



Introduction and overview

National Residue Survey 2006–2007

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About the National Residue Survey

Purpose

The National Residue Survey (NRS) facilitates access to key export and domestic markets 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 to industry and government
- support in residue-related trade incidents
- support for industry quality assurance projects
- an up-to-date database of residue test results.

Residue monitoring is part of an overall strategy of the Australian Government Department of Agriculture, Fisheries and Forestry (the Department) to minimise chemical residues in produce. Residue monitoring 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 the access requirements of both international and domestic markets.

The Australian Government initially established the National Residue Survey (NRS) in the early 1960s following concerns about pesticide residues in exported meat. Since then, NRS has expanded to test other animal, grain, horticulture, and fish (wildcaught) products for agricultural and veterinary (agvet) chemical residues, as well as for urban, rural and environmental contaminants. Relevant legislation was established in 1992 (see page 12 for details).

NRS is an operational unit of the Product Integrity, Animal and Plant Health (PIAPH) Division of the Department. NRS outputs described in the following pages of this Annual Report contribute to the overall activities of PIAPH and the Department, in particular those concerned with managing residues in foods (described in *Output 5* of the *Department of Agriculture, Fisheries and Forestry Annual Report 2006–2007*).

The core work of NRS remains that of testing animal and plant products for agricultural and veterinary chemical residues and environmental contaminants. Product testing is done 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 2006–2007, there were seven NRS programmes:

- Laboratory performance evaluation and proficiency testing
- Externally-funded laboratory performance evaluation
- Animal products random monitoring
- Animal products targeted monitoring, compliance testing and residue prevention
- Plant products random monitoring
- Administrative and business support
- Community service obligation funding.

This Annual Report describes each NRS programme and provides the annual financial statements.

Please note that the results from the animal and plant products random testing programmes are now included in the relevant sections, rather than in a separate results section as in previous NRS Annual Reports.

Background: residue testing

The National Residue Survey was established under the *National Residue Survey Administration Act 1992 (Cwlth)* (see page 12) for the purpose of monitoring and reporting the level of contaminants in food, inputs to production and/or the environment. The term 'residue' (unless otherwise specified) is used in this report to apply to both residues and contaminants.¹

Residues are classified as being *present* if their concentration is greater than the limit of reporting (LOR)² established for NRS purposes. NRS typically sets the LOR at 10% to 20% of the Australian Standard³ maximum residue limit (MRL),⁴ extraneous residue limit (ERL)⁵ or maximum level (ML).⁶

Residues, health and trade

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

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

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

¹ See page 214 and 215 for definition of the terms *residues* and *contaminants*.

² See page 214.

³ See page 214.

⁴ See page 215.

⁵ See page 214.

⁶ See page 214.

In reality, human health is rarely an issue since Australian Standards for residues (MRLs) are set at levels necessary to meet health needs. Detection levels are usually less than the MRL, but even detections over the MRL are normally low with regard to health concerns. This means that an occasional detection at, or just above, the MRL is not likely to cause any adverse health effects when the product is consumed.

Food standards take into account residue levels that are normally likely to occur (environmental contaminants) and the amount that should not be exceeded if good agricultural practices have been followed (agricultural and veterinary [agvet] chemicals). Climate, geography, pests, diseases and products vary from country to country and as a consequence the limits set for particular residues in certain products in different countries may vary.

The general purposes of 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 page 11 for further details of the traceback process).

Setting of Australian Standards

MRLs, ERLs and 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 on pages 52–96 and 113–150, 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.

Chemical–commodity selection

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

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

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

Choice of matrix for analysis

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

Residue sources

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

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

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

Environmental contaminants

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

Traceback of non-compliant samples

When a sample is detected with a residue that is above an Australian Standard or defined residue action level,⁷ the laboratory immediately notifies NRS, which then informs the

⁷ See page 215

state or territory government authority under whose jurisdiction the sample originated. State or territory government authorities are responsible for tracing the sample back to its property of origin to prevent further contraventions. Subsequent actions depend on both the chemical detected and the commodity in which it is found, and are specified by state or territory government authority legislation. Action varies from simple advice in the case of a minor problem, to quarantining the property concerned, or prosecution where serious contamination has occurred. NRS is notified of traceback activities and findings.

