



Residues of Veterinary Medicines in Food

2013 Surveillance Results



**ASSURING THE SAFETY, QUALITY AND EFFICACY
OF VETERINARY MEDICINES**

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Introduction

This document brings together the results of surveillance for residues of veterinary medicines in food undertaken in the UK in 2013.

All European Member States have a responsibility to monitor the use of veterinary medicines in their food-producing animals, to ensure that produce from these animals does not contain residues that could be harmful to consumers.

In the England, Scotland and Wales there is a Statutory Surveillance Programme delivered by the Veterinary Medicines Directorate (VMD), an agency of the Department for the Environment, Food and Rural Affairs (Defra). A similar programme is operated in Northern Ireland by the Agri-Food & Biosciences Institute.

The VMD also operates a small-scale non-statutory (not enforced by law) surveillance programme looking for residues of veterinary medicines and prohibited substances in imported foods.

Both these programmes are overseen by an independent Scientific Advisory Committee, the Veterinary Residues Committee (VRC) which advises Defra and the Food Standards Agency (FSA). For more information on the work of the VRC and the residues surveillance programmes please visit the VRC's website: www.vmd.defra.gov/vrc

The Statutory Surveillance Programme – UK Produce

Legislation

[Council Directive 96/23/EC](#) on measures to monitor certain substances and residues thereof in live animals and animal products establishes that Member States should draft a national residue monitoring plan for the groups of substances detailed in Annex I (set out below). These plans must comply with the sampling rules in Annex IV to the Directive.

Directive 96/23/EC establishes the frequencies and level of sampling and the groups of substances to be controlled for each food commodity. [Commission Decision 97/747/EC](#) provides further rules for certain animal products: milk, eggs, honey, rabbits and game meat. [Commission Decision 98/179/EC](#) of 23 February 1998 lays down detailed rules for official sampling procedures and official treatment of samples until they reach the laboratory responsible for analysis.

The [Commission Decision 2005/34/EC](#) of 11 January 2005 sets harmonized standards for the testing of certain residues in products of animal origin imported from third countries by using MRPLs (Minimum required performance limits) as action limits.

[Commission Decision 2002/657](#) lays down rules for the analytical methods to be used in the testing of official samples taken pursuant to article 15(1), second sentence, of Directive 96/23/EC and specifies common criteria for the interpretation of analytical results of official control laboratories for such samples.

Substance groups included in the statutory surveillance programme

The following substances are listed in Annex I to Directive 1996/23/EC and these form the basis of the statutory surveillance programme:

GROUP A - Substances having anabolic effect and unauthorized substances

- (1) Stilbenes, stilbene derivatives, and their salts and esters
- (2) Antithyroid agents
- (3) Steroids
- (4) Resorcylic acid lactones including zeranol
- (5) Beta-agonists
- (6) Compounds included in Table 2 (prohibited substances) of Regulation 470/2009

GROUP B - Veterinary drugs¹ and contaminants

- (1) Antibacterial substances, including sulphonamides, quinolones
- (2) Other veterinary drugs
 - (a) Anthelmintics
 - (b) Anticoccidials, including nitroimidazoles
 - (c) Carbamates and pyrethroids
 - (d) Sedatives
 - (e) Non-steroidal anti-inflammatory drugs (NSAIDs)
 - (f) Other pharmacologically active substances
- (3) Other substances and environmental contaminants
 - (a) Organochlorine compounds including PCBs

- (b) Organophosphorus compounds
- (d) Chemical elements
- (d) Mycotoxins
- (e) Dyes
- (f) Others

¹ Including unlicensed substances which could be used for veterinary purposes.

Section A: Non-compliances - Details of residues found at or above the Reference Point in 2013

Sample	Analysed for	No. of analyses	Reference Point µg/kg/l	Concentrations above the Reference Point (more than one substance may be found in one sample)	
				No. Found	Concentration found µg/kg/l
Calves Kidney	Antimicrobials (Screen 1)	87	100 600 100 3000	5	210 (gamithromycin) 30000, 56000 (doxycycline) 180 (sulfadiazine) 4400 (tulathromycin)
Calves Kidney	Antimicrobials (Screen 4)	89	1000	1	3200 (dihydrostreptomycin)
Calves Liver	Coccidiostats	20	30	1	110 (halofuginone)
Cattle Kidney	Metals	107	1000 500	10	1010, 1100, 1100, 1200, 1274, 1600, 2000, 2900 (cadmium) 550, 1100 (lead) } In 9 samples
Cattle Liver	Anthelmintics	500	1000	1	2180 (closantel)
Cattle Liver	NSAIDs	98	Presence	2	9.1 (phenylbutazone), 1.3 (Oxyphenbutazone) } one sample
Cattle Serum	Testosterone	599	Presence	2	0.35, 0.52 (beta-testosterone)
Cattle Urine	Chloramphenicol	846	0.3 µg/l	1	0.51 (chloramphenicol)
Cattle Urine	Steroids	3091	Male 0.5/Female 5 1	22	0.57, 0.93, 1, 2, 5, 5.8, 7.3, 11, 12, 16, 16, 21, 26, 70 (alpha-nortestosterone) 2.2, 2.3, 2.3, 2.6, 2.8, 2.9, 3, 3.1 (alpha-boldenone) } In 22 samples
Cattle Urine	Thyrostats	404	10	13	7.4, 10, 10, 11, 13, 16, 16, 17, 25, 25, 26, 29, 47 (thiouracil)
Cattle Urine	Zeranol	377	Presence	14	0.96, 1, 2.6 (taleranol) 1.78, 2.32, 2.74, 3, 3.4, 3.7, 4.1, 4.8, 15.6, 19.3, 23.8 (taleranol & zeranol)
Pigs Kidney	Antimicrobials (Screen 1)	700	600	1	1700 (chlortetracycline)
Pigs Kidney	NSAIDs	37	Presence	1	6.9 (ibuprofen)
Pigs Liver	Anthelmintics	340	1000	1	33 (albendazole)
Pigs Urine	Thyrostats	97	Presence	1	16 (thiouracil)
Sheep Kidney	NSAIDs	50	Presence	1	13 (ibuprofen)
Sheep Kidney	Metals	53	1000 500	3	1300, 1700 (cadmium) 1200 (lead)
Sheep Liver	Anthelmintics	1214	500	1	640 (fenbendazole)
Sheep Urine	Steroids (Screen 1)	631	Presence	15	2, 2.3, 2.4, 2.5, 2.6, 3, 3.1, 3.1, 3.2, 3.8, 4.4, 5.1, 6.1, 6.4 (alpha-boldenone) 0.94 (beta-nortestosterone)
Sheep Urine	Thyrostats	76	10	1	14 (thiouracil)
Horse Kidney	Metals	1	1000	1	8400 (cadmium)
Horse Urine	Steroids	4	Presence	3	12, 23 (alpha-nortestosterone) 45 (beta-nortestosterone) } In 2 samples
Poultry Liver	Coccidiostats	794	100 Presence	2	270 (lasalocid) 57 (salinomycin) } One sample
Poultry Muscle	Antimicrobials (Screen 1)	1876	100 50	4	110, 130, 240 (chlortetracycline) 290 (amoxicillin)
Trout Muscle	Dyes	70	Presence	1	7.1 (leucomalachite green)
Egg	Antimicrobials (Screen 3)	234	200 Presence	3	240, 270 (oxytetracycline) 135 (sulphadiazine)
Egg	Coccidiostats	575	150	5	190, 220, 230, 880, 1100 (lasalocid)

Sample	Analysed for	No. of analyses	Reference Point µg/kg/l	Concentrations above the Reference Point (more than one substance may be found in one sample)	
				No. Found	Concentration found µg/kg/l
Quail Muscle	Coccidiostats	5	5	1	46 (lasalocid)
Cattle Milk	Anthelmintics	405	20 10 Presence	3	51 (nitroxylnil) 37 (triclabendazole) 1 (flubendazole)
Cattle Milk	Antimicrobials (Screen 1)	368	Presence 4	3	5.4, 17 (penicillin G) 4.9 (amoxicillin)
Cattle Milk	Avermectins	351	Presence	1	2.9 (ivermectin)

Section B: Full details of statutory residues surveillance programme for 2013 by sector

EGGS

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
A6 Annex IV					
Chloramphenicol	Barn	Eggs	9		
	Caged	Eggs	17		
	Free Range	Eggs	117		
	Organic	Eggs	9		
Nitrofurans	Barn	Eggs	12		
	Caged	Eggs	14		
	Free Range	Eggs	115		
	Organic	Eggs	9		
Nitroimidazoles	Barn	Eggs	10		
	Caged	Eggs	8		
	Free Range	Eggs	123		
	Organic	Eggs	10		
B1 Antimicrobial					
AMS1	Barn	Eggs	7		
	Caged	Eggs	14		
	Free Range	Eggs	98		
	Organic	Eggs	7		
AMS2	Barn	Eggs	7		
	Caged	Eggs	9		
	Free Range	Eggs	120		
	Organic	Eggs	6		
AMS3	Barn	Eggs	17		
	Caged	Eggs	16		
	Free Range	Eggs	186	3	135, 240, 270
	Organic	Eggs	15		
Tiamulin	Free Range	Eggs	10		
B2B Coccidiostats					
Coccidiostats	Barn	Eggs	39	1	220
	Caged	Eggs	49		
	Free Range	Eggs	450	3	190, 880, 1100
	Organic	Eggs	37	1	230
B3A Pesticide Screen					
	Barn	Eggs	6		
	Caged	Eggs	7		
	Free Range	Eggs	47		
	Organic	Eggs	3		

