



# Report on Operations

National Residue Survey 2005–2006

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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
- scientific advice on residues and the management of residue-related issues.

### **HIGHLIGHTS OF 2005–2006**

During 2005–2006, there were three significant achievements.

#### ***National Association of Testing Authorities accreditation of proficiency testing programmes***

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 (PT) 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*. In July 2005, NRS achieved such accreditation.

Accreditation is important because it ensures 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 any PT provider be accredited to international standards.

#### ***United States Department of Agriculture acceptance of NRS equivalence***

In August 2005, NRS took part in an AQIS-led delegation to the United States. Technical discussions were held on a number of meat inspection-related matters with officials in the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA), and, in particular, there were residue-related discussions concerning NRS residue testing methods and the general oversight of residue testing by AQIS (see pages 24-25 for details).

As a result of the technical submission made by NRS, FSIS was reassured on both matters so that the NRS residue monitoring system is recognised as equivalent to those required by FSIS.

***Expansion of the grains project***

Currently the NRS grains project includes wheat, barley, oat, sorghum, canola, lupin, chickpea and field pea. As a result of the 2003 comprehensive review of the grains project, NRS acted upon a recommendation from the grain industry to seek the inclusion of all tradeable grains into the residue testing programme. NRS assisted the Grains Council of Australia in a national consultative process with grain growers to seek full endorsement of a proposal to establish 0.015% *ad valorem* levies for maize, lentil, soybean, triticale, sunflower, faba/broad bean and mung bean. NRS presented the proposal to all state Farmers Federation annual general meetings this year for voting, to ensure demonstrable levy payer consultation. NRS is also assisting the Grains Council to draft a levy establishment submission. It is expected that this will be submitted to the Minister and Parliamentary Secretary for Agriculture, Fisheries and Forestry in late 2006.

**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 national and international residue and contaminant standards
- reduced risk of non-compliance with residue standards as a result of undertaking testing, targeted monitoring and residue prevention projects.

***Outputs***

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

- residue results that underpin market access and industry quality assurance programmes
- compliance testing and targeted monitoring data that support the management of identified residue or contaminant issues for the participating industries
- compiled data on the residue levels of agricultural and veterinary chemicals and environmental contaminants in agricultural and fish products of participating industries

- advice to relevant state/territory authorities concerning traceback activities and corrective measures for non-compliance
- technical and scientific advice to industry and government on residues 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.

## 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.

### **Achievements**

#### ***Review of residue monitoring projects for 2006–2008***

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 2005–2006 and the level of IEAs held in the NRS Account (hence the 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 ran for two years to 30 June 2006. The process to select the Eighth Term contracts that began on 1 July 2006 has been completed. NRS has completed consultation with all stakeholders on a range

of analyte changes in order to adhere to the NRS project planning cycle, streamline the laboratory procurement process and meet perceived changes in market risks.

### ***European Union market access***

A proposal has been submitted to the European Commission (EC) through AQIS for adjustments to the Australian meat residue testing programme in 2006–2008 for European Union (EU) market access to improve the effectiveness of the testing programme.

### ***Residue monitoring plans***

Residue monitoring plans as agreed in the *National Residue Survey Operational and Expenditure Plan 2005–2006* were successfully implemented. Each commodity's peak body or representatives were consulted by NRS regarding residue monitoring plans for 2006–2007, including numbers of samples to be collected and tested. The consultation included discussion of the residue monitoring plan, the analyte list and the level of IEAs held in the NRS Account.

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

## ***Achievements***

In 2005–2006, 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
- SAFEMEAT<sup>4</sup> 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
- Australia's input to the Codex Committee on Pesticide Residues for existing and new pesticide MRLs.

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<sup>4</sup> SAFEMEAT is a partnership between the Australian meat and livestock industry and the Australian, state and territory governments.

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

## **Achievements**

### ***Residue monitoring plans 2006–2007 and results reports 2004–2005***

Plans and results reports concerning the 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 US. Plans are cleared through SAFEMEAT. In addition to the EU and US, copies of plans are sent to authorities in Canada, Mexico, China and Russia through the relevant Australian overseas diplomatic posts.

The plan *Monitoring of Chemical Residues in Honey 2006–2007* and the results report for 2004–2005 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 on its residue testing programmes to overseas delegations, including those from Russia, Thailand and Korea.

As previously mentioned, after a review, the USDA recognises NRS residue testing programmes for meat as equivalent with those required by FSIS.

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

## **Achievements**

### ***Technical and policy advice***

NRS provided advice to the Minister and Parliamentary Secretary on:

- the business of government including tabling of the *National Residue Survey Annual Report 2004–2005*; approval of *National Residue Survey Operational and Expenditure Plan 2006–2007*; 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.

### ***Reports to Australian Government***

NRS provided advice to various divisions within DAFF on a number of trade-related concerns for grain, horticultural, animal and animal-derived products, in particular wheat to India and changes in MRLs for Japan.

### ***International food standards***

International food standards for 40 overseas countries are published on the NRS website.<sup>5</sup>

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

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

### ***Methoprene in grain***

With appropriate permission, NRS provided data on methoprene residues in grain from 1994–2003 to industry, to assist in discussions on the use of methoprene in relation to international trade in grain commodities.