Funding and administration

Legislation

The *National Residue Survey Administration Act 1992 (Cwlth)* (the Act) established the NRS Special Account that funds NRS projects. The Act permits, with industry agreement, expenditure from the NRS Special 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.

Funding

The NRS Account is a Special Account for the purposes of the *Financial Management and Accountability Act 1997 (Cwlth)*, and is established under the *National Residue Survey Administration Act 1992 (Cwlth)* Section 6(2) and Subsection 5(3) of the *Financial Legislation Amendment Act 1999 (Cwlth)*. Payments from this Special Account may be spent on monitoring and reporting the level of residues and contaminants in applicable products⁸ 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.

Industry levies

Industry levies are the primary source of funding for the running of NRS programmes. Also, some industry groups fund NRS directly (under contract) to undertake random residue monitoring or laboratory performance evaluation and proficiency testing.

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.

⁸ Projects for applicable products can be implemented only if the relevant body in the industry (as determined by the Minister) agrees to the projects.

To ensure equity, levies held in the NRS Special Account are accounted for on an industry-by-industry basis through Industry Equalisation Accounts (IEAs). IEAs are reviewed annually in consultation with industry, and NRS advises industry on the possible need for levy changes to ensure sufficient funds for future NRS-based activities. Variation in seasonal production levels can have a marked effect on NRS income from levies. Target funds in IEAs are between 20% and 80% of annual project costs. 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.

Levy rates are established in consultation with participating industries in accordance with the Australian Government's *Levies Principles and Guidelines: Policy for the Management of New and Amended Levies within Australia*.⁹

These general principles must be met before a new statutory levy, including an NRS levy on Departmental portfolio industries, can be introduced or an existing levy rate adjusted. The levy general principles ensure that there is comprehensive consultation with potential levy payers before a change is made to levy arrangements. For example, during 2006–2007, NRS worked with the Grains Council of Australia to arrange the introduction of a further 13 commodities (grains, pulses and oilseeds) into the grain random residue monitoring programme, and to implement the appropriate legislation for levy collection during the 2007–2008 financial year.

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 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 IEAs in the NRS Special Account.

Community service obligation funding

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 Codex Alimentarius Commission [Codex] of the joint Food and Agriculture Organisation of the United Nations/World Health Organisation [WHO]).