FISH

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
A3 Hormones					
Methyltestosterone	Trout	Muscle & Skin	10		
A6 Annex IV					
Chloramphenicol	Salmon	Muscle & Skin	192		
	Trout	Muscle & Skin	16		
Nitrofurans	Bass	Muscle & Skin	1		
	Salmon	Muscle & Skin	97		
	Trout	Muscle & Skin	12		
Nitroimidazoles	Bass	Muscle & Skin	2		

	Salmon	Muscle & Skin	170		
	Trout	Muscle & Skin	12		
B1 Antimicrobial					
AMS1	Salmon	Muscle & Skin	88		
	Trout	Muscle & Skin	4		
AMS2	Salmon	Muscle & Skin	10		
AMS3	Salmon	Muscle & Skin	204		
	Trout	Muscle & Skin	4		
Florfenicol	Salmon	Muscle & Skin	92		
B2A Anthelmintics					
Anthelmintics	Salmon	Muscle & Skin	100		
	Trout	Muscle & Skin	8		
Avermectins	Salmon	Muscle & Skin	90		
	Trout	Muscle & Skin	8		
B2C Pesticide Screen					
Pyrethroids	Salmon	Muscle & Skin	120		
B3A Pesticide Screen					
	Salmon	Muscle & Skin	10		
	Trout	Muscle & Skin	4		
B3B Pesticide Screen					
OPs	Salmon	Muscle & Skin	37		
B3C Heavy Metals					
Metals	Salmon	Muscle & Skin	22		
	Trout	Muscle & Skin	4		
B3D Mycotoxins					
Mycotoxins	Salmon	Muscle & Skin	8		
	Trout	Muscle & Skin	5		
B3E Dyes					
Dyes	Bass	Muscle & Skin	1		
	Salmon	Muscle & Skin	137		
	Tilapia	Muscle & Skin	1		
	Trout	Muscle & Skin	70	1	7.1

HONEY

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
A6 Annex IV					
Chloramphenicol	Bees	Honey	10		
Nitrofurans	Bees	Honey	10		
B1 Antimicrobial					
AMS1	Bees	Honey	20		
AMS3	Bees	Honey	20		
AMS4	Bees	Honey	20		
AMS5	Bees	Honey	20		
B2C Pesticide Screen					
Pyrethroids	Bees	Honey	12		
B3A Pesticide Screen					
	Bees	Honey	11		
B3B Pesticide Screen					
OPs	Bees	Honey	20		
B3C Heavy Metals					
Metals	Bees	Honey	11		

MILK

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
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A6 Annex IV

Chloramphenicol	Cattle	Milk	642
	Sheep	Milk	15

B1 Antimicrobial

AMS1	Cattle	Milk	371	3	4.9, 5.4, 17
	Sheep	Milk	6		
AMS2	Cattle	Milk	287		
	Sheep	Milk	7		
AMS3	Cattle	Milk	287		
	Sheep	Milk	5		
AMS4	Cattle	Milk	262		
	Sheep	Milk	3		
Cefquinome	Cattle	Milk	220		
	Sheep	Milk	7		
Ceftiofur	Cattle	Milk	183		
	Sheep	Milk	8		

B2A Anthelmintics

Anthelmintics	Cattle	Milk	405	3	1, 37, 51
	Sheep	Milk	4		
Avermectins	Cattle	Milk	351	1	2.9
	Sheep	Milk	8		

B2E NSAIDs

Cattle	Milk	189
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B3A Pesticide Screen

Cattle	Milk	48
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B3B Pesticide Screen

OPs	Cattle	Milk	34
	Sheep	Milk	1

B3C Heavy Metals

Metals	Cattle	Milk	30
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B3D Mycotoxins

Mycotoxins	Cattle	Milk	27
	Sheep	Milk	2

POULTRY

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL ($\mu\text{g}/\text{kg}$)
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A3 Hormones

Steroid screen 2	Broilers	Liver	559		
	Ducks	Liver	16		
	Hens	Liver	29		
	Turkeys	Liver	60		

A5 Beta-Agonists

	Broilers	Feed	154
	Broilers	Liver	333
	Ducks	Feed	6
	Ducks	Liver	14
	Hens	Feed	10
	Hens	Liver	23
	Turkeys	Feed	23
	Turkeys	Liver	50

A6 Annex IV

Chloramphenicol	Broilers	Muscle	493
	Ducks	Muscle	12
	Hens	Muscle	20

Nitrofurans	Turkeys	Muscle	48		
	Broilers	Feed	258		
	Broilers	Muscle	487		
	Ducks	Feed	5		
	Ducks	Muscle	12		
	Hens	Feed	10		
	Hens	Muscle	19		
	Turkeys	Feed	26		
	Turkeys	Muscle	50		
Nitroimidazoles	Broilers	Feed	261		
	Broilers	Serum / Liver	848		
	Ducks	Feed	6		
	Ducks	Serum	21		
	Hens	Feed	11		
	Hens	Serum	32		
	Turkeys	Feed	23		
	Turkeys	Serum / Liver	85		
	B1 Antimicrobial				
AMS1	Broilers	Muscle	1588	3	110, 240, 290
	Ducks	Muscle	37		
	Geese	Muscle	4		
	Hens	Muscle	74		
	Turkeys	Muscle	173	1	130
AMS2	Broilers	Muscle	666		
	Ducks	Muscle	9		
	Geese	Muscle	1		
	Hens	Muscle	22		
	Turkeys	Muscle	50		
Tiamulin	Broilers	Muscle	10		
B2A Anthelmintics					
Anthelmintics	Broilers	Liver	290		
	Ducks	Liver	20		
	Hens	Liver	23		
	Turkeys	Liver	56		
B2B Coccidiostats					
Coccidiostats	Broilers	Liver	744	1	327
	Hens	Liver	16		
	Turkeys	Liver	34		
B2C Pesticide Screen					
Pyrethroids + Carbamates	Broilers	Liver	72		
	Ducks	Liver	7		
	Hens	Liver	7		
	Turkeys	Liver	20		
B2E NSAIDs					
	Broilers	Liver	5		
	Ducks	Liver	5		
	Hens	Liver	5		
	Turkeys	Liver	5		
B3A Pesticide Screen					
	Broilers	Liver	249		
	Ducks	Liver	9		
	Hens	Liver	11		
	Turkeys	Liver	27		
B3C Heavy Metals					
Metals	Broilers	Muscle	80		
	Ducks	Muscle	2		
	Hens	Muscle	3		

	Turkeys	Muscle	9
B3D Mycotoxins			
Mycotoxins	Broilers	Liver	17
	Hens	Liver	1
	Turkeys	Liver	1

RED MEAT

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
A2 Thyrostats					
Thyrostats	Cattle	Urine	191	6	11, 16, 16, 25, 26, 29
	Fattening cattle	Urine	213	7	7.4, 10, 10, 13, 17, 25, 47
	Horses	Urine	1		
	Pigs	Urine	97	1	16
	Sheep	Urine	76	1	14
A3 Hormones					
Gestagens	Calves	Kidney fat	1		
	Cattle	Kidney fat	292		
	Fattening cattle	Serum	297		
	Pigs	Kidney fat	98		
	Sheep	Kidney fat	84		
Methyltestosterone	Pigs	Feed	26		
Oestradiol	Cattle	Serum	247		
	Fattening cattle	Serum	277		
Steroid screen 1	Cattle	Urine	1858	12	0.57, 0.93, 1, 2.3, 2.6, 3, 3.1, 5, 12, 16, 21, 26
	Fattening cattle	Urine	1233	9	2, 2.2, 2.3, 2.8, 5.8, 7.3, 11, 16, 72.9
	Horses	Urine	4	2	23, 57
	Pigs	Urine	371		
	Sheep	Urine	631	15	0.94, 2, 2.3, 2.4, 2.5, 2.6, 3, 3.1, 3.1, 3.2, 3.8, 4.4, 5.1, 6.1, 6.4
Testosterone	Cattle	Serum	311	1	0.52
	Fattening cattle	Serum	288	1	0.35
A4 Hormones					
Zeranol	Cattle	Urine	227	5	1, 1.78, 2.6, 2.74, 4.1
	Fattening cattle	Urine	150	9	0.96, 2.32, 3, 3.4, 3.7, 4.8, 15.6, 19.3, 23.8
	Horses	Urine	2		
	Pigs	Urine / Liver	175		
	Sheep	Kidney	1		
	Sheep	Liver	1		
	Sheep	Urine	71		
A5 Beta-Agonists					
	Calves	Liver	8		
	Cattle	Liver	586		
	Fattening cattle	Feed	194		
	Fattening cattle	Urine	221		
	Horses	Liver	6		
	Pigs	Feed	44		
	Pigs	Liver	366		
	Sheep	Liver	286		
A6 Annex IV					
Chloramphenicol	Calves	Kidney	8		
	Cattle	Kidney	253		
	Fattening cattle	Feed / Urine	330	1	0.51
	Horses	Kidney	3		
	Pigs	Kidney	246		

