



# Beef residue testing annual datasets 2017–18

National Residue Survey, Department of Agriculture and Water Resources

## 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)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
abamectin	fat	0.005	0.1	330	0	0	0
albendazole	liver	0.001	0.1	330	0	0	0
clorsulon	liver	0.08	0.1	330	0	0	0
closantel	liver	0.05	not set	330	0	0	0
derquantel	fat	0.005	not set	330	0	0	0
doramectin	fat	0.005	0.1	330	4	1	0
emamectin	fat	0.005	0.01	330	0	0	0
eprinomectin B1a	fat	0.005	0.5	330	0	0	0
fenbendazole	liver	0.001	0.1	330	19	0	0
fenbendazole sulfone	liver	0.001	not set	330	0	0	0
ivermectin H2B1a	fat	0.005	0.2	330	1	0	0
levamisole	liver	0.001	1	330	1	0	0

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Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
mebendazole	liver	0.005	0.02	330	0	0	0
mebendazole, 5-hydroxy-	liver	0.005	not set	330	0	0	0
milbemectin	fat	0.01	0.002	330	0	0	0
monepantel sulphone	fat	0.005	7	330	0	0	0
morantel	liver	0.001	2	330	0	0	0
moxidectin	fat	0.005	1	330	22	0	0
nitroxynil	liver	0.012	1	330	0	0	0
oxfendazole (fenbendazole sulfoxide)	liver	0.001	3	330	2	0	0
oxibendazole	liver	0.001	not set	330	0	0	0
praziquantel	fat	0.005	not set	330	0	0	0
thiabendazole-A	liver	0.006	0.2	330	0	0	0
triclabendazole	liver	0.05	2	330	1	0	0

**Table 2 Antibiotics**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
AHD	retina x 2	0.002	not defined	50	0	-	-
amoxicillin	kidney	0.01	0.01	970	0	0	0
AMOZ	retina x 2	0.002	not defined	50	0	-	-
ampicillin	kidney	0.01	not set	970	0	0	0
amprolium	liver	0.01	not set	330	0	0	0
AOZ	retina x 2	0.002	not defined	50	0	-	-
apramycin	kidney	0.5	2	970	0	0	0
avilamycin	kidney	0.1	not set	970	0	0	0
benzyl G penicillin	kidney	0.01	0.06	970	0	0	0
ceftiofur (desfuroylceftiofur)	kidney	0.2	2	970	0	0	0
cefuroxime	kidney	0.05	0.1	970	0	0	0
cephalonium	kidney	0.05	0.1	970	0	0	0
chloramphenicol	muscle	0.0003	not set	431	0	0	0
chlortetracycline	kidney	0.01	0.6	970	19	0	0
ciprofloxacin	kidney	0.005	not set	50	0	0	0
cloxacillin	kidney	0.05	not set	970	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	0.1	0.3	970	0	0	0
doxycycline	kidney	0.01	not set	970	0	0	0
enrofloxacin	kidney	0.005	not set	50	0	0	0

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Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
erythromycin	kidney	0.1	0.3	970	0	0	0
florfenicol	muscle	0.005	0.3	431	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	0.1	not set	970	0	0	0
halofuginone	liver	0.01	0.03	330	0	0	0
lasalocid	liver	0.01	0.7	330	3	0	0
levofloxacin	kidney	0.005	not set	50	0	0	0
lincomycin	kidney	0.1	0.2	970	0	0	0
lomefloxacin	kidney	0.005	not set	50	0	0	0
maduramicin	liver	0.002	not set	330	0	0	0
marbofloxacin	kidney	0.005	not set	50	0	0	0
monensin	liver	0.01	0.05	330	30	0	0
moxifloxacin	kidney	0.005	not set	50	0	0	0
nalidixic acid	kidney	0.005	not set	50	0	0	0
narasin	liver	0.01	0.05	330	0	0	0
neomycin	kidney	0.1	10	970	1	0	0
nicarbazin (4,4'-dinitrocarbanilide)	liver	0.01	not set	330	0	0	0
norfloxacin	kidney	0.005	not set	50	0	0	0
oleandomycin	kidney	0.2	0.1	970	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	970	8	0	0
salinomycin	liver	0.002	0.5	330	0	0	0
sarafloxacin	kidney	0.005	not set	50	0	0	0
SEM	retina x 2	0.002	not defined	50	0	-	-
semduramycin	liver	0.002	not set	330	0	0	0
streptomycin	kidney	0.1	0.3	970	0	0	0
sulfachloropyridazine	kidney	0.05	not set	970	0	0	0
sulfadiazine	kidney	0.05	0.1	970	0	0	0
sulfadimethoxine	kidney	0.05	not set	970	0	0	0
sulfadimidine (sulfamethazine)	kidney	0.05	0.1	970	0	0	0
sulfadoxine	kidney	0.05	0.1	970	0	0	0
sulfafurazole	kidney	0.05	not set	970	0	0	0
sulfamerazine	kidney	0.05	not set	970	0	0	0
sulfamethoxazole	kidney	0.05	not set	970	0	0	0
sulfamethoxydiazine (sulfameter)	kidney	0.05	not set	970	0	0	0
sulfamethoxypyridazine	kidney	0.05	not set	970	0	0	0

