



# **Residues of Veterinary Medicines in Food**

## **2011 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 2011.**

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](http://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 drugs<sup>1</sup> 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

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<sup>1</sup> 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 2011

Sample	Analysed for	Number of samples taken	Reference point (µg/kg or µg/l)	Samples at or above reference Point <sup>1</sup>	
				Number found	Concentration (µg/kg or µg/l)
Eggs – free range	Coccidiostats Diclazuril	289	Decision Limit <sup>2</sup>	2	7.8, 19
Trout Muscle	Antimicrobials Oxytetracycline	5	100	1	230
Trout Muscle	Pesticides PCBs <sup>3</sup>	5	2	1	2.4
Salmon Muscle	PCBs	6	2	1	3.5
Honey	Benzenoids naphthelene	10	Decision Limit	2	15
	1,4-dichlorobenzene				7.8
Milk	Anthelmintics Nitroxynil	178	Decision Limit	4	3.8, 12, 13 & 144
	Avermectins Ivermectin	48	1	1	5.2
Broiler Liver	Ionophores/ Nicarbazin Maduramycin	636	Decision Limit	1	3.8
Turkey Liver	Ionophores/ Nicarbazin Maduramycin	32	Decision Limit	1	5.2
Hens Liver	Anthelmintics Oxfendazole sulfone	23	25	1	71
Calves Kidney	Antimicrobials Dihydrostreptomycin	176	1000 (MRL)	4	1400, 4000, 19000, 21000
	Florfenicol	94	300 (MRL)	1	14000
Cattle Kidney	Metals Cadmium	71	1000 (MRL)	2	1300, 1600
	NSAIDS Phenylbutazone	599	Decision Limit	1	3.6
			Decision Limit	1	11
	Antimicrobials Oxytetracycline	1368	600 (MRL)	1	21000
	Penicillin G (Benzylpenicillin)		50 (MRL)	1	1100
	Neomycin		5000 (MRL)	1	8600

<sup>1</sup> Samples may include more than one substance above the reference point.

<sup>2</sup> The “Decision Limit” employed is based on one of the following criteria:

(i). The laboratory determined Decision limit (CC<sub>α</sub>) obtained during method validation to Commission Decision 2002/657/EC (implementing Council Directive 96/23/EC concerning the performance interpretation of results),

or

(ii). An agreed threshold based on external advice e.g. Thresholds for Residues of “Natural” Steroids, see

<http://www.vmd.defra.gov.uk/vrc/pdf/papers/2011/vrc1126a.pdf>

<sup>3</sup> PCBs - polychlorinated biphenyls

<b>Cattle Plasma</b>	Phenylbutazone	83	Decision Limit	1	0.24
<b>Cattle Liver</b>	<b>Avermectins</b> Ivermectin	308	100 (MRL)	1	240
<b>Cattle Urine</b>	<b>Steroid Screen</b> Alpha-Nortestosterone	1567	Decision Limit	4	3.2, 4.7, 11, 17
	Taleranol		2	2	1.3, 1.7
	<b>Thyrostats</b> Thouracil	158	Decision Limit	12	4.2, 5.2, 5.8, 7.2, 7.3, 8.2, 8.3, 11, 12, 18, 31, 77
<b>Fattening Cattle Urine</b>	<b>Steroid screen</b> Alpha-boldenone	1535	Decision Limit	8	2.1, 2.1, 2.6 2.9, 3.2, 3.4, 3.4, 11
	Alpha-Nortestosterone		Decision Limit	8	9.2, 9.8, 10, 11, 11, 13, 16, 21
	<b>Zeranol</b>	161	Decision Limit	19	0.9, 1.1, 1.1, 1.7, 2.2, 2.3, 2.6, 3, 4.3, 5.2, 11.1, 13.7
	Taleranol		Decision Limit		1.1, 1.3, 1.7, 1.9, 3, 8.8, 9.4
	<b>Thyrostats</b> Thouracil	240	Decision Limit	19	5.3, 6.5, 7, 7.5, 8.6, 9.2, 10, 11, 11, 11, 12, 15, 15, 18, 20, 20, 23, 28, 31
<b>Sheep Kidney</b>	<b>Metals</b> Cadmium	47	1000 (MRL)	1	2400
	<b>Metals</b> Lead	47	500 (MRL)	2	630, 1500,
<b>Sheep Kidney fat</b>	<b>Pyrethroids</b> Cypermethrin	526	200 (MRL)	1	850
<b>Sheep Liver</b>	<b>Anthelmintics</b> Fenbendazole	881	Sum of extractableresidues which may be oxidised to oxfendazole sulphone 500 (MRL)	2	390, 2100
	Oxfendazole			2	2000, 6800
	Oxfendazole sulfone			1	640
<b>Sheep Urine</b>	<b>Steroid Screen</b> Alpha-Boldenone	519	Decision Limit	22	2.1, 2.4, 2.4, 2.4, 2.5, 2.7, 3, 3.1, 3.2, 3.4, 3.4, 3.5, 3.6, 3.6, 4, 4.5, 7.1, 8.4, 9.6, 10, 12, 12,
	Alpha-Nortestosterone		Decision Limit	58	1.1, 1.1,1.1, 1.1, 1.1, 1.2, 1.2, 1.2, 1.2, 1.3, 1.3, 1.3, 1.3, 1.4, 1.4, 1.4, 1.5, 1.5, 1.5, 1.6, 1.6, 1.6, 1.6, 1.6, 1.7, 1.7, 1.8, 1.8, 2, 2, 2, 2.1, 2.1, 2.2, 2.2, 2.2, 2.4, 2.4, 2.4, 2.5, 2.5, 2.6, 2.7, 2.8, 2.9, 2.9, 2.9, 3, 3.4, , 3.6, 3.7, 3.8, 4.3, 4.8, 5.6, 8, 19,

	<b>Thyrostats</b> Thouracil	72	Decision Limit	8	5.1, 5.3, 5.6, 5.8, 8, 10, 17, 27
<b>Horse Kidney</b>	<b>NSAIDS</b> Phenylbutazone	68	Decision Limit	1	6.5
<b>Pigs Kidney</b>	<b>Antimicrobials</b> Sulphadiazine	1268	100 (MRL)	1	937
<b>Pigs Urine</b>	<b>Thyrostats</b> Thouracil	70	Decision Limit	3	5.2, 9.9, 17



## Section B: Full details of statutory residues surveillance programme for 2011 by sector

### EGGS

Substance Group/analyte	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A6 Table 2</b>					
Chloramphenicol	Barn	Eggs	11		
	Caged	Eggs	22		
	Free Range	Eggs	81		
	Organic	Eggs	13		
Nitrofurans	Barn	Eggs	6		
	Caged	Eggs	20		
	Free Range	Eggs	89		
	Organic	Eggs	8		
Nitroimidazoles	Barn	Eggs	10		
	Caged	Eggs	24		
	Free Range	Eggs	80		
	Organic	Eggs	9		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Barn	Eggs	7		
	Caged	Eggs	16		
	Free Range	Eggs	87		
	Organic	Eggs	8		
Antimicrobial Screen 2	Barn	Eggs	9		
	Caged	Eggs	18		
	Free Range	Eggs	48		
	Organic	Eggs	10		
Antimicrobial Screen 3	Barn	Eggs	11		
	Caged	Eggs	32		
	Free Range	Eggs	111		
	Organic	Eggs	12		
<b>B2B Coccidiostats</b>					
Coccidiostats	Barn	Eggs	34		
	Caged	Eggs	85		
	Free Range	Eggs	321	2	7.8, 19
	Organic	Eggs	36		
<b>B3A Pesticide Screen</b>					
	Barn	Eggs	4		
	Caged	Eggs	11		
	Free Range	Eggs	36		
	Organic	Eggs	4		

## FISH

Substance Group/analyte	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A3 Hormones</b>					
Methyltestosterone	Trout	Muscle & Skin	10		
<b>A6 Table 2</b>					
Chloramphenicol	Salmon	Muscle & Skin	191		
	Trout	Muscle & Skin	14		
Nitrofurans	Bass	Muscle & Skin	1		
	Salmon	Muscle & Skin	96		
	Trout	Muscle & Skin	14		
Nitroimidazoles	Bass	Muscle & Skin	1		
	Salmon	Muscle & Skin	169		
	Trout	Muscle & Skin	13		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Salmon	Muscle & Skin	79		
	Trout	Muscle & Skin	7		
Antimicrobial Screen 2	Salmon	Muscle & Skin	9		
Antimicrobial Screen 3	Salmon	Muscle & Skin	191		
	Trout	Muscle & Skin	5	1	230
Florfenicol	Salmon	Muscle & Skin	89		
<b>B2A Anthelmintics</b>					
Anthelmintics	Salmon	Muscle & Skin	100		
	Trout	Muscle & Skin	9		
Avermectins	Salmon	Muscle & Skin	86		
	Trout	Muscle & Skin	10		
<b>B2C Pesticide Screen</b>					
Pyrethroids	Salmon	Muscle & Skin	120		
<b>B3A Pesticide Screen</b>	Salmon	Muscle & Skin	6	1	3.5
	Trout	Muscle & Skin	5	1	2.4
<b>B3B Pesticide Screen</b>					

Organophosphates	Salmon	Muscle & Skin	34		
<b>B3C Heavy Metals</b>					
Metals	Salmon	Muscle & Skin	22		
	Trout	Muscle & Skin	5		
<b>B3D Mycotoxins</b>					
Mycotoxins	Salmon	Muscle & Skin	6		
	Trout	Muscle & Skin	5		
<b>B3E Dyes</b>					
Dyes	Bass	Muscle & Skin	2		
	Salmon	Muscle & Skin	133		
	Trout	Muscle & Skin	95		

