

NATIONAL STATUTORY SURVEILLANCE SCHEME FOR VETERINARY RESIDUES IN ANIMALS AND ANIMAL PRODUCTS: 2016

RESIDUES DETECTED ABOVE THE REFERENCE POINT TO DATE: 31 DECEMBER 2016

Sample	Analysed for	No. of analyses	No. of Non-compliant samples	Reference Point µg/kg/l	Concentrations above the Reference Point µg/kg/l (more than one substance may be found in one sample)
Calf Kidney	Antimicrobial (Screen 1)	86	2	600 1000	1600 (chlortetracycline) 5900 (tomicosin)
Calf Kidney	Antimicrobial (Screen 4)	88	1	1000	4700 (dihydrostreptomycin)
Calf Kidney	Florfenicol	90	2	300	380, 2300 (florfenicol)
Cattle Kidney	Antimicrobial (Screen 1)	1195	1	100	1100 (sulfadiazine)
Cattle Kidney	Metals	67	6	1000 500	1000, 1280, 1300, 3900 (cadmium) 600, 1100 (lead)
Cattle Kidney	NSAIDs	613	1	65	130 (meloxicam)
Cattle Liver	Avermectins	420	1	100	190 (ivermectin)
Cattle Liver	Glucocorticoids	331	3 substances in 1 sample	Presence Presence 10	19.1 (cortisol) 88.2 (cortisone) 1.03 (prednisone)
Cattle Urine	Steroids (Screen 1)	2118	41 substances in 39 samples	Presence Presence Male 0.5 / Female 5	2, 2.4, 2.5, 2.6, 2.8, 3.1, 3.6, 4.9, 10 (alpha-boldenone) 0.38, 3.94 (beta-boldenone) 0.61, 0.79, 1.1, 1.1, 1.4, 2.1, 4.1, 5.3, 5.3, 5.9, 6.5, 6.7, 7.1, 7.1, 7.3, 7.8, 7.9, 8.9, 9, 9.3, 9.6, 12, 16, 18, 20.5, 23, 33 (alpha-nortestosterone) 16 (testosterone)
Cattle Serum	Oestrodial	257	2 substances in 1 sample	0.1 0.1	960 (alpha-estradiol) 130 (beta-estradiol)
Cattle Serum	Testosterone	411	1	Presence	1.4 (beta-testosterone)
Cattle Urine	Zeranol	705	16	Presence Presence	1.5, 1.6 (taleranol) 1.49, 1.6, 1.97, 2.3, 2.5, 2.7, 3.09, 3.35, 3.7, 3.9, 4.2, 4.8, 13.9, 18.3 (taleranol & zeranol)
Sheep Kidney	Antimicrobial (Screen 1)	2609	1	1000	11300 (dihydrostreptomycin)
Sheep Kidney	Metals	52	7	1000 500	1600, 1700, 1800, 1800, 2300, 2400 (cadmium) 1500 (lead)
Sheep Liver	Anthelmintics	981	6	1500	1631, 1909, 3600, 3400, 3700, 5800 (closantel)
Sheep Liver	Avermectins	562	1	100	580 (ivermectin)
Sheep Urine	Steroids (Screen 1)	506	45 substances in 44 samples	Male 1 / Female 5 Presence	1.5, 2, 2.2, 2.2, 2.3, 2.4, 2.4, 2.4, 2.5, 2.5, 2.5, 2.6, 2.6, 2.6, 2.7, 2.9, 2.9, 3, 3.1, 3.2, 3.4, 3.4, 3.6, 4, 4.2, 4.3, 4.6, 4.7, 4.9, 4.9, 5.7, 6.1, 6.2, 6.7, 7.4, 8.3, 9.6, 11, 11, 12, 13, 14 (alpha-boldenone) 0.81 (beta-boldenone) 0.85, 1.3 (beta-nortestosterone)
Sheep Urine	Zeranol	112	3	Presence	1.4, 1.8, 2.8 (taleranol & zeranol)
Pig Kidney	Antimicrobials	1828	4	100 100	140, 180, 990 (sulfadiazine) 166 (sulfadimethoxine)
Pig Kidney	Nitrofurans	324	1	1	8.5 (semicarbazide)
Horse Kidney	Metals	1	1	1000	17000 (cadmium)
Horse Kidney	NSAIDs	36	1	Presence	6.8 (phenylbutazone)
Broiler Liver	Coccidiostats	678	2	Presence	5.7, 10 (salinomycin)
Cattle Milk	Antimicrobial (Screen 1)	724	1	4	44.3 (amoxicillin)
Cattle Milk	Anthelmintics	382	1	10	108 (triclabendazole)

Sample	Analysed for	No. of analyses	No. of Non-compliant samples	Reference Point $\mu\text{g}/\text{kg}/\text{l}$	Concentrations above the Reference Point $\mu\text{g}/\text{kg}/\text{l}$ (more than one substance may be found in one sample)
Farmed Salmon	Avermectins	91	3	100	120,150,170, (emamectin)
Farmed Trout	OC/PCBs	1	1	10	160 (dieldrin)
Hen Egg	Coccidiostats	578	3	150 2	370 (lasalocid) 2.6, 15 (monensin)

