Australian Government

Department of Agriculture, Fisheries and Forestry

Sheep residue testing annual datasets 2021-22

National Residue Survey (NRS), Department of Agriculture, Fisheries and Forestry

Dataset abbreviations

LOR Limit of reporting.
MRL Maximum Residue Limit.
no limit No Australian standard applicable for the contaminant. The 'as low as reasonably achievable' principle applies. Detections at low levels are allowable.
not defined Standards are not defined in inedible matrixes (urine, retina and faeces).
not set No Australian standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Disclaimer

Table 1: ANTHELMINTICS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
abamectin	Fat	0.005	0.05	303	0	0	0
albendazole	Liver	0.001	3	374	3	0	0
clorsulon	Liver	0.08	not set	374	0	0	0
closantel	Liver	0.05	5	374	5	0	0
derquantel	Fat	0.001	0.0002	303	0	0	0
doramectin	Fat	0.005	0.1	303	0	0	0
emamectin	Fat	0.002	0.01	303	0	0	0
eprinomectin	Fat	0.005	not set	303	0	0	0
fenbendazole	Liver	0.001	0.5	374	24	0	0
fenbendazole sulfone	Liver	0.001	no limit	374	3	0	0
flubendazole	Liver	0.002	not set	374	0	0	0
ivermectin	Fat	0.005	0.02	303	0	0	0

levamisole	Liver	0.001	1	374	33	0	0
mebendazole	Liver	0.005	0.02	374	0	0	0
mebendazole, 5-hydroxy-	Liver	0.005	not set	374	0	0	0
milbemectin	Fat	0.01	0.002	303	0	0	0
monepantel sulphone	Fat	0.005	7	303	3	0	0
morantel	Liver	0.001	2	374	0	0	0
moxidectin	Fat	0.005	0.5	303	67	2	1
nitroxynil	Liver	0.012	1	374	0	0	0
oxfendazole (fenbendazole sulfoxide)	Liver	0.001	3	374	39	0	0
oxibendazole	Liver	0.001	not set	374	0	0	0
oxyclozanide	Liver	0.005	2	374	0	0	0
parbendazole	Liver	0.001	not set	374	0	0	0
praziquantel	Fat	0.005	0.05	303	0	0	0
rafoxanide	Liver	0.01	not set	374	0	0	0
thiabendazole	Liver	0.004	0.2	374	0	0	0
triclabendazole	Liver	0.05	2	302	0	0	0

Table 2: ANTIBIOTICS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
AHD	Retina	0.02	not defined	52	0	-	-
amoxicillin	Kidney	0.01	0.01	301	0	0	0
AMOZ	Retina	0.02	not defined	52	0	-	-
ampicillin	Kidney	0.005	not set	301	0	0	0
AOZ	Retina	0.02	not defined	52	0	-	-
apramycin	Kidney	0.05	2	301	0	0	0
avilamycin	Kidney	0.05	not set	301	0	0	0
benzyl G penicillin	Kidney	0.01	0.06	301	0	0	0
ceftiofur (desfuroylceftiofur)	Kidney	0.1	not set	301	0	0	0
cefuroxime	Kidney	0.05	not set	301	0	0	0
cephalonium	Kidney	0.005	not set	301	0	0	0
chloramphenicol	Muscle	0.0003	not set	302	0	0	0
chlortetracycline	Kidney	0.01	not set	301	0	0	0
ciprofloxacin	Kidney	0.005	not set	51	0	0	0
cloxacillin	Kidney	0.005	not set	301	0	0	0
danofloxacin	Kidney	0.005	not set	51	0	0	0
difloxacin	Kidney	0.005	not set	51	0	0	0
dihydrostreptomycin	Kidney	0.05	0.3	301	0	0	0
doxycycline	Kidney	0.01	not set	301	0	0	0
enrofloxacin	Kidney	0.005	not set	51	0	0	0