## HONEY

Substance Group/analyte	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A6 Table 2</b>					
Chloramphenicol	Bees	Honey	10		
Nitrofurans	Bees	Honey	10		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Bees	Honey	20		
Antimicrobial Screen 3	Bees	Honey	20		
Antimicrobial Screen 4	Bees	Honey	19		
Antimicrobial Screen 5	Bees	Honey	19		
<b>B2C Pesticide Screen</b>					
Pyrethroids	Bees	Honey	12		
<b>B3A Pesticide Screen</b>					
	Bees	Honey	10	2	7.8, 15
	Bees	Honey	9		
<b>B3B Pesticide Screen</b>					
OPs	Bees	Honey	8		
<b>B3C Heavy Metals</b>					
Metals	Bees	Honey	11		

## MILK

Substance Group/analyte	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A6 Table 2</b>					
Chloramphenicol	Cattle	Milk	700		
	Goats	Milk	38		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Cattle	Milk	590		
	Goats	Milk	27		

Antimicrobial Screen 2	Cattle	Milk	323		
	Goats	Milk	15		
Antimicrobial Screen 3	Cattle	Milk	323		
	Goats	Milk	15		
Antimicrobial Screen 4	Cattle	Milk	280		
	Goats	Milk	11		
Cefquinome	Cattle	Milk	113		
Ceftiofur	Cattle	Milk	116		
	Goats	Milk	15		
<b>B2A Anthelmintics</b>					
Anthelmintics	Cattle	Milk	272	4	3.8,12,13, 144
	Goats	Milk	10		
Avermectins	Cattle	Milk	48	1	5.2
	Goats	Milk	15		
<b>B2E NSAIDs</b>					
	Cattle	Milk	151		
	Goats	Milk	10		
<b>B3A Pesticide Screen</b>					
	Cattle	Milk	54		
	Goats	Milk	3		
<b>B3B Pesticide Screen</b>					
OPs	Cattle	Milk	46		
	Goats	Milk	2		
<b>B3C Heavy Metals</b>					
Metals	Cattle	Milk	31		
	Goats	Milk	1		
<b>B3D Mycotoxins</b>					
Mycotoxins	Cattle	Milk	30		
	Goats	Milk	4		

## POULTRY

Substance Group/analyte	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A1 Stilbenes</b>	Broiler	Liver	18		
	Turkey	Liver	1		
<b>A3 Hormones</b>					
Steroid screen 2	Broilers	Liver	478		
	Ducks	Liver	13		
	Hens	Liver	26		
	Turkeys	Liver	54		
<b>A4 Zeranol</b>	Broiler	Liver	22		
	Turkey	Liver	1		
<b>A5 Beta-Agonists</b>					
	Broilers	Feed	214		
	Broilers	Liver	430		
	Ducks	Feed	5		
	Ducks	Liver	11		
	Hens	Feed	9		
	Hens	Liver	20		
	Turkeys	Feed	21		

	Turkeys	Liver	46		
<b>A6 Table 2</b>					
Chloramphenicol	Broilers	Muscle	419		
	Ducks	Muscle	12		
	Hens	Muscle	20		
	Turkeys	Muscle	44		
Nitrofurans	Broilers	Feed	211		
	Broilers	Muscle	414		
	Ducks	Feed	6		
	Ducks	Muscle	12		
	Hens	Feed	9		
	Hens	Muscle	20		
	Turkeys	Feed	26		
	Turkeys	Muscle	49		
Nitroimidazoles	Broilers	Feed/Serum	211		
	Broilers	Serum/Liver	749		
	Ducks	Feed	6		
	Ducks	Serum	20		
	Hens	Feed	9		
	Hens	Serum/Liver	32		
	Turkeys	Feed/Serum	22		
	Turkeys	Serum/Liver	83		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Broilers	Muscle	1,464		
	Ducks	Muscle	33		
	Geese	Muscle	7		
	Hens	Muscle	69		
	Turkeys	Muscle	163		
Antimicrobial Screen 2	Broilers	Muscle	436		
	Ducks	Muscle	8		
	Geese	Muscle	2		
	Hens	Muscle	23		
	Turkeys	Muscle	50		
<b>B2A Anthelmintics</b>					
Anthelmintics	Broilers	Liver	245		
	Ducks	Liver	20		
	Hens	Liver	23	1	71
	Turkeys	Liver	54		
<b>B2B Coccidiostats</b>					
Coccidiostats	Broilers	Liver	723	1	3.8
	Ducks	Liver	5		
	Hens	Liver	10		
	Turkeys	Liver	34	1	5.2
<b>B2C Pesticide Screen</b>					
Pyrethroids + Carbamates	Broilers	Liver	64		
	Ducks	Liver	7		
	Hens	Liver	7		
	Turkeys	Liver	16		

<b>B3A Pesticide Screen</b>					
	Broilers	Liver	231		
	Ducks	Liver	6		
	Hens	Liver	10		
	Turkeys	Liver	26		
<b>B3C Heavy Metals</b>					
Metals	Broilers	Muscle	73		
	Ducks	Muscle	2		
	Hens	Muscle	3		
	Turkeys	Muscle	7		
<b>B3D Mycotoxins</b>					
Mycotoxins	Broilers	Liver	14		
	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 (Ug/Kg)
<b>A1 Stilbenes</b>	Cattle	Urine	35		
	Fattening cattle	Urine	24		
	Pigs	Urine	13		
	Sheep	Urine	3		
<b>A2 Thyrostats</b>					
Thyrostats	Cattle	Urine	158	12	4.2, 5.2, 5.8, 7.2, 7.3, 8.2, 8.3, 11, 12, 18, 31, 77
	Fattening cattle	Urine	240	19	5.3, 6.5, 7, 7.5, 8.6, 9.2, 10, 11, 11, 11, 12, 15, 15, 18, 20, 20, 23, 28, 31
	Pigs	Urine	70	3	5.2, 9.9, 17
	Sheep	Urine	72	8	5.1, 5.3, 5.6, 5.8, 8, 10, 17, 27
<b>A3 Hormones</b>					
Gestagens	Cattle	Kidney fat	252		
	Fattening cattle	Serum	287		
	Pigs	Kidney fat	97		
	Sheep	Kidney fat	79		
Hormones	Cattle	Serum	2		
Methyltestosterone	Pigs	Feed	25		
Oestradiol	Cattle	Serum	191		
	Fattening cattle	Serum	315		
Steroid screen	Cattle	Urine	1,567	4	3.2, 4.7, 11, 17
	Fattening cattle	Urine	1,535	16	2.9, 11, 3.4, 3.4, 2.1, 2.1, 2.6,, 3.2, 9.2, 9.8, 10, 11, 11, 13, 16, 21
	Pigs	Urine	309		

	Sheep	Urine	519	80	2.1, 2.4, 2.7, 3.1, 3.4, 3.5, 3.6, 3.6, 1.1, 1.1, 1.1, 1.1, 1.1, 1.2, 1.2, 1.2, 1.3, 1.3, 1.3, 1.3, 1.4, 1.4, 1.4, 1.5, 1.5, 1.5, 1.6, 1.6, 1.6, 1.6, 1.6, 1.7, 1.7, 1.8, 1.8, 2, 2, 2, 2.1, 2.1, 2.2, 2.2, 2.2, 2.4, 2.4, 2.4, 2.4, 2.5, 2.5, 2.4, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.9, 2.9, 3, 3, 3.2, 3.4, 3.4, 3.6, 3.7, 3.8, 4, 4.4.5, 4.8, 5.6, 7.1, 8, 8.4, 9.6, 10, 12, 12, 19
Testosterone	Cattle	Serum	248		
	Fattening cattle	Serum	287		
<b>A5 Beta-Agonists</b>					
	Calves	Liver	8		
	Cattle	Liver	527		
	Fattening cattle	Feed	177		
	Fattening cattle	Urine	220		
	Horses	Liver	5		
	Pigs	Feed	42		
	Pigs	Liver	339		
	Sheep	Liver	272		
<b>A6 Table 2</b>					
Chloramphenicol	Calves	Kidney	8		
	Cattle	Kidney	246		
	Fattening cattle	Feed	316		
	Horses	Kidney	2		
	Pigs	Kidney	228		
	Sheep	Kidney	143		
Nitrofurans	Calves	Kidney	4		
	Cattle	Kidney	153		
	Fattening cattle	Feed	188		
	Horses	Kidney	2		
	Pigs	Feed	7		
	Pigs	Kidney	289		
	Sheep	Kidney	227		
Nitroimidazoles	Calves	Kidney	4		
	Cattle	Kidney	154		
	Horses	Kidney	5		
	Pigs	Feed	15		
	Pigs	Kidney	213		
	Rabbits	Muscle	1		
	Sheep	Kidney	100		
<b>B1 Antimicrobial</b>					
Antimicrobial Screen 1	Calves	Kidney	87		
	Cattle	Kidney	1,150	2	1100, 21000
	Goats	Kidney	11		
	Horses	Kidney	5		
	Pigs	Kidney	1,268	1	937
	Rabbits	Muscle	1		
	Sheep	Kidney	2,538		

Antimicrobial Screen 2	Cattle	Kidney	93		
	Pigs	Kidney	240		
Antimicrobial Screen 4	Calves	Kidney	89	4	1400, 4000, 19000, 21000
	Cattle	Kidney	124	1	8600
	Sheep	Kidney	101		
Antimicrobial	Cattle	Kidney	1		
Ceftiofur	Pigs	Kidney	101		
Florfenicol	Calves	Kidney	94	1	14000
<b>B2A Anthelmintics</b>					
Anthelmintics	Cattle	Liver	428		
	Pigs	Liver	257		
	Rabbits	Muscle	1		
	Sheep	Liver	881	2	2390, 9540
Avermectins	Cattle	Liver	308	1	240
	Goats	Liver	14		
	Horses	Liver	5		
	Pigs	Liver	124		
	Sheep	Liver	443		
<b>B2B Coccidiostats</b>					
Coccidiostats	Calves	Liver	19		
	Pigs	Liver	94		
	Rabbits	Muscle	2		
	Sheep	Liver	311		
<b>B2C Pesticide Screen</b>					
Pyrethroids	Calves	Kidney fat	36		
	Pigs	Kidney fat	68		
	Sheep	Kidney fat	526	1	850
<b>B2D Sedatives</b>					
	Breeding Boar	Liver	61		
	Cattle	Liver	45		
	Horses	Liver	10		
	Pigs	Liver	117		
	Sheep	Liver	92		
<b>B2E NSAIDs</b>					
	Cattle	Kidney/ Liver	599	2	3.6, 11
	Cows - OTMS	Plasma	83	1	0.24
	Horses	Kidney	68	1	6.5
	Pigs	Kidney	32		
	Sheep	Kidney	47		
<b>B2F Glucocorticoids</b>					
	Cattle	Liver	325		
	Pigs	Liver	63		
	Sheep	Liver	21		
<b>B3A Pesticide Screen</b>					
	Cattle	Kidney fat	74		
	Pigs	Kidney fat	61		
	Sheep	Kidney fat	122		
<b>B3B Pesticide Screen</b>					
Organophosphates	Cattle	Kidney fat	228		