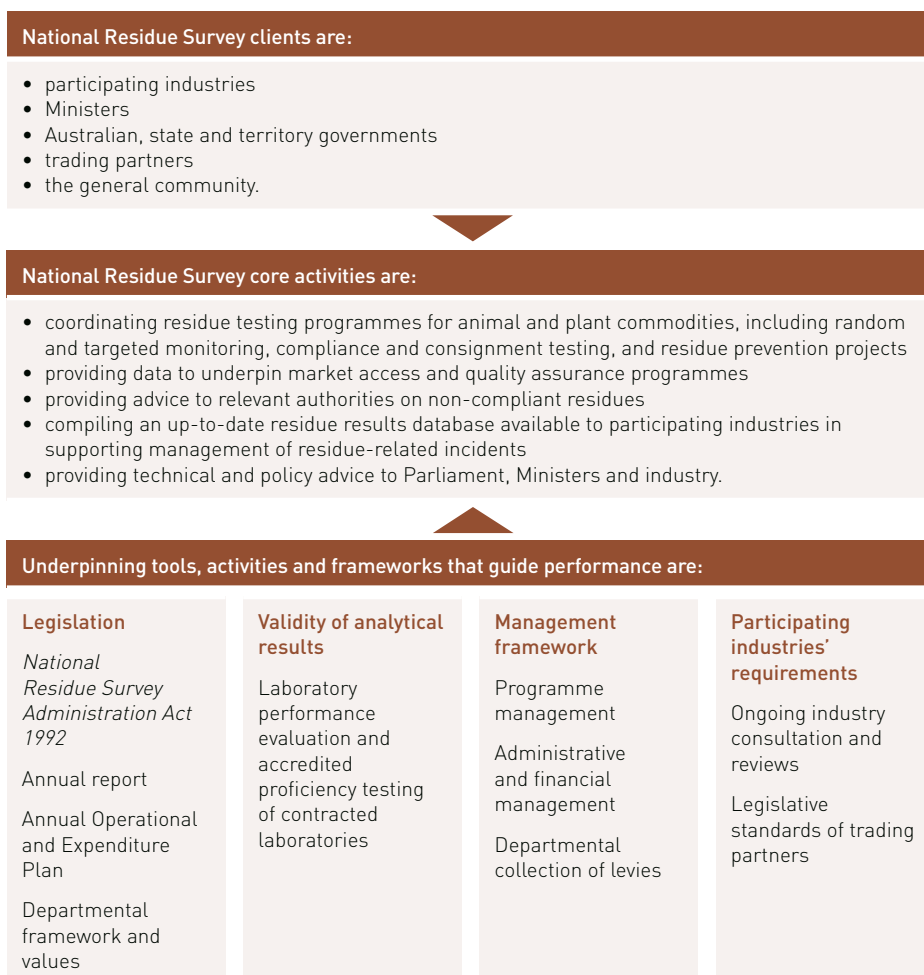
CSO funds enable NRS officers to develop synergies between industry-funded projects and activities being undertaken in Australian and international forums, for the mutual benefit of industry and government. They also fund the input of NRS expertise into Departmental and governmental projects. During 2006–2007, the CSO appropriation provided about 4.91% of NRS total revenue.

⁹ <http://www.daff.gov.au/agriculture-food/levies/about>

Purpose and functions

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

The chart below summarises the functions and activities of the National Residue Survey within the existing policy, legislative and administrative framework.



Governance model

The sampling and residue testing programmes designed and managed by NRS respond to the requirements of export and domestic markets for participating industries, according to the governance model below.



Performance

NRS-wide activities and performance measures are summarised in the following table.

Performance indicators (see below)	Activities	Performance measures
1, 2, 3	Residue testing programmes designed in consultation with industry to underpin market access and industry quality assurance programmes.	Acceptance by participating industries, AQIS and federal and state governments that NRS programmes meet industry's market access and quality assurance requirements within specified budgets.
1, 2, 3	Consultative project planning activities with participating industries and appropriate regulatory bodies; high quality reporting.	Effective communication with participating industries, appropriate regulatory bodies, trading partners and the Australian Government.
2, 3	Results of residue monitoring programmes (random, targeted, compliance and consignment testing) available to participating industries to support market access and industry quality assurance programmes.	Acceptance by participating industries, AQIS, trading partners and the Australian Government that results meet regulatory certification and standard setting requirements.
2, 3	Independent, authoritative and technically sound residue data reports and advice.	Acceptance of NRS reports and advice by relevant bodies.
4	Support for the management of trade-related residue or contaminant issues.	Acceptance of NRS technical advice by participating industries, AQIS, the Australian Government and trading partners.
4	Technical and policy advice, and administrative support to industry and government for residue-related matters such as setting of codes and regulations.	Provision of timely and high quality technical and policy advice to ministers, industry and government.
4, 5	Compiled data on residue and contaminant levels in commodities of participating industries.	Data compiled in a timely manner and made available to industry and governments as necessary, in accordance with relevant privacy regulations.
5, 6	High-quality plans and reports provided to the Australian Government, industry and stakeholders on residue issues.	Acceptance by industry and government of financial and operational management as given in relevant reports.
4, 5, 6	High-quality business administration, financial and day-to-day management of residue and contaminant testing programmes.	Provision of a high quality annual report and operational and expenditure plan to Parliament within the legislative timeframe. Provision of other appropriate reliable and well-produced plans and reports as required by each programme.

Details of the performance indicators referred to in the summary table on page 16, and specific NRS achievements during 2006–2007 follow.

