIDNEY	0.1	Not set	303	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.2	305	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	305	0	0
Tilmicosin	KIDNEY	0.2	1	305	0	0
Tylosin	KIDNEY	0.1	0.2	305	0	0
<i>Nitroimidazoles</i>						
Dimetridazole	MUSCLE	0.001	0.005	300	2	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	305	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	305	1	1 ^b
Sulfadoxine	KIDNEY	0.05	0.1	305	0	0
Sulfafurazole	KIDNEY	0.05	Not set	305	0	0
Sulfamerazine	KIDNEY	0.05	Not set	303	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	303	0	0
Sulfapyridine	KIDNEY	0.05	Not set	303	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	305	0	0
Sulfathiazole	KIDNEY	0.05	Not set	303	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	305	0	0

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

a Accidental sale before expiry of withholding period. Warning letter issued (see text).

b Traceback inconclusive. Warning letter issued (see text).



FIG

PIG (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	305	15	0
Doxycycline	KIDNEY	0.05	Not set	303	0	0
Oxytetracycline	KIDNEY	0.1	0.6	305	7	0
Tetracycline	KIDNEY	0.1	Not set	305	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	299	0	0
HORMONES						
Corticosteroids						
Betamethasone	LIVER	0.002	Not set	298	0	0
Dexamethasone	LIVER	0.002	0.1	298	0	0
Resorcylic acid lactones						
Zearalanol (α) [zeranol]	LIVER	0.002	Not set	299	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	299	0	0
Diethylstilboestrol	LIVER	0.000	Not set	299	0	0
Hexoestrol	LIVER	0.000	Not set	299	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	296	0	n/a
Clenbuterol	URINE	0.001	Not defined	296	0	n/a
Mabuterol	URINE	0.001	Not defined	296	0	n/a
Ractopamine	URINE	0.001	Not defined	296	57 ^c	n/a
Salbutamol	URINE	0.001	Not defined	296	0	n/a
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	301	0	0
Ketoprofen	LIVER	0.02	Not set	301	0	0
Oxyphenbutazone	LIVER	0.05	Not set	301	0	0
Phenylbutazone	LIVER	0.05	Not set	301	0	0
Tolfenamic Acid	LIVER	0.005	0.1	301	0	0
PESTICIDES						
Organochlorines						
Aldrin and Dieldrin	FAT	0.02	0.2	299	0	0
Chlordane	FAT	0.02	0.2	299	0	0
DDT	FAT	0.1	5	299	1	0
Endosulfan	FAT	0.02	0.2	299	0	0
HCB	FAT	0.02	1	299	0	0
HCH	FAT	0.02	0.3	299	0	0
Heptachlor	FAT	0.02	0.2	299	0	0
Lindane (γ HCH)	FAT	0.1	2	299	0	0

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

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

Not defined Standards not established in urine and faeces.

c Ractopamine is registered for use in pigs (see text).



PIG (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	Not set	299	0	0
Chlorpyrifos	FAT	0.1	0.5	299	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	299	0	0
Coumaphos	FAT	0.2	0.5	299	0	0
Diazinon	FAT	0.1	0.7	299	0	0
Ethion	FAT	0.1	Not set	299	0	0
Famphur	FAT	0.02	Not set	299	0	0
Fenitrothion	FAT	0.02	0.05	299	0	0
Fenthion	FAT	0.05	0.5	299	0	0
Malathion	FAT	0.2	1	299	0	0
Phosmet	FAT	0.1	0.1	299	0	0
Temephos	FAT	0.1	Not set	299	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	299	0	0
Bioresmethrin	FAT	0.02	Not set	299	0	0
Cyfluthrin	FAT	0.02	0.5	299	0	0
Cyhalothrin	FAT	0.02	0.5	299	0	0
Cypermethrin	FAT	0.02	0.05	299	0	0
Deltamethrin	FAT	0.02	0.1	299	0	0
Fenvalerate	FAT	0.02	1	299	0	0
Flumethrin	FAT	0.02	Not set	299	0	0
Permethrin	FAT	0.02	1	299	1	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
PCBs Aroclor 1254	FAT	0.03	0.2	299	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	299	0	0
Metals						
Cadmium	LIVER	0.02	1.25	304	181	0
Lead	LIVER	0.02	0.5	304	27	0
Mercury	LIVER	0.01	No limit	304	45	n/a
Mycotoxins						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	299	0	n/a
Zearalanone	LIVER	0.002	No limit	299	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	299	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	299	6	n/a
Zearalenone	LIVER	0.002	No limit	299	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



POULTRY

POULTRY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTIBIOTICS						
Aminoglycosides						
Apramycin	LIVER	0.5	1	400	0	0
Dihydrostreptomycin	LIVER	0.1	Not set	400	0	0
Gentamycin	LIVER	0.1	Not set	400	0	0
Neomycin	LIVER	0.1	0.5	400	0	0
Streptomycin	LIVER	0.1	Not set	400	0	0
<i>β-lactams</i>						
Amoxicillin	LIVER	0.01	0.01	400	0	0
Ampicillin	LIVER	0.01	Not set	400	0	0
Benzylpenicillin (penicillin G)	LIVER	0.01	0.06	400	0	0
Cloxacillin	LIVER	0.1	Not set	400	0	0
<i>Cephalosporins</i>						
Ceftiofur	LIVER	0.2	Not set	400	0	0
Cefuroxime	LIVER	0.1	Not set	400	0	0
Cephalonium	LIVER			400	0	
Lincosamides						
Lincomycin	LIVER	0.05	0.1	400	0	0
<i>Macrolides</i>						
Erythromycin	LIVER	0.1	0.3	400	0	0
Tilmicosin	LIVER	0.2	Not set	400	0	0
Tylosin	LIVER	0.1	0.2	400	0	0
<i>Sulfonamides</i>						
Sulfadiazine	LIVER	0.05	0.1	400	0	0
Sulfadimidine (sulfamethazine)	LIVER	0.05	0.1	400	0	0
Sulfadoxine	LIVER	0.05	Not set	400	0	0
Sulfafurazole	LIVER	0.05	Not set	400	0	0
Sulfamerazine	LIVER	0.05	Not set	400	0	0
Sulfamethoxydiazine	LIVER	0.05	Not set	400	0	0
Sulfapyridine	LIVER	0.05	Not set	400	0	0
Sulfaquinoxaline	LIVER	0.05	0.1	400	0	0
Sulfathiazole	LIVER	0.05	Not set	400	0	0
Sulfatroxazole	LIVER	0.05	Not set	400	0	0
<i>Tetracyclines</i>						
Chlortetracycline	LIVER	0.05	0.6	400	0	0
Doxycycline	LIVER	0.05	Not set	400	0	0
Oxytetracycline	LIVER	0.1	0.6	400	0	0
Tetracycline	LIVER	0.1	Not set	400	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.

POULTRY *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
HORMONES						
<i>Resorcylic acid lactones</i>						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	30	0	0
<i>Stilbenes</i>						
Dienoestrol	LIVER	0.000	Not set	30	0	0
Diethylstilboestrol	LIVER	0.000	Not set	30	0	0
Hexoestrol	LIVER	0.000	Not set	30	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Mycotoxins</i>						
Zearalanol (β) (talernanol)	LIVER	0.002	No limit	30	0	n/a
Zearalanone	LIVER	0.002	No limit	30	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	30	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	30	0	n/a
Zearalenone	LIVER	0.002	No limit	30	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



RATITE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	Not set	21	0	0
Doramectin	LIVER	0.005	Not set	21	0	0
Emamectin	LIVER	0.005	Not set	21	0	0
Eprinomectin	LIVER	0.005	Not set	21	0	0
Ivermectin	LIVER	0.005	Not set	21	0	0
Moxidectin	LIVER	0.005	Not set	21	0	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	1	18	0	0
Dihydrostreptomycin	KIDNEY	0.1	Not set	18	0	0
Gentamycin	KIDNEY	0.1	Not set	18	0	0
Neomycin	KIDNEY	0.1	0.5	18	0	0
Streptomycin	KIDNEY	0.1	Not set	18	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	18	0	0
Ampicillin	KIDNEY	0.01	Not set	18	0	0
Benzylpenicillin (penicillin G)	KIDNEY	0.01	Not set	18	0	0
Cloxacillin	KIDNEY	0.1	Not set	18	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	18	0	0
Cefuroxime	KIDNEY	0.1	Not set	18	0	0
Cephalonium	KIDNEY	0.1	Not set	18	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	0.1	18	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	18	0	0
Tilmicosin	KIDNEY	0.2	Not set	18	0	0
Tylosin	KIDNEY	0.1	0.2	18	0	0
<i>Sulfonamides</i>						
Sulfadiazine	KIDNEY	0.05	0.1	18	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	18	0	0
Sulfadoxine	KIDNEY	0.05	Not set	18	0	0
Sulfafurazole	KIDNEY	0.05	Not set	18	0	0
Sulfamerazine	KIDNEY	0.05	Not set	18	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	18	0	0
Sulfapyridine	KIDNEY	0.05	Not set	18	0	0
Sulfaquinoxaline	KIDNEY	0.05	0.1	18	0	0
Sulfathiazole	KIDNEY	0.05	Not set	18	0	0
Sulfatroxazole	KIDNEY	0.05	Not set	18	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.



RATITE (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	0.6	18	0	0
Doxycycline	KIDNEY	0.05	Not set	18	0	0
Oxytetracycline	KIDNEY	0.1	0.6	18	0	0
Tetracycline	KIDNEY	0.1	Not set	18	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	10	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) [zeranol]	LIVER	0.002	Not set	5	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	5	0	0
Diethylstilboestrol	LIVER	0.000	Not set	5	0	0
Hexoestrol	LIVER	0.000	Not set	5	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	MUSCLE	0.001	Not set	8	0	0
Clenbuterol	MUSCLE	0.001	Not set	8	0	0
Mabuterol	MUSCLE	0.001	Not set	8	0	0
Ractopamine	MUSCLE	0.001	Not set	8	0	0
Salbutamol	MUSCLE	0.001	Not set	8	0	0
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	10	0	0
Ketoprofen	LIVER	0.02	Not set	10	0	0
Oxyphenbutazone	LIVER	0.05	Not set	10	0	0
Phenylbutazone	LIVER	0.05	Not set	10	0	0
Tolfenamic Acid	LIVER	0.005	Not set	10	0	0
PESTICIDES						
Organochlorines						
Aldrin and Dieldrin	FAT	0.02	0.2	28	0	0
Chlordane	FAT	0.02	Not set	28	0	0
DDT	FAT	0.1	5	28	1	0
Endosulfan	FAT	0.02	0.2	28	0	0
HCB	FAT	0.02	1	28	0	0
HCH	FAT	0.02	0.3	28	0	0
Heptachlor	FAT	0.02	0.2	28	0	0
Lindane (γ HCH)	FAT	0.1	0.7	28	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.



RATITE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Organophosphates						
Chlorfenvinphos	FAT	0.05	Not set	28	0	0
Chlorpyrifos	FAT	0.1	0.1	28	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	28	0	0
Coumaphos	FAT	0.2	1	28	0	0
Diazinon	FAT	0.1	0.05	28	0	0
Ethion	FAT	0.1	Not set	28	0	0
Famphur	FAT	0.02	Not set	28	0	0
Fenitrothion	FAT	0.02	0.05	28	0	0
Fenthion	FAT	0.05	0.05	28	0	0
Malathion	FAT	0.2	1	28	0	0
Phosmet	FAT	0.1	Not set	28	0	0
Temephos	FAT	0.1	Not set	28	0	0
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	0.05	28	0	0
Bioresmethrin	FAT	0.02	Not set	28	0	0
Cyfluthrin	FAT	0.02	0.01	28	0	0
Cyhalothrin	FAT	0.02	0.02	28	0	0
Cypermethrin	FAT	0.02	0.05	28	0	0
Deltamethrin	FAT	0.02	0.01	28	0	0
Fenvalerate	FAT	0.02	0.05	28	0	0
Flumethrin	FAT	0.02	Not set	28	0	0
Permethrin	FAT	0.02	0.1	28	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
PCBs Aroclor 1254	FAT	0.03	0.2	28	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	28	0	0
Metals						
Cadmium	LIVER	0.02	No limit	11	8	n/a
Lead	LIVER	0.02	0.5	11	10	0
Mercury	LIVER	0.01	No limit	11	0	n/a
Mycotoxins						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	5	0	n/a
Zearalanone	LIVER	0.002	No limit	5	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	5	0	n/a
Zearalenol (β)	LIVER	0.002	No limit	5	0	n/a
Zearalenone	LIVER	0.002	No limit	5	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



SHEEP						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTHELMINTICS						
<i>Benzimidazoles</i>						
Triclabendazole	LIVER	0.1	2	197	0	0
<i>Imidazothiazoles</i>						
Levamisole	LIVER	0.02	1	192	2	0
<i>Macrocyclic lactones</i>						
Abamectin	LIVER	0.005	0.05	300	0	0
Doramectin	LIVER	0.005	0.05	300	0	0
Emamectin	LIVER	0.005	0.01	300	0	0
Eprinomectin	LIVER	0.005	Not set	300	0	0
Ivermectin	LIVER	0.005	0.015	300	0	0
Moxidectin	LIVER	0.005	0.05	300	9	0
<i>Salicylanilides</i>						
Closantel	LIVER	0.1	5	200	3	0
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Apramycin	KIDNEY	0.5	2	782	0	0
Dihydrostreptomycin	KIDNEY	0.1	0.3	782	0	0
Gentamycin	KIDNEY	0.1	Not set	782	0	0
Neomycin	KIDNEY	0.1	0.5	782	0	0
Streptomycin	KIDNEY	0.1	0.3	782	0	0
<i>β-lactams</i>						
Amoxicillin	KIDNEY	0.01	0.01	782	0	0
Ampicillin	KIDNEY	0.01	Not set	782	0	0
Benzylpenicillin (penicillin G)	KIDNEY	0.01	0.06	782	0	0
Cloxacillin	KIDNEY	0.1	Not set	782	0	0
<i>Cephalosporins</i>						
Ceftiofur	KIDNEY	0.2	Not set	780	0	0
Cefuroxime	KIDNEY	0.1	Not set	780	0	0
Cephalonium	KIDNEY	0.1	Not set	780	0	0
<i>Lincosamides</i>						
Lincomycin	KIDNEY	0.05	Not set	782	0	0
<i>Macrolides</i>						
Erythromycin	KIDNEY	0.1	0.3	782	0	0
Tilmicosin	KIDNEY	0.2	Not set	782	0	0
Tylosin	KIDNEY	0.1	Not set	782	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.