	Pigs	Kidney fat	132		
	Sheep	Kidney fat	547		
<b>B3C Heavy Metals</b>					
Metals	Cattle	Kidney	47	2	1300, 1600
	Cows OTMS	Kidney	1,595	1	
	Cows OTMS	Muscle	24		
	Goats	Kidney	5		
	Pigs	Kidney	12		
	Pigs	Muscle	3		
	Rabbits	Muscle	2		
	Sheep	Kidney	47	3	630, 1500, 2400
	Sheep	Muscle	4		
<b>B3D Mycotoxins</b>					
Mycotoxins	Cattle	Liver	23		
	Pigs	Liver	57		
	Sheep	Liver	10		
<b>A4 Hormones</b>					
Zeranol	Cattle	Urine	203	2	1.3, 1.7
	Fattening cattle	Urine	161	17	0.9, 1.1, 1.1, 1.1, 1.7, 1.9, 2.2, 2.3, 2.6, 3, 3, 4.3, 5.2, 8.8, 9.4, 11.1, 13.7
	Pigs	Urine	176		
	Sheep	Urine	69		

**WILD AND FARMED GAME – No non-compliant samples found**

Compound/Substance	Species	Matrix	No. of Analyses	No. above Action Level	Concentration where samples above MRL (Ug/Kg)
<b>A3 Hormones</b>					
Steroid screen 2	Deer	Liver	5		
<b>A5 Beta-Agonists</b>					
	Deer	Liver	21		
<b>A6 Table 2</b>					
Nitroimidazoles	Deer	Muscle	5		
<b>B1 Antimicrobial</b>					
AMS1	Deer	Kidney	25		
<b>B2A Anthelmintics</b>					
Anthelmintics	Deer	Liver	6		
	Deer	Muscle	4		
	Partridge	Muscle	5		
	Pheasant	Muscle	5		
<b>B2B Coccidiostats</b>					
Coccidiostats	Partridge	Muscle	5		
	Pheasant	Muscle	4		
<b>B2C Pesticide Screen</b>					
Pyrethroids	Deer	Kidney fat	4		
<b>B2D Sedatives</b>					
	Deer	Liver	4		
<b>B2E NSAIDs</b>					
	Deer	Kidney	3		
<b>B3A Pesticide Screen</b>					
	Deer	Kidney fat	7		
<b>B3C Heavy Metals</b>					
Metals	Deer	Muscle	6		
	Partridge	Muscle	6		
	Pheasant	Muscle	5		
	Wild Deer	Muscle	109		

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

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
1-4 Dichlorobenzene 7.8 µg/kg  (1117500)	Bees Honey	N/A	N/A	N/A	N/A	N/A	In correct storage of honeycombs over the winter is the mostly likely cause of this contamination. The Bee Inspector will be advising the owner of better working practises to avoid this type of residue in the future. The FSA have been informed.
Naphthalene 15 µg/kg  (1117497)	Bees Honey	No investigation however local bee inspector will visit with advice on winter storage					
Maduramycin 3.8 µg/kg  (1119070)	Broiler Liver	This concentration falls below the European Food Safety Agency's Maximum Residue Limit of 150 µg/kg, therefore, no follow up investigation will be carried out.				N/A	
Maduramycin 5.2 µg/kg  (1110178)	Broiler Liver	This concentration falls below the European Food Safety Agency's Maximum Residue Limit of 150 µg/kg, therefore, no follow up investigation will be carried out.				N/A	
Dihydrostreptomyc in 1400 µg/kg  (1104800)	Calves Kidney	Details of withdrawal period incorrectly recorded.	Pen & Strep		N/A	N/A	Both the vet and farm have been visited. The vet prescribed Pen & Strep for Pigs for the calf in error and the farmer erroneously entered an 18 day withdrawal period (for pigs) into their system instead of the 23 day withdrawal period for cattle. The system then showed the calf suitable for slaughter on day 19 which was within the withdrawal period. This case has been referred to the Rural Payments Agency.
Dihydrostreptomyc in 19000 µg/kg  (1104799)	Calves Kidney	Checked and satisfactory only from Feb 2011.	Pen & Strep  Dihydrostroptomycin sulphate & Procaine Benzylpenicillin		N/A	N/A	Pen/Strep was present on the farm and in use at the time this calf was slaughtered. However, the medicines records were incomplete. The cause of this residue was most likely due to the calf being treated and erroneously sent to slaughter within the withdrawal period. This case has been referred to the Rural Payments Agency.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Dihydrostreptomyc in 21000 µg/kg (1104786)	Calves Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	The case was traced back through the market to the owner of the animal between 25/2/2011 and 18/3/2011 who rented a few buildings. He buys poor quality calves, raises them for sometimes only a few days, then sells them again at market. Although a part-used bottle of PenStrep was in the store, this was apparently used only for the dog. Calves are apparently treated with Oxytetracycline only. Only the Oxytet was supplied by the owner's current vet. The PenStrep is from an unknown source. Further investigation attempted, but the owner is proving hard to locate as he has been asked to remove his calves from the farm by the land owner. This case has been referred to the Rural Payments Agency.
Dihydrostreptomyc in 4000 µg/kg (1112370)	Calves Kidney	Checked and satisfactory.	Pen & Strep  Dihydrostroptomycin sulphate & Procaine Benzylpenicillin		N/A	N/A	The product Pen & Strep was in use at the farm in some quantity. However, it was not recorded as having been used in this cow. Two other cows were recorded as treated with Pen & Strep and the cause of this residue is most likely due to an error in the records of the identification of the treated cows. This case has been referred to the Rural Payments Agency.
Florfenicol 14000 µg/kg (1113702)	Calves Kidney	Incomplete for calf treatments.	Resflor  Florfenicol & Flunixin meglumine		N/A	N/A	Medicines records of the treatment of calves were not complete. Resflor was present on the farm and it was most likely that a mistake occurred, possibly by a part time weekend worker, and this calf was erroneously treated and subsequently sent for slaughter within the withdrawal period. The local authority has been notified of the discrepancy in the medicines records for calves and will revisit the farm. This case has been referred to the Rural Payments Agency.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Cadmium 1300 µg/kg (1113931)	Cattle Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	Both the owner and the breeders' farms were investigated. Both were well run farms, one of which has footpaths which are well used and the farmer has found mobile phones on several occasions, one of which was found melted in what had been a camp fire. The most likely cause of this residue is from environmental contamination from batteries.
Ibuprofen 11 µg/kg (1129403)	Cattle Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no evidence of any medicines containing this substance on farm. The sampling officer was using medication, although this did not include ibuprofen. The source of this residue could, therefore, not be established.
Neomycin 8,600 µg/kg (1128156)	Cattle Kidney	Records were incomplete. The farmer has been reminded of the requirement for keeping accurate records.	Framomycin	Framycectin Sulphate	N/A	N/A	The investigation discovered that although there appeared to be medicines records for cows in milk, other treatments had been given but were not recorded. It was confirmed that the cow in question had suffered from <i>E.coli mastitis</i> and was withdrawn from the herd and treated by the vet with fluids. The cow was given Framomycin, Engemycin and Metacam, which was not recorded in the medicines record, and was slaughtered well within the withdrawal period of 135 days for Framomycin 15% which would account for the residue concentration of 8600 µg/kg. The prescribing vet has been informed of the deficiencies of record keeping and the failure to comply with the withdrawal period. This case has also been referred to the Rural Payments Agency for consideration to reduce CAP-Cross Compliance payments.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Oxytetracycline 21,000 µg/kg  (1127403)	Cattle Kidney	Incomplete records as identities were not recorded.	Engemycin LA	Oxytetracycline	N/A	N/A	This was a 20 month old heifer suffering from Johne's Disease and on veterinary advice the owner decided to have the heifer destroyed. He passed it to a dealer who advertises for such animals, but assumed that the animal would not be submitted for human consumption. . The dealer did not ask for Food Chain Information, but appears to have completed it himself. Engemycin LA was in use on the farm and four cattle were recorded as treated in this period although their identities were not recorded so it cannot be proven that this heifer was treated. It seems the farmer genuinely believed that the heifer was being slaughtered for pet food, however, he has been given written advice on the requirements for record keeping and this case has been referred to the Rural Payments Agency. The carcass was destroyed and did not enter the food chain.
Penicillin G 1100 µg/kg  (1104062)	Cattle Kidney	Incomplete and no record of identities of treated animals.	Depocillin and Flunixin  Procaine benzylpenicillin and Flunixin & Flunixin meglumine		N/A	N/A	This heifer was treated with Depocillin (5 day withdrawal) by the vet and to slaughter 5 days later. No records of treatments were being kept and it is likely that the heifer was actually treated nearer to to the slaughter date and therefore it was still within the withdrawal period. A re-visit will be carried out to ensure records are being completed. This case has been referred to the Rural Payments Agency.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Phenylbutazone 3.6 µg/kg  (1106825)	Cattle Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a small beef farm and this animal had been used as a surrogate mother for embryo transfer. The cow had been sold had been sold at market, however, it did not, go to the purchaser's premises, but remained under the control of the market until it slaughtered 10 days later. An investigation of medicines storage and records was satisfactory. Shire horses are reared at the farm, however, there was no record of use of phenylbutazone, and there was no history of lameness which would merit such use. The investigation is therefore inconclusive, and it has been decided to enquire further as to where the cow was kept in the 10 days prior to slaughter.
Ivermectin 240 µg/kg  (1128746)	Cattle Liver	Checked and satisfactory.	Closamectin	Ivermectin	N/A	N/A	This sample came from an animal which was sent to slaughter 9 days after it was purchased due to signs of ill health. The farmer usually keeps cattle for finishing and did not treat this animal with any medicines. The previous owner had treated the animal with Closamectin 6 months prior to sale which is well passed the withdrawal period. However, a further 2 of the 6 cattle sold also died one week after purchase which indicates that these animals were redosed to aid sale, therefore it is assumed that the animal was within the withdrawal period at the time of slaughter. This case has been referred to the Rural Payments Agency.
Nitroxynil 12 µg/l  (1124884)	Cattle Milk	Checked and satisfactory.	Trodax	Nitroxynil	N/A	N/A	The owner of this medium sized dairy farm used Trodax routinely to treat fluke, however, he was mistakenly under the impression that it is permissible to use it on dry cows. Therefore the animal was treated and subsequently milked during the withdrawal period. The farmer has received and improvement notice to stop using this medication.
Alpha-boldenone 11 µg/l  (1100769)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-Boldenone 2.1 µg/l  (1124320)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a medium sized cattle farm divided equally into beef and dairy. Cattle graze and are fed hay, barley and supplementary feed according to season. The medicines storage and recording were satisfactory, with no unusual substances recorded. At sampling the affected heifer, the urine was noted to be a dark colour, but it was not considered contaminated. However, the likely source of the boldenone residue is faecal contamination of the sample.
Alpha-Boldenone 2.1 µg/l  (1125047)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a small family farm with 33 suckler cows and their calves. Cattle are sold as stores. They are fed commercial concentrates. Medicines records and storage are satisfactory and showing normal products for the type of farm. The suspect animal was re-inspected and appeared normal. The likely origin of the Boldenone residue is faecal contamination of the sample.
Alpha-boldenone 2.9 µg/l  (1100610)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 3.2 µg/l  (1124151)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a mixed farm of cattle, sheep, pigs, poultry and horses. The cattle are fed home produced forage and cereal. Medicine usage is low for the size of farm and on inspection the cattle appeared normal. The most likely cause of this residue is from faecal contamination.
Alpha-Boldenone 3.4 µg/l  (1116395)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The main activity at this farm is rearing game birds. There is a small suckler herd of 3 cattle. Much of the land is rented out for sheep and cattle. The heifers graze the land for the whole year with no supplementary feed. Medicines records and storage are satisfactory. The only product in use is medicated feed (lasalocid and flubendazole or chlortetracycline) for the game birds. Given that this was a urine sample taken on farm, the most likely origin for the Boldenone residue is faecal contamination of the sample.



Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Alpha-Boldenone 3.4 µg/l  (1124149)	Cattle Urine	No investigation required as the sample was visibly contaminated.					N/A
Alpha-Nortest 10 µg/l  (1124266)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This animal was sampled in error as it was pregnant at the time, despite the sampling officer asking appropriate questions.
Alpha-Nortest 11 µg/l  (1123296)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The animal was in calf at the time of sampling which was unknown to the sampling officer.
Alpha-Nortest 11 µg/l  (1100765)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Despite the investigating officer asking appropriate questions, this animal was in calf at the time of sampling.
Alpha-Nortest 11 µg/l  (1100799)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Despite the investigating officer asking appropriate questions, this animal was in calf at the time of sampling.
Alpha-Nortest 13 µg/l  (1100738)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Despite the investigating officer asking appropriate questions, this animal was in calf at the time of sampling.
Alpha-Nortest 16 µg/l  (1124260)	Cattle Urine	N/A	N/A	N/A	N/A	N/A	This animal was sampled in error as it was pregnant at the time, despite the sampling officer asking appropriate questions.
Alpha-Nortest 17 µg/l  (1107641)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Animal in question had only been purchased 2 weeks prior to slaughter but due to bullying it was slaughtered. It is considered likely that elevated levels could occur in male animals submitted for slaughter possibly due to increased stress and could have contributed to the cause of this residue.
Alpha-Nortest 21 µg/l  (1124279)	Cattle Urine	N/A	N/A	N/A	N/A	N/A	This animal was sampled in error as it was pregnant at the time, despite the sampling officer asking appropriate questions.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-Nortest 3.2 µg/l (1129942)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 4.7 µg/l (1129918)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 9.2 µg/l & Alpha-boldenone 2.6 µg/l (1100629)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of natural levels and contamination.
Alpha-Nortest 9.8 µg/l (1124251)	Cattle Urine	N/A	N/A	N/A	N/A	N/A	This animal was sampled in error as it was pregnant at the time, despite the sampling officer asking appropriate questions.
Taleranol 1.1 µg/l (1124549)	Cattle Urine	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.				N/A	
Taleranol 1.3 µg/l (1130279)	Cattle Urine	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.				N/A	
Taleranol 1.7 µg/l (1123458)	Cattle Urine	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.				N/A	
Taleranol 1.7 µg/l & Zeranol 0.9 (1124555)	Cattle Urine	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.				N/A	
Taleranol 3 µg/l & Zeranol 2.2 µg/l (1124550)	Cattle Urine	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.				N/A	
Taleranol 8.8 µg/l & Zeranol 2.3 µg/l (1116662)	Cattle Urine	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.				N/A	

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Taleranol 9.4 µg/l & Zeranol 4.3 µg/l (1101013)	Cattle Urine	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.					N/A
Thiouracil 10 µg/l (1100943)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Cattle are sold as stores between 12 and 15 months. Winter feed is silage then wheat straw. A 33% protein concentrate from Countrywide farmers makes up 1/6 of the ration. Home produced beans were fed last autumn. There is no reason to suspect the use of any Thyrostats. This must be assumed to be a dietary source, possibly the beans or purchased concentrate.
Thiouracil 11 µg/l (1124508)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle on this farm are reared to a high standard and are inspected on a monthly basis by a veterinary practice. The on-farm investigation could not find any obvious source of the cause of this residue in neither medicines nor feed.
Thiouracil 11 µg/l (1116589)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a beef finishing unit of 100 cattle. There are also 1000 ewes. The suspect animal was slaughtered 2 days after sampling. Medicines storage and records are satisfactory and as expected for the type of farm. The cattle are grazed and fed home produced silage, barley and a protein balancer. They are also fed a locally-produced rapeseed extract over the winter. The fields have been reseeded and contain much clover. It is suggested that the rapeseed cake is responsible for this result, although it is only apparently fed in the winter.
Thiouracil 11 µg/l (1115668)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a dairy herd, raising Friesian male calves as bull beef. They also have sheep. This animal had been housed since weaning and fed straw with a commercial concentrate ration. This diet has a declared ingredient of "LOW GLUCORAPE", presumably rapeseed.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 11 µg/l (1116608)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The sampled heifer was suckled by its mother and fed grass in summer 2009. Since then she was fed distiller's maize, rolled barley, straw and silage, with grass in summer 2010. Occasionally vegetable waste from the garden is fed to the cattle. This would include brassicas, but is in very small quantities. There are small amounts of rape growing with the cereals and in silage fields, which would then be fed with the straw or silage. There is no reason to suspect the use of any thyrostats.
Thiouracil 12 µg/l (1124504)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This farm is linked with another premise and is a mixed holding of arable and beef. The cattle are fed a cereal mix which may contain brassica rich feed, which is the most likely cause of this residue.
Thiouracil 12 µg/l (1115663)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle on this farm are fed milk powder and commercial calf pellets until 7-8 weeks of age. They are then fed a home mixed ration of concentrate pellets, wheat, sugar beet 'Shreds' and barley until slaughter at 12-13 months of age. They are always kept in buildings where there is straw available. It was noted that human sewage sludge is used to fertilise the arable fields at ploughing. Both the calf and beef concentrates contain "Ext Rapeseed meal" assumed to be an extracted rapeseed cake, which could account for the thiouracil residue.
Thiouracil 15 µg/l (1124511)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle at this farm are usually grazed during the summer and then in the autumn the farmer allows the cattle access to kale fields each morning, and supplements with other feed containing brassicas. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 15 µg/l (1124501)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The finishing cattle at this farm are fed with high energy diet for ad-lib feeding which contains brassicas. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
Thiouracil 18 µg/l (1124507)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The main activity of this farm is dairy and arable and the crops grown are rape, wheat, beans and maize. The cows are fed a diet which contains rapeseed meal and this is the most likely cause of this residue.
Thiouracil 18 µg/l (1108136)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This premises is an exempt finishing unit (for TB-restricted cattle). The positive sample was from a steer purchased Oct 10. All the cattle go into a modern shed, where they are fed straw and a commercial concentrate feed. The farm is unusual, in that it does not use any medicines, the owners preferring to slaughter rather than treat. The commercial feed contains "Extracted Rapeseed" which could be responsible for the thiouracil residue in this animal.
Thiouracil 20 µg/l (1116618)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a mainly arable farm which uses wheat barley and oats to fatten bought-in cattle. Medicines records and storage were satisfactory and as expected for the type of farm. Although rape is grown, it is sold and not fed to the cattle. However, the cattle are fed a starter/grower ration from Duffield which is confirmed as containing rapeseed extract along with sunflower, soybean and rapeseed oils. It is most likely that the positive result is due to the inclusion of rape products in the diet.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 20 µg/l (1124482)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a dairy farm with 120 cows. The calves are retained as replacements or are fattened on farm with 200 purchased store cattle. There are also 700 ewes. There is also arable land. The suspect heifer was reared on calf pencils and barley then grazed in Summer 2010. Since housing it was fed a mixture of a compound feed and barley with silage. Medicines records and storage are satisfactory, showing common products. The balancer cake is shown to contain extracted rapeseed meal, which is the likely origin for this residue.
Thiouracil 23 µg/l (1125523)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The investigation established that the cattle on this farm were not given any feed containing brassica rich substances, however, the cattle were grazed adjacent to a field containing rape. It is most likely that the cattle consumed this brassica rich rape through the fence.
Thiouracil 28 µg/l (1100920)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a fattening beef unit with no breeding cattle. There are also sheep. The cattle graze from May to October and are housed in the winter, fed on home-produced silage and commercial concentrate. A neighbour grows rape in an adjacent field to the grazing. Another possible source of thiouracil would be an ingredient in the concentrate feed, although ingredients are not listed. The animals were housed (and thus fed concentrate) at the time of sampling.
Thiouracil 31 µg/l (1123389)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle at this finishing unit are all kept for a minimum of 90 days to comply with the retail scheme and are fed with their own coarse mix which is available ad-lib. Although the mix contains palm kernals, it is unknown whether these are brassicas, therefore the investigation was unable to establish a likely cause of this residue.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 31 µg/l (1100951)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a large dairy and arable farm. The original calf had been sold at market, but others were seen and appeared normal. They are fed on milk replacer then commercial calf pellets. Ingredient lists are available, and it is possible that the 10% rape seed extract in the calf pellets is a source of thiouracil.
Thiouracil 5.2 µg/l (1115643)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a beef breeding farm with 250 cattle. Fat cattle are finished indoors on slats and sold at market. They are fed on oat straw, barley, dark grains (maize?), sugar beet pulp and minerals. There is no evidence that any brassicas are being fed therefore it was not possible to establish a cause of this residue.
Thiouracil 5.3 µg/l (1124481)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle from which this sample came from had never grazed outside and was fed using a supplement with a high brassica content. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
Thiouracil 5.8 µg/l (1130161)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The on-farm investigation could not find any obvious source of the cause of this residue in neither medicines nor feed.
Thiouracil 6.5 µg/l (1116604)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a beef and sheep farm. Beef stores are purchased at local markets and fattened for sale at market or direct to the abattoir. They are fed silage and a mineral supplement. They also use bakery waste. There is no proprietary concentrate in use for the cattle, although it is used for sheep. Medicines records and storage were satisfactory with products as expected for the type of farm. The farmer has been advised on improving the records format only. With no obvious source of any brassicas, the cause of this Thiouracil result could not be established.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 7 µg/l (1124470)	Cattle Urine	Checked and incomplete. The farmer has been given advice on the requirement for record keeping.	N/A	N/A	N/A	N/A	The cattle from which this sample came from had been fed with a calf rearing blend and a baby calf supplement, both of which contained rapemeal, therefore, the most likely cause of this residue is due to brassica rich feed. The farmer had not recorded the use of medicated calf milk in his records but this has been rectified. The medicine did not contain any thyrostats.
Thiouracil 7.2 µg/l (1115670)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a large intensive beef farm, buying bull calves and rearing indoors for bull beef. There are also sheep. Medicines records and storage are satisfactory, with no unusual substances. The ration is barley, straw and a bespoke concentrate which contains rapeseed meal as one ingredient. It is likely that this is responsible for this Thiouracil residue.
Thiouracil 7.3 µg/l (1115660)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The sampled animal was fed for the last 2 months before slaughter with a proprietary cattle cake which does not declare any brassicas in the ingredient list. However, prior to this, a home mix containing amongst others, oilseed rape was being fed. The timing does not suggest that this is the source of thiouracil.
Thiouracil 7.5 µg/l (1124474)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle from which this sample came from had been fed with calf pellets but details of the ingredients were not available. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
Thiouracil 77 µg/l (1108115)	Cattle Urine	Checked and satisfactory.	N/A	N/A	Barley straw, wheat, Paul's ECO 1 Primemix.	1117596 – 1117597 – 1117598 – 1117599 – 1117600 –	This farm has an 86 bullock fattening herd, animals are purchased from local markets and then sold on for slaughter. No brassicas or veg waste given. Five target samples were taken and all confirmed as compliant. It was not possible to establish a cause of this residue.



Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 8.2 µg/l (1123391)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a finishing farm and the Cattle are mostly turned out in the summer, except for 20-30 heavy cattle which remain in yards. These are fed on bought in potatoes and fodder beet, own straw and own beans. Finishing cattle are given ad lib barley, minerals and straw. There were no medicines on the farm containing Thiouracil, therefore, the cause of this residue is most likely to be due to brassica rich feed.
Thiouracil 8.3 µg/l (1115676)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	Cattle are fed grass/silage with home grown cereals. In addition, there is a rape/ soya/ mineral mix. This animal was given a wormer on arrival, but no other treatments have been recorded. It is suggested that the inclusion of rapeseed cake in the balancer ration could account for this residue.
Thiouracil 8.6 µg/l (1100942)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The positive calf was a Simmental cross heifer reared with one other similar calf. They are fed pooled and reject milk before being given access to dairy concentrate feed. The calf was given Lectade electrolytes, but no other medication was recorded for this animal. They are weaned at six weeks and then penned on straw in larger groups. No possible source of thiouracil was found and the reason for this residue is therefore unknown.
Thiouracil 9.2 µg/l (1124463)	Cattle Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The cattle from which this sample came from had been fed with pellets containing oil-seed rape. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
Zeranol 3 µg/l (1124551)	Cattle Urine	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.				N/A	N/A
Diclazuril 19 µg/kg (1123855)	Free Range Eggs	This concentration falls below the European Food Safety Agency's Maximum Residue Limit, therefore, no follow up investigation will be carried out.				N/A	N/A
Diclazuril 7.8 µg/kg (1123855)	Free Range Eggs	This concentration falls below the European Food Safety Agency's Maximum Residue Limit, therefore, no follow up investigation will be carried out.				N/A	N/A

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Oxfendazole Sulfone 71 µg/kg  (1102156)	Hens Liver	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a large commercial poultry farm (layers). There are free range flocks, but this particular bird was from a group of 16,000 which was housed in cages from 26/3/2010 to depopulation on 18/3/2011 (House 3). The caged birds have only a multivitamin preparation, no other medication. Free range flocks are occasionally treated with anthelmintics, but there was no use of any medicated feed in the period when this caged flock was in lay. A neighbour's sheep occasionally graze the free range areas, but this could not account for an anthelmintic in the caged birds. All feed for House 3 is stored in its own silo. It is replenished weekly and virtually emptied between flocks. It has been ascertained that the feed mill does produce feed medicated with Panacur, although has a protocol to prevent carryover of medication. Therefore, this investigation could not establish the cause of the residue.
Phenylbutazone 6.5 µg/kg  (1114326)	Horse Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	The owner of this racing stable also buys horses in poor condition to be given some care and rehabilitated, and bought this horse from an elderly couple in May 2011. It came with a passport which was unsigned regarding human consumption and as the horse had a problem in one of its legs, the owner decided to have it slaughtered. The medicine cabinet only contained herbal remedies minerals and vitamins. The vet had not been to the premises for over a year. Unfortunately, the previous owner could not be traced to comment on whether phenylbutazone had been administered prior to sale, which is the most likely cause of this residue.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 17 µg/l (1115687)	Pig Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a large pig farm, 3000 pigs. They have been suffering a problem of poor bone and muscle growth which is suspected to be a mineral imbalance in the diet. Pigs moved to other premises for fattening are not suffering this. However, there is no suggestion that any unusual substances have been used on the farm. The declared components of the diet do not include any brassica source. The reason for this residue is therefore unknown.
Thiouracil 5.2 µg/l (1123422)	Pig Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The pigs on this farm are mostly fed bakery industry by-products which regularly contain rape seed. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
Thiouracil 9.9 µg/l (1123416)	Pig Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The pigs on this farm are mostly fed with a grower feedingstuff which contains rape oil. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.
PCBs 3.5 µg/kg (1108938)	Salmon Muscle	No investigation required. The FSA have advised that a Commission decision is imminent which will set an action level of 75 µg/kg for PCBs in fish.					
Cadmium 2400 µg/kg (1113951)	Sheep Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	The sheep on this farm are grazed on grass and there were no obvious signs of environmental pollution or otherwise, therefore the source of this residue with a concentration of 2400 µg/kg could not be established.
Lead 1500 µg/kg (1106411)	Sheep Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	It was not possible to back-trace through the market but the sheep was forward traced to a farm from the breeder's tag, all the 2010 lamb crop having been sold as stores in September 2010. No evidence of any lead source was noted in the environment, therefore, the source of this residue could not be established.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Lead 630 µg/kg (1106415)	Sheep Kidney	Checked and satisfactory.	N/A	N/A	N/A	N/A	This farm was purchased by the current owner 3 years ago. Prior to this the land was neglected and old vehicles and batteries were left for long periods. The farmer has been prevented from ploughing these fields by the Welsh Assembly due to the age of the pastures. The most likely cause of this residue is due to environmental pollution.
Cypermethrin 850 µg/kg (1122767)	Sheep Kidney fat	Records were incomplete. The farmer has been reminded of the requirement for keeping accurate records.	Crovect 1.25% pour on solution for sheep.	Cypermethrin	N/A		The investigation established that the likely cause of this residue was due to the animal being treated with a product containing cypermethrin and subsequently sent to slaughter whilst still within the withdrawal period. The investigating officer found that there was no record of any treatment with cypermethrin on sheep in the medicines record. The owner explained that all ewes were routinely treated with Crovect in the summer, but not the lambs. The owner was not aware that Crovect had a withdrawal period despite this being clearly stated on the bottle. This case has been referred to the Rural Payments Agency.
Oxfendazole 2,000 µg/kg & fenbendazole 390 µg/kg (1128374)	Sheep Liver		Panacur	Fenbendazole			The investigation established that this animal was treated with Panacur 20 days prior to slaughter which complies with the withdrawal period of 15 days. The most likely cause of this residue is due to an accidental overdose of Panacur. This case has been referred to the Rural Payments Agency.
Oxfendazole 9540 µg/kg (1112388)	Sheep Liver	Details of withdrawal periods not recorded.	Panacur 10%	Fenbendazole	N/A	N/A	The animal in question was treated with a wormer, with a 15 day withdrawal period, 21 days prior to being sent for slaughter. It is possible that the animal was either re-treated at a later date or the residue was due to overdosing. This case has been referred to the Rural Payments Agency.
Alpha-Boldenone 10 µg/l & Alpha-Nortest 1.8 µg/l (1123083)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-Boldenone 12 µg/l  (1130070)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 12 µg/l & Alpha- Nortest 1.8 µg/l  (1130084)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-boldenone 2.1 µg/l  (1115289)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 2.4 µg/l  (1130088)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 2.4 µg/l & Alpha- Nortest 2.2 µg/l  (1130087)	Sheep Urine	Unable to locate the records following the death of the farmer.	N/A	N/A	N/A	N/A	The farmer passed away shortly after sampling and the medicines records could not be located, however, there was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.
Alpha-Boldenone 2.5 µg/l & Alpha- Nortest 2.8 µg/l  (1130041)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.
Alpha-Boldenone 2.7 µg/l  (1130086)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-boldenone 3 µg/l & Alpha-Nortest 2.2 µg/l  (1115189)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of natural levels and contamination.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-boldenone 3.1 µg/l  (1107954)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no evidence of the use of illegal substances and the farms' working practices were very good. The cause of this residue is most likely due to faecal contamination at the time of sampling.
Alpha-Boldenone 3.2 µg/l & Alpha- Nortest 2.5 µg/l  (1123080)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.
Alpha-boldenone 3.4 µg/l  (1115273)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 3.4 µg/l & Alpha- Nortest 1.6 µg/l  (1115237)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.
Alpha-Boldenone 3.5 µg/l  (1122994)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 3.6 µg/l  (1122972)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-boldenone 3.6 µg/l  (1115258)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-boldenone 4 µg/l  (1115245)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 4.5 µg/l  (1130053)	Sheep Urine	No investigation was carried out as AHVLA were unable to trace the animal back to a farm.					