Nitrofurans	Sheep	Kidney	152		
	Calves	Kidney	4		
	Cattle	Kidney	159		
	Fattening cattle	Feed	199		
	Horses	Kidney	3		
	Pigs	Feed	9		
	Pigs	Kidney	309		
Nitroimidazoles	Sheep	Kidney	242		
	Calves	Kidney	4		
	Cattle	Kidney	160		
	Horses	Kidney	8		
	Pigs	Feed	16		
	Pigs	Kidney	228		
	Sheep	Kidney	107		
B1 Antimicrobial					
AMS1	Calves	Kidney	87	5	180, 210, 4400, 30000, 56000
	Cattle	Kidney	1160		
	Horses	Kidney	12		
	Pigs	Kidney	700	1	1700
	Sheep	Kidney	2711		
AMS2	Cattle	Kidney	128		
	Pigs	Kidney	916		
AMS4	Calves	Kidney	89	1	3200
	Cattle	Kidney	144		
	Sheep	Kidney	114		
Ceftiofur	Pigs	Kidney	107		
Florfenicol	Calves	Kidney	94		
B2A Anthelmintics					
Anthelmintics	Cattle	Liver	500	1	2180
	Pigs	Liver	340	1	33
	Sheep	Liver	1214	1	640
Avermectins	Cattle	Liver	272		
	Horses	Liver	12		
	Pigs	Liver	164		
	Sheep	Liver	543		
B2B Coccidiostats					
Coccidiostats	Calves	Liver	20	1	110
	Horses	Liver	2		
	Pigs	Liver	100		
	Sheep	Liver	325		
B2C Pesticide Screen					
Pyrethroids	Calves	Kidney fat	37		
	Horses	Kidney fat	2		
	Pigs	Kidney fat	77		
	Sheep	Kidney fat	564		
B2D Sedatives					
	Breeding Boar	Liver	62		
	Cattle	Liver / Kidney	47		
	Horses	Liver	21		
	Pigs	Liver	157		
	Sheep	Liver	98		
B2E NSAIDs					
	Cattle	Kidney / Liver / Plasma	717	2	1.3, 9.1
	Horses	Kidney	22		
	Pigs	Kidney	37	1	6.9
	Sheep	Kidney	50	1	13
B2F Glucocorticoids					

	Cattle	Liver	334		
	Horses	Liver	25		
	Pigs	Liver	70		
	Sheep	Liver	23		
B3A Pesticide Screen					
OCs & PCBs	Cattle	Kidney fat	77		
	Horses	Kidney fat	1		
	Pigs	Kidney fat	67		
	Sheep	Kidney fat	131		
B3B Pesticide Screen					
OPs	Cattle	Kidney fat	232		
	Horses	Kidney fat	1		
	Pigs	Kidney fat	139		
	Sheep	Kidney fat	579		
B3C Heavy Metals					
Metals	Cattle	Kidney / Muscle	107	9	550, 1010, 1100, 1100, 1200, 1274, 1600, 2000, 4000
	Horses	Kidney	1	1	8400
	Pigs	Kidney / Muscle	15		
	Sheep	Kidney / Muscle	53	3	1200, 1300, 1700
B3D Mycotoxins					
Mycotoxins	Cattle	Liver	29		
	Horses	Liver	1		
	Pigs	Liver	60		
	Sheep	Liver	14		

GAME

Substance Group/ Analyte	Species	Matrix	No of Analyses	No above action level	Concentration where samples above MRL (µg/kg)
A2 Thyrostats					
Thyrostats	Deer	Liver	4		
A3 Hormones					
Steroid screen 2	Deer	Liver	8		
A5 Beta-Agonists					
	Deer	Liver	12		
A6 Annex IV					
Nitroimidazoles	Deer	Muscle	4		
B1 Antimicrobial					
AMS1	Deer	Kidney	25		
B2A Anthelmintics					
Anthelmintics	Deer	Liver	8		
	Partridge	Liver	4		
	Pheasant	Liver	2		
B2B Coccidiostats					
Coccidiostats	Partridge	Muscle	6		
	Pheasant	Muscle	5		
	Quail	Muscle	5	1	46
B2C Pesticide Screen					
Pyrethroids	Deer	Kidney fat	4		
B2D Sedatives					
	Deer	Liver	5		
B2E NSAIDs					
	Deer	Liver	4		
B3A Pesticide Screen					
	Deer	Kidney fat	7		

B3C Heavy Metals

Metals	Deer	Muscle	6
	Partridge	Muscle	6
	Pheasant	Muscle	6
	Wild Deer	Muscle	100

Section C: RESULTS OF FOLLOW-UP INVESTIGATIONS INTO NON-COMPLIANT RESIDUES 2013:

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Cattle				
Calf Kidney	Doxycycline 30,000 µg/kg 1314363	Karidox	Doxycycline	This farmer had been using karidox in heifer calves to treat a problem with pneumonia, however this residue originated from a bull calf. The cause of this residue is mostly likely due to the calf being erroneously fed with medicated feed. The treatments of karidox had not been recorded in the medicines as the current software package was unable to record batches of treated cattle. The farmer was given written advice regarding the requirement for keeping accurate records and how to avoid such residues in future and this case has been referred to the Rural Payments Agency
Calf Kidney	Doxycycline 56,000 µg/kg 1314367	Unknown	Doxycycline	The farmers vet confirmed that doxycycline had been prescribed for use on this farm, however there was no record of this treatment in the medicines record, despite appearing otherwise complete. The cause of this residue is from an unrecorded treatment and subsequent erroneous slaughter within the withdrawal period. The farmer has been given written advice on how to avoid such residues in future and this case has been referred to the Rural Payments Agency.
Calf Kidney	Dihydrostreptomycin 3200 1314985	Unknown	Penicillin / Streptomycin injectable preparation	The medicines record of this farm had no recording of this calf being treated, however, the farmer conceded that it was possible that a member of staff could have used it for something like a navel infection but failed to record it. This unrecorded treatment and subsequent slaughter within the withdrawal period is considered to be the most likely cause of this residue. The farmer has been given written advice about the requirements for accurate record keeping and this case has been referred to the Rural Payments Agency.
Calf Kidney	Gamithromycin 210 µg/kg 1304678	Zactran 150 mg/ml Solution for Injection for Cattle	Gamithromycin	This calf was treated with Zactran which has a 64 day withdrawal period. Although medicine records are kept for calves on this farm, they were not checked prior to sending this animal to slaughter, five weeks before the end of the withdrawal period. The farmer has been given written advice on how to avoid such residues in future and this case has been referred to the Rural Payments Agency for consideration.
Calf Kidney	Sulfadiazine 180 µg/kg 1314362	Strinacin 20	Sulfadiazine	Despite apparently good medicines records and practices on this farm, the farmer forgot to record a treatment of Strinacin 20 which has a withdrawal period of 15 days. Although the exact treatment date is unknown it is assumed that this animal was sent to slaughter whilst still within the withdrawal period. The farmer has been given written advice on how to avoid such residues in future and this case has been referred to the Rural Payments Agency.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Calf Kidney	Tulathromycin 4400 µg/kg 1323700	Draxxin	Tulathromycin	This residue originated from a bull calf which came from a dairy farm under TB restriction. Due to costs and withdrawal periods, when treating respiratory problems bull calves are treated with Excenel and heifers are treated with Draxxin. The Stockman treated this calf and informed the farmer of this, who assumed it had been treated with Excenel when in fact it had been treated with Draxxin. Therefore the cause of this residue is because this animal was sent to slaughter within the withdrawal period due to a miscommunication. This case will be referred to the Rural Payments Agency.
Calf Liver	Halofuginone 110 µg/kg 1332397	Halocur	Halofuginone	On this dairy farm, only medicine treatments to the milking cows were recorded in the medicines book. All other treatments were not recorded for any other animal on farm. The farmer had treated this calf with Halocur prior to slaughter and claimed to be unaware of any withdrawal period for this product, despite his vet confirming that he had told the farmer where to find withdrawal information on the product literature. This farmer has been given written advice on the requirements for keeping full and accurate medicines records and this case has been referred to the Rural Payments Agency for consideration.
Cattle Kidney	Cadmium 1010 µg/kg 1307736	N/A	N/A	There are several potential sources of Cadmium contamination of the environment on and around this farm. Liquid sewage was sprayed on the pasture land in the 1980's by a water company every 2 years and a railway line runs through the land. There is also a public right of way through the fields and discarded spray cans were seen along the path. The most likely cause of this residue in the 12 year old cow is due to an accumulation over time from contaminated pasture land.
Cattle Kidney	Cadmium 1100 µg/kg 1307740	N/A	N/A	This non-compliant residue originated from an 11 year old cow. There was no obvious source of cadmium on the farm, however, previous soil tests have shown to be higher than the UK national average for Cadmium. Therefore, the cause of this residue is most likely due to an accumulation over time from environmental contamination.
Cattle Kidney	Cadmium 1100 µg/kg 1326305	N/A	N/A	This 4 year old cow originated from a mixed dairy and beef farm which has several potential sources of Cadmium contamination of the environment. The farm is close to an old quarry which is now used as a municipal recycling point and part of the grazing land is in an area known for historic coal mining. Bristol Airport is also close by. This locality is known to Defra for having soil with higher than average Cadmium levels. The cause of this residue is most likely due to an accumulation over time from environmental contamination.
Cattle Kidney	Cadmium 1600 µg/kg 1326296	N/A	N/A	This non-compliant residue originated from an 11 year old cow. There was no obvious source of cadmium on the farm. Therefore, the cause of this residue is most likely due to an accumulation over time from environmental contamination.
Cattle Kidney	Cadmium 1200 µg/kg 1307737	N/A	N/A	This non-compliant residue originated from a 15 year old cow. There was no obvious source of cadmium on the farm, therefore, the cause of this residue is most likely due to an accumulation over time from environmental contamination.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Cattle Kidney	Cadmium 2000 µg/kg 1326292	N/A	N/A	This farm comprises of a small suckler herd and no routine medicines are used on the cattle. There was no use of any fertilisers on the grazing field nor are there known historical mining or metal works in the area. The only watercourse on this farm is from run-off rain water and no waste is incinerated on site. There may have been an old car battery dumped many years ago, however, there was no evidence to support this as the cause therefore, it was not possible to adequately determine the cause of this residue.
Cattle Kidney	Cadmium 2900 µg/kg & Lead 1100 µg/kg 1326289	N/A	N/A	This residue came from a 9 year old cow which was born on the farm where it lived its entire life. Some fields were leased to another farm in the past where maize was grown in an adjacent field to the grazing land. It is possible that strong fertilizers used on the maize contaminated the grazing land which has contributed to this accumulation over time.
Cattle Kidney	Lead 550 µg/kg 1316674	N/A	N/A	This non-compliant residue originated from an eight year old cow. There was no obvious source of lead on the farm therefore, the cause of this residue is most likely due to an accumulation over time from environmental contamination.
Fattening Cattle Urine	Alpha-boldenone 2.2 µg/l 1310345	N/A	N/A	This is a well-managed farm with adequate medicines records which show routine use of the medicines typical of a farm such as this. The most likely source of this residue is due to faecal contamination at the time of sampling.
Cattle Urine	Alpha-boldenone 2.6 µg/l 1327764	N/A	N/A	This is a small traditional farm which is tidy and the medicines records and management appears to be of a good standard. The most likely source of this residue is due to faecal contamination at the time of sampling.
Cattle Urine	Alpha-nortestosterone 0.57 µg/l 1333640	N/A	N/A	This is a large finishing unit with cattle housed over 8-10 premises and also at grass. The medicines records were good up to a year ago when records, purchases and disposals failed to be entered. The farmer has been given written advice on the requirement for keeping adequate records, although, there was no reason to suspect anything other than this residue being caused by natural levels.
Cattle Urine	Alpha-nortestosterone 0.93 µg/l 1333933	N/A	N/A	This farm is a herd of 500 beef rearing and fattening cattle which are bought from calf at market until they are 22-25 months. The only medicines administered on farm are antibiotics, wormers and vaccines, and they are fed with a milk substitute, cattle cake and home grown silage. There was no evidence of the use of unauthorised substances and therefore this residue is most likely due to natural levels.
Cattle Urine	Alpha-nortestosterone 1 µg/l 1327787	N/A	N/A	This cow originated from a farm where very little medicines are used. This cow had only been recorded as having a treatment for parasites. The farmer described the cow as excitable when being loaded to go to slaughter, and was held in the lairage overnight at the slaughterhouse. These may have contributed to stress levels which would account for what is most likely a natural level.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Fattening Cattle Urine	Alpha-nortestosterone 2 µg/l 1310564	N/A	N/A	This cow originated from an organic farm where very little medicines are use. There was no evidence of estrogenic substance use, therefore, the cause of this residue is most likely due to natural levels.
Cattle Urine	Alpha-nortestosterone 5 µg/l 1318350	N/A	N/A	The investigation showed that the most likely source of this residue is due to natural levels from an undetected pregnancy at the time of sampling.
Fattening Cattle Urine	Alpha-nortestosterone 5.8 µg/l 1300838	N/A	N/A	The investigation showed that the most likely source of this residue is due to natural levels from an undetected pregnancy at the time of sampling.
Fattening Cattle Urine	Alpha-nortestosterone 7.3 µg/l 1300849	N/A	N/A	Although appropriate questions were asked at the time of sampling, initial investigations have shown that this animal was pregnant at the time, which is the most likely cause of this residue.
Fattening Cattle Urine	Alpha-nortestosterone 11 µg/l 1300874	N/A	N/A	The investigation showed that the most likely source of this residue is due to natural levels from an undetected pregnancy at the time of sampling.
Fattening Cattle Urine	Alpha-nortestosterone 16 µg/l 1300796	N/A	N/A	Although appropriate questions were asked at the time of sampling, the investigation has shown that this animal was pregnant at the time, which is the most likely cause of this residue.
Cattle Urine	Alpha-nortestosterone 16 µg/l 1328042	N/A	N/A	This dairy farm produces organic milk and rears its own replacement cattle. The cow which gave this residue had been running with the bull for several weeks prior to slaughter, which was due to medical reasons. This had had calved every year without difficulty and therefore it was most likely that this residue was caused by an undetected pregnancy.
Fattening Cattle Urine	Alpha-nortestosterone 70 µg/l & Alpha-boldenone 2.9 µg/l 1300695	N/A	N/A	The investigation showed that the most likely source of this residue is due to natural levels from an undetected pregnancy at the time of sampling.
Fattening Cattle Urine	Taleranol 0.96 µg/l 1301027	No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.		
Cattle Urine	Taleranol 1 µg/l 1318662	No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.		