erythromycin	Kidney	0.05	0.3	301	0	0	0
florfenicol	Muscle	0.001	not set	302	0	0	0
flumequine	Kidney	0.005	not set	51	0	0	0
gatifloxacin	Kidney	0.005	not set	51	0	0	0
gentamycin	Kidney	0.05	not set	301	0	0	0
levofloxacin	Kidney	0.005	not set	51	0	0	0
lincomycin	Kidney	0.05	not set	301	0	0	0
lomefloxacin	Kidney	0.005	not set	51	0	0	0
marbofloxacin	Kidney	0.005	not set	51	0	0	0
moxifloxacin	Kidney	0.005	not set	51	0	0	0
nalidixic acid	Kidney	0.005	not set	51	0	0	0
neomycin	Kidney	0.05	10	301	0	0	0
norfloxacin	Kidney	0.005	not set	51	0	0	0
oleandomycin	Kidney	0.05	0.1	301	0	0	0
orbifloxacin	Kidney	0.005	not set	51	0	0	0
oxolinic acid	Kidney	0.005	not set	51	0	0	0
oxytetracycline	Kidney	0.01	0.6	301	0	0	0
sarafloxacin	Kidney	0.005	not set	51	0	0	0
SEM	Retina	0.02	not defined	52	0	-	-
streptomycin	Kidney	0.05	0.3	301	0	0	0
sulfachloropyridazine	Kidney	0.02	not set	301	0	0	0
sulfadiazine	Kidney	0.01	0.1	301	0	0	0
sulfadimethoxine	Kidney	0.02	not set	301	0	0	0
sulfadimidine (sulfamethazine)	Kidney	0.01	0.1	301	0	0	0
sulfadoxine	Kidney	0.02	0.1	301	0	0	0
sulfafurazole	Kidney	0.02	not set	301	0	0	0
sulfamerazine	Kidney	0.02	not set	301	0	0	0
sulfamethoxazole	Kidney	0.02	not set	301	0	0	0
sulfamethoxydiazine (sulfameter)	Kidney	0.02	not set	301	0	0	0
sulfamethoxypyridazine	Kidney	0.02	not set	301	0	0	0
sulfapyridine	Kidney	0.02	not set	301	0	0	0
sulfaquinoxaline	Kidney	0.02	not set	301	0	0	0
sulfathiazole	Kidney	0.02	not set	301	0	0	0
sulfatroxazole	Kidney	0.02	0.1	301	0	0	0
tetracycline	Kidney	0.01	not set	301	0	0	0
thiamphenicol	Muscle	0.001	not set	302	0	0	0
tilmicosin	Kidney	0.05	not set	301	0	0	0
trimethoprim	Kidney	0.01	0.05	301	0	0	0
tulathromycin	Kidney	0.1	not set	301	0	0	0
tylosin	Kidney	0.1	not set	301	0	0	0
virginiamycin	Kidney	0.005	0.2	301	0	0	0

*In some instances, tetracycline may be present as an impurity in a chlortetracycline or oxytetracycline product and is not considered to be a violative residue.

Table 3: ANTICOCCIDIALS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
amprolium	Liver	0.01	not set	302	0	0	0
decoquinate	Liver	0.002	not set	302	0	0	0
diclazuril	Liver	0.01	not set	302	0	0	0
halofuginone	Liver	0.01	not set	302	0	0	0
lasalocid	Liver	0.01	0.7	302	2	0	0
maduramicin	Liver	0.002	not set	302	0	0	0
monensin	Liver	0.01	0.2	302	0	0	0
narasin	Liver	0.01	not set	302	0	0	0
nicarbazin (4,4'-dinitrocarbanilide)	Liver	0.01	not set	302	0	0	0
salinomycin	Liver	0.002	not set	302	0	0	0
semduramycin	Liver	0.002	not set	302	0	0	0
toltrazuril	Liver	0.01	not set	302	0	0	0