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Alpha-Boldenone 7.1 µg/l & Alpha-Nortest 1.3 µg/l (1130109)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to a combination of contamination and natural level.
Alpha-boldenone 8.4 µg/l (1107955)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Boldenone 9.6 µg/l (1123028)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to contamination.
Alpha-Nortest 1.1- 2 µg/l (22 samples)	Sheep Urine	2 µg/l or less - no investigation required.					N/A
Alpha-Nortest 19 µg/l (1115209)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.1 µg/l (1115250)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The investigation established that it was likely that some un-castrated hogget ram lambs were in the batch that was sent for slaughter, therefore, it is most likely that the cause of this residue is due to natural causes.
Alpha-Nortest 2.1 µg/l (1130090)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.2 µg/l (1123044)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.4 µg/l (1130089)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.

<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-Nortest 2.4 µg/l (1107887)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this small, almost hobby farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.5 µg/l (1122986)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.6 µg/l (1115220)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The investigating officer was unable to trace this animal to its owner. Therefore, it was not possible to establish the cause of this residue.
Alpha-Nortest 2.7 µg/l (1122968)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.9 µg/l (1115246)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.9 µg/l (1130096)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 2.9 µg/l (1122978)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 3 µg/l (1130043)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 3.4 µg/l (1130044)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The sheep on this farm are primarily pedigree Swaledales and the males are not castrated. As these animals were going for slaughter, routine vaccination, wormers or medication was not given. The most likely cause of this residue is due to natural levels.



<b>Residue detected &amp; concentration (RIM Ref)</b>	<b>Sample</b>	<b>Medicine records</b>	<b>Products used</b>	<b>Actives</b>	<b>Feeding practises</b>	<b>Follow-up sample results</b>	<b>Cause of residue</b>
Alpha-Nortest 3.6 µg/l (1130049)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 3.7 µg/l (1107968)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 3.8 µg/l (1123052)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 4.3 µg/l (1123102)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a beef and sheep farm and this batch of lambs were grazed with supplementary concentrate feed. The only treatments given were Cydectin pour-on, and some individuals in the group with a long acting tetracycline, but it was not possible to determine if this particular sheep was treated, being only identified by a flockmark tag at slaughter. Medicines storage and records were satisfactory. It is perhaps of note that this was a male lamb which was uncastrated.
Alpha-Nortest 4.8 µg/l (1123085)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 5.6 µg/l (1123050)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The source of the residue is most likely due to natural levels.
Alpha-Nortest 8 µg/l (1123983)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	There was no obvious sign of illegal substance use on this farm. The male lambs are sold uncastrated, therefore, the source of the residue is most likely due to natural levels.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 10 µg/l (1108154)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a cattle (80) and sheep (1800) farm. Homebred lambs are reared for slaughter. A number of medications are in use, correctly stored and recorded. No fresh brassicas are being fed, but a concentrate feed is used to supplement home grown forage. The ingredients of this concentrate are not declared, but may contain a natural source of Thiouracil.
Thiouracil 17 µg/l (1108150)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a sheep farm with 950 ewes, but the farm also has 36 cattle. Records showed the use of anthelmintics and antibiotics. The animals are grazed and fed sugar beets. There is no obvious source of thiouracil, such as brassicas. The reason for this residue is therefore unknown.
Thiouracil 27 µg/l (1108139)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a medium sized cattle and sheep farm. The cattle are wintered on silage. The group of sheep slaughtered on 16/3/2011 had grazed since December on a mixture of Kale and Rape. There was no evidence of any unusual medications. The outcome of the investigation is that the thyrostat most likely resulted from the Brassicas in the feed.
Thiouracil 5.1 µg/l (1123438)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This medium sized farm with around 450 breeding ewes (700-800 sheep altogether) routinely uses wormers but do not use Injectable medicines. At the final stage of fattening the sheep are fed concentrate pellets which contain rapeseed extract and this is the most likely of the residue.
Thiouracil 5.3 µg/l (1123439)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This large farm with over 1000 breeding ewes fattens them on rape crops for the final 5 weeks prior to slaughter. This is considered to be the most likely cause of the residue.
Thiouracil 5.6 µg/l (1130209)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	The sheep at this farm are usually grazed during the summer and then fed pellets which contained low glucorape. There was no evidence of the use of medicines which contain this substance, therefore, the most likely cause of this residue is due to brassica rich feed.

Residue detected & concentration (RIM Ref)	Sample	Medicine records	Products used	Actives	Feeding practises	Follow-up sample results	Cause of residue
Thiouracil 5.8 µg/l (1108151)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is a large beef and sheep enterprise with good standards of management. The significant finding is that the sheep were being fed on stubble turnips ( <i>Brassica</i> spp.) prior to slaughter. This is thought to be the origin of the thyrostat.
Thiouracil 8 µg/l (1115708)	Sheep Urine	Checked and satisfactory.	N/A	N/A	N/A	N/A	This is the breeder's farm, traced through the ear tag. It is a small farm with 22 beef cattle and 20 ewes. The ewes and most lambs were sold in July 2010. There was no unusual feeding or treatments. The reason for this residue is therefore unknown.
Oxytet 230 µg/kg (1109003)	Trout Muscle	Details of withdrawal periods and chemical name were not recorded.	Oxytetracycline	Oxytetracycline	N/A	N/A	The fish sampled had been transferred from another site and prior to moving oxytetracycline had been administered. Details of the withdrawal period was not recorded in the medicines records, this, together with miscommunication between the site manager and the sampling inspector led to the premature sampling whilst still within the withdrawal period.
PCBs 2.4 µg/kg (1108650)	Trout Muscle	No investigation required. The FSA have advised that a Commission decision is imminent which will set an action level of 75 µg/kg for PCBs in fish.					

## Section D: Follow up/Investigation Results from Northern Ireland

National Surveillance Scheme.....	
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Bovine urine: $\alpha$ -Boldenone C 2.2 ppb (abattoir).....	46
Ovine urine: $\alpha$ -Boldenone C 5.2, F 4.2. ppb (abattoir).....	46
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Bovine milk: Nitroxynil 144 ppb No MRL is set. ....	50
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## **National Surveillance Scheme**

### **Bovine urine:        α-Boldenone C 5.5, F 0.6 ppb (on-farm)**

Lab No. 2011104199   APHIS Number 219507201 Taken 19-04-2011

Description & investigation.   Conjugated α-boldenone (5.5 ppb) and free α-boldenone (0.6 ppb) were detected in the urine of a 2.5 year old cow. The urine of the animal, which was heavily pregnant at the time of sampling, also contained α-nortestosterone (43 ppb, above the VMD Action Limit of 5 ppb for cows) – which was a natural occurrence. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated α-boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb).

Follow-up sampling.   At a farm follow-up visit, no suspect animals were identified. However, urine samples from 5 animals were collected. Two were unsuitable for analysis and the remaining three were compliant. No further action is proposed.

### **Bovine urine:        α-Boldenone C 2.7, F N.D. ppb (abattoir)**

Lab No. 2011109715   APHIS Number 219287938           Taken 22-08-2011

Description & investigation.   Conjugated α-boldenone (2.7 ppb) was detected in the urine of a 3.5 year old cow. The urine of the animal also contained α-nortestosterone (6.2 ppb, above the VMD Action Limit of 5 ppb for cows) – which may have been a natural occurrence. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was only marginally above the concentration of conjugated α-boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb).

Follow-up sampling.   At a farm follow-up visit, no suspect animals were identified. However, urine samples from 5 animals were collected. All five were compliant. No further action is proposed.

### **Bovine urine:        α-Boldenone C 6.2, F 9.0. ppb (on-farm)**

Lab No. 2011107794   APHIS Number 219291468           Taken 16-06-2011

Description & investigation.   Conjugated α-boldenone (6.2 ppb) and free α-boldenone (9.0 ppb) were detected in the urine of a 15-month old steer. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was well above the concentration of conjugated α-boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb).

Follow-up sampling.   At a farm follow-up visit, no suspect animals were identified. However, urine samples from 5 animals were collected. All five were non-compliant with the EU Action Level. A further 5 samples were collected and only one was non-compliant. No evidence of abuse was found. In the absence of the presence of any β-boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Bovine urine:  $\alpha$ -Boldenone C 4.6, F 0.8. ppb (on-farm)**

Lab No. 201108513      APHIS Number 220496078      Taken 30-06-2011

Description & investigation. Conjugated  $\alpha$ -boldenone (6.2 ppb) and free  $\alpha$ -boldenone (0.8 ppb) were detected in the urine of a 26-month old cow. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb).

