Australian Government



Department of Agriculture, Water and the Environment

National Residue Survey 2020–21 Goat



The National Residue Survey (NRS) operates within the Australian Government Department of Agriculture, Water and the Environment and since 1992 has been funded by industries through levies and direct contracts.

The NRS is an essential part of Australia's pesticide and veterinary medicine residue management framework providing verification of good agricultural practice in support of chemical control-of-use legislation and guidelines.

NRS programs monitor the levels of, and associated risks from, pesticides and veterinary medicine residues and contaminants in Australian food products. The programs help to facilitate and encourage

Key points

- In 2020–21, the overall compliance with Australian standards was 99.33 percent.
- Australian goat producers continue to demonstrate a high degree of good agricultural practice.
- The National Residue Survey's quality management system is ISO 9001:2015 certified.

ongoing access to domestic and export markets. NRS supports Australia's primary producers and food processors who provide quality animal, grain and horticulture products which meet both Australian and relevant international standards.

Goat program overview

The goat program has been operating for over a decade and is funded by the NRS component of the goat transaction levy. The program involves the testing of Australian goat tissue samples for a range of pesticides, veterinary medicines and environmental contaminants.

The program ensures goat exports satisfy Australian export certification and importing country requirements. In addition, the program supports industry quality assurance initiatives and enables domestic meat processing facilities to satisfy state and territory government regulatory authority licensing requirements.

Sample collection

The number of samples collected is based on Australian production levels and/or overseas export market requirements.

Samples are collected by authorised government officers at export abattoirs and by quality control officers at domestic establishments, from randomly selected carcases along the processing chain in accordance with NRS requirements.

Analytical screens

Analytical screens are developed in consultation with industry and take into account chemicals registered in Australia, chemical residue profiles and overseas market requirements.

Goat samples are screened for a range of pesticides, veterinary medicines and environmental contaminants, as shown in Table 1.

Results

In 2020–21, a total of 300 samples were collected for analysis. The results were compared with Australian standards and where relevant, international standards.

A summary of goat sample compliance with Australian standards over the past six years is provided in Table 2. The results highlight excellent compliance and demonstrate the strong commitment of the industry to good agricultural practice. The consistently high compliance rates help maintain the reputation and integrity of Australian goats in domestic and international markets.

The yearly summary datasets for the goat program are located on the department's website **agriculture.gov.au/ nrs-results-publications**.



Analytical screen	Chemical group	Analytes		
Veterinary medicines and pesticides	Anthelmintics	includes macrocyclic lactones and benzimidazoles		
	Antimicrobials	includes aminoglycosides, anticoccidials, beta lactams, quinolones, macrolides, sulfonamides and tetracyclines		
	Hormones	includes corticosteroids		
	Other medicines	includes beta-agonists and non-steroidal anti-inflammatory drugs		
	Pesticides	insecticides, fungicides and herbicides		
Environmental contaminants	Organochlorines	aldrin, chlordane, dieldrin, DDT, endrin, HCB, HCH, heptachlor, lindane, mirex, PCBs and pentachlorobenzene		
	Metals	antimony, arsenic, cadmium, lead and mercury		

TABLE 1 Analytical screens for the goat program

TABLE 2 Compliance rates for the past six years relative to Australian standards

Years	Samples collected	Compliance rates (%)
2015–16	155	98.7
2016–17	294	100.0
2017–18	277	98.92
2018–19	277	99.64
2019–20	273	97.80
2020–21	300	99.33



Laboratory selection and performance

The NRS contracts laboratories to analyse animal and plant product samples for pesticide/ veterinary medicine residues and environmental contaminants.

Laboratories are selected through the Australian Government tendering process on the basis of their proficiency and value for money. Laboratories must be accredited to international standard ISO/IEC 17025 at commencement of testing.

Contracted laboratories are proficiency tested by the NRS to ensure the validity of their analytical results and technical competence.

The NRS has been accredited by the National Association of Testing Authorities as a proficiency test provider since July 2005.



International export markets

The NRS maintains information on maximum residue limits (MRLs) that apply for Australia and major export markets for industries supported by the NRS. All analysis results are checked for compliance with Australian standards and relevant international MRLs.

For the Australian MRL standard see **legislation.gov.au/Series/** F2019L01105.

For MRL requirements for some international export markets see links at **agriculture.gov.au/nrs-databases**.





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General enquiries Phone 1800 420 919

Postal address National Residue Survey GPO Box 858, Canberra ACT 2601 Australia

agriculture.gov.au/nrs Email nrs@agriculture.gov.au