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Cattle Urine	Taleranol & Zeranol 1.78 µg/l 1318688			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol & Zeranol 2.32 µg/l 1329640			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol 2.6 µg/l 1328588			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol & Zeranol 2.74 µg/l 1333655			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol & Zeranol 3 µg/l 1301031			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol & Zeranol 3.4 µg/l 1319369			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol & Zeranol 4.1 µg/l 1328592			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol & Zeranol 4.8 µg/l 1301059			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol & Zeranol 15.6 µg/l 1310730			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol & Zeranol 19.3 µg/l 1301026			No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Cattle Urine	Taleranol & Zeranol 23.8 µg/l 1301025	No investigation required as research has shown that low levels of zeranol and fungal metabolites may be present in the urine of animals that have ingested feedingstuffs contaminated with the fusarium fungus.		
Fattening Cattle Urine	Thiouracil 10 µg/l 1300978	N/A	N/A	This animal was fed with a concentrated feed mix which does not contain any rapeseed or brassicas and there is not much rapeseed grown in the area so it is unlikely that home grown hay was contaminated. The farmer did purchase one batch of barley, which could have been contaminated. However, it was not possible to adequately determine the cause of this residue.
Cattle Urine	Thiouracil 11 µg/l 1333595	N/A	N/A	This animal originated from a farm where it out at grass for the summer months but was also being fed silage, home produced barley and draff. The feed contained no brassicas but rape had been grown on a neighbouring field. It is possible that either the cow consumed some rape from the next field or there was some cross contamination of the draff during bulk transit.
Fattening Cattle Urine	Thiouracil 13 µg/l 1310716	N/A	N/A	This animal originated from a dairy farm and was fed cake containing Rapeseed extract, therefore, the most likely cause of this residue is due to ingesting brassica rich feed.
Cattle Urine	Thiouracil 16 µg/l 1309545	N/A	N/A	This animal originated from a completely housed beef unit and fed hay/silage and a mix of crushed barley and concentrate pellets which contain rapeseed cake. The most likely cause of this residue is due to ingesting brassica rich feed.
Cattle Urine	Thiouracil 16 µg/l 1333616	N/A	N/A	This farm finishes calves from 1 month of age and are all sent to slaughter fat. Calves are housed at all times and only respiratory vaccines are given. Their diet is straw, minimal silage and concentrate ration consisting on rape seed, therefore, the most likely cause of this residue is from ingesting rape seed in the feed supplements.
Fattening Cattle Urine	Thiouracil 17 µg/l 1300997	N/A	N/A	This animal originated from a small suckler herd and fed starter pellets which contain an unspecified amount of rapeseed meal. The most likely cause of this residue is due to ingesting brassica rich feed.
Cattle Urine	Thiouracil 25 µg/l 1328446	N/A	N/A	This is a mixed farm of approximately 300 acres of arable land and 230 acres of grassland with a total of 365 cattle comprising 150 beef cows with all offspring being taken though to finishing. Cattle at grass are fed own silage as required, calves and fattening cows are fed home-grown barley and housed cows are fed silage, barley and wheat straw. There are 63 acres of oil seed rape grown and fattening cattle may at times be bedded on rape straw, therefore, the most likely cause of this residue is from the ingestion of rape straw bedding.
Fattening Cattle Urine	Thiouracil 25 µg/l 1329603	N/A	N/A	This animal originated from a closed herd on a mixed sheep and cattle farm. Cows are fed silage or grass and a cake mix with sugar beet pulp. The calves are also fed a cake and its ingredients list contains rapemeal. The most likely cause of this residue is due to ingesting brassica rich feed.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Cattle Urine	Thiouracil 26 µg/l 1318491	N/A	N/A	Bulls for fattening on this farm are kept indoors until about 16 months of age and fed with a barley mix and supplements. The most likely cause of this residue is from ingesting rapeseed oil in the feed supplements.
Cattle Urine	Thiouracil 29 µg/l 1333598	N/A	N/A	This farm buys in store cattle in the Autumn and houses them over the Winter to finish. They are fed silage and wheat grains and other bought in feed which is kept in bulk with sheep feed containing rape meal. The most likely cause of this residue is from the contamination of cattle feed with brassica rich sheep feed.
Cattle Urine	Thiouracil 47 µg/l 1310670	N/A	N/A	This sample was taken from a 3 month old calf which was fed on its dam's milk and grass only. The dam, however, was fed on silage and concentrates which contained extracts of rapemeal. The most likely cause of this residue is from the calf having access to feed intended for other cattle which contained rapemeal.
Cattle Serum	Testosterone 0.35 µg/l 1300891	N/A	N/A	Initial enquiries have shown that this cow was twinned with a bull and showed irregular reproductive characteristics, therefore, it is considered that the presence of this substance is due to natural causes.
Cattle Serum	Beta-Testosterone 0.52 µg/l 1328396	N/A	N/A	This heifer was slaughtered after an overnight lairage. It is possible that the cause of this residue is due to the stress of unfamiliar surroundings causing a rise in natural levels.
Pigs				
Pigs Kidney	Chlortetracycline 1700 µg/kg 1314309	Aurofac	Chlortetracycline	Pigs come on to this farm at 35kg into four sheds, each with one feed bin and fed medicated feed for one week followed by at least eight more loads of non-medicated feed until they go for slaughter at 110kg. Some of the pigs in this batch sent for slaughter came from the hospital pens, one of these had Aurofac in at the time and the other had Tylan. The farmer acknowledged that he had no traceability for the feed to the hospital pens and the feed mill confirmed that the farm only received feed with Tylan or Aurofac and their traceability showed that the correct feed was delivered to the correct bins and it was unlikely that cross contamination occurred on the truck. The most likely cause of this residue was from cross contamination of medicated feed on farm and the farmer has been given written advise on how to avoid such residues in the future.
Pigs Kidney	Ibuprofen 6.9 µg/kg 1327029	N/A	N/A	Pigs usually arrive at this farm at 12 weeks of age and are fattened for approximately 10 to 12 weeks. On arrival, pigs are fed medicated feed for one week then usually no other medication is required. No ibuprofen had been administered to any of the pigs nor had it been used by the staff. The sampling officer had been taking ibuprofen in tablet form but the likelihood of contamination is considered minimal. Therefore it was not possible to determine the cause of this residue.
Pigs Urine	Thiouracil 16 µg/l 1328487	N/A	N/A	This pig unit houses 3700 pigs indoors with good standards of management and biosecurity. Pigs are fed a commercial dry ration followed by a gilt rearer, which contained 8.15% rape seed and is the most likely cause of this residue.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Sheep				
Sheep Kidney	Cadmium 1300 µg/kg 1307751	N/A	N/A	Due to an error in recording flock mark details it was not possible to trace the origin of this animal therefore no investigation could take place.
Sheep Kidney	Cadmium 1700 µg/kg 1316694	N/A	N/A	This animal originated from an upland farm and are normally kept outdoors most of the year with the exception of the lambing season. Fertiliser is used on the fields to improve the ground quality and there is widespread use of mineral buckets. However, there was no obvious source of possible cadmium contamination, therefore, it was not possible to adequately determine the cause of this residue.
Sheep Kidney	Ibuprofen 13 µg/kg 1308317	N/A	N/A	Initial enquires showed that the sampling officer was taking ibuprofen at the time of sampling but was wearing appropriate protective equipment to prevent cross contamination. However, as there was no obvious source of ibuprofen found at the farm during the investigation it is most likely that this residue was caused by cross contamination at the time of sampling.
Sheep Kidney	Lead 1200 µg/kg 1316687	N/A	N/A	This farm is made up of 30 acres of grazing land which is known to have been mined for lead in the 1950's and there has been some history of lead poisoning in cattle some years ago. The farmer has been given advice on how to manage exposed areas to avoid these residues in future.
Sheep Liver	Fenbendazole 640 µg/kg 1315226	Panacur 10%	Fenbendazole	This farmer treated his flock with Panacur 10% which has a withdrawal period of 15 days. The farmer miscalculated the withdrawal period by counting the day of treatment as day 1 and not day 0 and the lambs subsequently went for slaughter on day 15 rather than day 16 as required. These lambs may also have been slightly overdosed due to a variation in weights throughout the flock. The farmer has been given written advice on how to avoid such residues in the future and this case has been referred to the Rural Payments Agency.
Sheep Urine	Alpha-boldenone 2 µg/l 1328214	N/A	N/A	This is a well-run upland farm with 600 breeding ewes. Early lambs have feed introduced at 6 weeks and later finished on swedes. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.3 µg/l 1328233	N/A	N/A	The origin of this animal was untraceable due to insufficient information provided at the time of sampling.
Sheep Urine	Alpha-boldenone 2.4 µg/l 1333551	N/A	N/A	This farm is part of an organic scheme and the farmer breeds all his own sheep. The 1200 strong herd are at grazing and occasionally fed an organic feed and the medicines and storage were satisfactory. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Sheep Urine	Alpha-boldenone 2.5 µg/l 1328276	N/A	N/A	The sheep on this farm graze all year round and each year all lambs and ewes go for slaughter and new ewes are bought. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3 µg/l 1333550	N/A	N/A	This sheep was bought as a store 2-3 weeks prior to slaughter. The farmer changed its ear tag to match his own flock ID so it was not possible to back trace this animal any further. The medicines records were not up to date but the farmer was using a diary to record all the treatments and regularly adds 10 days to any withdrawal period. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3.1 µg/l 1318112	N/A	N/A	This sheep originated from a farm in the Organic Scheme and no concentrates are used on farm. The medicines records and storage we satisfactory and there was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3.2 µg/l 1328208	N/A	N/A	This is a small holding of mostly arable which has good management and medicines records. The 230 ewes and lambs graze on grass and woodland and there was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3.8 µg/l 1318135	N/A	N/A	This lamb originated from a farm where sheep graze during the winter but have access to shelters where extra feed is provided. Minerals are provided in blocks and the medicines used are mainly antibiotic, anti-inflammatory and wormers. The most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 4.4 µg/l 1333482	N/A	N/A	This sheep originated from an organic farm which has good management and medicines records. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 5.1 µg/l 1333538	N/A	N/A	Only sheep are raised on this farm over 160 acres of hill land and 120 acres of lowland. The sheep are out all year and supplemented in the winter with own grass silage with a protein and energy mix. Several of the ingredients in the supplement are rich in phytosterols which most likely have metabolised into boldenone and subsequent faecal contamination of the samples resulted in this residue.
Sheep Urine	Alpha-boldenone 6.1 µg/l 1333532	N/A	N/A	This farm does not use forage feed as all the animals is grazing only. There is routine medicine use as expected on a farm of this type and the medicines record appeared to be kept to a high standard. There was no evidence of anabolic substance use, therefore, the most likely cause of this residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 6.4 µg/l 1333535	N/A	N/A	It was not possible to trace the origin of this animal.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Sheep Urine	Alpha-nortestosterone 3.1 µg/l 1318081	N/A	N/A	Due to an error in recording ear tag details it was not possible to trace the origin of this animal therefore no investigation could take place.