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
sulfapyridine	kidney	0.05	not set	970	0	0	0
sulfaquinoxaline	kidney	0.05	not set	970	0	0	0
sulfathiazole	kidney	0.05	not set	970	0	0	0
sulfatroxazole	kidney	0.05	0.1	970	0	0	0
tetracycline	kidney	0.01	not set	970	0	0	0
thiamphenicol	muscle	0.005	not set	431	0	0	0
tilmicosin	kidney	0.2	1	970	0	0	0
trimethoprim	kidney	0.05	not set	970	0	0	0
tulathromycin	kidney	0.3	1	970	0	1	0
tylosin	kidney	0.1	0.1	970	0	0	0
virginiamycin	kidney	0.2	0.2	970	0	0	0

**Table 3 Contaminants**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
aldrin and dieldrin (HHDN+HEOD)	fat	0.02	0.2	1115	0	0	0
arochlor 1254	fat	0.03	0.2	1115	0	0	0
arochlor 1260	fat	0.03	0.2	1115	0	0	0
chlordane	fat	0.02	0.2	1115	0	0	0
DDT	fat	0.05	5	1115	9	0	0
endosulfan	fat	0.02	not set	1115	0	0	0
endrin	fat	0.01	not set	1115	0	0	0
HCB (hexachlorobenzene)	fat	0.02	1	1115	0	0	0
HCH (BHC)	fat	0.02	0.3	1115	0	0	0
heptachlor	fat	0.02	0.2	1115	0	0	0
lindane (gamma-HCH)	fat	0.01	2	1115	0	0	0
mirex	fat	0.02	not set	1115	0	0	0
pentachlorobenzene	fat	0.02	not set	1115	0	0	0

**Table 4 Fungicides**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
bixafen	fat	0.02	not set	440	0	0	0
boscalid	fat	0.01	0.3	1115	0	0	0
carbendazim	fat	0.01	0.2	1115	0	0	0
cyproconazole	fat	0.02	0.03	1115	0	0	0
fluquinconazole	fat	0.01	0.5	1115	1	0	0
flutriafol	fat	0.02	0.5	1115	0	0	0

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
fluxapyroxad	fat	0.01	0.05	1115	0	0	0
procymidone	fat	0.02	0.2	1115	0	0	0
propiconazole	fat	0.02	0.1	1115	0	0	0
prothioconazole	fat	0.02	0.02	1115	0	0	0
quintozene	fat	0.02	not set	1115	0	0	0

**Table 5 Herbicides**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
ethofumesate	fat	0.02	0.5	1115	0	0	0
metazachlor	fat	0.01	not set	440	0	0	0
metolachlor	fat	0.02	0.05	1115	0	0	0
propachlor	fat	0.02	0.02	1115	0	0	0
pyrasulfotole	fat	0.01	0.01	1115	0	0	0

**Table 6 Hormones**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq \frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
16-hydroxystanozolol	urine	0.001	not defined	430	0	-	-
betamethasone	liver	0.001	not set	30	0	0	0
boldenone 17-alpha	urine	0.001	not defined	430	0	-	-
boldenone 17-beta	urine	0.001	not defined	430	0	-	-
dexamethasone	liver	0.001	0.1	30	0	0	0
dienoestrol	liver	0.0002	not set	430	0	0	0
diethylstilboestrol	liver	0.0002	not set	430	0	0	0
flumethasone	liver	0.001	not set	30	0	0	0
hexoestrol	liver	0.0002	not set	430	0	0	0
methandriol	urine	0.005	not defined	430	0	-	-
methylprednisolone	liver	0.001	not set	30	0	0	0
nortestosterone 17-alpha	urine	0.001	not defined	430	2	-	-
nortestosterone 17-beta	urine	0.001	not defined	430	0	-	-
stanozolol	urine	0.001	not defined	430	0	-	-
trenbolone	liver	0.0005	0.01	430	7	0	0
triamcinolone	liver	0.001	not set	30	0	0	0
triamcinolone acetonide	liver	0.001	not set	30	0	0	0
zeranol (alpha-zearalanol)	liver	0.002	0.02	430	0	0	1