### ***Food Standards Australia New Zealand food surveillance network***

NRS regularly participates and provides input to the network.

### ***Codex Alimentarius Commission committees and meetings***

NRS led delegations and 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 page 52 for details).

### ***Dioxin receptor chemical-activated luciferase gene expression project***

The initial project last year showed that the dioxin receptor chemical-activated luciferase gene expression bioassay test (DR CALUX ®) is a suitable screening technique for detecting dioxin and dioxin-like PCBs. Eight samples from the fish programme were analysed in this way by Biodetection Systems in Holland. Samples were also sent to an Australian laboratory that is developing its ability to use this technique.

### ***Flame retardants***

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

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<sup>5</sup> [www.daff.gov.au/nrs](http://www.daff.gov.au/nrs)

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

## **Achievements**

### ***National Residue Survey Annual Report 2004–2005***

The *National Residue Survey Annual Report 2004–2005* was tabled in Parliament on 14 October 2005.

### ***National Residue Survey Operational and Expenditure Plan 2006–2007***

NRS consulted industry to define residue monitoring projects to fulfil market access requirements within the specified budgets. The Plan was submitted to the Parliamentary Secretary, who approved it on 7 June 2006. 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 seven additional grain, pulse and oilseed commodities in the plant products residue monitoring projects.

### ***Eighth Term analytical contracts***

During early 2006, the procurement process was completed for the Eighth Term chemical analytical testing contracts that run from 1 July 2006 to 30 June 2008. This was a significant achievement because the tenders were specified under new government guidelines relating to the Free Trade Agreement with the US.

### ***Proficiency testing***

NRS continues to undertake proficiency testing of a series of international wool testing laboratories for Australian Wool Innovation (AWI) Limited. Proficiency testing services provided by NRS to the dairy industry's Australian Milk Residue Analysis (AMRA) survey will also continue this year. NRS is now accredited by NATA as a proficiency testing scheme provider.

### ***Improvement in governance and business practices***

During 2005–2006, the financial arrangements of NRS were reviewed and improvements in financial reporting are being implemented. Organisational changes were made to improve linkages between NRS, the Product Integrity, Animal and Plant Health Division and DAFF.

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

## **Achievements**

### ***NRS financial arrangements***

Through a review of NRS financial management and reporting arrangements, a number of changes have been implemented to improve accountability and transparency.

## **NRS services**

The core work of NRS 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 programmes within NRS, such as laboratory evaluation and business activities, support the core work of residue testing. In 2005–2006 there were seven programmes:

- 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 operation of each programme 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 56 of this publication.

### ***Inputs and allocation of costs***

Externally-funded laboratory evaluations operate as independent programmes and are funded under contractual arrangements with relevant industries. All other residue testing 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 programmes form part of the indirect costs of other programmes and an appropriate proportion of the expense is included in the costs of those programmes. Indirect costs are attributed proportionately to projects, taking into account sample numbers and staff time.

## Animal product random monitoring

### *Description*

The animal product random monitoring programme 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 facilities<sup>6</sup>
- industry in supporting quality assurance initiatives.

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

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. This project continued in 2005–2006, and eight species of fish were sampled.

### **PROGRAMME HIGHLIGHT 2005–2006**

#### *Equivalence of NRS testing with USDA requirements*

In August 2005, NRS took part in an AQIS-led delegation to the US. Technical discussions were held on a number of meat inspection-related matters with officials in the Food Safety and Inspection Service (FSIS) of the USDA. In particular, NRS made a technical submission regarding the equivalence of NRS residue testing results compared with those prescribed by the USDA. These discussions led to FSIS recognising the NRS residue monitoring system, including the analytical testing methods and testing programmes for meat, as equivalent to FSIS requirements.

FSIS' concerns about NRS-managed residue testing have persisted since NRS changed the arrangements for laboratory services in 1993, as part of the scheme to fully recover the cost of its residue testing programmes from industry.

<sup>6</sup> Australian domestic meat processing facilities are required to comply with the appropriate Australian Standards: 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; AS 4464-1998 Australian Standard for the Hygienic Production of Game Meat.

FSIS' concerns focused on the fact that laboratories contracted by NRS for meat residue testing do not use FSIS-prescribed analytical methods to test product destined for the US. NRS argued successfully that the reliability of residue results from its performance-based analytical testing programme provided equivalent outcomes to the FSIS analytical system.

The use of prescribed methods by NRS is incompatible with the current contestable service model for provision of analytical testing that was adopted to encourage innovation and efficiency amongst laboratories through a competitive tendering process.

FSIS also had general concerns about the oversight of the Australian residue testing programme by AQIS (the recognised Australian competent authority with responsibility for certifying meat to the US). AQIS and NRS have developed a MOU that explains the relationship between AQIS, NRS and State Government authorities in managing components of residue risk in product exported to the US. FSIS can now verify that such arrangements meet its import requirements.

## Outputs

Outputs of the animal product random monitoring programme 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.*

## Achievements

In consultation with each product's peak industry body, NRS used the market risk assessment framework relating to chemical residues to review and design a residue monitoring project for each animal product within an agreed budget. 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.