Table 4: CONTAMINANTS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
aldrin and dieldrin (HHDN+HEOD)	Fat	0.02	0.2	303	0	0	0
arochlor 1254	Fat	0.03	0.2	303	0	0	0
arochlor 1260	Fat	0.03	0.2	303	0	0	0
chlordane	Fat	0.02	0.2	303	0	0	0
DDT	Fat	0.05	5	303	3	0	0
endosulfan	Fat	0.02	not set	303	0	0	0
endrin	Fat	0.01	not set	303	0	0	0
HCB	Fat	0.02	1	303	0	0	0
HCH	Fat	0.02	0.3	303	0	0	0
heptachlor	Fat	0.02	0.2	303	0	0	0
lindane (gamma-HCH)	Fat	0.01	2	303	0	0	0
mirex	Fat	0.02	not set	303	0	0	0
pentachlorobenzene	Fat	0.02	not set	303	0	0	0

Table 5: DIOXINS

Chemical	Matrix	LOR (pg/g)	EU MRL (pg/g))	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
Dioxin-like PCBs Upper Bound	Fat	1.0	1.5	10	0	0	0
Dioxins+Furans Upper Bound	Fat	1.0	2.5	10	0	0	0
Dioxins+Furans+Dioxin-likePCBs Upper Bound	Fat	1.0	4.0	10	0	0	0

*pg TEQ/g (fat) expressed on an upper bound basis.

Table 6: FUNGICIDES

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
amisulbrom	Fat	0.01	0.01	303	0	0	0
azoxystrobin	Fat	0.01	0.02	303	0	0	0
bixafen	Fat	0.01	0.2	303	0	0	0
boscalid	Fat	0.01	0.3	303	0	0	0
carbendazim	Fat	0.01	0.2	303	0	0	0
cyproconazole	Fat	0.02	0.03	303	0	0	0
difenoconazole	Fat	0.01	0.05	303	0	0	0
epoxiconazole	Fat	0.01	0.01	303	0	0	0
fenpyrazamine	Fat	0.01	0.01	303	0	0	0
fludioxonil	Fat	0.01	0.05	303	0	0	0
fluopicolide	Fat	0.01	0.01	303	0	0	0
fluopyram	Fat	0.01	0.1	303	0	0	0
fluquinconazole	Fat	0.01	0.5	303	0	0	0
flutriafol	Fat	0.02	0.05	303	0	0	0
fluxapyroxad	Fat	0.01	0.05	303	0	0	0
imazalil	Fat	0.01	not set	303	0	0	0
isopyrazam	Fat	0.01	0.005	303	0	0	0
mandestrobin	Fat	0.01	0.02	303	0	0	0
procymidone	Fat	0.02	0.2	303	0	0	0
propamocarb	Fat	0.01	0.01	303	0	0	0
propiconazole	Fat	0.02	0.1	303	0	0	0
prothioconazole	Fat	0.01	0.02	303	0	0	0
pydiflumetofen	Fat	0.01	0.02	303	0	0	0
pyraclostrobin	Fat	0.01	0.05	303	0	0	0
pyrimethanil	Fat	0.01	0.05	303	0	0	0
pyriofenone	Fat	0.01	0.01	303	0	0	0
quinoxyfen	Fat	0.01	0.1	303	0	0	0
quintozene	Fat	0.02	0.2	303	0	0	0
spiroxamine	Fat	0.01	0.05	303	0	0	0
tebuconazole	Fat	0.01	0.1	303	0	0	0

trifloxystrobin	Fat	0.01	0.05	303	0	0	0

Table 7: HERBICIDES

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
amicarbazone	Fat	0.01	0.01	303	0	0	0
cloquintocet-mexyl	Fat	0.01	0.1	303	0	0	0
ethofumesate	Fat	0.02	0.5	303	0	0	0
florpyrauxifen-benzyl	Fat	0.01	0.02	303	0	0	0
indaziflam	Fat	0.01	not set	303	0	0	0
metamitron	Fat	0.01	0.05	303	0	0	0
metazachlor	Fat	0.01	0.05	303	0	0	0
metolachlor	Fat	0.02	0.05	303	0	0	0
propachlor	Fat	0.02	0.02	303	0	0	0
pyrasulfotole	Fat	0.01	0.01	303	0	0	0
pyroxsulam	Fat	0.01	0.01	303	0	0	0
saflufenacil	Fat	0.01	0.01	303	0	0	0
topramezone	Fat	0.01	0.01	303	0	0	0

