



Sheep residue testing annual datasets 2022-23

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

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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	305	0	0	0
albendazole	Liver	0.001	3	373	1	0	0
clorsulon	Liver	0.08	not set	373	0	0	0
closantel	Liver	0.05	5	373	12	0	0
derquantel	Fat	0.001	0.0002	305	0	0	0
doramectin	Fat	0.005	0.1	305	0	0	0
emamectin	Fat	0.002	0.01	305	0	0	0
eprinomectin	Fat	0.005	not set	305	0	0	0
fenbendazole	Liver	0.001	0.5	373	9	0	0
fenbendazole sulfone	Liver	0.001	0.5	373	0	0	0
flubendazole	Liver	0.001	not set	373	0	0	0
ivermectin	Fat	0.005	0.02	305	0	0	0
levamisole	Liver	0.001	1	373	41	0	0
mebendazole	Liver	0.005	0.02	373	0	0	0
mebendazole, 5-hydroxy-	Liver	0.005	not set	373	0	0	0
milbemectin	Fat	0.01	0.002	305	0	0	0
monepantel sulphone	Fat	0.005	7	305	1	0	0
morantel	Liver	0.001	2	373	0	0	0
moxidectin	Fat	0.005	0.5	305	48	0	0
nitroxylnil	Liver	0.012	1	373	0	0	0
oxfendazole (fenbendazole sulfoxide)	Liver	0.001	3	373	29	0	0
oxibendazole	Liver	0.001	not set	373	0	0	0
oxyclozanide	Liver	0.005	2	373	0	0	0
parbendazole	Liver	0.001	not set	373	0	0	0
praziquantel	Fat	0.005	0.05	305	0	0	0
rafoxanide	Liver	0.01	not set	373	0	0	0
thiabendazole	Liver	0.004	0.2	373	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	51	0	-	-
amoxicillin	Kidney	0.01	0.01	304	0	0	0
AMOZ	Retina	0.02	not defined	51	0	-	-
ampicillin	Kidney	0.005	not set	304	0	0	0
AOZ	Retina	0.02	not defined	51	0	-	-
apramycin	Kidney	0.05	2	304	0	0	0
avilamycin	Kidney	0.05	not set	304	0	0	0