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.*

## **Achievements**

### ***Residue monitoring project delivery to industry***

Animal product 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, turnaround times for results 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 NRS-mandated timeframes.

### ***Reporting of contraventions***

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

### ***Egg residue monitoring project***

The egg residue monitoring project continued during 2005–2006. Quality and food safety programmes 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 continue the random residue testing project for selected antimicrobials and hormonal growth promotants during 2005–2006.

***Fish (wildcaught)***

The increase in sampling rates instigated in 2003–2004 continued during 2005–2006. Samples were collected from finfish (blue grenadier, saddletail snapper, swordfish and yellowfin tuna), crustaceans (rock lobster and prawn) and molluscs (abalone and scallop).

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

***Achievements******Equivalence between Australian and United States residue testing programmes***

The FSIS of the USDA recognises Australia's residue testing programme as equivalent to the US domestic residue testing programme for market access purposes, as detailed earlier (see pages 24-25).

***Residue monitoring plan 2006–2007 and results report 2004–2005***

The *Meat Residue Monitoring Plan 2006–2007* and *Results Report 2004–2005* (including a comparison with the residue plan for 2004–2005) 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.

***The European Union***

The EU continues to recognise the equivalency of the Australian residue monitoring programme for access of Australian meat to the EU market.

A submission was sent to the EC proposing changes to the residue plan (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 2004–2005 and the residue monitoring plan for 2006–2007 were presented to participating industries peak bodies at their annual general meetings, or as agreed.

### ***Results of NRS animal product random residue monitoring projects for 2005–2006***

The second part of this report, beginning on page 56, gives the results from the random residue monitoring projects for 2005–2006. Results from meat projects begin on page 69; results from the honey project are shown on page 96; egg results begin on page 97, and the results for fish projects begin on page 99.

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

## ***Achievements***

### ***Presentations***

NRS animal product 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. Key examples are presentations of the results of residue monitoring, consultation regarding the design of residue monitoring projects and attendance at industry annual general meetings, 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 2004–2005*, containing results from 1 July 2004 to 30 June 2005, was delivered to industry by mailout (commencing in October 2005, after formal tabling in Parliament) and during presentations by NRS animal products staff.

Quarterly reporting of results to the beef, sheepmeat and pork industries continued in 2005–2006.

Two papers were presented at a conference on Proficiency Testing and Key Techniques of Food Safety (China) in September 2005. These presentations, 'The role of proficiency testing in Australia's national residue monitoring system' and 'The development, implementation and summary results of a nitrofurans metabolites in honey PT programme,' have been accepted for publication in a peer-reviewed journal in China.

A paper was also presented by an NRS officer at the 20<sup>th</sup> Conference of Residue Chemists (New Zealand) in October 2005. Another officer chaired a session at the conference.

Residue standards are published on the NRS website<sup>7</sup> for importing countries for cattle, sheep and pigs. This information is for the guidance of NRS stakeholders only. 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.<sup>8</sup>

## **Outlook**

### ***Egg***

The Australian Egg Corporation Limited has agreed to the monitoring project plan for 2006–2007.

### ***Poultry***

The poultry industry has agreed to repeat the 2005–2006 project plan in 2006–2007.

### ***Honey***

The honey industry agreed to run the 2005–2006 project plan again in 2006–2007, with a small increase in sample numbers. In addition, agreement has been reached with industry to use part of their IEA in the NRS Account for an Australian Honey Bee Industry Council sponsored project to investigate pyrrolizidine alkaloids in honey during 2006–2007. This project was planned for 2005–2006, but was deferred to 2006–2007.

### ***Fish products (wildcaught)***

NRS will continue residue monitoring for wildcaught species until 2007.

## **Plant product random monitoring**

### ***Description***

Participation by the grains and horticultural industries in the NRS plant product random monitoring programme is the result of marketing and trade-related decisions. Residue monitoring was conducted in 2005–2006 for grains (barley, canola, chickpea, field pea, lupin, oat, sorghum, and wheat grain, bran and flour) and horticultural products (apple, blueberry, macadamia nut, onion, pear).

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<sup>7</sup> [www.daff.gov.au/nrs](http://www.daff.gov.au/nrs)

<sup>8</sup> [www.animalhealthaustralia.com.au/status/ahsq.cfm](http://www.animalhealthaustralia.com.au/status/ahsq.cfm)

### PROGRAMME HIGHLIGHT 2005–2006

As a result of a comprehensive programme review in 2003, NRS established an export container and bag sub-programme in late 2004. In consultation with industry, about 20 companies throughout Australia began sampling grain for residue testing as it is loaded into shipping containers and bags. This programme has continued during 2005–2006.

Acting upon a recommendation of the same 2003 review of the grains programme, NRS sought to include all tradeable grains in the residue testing programme. NRS is assisting the Grains Council of Australia (GCA) in a national consultative process with grain growers to seek full endorsement of a proposal to establish 0.015% *ad valorem* levies for maize, lentil, soybean, triticale, sunflower, faba/broad bean and mung bean. NRS presented the proposal to all state Farmers' Federation annual general meetings this year for voting, to ensure demonstrable levy payer consultation. NRS also assisted the GCA in drafting a levy establishment submission. GCA expects to submit this to the Minister and Parliamentary Secretary for Agriculture, Fisheries and Forestry in late 2006.