Sheep Urine	Beta-nortestosterone 0.94 µg/l 1309037	N/A	N/A	Medicinal use on this farm was restricted to anthelmintics and occasional antibiotic and the medicines records appeared thorough. The lambs are slaughtered at approximately 12 months of age and are finished on stubble turnips and cauliflowers, no concentrates are fed to the lambs. It was not possible to determine the cause of this residue.
Sheep Urine	Thiouracil 14 µg/l 1333629	N/A	N/A	The lamb in question was out to grass during the summer in a field next to one used for rapeseed. As a supplement to grass some of the less fat lambs were fed of Quick Grow Lamb Pellets' which contain rapeseed meal. The most likely cause of this residue is from ingesting brassica rich feed.
Horse				
Horse Kidney	Cadmium 8400 µg/kg 1326320	N/A	N/A	Unable to trace the origin of this horse, therefore, it was not possible to carry out an investigation into the cause of this residue.
Horse Urine	Beta-nortestosterone 45 µg/l & Alpha-nortestosterone 12 µg/l 1328059	N/A	N/A	This 14 year old horse originated from a small holding where a small number of sheep and cattle are kept with a few poultry. There were 12 horses at the premises, mostly owned by the family, with very little medicines used. The vet confirmed that no hormonal product had been purchased from them and there was no evidence of the use of any unauthorised substances. Therefore, it was not possible to adequately determine the cause of this residue.
Horse Urine	Alpha-nortestosterone 23 µg/l 1328060	No investigation required as it was most likely that this horse had recently been in foal at the time of sampling.		
Poultry				
Broiler Liver	Lasalocid 270 µg/kg & Salinomycin 57 µg/kg 1304170	N/A	N/A	The investigation into this residue established that it was caused by the feed manufacturer supplying the farmer with medicated feed without his knowledge. The mill has been given written advice on the practises they need to adopt to avoid such errors and the VMD's Inspectorate team will ensure these changes are carried out at their next inspection.
Broiler Muscle	Amoxicillin 290 µg/kg 1312676	Octacillin	Amoxicillin	The investigation established that the most likely cause of this residue is due to accidental cross contamination on the farm in the water delivery system. Octacillin had been used on a different batch a few months prior to this slaughter date and there may have been some medicated water left in the system. The farmer has been given written advice on how to prevent such residues occurring in the future.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Broiler Muscle	Chlortetracycline 110 µg/kg 1312252	Aurofac 250	Chlortetracycline	This farm is an all in-all out production unit using automated water and feeding systems. There are two external feed bins for storage, one for medicated feed and the other for non-medicated. The birds were given an Aurofac feed treatment which ended 5 days prior to slaughter, which complies with the withdrawal period, however, it is likely that as the pipeline for medicated and non-medicated feed is shared there was residual contamination resulting in this non-compliant residue. The farmer has been given advice on how to avoid such residues in the future.
Turkey Muscle	Chlortetracycline 130 µg/kg 1330253	N/A	N/A	The investigation at the feed mill which supplied this farm could not identify any opportunity for contamination and retained samples of the feed batches were analysed and found to be compliant. The farm's vet confirmed that chlortetracycline had not been prescribed for this site since 5 months prior to slaughter and could not offer any possible reason for this residue. The FSA withheld this consignment of turkeys from the food chain. In accordance with Legislation, the food business operator opted to challenge the result and further testing of the original sample has since provided a compliant result. The FSA have been informed and will decide the on the outcome of the remaining stock. . It was not possible to establish a likely case of this residue.
Broiler Muscle	Chlortetracycline 240 µg/kg 1312330	Unknown	Chlortetracycline	This farm is part of a large commercial group which brings in birds from the hatchery at 1-2 days old. From 9 days old until they are 21 days they are fed a grower feed which contains chlortetracycline then following this are fed a withdrawal feed containing no medication. The cause of this residue is due to cross contamination of medicated feed carried over with non-medicated feed in the belts or spillage from joints. The farm is currently changing to digital timers which will reduce likelihood of feed getting crushed or becoming dust and so carry-over will be reduced.
Eggs				
Free Range	Lasalocid 190 µg/kg 1301566	Unknown	Unknown	The investigation into this residue concluded that the most likely cause was due to slides not shutting completely on the conveyor which feeds the finished products bin at the manufacturing mill. The VMD will consider this non-complaint during the next inspection at the mill and provide advice accordingly.
Barn	Lasalocid 220 µg/kg 1319757	Unknown	Unknown	The egg sampled originated from a shed which housed 19 week old hens and were being fed layer pellets for the previous 5 weeks. The feed was purchased bagged and the mill had not retained samples of bagged feed (as is practice not to) therefore it was not possible to adequately determine the cause of this residue. The mill has been advised to retain samples of feed for both bulk and bagged consignments in the future.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Organic	Lasalocid 230 µg/kg 1319770	Unknown	Unknown	The investigating officer noted the overall state of hygiene in and around this organic farm was not good. The only medications used on this farm were vaccines therefore it was not likely the residue was caused on farm. The mill had samples of feed supplied to this farm which when analysed were within the levels permitted. The manufacture of the last 2 batches of feed delivered did not follow any medicated feed therefore it was not possible to adequately determine the cause of this residue. The mill has, however, taken steps to ensure that cross-contamination is unlikely to occur.
Free Range	Lasalocid 880 µg/kg 1301635	Unknown	Unknown	This farm purchases plain layers pellets, of which, a retained sample contained a residue of lasalocid at a concentration of 5400 µg/kg. The investigation at the feed mill could not find any evidence that contamination occurred as a result of production scheduling, therefore, it was not possible to adequately determine the cause of this residue. The mill will undergo a routine inspection early in 2014.
Free Range	Lasalocid 1100 µg/kg 1319737	Unknown	Unknown	This egg originated from a farm with 700 laying hens at any one time which are housed in traditional wooden houses. Every three months 100 pullets are brought in and these are fed rearer pellets and anti-coccidial supplements. Some of these pullets formed part of the laying flock which resulted in this residue. The farmer has immediately ceased this practice using layers meal in future and he was given written advice on how to avoid such residues in future.
Free Range	Oxytetracycline 240 µg/kg 1329800	Franvet	Oxytetracycline	The investigation into this case was hampered by the farmer's ill health and also that English is not the first language of his wife. The Vet was also on paternity leave for some time. However, it was clear that the withdrawal period was observed therefore the cause of this residue could not be adequately established.
Free Range	Oxytetracycline 270 µg/kg 1310014	N/A	N/A	This is a single shed farm with two silos. Silos are cleaned by emptying with no special cleaning procedure. Oxytetracycline had not been used on this farm, however, a 'sister' farm 500 metres away have used this in its layer breeders. The medicines records were incomplete, however, there was evidence of the use of Franvet (an imported veterinary medicine from France containing oxytetracycline) at a date prior to the arrival of this flock. It has been known for feed intended for one farm has been erroneously delivered to the other. The farms now use different suppliers to prevent this from happening again. It is possible that cross contamination has occurred again, but there was no evidence of this, therefore it was not possible to adequately determine the cause of this residue.
Game				
Quail Muscle	Lasalocid 46 µg/kg 1302479	N/A	N/A	On this farm, the first 5 days of life the quails are fed a medicated starter feed and then on to a quail grower for the next 30 days until slaughter. The feed management practice is good using a separate feed bin for medicated feed. The investigation into the mill found so obvious source of contamination and further sample analysis was compliant. It could be speculated that there may have been a spill on farm but there is no evidence to support that, therefore, it was not possible to adequately determine the cause of this residue.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Actives	Cause of residue
Milk				
Cattle Milk	Amoxicillin 4.9 µg/l 1301299	Synulox Lactating Cow Intramammary Suspension	Amoxicillin	This farm comprises of a fresian and jersey herd and all animals are in good health Medicines records showed that there was a dry cow being treated at the time of sampling. It is possible that cross contamination occurred by the person who administered the product, then handled the sample pot when the sample was taken.
Cattle Milk	Ivermectin 2.9 µg/l 1328787	Premadex Pour-on	Ivermectin	The farmer at this 360 herd dairy farm administered Premadex pour-on to cows at drying off which is contra-indicated in the product data sheet. There was a period of 4 months missing from the medicines records and the AHVLA will make a follow up visit to check the record when it is found. The farmer has been given written advice on the use of veterinary medicines and the requirement for adequate record keeping and has also been referred to the Rural Payments Agency for further action.
Cattle Milk	Nitroxynil 51 µg/l 1301449	Trodax	Nitroxynil	This sample originated from a small dairy farm feeding their stock on silage and parlour feed when housed. The medicines records were accurate and recorded a treatment of Trodax and was discarding the milk, however, the farmer admitted that he may not have discarded the milk on the day of sampling. The farmer was unaware that Trodax is no longer permitted in dairy cows and was given verbal advice on consulting with his veterinary surgeon to avoid such residues in the future. The vet was contacted and agreed to send advisory leaflets to all their clients with regard to the changes in Flukicide use. A follow up visit will be carried out by the AHVLA Officer.
Cattle Milk	Penicillin G 5.4 µg/l 1311049	URBO Red Dry Cow Tubes	Procaine penicillin	This farm do not record the use of dry cow tubes, even though they are used routinely. The cause of this residue is due to the cow calving earlier than expected and the farmer milking this animal whilst within the withdrawal period. The farmer has received written advice on the requirements for keeping accurate medicine records to avoid such residues in future.
Cattle Milk	Penicillin G 17 µg/l 1301296	N/A	N/A	The investigation established that the cause of this residue was due to a sampling error. The farmer directed the sampling officer to a waste tank subsequently detecting this residue.
Cattle Milk	Triclabendazole 37 µg/l 1301370	Triclacert 10% Fluke Drench	Triclabendazole	The most likely cause of this residue is due to a cow which calved before the expected due date after being given Triclacert 10% Fluke Drench and therefore the lactating cow would have still been in the withdrawal period. The farmer has been given written advice on how to avoid such residues in the future.
Fish				
Trout Muscle	Leucomalachite Green 7.1 µg/kg 1319858			Movement restrictions were place on the fish while further target samples were taken, these confirmed as compliant and the movement restrictions were lifted with no further action taken.