benzyl G penicillin	Kidney	0.01	0.06	304	0	0	0
ceftiofur (desfuroylceftiofur)	Kidney	0.1	not set	304	0	0	0
cefuroxime	Kidney	0.05	not set	304	0	0	0
cephalonium	Kidney	0.005	not set	304	0	0	0
chloramphenicol	Muscle	0.0001	not set	302	0	0	0
chlortetracycline	Kidney	0.01	not set	304	0	0	0
ciprofloxacin	Kidney	0.005	not set	50	0	0	0
cloxacillin	Kidney	0.005	not set	304	0	0	0
danofloxacin	Kidney	0.005	not set	50	0	0	0
difloxacin	Kidney	0.005	not set	50	0	0	0
dihydrostreptomycin	Kidney	0.05	0.3	304	0	0	0
doxycycline	Kidney	0.01	not set	304	0	0	0
enrofloxacin	Kidney	0.005	not set	50	0	0	0
erythromycin	Kidney	0.05	0.3	304	0	0	0
florfenicol	Muscle	0.001	not set	302	0	0	0
flumequine	Kidney	0.005	not set	50	0	0	0
gatifloxacin	Kidney	0.005	not set	50	0	0	0
gentamycin	Kidney	0.05	not set	304	0	0	0
levofloxacin	Kidney	0.005	not set	50	0	0	0
lincomycin	Kidney	0.05	not set	304	0	0	0
lomefloxacin	Kidney	0.005	not set	50	0	0	0
marbofloxacin	Kidney	0.005	not set	50	0	0	0
moxifloxacin	Kidney	0.005	not set	50	0	0	0
nalidixic acid	Kidney	0.005	not set	50	0	0	0
neomycin	Kidney	0.05	10	304	0	0	0
norfloxacin	Kidney	0.005	not set	50	0	0	0
oleandomycin	Kidney	0.05	0.1	304	0	0	0
orbifloxacin	Kidney	0.005	not set	50	0	0	0
oxolinic acid	Kidney	0.005	not set	50	0	0	0
oxytetracycline	Kidney	0.01	0.6	304	0	0	0
sarafloxacin	Kidney	0.005	not set	50	0	0	0
SEM	Retina	0.02	not defined	51	0	-	-
streptomycin	Kidney	0.05	0.3	304	0	0	0
sulfachloropyridazine	Kidney	0.02	not set	304	0	0	0
sulfadiazine	Kidney	0.01	0.1	304	0	0	0
sulfadimethoxine	Kidney	0.02	not set	304	0	0	0
sulfadimidine (sulfamethazine)	Kidney	0.01	0.1	304	0	0	0
sulfadoxine	Kidney	0.02	0.1	304	0	0	0
sulfafurazole	Kidney	0.02	not set	304	0	0	0
sulfamerazine	Kidney	0.02	not set	304	0	0	0
sulfamethoxazole	Kidney	0.02	not set	304	0	0	0
sulfamethoxydiazine (sulfameter)	Kidney	0.02	not set	304	0	0	0
sulfamethoxypyridazine	Kidney	0.02	not set	304	0	0	0
sulfapyridine	Kidney	0.02	not set	304	0	0	0
sulfaquinoxaline	Kidney	0.02	not set	304	0	0	0
sulfathiazole	Kidney	0.02	not set	304	0	0	0
sulfatroxazole	Kidney	0.02	0.1	304	0	0	0
tetracycline	Kidney	0.01	not set	304	0	0	0
thiamphenicol	Muscle	0.001	not set	302	0	0	0
tilmicosin	Kidney	0.05	not set	304	0	0	0
trimethoprim	Kidney	0.01	0.05	304	0	0	0
tulathromycin	Kidney	0.05	0.3	304	0	0	0
tylosin	Kidney	0.1	not set	304	0	0	0
virginiamycin	Kidney	0.005	0.2	304	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	0	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	305	0	0	0
arochlor 1254	Fat	0.03	0.2	305	0	0	0
arochlor 1260	Fat	0.03	0.2	305	0	0	0
chlordane	Fat	0.02	0.2	305	0	0	0
DDT	Fat	0.05	5	305	0	0	0
endosulfan	Fat	0.02	not set	305	0	0	0
endrin	Fat	0.01	not set	305	0	0	0
HCB (hexachlorobenzene)	Fat	0.02	1	305	0	0	0
HCH (BHC)	Fat	0.02	0.3	305	0	0	0
heptachlor	Fat	0.02	0.2	305	0	0	0
lindane (gamma-HCH)	Fat	0.01	2	305	0	0	0
mirex	Fat	0.02	not set	305	0	0	0
pentachlorobenzene	Fat	0.02	not set	305	0	0	0

Table 5: DIOXINS

Chemical	Matrix	LOR (pg/g)	MRL (pg/g)	Number of samples tested	>LOR to ≤½MRL	>½MRL to ≤MRL	>MRL
Dioxin-like PCBs Upper Bound	Fat	0	no limit	10	10	0	0
Dioxins+Furans Upper Bound	Fat	0	no limit	10	10	0	0
Dioxins+Furans+Dioxin-likePCBs Upper Bound	Fat	0	no limit	10	10	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	305	0	0	0
azoxystrobin	Fat	0.01	0.02	305	0	0	0
benzovindiflupyr	Fat	0.01	0.01	305	0	0	0
bixafen	Fat	0.02	0.2	305	0	0	0
boscalid	Fat	0.01	0.3	305	0	0	0
carbendazim	Fat	0.01	0.2	305	0	0	0
cyproconazole	Fat	0.02	0.03	305	0	0	0
difenoconazole	Fat	0.01	0.05	305	0	0	0
epoxiconazole	Fat	0.01	0.01	305	0	0	0
fenhexamid	Fat	0.01	0.05	305	0	0	0
fenpyrazamine	Fat	0.01	0.01	305	0	0	0
fludioxonil	Fat	0.01	0.05	305	0	0	0
fluopicolide	Fat	0.01	0.01	305	0	0	0
fluopyram	Fat	0.01	0.1	305	0	0	0
fluquinconazole	Fat	0.01	0.5	305	0	0	0
flutriafol	Fat	0.02	0.05	305	0	0	0
fluxapyroxad	Fat	0.01	0.05	305	0	0	0
imazalil	Fat	0.01	not set	305	0	0	0
isofetamid	Fat	0.01	0.02	305	0	0	0
isopyrazam	Fat	0.01	0.005	305	0	0	0
mandestrobin	Fat	0.01	0.02	305	0	0	0
mefentrifluconazole	Fat	0.01	0.2	305	0	0	0
procymidone	Fat	0.02	0.2	305	0	0	0
propamocarb	Fat	0.01	0.01	305	0	0	0
propiconazole	Fat	0.02	0.1	305	0	0	0
proquinazid	Fat	0.01	0.01	305	0	0	0
prothioconazole	Fat	0.02	0.02	305	0	0	0
pydiflumetofen	Fat	0.01	0.02	305	0	0	0
pyraclostrobin	Fat	0.01	0.05	305	0	0	0
pyrimethanil	Fat	0.01	0.05	305	0	0	0
pyriofenone	Fat	0.01	0.01	305	0	0	0
quinoxifen	Fat	0.01	0.1	305	0	0	0
quintozene	Fat	0.02	0.2	305	0	0	0
spiroxamine	Fat	0.01	0.05	305	0	0	0
tebuconazole	Fat	0.01	0.1	305	0	0	0
trifloxystrobin	Fat	0.01	0.05	305	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	305	0	0	0
cinmethylin	Fat	0.01	0.01	305	0	0	0
cloquintocet-mexyl	Fat	0.01	0.1	305	0	0	0
ethofumesate	Fat	0.02	0.5	305	0	0	0
florpyrauxifen-benzyl	Fat	0.01	0.02	305	0	0	0
indaziflam	Fat	0.01	not set	305	0	0	0
metamitron	Fat	0.01	0.05	305	0	0	0