### Outputs

Outputs of the plant product random monitoring programme 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.*

### Achievements

#### **Industry and trading partner acceptance of NRS monitoring projects**

Residue monitoring projects for each grain and horticulture commodity within the programme 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 the Australian Wheat Board (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 Eighth Term (2006–2008) laboratory contracts***

Following extensive consultation with industry during 2005–2006, the relevant grain industry bodies agreed to the inclusion of several new chemicals to be analysed in grain samples during 2006–2008.

#### ***Horticulture project review***

During 2005–2006, 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 MRL databases helpful for marketing purposes. Following consultation with industry representatives, minor adjustments were made to the pesticide screens to reflect changes in the registration of chemicals for use on particular crops, as well as chemicals with perceived market sensitivities.

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

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

## ***Achievements***

#### ***Updated sample collection and operational guidelines provided to industry***

During 2005–2006, 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 2005–2006.

### ***Agreements with industry***

NRS complied with all agreements for projects on behalf of industry, including visits to grain establishments. For example, visits to domestic grain establishments continued, to ensure 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%. One of the objectives of the ongoing visits to grain establishments is to examine adherence to sampling procedures and guidelines to ensure that the good record of reporting timeframes continues.

Where appropriate, results of horticulture testing were provided to individual producers and/or packing sheds to support industry quality assurance programmes within agreed general turnaround times.

### ***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.

## ***Achievements***

### ***Grain and horticulture reports***

NRS routinely prepared plans and reports for participating industries. Industry-specific reports on results were prepared for all grain and horticulture products, with their preparation timed to coincide with relevant industry annual general meetings and/or executive meetings. Grain and horticulture marketing bodies use NRS reports to demonstrate the residue integrity of their product.

***Blueberry market access to Japan***

Following a decision by the Japanese Ministry of Health Labour and Welfare to lift a consignment testing requirement for Australian blueberries to Japan, the blueberry producer initially approached NRS during 2004–2005 to establish a random residue testing project for blueberries produced at two sites. A second project was designed and ran throughout the blueberry harvest period from September 2005 to February 2006. Its main objective was to demonstrate to the producer's 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 DAFF for briefings to executive and government on market access to Japan, China, Taiwan, Thailand, India 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 2005–2006***

The second part of this report, beginning on page 56, gives the results from the random residue monitoring projects for 2005–2006. The results of the grain random residue monitoring project can be found on pages 108-129 of this report and results of the horticulture project begin on page 130.

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

***Achievements******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***

NRS continued field tours to domestic grain establishments, including stockfeed manufacturers, feedlots, maltsters and flour mills, to ensure proper sampling procedures were known. Several new domestic establishments were added to the list of participants, including oilseed crushers. Most establishments in Australia have now been visited by NRS staff.

### **Reviews**

Following the 2003 comprehensive review of the grains programme, NRS continued to review further elements of the programme with a view to implementing programme efficiencies which could allow re-allocation of funds to the export container project and to increase the number of analytes in the pesticide screen. Results from the regular six-monthly review undertaken by W J Murray Consulting Services continued to confirm NRS' performance in meeting industry requirements for the operation and management of the programme.

### **Presentations by NRS**

The residue monitoring plan and to-date results of the 2005–2006 financial year were presented to industry to Apple and Pear Australia Limited (August 2005); the Apple and Pear Annual General Meeting and Conference (September 2005); at the Grains Council Executive Meeting (October 2005); the Onion Industry Annual General Meeting (October 2005); the Australian Macadamia Society Annual General Meeting (October 2005); Grains Week 2006 (April 2006); and the National Working Party on Grain Protection (June 2006). Further presentations on the work and role of NRS were made to Apple and Pear Australia Limited in August 2005 and to the Grains Council Executive in March 2006.

### **Awareness-raising articles**

NRS officers submitted articles to *Onions Australia* and the *Tree Fruit Journal* on NRS projects.

### **Food standards for key markets**

Web links for the food standards databases of 40 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.<sup>9</sup>

## **Outlook**

### **Grains**

In 2005–2006, NRS continued to implement the recommendations of the 2003 Grains Review in planning the inclusion of the new grains commodities and monitoring the export bagged and containerised grains in accordance with industry requirements. The export container/bag project is being funded from existing resources. It is anticipated that implementation of the recommendations will continue in 2006–2007, as sampling and analysis commences for the new grain commodities.

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<sup>9</sup> [www.daff.gov.au/nrs](http://www.daff.gov.au/nrs)

***Possible new projects for 2006–2007***

The almond and cottonseed industries are each considering undertaking chemical residue testing projects with NRS in 2006–2007, but have yet to make final decisions about proceeding. Should the projects be undertaken, they will be funded by a direct payment arrangement with each industry.

## **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 potential risk to access for export and domestic markets.

***Outputs***

Results 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.*

***Achievements******Sampling design and turnaround times (if applicable)***

Outcomes achieved were 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.