Table 8: HORMONES

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
6-hydroxystanozolol	Urine	0.001	not defined	302	0	-	-
betamethasone	Liver	0.001	not set	12	0	0	0
boldenone 17-alpha	Urine	0.001	not defined	302	13	-	-
boldenone 17-beta	Urine	0.001	not defined	302	0	-	-
dexamethasone	Liver	0.001	not set	12	0	0	0
dienoestrol	Liver	0.0002	not set	302	0	0	0
diethylstilboestrol	Liver	0.0002	not set	302	0	0	0
flumethasone	Liver	0.001	not set	12	0	0	0
hexoestrol	Liver	0.0002	not set	302	0	0	0
methandriol	Urine	0.005	not defined	302	0	-	-
methylprednisolone	Liver	0.001	not set	12	0	0	0
nortestosterone 17-alpha	Urine	0.001	not defined	302	0	-	-
nortestosterone 17-beta	Urine	0.001	not defined	302	0	-	-
stanozolol	Urine	0.001	not defined	302	0	-	-
trenbolone	Liver	0.0005	not set	302	0	0	0
triamcinolone	Liver	0.001	not set	12	0	0	0
triamcinolone acetonide	Liver	0.001	not set	12	0	0	0
zeranol (alpha-zearalanol)	Liver	0.002	not set	302	0	0	0

Table 9: INSECTICIDES

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
acetamiprid	Fat	0.01	0.01	303	0	0	0
afidopyropen	Fat	0.012	0.1	303	0	0	0
bifenthrin	Fat	0.02	2	303	1	0	0
bioresmethrin	Fat	0.02	not set	303	0	0	0
carbaryl	Fat	0.01	0.07	303	0	0	0
chlorantraniliprole	Fat	0.01	0.02	303	0	0	0
chlorfenapyr	Fat	0.02	0.05	303	0	0	0
chlorfenvinphos	Fat	0.02	0.2	303	0	0	0
chlorfluazuron	Fat	0.01	not set	303	0	0	0
chlorpyrifos	Fat	0.01	0.5	303	0	0	0
chlorpyrifos-methyl	Fat	0.01	0.05	303	0	0	0
clothianidin	Fat	0.01	0.02	303	0	0	0
coumaphos	Fat	0.02	not set	303	0	0	0
cyantraniliprole	Fat	0.01	0.01	303	0	0	0
cyclaniliprole	Fat	0.01	0.01	303	0	0	0
cyfluthrin	Fat	0.02	0.5	303	0	0	0
cyhalothrin	Fat	0.02	0.5	303	0	0	0
cypermethrin	Fat	0.02	0.5	303	4	0	0
cyromazine	Kidney	0.01	0.2	301	0	0	0
deltamethrin	Fat	0.02	0.2	303	0	0	0
diafenthiuron	Fat	0.01	0.02	303	0	0	0
diazinon	Fat	0.02	0.7	303	0	0	0
dichlorvos	Fat	0.02	0.01	303	0	0	0
dicofol	Fat	0.01	not set	303	0	0	0
dicyclanil	Kidney	0.01	0.3	301	0	0	0
diflubenzuron	Fat	0.01	0.05	303	0	0	0
dimethoate	Fat	0.02	0.05	303	0	0	0
dinotefuran	Fat	0.03	0.02	303	0	0	0
ethion	Fat	0.02	not set	303	0	0	0
famphur	Fat	0.02	not set	303	0	0	0
famphur oxygen-analogue	Fat	0.02	not set	303	0	0	0
fenitrothion	Fat	0.02	0.05	303	0	0	0
fenthion	Fat	0.02	not set	303	0	0	0
fenvalerate	Fat	0.02	1	303	0	0	0
fipronil	Fat	0.01	0.1	303	0	0	1
flonicamid	Fat	0.01	0.02	303	0	0	0
fluazuron	Fat	0.01	not set	303	0	0	0
flubendiamide	Fat	0.01	0.05	303	0	0	0
fluensulfone	Fat	0.01	0.01	303	0	0	0