metazachlor	Fat	0.01	0.05	305	0	0	0
metolachlor	Fat	0.02	0.05	305	0	0	0
propachlor	Fat	0.02	0.02	305	0	0	0
pyrasulfotole	Fat	0.01	0.01	305	0	0	0
pyroxsulam	Fat	0.01	0.01	305	0	0	0
saflufenacil	Fat	0.01	0.01	305	0	0	0
topramezone	Fat	0.01	0.01	305	0	0	0
trifludimoxazin	Fat	0.01	0.01	305	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
16-hydroxystanozolol	Urine	0.001	not defined	302	0	-	-
betamethasone	Liver	0.001	not set	10	0	0	0
boldenone 17-alpha	Urine	0.001	not defined	302	4	-	-
boldenone 17-beta	Urine	0.001	not defined	302	0	-	-
dexamethasone	Liver	0.001	not set	10	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	10	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	10	0	0	0
nortestosterone 17-alpha	Urine	0.001	not defined	302	4	-	-
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	10	0	0	0
triamcinolone acetonide	Liver	0.001	not set	10	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
acequinocyl	Fat	0.01	0.02	305	0	0	0
acetamiprid	Fat	0.01	0.01	305	0	0	0
afidopyropen	Fat	0.012	0.1	305	0	0	0
bifenthrin	Fat	0.02	2	305	0	0	0
bioresmethrin	Fat	0.02	0.02	305	0	0	0
buprofezin	Fat	0.01	0.05	305	0	0	0
carbaryl	Fat	0.01	0.07	305	0	0	0
chlorantraniliprole	Fat	0.01	0.02	305	0	0	0
chlorfenapyr	Fat	0.02	0.05	305	0	0	0
chlorfenvinphos	Fat	0.005	0.2	305	0	0	0
chlorfluazuron	Fat	0.01	not set	305	0	0	0
chlorpyrifos	Fat	0.01	0.5	305	0	0	0
chlorpyrifos-methyl	Fat	0.01	0.05	305	0	0	0
clothianidin	Fat	0.01	0.02	305	0	0	0
coumaphos	Fat	0.02	not set	305	0	0	0
cyantraniliprole	Fat	0.01	0.01	305	0	0	0
cyclaniliprole	Fat	0.01	0.01	305	0	0	0
cyfluthrin	Fat	0.02	0.5	305	0	0	0
cyhalothrin	Fat	0.02	0.5	305	0	0	0
cypermethrin	Fat	0.02	0.5	305	0	0	0
cyromazine	Kidney	0.01	0.2	304	0	0	0
deltamethrin	Fat	0.02	0.2	305	0	0	0
diafenthiuron	Fat	0.01	0.02	305	0	0	0
diazinon	Fat	0.02	0.7	305	0	0	0
dichlorvos	Fat	0.02	0.01	305	0	0	0
dicofol	Fat	0.01	not set	305	0	0	0
dicyclanil	Kidney	0.01	0.3	304	0	0	0
diflubenzuron	Fat	0.01	0.05	305	0	0	0
dimethoate	Fat	0.02	0.05	305	0	0	0
dinotefuran	Fat	0.03	0.02	305	0	0	0
ethion	Fat	0.02	not set	305	0	0	0
etofenprox	Fat	0.01	0.01	305	0	0	0
famphur	Fat	0.02	not set	305	0	0	0
famphur oxygen-analogue	Fat	0.02	not set	305	0	0	0
fenitrothion	Fat	0.02	0.05	305	0	0	0
fenthion	Fat	0.02	not set	305	0	0	0
fenvalerate	Fat	0.02	1	305	0	0	0
fipronil	Fat	0.01	0.1	305	0	0	0
flonicamid	Fat	0.01	0.02	305	0	0	0
fluazuron	Fat	0.01	not set	305	0	0	0