SHEEP (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Sulfonamides						
Sulfadiazine	KIDNEY	0.05	0.1	782	0	0
Sulfadimidine (sulfamethazine)	KIDNEY	0.05	0.1	782	0	0
Sulfadoxine	KIDNEY	0.05	0.1	782	0	0
Sulfafurazole	KIDNEY	0.05	Not set	782	0	0
Sulfamerazine	KIDNEY	0.05	Not set	780	0	0
Sulfamethoxydiazine	KIDNEY	0.05	Not set	780	0	0
Sulfapyridine	KIDNEY	0.05	Not set	780	0	0
Sulfaquinoxaline	KIDNEY	0.05	Not set	782	0	0
Sulfathiazole	KIDNEY	0.05	Not set	780	0	0
Sulfatroxazole	KIDNEY	0.05	0.1	782	0	0
Tetracyclines						
Chlortetracycline	KIDNEY	0.05	Not set	782	0	0
Doxycycline	KIDNEY	0.05	Not set	780	0	0
Oxytetracycline	KIDNEY	0.1	0.6	782	0	0
Tetracycline	KIDNEY	0.1	Not set	782	0	0
Other						
Chloramphenicol	MUSCLE	0.000	Not set	341	0	0
HORMONES						
Resorcylic acid lactones						
Zearalanol (α) (zeranol)	LIVER	0.002	Not set	223	0	0
Steroids						
19-Nortestosterone (17- α)	URINE	0.001	Not defined	149	0	n/a
19-Nortestosterone (17- β)	URINE	0.001	Not defined	149	0	n/a
Boldenone (17- α)	URINE	0.001	Not defined	149	0	n/a
Boldenone (17- β)	URINE	0.001	Not defined	149	0	n/a
Methandriol	URINE	0.005	Not defined	149	0	n/a
Stanozolol	URINE	0.001	Not defined	149	0	n/a
Stanozolol (16-hydroxy)	URINE	0.001	Not defined	149	0	n/a
Trenbolone	LIVER	0.002	Not set	147	0	0
Stilbenes						
Dienoestrol	LIVER	0.000	Not set	223	0	0
Diethylstilboestrol	LIVER	0.000	Not set	223	0	0
Hexoestrol	LIVER	0.000	Not set	223	0	0
OTHER VETERINARY DRUGS						
β-agonists						
Cimaterol	URINE	0.001	Not defined	329	0	n/a
Clenbuterol	URINE	0.001	Not defined	329	0	n/a
Mabuterol	URINE	0.001	Not defined	329	0	n/a
Ractopamine	URINE	0.001	Not defined	329	0	n/a
Salbutamol	URINE	0.001	Not defined	329	0	n/a

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

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.

Not defined Standards not established in urine and faeces.

**SHEEP** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Non-steroidal anti-inflammatory drugs						
Flunixin	LIVER	0.01	Not set	293	0	0
Ketoprofen	LIVER	0.02	Not set	293	0	0
Oxyphenbutazone	LIVER	0.05	Not set	293	0	0
Phenylbutazone	LIVER	0.05	Not set	293	0	0
Tolfenamic Acid	LIVER	0.005	Not set	293	0	0
PESTICIDES						
Amidines						
Cyromazine	KIDNEY	0.05	0.2	297	0	0
Dicyclanil	KIDNEY	0.05	0.3	297	0	0
Melamine	KIDNEY	0.05	Not set	297	0	0
Benzoyl ureas						
Chlorfluazuron	FAT	0.01	Not set	295	0	0
Diflubenzuron	FAT	0.01	0.05	295	0	0
Fluazuron	FAT	0.01	Not set	295	0	0
Triflumuron	FAT	0.01	2	295	7	0
Organochlorines						
Aldrin and Dieldrin	FAT	0.02	0.2	725	2	0
Chlordane	FAT	0.02	0.2	725	0	0
DDT	FAT	0.1	5	725	6	0
Endosulfan	FAT	0.02	0.2	725	0	0
HCB	FAT	0.02	1	725	1	0
HCH	FAT	0.02	0.3	725	1	0
Heptachlor	FAT	0.02	0.2	725	0	0
Lindane (γ HCH)	FAT	0.1	2	725	0	0
Organophosphates						
Chlorfenvinphos	FAT	0.05	0.2	725	0	0
Chlorpyrifos	FAT	0.1	0.5	725	0	0
Chlorpyrifos-methyl	FAT	0.02	0.05	725	0	0
Coumaphos	FAT	0.2	0.5	725	0	0
Diazinon	FAT	0.1	0.7	725	1	0
Ethion	FAT	0.1	Not set	725	0	0
Famphur	FAT	0.02	Not set	725	0	0
Fenitrothion	FAT	0.02	0.05	725	0	0
Fenthion	FAT	0.05	0.2	725	0	0
Malathion	FAT	0.2	1	725	0	0
Phosmet	FAT	0.1	0.05	725	0	0
Temephos	FAT	0.1	3	725	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.



SHEEP (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
Synthetic pyrethroids						
Bifenthrin	FAT	0.02	2	725	1	0
Bioresmethrin	FAT	0.02	Not set	725	0	0
Cyfluthrin	FAT	0.02	0.5	725	0	0
Cyhalothrin	FAT	0.02	0.5	725	0	0
Cypermethrin	FAT	0.02	0.5	725	1	0
Deltamethrin	FAT	0.02	0.1	725	0	0
Fenvalerate	FAT	0.02	1	725	0	0
Flumethrin	FAT	0.02	Not set	725	0	0
Permethrin	FAT	0.02	1	725	0	0
ENVIRONMENTAL CONTAMINANTS						
Chlorinated biphenyls						
PCBs Aroclor 1254	FAT	0.03	0.2	725	0	0
PCBs Aroclor 1260	FAT	0.03	0.2	725	0	0
Metals						
Cadmium	LIVER	0.02	1.25	304	261	5 ^a
Lead	LIVER	0.02	0.5	304	183	3 ^b
Mercury	LIVER	0.01	No limit	304	34	n/a
Mycotoxins						
Zearalanol (β) (taleranol)	LIVER	0.002	No limit	223	0	n/a
Zearalanone	LIVER	0.002	No limit	223	0	n/a
Zearalenol (α)	LIVER	0.002	No limit	223	2	n/a
Zearalenol (β)	LIVER	0.002	No limit	223	9	n/a
Zearalenone	LIVER	0.002	No limit	223	0	n/a

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

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

a Cadmium residues below the action level for traceback (see text).

b Access to dumped batteries identified in one instance and a warning letter issued. Other two instances below action level for traceback (see text).



Honey

During the reporting period 72 honey samples were subject to 13 analyses. All samples analysed complied with Australian Standards. The results of the analyses are shown in the table below.

HONEY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ANTIBIOTICS						
<i>Aminoglycosides</i>						
Dihydrostreptomycin	WHOLE	0.2	Not set	72	0	0
Neomycin	WHOLE	0.2	Not set	72	0	0
Streptomycin	WHOLE	0.2	Not set	72	0	0
<i>Sulfonamides</i>						
Sulfadiazine	WHOLE	0.05	Not set	72	0	0
Sulfadimidine (sulfamethazine)	WHOLE	0.05	Not set	72	0	0
Sulfamerazine	WHOLE	0.05	Not set	72	0	0
<i>Tetracyclines</i>						
Chlortetracycline	WHOLE	0.05	Not set	72	0	0
Oxytetracycline	WHOLE	0.02	0.3	72	0	0
Tetracycline	WHOLE	0.05	Not set	72	0	0
MACRONUTRIENT METALS						
Selenium	WHOLE	0.01	Not set	72	28	n/a
Zinc	WHOLE	0.05	Not set	72	72	n/a
ENVIRONMENTAL CONTAMINANTS						
Metals						
Aluminium	WHOLE	0.2	No limit	72	66	n/a
Lead	WHOLE	0.01	No limit	72	62	n/a

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

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. Detections of the contaminant at low levels are allowable.



EGG

Egg

During 2004–2005, 75 egg samples were subject to 40 analyses. Two samples showed residue levels above the Australian Standard. Both residues were from anticoccidials. One sample was thought to be the result of a mix-up with feed, and traceback for the other sample was not complete at time of going to press.

The results of the analyses are shown in the table below.

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

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



EGG (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of Analyses	Number of Residues	Number > Aust Std
Sulfonamides						
Sulfadiazine	WHOLE	0.05	Not set	25	0	0
Sulfadimidine (sulfamethazine)	WHOLE	0.05	Not set	25	0	0
Sulfadoxine	WHOLE	0.05	Not set	25	0	0
Sulfafurazole	WHOLE	0.05	Not set	25	0	0
Sulfamerazine	WHOLE	0.05	Not set	25	0	0
Sulfamethoxydiazine	WHOLE	0.05	Not set	25	0	0
Sulfapyridine	WHOLE	0.05	Not set	25	0	0
Sulfaquinoxaline	WHOLE	0.05	Not set	25	0	0
Sulfathiazole	WHOLE	0.05	Not set	25	0	0
Sulfatroxazole	WHOLE	0.05	Not set	25	0	0
Tetracyclines						
Chlortetracycline	WHOLE	0.05	0.2	25	0	0
Doxycycline	WHOLE	0.05	Not set	25	0	0
Oxytetracycline	WHOLE	0.1	Not set	25	0	0
Tetracycline	WHOLE	0.1	Not set	25	0	0
ANTICOCCIDIALS						
Amprolium	WHOLE	0.03	4	25	0	0
Lasalocid	WHOLE	0.03	0.05	25	1	1 ^a
Monensin	WHOLE	0.03	Not set	25	0	0
Narasin	WHOLE	0.03	Not set	25	0	0
Nicarbazin	WHOLE	0.03	Not set	25	1	1 ^b
Salinomycin	WHOLE	0.03	0.02	25	0	0

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

a Residue the result of possible mix-up with feed.

b The traceback for this sample was not complete at time of going to press.



FISH

Fish

The fish products (wildcaught) residue random monitoring projects were designed to meet AQIS export certification and EU requirements. Eight exported wildcaught seafood products (15 species) were sampled (125 samples).

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

During 2004–2005 samples were collected from each taxonomic group as listed below.

Group	Species	Number of samples
Molluscs		
Abalone	<i>Haliotis rubra</i>	13
	<i>Haliotis laevigata</i>	11
Scallop	<i>Pecten fumatus</i>	5
	<i>Amusium balotti</i>	21
Crustaceans		
Rock lobster	<i>Jasus edwardsii</i>	19
	<i>Panulirus cygnus</i>	11
	<i>Panulirus ornatus</i>	4
Prawn	<i>Panaeus esculentus</i>	13
	<i>Panaeus plepejus</i>	13
	<i>Panaeus merguinsis</i>	4
	<i>Metapanaeus endeavouri</i>	2
Finfish		
Alfonsino	<i>Beryx decadactylus</i>	3
Blue grenadier	<i>Macruronus novaezelandiae</i>	3
Swordfish	<i>Xiphias gladius</i>	2
Yellowfin tuna	<i>Thunnus albacares</i>	1
Total		125

Wildcaught samples were tested for persistent organic pollutants, including PCBs, environmental contaminants and heavy metals. Not all products were tested for all classes of chemicals.

All samples tested complied with Australian standards (MRLs or ML as applicable) except for scallop and swordfish. Eight of the 26 scallop samples tested for inorganic arsenic were above the Australian standard of 1 mg/kg and one of the two swordfish samples tested for total mercury and methyl-mercury was above the Australian standard of 1 mg/kg.

The results tables follow in alphabetical order by common name.



ABALONE						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	13	0	n/a
Arsenic (inorganic)	MUSCLE	0.05	1	24	10	0
Cadmium	MUSCLE	0.01	2	13	13	0
Chromium	MUSCLE	0.05	No limit	13	7	n/a
Lead	MUSCLE	0.01	2	13	5	0

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

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



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

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

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. Detections of the contaminant at low levels are allowable.



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

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

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. Detections of the contaminant at low levels are allowable.



PRAWN

PRAWN						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	FLESH	0.01	No limit	32	0	n/a
Arsenic (inorganic)	FLESH	0.05	2	32	4	0
Cadmium	FLESH	0.01	No limit	32	32	n/a
Chromium	FLESH	0.05	No limit	32	0	n/a
Lead	FLESH	0.01	No limit	32	0	n/a

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

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



ROCK LOBSTER						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	FLESH	0.01	No limit	16	0	n/a
Arsenic (inorganic)	FLESH	0.05	2	34	7	0
Cadmium	FLESH	0.01	No limit	16	9	n/a
Chromium	FLESH	0.05	No limit	16	0	n/a
Lead	FLESH	0.01	No limit	16	1	n/a

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

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



SCALLOP

SCALLOP						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Antimony	MUSCLE	0.01	No limit	13	0	n/a
Arsenic (inorganic)	MUSCLE	0.05	1	26	23	8 ^a
Cadmium	MUSCLE	0.01	2	13	13	0
Chromium	MUSCLE	0.05	No limit	13	0	n/a
Lead	MUSCLE	0.01	2	13	0	0

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

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

a Results are the subject of further investigation.



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

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

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. Detections of the contaminant at low levels are allowable.

a Results notified to relevant authorities. Levels for both total mercury and methyl-mercury were above the ML (1 mg/kg) in the same sample.



YELLOWFIN TUNA

YELLOWFIN TUNA						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Organochlorines</i>						
Aldrin and dieldrin	MUSCLE	0.02	0.1	1	0	0
Chlordane	MUSCLE	0.02	0.05	1	0	0
DDT	MUSCLE	0.02	1	1	0	0
Endrin	MUSCLE	0.02	Not set	1	0	0
HCB	MUSCLE	0.02	0.1	1	0	0
Heptachlor	MUSCLE	0.02	0.05	1	0	0
Mirex	MUSCLE	0.05	Not set	1	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	MUSCLE	0.03	0.5	1	0	0
PCBs (Aroclor 1260)	MUSCLE	0.03	0.5	1	0	0
Metals						
Arsenic (inorganic)	MUSCLE	0.01	2	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 Australian New Zealand Food Standards Code..*

Plant product results

Grain

During 2004–2005, 4 974 samples of grain were collected from ten grain commodities as shown in the table below.

Commodity	Sample numbers	Commodity	Sample numbers
Wheat	2 823	Canola	234
Wheat (bran)	94	Lupin	103
Wheat (flour)	94	Field Pea	52
Barley	1 237	Oat	73
Sorghum	253	Chickpea	11

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

Pesticides

A range of pesticides is used either in-crop or for post-harvest grain protection. A multi-residue screen is used to detect residues of such chemicals registered for use in Australia, as well as some chemicals of concern to industry that are registered in overseas markets for use on grains. The principal groups of pesticides covered are organophosphate insecticides, synthetic pyrethroid insecticides, carbamate insecticides, insect growth regulators, other insecticides and some fungicides. The screen was conducted on all 4,974 samples.

All but 17 samples complied with Australian Food Standards. In the grain subprojects there were two residue violations in the bulk export project, two violations in the milled products project and 13 violations in the domestic project.

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

There was one residue violation of the fungicide triadimefon in canola, three violations from indoxacarb residues in sorghum, six residues violations of fenitrothion in oats and eight residue violations in wheat (chlorpyrifos [2], chlorpyrifos-methyl [1], fenitrothion [1], flutriafol [1 grain, 1 flour], triadimefon [1], iprodione [1]).

There is no MRL for triadimefon residues in canola and therefore the 0.088 mg/kg result is deemed to be a violation. The traceback investigation found that 16 growers had supplied canola during the sampling period. A notice was sent to all growers alerting them to the use of unregistered chemicals.

All six violative residues of fenitrothion in oats were related to inappropriate application of the grain protectant. Follow-up tests on the processed grain found the residue levels to be below the MRL. However, the traceback investigator reported that regulatory action may be taken against the contractor who applied the chemical.