flumethrin	Fat	0.02	not set	303	0	0	0
flupyradifurone	Fat	0.01	not set	303	0	0	0
imidacloprid	Fat	0.01	0.05	303	0	0	0
indoxacarb	Fat	0.02	3	303	0	0	0
malathion	Fat	0.01	1	303	0	0	0
melamine	Kidney	0.01	2.5	301	1	0	0
metaflumizone	Fat	0.01	not set	303	0	0	0
methidathion	Fat	0.02	not set	303	0	0	0
methoxychlor	Fat	0.02	not set	303	0	0	0
mevinphos	Fat	0.01	0.05	303	0	0	0
novaluron	Fat	0.01	0.1	303	0	0	0
omethoate	Fat	0.02	0.05	303	0	0	0
parathion-methyl	Fat	0.02	not set	303	0	0	0
permethrin	Fat	0.02	1	303	0	0	0
phosmet	Fat	0.02	0.05	303	0	0	0
pirimiphos-methyl	Fat	0.02	0.05	303	0	0	0
prothiofos	Fat	0.01	not set	303	0	0	0
pyraclofos	Fat	0.02	0.5	303	0	0	0
spinetoram	Fat	0.005	2	303	0	0	0
spinosad	Fat	0.005	2	303	25	0	0
spirotetramat	Fat	0.01	0.02	303	0	0	0
sulfoxaflor	Fat	0.01	0.2	303	0	0	0
tau-fluvalinate	Fat	0.01	not set	303	0	0	0
temephos	Fat	0.02	3	303	0	0	0
triflumuron	Fat	0.01	2	303	0	0	0

Table 10: METALS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
antimony	Liver	0.01	no limit	302	2	0	0
arsenic (total)	Liver	0.05	no limit	302	0	0	0
cadmium	Liver	0.01	1.25	302	259	17	8
lead	Liver	0.01	0.5	302	199	5	1
mercury (total)	Liver	0.01	no limit	302	15	0	0

Table 11: MYCOTOXINS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
taleranol (beta-zearalanol)	Liver	0.002	no limit	302	0	0	0
zearalanone	Liver	0.002	no limit	302	0	0	0
zearalenol alpha	Liver	0.002	no limit	302	2	0	0
zearalenol beta	Liver	0.002	no limit	302	3	0	0
zearalenone	Liver	0.002	no limit	302	0	0	0

Table 12: OTHER VETERINARY DRUGS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
cimaterol	Liver	0.0003	not set	302	0	0	0
clenbuterol	Liver	0.0003	not set	302	0	0	0
flunixin	Kidney	0.01	not set	301	0	0	0
ketoprofen	Kidney	0.01	not set	301	0	0	0
mabuterol	Liver	0.0003	not set	302	0	0	0
meloxicam	Kidney	0.005	0.01	301	0	0	0
oxyphenbutazone	Kidney	0.005	not set	301	0	0	0
phenylbutazone	Kidney	0.005	not set	301	0	0	0
ractopamine	Liver	0.0003	not set	302	0	0	0
salbutamol	Liver	0.001	not set	302	0	0	0
tolfenamic acid	Kidney	0.005	not set	301	0	0	0
zilpaterol	Liver	0.0003	not set	302	0	0	0