flubendiamide	Fat	0.01	0.05	305	0	0	0
flusulfone	Fat	0.01	0.01	305	0	0	0
flumethrin	Fat	0.02	not set	305	0	0	0
flupyradifurone	Fat	0.01	0.1	305	0	0	0
fluralaner	Fat	0.01	0.35	305	0	0	0
imidacloprid	Fat	0.01	0.05	305	0	0	0
indoxacarb	Fat	0.02	3	305	0	0	0
malathion	Fat	0.01	1	305	0	0	0
melamine	Kidney	0.01	2.5	304	0	0	0
metaflumizone	Fat	0.01	not set	305	0	0	0
methidathion	Fat	0.02	not set	305	0	0	0
methoxychlor	Fat	0.02	not set	305	0	0	0
mevinphos	Fat	0.01	0.05	305	0	0	0
novaluron	Fat	0.01	0.1	305	0	0	0
omethoate	Fat	0.02	0.05	305	0	0	0
parathion-methyl	Fat	0.02	not set	305	0	0	0
permethrin	Fat	0.02	1	305	0	0	0
phosmet	Fat	0.02	0.05	305	0	0	0
pirimiphos-methyl	Fat	0.02	0.05	305	0	0	0
prothiofos	Fat	0.01	not set	305	0	0	0
pyraclofos	Fat	0.02	0.5	305	0	0	0
pyriproxyfen	Fat	0.01	0.02	305	0	0	0
spinetoram	Fat	0.005	2	305	0	0	0
spinosad	Fat	0.005	2	305	19	0	0
spirotetramat	Fat	0.01	0.02	305	0	0	0
sulfoxaflor	Fat	0.01	0.2	305	0	0	0
tau-fluvalinate	Fat	0.01	not set	305	0	0	0
temephos	Fat	0.02	3	305	0	0	0
triflumuron	Fat	0.01	2	305	0	0	0

Table 10: METALS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to \leq 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	278	2	1
lead	Liver	0.01	0.5	302	153	0	0
mercury (total)	Liver	0.01	no limit	302	21	0	0

Table 11: MYCOTOXINS

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to \leq 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	0	0	0
zearalenol beta	Liver	0.002	no limit	302	1	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 $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to \leq 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	304	0	0	0
ketoprofen	Kidney	0.01	not set	304	0	0	0
mabuterol	Liver	0.0003	not set	302	0	0	0
meloxicam	Kidney	0.005	0.01	304	0	0	0
oxyphenbutazone	Kidney	0.005	not set	304	0	0	0
phenylbutazone	Kidney	0.005	not set	304	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	304	0	0	0
zilpaterol	Liver	0.0003	not set	302	0	0	0

Table 13: SEDATIVES

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	Number of samples tested	>LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to \leq MRL	>MRL
2,6-dimethylaniline	Fat	0.02	not set	300	0	0	0
4-acetamidobenzoic acid	Fat	0.02	not set	300	0	0	0
4-aminobenzoic acid	Fat	0.02	not set	300	0	0	0
benzocaine	Fat	0.005	not set	300	0	0	0
bupivacaine	Fat	0.005	not set	300	0	0	0

bupivacaine-desbutyl	Fat	0.02	not set	300	0	0	0
fentanyl	Fat	0.005	not set	300	0	0	0
glycinexylidide	Fat	0.02	not set	300	0	0	0
lidocaine	Fat	0.005	not set	300	0	0	1
mepivacaine	Fat	0.005	not set	300	0	0	0
norlidocaine	Fat	0.02	not set	300	0	0	0
procaine	Fat	0.005	not set	300	0	0	0
xylazine	Fat	0.005	not set	300	0	0	0