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. However, urine samples from 6 animals, including the original animal, were collected. All six were compliant. No evidence of abuse was found. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Ovine urine:  $\alpha$ -Boldenone C 3.9, F 1.3. ppb (abattoir)**

Lab No. 201109191      APHIS Number 219288654      Taken 01-08-2011

Description & investigation. Conjugated  $\alpha$ -boldenone (3.9 ppb) and free  $\alpha$ -boldenone (1.3 ppb) were detected in the urine of a 6-month old ovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb) – which, strictly speaking, applies only to cattle.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. However, urine samples from 5 animals were collected. All were compliant. No evidence of abuse was found. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Bovine urine:  $\alpha$ -Boldenone C 2.2 ppb (abattoir)**

Lab No. 201109692      APHIS Number 219288134      Taken 17-08-2011

Description & investigation. Conjugated  $\alpha$ -boldenone (2.2 ppb) was detected in the urine of a male bovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb).

**Follow-up sampling.** Requested.

**Ovine urine:  $\alpha$ -Boldenone C 5.2, F 4.2. ppb (abattoir)**

Lab No. 201112186      APHIS Number 219288652      Taken 26-10-2011

Description & investigation. Conjugated  $\alpha$ -boldenone (5.2 ppb) and free  $\alpha$ -boldenone (4.2 ppb) were detected in the urine of a 5-month old ovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb) – which, strictly speaking, applies only to cattle.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. No evidence of abuse was found. Urine samples were collected from a total of six animals on two occasions at slaughter. All were compliant. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Ovine urine:  $\alpha$ -Boldenone C 5.8, F 6.5. ppb (abattoir)**

Lab No. 201112359      APHIS Number 219288596      Taken 03-11-2011

**Description & investigation.** Conjugated  $\alpha$ -boldenone (5.8 ppb) and free  $\alpha$ -boldenone (6.5 ppb) were detected in the urine of a 7-month old ovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb) – which, strictly speaking, applies only to cattle.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. No evidence of abuse was found. Urine samples were collected from a total of nine animals at slaughter. All samples were compliant. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Ovine urine:  $\alpha$ -Boldenone C 4.5, F 8.1. ppb (abattoir)**

Lab No. 201112359      APHIS Number 219288596      Taken 03-11-2011

**Description & investigation.** Conjugated  $\alpha$ -boldenone (4.5 ppb) and free  $\alpha$ -boldenone (8.1 ppb) were detected in the urine of an ovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb) – which, strictly speaking, applies only to cattle.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. No evidence of abuse was found. Urine samples were collected from a total of ten animals on two occasions at slaughter. There was insufficient sample for analysis from seven samples the remaining three samples were compliant. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Ovine urine:  $\alpha$ -Boldenone C 4.6, F 2.1. ppb (abattoir)**

Lab No. 201114795      APHIS Number 219288482      Taken 13-12-2011

**Description & investigation.** Conjugated  $\alpha$ -boldenone (4.6 ppb) and free  $\alpha$ -boldenone (2.1 ppb) were detected in the urine of a nine month old ovine. Boldenone can occur naturally, as a result of faecal contamination of urine samples, especially those taken on farm. The residue found was above the concentration of conjugated  $\alpha$ -boldenone suggested by the Boldenone Expert Working Group as being “suspicious” (2 ppb) – which, strictly speaking, applies only to cattle.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. No evidence of abuse was found. Urine samples were collected from a five animals at slaughter. All were compliant. In the absence of the presence of any  $\beta$ -boldenone, which would have provided strong evidence of abuse, in the samples taken at follow-up, no further action is proposed.

**Bovine urine:         $\alpha$ -Nortestosterone 7.4 ppb (on-farm)**

Lab No. 201105531     APHIS Number 220145857           Taken 13-05-2011

Description & investigation.    Nortestosterone is a steroidal hormone, which is banned in the EU for use in cattle. Conjugated  $\alpha$ -nortestosterone (2.2 ppb) was detected in the urine of a female bovine, at a concentration in excess of the VMD Action Limit (5 ppb). This limit was established because it is known that  $\alpha$ -nortestosterone occurs naturally in pregnant cows.

**Follow-up sampling.** Requested.

**Bovine urine:         $\alpha$ -Oestradiol 0.28 ppb (on-farm)**

Lab No. 201106309     APHIS Number 219288309           Taken 31-05-2011

Description & investigation.    Oestradiol is a steroidal hormone, which is banned in the EU for use in cattle. 17 $\alpha$ -oestradiol was detected in a urine sample taken from a male bovine. No further details are currently available.

**Follow-up sampling.** Two follow-up samples were collected on 05-07-2011 and 29-09-2011. Both were compliant. No further details are currently available.

**Bovine urine:         $\alpha$ -Oestradiol 0.17 ppb (on-farm)**

Lab No. 201106446     APHIS Number 220295818           Taken 02-06-2011

Description & investigation.    Oestradiol is a steroidal hormone, which is banned in the EU for use in cattle. 17 $\alpha$ -oestradiol was detected in a urine sample taken from a male bovine. No further details are currently available.

**Follow-up sampling.** Six follow-up samples were collected on 23-08-2011. All were compliant. No further details are currently available.

**Bovine urine:        Thiouracil 4.2 ppb (farm)**

Lab No. 201106463     APHIS Number 219291376           Taken 01-06-2011

Description & investigation.    Thiouracil, an illegal thyrostat, occasionally used for the purposes of growth promotion, was detected in a urine sample taken on farm from a 31-month old cow. In addition to possible illegal use, it is known that thiouracil can occur following the ingestion of Brassicas, possibly including oilseed rape cakes, etc.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. Medicines records were good and the husbandry was of a good standard. During the on-farm visit, 6 urine samples, including one from the original animal were taken. All were found to be compliant. No further action is proposed.



**Bovine urine: Thiouracil 4.3 ppb (farm)**

Lab No. 201107517 APHIS Number 219507517 Taken 06-07-2011

Description & investigation. Thiouracil, an illegal thyrostat, occasionally used for the purposes of growth promotion, was detected in a urine sample taken on farm from a 7-year old cow. The farm had been targeted for sampling as a result of a similar finding in 2010. The same animal sampled on this occasion was the same animal that was sampled in 2010. In addition to possible illegal use, it is known that thiouracil can occur following the ingestion of Brassicas, possibly including oilseed rape cakes, etc.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. During the visit, 6 urine samples, including one from the original animal were taken. All were found to be compliant. No further action is proposed.

**Bovine serum: Phenylbutazone 0.24 ppb (abattoir)**

Lab No. 201110188 APHIS Number 219508076 Taken 07-09-2011

Description & investigation. Phenylbutazone is licensed to treat lameness in horses, not intended for human consumption. It is not licensed for use in any food-producing animals. It has been used for the treatment of mastitis; however such treatments are illegal. Residues of phenylbutazone were detected in serum taken from a 5-year old bovine from a mixed dairy/beef herd. There was no phenylbutazone on the farm. Neither were there any horses on the farm.

**Follow-up sampling.** At a farm follow-up visit, no suspect animals were identified. The herd was flagged for sampling & detention at slaughter.

**Porcine kidney: Sulphadiazine 937 ppb, MRL = 100 ppb (abattoir)**

Lab No. 201106636 APHIS Number 219290060 Taken 06-06-2011

Description & investigation. Sulphadiazine, a licensed synthetic antibiotic, was detected in a porcine kidney sample, taken from a 5.5 month old pig, in excess of the MRL. The herd keeper had been using Trimadiazine 15 at an inclusion rate of 2.5 kg/tonne. A withdrawal period of 5 days had been observed. However, the product has a withdrawal period of 7 days, which may explain the residue. His PVP subsequently advised him to increase the withdrawal period to 2 weeks. It was decided to place the herd keeper on Phase 2 of the Pigs Testing Scheme to ensure compliance.

**Follow-up sampling.** Three sets of pigs were collected at Phase 2 (30, 20 & 10 animals) and all were compliant. This was submitted as a minor SMR breach, and no further action is proposed.

**Bovine milk: Ivermectin 5.2 ppb No MRL is set.**

Lab No. 201104495 ID Number 01149 Taken 04-05-2011

Description & investigation. Ivermectin, a licensed anthelmintic, was detected in a milk sample, taken from a cow in a 188-animal dairy herd. The herd keeper had been using Bimectin plus. It is not to be used in lactating animals, or in in-calf heifers within 60 days of calving. A withdrawal period of only 41 days had been observed, possibly as a result of carelessness. The result was reported on

2<sup>nd</sup> June 2011, meeting the laboratory turn-round time target. However, by that time, a 70 day withdrawal period had elapsed.

**Follow-up sampling.** At an on-farm follow-up visit (90 days post-treatment), a further milk sample was collected and was compliant. This was submitted as a minor SMR breach, and no further action is proposed.

**Bovine milk:Nitroxynil 3.8 ppb No MRL is set.**

Lab No. 201110268

ID Number 18003

Taken 12-09-2011

Description & investigation. Nitroxynil, a licensed anthelmintic, was detected in a milk sample, taken from a cow in a 170-animal dairy herd. The herd keeper had been using Trodax 34%. There has been confusion over the wording of the product licence for this substance. According to the medicines records, the animal had been treated, and subjected to the meat withdrawal period of 60 days. However, since there is no milk MRL – it should not be used in milk producing cattle, or in pregnant cattle, intended to produce milk for human consumption. It had previously agreed that non-compliances below 40 ppb (an agreed national Action Level) would be followed up on-farm and that a risk assessment for any non-compliances above that level would be required.

**Follow-up sampling.** At an on-farm follow-up visit (27<sup>th</sup> September), a further milk sample was collected and contained 0.7 ppb nitroxynil. By the 9<sup>th</sup> October, a further follow-up sample contained 0.4 ppb nitroxynil. This was submitted as a SMR breach, and no further action is proposed.