There is no MRL for indoxacarb residues in sorghum and therefore the readings of 0.010 mg/kg, 0.013mg/kg and 0.050 mg/kg are deemed to be violations. The traceback investigation into the three indoxacarb residues in sorghum was incomplete at the time of writing. Given that there is no registered use of indoxacarb on sorghum, the likely causes are either spray-drift or use of an unregistered chemical.

There is no registered use of the fungicide iprodione on wheat and no corresponding MRL. Therefore the detection of 0.014 mg/kg of iprodione residue is deemed a violation. The sample also contained violative residues of triadimefon at 0.62 mg/kg (MRL 0.5 mg/kg). The traceback investigator concluded that a low level cross-contamination from other treated grain may have occurred.

The traceback investigation into the two chlorpyrifos residues in wheat commenced in early July 2005 and is ongoing.

Chlorpyrifos-methyl residues of 11.0 mg/kg (MRL 10 mg/kg) were found in a wheat sample. The traceback investigation was inconclusive.

A traceback investigation concluded poor on-farm practices were the cause of a fenitrothion residue of 20.8 mg/kg (MRL 10 mg/kg) in a wheat sample. Follow-up sampling and testing of the processed grain found residues of fenitrothion well below the MRL.

In the milled grain project, only two of the 282 randomly collected samples taken during the reporting period contained residues above the appropriate Australian Standard. These samples relate to a wheat grain sample and its corresponding flour sample. The wheat sample contained flutriafol residues of 0.022 mg/kg (MRL 0.02 mg/kg) and the flour sample a flutriafol residue level of 0.046 mg/kg (MRL 0.02 mg/kg). The corresponding bran sample contained flutriafol residues at 0.02 mg/kg, equal to the MRL. The traceback investigation was inconclusive as more than 100 growers supplied grain to the flour mill.

Fumigants

During the reporting period, 90 grain samples were selected at random by the multi-residue screen testing laboratory and forwarded to the phosphine testing laboratory, to determine total phosphine residues. Where residues were detected equal to or above 0.002 mg/kg, the original sample underwent further analysis to determine the component of the residue due to unreacted phosphide and/or absorbed phosphine.

There were two contraventions, one each in wheat and field pea. The phosphine residue level in wheat was 0.11 mg/kg (MRL 0.1 mg/kg). The traceback investigation could not determine the cause of the violation. With the field pea violation, the investigation found that the grower had added excess phosphine tablets as the grain was being loaded into storage bins. A warning letter from the state regulatory authority was sent to the grower.

Organochlorines

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

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

Environmental contaminants

Tests for a range of environmental metal contaminants were conducted on 365 samples. Only one sample of barley contained lead levels (0.26 mg/kg) above the Australian Standard (0.2 mg/kg). Further sampling of the grain out-turn showed the lead levels to be below Australian Standards.



BARLEY (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	21	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	1 237	0	0
Iprodione	WHOLE	0.01	Not set	1 237	0	0
Tebuconazole	WHOLE	0.05	0.2	1 237	0	0
Triadimefon	WHOLE	0.01	0.5	1 237	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	1 237	84	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	73	0	0
Chlordane	WHOLE	0.01	0.02	73	0	0
DDT	WHOLE	0.01	0.1	73	0	0
Endosulfan	WHOLE	0.02	0.2	73	0	0
Endrin	WHOLE	0.01	Not set	73	0	0
HCB	WHOLE	0.01	0.05	73	0	0
HCH	WHOLE	0.01	0.1	73	0	0
Heptachlor	WHOLE	0.01	0.02	73	0	0
Lindane (γ HCH)	WHOLE	0.02	0.5	73	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	1 237	0	0
Chlorpyrifos	WHOLE	0.01	0.1	1 237	4	0
Chlorpyrifos-methyl	WHOLE	0.1	10	1 237	12	0
Diazinon	WHOLE	0.01	0.1	1 237	0	0
Dichlorvos	WHOLE	0.1	5	1 237	27	0
Fenitrothion	WHOLE	0.1	10	1 237	182	0
Malathion	WHOLE	0.1	8	1 237	0	0
Pirimiphos-methyl	WHOLE	0.1	7	1 237	0	0
Profenofos	WHOLE	0.01	Not set	1 237	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	1 237	0	0
Bioresmethrin	WHOLE	0.1	Not set	1 237	0	0
Cyfluthrin	WHOLE	0.1	2	1 237	0	0
Cypermethrin	WHOLE	0.01	1	1 237	9	0
Deltamethrin	WHOLE	0.1	2	1 237	1	0
Fenvalerate	WHOLE	0.1	2	1 237	0	0
Permethrin	WHOLE	0.1	2	1 237	3	0
Phenothrin	WHOLE	0.1	Not set	1 237	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	1 237	0	0
Fipronil	WHOLE	0.005	Not set	1 237	0	0
Indoxacarb	WHOLE	0.01	Not set	1 237	0	0

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

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. Detections of the contaminant at low levels are allowable.



BARLEY (GRAIN) *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	1 237	1	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	73	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	73	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	110	12	n/a
Lead	WHOLE	0.01	0.2	110	37	1
Mercury	WHOLE	0.01	No limit	110	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



CANOLA (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	3	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	234	0	0
Iprodione	WHOLE	0.01	0.5	234	1	0
Tebuconazole	WHOLE	0.05	Not set	234	0	0
Triadimefon	WHOLE	0.01	Not set	234	1	1
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	234	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	19	0	0
Chlordane	WHOLE	0.01	Not set	19	0	0
DDT	WHOLE	0.01	Not set	19	0	0
Endosulfan	WHOLE	0.02	1	19	0	0
Endrin	WHOLE	0.01	Not set	19	0	0
HCB	WHOLE	0.01	Not set	19	0	0
HCH	WHOLE	0.01	Not set	19	0	0
Heptachlor	WHOLE	0.01	Not set	19	0	0
Lindane [γ HCH]	WHOLE	0.02	0.05	19	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	234	0	0
Chlorpyrifos	WHOLE	0.01	0.01	234	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	234	0	0
Diazinon	WHOLE	0.01	Not set	234	0	0
Dichlorvos	WHOLE	0.1	0.1	234	0	0
Fenitrothion	WHOLE	0.1	Not set	234	0	0
Malathion	WHOLE	0.1	Not set	234	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	234	0	0
Profenofos	WHOLE	0.01	Not set	234	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	234	0	0
Bioresmethrin	WHOLE	0.1	Not set	234	0	0
Cyfluthrin	WHOLE	0.1	0.05	234	0	0
Cypermethrin	WHOLE	0.01	0.2	234	27	0
Deltamethrin	WHOLE	0.1	0.1	234	0	0
Fenvalerate	WHOLE	0.1	0.5	234	0	0
Permethrin	WHOLE	0.1	0.2	234	0	0
Phenothrin	WHOLE	0.1	Not set	234	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	Not set	234	0	0
Fipronil	WHOLE	0.005	0.01	234	0	0
Indoxacarb	WHOLE	0.01	Not set	234	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.



CANOLA (GRAIN) (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	8	234	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	19	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	19	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	23	23	n/a
Lead	WHOLE	0.01	No limit	23	13	n/a
Mercury	WHOLE	0.01	No limit	23	0	n/a

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

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



CHICKPEA (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	1	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	11	0	0
Iprodione	WHOLE	0.01	Not set	11	0	0
Tebuconazole	WHOLE	0.05	Not set	11	0	0
Triadimefon	WHOLE	0.01	Not set	11	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	11	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	5	0	0
Chlordane	WHOLE	0.01	Not set	5	0	0
DDT	WHOLE	0.01	Not set	5	0	0
Endosulfan	WHOLE	0.02	1	5	0	0
Endrin	WHOLE	0.01	Not set	5	0	0
HCB	WHOLE	0.01	Not set	5	0	0
HCH	WHOLE	0.01	Not set	5	0	0
Heptachlor	WHOLE	0.01	Not set	5	0	0
Lindane (γ HCH)	WHOLE	0.02	Not set	5	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	11	0	0
Chlorpyrifos	WHOLE	0.01	Not set	11	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	11	0	0
Diazinon	WHOLE	0.01	Not set	11	0	0
Dichlorvos	WHOLE	0.1	Not set	11	0	0
Fenitrothion	WHOLE	0.1	Not set	11	0	0
Malathion	WHOLE	0.1	Not set	11	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	11	0	0
Profenofos	WHOLE	0.01	Not set	11	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	11	0	0
Bioresmethrin	WHOLE	0.1	Not set	11	0	0
Cyfluthrin	WHOLE	0.1	0.5	11	0	0
Cypermethrin	WHOLE	0.01	0.2	11	0	0
Deltamethrin	WHOLE	0.1	0.1	11	0	0
Fenvalerate	WHOLE	0.1	0.5	11	0	0
Permethrin	WHOLE	0.1	Not set	11	0	0
Phenothrin	WHOLE	0.1	Not set	11	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	Not set	11	0	0
Fipronil	WHOLE	0.005	Not set	11	0	0
Indoxacarb	WHOLE	0.01	0.2	11	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.



CHICKPEA (GRAIN) *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	Not set	11	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	5	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	5	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	7	1	n/a
Lead	WHOLE	0.01	0.2	7	1	0
Mercury	WHOLE	0.01	No limit	7	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



FIELD PEA (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	3	1	1
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	52	0	0
Iprodione	WHOLE	0.01	Not set	52	0	0
Tebuconazole	WHOLE	0.05	Not set	52	0	0
Triadimefon	WHOLE	0.01	0.1	52	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	52	0	0
<i>Organochlorines</i>						
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	0.02	1	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
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	52	0	0
Chlorpyrifos	WHOLE	0.01	Not set	52	0	0
Chlorpyrifos-methyl	WHOLE	0.1	Not set	52	0	0
Diazinon	WHOLE	0.01	Not set	52	0	0
Dichlorvos	WHOLE	0.1	Not set	52	0	0
Fenitrothion	WHOLE	0.1	Not set	52	0	0
Malathion	WHOLE	0.1	Not set	52	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	52	0	0
Profenofos	WHOLE	0.01	Not set	52	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.01	52	0	0
Bioresmethrin	WHOLE	0.1	Not set	52	0	0
Cyfluthrin	WHOLE	0.1	0.5	52	0	0
Cypermethrin	WHOLE	0.01	0.05	52	0	0
Deltamethrin	WHOLE	0.1	0.1	52	0	0
Fenvalerate	WHOLE	0.1	0.5	52	0	0
Permethrin	WHOLE	0.1	Not set	52	0	0
Phenothrin	WHOLE	0.1	Not set	52	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	Not set	52	0	0
Fipronil	WHOLE	0.005	Not set	52	0	0
Indoxacarb	WHOLE	0.01	Not set	52	0	0

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

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. Detections of the contaminant at low levels are allowable.

**FIELD PEA (GRAIN)** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	Not set	52	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	9	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	9	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	4	4	n/a
Lead	WHOLE	0.01	0.2	4	1	0
Mercury	WHOLE	0.01	No limit	4	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



LUPIN (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.01	5	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	Not set	103	0	0
Iprodione	WHOLE	0.01	0.1	103	0	0
Tebuconazole	WHOLE	0.05	Not set	103	0	0
Triadimefon	WHOLE	0.01	Not set	103	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	Not set	103	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	Not set	21	0	0
Chlordane	WHOLE	0.01	Not set	21	0	0
DDT	WHOLE	0.01	Not set	21	0	0
Endosulfan	WHOLE	0.02	1	21	0	0
Endrin	WHOLE	0.01	Not set	21	0	0
HCB	WHOLE	0.01	Not set	21	0	0
HCH	WHOLE	0.01	Not set	21	0	0
Heptachlor	WHOLE	0.01	Not set	21	0	0
Lindane [γHCH]	WHOLE	0.02	Not set	21	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	Not set	103	0	0
Chlorpyrifos	WHOLE	0.01	Not set	103	0	0
Chlorpyrifos-methyl	WHOLE	0.1	10	103	1	0
Diazinon	WHOLE	0.01	Not set	103	0	0
Dichlorvos	WHOLE	0.1	Not set	103	0	0
Fenitrothion	WHOLE	0.1	Not set	103	0	0
Malathion	WHOLE	0.1	Not set	103	0	0
Pirimiphos-methyl	WHOLE	0.1	Not set	103	0	0
Profenofos	WHOLE	0.01	Not set	103	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	0.02	103	0	0
Bioresmethrin	WHOLE	0.1	Not set	103	0	0
Cyfluthrin	WHOLE	0.1	0.5	103	0	0
Cypermethrin	WHOLE	0.01	0.01	103	0	0
Deltamethrin	WHOLE	0.1	0.1	103	0	0
Fenvalerate	WHOLE	0.1	0.5	103	0	0
Permethrin	WHOLE	0.1	0.1	103	0	0
Phenothrin	WHOLE	0.1	Not set	103	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	Not set	103	0	0
Fipronil	WHOLE	0.005	Not set	103	0	0
Indoxacarb	WHOLE	0.01	Not set	103	0	0

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

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. Detections of the contaminant at low levels are allowable.



LUPIN (GRAIN) *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	Not set	103	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	21	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	21	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	6	6	n/a
Lead	WHOLE	0.01	0.2	6	0	0
Mercury	WHOLE	0.01	No limit	6	0	n/a

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



OAT

OAT (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	5	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	73	0	0
Iprodione	WHOLE	0.01	Not set	73	0	0
Tebuconazole	WHOLE	0.05	0.2	73	0	0
Triadimefon	WHOLE	0.01	0.5	73	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	73	14	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	17	0	0
Chlordane	WHOLE	0.01	0.02	17	0	0
DDT	WHOLE	0.01	0.1	17	0	0
Endosulfan	WHOLE	0.02	0.2	17	0	0
Endrin	WHOLE	0.01	Not set	17	0	0
HCB	WHOLE	0.01	0.05	17	0	0
HCH	WHOLE	0.01	0.1	17	0	0
Heptachlor	WHOLE	0.01	0.02	17	0	0
Lindane [γ HCH]	WHOLE	0.02	0.5	17	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	73	0	0
Chlorpyrifos	WHOLE	0.01	0.1	73	0	0
Chlorpyrifos-methyl	WHOLE	0.1	10	73	0	0
Diazinon	WHOLE	0.01	0.1	73	0	0
Dichlorvos	WHOLE	0.1	5	73	10	0
Fenitrothion	WHOLE	0.1	10	73	18	6
Malathion	WHOLE	0.1	8	73	0	0
Pirimiphos-methyl	WHOLE	0.1	7	73	1	0
Profenofos	WHOLE	0.01	Not set	73	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	73	0	0
Bioresmethrin	WHOLE	0.1	Not set	73	0	0
Cyfluthrin	WHOLE	0.1	2	73	0	0
Cypermethrin	WHOLE	0.01	1	73	2	0
Deltamethrin	WHOLE	0.1	2	73	0	0
Fenvalerate	WHOLE	0.1	2	73	0	0
Permethrin	WHOLE	0.1	2	73	0	0
Phenothrin	WHOLE	0.1	Not set	73	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	73	0	0
Fipronil	WHOLE	0.005	Not set	73	0	0
Indoxacarb	WHOLE	0.01	Not set	73	0	0

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

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. Detections of the contaminant at low levels are allowable.