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. changing food standards required from Australia's overseas trading partners)
- sample numbers
- sampling methods
- analytical developments such as new methods of analysis or availability of new multi-residue methods
- availability of funds.

Achievements

<i>Review of residue monitoring projects for 2006–2008</i>	NRS consulted each industry commodity's peak body or representative regarding the format, financial and operational requirements of residue monitoring projects. The results of these consultations were used to prepare proposed residue monitoring plans for 2006–2007, while taking into account the level of industry IEAs held in the NRS Special Account and their ability to pay for desired residue monitoring projects.
<i>Eighth Term laboratory contracts</i>	Information from the above review 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 Eighth Term contracts began on 1 July 2006 and run until 30 June 2008. 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.
<i>Residue monitoring plans</i>	NRS successfully implemented the residue monitoring plans, agreed in the <i>National Residue Survey Operational and Expenditure Plan 2006–2007</i> . NRS consulted each commodity's peak body or representatives regarding residue monitoring plans for 2007–2008, including numbers of samples to be collected and tested. The consultation included discussion of residue monitoring plans, the analyte list and the levels of industry IEAs held in the NRS Special Account.

PERFORMANCE INDICATOR TWO

Acceptance by the Australian, state and territory governments that results meet regulatory certification and standard setting.

Achievements

Use of NRS results in underpinning industry market certification and assurance

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
- SAFEMEAT¹⁰ 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 (ANZFS Code)
- 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.

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 2005–2006

NRS prepared plans and results reports concerning the monitoring of chemical residues in farmed animals, farmed game and wild game and submitted these to the relevant authorities in the European Union (EU) and the United States (US). Plans are cleared through SAFEMEAT. In addition to the submissions to the EU and US, copies of plans were also 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 2005–2006 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.

¹⁰ SAFEMEAT is a partnership between the Australian meat and livestock industry and the Australian, state and territory governments.

PERFORMANCE INDICATOR FOUR

Provision of timely and high-quality technical and policy advice to support Ministers, industry and government.

Achievements

<i>Technical and policy advice</i>	<p>NRS provided advice to the Minister and Parliamentary Secretary on:</p> <ul style="list-style-type: none"> • the business of government including: tabling of the <i>National Residue Survey Annual Report 2005–2006</i>; approval of <i>National Residue Survey Operational and Expenditure Plan 2007–2008</i>; composition and activities of the Panel, and adjustment of levy rates • expected changes in targeted testing practices on behalf of the Australian beef industry.
<i>Reports to Australian Government</i>	<p>NRS provided advice to various divisions within the Department on trade-related concerns for grain, horticultural, animal and animal-derived products. In particular, advice provided concerning changes in MRLs for Japan and canola exports to Japan.</p>
<i>Facilitation of access to international food standards</i>	<p>NRS provides access to international food standards for 40 overseas countries on its website.¹¹</p>
<i>Review and advice provided to the APVMA</i>	<p>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.</p>
<i>FSANZ food surveillance network</i>	<p>NRS regularly participates and provides input to the network.</p>
<i>Codex Alimentarius Commission committees and meetings</i>	<p>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 Committee on Methods of Sampling and Analysis (see page 164 for details).</p>
<i>Flame retardants</i>	<p>NRS provided input into the Department of the Environment and Water Resources interdepartmental working group on flame retardant residues.</p>

¹¹ <http://www.daff.gov.au/nrs>

PERFORMANCE INDICATOR FIVE

Management of the projects in accordance with the Department's corporate governance framework.

Achievements

<i>National Residue Survey Annual Report 2005–2006</i>	The <i>National Residue Survey Annual Report 2005–2006</i> was tabled in Parliament on 15 October 2006.
<i>National Residue Survey Operational and Expenditure Plan 2007–2008</i>	NRS consulted industry to define residue monitoring projects to fulfil market access requirements within the specified budgets. The <i>National Residue Survey Operational and Expenditure Plan 2007–2008</i> was submitted to the Parliamentary Secretary, who approved it on 4 July 2007. 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 13 additional grain, pulse and oilseed commodities in the plant products random residue monitoring programme.
<i>Preparation for Ninth Term analytical contracts</i>	The Eighth Term of analytical contracts commenced on 1 July 2006 and runs until 30 June 2008. Pre-tender testing for the Ninth Term (2008–2011) has started.
<i>Improvement in governance and business practices</i>	During 2006–2007, 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 the Department. NRS activities were re-structured as outlined on page 21.