Section D: Follow up/Investigation Results from Northern Ireland

Species & Matrix	Residue detected & concentration	Products used	Actives	Cause of residue
Cattle				
Cattle Urine	α-Boldenone 2.3 µg/l	N/A	N/A	<p>This is a suckler herd of 49 animals. This animal was born into the herd and was 22 months old at the time when the on-farm sample was collected. During an investigation, which took place on 26/03/2013, movement and medicine records were available. The investigating veterinary officer found all the animals to be in good condition and had no suspicion of any illegal treatment and no suspect animals were identified. Six animals were sampled and all were compliant.</p> <p>Conjugated α-boldenone can arise as a result of faecal contamination. It is thought to be the likely cause in this case.</p>
Cattle Urine	α-Boldenone 3.1 µg/l	N/A	N/A	<p>This sample was collected from a targeted herd following a suspicious result for α-boldenone in the 2011 NSS.</p> <p>This is a suckler herd of 75 animals. This animal was purchased in March 2012 at the age of 10 months. During the on-farm investigation, both movement and medicine records were available. The investigating veterinary officer found no evidence of hormone administration and no suspects were identified. Urine samples from the original animal plus 5 others were collected. Five of the samples contained levels of α-boldenone above the EU level indicative of "suspicion" (2 µg/l) including the original suspicious animal.</p> <p>Conjugated α-boldenone, can arise as a result of faecal contamination and, in the absence of any untoward findings during the on farm investigation, this is thought to be the likely cause in this case.</p>
Cattle Urine	α-Boldenone 3.0 µg/l α-Nortestosterone 26 µg/l	N/A	N/A	<p>This animal was from a dairy herd of 126 animals. This animal was born into the herd and was 22 months old at the time when the on-farm sample was collected. During an investigation visit, which took place on 10/04/2013, movement and medicine records were available. The investigating veterinary officer found the unit to be well run and no suspects were identified. The animal was 8 months pregnant. α-Nortestosterone is produced naturally during pregnancy. The original non-compliant animal and 5 others were sampled for boldenone analysis. All samples were compliant.</p> <p>Conjugated α-boldenone can arise as a result of faecal contamination and this is thought to be the likely cause in this case.</p>

Species & Matrix	Residue detected & concentration	Products used	Actives	Cause of residue
Cattle Urine	α -Boldenone 2.8 $\mu\text{g/l}$	N/A	N/A	This animal was from a very small herd of 4 beef animals. The animal was pregnant at the time of sampling. Movement and medicine records were available. No suspect animals were identified during the investigation which took place on 04/06/2013. Four animals were sampled and all were compliant. Conjugated α -boldenone can arise as a result of faecal contamination and this is thought to be the likely cause in this case.
Cattle Urine	α -Boldenone 2.3 $\mu\text{g/l}$	N/A	N/A	This animal was from a suckler herd of 67 animals. The animal, a cow, had been on the farm for 11.5 years, having been purchased at 6 months old. During an investigation visit, which took place on 04/07/2013, movement records were not checked. Medicine records were not available for inspection. The herd owner was reminded of the legal requirement to keep medicine records. No suspects were identified. The original animal plus two others were sampled. All were compliant. Conjugated α -boldenone can arise as a result of faecal contamination and this is thought to be the likely cause in this case.
Cattle Urine	α -Nortestosterone 12. $\mu\text{g/l}$	N/A	N/A	An investigation took place on 18/06/2013. This animal was a young female from a beef breeding herd of 52 animals. Records show that this animal was pregnant at the time of sampling. α -Nortestosterone is produced naturally during pregnancy. Movement and medicine records were available. No suspects were identified. The original animal plus four others were sampled. All were compliant.
Cattle Urine	α -Nortestosterone 21 $\mu\text{g/l}$	N/A	N/A	An investigation took place on 27/01/2014. This animal was from a very small beef suckler herd of only eight animals. The herd is owned by an elderly man and the cattle have limited contact with the herd keeper and become stressed on handling. The samples had been collected on-farm from an animal born on the farm. Movement records were available and medicine records had been recorded in a diary. There is no record of the animal having been served. The animals were in very good condition and the investigating veterinary officer did not suspect any illegal activity. Four follow-up samples were collected but only two were suitable for analysis, both were compliant.
Cattle Urine	Thiouracil 7.4 $\mu\text{g/l}$	N/A	N/A	Thiouracil can arise in the urine of animals fed cruciferous material in their diets. Only to be followed up on-farm when levels exceed 10 ppb.
Cattle Urine	Thiouracil 10 $\mu\text{g/l}$	N/A	N/A	Thiouracil can arise in the urine of animals fed cruciferous material in their diets. Only to be followed up on-farm when levels exceed 10 ppb.
Cattle Urine	Zeranol 1.0 $\mu\text{g/l}$ Taleranol 2.7 $\mu\text{g/l}$	N/A	N/A	Low concentrations of zeranol and taleranol were identified in a bovine urine sample. The VSD statistical model suggested that this arose from dietary contamination with Fusarium spp. toxins. No field follow up was requested.

Species & Matrix	Residue detected & concentration	Products used	Actives	Cause of residue
Cattle Urine	Chloramphenicol 0.51 µg/l	N/A	N/A	<p>This animal was from a dairy herd of 421 animals. During an investigation visit, which took place on 25/09/2013, movement and medicine records were available and up to date. This animal had not received any treatments, other than fluke and worm doses. The investigating veterinary officer found no evidence of any chloramphenicol-containing drugs on the farm. Five urine samples were collected including the animal originally positive. No chloramphenicol was detected. Six milk samples were collected from individual animals plus a bulk tank sample. No chloramphenicol was detected.</p> <p>A RASFF had been issued on 02/08/2013 regarding a feed additive enzyme, intended for the inclusion in poultry feed, that was contaminated with chloramphenicol. This enzyme had been supplied to the feed mill supplying this farm. Five samples of retained feed at the mill were analysed. No chloramphenicol was detected.</p>
Cattle Liver	Closantel 2180 µg/kg	Closamectin	Closantel & Ivermectin	<p>This animal was from a beef breeding herd of 246 animals. During an investigation visit which took place on 14/03/2013 movement and medicine records were available. There was a discrepancy in the dates of treatment between the farm notebook (13/11/2012) and the medicine record book (19/12/2012) i.e. 79 or 85 days prior to slaughter. The withdrawal time for the product is 28 days.</p> <p>SMR10 penalty was applied. The herd was flagged for sampling at slaughter.</p>
Cattle Liver	Phenylbutazone 9.1 µg/kg & Oxyphenbutazone 1.31 µg/kg	N/A	N/A	<p>This animal was from a 71 beef finisher herd. During an investigation visit which took place on 10/12/2013, movement and medicine records were available. The herd owner could not understand how this drug could have been found in the animal. He had two mares and foals but stated that phenylbutazone was not used in them. He was adamant that there was no phenylbutazone on the farm. The herd was flagged for sampling at slaughter. DVO to write to owner. SMR 10 penalty applied.</p>
Cattle Kidney	Cadmium 1274 µg/kg	N/A	N/A	<p>This animal was from a dairy herd of 146 animals. During an investigation visit, which took place on 28/06/2013, movement and medicine records were available and the investigating veterinary officer noted they were well maintained. Muscle was also available from the animal and it was compliant. Kidney cadmium levels increase with age and it may be the case that this result reflects nothing other than the fact that the sampled animal was 12.5 years old.</p> <p>The herd was flagged for further sampling. Three animals were sampled at slaughter on 04/07/2013. One animal (11 year old cow) was kidney non-compliant cadmium 1458 µg/kg but muscle compliant. The remaining two animals (both 6 years old) were compliant in all tissues.</p>

Species & Matrix	Residue detected & concentration	Products used	Actives	Cause of residue
Sheep Urine	α -Boldenone 2.6 $\mu\text{g/l}$	N/A	N/A	<p>This animal was from a 548 sheep and beef farm. During an investigation visit which took place on 09/01/2014 movement and medicine records were available. This animal was one of a batch of 81 animals bought at a livestock market on 09/11/2013 and slaughtered on 11/11/2013.</p> <p>Conjugated α-boldenone can arise as a result of faecal contamination and this is thought to be the likely cause in this case.</p>
Hen Egg	Sulphadiazine 138 $\mu\text{g/kg}$	N/A	N/A	<p>The eggs were collected from a flock of 3300 free range laying hens. During an investigation which took place on 25/10/2013 egg movement records were available and appropriate. Medicine records were available and kept in accordance with legislation. No recorded treatment for the past year. Sheep were also present on the farm. The medicine records for the sheep and the antibiotics stored on the farm did not indicate any possible sources of sulphadiazine.</p> <p>Follow-up samples of meal eggs, water from the header tank were collected. The retained meal sample, corresponding to that in use at the time the positive egg sample was collected, contained 11.3 mg/kg sulphadiazine and 2.7 mg/kg trimethoprim. Meal sampled from the trough at the time of the inspection contained 0.34 mg/kg sulphadiazine and 0.05 mg/kg trimethoprim. Meal from the storage bin at the time of the follow up was compliant (none detected), as were the follow- egg samples the water sample.</p> <p>The meal for this flock is supplied by a mill in the Republic of Ireland. The Department of Agriculture Food & the Marine have been contacted and are carrying out an investigation.</p> <p>It would appear that meal has been supplied to this farm containing sulphadiazine and trimethoprim, neither of which are authorised for use in animals producing eggs for human consumption.</p>