OAT (GRAIN) *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	73	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	17	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	17	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	6	6	n/a
Lead	WHOLE	0.01	0.2	6	5	0
Mercury	WHOLE	0.01	No limit	6	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



SORGHUM (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	7	0	0
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	253	0	0
Iprodione	WHOLE	0.01	Not set	253	0	0
Tebuconazole	WHOLE	0.05	0.2	253	0	0
Triadimefon	WHOLE	0.01	0.5	253	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	253	28	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	31	0	0
Chlordane	WHOLE	0.01	0.02	31	0	0
DDT	WHOLE	0.01	0.1	31	0	0
Endosulfan	WHOLE	0.02	0.2	31	0	0
Endrin	WHOLE	0.01	Not set	31	0	0
HCB	WHOLE	0.01	0.05	31	0	0
HCH	WHOLE	0.01	0.1	31	0	0
Heptachlor	WHOLE	0.01	0.02	31	0	0
Lindane (γ HCH)	WHOLE	0.02	0.5	31	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	253	0	0
Chlorpyrifos	WHOLE	0.01	3	253	3	0
Chlorpyrifos-methyl	WHOLE	0.1	10	253	14	0
Diazinon	WHOLE	0.01	0.1	253	0	0
Dichlorvos	WHOLE	0.1	5	253	13	0
Fenitrothion	WHOLE	0.1	10	253	16	0
Malathion	WHOLE	0.1	8	253	0	0
Pirimiphos-methyl	WHOLE	0.1	10	253	16	0
Profenofos	WHOLE	0.01	Not set	253	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	253	1	0
Bioresmethrin	WHOLE	0.1	Not set	253	0	0
Cyfluthrin	WHOLE	0.1	5	253	0	0
Cypermethrin	WHOLE	0.01	1	253	6	0
Deltamethrin	WHOLE	0.1	2	253	3	0
Fenvalerate	WHOLE	0.1	2	253	0	0
Permethrin	WHOLE	0.1	2	253	0	0
Phenothrin	WHOLE	0.1	Not set	253	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	253	0	0
Fipronil	WHOLE	0.005	0.01	253	0	0
Indoxacarb	WHOLE	0.01	Not set	253	3	3

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

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. Detections of the contaminant at low levels are allowable.

**SORGHUM (GRAIN)** *(continued)*

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	253	3	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	31	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	31	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	11	2	n/a
Lead	WHOLE	0.01	0.2	11	4	0
Mercury	WHOLE	0.01	No limit	11	0	n/a

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

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



WHEAT (GRAIN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fumigants</i>						
Phosphine	WHOLE	0.005	0.1	45	4	1
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	2 823	1	1
Iprodione	WHOLE	0.01	Not set	2 823	1	1
Tebuconazole	WHOLE	0.05	0.2	2 823	0	0
Triadimefon	WHOLE	0.01	0.5	2 823	1	1
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	2 823	225	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	181	0	0
Chlordane	WHOLE	0.01	0.02	181	0	0
DDT	WHOLE	0.01	0.1	181	0	0
Endosulfan	WHOLE	0.02	0.2	181	0	0
Endrin	WHOLE	0.01	Not set	181	0	0
HCB	WHOLE	0.01	0.05	181	0	0
HCH	WHOLE	0.01	0.1	181	0	0
Heptachlor	WHOLE	0.01	0.02	181	0	0
Lindane [γ HCH]	WHOLE	0.02	0.5	181	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	2 823	0	0
Chlorpyrifos	WHOLE	0.01	0.1	2 823	39	2
Chlorpyrifos-methyl	WHOLE	0.1	10	2 823	430	1
Diazinon	WHOLE	0.01	0.1	2 823	0	0
Dichlorvos	WHOLE	0.1	5	2 823	88	0
Fenitrothion	WHOLE	0.1	10	2 823	157	1
Malathion	WHOLE	0.1	8	2 823	1	0
Pirimiphos-methyl	WHOLE	0.1	10	2 823	11	0
Profenofos	WHOLE	0.01	Not set	2 823	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	2 823	0	0
Bioresmethrin	WHOLE	0.1	Not set	2 823	0	0
Cyfluthrin	WHOLE	0.1	2	2 823	0	0
Cypermethrin	WHOLE	0.01	0.2	2 823	0	0
Deltamethrin	WHOLE	0.1	2	2 823	18	0
Fenvalerate	WHOLE	0.1	2	2 823	0	0
Permethrin	WHOLE	0.1	2	2 823	2	0
Phenothrin	WHOLE	0.1	2	2 823	2	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	2,823	3	0
Fipronil	WHOLE	0.005	Not set	2,823	0	0
Indoxacarb	WHOLE	0.01	Not set	2,823	0	0

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

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. Detections of the contaminant at low levels are allowable.



WHEAT (GRAIN) (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	2,823	23	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	181	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	181	0	n/a
<i>Metals</i>						
Cadmium	WHOLE	0.01	0.1	202	155	0
Lead	WHOLE	0.01	0.2	202	34	0
Mercury	WHOLE	0.01	No limit	202	0	n/a

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

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



WHEAT (BRAN)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	94	1	0
Iprodione	WHOLE	0.01	Not set	94	0	0
Tebuconazole	WHOLE	0.05	0.2	94	0	0
Triadimefon	WHOLE	0.01	0.5	94	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	5	94	45	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	10	0	0
Chlordane	WHOLE	0.01	0.02	10	0	0
DDT	WHOLE	0.01	0.1	10	0	0
Endosulfan	WHOLE	0.02	0.2	10	0	0
Endrin	WHOLE	0.01	Not set	10	0	0
HCB	WHOLE	0.01	0.05	10	0	0
HCH	WHOLE	0.01	0.1	10	0	0
Heptachlor	WHOLE	0.01	0.02	10	0	0
Lindane (γ HCH)	WHOLE	0.02	0.5	10	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.5	94	0	0
Chlorpyrifos	WHOLE	0.01	0.1	94	19	0
Chlorpyrifos-methyl	WHOLE	0.1	20	94	37	0
Diazinon	WHOLE	0.01	0.1	94	0	0
Dichlorvos	WHOLE	0.1	10	94	2	0
Fenitrothion	WHOLE	0.1	20	94	31	0
Malathion	WHOLE	0.1	20	94	0	0
Pirimiphos-methyl	WHOLE	0.1	20	94	5	0
Profenofos	WHOLE	0.01	Not set	94	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	94	0	0
Bioresmethrin	WHOLE	0.1	Not set	94	0	0
Cyfluthrin	WHOLE	0.1	5	94	0	0
Cypermethrin	WHOLE	0.01	0.2	94	0	0
Deltamethrin	WHOLE	0.1	5	94	0	0
Fenvalerate	WHOLE	0.1	5	94	0	0
Permethrin	WHOLE	0.1	5	94	0	0
Phenothrin	WHOLE	0.1	5	94	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	20	94	1	0
Fipronil	WHOLE	0.005	Not set	94	0	0
Indoxacarb	WHOLE	0.01	Not set	94	0	0

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

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. Detections of the contaminant at low levels are allowable.



WHEAT (BRAN)

WHEAT (BRAN) <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	40	94	1	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	10	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	10	0	n/a

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

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



WHEAT (FLOUR)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Flutriafol	WHOLE	0.01	0.02	94	1	1
Iprodione	WHOLE	0.01	Not set	94	0	0
Tebuconazole	WHOLE	0.05	0.2	94	0	0
Triadimefon	WHOLE	0.01	0.5	94	0	0
<i>Insect growth regulators</i>						
Methoprene	WHOLE	0.1	2	94	10	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.01	0.02	10	0	0
Chlordane	WHOLE	0.01	0.02	10	0	0
DDT	WHOLE	0.01	0.1	10	0	0
Endosulfan	WHOLE	0.02	0.2	10	0	0
Endrin	WHOLE	0.01	Not set	10	0	0
HCB	WHOLE	0.01	0.05	10	0	0
HCH	WHOLE	0.01	0.1	10	0	0
Heptachlor	WHOLE	0.01	0.02	10	0	0
Lindane (γ HCH)	WHOLE	0.02	0.5	10	0	0
<i>Organophosphates</i>						
Azamethiphos	WHOLE	0.1	0.1	94	0	0
Chlorpyrifos	WHOLE	0.01	0.1	94	0	0
Chlorpyrifos-methyl	WHOLE	0.1	10	94	26	0
Diazinon	WHOLE	0.01	0.1	94	0	0
Dichlorvos	WHOLE	0.1	5	94	0	0
Fenitrothion	WHOLE	0.1	10	94	12	0
Malathion	WHOLE	0.1	8	94	0	0
Pirimiphos-methyl	WHOLE	0.1	10	94	1	0
Profenofos	WHOLE	0.01	Not set	94	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.01	2	94	0	0
Bioresmethrin	WHOLE	0.1	Not set	94	0	0
Cyfluthrin	WHOLE	0.1	2	94	0	0
Cypermethrin	WHOLE	0.01	0.2	94	0	0
Deltamethrin	WHOLE	0.1	2	94	0	0
Fenvalerate	WHOLE	0.1	2	94	0	0
Permethrin	WHOLE	0.1	2	94	0	0
Phenothrin	WHOLE	0.1	2	94	0	0
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	94	0	0
Fipronil	WHOLE	0.005	Not set	94	0	0
Indoxacarb	WHOLE	0.01	Not set	94	0	0

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

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. Detections of the contaminant at low levels are allowable.



WHEAT (FLOUR) (continued)						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PHYSIOLOGICAL MODIFIERS						
<i>Synergists</i>						
Piperonyl butoxide	WHOLE	1	20	94	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Chlorinated biphenyls</i>						
PCBs (Aroclor 1254)	WHOLE	0.05	No limit	10	0	n/a
PCBs (Aroclor 1260)	WHOLE	0.05	No limit	10	0	n/a

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

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



Horticulture

The numbers of horticulture samples collected during 2004–2005 are shown in the following table.

Commodity	Number of samples
Apple and pear	292
Macadamia nut	120
Onion	101
Blueberry	60
Total	573

Results tables for horticultural products (in alphabetical order by commodity name) are shown on the tables that begin on page 131.

Residues of a number of crop protection chemicals were detected in apples, blueberries and pears. All but one were within Australian Standards. A traceback investigation into a violative residue of chlorpyrifos (0.87 mg/kg) in an apple sample (MRL 0.5 mg/kg) commenced in July 2005 and is ongoing.



APPLE

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Captan	WHOLE	0.05	10	221	3	0
Carbendazim	WHOLE	0.2	5	221	89	0
Difenoconazole	WHOLE	0.05	0.3	221	0	0
Dithiocarbamates	WHOLE	0.2	3	221	41	0
Fenarimol	WHOLE	0.05	0.2	221	0	0
Hexaconazole	WHOLE	0.02	0.1	221	0	0
Imazalil	WHOLE	0.1	5	221	8	0
Iprodione	WHOLE	0.1	3	221	117	0
Procymidone	WHOLE	0.1	1	221	0	0
Thiabendazole	WHOLE	0.2	10	221	0	0
<i>Insect growth regulators</i>						
Tebufenozide	WHOLE	0.1	1	221	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.05	221	0	0
DDT	WHOLE	0.05	1	221	0	0
Dicofol	WHOLE	0.05	5	221	1	0
Endosulfan	WHOLE	0.05	2	221	0	0
Heptachlor	WHOLE	0.05	Not set	221	0	0
Lindane (γ HCH)	WHOLE	0.05	2	221	0	0
<i>Organophosphates</i>						
Azinphos-methyl	WHOLE	0.05	2	221	22	0
Chlorpyrifos	WHOLE	0.05	0.5	221	33	1
Diazinon	WHOLE	0.05	0.5	221	0	0
Dimethoate (RD)	WHOLE	0.05	5	221	0	0
Fenitrothion	WHOLE	0.05	0.5	221	0	0
Fenthion	WHOLE	0.05	2	221	1	0
Malathion	WHOLE	0.05	2	221	0	0
Methidathion	WHOLE	0.05	0.2	221	0	0
Parathion	WHOLE	0.05	Not set	221	0	0
Parathion-methyl	WHOLE	0.05	0.5	221	7	0
Prothiofos	WHOLE	0.02	0.05	221	0	0
Trichlorfon	WHOLE	0.05	0.1	221	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.02	0.05	221	0	0
Cypermethrin	WHOLE	0.1	1	221	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.



APPLE

APPLE <i>(continued)</i>						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	221	6	0
Chlorfenapyr	WHOLE	0.1	0.5	221	0	0
Demethyl-pirimicarb	WHOLE	0.1	0.5	221	0	0
Dimethylformamido-pirimicarb	WHOLE	0.1	0.5	221	0	0
Fenoxycarb	WHOLE	0.1	2	221	3	0
Fenpyroximate	WHOLE	0.05	0.3	221	0	0
Indoxacarb	WHOLE	0.1	2	221	0	0
Pirimicarb	WHOLE	0.1	0.5	221	0	0
Pirimicarb (Parent)	WHOLE	0.1	0.5	221	4	0
Propargite	WHOLE	0.1	3	221	38	0
Spinosad	WHOLE	0.05	0.2	221	0	0
Tebufenpyrad	WHOLE	0.05	1	221	3	0
PHYSIOLOGICAL MODIFIERS						
<i>Scald Inhibitors</i>						
Diphenylamine	WHOLE	0.05	10	221	143	0



BLUEBERRY						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Captan	WHOLE	0.3	20	60	2	0
Dithiocarbamates	WHOLE	0.02	10	6	4	0
Propiconazole	WHOLE	0.05	2	60	6	0
<i>Insect growth regulators</i>						
Tebufenozide	WHOLE	0.05	2	60	0	0
<i>Organophosphates</i>						
Dimethoate (RD)	WHOLE	0.02	5	60	38	0
Malathion	WHOLE	0.1	0.5	60	0	0
Oxime Carbamates						
Methomyl	WHOLE	0.05	2	60	0	0



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

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



ONION

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Benalaxyl	WHOLE	0.05	0.1	101	0	0
Carbendazim	WHOLE	0.1	3	101	0	0
Dimethomorph	WHOLE	0.05	0.05	101	0	0
Dithiocarbamates	WHOLE	0.2	4	101	0	0
Metalaxyl	WHOLE	0.05	0.1	101	0	0
Procymidone	WHOLE	0.1	0.2	101	0	0
Tebuconazole	WHOLE	0.01	0.01	101	0	0
<i>Herbicides</i>						
Ioxynil	WHOLE	0.02	0.02	101	0	0
Methabenzthiazuron	WHOLE	0.02	0.05	101	0	0
Oxyfluorfen	WHOLE	0.05	0.05	101	0	0
Pendimethalin	WHOLE	0.05	0.05	101	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.1	101	0	0
DDT	WHOLE	0.05	1	101	0	0
Dicofol	WHOLE	0.3	5	101	0	0
Endosulfan	WHOLE	0.05	0.2	101	0	0
Endrin	WHOLE	0.05	Not set	101	0	0
HCH	WHOLE	0.05	Not set	101	0	0
Heptachlor	WHOLE	0.05	0.05	101	0	0
Lindane (γ HCH)	WHOLE	0.1	2	101	0	0
<i>Organophosphates</i>						
Chlorpyrifos	WHOLE	0.01	0.01	101	0	0
Diazinon	WHOLE	0.1	0.7	101	0	0
Dimethoate (RD)	WHOLE	0.1	2	101	0	0
Fenamiphos	WHOLE	0.02	0.05	101	0	0
Malathion	WHOLE	0.1	2	101	0	0
Methidathion	WHOLE	0.01	0.01	101	0	0
Parathion-methyl	WHOLE	0.1	Not set	101	0	0
Phorate	WHOLE	0.1	0.5	101	0	0
<i>Synthetic pyrethroids</i>						
Cypermethrin	WHOLE	0.01	0.01	101	0	0
ENVIRONMENTAL CONTAMINANTS						
<i>Metals</i>						
Cadmium	WHOLE	0.01	No limit	51	17	n/a
Lead	WHOLE	0.01	0.1	51	0	0
Mercury	WHOLE	0.01	No limit	51	0	n/a

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

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. Detections of the contaminant at low levels are allowable.