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, changes have been implemented to improve accountability and transparency. This work is ongoing and subject to further enhancements through consultation with participating industries.
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Organisation

Advisory Panel

The NRS Advisory Panel (the 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 representing the livestock, grain, horticulture and fish industries that participate in NRS residue monitoring projects
- a scientific officer representing state and territory government authorities
- the NRS Director (ex-officio).

Staffing

Following re-structure in 2006–2007 (as explained below), staff are now allocated to one or more of the three main programmes or administrative and business support unit as shown in the National Residue Survey organisational chart on page 22.

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, veterinary science, agricultural science, agronomy, horticulture, biochemistry, law, economic forecasting, information technology, database and information management, contract management, business and finance.

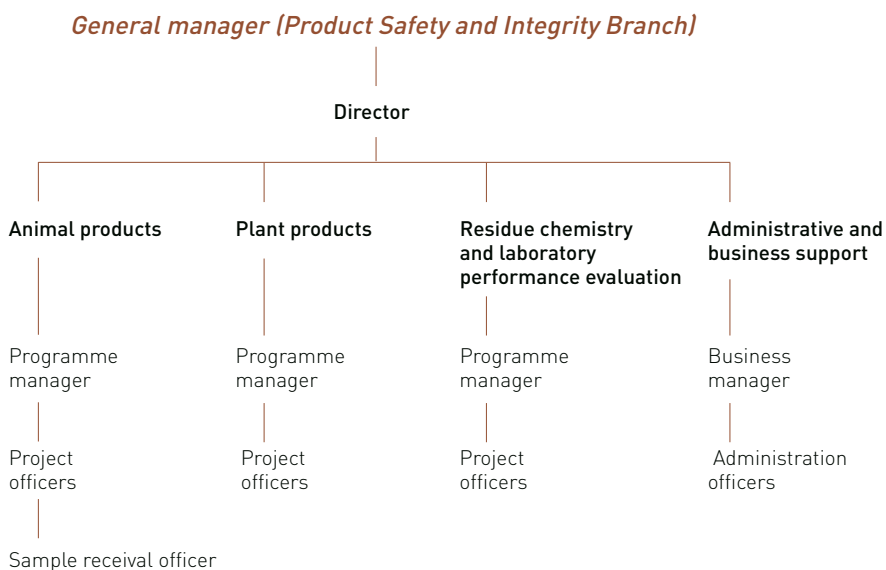
NRS is actively engaged in the professional development and performance management of staff. Through performance agreements, coupled with ongoing appraisal and development, NRS management seeks to ensure it has the committed and skilled staff it needs to achieve its objectives efficiently and effectively.

Structure

The National Residue Survey section is an operational unit of the Product Safety and Integrity Branch of the Product Integrity, Animal and Plant Health Division of the Department.

From 1 January 2007, NRS was re-structured into four units in order to reflect better the programmes managed by NRS, and to enhance accountability and efficiency. An administrative and business support unit was established to support the animal and plant products residue monitoring programmes. The functions of the operations unit were assigned to the meat, plant and administrative units as relevant. The residue chemistry and laboratory performance evaluation unit remained unchanged. The diagram on page 22 shows the new NRS structure.

National Residue Survey organisational chart



Client service charter

NRS staff provide professional, consultative, efficient and cost-effective services to clients. The NRS service charter outlines the specialist services provided to clients. The NRS charter is to be read in conjunction with the Departmental charter, which covers Department-wide service standards. The charter is available on the NRS website, or printed copies are available upon request by telephoning NRS.¹²

Outputs

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

- random residue monitoring projects, covering residues of agvet 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 identification of sources and minimisation of these particular residues or contaminants
- support for projects that underpin market access and industry quality assurance programmes.