Species & Matrix	Residue detected & concentration	Products used	Actives	Cause of residue
Pig Liver	Albendazole marker residues 33 µg/kg	N/A	N/A	<p>This animal was from a 400 sow, birth to bacon unit. Investigation visits took place on 16/12/2013 and 14/01/2014. Movement and medicine records were available. The herd keeper stated that albendazole has never been bought, used or prescribed on the farm. The pigs are sent to the abattoir on an empty stomach. The H/K believed that the animal in question must have eaten something i.e. and been exposed to albendazole elsewhere. Five follow-up samples were collected at the abattoir on 09/12/2013. Kidneys were collected in error instead of liver. Two were compliant but three contained albendazole at 0.5, 1.2 & 1.2µg/kg. Three further batches of 10, 20 and 20 pigs were collected on 16/12/2013, 06/01/2014 and 27/01/2014, - all were compliant. A feed sample was collected from the farm on 20/01/2014. It was compliant for albendazole but low levels of sulphadiazine and trimethoprim were detected in it.</p> <p>SMR10 penalty was applied and the DVO is to write to the herd keeper.</p>
Cattle Milk	Flubendazole marker residues 1.0 µg/l	N/A	N/A	<p>Flubendazole is not licensed for use in cattle. This sample of milk had been collected from a 109 animal dairy and beef rearing farm. During an investigation visit which took place on 30/01/2014 movement records were available. The investigating veterinary officer noted that the medicine records were not kept in accordance with legislation. Entries were missing. The last entry was dated June 2013 but the herd keeper confirmed that he had treated calves recently – around Christmas, but there was no record of this. The herd keeper had started to produce milk in December 2013 and had bought in dairy cows in the last few months. It was suggested the residue was due to some of these cows being treated on the farm of origin. A follow-up sample was collected which was compliant.</p> <p>SMR10 penalty was applied and the DVO is to write to the herd keeper.</p>

Non-Statutory Surveillance Scheme 2013 - 2014

The Non-Statutory Surveillance Scheme concentrates on imported and processed foods. Imported produce was identified by the Veterinary Residues Committee (VRC) as the primary target for investigation. This is because the Committee considers that imported food represents a significant part of the food consumed in the UK and would like to know if there are any residues of concern.

The Non-Statutory Surveillance Scheme, as its name suggests, does not have a legal base. Therefore, the VRC can recommend the substances and foods that should be included. The scheme is funded by Defra with no contribution from the food industry. However, this means that funding is very limited and the surveillance programme is of a much smaller scale than the statutory programme.

Section E: Residues found during 2013 – 2014 Non-Statutory Surveillance Programme

Sample	Analysed for	Number of samples analysed	Reference Point (µg/kg)	Number of samples below the Reference Point, with concentration		Number of samples at or above the Reference Point, with concentration	
				No. found	µg/kg	No. found	µg/kg
Farmed Warm Water Crustaceans	Amphenicols Chloramphenicol	150	0.3 (MRPL)			1	0.33
	Multi-residue Suite 2 Sulfadiazine	150	100 (MRL - combined total of all substances within the sulfonamide group)			1	300
	Oxytetracycline		100 (MRL)			1	910
Imported Farmed Fish	Dyes Malachite Green/Leucomalachite Green	150	2 (MRPL – sum of malachite green and leucomalachite green)			1	0.9/3.1
	Multi-residue Suite 2 Trimethoprim	150	50 (MRL)			1	58
Imported Poultry Muscle	Multi-residue Suite 1 Clopidol	153	0.61 (CCα)			5	10, 10, 20, 32, 53

Section F: Full details of 2013 - 14 non-statutory residues surveillance programme

Imported Raw Beef

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level ($\mu\text{g}/\text{kg}$)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level ($\mu\text{g}/\text{kg}$)
Beta-agonists	121				
Multi-residue Suite 1	147				
Multi-residue Suite 2	147				
NSAIDs	122				
Time of Flight	20				

Imported Poultry Muscle

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level ($\mu\text{g}/\text{kg}$)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level ($\mu\text{g}/\text{kg}$)
Antivirals	126				
Multi-residue Suite 1	153	5	Clopidol: 10, 10, 20, 32, 53		
Multi-residue Suite 2	153				
Time of Flight	20				

Imported Farmed Fish

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level ($\mu\text{g}/\text{kg}$)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level ($\mu\text{g}/\text{kg}$)
Dyes	150	1	Malachite Green/Leucomalachite Green: 0.9/3.1		
Multi-residue Suite 2	150	1	Trimethoprim: 58		
Time of Flight	20				

Farmed Warm Water Crustaceans

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level ($\mu\text{g}/\text{kg}$)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level ($\mu\text{g}/\text{kg}$)
Amphenicols	150	1	Chloramphenicol: 0.33		
Multi-residue Suite 2	150	2	Oxytetracycline: 910 Sulfadiazine: 300		

Section G: Results of follow-up actions for non-compliant residues

Residue detected & concentration (µg/kg) (Sample Ref)	Sample Type	Source (Retail/ BIP)	Sample Country of Origin	CVO Letter Sent (Yes/No)	RASFF Issued (Yes/No)	Actions/Outcomes
Malachite Green: 0.9 Leucomalachite Green: 3.1 (13N0237)	Imported Farmed Fish	Retail	Vietnam	Yes	Yes	Importer carried out a voluntary withdrawal of the product from the market.
Clopidol: 20 (13N0068)	Imported Poultry Muscle	BIP	Brazil	Yes	Yes	No further information regarding this sample.
Clopidol: 10 (13N0106)	Imported Poultry Muscle	Retail	Brazil	Yes	Yes	Retailer carried out a voluntary withdrawal from the market which accounted for all of the meat from the affected batch. The retailer also advised that their supplier completed a full investigation which identified a potential origin for the residue as the feed mill and residual cross contamination in the production of feed for breeders (not for consumption) and the retailer's broilers. The supplier has since confirmed that a new and entirely separate feed mill has opened. The two types of feed will be produced at different sites removing the potential for residual cross contamination in the future.
Clopidol: 10 (13N0020)	Imported Poultry Muscle	BIP	Israel	Yes	Yes	No further information regarding this sample. However, the Israeli authorities responded following the CVO's letter and advised that although clopidol is not authorised for use in poultry in the EU it is authorised in Israel and the MRL is 5 µg/kg. They also advised that they have strengthened their inspection on clopidol residues in poultry products exported to the EU.
Clopidol: 32 (13N0021)	Imported Poultry Muscle	BIP	Israel	Yes	Yes	No further information regarding this sample.
Clopidol: 53 (13N0051)	Imported Poultry Muscle	BIP	Israel	Yes	Yes	No further information regarding this sample.
Sulfadiazine: 300 (13N0044)	Farmed Warm Water Crustaceans	BIP	Vietnam	Yes	Yes	The product was withdrawn from the market.
Oxytetracycline: 910 (13N0346)	Farmed Warm Water Crustaceans	Retail	Thailand	Yes	No	The retailer advised that there was no evidence to suggest use on farm and that the product had sold through.

Residue detected & concentration (µg/kg) (Sample Ref)	Sample Type	Source (Retail/ BIP)	Sample Country of Origin	CVO Letter Sent (Yes/No)	RASFF Issued (Yes/No)	Actions/Outcomes
Chloramphenicol: 0.33 (13N0232)	Farmed Warm Water Crustaceans	Retail	China	No	No	The company re-tested the product and the result was negative for chloramphenicol. On the basis of this result, the Local Authority advised the Food Business Operator that the remaining product could be released onto the market.
Trimethoprim: 58 (13N0236)	Imported Farmed Fish	Retail	Vietnam	Yes	No	The company withdrew all of the product from their shops.

Further Information

The following links will take you to websites where you can find further information relating to surveillance for veterinary residues:

Link to Glossary of relevant terms and abbreviations

Web address - <http://www.vmd.defra.gov.uk/vrc/pdf/glossary.pdf>

Veterinary Residues Committee website

Web address – <http://www.vmd.defra.gov.uk/vrc/>

Veterinary Medicines Directorate website

Web address – <http://www.vmd.defra.gov.uk/>

Food Standards Agency website

<http://www.food.gov.uk/>

EU guidance and information on control and monitoring of veterinary residues:

http://ec.europa.eu/food/food/chemicalsafety/residues/control_en.htm

Fera website

<http://www.fera.defra.gov.uk/>