PEAR

PEAR						
	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
PESTICIDES						
<i>Fungicides</i>						
Captan	WHOLE	0.05	10	71	1	0
Carbendazim	WHOLE	0.2	5	71	18	0
Difenoconazole	WHOLE	0.05	0.3	71	0	0
Dithiocarbamates	WHOLE	0.2	3	71	24	0
Fenarimol	WHOLE	0.05	0.2	71	0	0
Hexaconazole	WHOLE	0.02	0.1	71	0	0
Imazalil	WHOLE	0.1	5	71	34	0
Iprodione	WHOLE	0.1	3	71	47	0
Procymidone	WHOLE	0.1	1	71	0	0
Thiabendazole	WHOLE	0.2	10	71	0	0
<i>Insect growth regulators</i>						
Tebufenozide	WHOLE	0.1	1	71	0	0
<i>Organochlorines</i>						
Aldrin and dieldrin	WHOLE	0.05	0.05	71	0	0
DDT	WHOLE	0.05	1	71	0	0
Dicofol	WHOLE	0.05	5	71	0	0
Endosulfan	WHOLE	0.05	2	71	0	0
Heptachlor	WHOLE	0.05	Not set	71	0	0
Lindane (γ HCH)	WHOLE	0.05	0.5	71	0	0
<i>Organophosphates</i>						
Azinphos-methyl	WHOLE	0.05	2	71	10	0
Chlorpyrifos	WHOLE	0.05	0.5	71	0	0
Diazinon	WHOLE	0.05	0.5	71	0	0
Dimethoate (RD)	WHOLE	0.05	5	71	0	0
Fenitrothion	WHOLE	0.05	0.1	71	0	0
Fenthion	WHOLE	0.05	2	71	0	0
Malathion	WHOLE	0.05	0.5	71	0	0
Methidathion	WHOLE	0.05	0.2	71	0	0
Parathion	WHOLE	0.05	Not set	71	0	0
Parathion-methyl	WHOLE	0.05	0.5	71	10	0
Prothiofos	WHOLE	0.02	0.05	71	0	0
Trichlorfon	WHOLE	0.05	0.1	71	0	0
<i>Synthetic pyrethroids</i>						
Bifenthrin	WHOLE	0.02	0.5	71	0	0
Cypermethrin	WHOLE	0.1	1	71	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.

**PEAR** (continued)

	Matrix	LOR mg/kg	Aust Std mg/kg	Number of analyses	Number of residues	Number > Aust Std
<i>Other</i>						
Carbaryl	WHOLE	0.1	5	71	6	0
Chlorfenapyr	WHOLE	0.1	0.5	71	1	0
Demethyl-pirimicarb	WHOLE	0.1	0.5	71	0	0
Dimethylformamido-pirimicarb	WHOLE	0.1	0.5	71	0	0
Fenoxycarb	WHOLE	0.1	2	71	2	0
Fenpyroximate	WHOLE	0.05	0.3	71	0	0
Indoxacarb	WHOLE	0.1	2	71	0	0
Pirimicarb	WHOLE	0.1	0.5	71	0	0
Pirimicarb (Parent)	WHOLE	0.1	0.5	71	0	0
Propargite	WHOLE	0.1	3	71	3	0
Spinosad	WHOLE	0.05	0.2	71	0	0
Tebufenpyrad	WHOLE	0.05	1	71	0	0
PHYSIOLOGICAL MODIFIERS						
<i>Scald Inhibitors</i>						
Diphenylamine	WHOLE	0.05	7	71	64	0



Financial Statements

National Residue Survey 2004–2005



INDEPENDENT AUDIT REPORT

To the Minister for Agriculture, Fisheries and Forestry

Matters relating to the Electronic Presentation of the Audited Financial Statements

This audit report relates to the financial statements published in both the annual report and on the website of the Department of Agriculture, Fisheries and Forestry for the year ended 30 June 2005. The Department's Chief Executive is responsible for the integrity of both the annual report and its web site.

The audit report refers only to the financial statements, schedules and notes named below. It does not provide an opinion on any other information, which may have been hyperlinked to/from, the audited financial statements.

If users of this report are concerned with the inherent risks arising from electronic data communications they are advised to refer to the hard copy of the audited financial statements in the Department's annual report.

Scope

The financial statements and Chief Executive's responsibility

The financial statements comprise:

- Statement by the Chief Executive and Chief Finance Officer;
- Statements of Financial Performance, Financial Position and Cash Flows;
- Schedules of Commitments and Contingencies;
- Schedule of Administered Items; and
- Notes to and forming part of the Financial Statements

of the Department of Agriculture, Fisheries and Forestry for the year ended 30 June 2005.

The Department's Chief Executive is responsible for preparing financial statements that give a true and fair presentation of the financial position and performance of the Department of Agriculture, Fisheries and Forestry, and that comply with accounting standards, other mandatory financial reporting requirements in Australia, and the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*. The Chief Executive is also responsible for the maintenance of adequate accounting records and internal controls that are designed to prevent and detect fraud and error, and for the accounting policies and accounting estimates inherent in the financial statements.

Audit approach

I have conducted an independent audit of the financial statements in order to express an opinion on them to you. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing and Assurance Standards, in order to provide reasonable assurance as to whether the financial statements are free of

material misstatement. The nature of an audit is influenced by factors such as the use of professional judgment, selective testing, the inherent limitations of internal control, and the availability of persuasive, rather than conclusive, evidence. Therefore, an audit cannot guarantee that all material misstatements have been detected.

While the effectiveness of management's internal controls over financial reporting was considered when determining the nature and extent of audit procedures, the audit was not designed to provide assurance on internal controls.

I have performed procedures to assess whether, in all material respects, the financial statements present fairly, in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, accounting standards and other mandatory financial reporting requirements in Australia, a view which is consistent with my understanding of the Department's financial position, and of its performance as represented by the statements of financial performance and cash flows.

The audit opinion is formed on the basis of these procedures, which included:

- examining, on a test basis, information to provide evidence supporting the amounts and disclosures in the financial statements; and
- assessing the appropriateness of the accounting policies and disclosures used, and the reasonableness of significant accounting estimates made by the Chief Executive.

Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the ethical requirements of the Australian accounting profession.

Audit Opinion

In my opinion, the financial statements of the Department of Agriculture, Fisheries and Forestry:

- (a) have been prepared in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*; and
- (b) give a true and fair view of the Department's financial position as at 30 June 2005 and of its performance and cash flows for the year then ended, in accordance with:
 - (i) the matters required by the Finance Minister's Orders; and
 - (ii) applicable accounting standards and other mandatory financial reporting requirements in Australia.

Australian National Audit Office



Richard Rundle
Executive Director

Delegate of the Auditor-General

Canberra
31 August 2005

Department of Agriculture, Fisheries and Forestry
NATIONAL RESIDUE SURVEY
For the year ended 30 June 2005

Statement by the Chief Executive and Chief Finance Officer

In our opinion, the attached financial statements for the year ended 30 June 2005 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, as amended.



Joanna Hewitt
Chief Executive

31 August 2005



Allan Gaukroger
Chief Finance Officer

31 August 2005

NATIONAL RESIDUE SURVEY

STATEMENT OF FINANCIAL PERFORMANCE for the year ended 30 June 2005

	Notes	2004–2005 \$'000	2003–2004 \$'000
Revenues from Ordinary Activities			
Revenues from Government	4A	996	974
Goods and services	4B	7 882	6 360
Interest	4C	722	735
Other revenue	4D	308	341
Revenues from ordinary activities		9 908	8 410
Expenses from Ordinary Activities (excluding Borrowing Costs Expense)			
Employees	5A	1 561	1 761
Suppliers	5B	8 109	6 486
Depreciation and amortisation	5C	49	157
Value of assets sold	5D	65	-
Expenses from ordinary activities (excluding borrowing costs expense)		9 784	8 404
Borrowing costs expense	5E	2	6
Net surplus from ordinary activities		122	-
Net increment/(decrement) to asset revaluation reserve	19	1	1
Total revenues, expenses and valuation adjustments recognised directly in equity		1	1
Total changes in equity other than those resulting from transactions with the Australian			
Government as owner		123	1

The above statement should be read in conjunction with the accompanying notes.

NATIONAL RESIDUE SURVEY
STATEMENT OF FINANCIAL POSITION as at 30 June 2005

	Notes	2004-2005 \$'000	2003-2004 \$'000
ASSETS			
Financial Assets			
Cash	6, 20	-	-
Receivables	7	358	891
Investments	8	12 300	13 500
Accrued revenue	9	559	645
Total financial assets		13 217	15 036
Non-Financial Assets			
Infrastructure, plant and equipment	10, 14	62	82
Inventories	11	68	75
Intangibles	12, 14	68	102
Other non-financial assets	13	1	-
Total non-financial assets		199	259
Total Assets		13 416	15 295
LIABILITIES			
Provisions			
Employees	15	502	623
Total provisions		502	623
Payables			
Suppliers	16	265	343
Other payables	17	12 150	13 940
Total payables		12 415	14 283
Interest Bearing Liabilities			
Leases	18	47	61
Total interest bearing liabilities		47	61
Total Liabilities		12 964	14 967
NET ASSETS		452	328
EQUITY			
Contributed equity		158	158
Reserves		2	1
Retained surpluses		292	169
Total Equity	19	452	328
Current assets		13 286	15 111
Non-current assets		130	184
Current liabilities		12 531	14 468
Non-current liabilities		433	499
Net assets		452	328

NATIONAL RESIDUE SURVEY

STATEMENT OF CASH FLOWS for the year ended 30 June 2005

	Notes	2004-2005 \$'000	2003-2004 \$'000
OPERATING ACTIVITIES			
Cash Received			
Appropriations		719	1 257
Goods and services		6 968	5 748
Interest		765	724
GST received from Australian Taxation Office		588	514
Other receipts		42	72
Total cash received		9 082	8 315
Cash Used			
Employees		1 681	1 608
Suppliers		8 524	6 423
Borrowing costs		2	6
GST paid to Australian Taxation Office		2	13
Other		-	1 208
Total cash used		10 209	9 258
Net cash from or (used by) operating activities	20	(1 127)	(943)
INVESTING ACTIVITIES			
Cash Received			
Proceeds from sales of financial instruments		1 200	1 000
Total cash received		1 200	1 000
Cash Used			
Purchase of intangibles		-	2
Total cash used		-	2
Net cash from or (used by) investing activities		1 200	998
FINANCING ACTIVITIES			
Total cash received			
		-	-
Cash Used			
Finance lease capital payments		73	55
Total cash used		73	55
Net cash from or (used by) financing activities		(73)	(55)
Net increase / (decrease) in cash held		-	-
Cash at the beginning of the reporting period		-	-
Cash at the end of the reporting period	6, 20	-	0

The above statement should be read in conjunction with the accompanying notes.

NATIONAL RESIDUE SURVEY
SCHEDULE OF COMMITMENTS as at 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
BY TYPE		
Other Commitments		
Operating leases ¹	24	-
Goods and services contracts ²	2 865	-
GST payable	8	-
Total other commitments	2 897	-
Commitments Receivable		
Project commitments ³	91	-
GST receivable	209	-
Total commitments receivable	300	-
Net commitments by type	2 597	-
BY MATURITY		
Operating Lease Commitments		
One year or less	10	-
From one to five years	14	-
Total operating lease commitments	24	-
Other Commitments ⁴		
One year or less	2 868	-
From one to five years	5	-
Total other commitments	2 873	-
Total commitments receivable	300	-
Net commitments by maturity	2 597	-

NB: Commitments are GST inclusive where relevant.

¹ Operating leases included are effectively non-cancellable and comprise:

Nature of lease	General description of leasing arrangement
Agreement for the provision of motor vehicles to senior executive officers. Leases for motor vehicles for operations.	The National Residue Survey is a party to a tied contract for the provision of vehicles. No contingent rentals exist. An individual fixed rate is defined for each sub agreement (vehicle). Retention of the vehicle past the expiry date will result in a new lease sub agreement.
Lease for office equipment.	There is no purchase or renewal option on this lease. The lease contains a clause allowing increases in line with the CPI.

² Project commitments recognise contractual obligations in relation to achieving departmental outcomes.

³ Goods and services commitments comprise contractual obligations of NRS and include the provision of Human Resource and Legal Services.

⁴ Other commitments include subscriptions to international associations.

The above statement should be read in conjunction with the accompanying notes.

NATIONAL RESIDUE SURVEY
SCHEDULE OF CONTINGENCIES as at 30 June 2005

	Guarantees		Indemnities		Claims for damages/ costs		Warranties		Letters of comfort			Total	
	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000
Contingent Liabilities													
Balance from previous period	-	-	-	-	-	-	-	-	-	-	-	-	-
New	-	-	-	-	-	-	-	-	-	-	-	-	-
Re-measurement	-	-	-	-	-	-	-	-	-	-	-	-	-
Liabilities crystallised	-	-	-	-	-	-	-	-	-	-	-	-	-
Obligations expired	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Contingent Liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-
Contingent Assets													
Balance from previous period	-	-	-	-	-	-	-	-	-	-	-	-	-
New	-	-	-	-	-	-	-	-	-	-	-	-	-
Re-measurement	-	-	-	-	-	-	-	-	-	-	-	-	-
Liabilities crystallised	-	-	-	-	-	-	-	-	-	-	-	-	-
Obligations expired	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Contingent Assets	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-

1. The National Residue Survey has no contingent gains or losses at 30 June 2005 (2003-04: Nil)
2. The National Residue Survey has no unquantifiable or remote contingent gains or losses at 30 June 2005 (2003-04: Nil)

The above statement should be read in conjunction with the accompanying notes.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

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NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005**NOTE 1 Objectives of the National Residue Survey**

The National Residue Survey (NRS) was established under the *National Residue Survey Administration Act 1992 (Cwlth)* for the purpose of monitoring and reporting the level of contaminants in food, inputs to production and or the environment. NRS provides services to participating primary industries related to the monitoring and prevention of chemical residues in products from those industries. NRS services support export and domestic market access for animal and plant products of participating industries:

- i) through the delivery of risk based residue testing programs, that are structured to meet market requirements within a specified budget; and
- ii) through the provision of scientific advice to relevant stakeholders on residues and the management of residue related issues.