### **Achievements**

In the targeted monitoring projects, 944 samples were analysed for 18 717 analytes. The analytical results were released to the relevant authorities as appropriate to undertake traceback investigations. Results above half the appropriate MRL are reported to the authorities and may lead to a property risk assessment and the development of residue management plans for those properties with significant organochlorine residue risks. Corrective action is taken when significant antibiotic or endosulfan residue risks are identified. Residue result summaries are sent to SAFEMEAT.

NRS coordinated with the relevant authorities in planning, reporting, and communication activities for the following projects.

#### ***National Organochlorine Residue Management project***

The National Organochlorine Residue Management (NORM) project focuses on minimising the risks of organochlorine (OC) residues occurring 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 supporting owners of properties with identified OC contamination hazards to develop and apply on-farm property management plans to minimise the risk of OC residues occurring in 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 provides 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 changes to abattoir testing applying from 1 January 2006. Such changes mean that in the future the project will rely more heavily on industry-based quality assurance arrangements, and the funds budgeted for this project will therefore be lower than in previous years. On 1 July 2006 new arrangements commenced for the verification of property management plans through on-farm audits.

#### ***National Antibacterial Residue Minimisation project***

The National Antibacterial Residue Minimisation (NARM) project focuses on the minimisation of antibacterial residues occurring in cattle (including bobby calves) using

advisory, analytical and regulatory techniques. The beef industry provides funding for the project through its existing IEA within the NRS Account. State governments support the project through activities related to traceback investigation and the extension and regulatory management of properties found to have consigned bobby calves for slaughter with violative antibacterial residues. NRS has responsibility for national coordination of the project and management of financial disbursements to the state and territory governments. NARM has been under review by SAFEMEAT, and the TTWG has recommended changes to its operational arrangements with a view to improving effectiveness and efficiency in the use of industry funds. As with the NORM project, more reliance will be placed on industry-based quality assurance programmes. Progressive implementation of these changes began on 1 July 2006.

#### ***Targeted Antibacterial Residue Testing project***

The Targeted Antibacterial Residue Testing (TART) project focuses on cattle at abattoirs suspected by veterinary inspectors of having received antibacterial treatment within the required holding period. 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 NORM and NARM projects, this project has been reviewed by SAFEMEAT. It will continue to provide an antimicrobial residue confirmatory capability for AQIS veterinary officers at export abattoirs to test samples for antibacterial residues from suspect cattle.

NRS has provided support to the SAFEMEAT TTWG in its review of the operational arrangements for both the NARM and TART projects.

#### ***Endosulfan residues in beef***

Endosulfan is an insecticide widely used on cotton and other field crops and orchards in relation to pest outbreaks. It has the potential to contaminate cattle when they graze pasture or crops previously sprayed with endosulfan, or if they are fed contaminated feedstuffs. For the past four years, this project has operated on a much smaller scale than previously, because of a much lower defined residue risk. Changes in the approved use of endosulfan, past actions to mitigate risk, and seasonal circumstances have all combined to reduce the risk of residues occurring. NRS chairs the Endosulfan Technical Group that monitors endosulfan use and residue risks throughout the major chemical usage period associated with the early growing season for cotton and some horticultural crops. The Group reports regularly to SAFEMEAT between October and February, with decisions on any actions dependent on assessments of contemporary residue risks. NRS continues to have responsibility for national coordination of the project. It is reviewed by SAFEMEAT each year, and operational details for 2006–2007 will be completed by SAFEMEAT in August 2006.

### ***Hormonal growth promotant audit project***

The EU 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 EU market. On-farm third-party audits (coordinated by AUS-MEAT Limited) are used to monitor compliance with accreditation requirements. NRS manages the testing of samples taken during these audits and disburses industry funds to the industry third party auditor, state and territory governments, AQIS, and the APVMA to pay for verification 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 the transfer of information concerning 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 under the requirements of the NRS Act, for payments from the 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.

### ***Honey industry pyrrolizidine alkaloid project***

The Australian Honey Bee Industry Council (AHBIC), on behalf of honey producers, is directly funding a project to investigate the occurrence and possible management of pyrrolizidine alkaloid residues in some floral varieties of honey. The project was to have been undertaken in the 2005–2006 financial year, but due to technical delays will now run in 2006–2007. NRS is contributing funds to the project from the honey industry's IEA within the NRS Account. AHBIC is overseeing the project, and a copy of the final project report will be provided to NRS.

### ***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 IEA in the NRS Account.

## 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 value for money.

The NRS Seventh Term contracts with participating analytical laboratories commenced on 1 July 2004, and concluded on 30 June 2006. The Eighth Term contracts commenced on 1 July 2006 and continue for two years to 30 June 2008. Laboratory proficiency testing (PT) takes place according to the schedules outlined in the NRS Proficiency Tests Handbook (Ninth edition, September 2005) at six-, four- or three-monthly periods.

### **PROGRAMME HIGHLIGHT 2005–2006**

#### *Proficiency testing accreditation*

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*. In July 2005, NRS achieved such accreditation. Accreditation is important because it ensures 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 PT providers be accredited to international standards.

### *Sample preparation for proficiency testing*

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).