**Bovine milk:Nitroxynil 144 ppb No MRL is set.**

Lab No. 201111105

ID Number

Taken 04-10-2011

Description & investigation. Nitroxynil, a licensed anthelmintic, was detected & reported (20<sup>th</sup> October 2011) in a milk sample, taken from a cow in a 150-animal dairy herd. The herd keeper had been using Trodax 34%. There has been confusion over the wording of the product licence for this substance. According to the medicines records, the animal had been treated, and subjected to the meat withdrawal period of 60 days. However, since there is no milk MRL – it should not be used in milk producing cattle, or in pregnant cattle, intended to produce milk for human consumption. It had previously been agreed that non-compliances below 40 ppb (an agreed national Action Level) would be followed up on-farm and that a risk assessment for any non-compliances above that level would be required.

**Follow-up sampling.** Advanced warning of the non-compliant result was provided to DARD and an urgent on farm visit took place on 19<sup>th</sup> October. At that visit, three treated animals (one of which was lactating) were identified and segregated. The farmer agreed voluntarily to withhold all milk from the food chain. The laboratory cleared the milk from the remaining animals (21<sup>st</sup> October 2011) allowing the milk to return to the food chain. The milk from the treated animal contained 104 ppb nitroxynil and continued to be excluded from the food chain. A further visit took place on 2<sup>nd</sup> November. The bulk sample was still negative. The three treated lactating animals were sampled. One was compliant and two were less (3.6 & 5.6 ppb) than the national Action Limit and the remaining restrictions were lifted. This was submitted as a SMR breach, and no further action is proposed.

**Bovine milk: Nitroxylin 12.9 ppb No MRL is set.**

Lab No. 201112643 ID Number 18006

Taken 16-11-2011

Description & investigation. Nitroxylin, a licensed anthelmintic, was detected in a milk sample, taken from a cow in a 125-animal dairy herd. The herd keeper had been using Trodax 34%. The herd keeper treated the animal at drying off on 12-09-2011. The herd keeper claimed not to be aware that Trodax should not be used in milk producing cattle, or in pregnant cattle, intended to produce milk for human consumption. However the bottle currently in use on the farm does have the new declaration. However, since there is no milk MRL – it should not be used in milk producing cattle, or in pregnant cattle, intended to produce milk for human consumption. It had previously agreed that non-compliances below 40 ppb (an agreed national Action Level) would be followed up on-farm and that a risk assessment for any non-compliances above that level would be required.

**Follow-up sampling.** At an on-farm follow-up visit (7<sup>th</sup> December), a further milk sample was collected and contained 10 ppb nitroxylin. This was submitted as a SMR breach, and no further action is proposed.

**Bovine kidney: Cadmium 1.6 ppm ML = 1.0 ppm**

Lab No. PL54050

ID Number 219287328

Taken 19/01/2011

Description & investigation. Cadmium, an environmental contaminant was found in the kidney of 7-year old bovine. Cadmium is a metallic environmental contaminant that accumulates in kidney, with increasing age of the animal. At an on-farm investigation, no obvious cadmium source was identified.

**Follow-up sampling.** Five samples of kidney and muscle were collected from cattle at slaughter. One non-compliant kidney was detected. The remaining samples were compliant. No further action is proposed.

# **Non-Statutory Surveillance Scheme 2011-2012**

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 2011 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
<b>Farmed Warm Water Crustaceans</b>	<b>Nitrofurans</b> AOZ	250	1 (MRPL)			1	11
<b>Imported Corned Beef</b>	<b>Multi-residue (Nitroimidazoles/Avermectins/Phenolic Anthelmintics)</b> Abamectin Doramectin Ivermectin	40	0.81 (CCα) 1.9 (CCα) 30 (EU advisory action level)			1 3 1	3.6 20,23,61 73
<b>Imported Farmed Fish</b>	<b>Multi-residue (Dyes/Quinolones/Macrolides)</b> Malachite Green/ leucomalachite Green	291	2 (MRPL – sum of malachite green and leucomalachite green)	1	1.2	2	0.79 <sup>a</sup> , 1.6 <sup>b</sup> / 3.9 <sup>b</sup> , 6.2 <sup>a</sup>
<b>Imported Honey</b>	<b>Nitrofurans</b> SEM <b>Multi-residue (Nitroimidazoles/Quinolones/Macrolides)</b> Lincomycin	157  157	1 (MRPL)  1.2 (CCα)	1  1	0.7	3  1	1.1, 1.2, 1.2  2.1

**KEY:** AOZ = AOZ, 3-amino-2-oxazolidone, a metabolite of furazolidone  
SEM = Semicarbazide hydrochloride, a metabolite of nitrofurazone  
<sup>a</sup> and <sup>b</sup> = Samples contained residues of malachite green and leucomalachite green

## Section F: Full details of 2011-12 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 (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
β-agonists	200				
Multi-residue (Nitroimidazoles/avermectins/phenolic anthelmintics)	200				

### Imported Corned Beef

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
β-agonists	40				
Multi-residue (Nitroimidazoles/avermectins/phenolic anthelmintics)	40	5	Abamectin: 3.6 (0.81) <sup>b</sup> Doramectin: 20, 23,61 (1.9) <sup>b</sup> Ivermectin: 73 (30) <sup>a</sup>	3	Ivermectin:13, 18, 22

### Imported Honey

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
Amphenicols	157				
Multi-residue (Nitroimidazoles/quinolones/ macrolides)	157	1	Lincomycin: 2.1 (1.2) <sup>b</sup>		
Nitrofurans	157	3	SEM: 1.1, 1.2, 1.2 (1) <sup>c</sup>	1	SEM: 0.7
Sulphonamides	157				
Aminoglycosides	157				
Tetracyclines	157				

### 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 (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
Amphenicols	291				
Tetracyclines	291				
Nitrofurans	291				
Antimicrobial Screen	200				
Multi-residue (Dyes/quinolones/macrolides)	291	2	Malachite green/ leucomalachite green: 0.79 <sup>e</sup> , 1.6 <sup>f</sup> /3.9 <sup>f</sup> , 6.2 <sup>e</sup> (2) <sup>d</sup>	1	1.2

### Imported Raw Poultry

Substance Group/analyte	No. of Analyses	No. above Action Level	Concentration where samples above MRL or at/above the MRPL/Action Level (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
Antivirals	241				
Multi-residue (Coccidiostats/nitroimidazoles)	241				

### 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 (µg/kg)	No. detected below action level	Concentration where samples below MRL/MRPL/Action Level (µg/kg)
Multi-residue (Quinolones/macrolides)	299				
Amphenicols	299				
Nitrofurans	250	1	AOZ: 11 (1) <sup>c</sup>		
Tetracyclines	299				
Organochlorines	298				
Antimicrobial Screen	200				

**KEY:** AOZ = 3-amino-2-oxazolidone, a metabolite of furazolidone

SEM = Semicarbazide hydrochloride, a metabolite of nitrofurazone

<sup>a</sup> = EU advisory limit on ivermectin

<sup>b</sup> = Decision Limit (CC<sub>α</sub> value of the analytical method used) or Action Level – any confirmed residue at or above this limit/level is considered non-compliant

<sup>c</sup> = MRPL

<sup>d</sup> = MRPL is the sum of malachite green and leucomalachite green

<sup>e</sup> and <sup>f</sup> = samples contained residues of malachite green and leucomalachite green

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

Residue detected & concentration (µg/kg) (Sample Ref)	Sample Type	Source (Retail/ BIPs)	Sample Country of Origin	CVO Letter Sent (Yes/No)	RASFF Issued (Yes/No)	Actions/Outcomes
Ivermectin: 73 (11N0642)	Imported Corned beef	BIP	Brazil	No	No	The results of additional sampling carried out on the implicated batches were all compliant. On the basis of these results, the relevant local authority allowed the importer to release the product into the food chain. No further action was taken.
Abamectin:3.6 (11N0471)	Corned beef	Retail	Brazil	No	Yes but then withdrawn.	Importer confirmed that product had sold through. RASFF was withdrawn by Commission as there is an MRL for bovine muscle at 10 µg/kg.
Doramectin:20 (11N0777)	Corned beef	Retail		No	No	No further action as concentration detected was below the MRL set for muscle (40 µg/kg).
Doramectin: 23 (11N0873)	Corned beef	Retail	Brazil	No	No	No further action as concentration detected was below the MRL set for muscle (40 µg/kg).
Doramectin: 61 (11N1150)	Corned beef	Retail	Brazil	Yes	Yes	Unsold stock of the affected batch removed from the market.
Lincomycin: 2.1 (11N0364)	Imported Honey	BIP	China	Yes	Yes	Retailer carried out a voluntary withdrawal of the product from the market and the product was due to be re-dispatched to China.
SEM: 1.1 (11N0607)	Imported Honey	Retail	New Zealand	Yes	Yes	The batch of honey in question was believed to have sold through with no stock left.
SEM: 1.2 (11N1328)	Imported Honey	Retail	New Zealand	No	Yes	Batch of honey from which both samples were taken has sold through.
SEM: 1.2 (11N1289)	Imported Honey	Retail	New Zealand	No	Yes	
Malachite Green: 0.79/ Leucomalachite Green:6.2 (11N0359)	Imported Farmed Fish	BIP	Vietnam	Yes	Yes	Consignment from which this sample was taken has been withdrawn from the market and affected product returned to exporter in Vietnam.
Malachite Green:1.6/ Leucomalachite Green:3.9 (11N0814)	Imported farmed fish	Retail	Vietnam	Yes	Yes	The importer carried out a voluntary product recall.
AOZ:11 (11N0657)	Warm Water Crustaceans	BIP	India	Yes	Yes	Randomised checks by the Food Business Operator were carried out and no stock was left.



## 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 – [www.vmd.defra.gov/vrc](http://www.vmd.defra.gov/vrc)

### **Veterinary Medicines Directorate website**

Web address – [www.vmd.gov.uk](http://www.vmd.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](http://ec.europa.eu/food/food/chemicalsafety/residues/control_en.htm)

### **Fera website**

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