NRS contributes to the outcome of the Department of Agriculture, Fisheries and Forestry ('the Department'). The Departmental Outcome is as follows:

"Australian agricultural, food, fisheries and forestry industries that are based on sustainable management of and access to natural resources, are more competitive, self reliant and innovative, have increased access to markets, are protected from diseases and are underpinned by scientific advice and economic research."

NRS is a reporting entity within the Department, an agency controlled by the Government of the Commonwealth of Australia.

NOTE 2 Summary of Significant Accounting Policies**2.1 Basis of Accounting**

The financial statements are required by section 49 of the *Financial Management and Accountability Act 1997* and are a general purpose financial report.

The statements have been prepared in accordance with:

- Finance Minister's Orders (FMOs), being the *Financial Management and Accountability Orders (Financial Statements for reporting periods ending on or after 30 June 2005)*;
- Australian Accounting Standards and Accounting Interpretations issued by the Australian Accounting Standards Board; and
- Consensus Views of the Urgent Issues Group.

The Statements of Financial Performance and Financial Position have been prepared on an accrual basis and are in accordance with the historical cost convention, except for certain assets, which, as noted, are at valuation. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

Assets and liabilities are recognised in the Statement of Financial Position when and only when it is probable that future economic benefits will flow and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

Standard. Liabilities and assets that are unrecognised are reported in the Schedule of Commitments and the Schedule of Contingencies.

Revenues and expenses are recognised in the Statement of Financial Performance when and only when the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

2.2 Changes in Accounting Policy

The accounting policies used in the preparation of these financial statements are consistent with those used in 2003–2004.

All property, plant and equipment assets have been re-valued to current fair value as at 30 June 2005. Intangible assets are not re-valued and are reported at cost.

2.3 Revenue

I. Revenues from Government

Amounts appropriated for departmental outputs appropriations for the year (less any current year savings and reductions) are recognised as revenue, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned.

Savings are amounts offered up in Portfolio Additional Estimates Statements. Reductions are amounts by which appropriations have been legally reduced by the Finance Minister under either Appropriation Act (No.3) or Appropriation Act (No.4) of 2004–2005.

Appropriations receivable are recognised at their nominal amounts.

II. Resources Received Free of Charge

Services received free of charge are recognised as revenue when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense. Contributions of assets at no cost of acquisition or for nominal consideration are recognised as revenue at their fair value when the asset qualifies for recognition, unless received from another government agency as a consequence of a restructuring of administrative arrangements.

2.4 Other Revenue

Revenue from the sale of goods is recognised upon the delivery of goods to customers.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts or other agreements to provide services. The stage of completion is determined according to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collectability of the debt is judged to be less rather than more likely.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

Interest revenue is recognised on a time proportionate basis that takes into account the effective yield on the relevant asset.

Revenue from disposal of non-current assets is recognised when control of the asset has passed to the buyer.

2.5 Employee Benefits

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled.

Liabilities for wages and salaries (including non-monetary benefits) and annual leave are measured at their nominal amounts. Other employee benefits expected to be settled within 12 months of the reporting date are also measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability. All other employee benefit liabilities are measured as the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

I. Leave

The liability for employee benefits comprises annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of NRS is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration, including NRS employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave as at 30 June 2005 has been determined by reference to the work of an actuary, KPMG Australia. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

II. Superannuation

Staff of NRS are members of either the Commonwealth Superannuation Scheme or the Public Sector Superannuation Scheme. The liability for their superannuation benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course.

NRS makes employer contributions to the Australian Government at rates determined by the Australian Government Actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of its employees.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

2.6 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of leased non-current assets. In operating leases, the lessor effectively retains substantially all such risks and benefits.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

Where a non-current asset is acquired by means of a finance lease, the asset is capitalised at the present value of minimum lease payments at the beginning of the lease term and a liability recognised at the same time and for the same amount. The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a basis that is representative of the pattern of benefits derived from the leased assets. The net present value of future net outlays in respect of surplus space under non cancellable lease agreements is expensed in the period in which the space becomes surplus.

2.7 Borrowing Costs

All borrowing costs are expensed as incurred except to the extent that they are directly attributable to qualifying assets, in which case they are capitalised. The amount capitalised in a reporting period does not exceed the amounts of costs incurred in that period.

NRS has no qualifying assets.

2.8 Cash

Cash means notes and coins held and any deposits held at call with a bank or financial institution. Cash is recognised at its nominal amount.

2.9 Other Financial Instruments

I. Trade Creditors

Trade creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received and irrespective of having been invoiced.

II. Term Deposits

Term deposits are recognised at cost.

III. Contingent Liabilities and Contingent Assets

Contingent liabilities/assets are not recognised in the Statement of Financial Position but are disclosed in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability/asset, or represent an existing liability/asset in respect of which settlement is not probable or the amount cannot be reliably measured. Where settlement becomes probable, a liability/asset is recognised. A liability/asset is recognised when its existence is confirmed by a future event, settlement becomes probable or reliable measurement becomes possible.

2.10 Acquisition of Assets

Assets are recorded at cost of acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor agency's accounts immediately prior to the restructuring.

2.11 Property, Plant and Equipment***I. Asset Recognition Threshold***

Assets are recognised in the Statement of Financial Position where the purchase cost is \$2,000 or more or where the purchase forms part of a group of similar items that are significant in total. Items costing less than \$2,000 are expensed in the year of acquisition.

II. Re-valuation Basis

Plant and equipment assets are carried at fair value. These assets are re-valued with sufficient frequency such that the carrying amount of each asset is not materially different, at reporting date, to its fair value. Valuations undertaken in each year are as at 30 June. All assets were re-valued to fair value as at 30 June 2005 in accordance with relevant accounting standards. Re-valuation of asset values has been performed by an independent valuer, except where the asset has been acquired during the current financial year. Where an asset has been acquired during the current financial year, the asset is re-valued to its carrying amount, which is considered to reasonably reflect its current fair value. Intangible assets are not re-valued and are reported at historical cost.

Fair values for each class of asset are determined as shown below:

Asset class	Fair value measured at:
Land	Market selling price
Buildings	Depreciated replacement cost/Market selling price
Leasehold improvements	Depreciated replacement cost/Market selling price
Infrastructure, plant and equipment	Market selling price

Depreciated replacement cost refers to the cost of replacing depreciated assets with assets in a similar condition. Market selling price refers to assets whose values have been assessed and adjusted by reference to current market values.

Under fair value, assets that are surplus to requirements are measured at their net realisable value. At 30 June 2005, NRS reported no assets in this situation (2003–2004: Nil).

III. Frequency

Plant and equipment assets are re-valued to fair value. Formal valuations are conducted by an independent qualified valuer. Between formal valuations, property plant and equipment assets are re-valued using an appropriate index reflecting movements in the value of similar assets.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

Revaluation of assets to current fair value had the following financial effect:

Asset class	Adjustment (\$)	Contra Account
Infrastructure, plant and equipment	1,033	Revaluation reserve

The total financial effect was to increase the carrying amount of property, plant and equipment by \$1,033 and increase revaluation reserves by \$1,033.

IV. Threshold

A re-valuation threshold of \$2,000 and remaining useful life of 1 year or more was used to identify assets requiring re-valuation at 30 June 2005. This threshold was adopted on previous occasions where asset re-valuations were completed.

V. Depreciation

Depreciable plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to NRS using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives) and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate. Residual values are re-estimated for a change in prices only when assets are revalued.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

Asset group	2004–2005	2003–2004
Information technology	3 to 4 years	3 to 4 years
Other plant and equipment	3 to 15 years	3 to 15 years

The aggregate amount of depreciation allocated for each class of asset during the reporting period is disclosed in Note 5C.

VI. Impairment of Non-Current Assets

Non-current assets carried at up-to-date fair value at the reporting date are not subject to impairment testing. Non-current assets carried at cost have been assessed for indications of impairment. Where indications of impairment exist, the carrying amount of the asset is compared to the higher of its net selling price and depreciated replacement cost and is written down to that value if greater.

2.12 Intangibles

Intangibles include computer software and assets such as patents, copyrights, computer models (for economic and scientific analysis) and other intellectual property. Computer software which has been purchased at a value over \$2,000 is brought to account on the

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

historical cost basis. Other intangibles costing \$2,000 or more with a useful life of greater than one year are brought to account when the historical cost can be reliably determined. Internally developed software is brought to account where the amount capitalised exceeds \$50,000 and \$20,000 for an enhancement to existing software.

All software assets were assessed for impairment as at 30 June 2005.

Intangible assets are amortised over their useful lives using a straight line method. The average useful lives are:

Asset group	2004–2005	2003–2004
Purchased software	3 years	3 years
Internally developed software	5 years	5 years

2.13 Inventories

Inventories held for resale are valued at the lower of cost and net realisable value. Inventories not held for resale are valued at cost, unless they are no longer required, in which case they are valued at net realisable value.

Inventories are brought to account if they are individually greater than \$1,000 or where the aggregate value of a particular store exceeds \$5,000. Costs are assigned to individual items of stock on either a first in first out or weighted average basis.

2.14 Investments

Investments are recognised at cost less any discount on purchase plus any unamortised premium on purchase.

2.15 Industry Rebates and Program Results

Industry funds for NRS activities are generally received by way of commodity levies. All industry funds received are separately accounted for through the use of sub accounts, which ensure that no cross-subsidisation occurs between one industry and another.

The balance of monies standing to the credit of each industry in the National Residue Survey Special Account will be applied to future expenditure programs as agreed under the *National Residue Survey Administration Act 1992*. As such, unspent funds are recognised as an industry rebate liability. Agreements have been reached with industry to apply unspent funds to new or enhanced programs or to reducing future levy rates. Letters are also sent at the end of each financial year to all industries with expected residual balances in excess of \$10,000 to advise the approximate level of unspent funds and seeking their endorsement for NRS to continue to hold these funds on behalf of the relevant industry.

2.16 Special Account Balances

NRS operations are recorded in the National Residue Survey Account. Special accounts represent public money which has been set-aside for future purposes, under an enactment, or as determined by the Finance Minister.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

Accounting treatments and disclosures for the NRS special account have been included in the Department's assets, liabilities, revenues and expenditure.

2.17 Taxation / Competitive Neutrality

Taxation

NRS is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST). Revenues, expenses and assets are recognised net of GST:

- except where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- except for receivables and payables.

Competitive Neutrality

NRS provides cost recovered services to industry which include a component for competitive neutrality. As a business operation of an Australian Government Department, NRS is not subject to taxation other than the GST and FBT. However, under competitive neutrality arrangements, NRS is required to make payments for services rendered from the Australian National Audit Office to the Commonwealth.

2.18 Foreign Currency

Transactions denominated in a foreign currency are converted at the exchange rate at the date of the transaction. Foreign currency receivables and payables are translated at the exchange rates current as at balance date. Associated currency gains and losses are not material.

2.19 Insurance

NRS has insured for risks through the Government's insurable risk managed fund, called Comcover. Workers' compensation is insured through the Government's Comcare Australia.

2.20 Economic Dependency

NRS operates on a full cost recovery basis in respect of its industry clients. However, as a Commonwealth Agency it has Community Service Obligations and is dependent on annual appropriation to enable it to meet these obligations.

2.21 Comparative Figures

Comparative figures have been adjusted to conform to changes in presentation of these financial statements where required.

2.22 Rounding

Amounts have been rounded to the nearest \$1,000 except in relation to the following:

- Note 21 Act of Grace Payments, Waivers and Defective Administration Scheme;
- Note 22 Executive Remuneration; and
- Note 23 Remuneration of Auditors.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005**NOTE 3 Adoption of AASB Equivalents to International Financial Reporting Standards (AEIFRS) from 2005-2006**

The Australian Accounting Standards Board has issued replacement Australian Accounting Standards to apply from 2005-06. The new standards are the Australian Equivalents to International Financial Reporting Standards (AEIFRS). The International Financial Reporting Standards are issued by the International Accounting Standards Board. The new standards cannot be adopted early. The standards being replaced are to be withdrawn with effect from 2005-06, but continue to apply in the meantime, including reporting periods ending on 30 June 2005.

The purpose of issuing AEIFRS is to enable Australian reporting entities reporting under the Corporations Act 2001 to be able to more readily access overseas capital markets by preparing their financial reports according to accounting standards more widely used overseas.

AEIFRS contain certain additional provisions that will apply to not-for-profit entities, including Australian Government agencies. Some of these provisions are in conflict with IFRS, and therefore NRS will only be able to assert that the financial report has been prepared in accordance with Australian Accounting Standards.

AAS 29 Financial Reporting by Government Departments will continue to apply under AEIFRS.

Accounting Standard AASB 1047 Disclosing the Impacts of Adopting Australian Equivalents to International Financial Reporting Standards requires that the financial statements for 2004-05 disclose:

- an explanation of how the transition to AEIFRS is being managed;
- narrative explanations of the key policy differences arising from the adoption of AEIFRS;
- any known or reliably estimable information about the impacts on the financial report had it been prepared using AEIFRS; and
- if the impacts of the above are not known or reliably estimable, a statement to that effect.

The purpose of this Note is to make these disclosures.

3.1 Management of the Transition to AEIFRS

NRS has taken the following steps for the preparation towards the implementation of AEIFRS:

The Department's Finance Sub-committee of the Audit Committee is tasked with oversight of the transition to and implementation of AEIFRS. The Chief Finance Officer is formally responsible for the project and reports regularly to the Finance Sub-committee of the Audit Committee on progress against the formal plan approved by the Committee.

The plan requires the following key steps to be undertaken and sets deadlines for their achievement:

- All major accounting policy differences between current AASB standards and AEIFRS were identified by 30 June 2004.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

- A transitional balance sheet as at 1 July 2004 under AEIFRS was completed and reviewed by the ANAO as part of the audit of the 2004–2005 financial statements.
- An AEIFRS compliant balance sheet as at 30 June 2005 was also prepared during the preparation of the 2004–2005 statutory financial reports.
- The plan also addresses the risks to successful achievement of the above objectives and includes strategies to keep implementation on track to meet deadlines.

3.2 Major Changes in Accounting Policy

NRS believes that the first financial report prepared under AEIFRS, that is, at 30 June 2006, will be prepared on the basis that NRS will be a first time adopter under AASB 1 First-time Adoption of Australian Equivalents to International Financial Reporting Standards. Changes in accounting policies under AEIFRS are applied retrospectively as if the new policy had always applied except in relation to the exemptions available and prohibitions under AASB 1. This means that an AEIFRS compliant balance sheet has to be prepared as at 1 July 2004. This will enable the 2005–2006 financial statements to report comparatives under AEIFRS.

A first time adopter of AEIFRS may elect to use exemptions under paragraphs 13 to 25E of AASB 1. When developing the accounting policies applicable to the preparation of the 1 July opening balance sheet, no exemptions were applied by NRS. Changes to major accounting policies are discussed in the following paragraphs.

Management's review of the quantitative impacts of AEIFRS represents the best estimates of the impacts of the changes as at reporting date. The actual effects of the impacts of AEIFRS may differ from these estimates due to:

- continuing review of the impacts of AEIFRS on NRS's operations;
- potential amendments to the AEIFRS and AEIFRS Interpretations; and
- emerging interpretation as to the accepted practice in the application of AEIFRS and the AEIFRS Interpretations.