### *Advisory work*

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

### *Outputs*

This project provides sustainable access to technically competent and cost-effective laboratories to support residue testing projects.

## **Performance measures**

Where industries participate in laboratory performance evaluation (LPE) and PT:

- confirmation of the technical integrity of NRS analytical results by the conduct of proficiency testing to assess and monitor the performance of laboratories, thus ensuring the international acceptance of NRS data
- procurement of laboratory services in compliance with Commonwealth procurement guidelines
- validation that laboratory assessments in proficiency tests and in contracted work accord with agreed scientific standards
- acceptance by domestic and overseas stakeholders of the NRS residue testing programme that includes outsourced analytical laboratory services that are supported by NRS-managed PT and monitoring of laboratory performance
- effective and timely responses to emerging needs.

Where LPE and PT are externally funded:

- compliance with contracts with individual industries
- satisfaction of clients with the services provided.

## **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.*

## **Achievements**

### ***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. Real time notification of intra-laboratory check sample performance continued during 2005–2006. Intra-laboratory data relating to the period February to October 2005 was reviewed during late 2005. A review of results from of the final period of the 7<sup>th</sup> Term contract will be completed in late 2006.

### ***National Association of Testing Authorities accreditation of contract laboratories***

All NRS-contracted laboratories must achieve and maintain NATA (or equivalent) accreditation, unless they are exempt due to exceptional circumstances, 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 PT 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 the Proficiency Testing Australia, the National Measurement Institute, the TGA and an independent chemical consultative organisation, with support from officers employed by the NRS.

During 2005--2006, 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.

***Achievements******NRS Eighth Term contracts***

Tender applications for the NRS Eighth Term contracts closed on 9 November 2005, and the tender panel's selection process was completed on 7 February 2006. These contracts commenced on 1 July 2006, and run for two years to 30 June 2008.

***Selection of laboratories for NRS Eighth Term contracts***

Tendering laboratories undertook pre-tender proficiency testing rounds. The RC-LPE team 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 Eighth Term contracts that were drawn up for commencement on 1 July 2006.

***Contract laboratory visits***

RC-LPE staff members plan to visit all new Eighth Term contract laboratories in the first part of the new contract period to:

- ensure laboratory staff fully understand NRS requirements for testing of samples
- indicate how results should be reported
- answer any queries regarding the operational requirements of the contract.

### ***Guidelines for contract laboratories***

The updated Laboratory Guidelines (July 2006) contain all specifications and requirements for laboratory analyses and reporting to be undertaken by the contract laboratories. Each contracted laboratory was 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.

### ***Achievements***

#### ***National Association of Testing Authorities proficiency testing accreditation***

The NRS system (RC-LPE) was assessed in April 2005 by NATA against the relevant international standard (ILAC G: 13 2000) and accreditation as a proficiency testing scheme provider was achieved in July 2005.

***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.

### ***Achievements***

#### ***United States Department of Agriculture Food Safety Inspection Service equivalence***

Details are shown on pages 24-25.

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

#### ***Eighth Term (2006–2008) laboratory contracts***

The process for selection of the Eighth Term contracts was completed in early 2006: new contracts began on 1 July 2006 and run until 30 June 2008.

The process of laboratory selection involved the following:

- determination of the residue testing requirements for animal and plant products by NRS project managers in consultation with industry
- publication of the Proficiency Test Handbook (9<sup>th</sup> edition) advising laboratories of the specifications of the analytical programmes on offer for the Eighth Term contract period

- release of the request for tender by placing it on the AusTender website<sup>10</sup> according to Australian Government purchasing requirements, and simultaneous publication of the AusTender address and supporting documentation on the NRS website<sup>11</sup>
- involvement of those laboratories considering tendering for NRS contracts in the relevant pre-tender PT rounds administered by NRS. Pre-tender PT for the 2006–2008 contract period ran from August to October 2005, requiring the preparation of several thousand PT samples, as well as the collation and evaluation of the corresponding results
- assessment of laboratory PT results and ranking of laboratory performance by the NRS LPE Committee
- submission of tenders by laboratories
- evaluation of tenders by NRS through the LPE Committee: evaluation of submissions against criteria specified in the request for tender, including laboratory performance in the pre-tender proficiency rounds, laboratory management, staffing, equipment and facilities, quality control systems, accreditation status, appropriateness of analytical methods and pricing
- notification to the successful tendering laboratories of the outcome of the tender evaluation process
- contracts sent to successful laboratories in time for sign-off by 30 June 2006, for two years to 30 June 2008.

### ***Expansion of grains programme***

Implementation of the expanded grains programme will involve the development of sampling regimes and analytical protocols for the new commodities. Arrangements are being made to accommodate this expansion.

## ***Outlook***

### ***Laboratory contracts***

During the fourth quarter of 2006–2007, work will commence in preparation for the Ninth Term contracts that will commence on 1 July 2008.

### ***Expansion of the grains programme***

As outlined, the expansion of the grains project will proceed according to agreed arrangements with industry.