**Table 7 Insecticides**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
bifenthrin	fat	0.02	2	1115	1	0	0
bioresmethrin	fat	0.02	not set	1115	0	0	0
carbaryl	fat	0.01	0.07	1115	0	0	0
chlorantraniliprole	fat	0.01	0.02	1115	0	0	0
chlorfenapyr	fat	0.02	0.05	1115	0	0	0
chlorfenvinphos (sum of isomers)	fat	0.02	0.2	1115	0	0	1
chlorfluazuron	fat	0.01	not set	330	0	0	0
chlorpyrifos	fat	0.02	0.5	1115	0	0	0
chlorpyrifos-methyl	fat	0.02	0.05	1115	0	0	0
coumaphos	fat	0.02	0.02	1115	0	0	0
cyfluthrin (sum of isomers)	fat	0.02	0.5	1115	0	0	0
cyhalothrin (sum of isomers)	fat	0.02	0.5	1115	0	0	0
cypermethrin (sum of isomers)	fat	0.02	0.5	1115	2	0	0
cyromazine	kidney	0.01	0.05	330	0	0	0
deltamethrin	fat	0.02	0.5	1115	5	0	0
diafenthiuron	fat	0.01	not set	1115	0	0	0
diazinon	fat	0.02	0.7	1115	3	0	0
dichlorvos	fat	0.02	0.01	1115	0	0	0
dicofol	fat	0.01	not set	1115	0	0	0
dicyclanil	kidney	0.01	not set	330	0	0	0
diflubenzuron	fat	0.01	0.02	330	0	0	0
dimethoate	fat	0.02	0.05	1115	0	0	0
dinotefuran	fat	0.03	not set	440	0	0	0
esfenvalerate	fat	0.02	1	1115	0	0	0
ethion	fat	0.02	2.5	1115	0	0	0
famphur	fat	0.02	not set	1115	0	0	0
famphur oxygen-analogue	fat	0.02	not set	1115	0	0	0
fenitrothion	fat	0.02	0.05	1115	0	0	0
fenthion	fat	0.02	not set	1115	0	0	0
fenvalerate (sum of isomers)	fat	0.02	1	1115	0	0	0
fipronil	fat	0.02	0.1	1115	1	0	1
fluazuron	fat	0.01	7	330	12	0	0
flubendiamide	fat	0.01	0.05	1115	1	0	0
flumethrin	fat	0.02	0.2	1115	0	0	0

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Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
imidacloprid	fat	0.01	0.05	1115	0	0	0
indoxacarb	fat	0.02	1	1115	0	0	0
malathion (maldison)	fat	0.01	1	1115	0	0	0
melamine	kidney	0.01	not set	330	0	0	0
methidathion	fat	0.02	0.5	1115	0	0	0
methoxychlor	fat	0.02	not set	1115	0	0	0
mevinphos	fat	0.01	not set	1115	0	0	0
novaluron	fat	0.01	not set	7	0	0	0
omethoate	fat	0.02	not set	1115	0	0	0
parathion-methyl	fat	0.02	not set	1115	0	0	0
permethrin (sum of isomers)	fat	0.02	1	1115	6	0	0
phosmet	fat	0.02	1	1115	0	0	0
pirimiphos-methyl	fat	0.02	0.05	1115	0	0	0
prothiofos	fat	0.01	not set	1115	0	0	0
pyraclofos	fat	0.02	not set	1115	0	0	0
spinetoram	fat	0.005	2	330	0	0	0
spinosad	fat	0.005	2	330	57	0	0
spirotetramat	fat	0.02	0.02	1115	0	0	0
sulfoxaflor	fat	0.01	0.2	1115	0	0	0
tau-fluvalinate	fat	0.01	not set	1115	0	0	0
temephos	fat	0.02	5	1115	0	0	0
triflumuron	fat	0.01	0.05	330	0	0	0

**Table 8 Metals**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
antimony	liver	0.01	no limit	450	0	0	0
arsenic (total)	liver	0.05	no limit	450	3	0	0
cadmium	liver	0.01	1.25	450	352	2	2
lead	liver	0.01	0.5	450	176	1	0
mercury (total)	liver	0.01	no limit	450	7	0	0

**Table 9 Mycotoxins**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to ≤ ½ MRL	> ½ MRL to ≤ MRL	> MRL
talercanol (beta-zearalanol)	liver	0.002	no limit	430	1	0	0
zearalanone	liver	0.002	no limit	430	1	0	0
zearalenol alpha	liver	0.002	no limit	430	8	0	0

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq$ $\frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
zearalenol beta	liver	0.002	no limit	430	21	0	0
zearalenone	liver	0.002	no limit	430	5	0	0

**Table 10 Other veterinary drugs**

Chemical	Matrix	LOR (mg/kg)	MRL (mg/kg)	No. of samples tested	> LOR to $\leq$ $\frac{1}{2}$ MRL	> $\frac{1}{2}$ MRL to $\leq$ MRL	> MRL
cimaterol	liver	0.0003	not set	430	0	0	0
clenbuterol	liver	0.0003	not set	430	0	0	0
flunixin	kidney	0.01	0.02	330	0	0	0
ketoprofen	kidney	0.01	0.05	330	0	0	0
mabuterol	liver	0.0003	not set	430	0	0	0
meloxicam	kidney	0.01	0.2	330	0	0	0
oxyphenbutazone	kidney	0.01	not set	330	0	0	0
phenylbutazone	kidney	0.01	not set	330	0	0	0
ractopamine	liver	0.0003	not set	430	0	0	0
salbutamol	liver	0.001	not set	430	0	0	0
tolfenamic acid	kidney	0.005	0.01	330	0	0	0
zilpaterol	liver	0.0003	not set	430	0	0	0