Property Plant and Equipment

It is expected that the 2005-2006 Finance Minister's Orders will continue to require property plant and equipment assets to be valued at fair value in 2005-06. Historically, NRS has progressively valued property, plant and equipment at fair value. All property, plant and equipment other than internal use software has been reported at fair value for 2004–2005.

Intangible Assets

Internally developed software and internal use software is currently reported at cost and so there will be no requirement for adjustment on the implementation of AEIFRS.

Impairment of Intangibles and Property, Plant and Equipment

NRS's policy on impairment of non-current assets is at Note 2.11 VI. Under AEIFRS these assets will be subject to assessment for impairment and, if there are indications of impairment, an assessment of the degree of impairment. The impairment test is that the carrying amount of an asset must not exceed the greater of its fair value less costs to sell and its value in use. As NRS is a not-for-profit entity, value in use will be assessed as the depreciated replacement cost in accordance with paragraph Aus 32.1 of AASB 136.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005***Decommissioning, Restoration and Make-good***

When assessing accommodation leases for the preparation of the opening balance sheet, no obligations for make-good were determined. In relation to non-financial assets, NRS is still assessing at reporting date whether any obligation for decommissioning, restoration or make-good is reliably estimable.

Inventory

NRS recognises inventory not held for sale at cost, except where no longer required, in which case net realisable value is applied. The new Australian Equivalent standard will require inventory held for distribution for no consideration or at a nominal amount to be carried at the lower of cost or current replacement cost.

An assessment was made and it was found that in all instances the current replacement cost of inventory was equal or greater than the original cost. Therefore no adjustment is required.

Employee Benefits

The provision for long service leave is measured at the present value of estimated future cash outflows using market yields as at the reporting date on national government bonds.

The 2003–2004 Financial Report noted that the AEIFRS standards may require the market yield on corporate bonds to be used. The AASB has decided that a deep market in high quality corporate bonds does not exist and therefore national government bonds will be referenced.

AEIFRS require that annual leave that is not expected to be taken within 12 months of balance date is to be discounted. After assessing the staff leave profile, NRS expects to make an adjustment for annual leave balances that will not be taken in the next 12 months.

Administered Items

NRS does not conduct Administered activities.

Financial Instruments

AEIFRS include an option for entities not to restate comparative information in respect of financial instruments in the first AEIFRS report. It is expected that Finance Minister's Orders will require entities to use this option. Therefore, the amounts for financial instruments presented in NRS's 2004–05 primary financial statements are not expected to change as a result of the adoption of AEIFRS.

NRS will be required by AEFIRS to review the carrying amounts of financial instruments at 1 July 2005 to ensure they align with the accounting policies required by AEIFRS. It is expected that the carrying amounts of financial instruments held by NRS will not materially change as a result of this process.

Reconciliation of Impacts – AGAAP to AEIFRS

	30 June 2005	30 June 2004
	\$'000	\$'000
	\$	\$
Reconciliation of Departmental Equity		
Total Departmental Equity under AGAAP	452	328
Adjustments to accumulated results	-	1
Adjustments to other reserves	10	
Total Equity under AEIFRS	461	328
Reconciliation of Departmental Accumulated Results		
Total Departmental Accumulated Results under AGAAP	292	169
Adjustments:		
Work in progress		
Assets – Carrying Value		
Asset Revaluation Reserves		
Depreciation		
Employee Provisions	-	1
Total Accumulated Results under AEIFRS	291	169
Reconciliation of Departmental Reserves		
Total Departmental Reserves under AGAAP	2	1
Adjustment:		
Asset Revaluation Reserve	10	
Total Departmental Reserves under AEIFRS	12	1
Reconciliation of Departmental Contributed Equity		
Total Departmental Contributed Equity under AGAAP	158	158
Adjustments	-	-
Total Contributed Equity under AEIFRS	158	158

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
NOTE 4 Operating Revenues		
<u>Note 4A - Revenues from Government</u>		
Appropriations for outputs:		
Appropriations - annual appropriation	719	706
Total appropriations for outputs	719	706
Resources received free of charge	277	268
Total revenues from Government	996	974
<u>Note 4B - Goods and Services</u>		
Services	247	468
Taxes, levies, fees and charges	7 635	5 892
Total goods and services	7 882	6 360
Rendering of services to:		
Related entities	-	468
External entities	247	-
Total rendering of services	247	468
<u>Note 4C - Interest Revenue</u>		
Interest on fees	722	735
<u>Note 4D - Other Revenues</u>		
Other	308	341
Total other revenues	308	341

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
NOTE 5 Operating Expenses		
<u>Note 5A - Employee Expenses</u>		
Remuneration	1 154	1 264
Superannuation	235	232
Leave and other entitlements	148	217
Other employee expenses	12	37
Total employee benefits expense	1 549	1 750
Workers' compensation expenses	12	11
Total employee expenses	1 561	1 761
<u>Note 5B - Supplier Expenses</u>		
Goods from related entities	1 566	1 201
Goods from external entities	6 283	5 096
Services from related entities	42	18
Services from external entities	163	127
	8 054	6 442
Operating lease rentals	55	44
Total supplier expenses	8 109	6 486
<u>Note 5C - Depreciation and Amortisation</u>		
The aggregate amounts of depreciation and amortisation expensed during the year for each class of depreciable asset are as follows:		
Depreciation		
Infrastructure, plant and equipment	14	54
Total depreciation	14	54
Amortisation		
Intangibles:		
Computer software - purchased	1	2
Computer software - internally developed	34	101
Total amortisation	35	103
Total depreciation and amortisation	49	157
<u>Note 5D - Net Loss from Sale of Assets</u>		
Infrastructure, plant and equipment:		
Net book value of infrastructure, plant and equipment disposed	65	-
Net loss on disposal of infrastructure, plant and equipment	(65)	-
Total proceeds from disposal	-	-
Total value of assets disposed	65	-
Total net loss from sale of assets	(65)	-
<u>Note 5E - Borrowing Costs Expense</u>		
Interest payments	2	6
Interest payments relate to outsourced IT equipment.		

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
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NOTE 6 Cash

Cash at bank	-	-
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Under the new Budget and Estimates Framework agencies are required to transfer to the Department of Finance and Administration (Finance) all cash deposits above a pre defined threshold. No NRS cash was held by Finance as at 30 June 2005 (2004: Nil).

NOTE 7 Receivables

Goods and services	81	30
Other debtors	207	818
Less: Provision for doubtful debts	-	-
	<u>288</u>	<u>848</u>
Goods and services tax receivable from the ATO	70	43
Total receivables (net)	<u>358</u>	<u>891</u>

Receivables (gross) are aged as follows:

Not overdue	358	891
Total receivables (gross)	<u>358</u>	<u>891</u>

NOTE 8 Investments

	Market value at 30 June 2005 \$'000	At cost 2004-2005 \$'000	At cost 2003-2004 \$'000
Negotiable certificates of deposit	13 019	12 300	13 500
Total investments	<u>13 019</u>	<u>12 300</u>	<u>13 500</u>

All negotiable certificates of deposit are current assets.

NOTE 9 Accrued Revenue

Accrued interest	277	320
Goods and services	282	325
Total accrued revenue	<u>559</u>	<u>645</u>

All accrued revenues are current assets.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

	2004–2005 \$'000	2003–2004 \$'000
NOTE 10 Infrastructure, Plant and Equipment		
Infrastructure, plant and equipment - at cost	-	-
Infrastructure, plant and equipment - at valuation 30/06/05 (fair value)	16	24
less accumulated depreciation	-	(7)
	<u>16</u>	<u>17</u>
Infrastructure, plant and equipment - under finance lease	64	151
less accumulated depreciation	(18)	(86)
	<u>46</u>	<u>65</u>
Total Infrastructure, plant and equipment	<u>62</u>	<u>82</u>

The revaluations were in accordance with the progressive revaluation policy stated at Note 2 and were completed by the Australian Valuation Office and Dominion (ACT) Valuers and Auctioneers.

NOTE 11 Inventories

Inventories not held for sale	68	75
Total inventories	<u>68</u>	<u>75</u>

All departmental inventories are current assets.

NOTE 12 Intangibles

Computer software, purchased - at cost	42	43
less accumulated amortisation	(41)	(41)
	<u>1</u>	<u>2</u>
Computer software, internally developed - at cost	519	519
less accumulated amortisation	(452)	(419)
	<u>67</u>	<u>100</u>
Total intangibles	<u>68</u>	<u>102</u>

NOTE 13 Other Non-Financial Assets

Prepayments	1	-
Total other non-financial assets	<u>1</u>	<u>-</u>

All other non-financial assets are current assets.

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 14 Analysis of Property, Plant and Equipment and Intangibles

Table A - Reconciliation of the opening and closing balances of property, plant and equipment and intangibles

Item	Land \$'000	Buildings - on freehold land \$'000	Buildings - leasehold improvements \$'000	Total buildings \$'000	Land and buildings \$'000	Infrastructure plant and equipment \$'000	Computer software \$'000	Total \$'000
Gross value as at 1 July 2004	-	-	-	-	-	175	562	737
Additions - purchases	-	-	-	-	-	-	-	-
Additions - finance lease	-	-	-	-	-	62	-	62
Revaluations	-	-	-	-	-	(9)	-	(9)
Disposals	-	-	-	-	-	(148)	-	(148)
Write-downs	-	-	-	-	-	-	-	-
Other movements	-	-	-	-	-	-	-	-
Gross value as at 30 June 2005	-	-	-	-	-	80	562	642
Accumulated depreciation as at 1 July 2004	-	-	-	-	-	93	460	553
Depreciation for the year	-	-	-	-	-	14	34	48
Revaluations	-	-	-	-	-	(9)	-	(9)
Disposals	-	-	-	-	-	(83)	-	(83)
Write-downs	-	-	-	-	-	-	-	-
Transfers	-	-	-	-	-	-	-	-
Other movements	-	-	-	-	-	3	-	3
Accumulated depreciation as at 30 June 2005	-	-	-	-	-	18	494	512
Net book value as at 30 June 2005	-	-	-	-	-	62	68	130
Net book value as at 1 July 2004	-	-	-	-	-	82	102	184

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

Table B - Assets at valuation

Item	Land \$'000	Buildings - on freehold land \$'000	Buildings - leasehold improvements \$'000	Total buildings \$'000	Land and buildings \$'000	Infrastructure plant and equipment \$'000	Computer software \$'000	Total \$'000
As at 30 June 2005	-	-	-	-	-	16	-	16
Gross value	-	-	-	-	-	16	-	16
Accumulated depreciation/ amortisation	-	-	-	-	-	-	-	-
Net book value	-	-	-	-	-	16	-	16
As at 30 June 2004	-	-	-	-	-	24	-	24
Gross value	-	-	-	-	-	(7)	-	(7)
Accumulated depreciation/ amortisation	-	-	-	-	-	17	-	17
Net book value	-	-	-	-	-	-	-	-

Table C - Assets held under finance lease

Item	Land \$'000	Buildings - on freehold land \$'000	Buildings - leasehold improvements \$'000	Total buildings \$'000	Land and buildings \$'000	Infrastructure plant and equipment \$'000	Computer software \$'000	Total \$'000
As at 30 June 2005	-	-	-	-	-	64	-	64
Gross value	-	-	-	-	-	(18)	-	(18)
Accumulated depreciation/ amortisation	-	-	-	-	-	46	-	46
Net book value	-	-	-	-	-	-	-	-
As at 30 June 2004	-	-	-	-	-	151	-	151
Gross value	-	-	-	-	-	(86)	-	(86)
Accumulated depreciation/amortisation	-	-	-	-	-	65	-	65
Net book value	-	-	-	-	-	-	-	-

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

Table D - Assets under construction

Item	Land \$'000	Buildings - on freehold land \$'000	Buildings - leasehold improvements \$'000	Total buildings \$'000	Land and buildings \$'000	Infrastructure plant and equipment \$'000	Computer software \$'000	Total \$'000
As at 30 June 2005	-	-	-	-	-	-	\$'000	-
Gross value	-	-	-	-	-	-	-	-
Net book value	-	-	-	-	-	-	-	-
As at 30 June 2004	-	-	-	-	-	-	-	-
Gross value	-	-	-	-	-	-	-	-
Net book value	-	-	-	-	-	-	-	-

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
NOTE 15 Provisions - Employees		
Salaries and wages	5	61
Leave	436	501
Separations and redundancies	-	-
Aggregate employee entitlement liability	441	562
Employee entitlement on-costs	61	61
Aggregate employee benefit liability and related on-costs	502	623
Current	97	154
Non-current	405	469
	502	623

NOTE 16 Payables - Suppliers

Trade creditors	265	343
All supplier payables are current liabilities.		

NOTE 17 Payables - Other

Industry rebates	12 150	13 940
Total other payables	12 150	13 940
All other payables are current liabilities.		

NOTE 18 Leases

Finance lease commitments		
Payable:		
Within one year	22	35
In one to five years	30	32
In more than five years	-	-
Minimum lease payments	52	67
Deduct: future finance charges	(5)	(6)
Net lease liability	47	61
Lease liability is represented by:		
Current	19	31
Non-current	28	30
Net lease liability	47	61

Finance leases exist in relation to computer equipment provided under an outsourced IT service contract. The leases are for periods of three or four years depending on the equipment. NRS does not guarantee the residual values of the leased assets.

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 19 Equity

Item	Retained surpluses		Reserves		Contributed equity		TOTAL EQUITY	
	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000	2004-2005 \$'000	2003-2004 \$'000
Opening balance as at 1 July	169	169	1	-	158	158	328	327
Net surplus (deficit)	123	-	-	-	-	-	123	-
Net revaluation increment/(decrement)	-	-	1	1	-	-	1	1
Closing balance as at 30 June	292	169	2	1	158	158	452	328

Asset revaluation reserve

The net revaluation change in the asset revaluation reserve comprises:
Revaluation increment/(decrement) - infrastructure, plant and equipment

2004-2005 \$'000	2003-2004 \$'000
1	1
<u>1</u>	<u>1</u>

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

	2004-2005 \$'000	2003-2004 \$'000
NOTE 20 Cashflow Reconciliation		
(a) Reconciliation of Cash per Statement of Financial Position to Statement of Cash Flows		
Cash at year end per Statement of Cash Flows	-	-
Statement of Financial Position items comprising above cash:		
Financial Asset - Cash	-	-
(b) Reconciliation of Net Surplus to Net Cash from Operating Activities		
Net surplus (deficit)	122	-
Depreciation and amortisation	49	157
Adjustments to property, plant and equipment and intangibles	0	-
Loss on disposal of assets	65	-
Changes in assets and liabilities:		
Decrease/(increase) in net receivables	533	(465)
Decrease/(increase) in other financial assets	86	(1)
Decrease/(increase) in inventories	8	(14)
Decrease/(increase) in other non-financial assets	(1)	-
Increase/(decrease) in employee provisions	(120)	152
Increase/(decrease) in supplier payables	(79)	(261)
Increase/(decrease) in other payables	(1 790)	(511)
Net cash from / (used by) operating activities	(1 127)	(943)

(c) Non-Cash Financing and Investing Activities

Finance leases exist in relation to computer equipment provided under an outsourced IT service contract. Assets and liabilities relating to these have been recognised in the financial statements.