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<sup>10</sup> [www.tenders.gov.au](http://www.tenders.gov.au)

<sup>11</sup> [www.daff.gov.au/nrs](http://www.daff.gov.au/nrs)

### ***Targeted monitoring***

Revised arrangements in the NORM, NARM and TART programmes, as endorsed by SAFEMEAT, commenced on 1 July 2006. The future management of these programmes will be adjusted accordingly.

## **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 2005–2006, NRS undertook contractual laboratory performance evaluations (LPEs) for the dairy industry. Dairy Food Safety Victoria (DFSV), which coordinates the Australian Milk Residue Analysis (AMRA) Survey on behalf of the Australian Dairy Authorities Standards Committee, has agreed to the details of a proposed laboratory performance evaluation arrangement for 2006–2007. The primary purpose of the project is to provide DFSV with verification of the performance of laboratories contracted for the AMRA Survey.

### ***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. This project will therefore continue until 2007.

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 programme 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 a supplier of clean wool to 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.

***Nitrofuran metabolites in honey project***

During 2004–2005, NRS was contracted by NATA to provide a one-off PT programme involving nitrofuran metabolites in honey. Ten national and international laboratories participated in the programme. The programme was completed successfully and the final report published in June 2005. A presentation on the programme was given at a PT conference in China during September 2005. This project is now complete.

***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.

***Achievements******Milk laboratory performance evaluation***

Two milk LPE rounds for laboratories contracted by DFSV were completed in August 2005 and March 2006. Reports for each round were provided to DFSV within the scheduled timeframe and DFSV were satisfied with the service provided to them.

***Wool laboratory proficiency testing***

The first assessable round following the familiarisation round in 2004–2005 was completed successfully in September 2005. A second round was run during March 2006. All scheduled timeframes were met and AWI approved the report.

***Outlook******Milk laboratory performance evaluation***

DFSV have again contracted NRS to provide a milk LPE programme involving two rounds in 2006–2007.

### ***Wool laboratory proficiency testing***

The wool PT programme involved two rounds in 2005–2006. A third round is planned for August 2006 and a fourth round is planned for March 2007. The fifth round will take place during 2007–2008.

## **Business support**

### ***Description***

This project covers governance functions that support the delivery of all NRS activities. These functions include financial, risk and contract management, accountability, human resources management, operations associated with sample collection and distribution, database management, legislation management and communication. The total cost of this project is attributed proportionately to all other NRS projects.

### ***Outputs***

The outputs of the business support project are:

- provision of all business services required for the efficient conduct of NRS
- provision of accountable financial support services to industry clients and the Australian 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 measures***

The business support project works to achieve the following measures:

- the operation of all financial reporting, auditing and management systems is transparent, effective and efficient
- the management of staffing and staff performance are effective and efficient
- the review and adjustment of levy arrangements is conducted efficiently and is consistent with Australian Government guidelines
- the collection of samples, their transfer to laboratories and receipt of analytical data is managed efficiently
- the entry of analytical data is managed efficiently
- the delivery of high quality, timely publications.

## PERFORMANCE INDICATORS AND ACHIEVEMENTS

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

### **Achievements**

NRS funds are managed in accordance with the *National Residue Survey Administration Act 1992 (Cwlth)* and the *Financial Management and Accountability Act 1997 (Cwlth)*. Each participating industry is consulted on the level of the relevant IEA 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 the Australian Government's *Commonwealth Procurement Guidelines*.

#### ***Risk assessment and control strategy***

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

#### ***Commodities' financial statements and budgets***

Financial statements and budgets were provided to industry for the financial year 2004–2005. The expected financial outcomes for 2005–2006 and budgets for 2006–2007 were discussed with each industry's representative body to ensure the financial sustainability of each industry project.

#### ***Annual contracts for residue monitoring under direct payment***

Residue analysis was undertaken through a MOU for the blueberry residue monitoring project.

#### ***Outsourced service delivery***

NRS receives a number of corporate services through DAFF, including information technology, financial transactions processing, legal services, human resources services and property management. In December 2005, recruitment and payroll functions (formerly outsourced) were transferred back to DAFF. 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.*

### **Achievements**

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 in 2005–2006 were subject to further changes. Business activities related to human resource and other resource management matters have been included in the business unit of the Division of Product Integrity, Animal and Plant Health. The Director of NRS assumed a more direct overseeing role in the financial and business support activities pertaining to NRS.

#### **Employment conditions**

The Director of NRS is employed under an Australian Workplace Agreement. All other senior (i.e. non-Senior Executive Service) staff were employed under DAFF'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 is consistent with government guidelines.*

### **Achievements**

#### **Review of operative levy rates**

All industries were consulted to ensure that current IEAs in the NRS Account were adequate to cater for residue monitoring projects conducted in 2005–2006, 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***

On 1 April 2006, levy adjustments were put in place for the existing pig residue monitoring project.

***Plant products***

During 2005–2006, levy adjustments were put in place for apple and pear. Discussions are continuing for the levy arrangements relating to the expanded grains programme.

***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.*

***Achievements******Sample collection and data management***

During 2005–2006 the operations unit coordinated the collection of 19 344 samples for the residue random monitoring projects and entered the laboratory results from those samples into the NRS database. In addition, the operations unit managed the receipt of the analytical results from 944 samples collected through 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 targeted monitoring, 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 by the NRS database before being uploaded.