¹² NRS phone number: +61 (0)2 6272 5790.

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.

Residue testing activities

Industry participation

Industries participate in NRS residue monitoring programmes to meet market access expectations, 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.

Data from the NRS residue monitoring projects are used by the Australian Quarantine and Inspection Service (AQIS) to certify 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-managed residue monitoring plan as a condition of market access.

For example, in the domestic meat market, participation in residue monitoring is a general requirement of the 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 programmes and other marketing initiatives, or to provide assurances to domestic consumers.

Project planning

NRS designs residue monitoring projects in consultation with industry and AQIS. This includes determining sampling rates, and selecting chemical–commodity combinations based on a range of factors, including assessed risk.

In addition, NRS:

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

Sampling, data storage and analytical arrangements

The NRS database is used for data storage, processing and retrieval; sample requests, data receipts, and payments to service providers.

For example, for random residue monitoring projects, a sample request that specifies the details of the samples to be collected is generated through the database. The request is then sent to sample collection points. Collected samples are then sent directly to specified laboratories or, to the NRS central receipt and dispatch facility for aggregation, repacking and forwarding to laboratories. The laboratories analyse the samples and report the analytical results to NRS electronically. The NRS validates all results before they are entered on the NRS database. Residue levels above ANZFSC limits are reported to the appropriate regulatory authorities so that prompt traceback action may be taken.

NRS does not itself undertake chemical analyses. Instead, laboratories are contracted by NRS for two- or three-year terms. Contracts for laboratory services are established by NRS through a competitive tender process in keeping with Australian Government guidelines. Commercial, international, and Australian and state/territory government laboratories hold contracts with NRS.

NRS conducts performance evaluation and proficiency testing of laboratories to determine their relative performance and their competence to undertake specific chemical analyses. Such proficiency testing underpins NRS activities and promotes a high level of confidence in test results.

Reporting

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

Each year NRS prepares an annual report for tabling in Parliament. This annual report gives details of the completed NRS projects outlined in the *National Residue Survey Operational and Expenditure Plan 2006–2007*, as well as the results of the random residue monitoring programmes.

An abridged version of the annual report, the NRS brochure, is prepared each year and distributed to industry and other clients. The brochure summarises the compliance ratings of participating industries. The brochure is also published on the NRS website, where further information is readily available.¹³

Residue testing programmes

NRS programmes involve random, targeted and compliance monitoring of animal and plant commodities, residue prevention, consignment testing and laboratory performance evaluation.

¹³ <http://www.daff.gov.au/nrs>

Random monitoring

Projects are designed to estimate the occurrence of a residue (or residues) in animal and plant products by randomised sampling processes. NRS random residue monitoring data facilitate and underpin the setting or review of Australian Standards, the certification of commodities for export (where this is required), and the compliance with requirements for domestic consumption. This underpinning helps participating industries to maintain long-term access to, and competitive advantage in, important export markets, and to conduct promotions in new and potential markets. Data from NRS results also serve as a yardstick against which industry-operated quality assurance schemes can be assessed. The results may also assist in the resolution of residue-related trade incidents.

Targeted monitoring

Projects within this programme are designed to obtain more focused information for industry concerning known or potential residue problems, using targeted (non-random) sampling processes.

Compliance testing

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

Residue prevention

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

Consignment testing

Projects within this programme are designed to meet the specific requirements of particular 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 provides laboratory performance evaluation and proficiency testing services. These services ensure the validity of the analytical results upon which the residue testing programmes depend. Also, two laboratory performance evaluation and proficiency testing projects within this programme are externally funded, supporting participating industries that also carry out residue analyses. Currently, NRS provides proficiency testing services to the Australian Milk Residue Analysis (AMRA) Survey on behalf of Dairy Food Safety Victoria, and to Australian Wool Innovation (AWI) Limited.

Outlook

NRS, in close cooperation with participating industries, state governments and AQIS, is reviewing its information management system (including the NRS database) to establish electronic sample form management and enhance data dissemination.