	2004-2005 \$	2003-2004 \$
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NOTE 21 Act of Grace Payments, Waivers and Defective Administration Scheme

No Act of Grace payments were made during the reporting period (2003-04: Nil).

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No waivers of amounts owing to the Commonwealth were made pursuant to subsection 34(1) of the *Financial Management and Accountability Act 1997*.

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No payment was made under the 'Scheme for Compensation for Detriment caused by Defective Administration (CDDA)' during the reporting period (2003-04: Nil).

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NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

	2004-2005	2003-2004
	\$	\$

NOTE 22 Executive Remuneration

Executive remuneration is all remuneration received, or due and receivable and includes salaries, accrued leave, performance pay, accrued superannuation (both PSS and CSS schemes), motor vehicle costs, allowances and fringe benefits tax.

The number of Executives who received or were due to receive total remuneration of \$100,000 or more:

\$100 000 to 109 999	-	-
\$110 000 to 119 999	-	-
\$120 000 to 129 999	-	-
\$130 000 to 139 999	-	-
\$140 000 to 149 999	-	-
\$150 000 to 159 999	-	-
\$160 000 to 169 999	-	-
\$170 000 to 179 999	-	-
\$180 000 to 189 999	-	-
\$190 000 to 199 999	-	-
\$200 000 to 209 999	-	-
\$210 000 to 219 999	-	1
\$220 000 to 229 999	-	-
	-	1

The aggregate amount of total remuneration of executive officers shown above

	-	213 517
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The aggregate amount of performance pay paid during the year to executive officers shown above*

	-	22 700
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The aggregate amount of separation and redundancy payments during the year to executive officers shown above

	-	-
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* No performance pay was incurred in 2004-05 (2003-04: \$16 200). Performance pay reported for 2003-04 includes \$6 500 that related to the 2002-03 financial year.

NATIONAL RESIDUE SURVEY**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS** for the year ended 30 June 2005

	2004-2005	2003-2004
	\$	\$
NOTE 23 Remuneration of Auditors		
Financial statement audit services are provided by the Australian National Audit Office. The National Residue Survey operates through a Special Account and is required to remit an amount equivalent to the cost of these audits to the Official Public Account. The fair value of the audit service		
- at cost	15 000	15 000
- resource received free of charge	-	-
	<u>15 000</u>	<u>15 000</u>

The Australian National Audit Office provided no other services to the NRS in 2004-05.

The at cost payments made are competitive neutrality payments.

NOTE 24 Average Staffing Levels

The average staffing level for the NRS during the year was:
Average staffing levels are based on full-time equivalents.

<u>18</u>	<u>20</u>
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NOTE 25 Events Occurring After Balance Date

There were no significant events occurring after balance date.

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 26 Financial Instruments

(a) Terms, conditions & accounting policies

Financial instrument	Notes	Accounting policies and methods (including recognition criteria and measurement basis)	Nature of underlying instrument (including significant terms & conditions affecting the amount, timing and certainty of cash flows)
Financial assets			
Cash		Financial assets are recognised when control over future economic benefits is established and the amount of benefit can be reliably measured. Cash is recognised at its nominal amount.	Monies in the NRS bank accounts are swept into the Official Public Account nightly.
Receivables for goods and services	7	These receivables are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collection of the debt is judged to be less rather than more likely.	Normal credit terms are net 28 days (2003-2004: 28 days).
Appropriation receivable	7	These receivables are recognised at the nominal amounts.	Amounts appropriated by the Parliament in the current or previous years which are available to be drawn down by the Department. Also includes amounts to be appropriated by the Parliament in a future year for services provided in previous years under a purchasing, workload or other agreement.
Negotiable securities	8	Investments in securities and negotiable certificates of deposit are recorded at cost. Any discounts or premiums on purchase are amortised over the term of the investment. Interest is credited to revenue as it accrues.	Investments in securities and negotiable certificates of deposit are readily realisable in cash, but are normally held until maturity.

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 26 Financial Instruments

(a) Terms, conditions & accounting policies

Financial instrument	Notes	Accounting policies and methods (including recognition criteria and measurement basis)	Nature of underlying instrument (including significant terms & conditions affecting the amount, timing and certainty of cash flows)
Accrued revenue	9	Accrued revenue is recognised in respect of services provided which have not been invoiced, taxes and levies due, and accrued interest.	Accrued revenue is amounts due from receivers of services. Accrued interest is amounts due from borrowers and unpaid interest on investments. Accrued taxes and levies are amounts due from industry in relation to its fiscal obligations.
Financial liabilities			
Trade and other creditors	16	Financial liabilities are recognised when a present obligation to another party is entered into and the amount of the liability can be reliably measured. Creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received.	Settlement is usually made net 28 days (2003–2004: 28 days).
Industry rebates	17	Industry rebates are recognised at their nominal amounts, being the amounts at which the liabilities will be settled.	See Note 2.15.
Finance leases	18	Liabilities are recognised at the present value of the minimum lease payments at the beginning of the lease. The discount rate used is the incremental borrowing rate.	At reporting date, the Department had finance leases for computer equipment provided under an outsourced information technology infrastructure service contract. The lease terms are for three or four years depending on the item.
Unrecognised financial liabilities			
Contingencies	Schedule of Contingencies	No contingent liability existed in 2004–05 (2004: Nil).	

NATIONAL RESIDUE SURVEY
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 26 Financial Instruments (continued)

(b) Interest rate risk - agency

Financial instrument	Notes	Floating interest rate		Fixed interest rate						Non interest bearing		Total		Weighted average effective interest rate		
				1 - 2 years		2 - 5 years		> 5 years								
		2004-2005 \$ '000	2003-2004 \$ '000	2004-2005 \$ '000	2003-2004 \$ '000	2004-2005 \$ '000	2003-2004 \$ '000	2004-2005 \$ '000	2003-2004 \$ '000	2004-2005 \$ '000	2003-2004 \$ '000	2004-2005 \$ '000	2003-2004 %	2004-2005 %		
Financial assets																
Cash	6	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a
Receivables for goods and services	7	-	-	-	-	-	-	-	-	81	30	81	30	-	n/a	n/a
Other debtors	7	-	-	-	-	-	-	-	-	277	818	277	818	-	n/a	n/a
Appropriation receivable	7	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a
Negotiable securities	8	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a
Accrued revenue	9	-	-	-	-	-	-	-	-	559	645	559	645	-	5.85	5.30
Total financial assets (recognised)		-	-	-	-	-	-	-	-	917	1 493	13 217	14 993	-	n/a	n/a
Total assets												13 416	15 295			
Financial liabilities																
Trade and other creditors	16	-	-	-	-	-	-	-	-	265	343	265	343	-	n/a	n/a
Industry rebates	17	-	-	-	-	-	-	-	-	12 150	13 940	12 150	13 940	-	n/a	n/a
Finance leases	18	-	-	19	31	28	30	-	-	-	-	47	61	-	6.00	6.00
Total financial liabilities (recognised)		-	-	19	31	28	30	-	-	12 415	14 283	12 462	14 344	-		
Total liabilities												12 964	14 967			
Liabilities not recognised																
Claims for damages/costs	Schedule of Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	n/a
Total liabilities (unrecognised)		-	-	-	-	-	-	-	-	-	-	-	-	-		

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 26 Financial Instruments (continued)

(c) Net fair value of financial assets and liabilities

	Note	2004-2005		2003-2004	
		Total carrying amount \$'000	Aggregate net fair value \$'000	Total carrying amount \$'000	Aggregate net fair value \$'000
Financial assets					
Cash	6	-	-	-	-
Receivables for goods and services	7	81	81	30	30
Negotiable securities	8	12 300	12 300	13 500	13 500
Other debtors	7	277	277	818	818
Accrued revenue	9	559	559	645	645
Total financial assets		13 217	13 217	14 993	14 993
Financial liabilities (recognised)					
Trade and other creditors	16	265	265	343	343
Industry rebates	17	12 150	12 150	13 940	13 940
Finance leases	18	47	47	61	61
Total financial liabilities (recognised)		12 462	12 462	14 344	14 344
Financial liabilities (unrecognised)					
Claims for damages/costs		-	-	-	-
Total financial liabilities (unrecognised)		-	-	-	-

Financial assets

The net fair values of all monetary financial assets approximate their carrying amounts.

The net fair values of loans receivable are considered to be at their carrying amounts as all loan waivers have been written off and provision has been made for all doubtful debts.

Investments in negotiable securities are carried at cost, as it is intended to hold them to maturity.

Financial liabilities

The net fair values of all monetary financial liabilities are approximated by their carrying amounts.

The net fair values of indemnities are regarded as the most likely loss which the Commonwealth faces while the indemnity remains current.

(d) Credit risk exposure

NRS's maximum exposure to credit risk at reporting date in relation to each class of recognised financial assets is the carrying amount of those assets as indicated in the Statement of Financial Performance.

NRS has no significant exposures to any concentrations of credit risk. All figures for credit risk referred to do not take into account the value of any collateral or other security.

Concentrations of credit risk

Credit risk in trade receivables is managed in the following ways:

- payment terms are 28 days; and
- withdrawal of services if debt recovery action is unsuccessful.

NATIONAL RESIDUE SURVEY

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2005

NOTE 27 Appropriations

NRS is a Special Account and a separate reporting entity within the Department of Agriculture, Fisheries and Forestry. Amounts appropriated for NRS outputs are included in the appropriation acts of the Department of Agriculture, Fisheries and Forestry. Please refer to Note 38 of the financial statements for the Department of Agriculture, Fisheries and Forestry for appropriation disclosures and details on the operation of the Special Account.

Definitions

Residues

Residues include pesticides and veterinary drugs currently in use (see MRLs below) or pesticides that are no longer registered for use (see ERLs below), but are known to persist in the environment (e.g. some organochlorine chemicals). The residue definition can also include derivatives of chemicals, conversion products, metabolites, reaction products and impurities considered to be of toxicological significance. The Australian MRLs and ERLs are listed in Section 1.4.2 of the Australia New Zealand Food Standards Code (ANZFSC).

Detections of chemicals above the specified MRL or ERL contravene the ANZFSC. Also, if no MRL or ERL is listed for a chemical in the ANZFSC, there must be no detectable residue of the chemical in that product. Any detection at any level is deemed a contravention).

Maximum residue limit (MRL)¹²

The maximum residue limit is defined as the maximum concentration of a residue that is legally permitted or recognised as acceptable in or on a food, agricultural commodity or animal feed. It results from the officially authorised safe use of an agricultural or veterinary (agvet) chemical. The concentration is expressed in mg/kg (milligrams per kilogram or parts per million) of the commodity.

Extraneous residue limit (ERL)¹³

An extraneous residue limit is defined as the maximum permitted limit of a pesticide residue, arising from environmental sources other than the use of a pesticide directly or indirectly, in or on a food, agricultural commodity or animal feed. The concentration is expressed in mg/kg (milligrams per kilogram or parts per million) of the commodity. There are ERLs for selected commodities for several organochlorine pesticides no longer in use in Australian agriculture (e.g. DDT and dieldrin).

¹² Based on APVMA definition of an MRL.

¹³ Based on the Australian New Zealand Food Standards Code.

Contaminants

Contaminants include substances not intentionally added to a product, but which may be present following routine production (see ML). For example, some metals and natural toxicants are contaminants. A food will contravene the ANZFSC if it contains a contaminant at a concentration greater than the ML. However, where no ML is established, the detection of contaminant is not interpreted as a contravention. Australian MLs are listed in Section 1.4.1 of the ANZFSC.

In this report, environmental contaminants are defined as undesirable metal residues that can be found in soil or water and can contaminate animals and plants.

Maximum level (ML)

A maximum level is defined as the maximum tolerable concentration of a contaminant (e.g. metal or natural toxicant) in or on a food, agricultural commodity or animal feed. The concentration is expressed in mg/kg (milligrams per kilogram or parts per million) of the commodity.

Limit of reporting

The limit of reporting (LOR) 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.

Australian Standard

The Australian Standard is the MRL/ERL or ML (as applicable) stipulated in the FSANZ Standards 1.4.1 (MLs) and 1.4.2 (MRLs), up to Amendment 78, 26 May 2004.

Residue action level

The residue action level is the concentration of a residue of an agvet chemical or contaminant in a food, agricultural commodity or animal feed above which a detection can result in action by the state or territory government regulatory authorities, including the initiation of a traceback investigation to the property where the residue-containing product originated.

Residue random monitoring projects

Projects designed to obtain a profile of the occurrence of a residue in a commodity using a statistically defined sampling process.

Abbreviations and acronyms

Act	National Residue Survey Administration Act 1992 (Cwlth)
Agvet	Agricultural and veterinary chemicals
AMRA	Australian Milk Residue Analysis project
ANZFSC	Australia New Zealand Food Standards Code
ANZFRMC	Australia New Zealand Food Regulation Ministerial Council
APVMA	Australian Pesticides & Veterinary Medicines Authority
AQIS	Australian Quarantine and Inspection Service
AWB	Australian Wheat Board Limited
AWI	Australian Wool Innovation Limited
Code	Australia New Zealand Food Standards Code
Codex	Codex Alimentarius Commission
CSO	Community service obligation
Cwlth	Australian Commonwealth
DDT	1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane
Department	Australian Government Department of Agriculture, Fisheries and Forestry
DFSV	Dairy Food Safety Victoria
DR CALUX®	Dioxin receptor chemical-activated luciferase gene expression bioassay test
EC	European Commission
ERL	Extraneous residue limit
EU	European Union
FAO	Food and Agriculture Organisation
FSANZ	Food Standards Australia New Zealand
FSIS	Food Safety and Inspection Service of the United States Department of Agriculture
GCA	Grains Council of Australia
Guidelines	Guidelines for NRS Contract Laboratories (July 2004)
HCB	Hexachlorobenzene
HCH	Hexachlorocyclohexane (formerly benzene hexachloride–BHC)
HGP	Hormonal growth promotant

IWTO	International Wool Textiles Organisation
LOR	Limit of reporting
LPA	Livestock Production Assurance
LPE	Laboratory performance evaluation
MHLW	Ministry of Health, Labour and Welfare
ML	Maximum level
MLA	Meat and Livestock Australia
MOU	Memorandum of understanding
MRL	Maximum residue limit
NARM	National Antibacterial Residue Minimisation project
NATA	National Association of Testing Authorities Australia
NORM	National Organochlorine Residue Management project
NRS	National Residue Survey
NVD	National Vendor Declaration
OC	Organochlorine
OP	Organophosphate
Panel	NRS Advisory Panel
PCB	Polychlorinated biphenyl
Plan	National Residue Survey Operational and Expenditure Plan 2004–2005
PT	Proficiency testing
RC-LPE	NRS Residue Chemistry and Laboratory Performance Evaluation team
SP	Synthetic pyrethroid
TART	Targeted Antibacterial Residue Testing project
TGA	Therapeutic Goods Administration
TTWG	Targeted Testing Working Group of SAFEMEAT
UBR	Unidentified biological response
US	United States of America
USDA	United States Department of Agriculture
WHO	World Health Organisation