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 database is managed under the 'Release of Information' requirements of the Act to ensure confidentiality and privacy, according to national privacy principles.

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

### **Achievements**

#### ***The National Residue Survey Annual Report 2004–2005***

The Parliamentary Secretary approved tabling of the National Residue Survey Annual Report 2004–2005 on 11 October 2005, and it was tabled in Parliament on 14 October 2005. Following tabling, the report was distributed to approximately 600 stakeholders, and was added to the NRS 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 (May 2006) is 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 to laboratories, and it is also used by NRS staff on field audits. Copies are available for visitors to the NRS offices.

#### ***Awareness-raising articles***

NRS submitted articles concerning NRS projects to *Onions Australia* and *Tree Fruit Journal*.

#### ***Conference papers***

Papers were presented at the Apple and Pear Annual General Meeting and Conference (September 2005); the Grains Council Executive Meeting (October 2005); the Onion Industry Annual General Meeting (October 2005); the Australian Macadamia Society Annual General Meeting (October 2005); Grains Week 2006 (June 2006); and the National Working Party on Grain Protection (June 2006).

Two papers were presented at a conference on Proficiency Testing and Key Techniques of Food Safety (China) in September 2005, and a paper was also presented at the 20<sup>th</sup> Conference of Residue Chemists (New Zealand) in October 2005.

#### ***Food standards for key markets***

Overseas MRL databases and web links for overseas authorities are published on the NRS website for 40 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. From 1 July 2006, NRS was included in the Product Safety and Integrity Branch of the Division of Product Integrity, Animal and Plant Health. Sample collection and residue testing will continue as before.

## **Community service obligations**

#### ***Description***

The Australian Government provides funding for community service obligations (CSO) that contribute to broader government and community objectives, and international commitments. CSO funds enable NRS officers to develop synergies between industry-funded projects and activities being undertaken in Australia and international forums, for the mutual benefit of industry and government. The NRS input into Departmental and other government projects is also funded through the CSO appropriation.

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

- advising Ministers and assisting them to provide high quality service to the public
- providing scientific information to DAFF on product residue issues
- participating in and providing technical input to relevant national and international committees such as the Australian Government Primary Industries Ministerial Council, the Australia New Zealand Food Regulation Ministerial Council and their associated Standing Committees, as well as the Codex Alimentarius Commission
- facilitating cooperation and information exchange between 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, development of, and compliance with general government legislative and administrative requirements
- management of levy-related legislation
- conducting residue-related investigations in the public interest.

## PERFORMANCE INDICATORS AND ACHIEVEMENTS

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

### Achievements

All NRS policy and technical advice to the Minister or the Parliamentary Secretary was of high quality, accurate and timely. For example, advice was given to the new Parliamentary Secretary regarding the adjustment of the pig levy that allowed the legislative timetable to be achieved without delay.

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

### Achievements

**NRS was represented on three delegations to Codex committees.**

NRS participated in an Australian delegation to the 16<sup>th</sup> meeting of the Codex Committee on Residues of Veterinary Drugs in Foods (Cancun, Mexico, 8-12 May 2006).

A NRS representative was appointed the Australian delegation leader for the 38<sup>th</sup> meeting of the Codex Committee on Pesticide Residues (Fortaleza, Brazil, 3-8 April 2006) and for future meetings. The NRS officer prepared the Australian brief in cooperation with the delegation members.

A NRS officer headed the Australian delegation to the Codex Meeting on Methods of Analysis and Sampling (Budapest, Hungary, 15-19 May) 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. This officer also attended the 6<sup>th</sup> European Pesticide Residue Workshop (Greece, 21-25 May 2006).

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

## **Achievements**

### **National Association of Testing Authorities accreditation**

As mentioned previously, in July 2005 NRS was accredited with NATA as a proficiency testing provider (see page 39 for details).

### **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 2005–2006 there were several international residue-related trade incidents where DAFF required technical advice from NRS.

**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 2004–2005 was completed and consultation initiated with those industries where levy change may be necessary to maintain IEAs in the NRS Account at levels that would sustain their testing projects for 2005–2006 and beyond. The 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. The bills were given Royal Assent, and operated from 1 October 2005.

Consultation with the pig industry concerning the level of cost recovery for their residue monitoring project culminated in a new level of cost recovery operating from 1 April 2006.

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

## **Achievements**

### **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***

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 DAFF, Horticulture Australia Limited, horticultural industries and state and territory governments.

### ***Laboratory capacity***

NRS contracts laboratories to perform analytical work for the residue testing programmes. 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 consequently the capacity to respond to any sudden increase in demand for testing may be reduced.

NRS is undertaking a project to review the existing laboratory analytical capability for its residue testing programmes, 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. During 2005–2006, a survey of current government and industry needs was carried out and is close to completion.

## ***Outlook***

### ***Laboratory capacity***

On completion of the survey phase of this project, the capacity of Australian laboratories to meet the needs of government and industry will be assessed. The identification of gaps and consequent recommendations for action will be reported to DAFF's Primary Industries Standing Committee through its subordinate, the Product Safety and Integrity Committee.