RESULTS OF FOLLOW-UP INVESTIGATIONS: 31 DECEMBER 2016

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle				
Cattle Urine	Alpha-boldenone 2 ug/kg 1621266	N/A	Great Britain	This is a small beef farm with a herd of 12 highland breed cattle. Movement records were inspected and found to be correct; however, even though the animals had not been treated with medicines in the last year, records of other activities such as TB tests were incomplete. Over the last five years, animal ID and withdrawal periods were also not recorded and there was no evidence of proof of purchase for veterinary medicinal products purchased. The farmer was given written advice regarding the requirement for keeping complete and accurate records. There was no evidence to suggest use of anabolic steroids; therefore it is most likely that the cause of this residue is from faecal contamination at the time of sampling.
Fattening Cattle Urine	Alpha-boldenone 2.5 ug/kg 1611032	N/A	Great Britain	This is a large dairy herd farm with, 45 milkers, 9 in calf heifers, 1 Bull, 40 calves up to bullers and 2 bull calves. There are no ongoing health issues in the herd and the animal in question was born on the farm and did not receive any medication. No stock has been bought in for 4 years except for 1 bull purchased in the last year. Medicine records and storage were found to be satisfactory and there was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Fattening Cattle Urine	Alpha-boldenone 2.6 ug/kg 1627878	N/A	Great Britain	The farm is an intensive system for fattening cattle and the farmer uses a mixer wagon and bunkers to feed the animals. The animal detected had access to grazing on a field nearby which also included sheep. The medicines records were satisfactory, however, there were minor omissions of some medicines being administered and there was no evidence on farm of use of anabolic steroids. The most likely cause of the residue is from faecal contamination at the time of sampling.
Fattening Cattle Urine	Alpha-boldenone 2.8 ug/kg 1600815	N/A	Great Britain	This is a medium size farm mainly comprised of a fattening herd; apart from a bull. Generally, cattle are sent directly to slaughter when ready. This sample originated from a 16 month old animal which was homebred. Cattle are housed in winter and fed own-produced silage and barley, grazing on grass in summer. No medicated feedstuff is used and the medicine records and cabinet storage were in compliance with the Regulations. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Fattening Cattle Urine	Alpha-boldenone 3.1 ug/kg 1610890	N/A	Great Britain	This farm predominantly purchases calves from various sales and markets and rears on farm for resale as stores or replacements. Occasionally, animals are fattened on the premises and sold directly to slaughter. There are 58 animals recorded for this holding. Cattle of 6 months or older are taken for summer grazing starting in April and brought back late October. The sample originated from a 10.5 month old cross heifer kept in the barn which did not present any conformational abnormalities, however, the animal appeared agitated. There were no medicine records to inspect, as the farmer rarely medicates his animals. The farmer was given verbal and written advice on the requirements for keeping complete and accurate veterinary medicines records. It is unlikely that there has been any intentional administration of an unauthorised substance. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Fattening Cattle Urine	Alpha-boldenone 3.6 ug/kg 1610951	N/A	Great Britain	This is a medium sized farm comprised of cattle and sheep which is equally divided into beef and dairy units, both at the same location. The beef enterprise sells cattle as yearling stores at market and cows are sold direct to slaughter at local abattoir (Holstein, British Friesian and small proportion of Jersey cows). The cattle are grazed during spring and summer, and housed over winter. Hay barley or supplementary feed is given to cattle depending on age, group and season. An inspection of the medicine store showed all products were up to date. The fridge was lockable and there was no evidence of the purchase, storage or use of prohibited substances. The animal's diet from which this sample originated from included hay, barley and dairy cake (prograze 18 nuts) which contain sunflower and soya seeds. As there was no evidence on farm of the use of anabolic steroids; the most likely cause of this residue is from faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Fattening Cattle Urine	Alpha-boldenone 4.9 ug/kg 1618998	N/A	Great Britain	This is a medium sized cattle and sheep farm. The cattle enterprise is equally divided into beef and dairy units made up of mostly Holstein Friesian with a few Ayrshire and British Friesian in the dairy unit. The medicine records were inspected, storage and cross compliance checks were found to be satisfactory. The animal in question was a male beef calf whose diet included whole milk from the tank, hay and a commercial brand of calf rearing nuts containing barley and soya. There was no evidence on farm of the use of anabolic steroids; the most likely cause of this residue is from faecal contamination at the time of sampling
Cattle Urine	Alpha-boldenone 10 ug/kg and Beta-boldenone 3.94 ug/kg	N/A	Northern Ireland	This animal originated from a small beef rearing herd. Four follow up samples were collected including one from the original animal and all confirmed compliant. There was no evidence on farm of the use of anabolic steroids; the most likely cause of this residue is from faecal contamination at the time of sampling
Cattle Serum	Alpha-estradiol 960 ug/kg and Beta-estradiol 130 ug/kg	N/A	Northern Ireland	No investigating visit was undertaken as animal concerned was re-sampled several months later and was compliant.
Cattle Urine	Alpha-nortestosterone 0.61 ug/kg 1616191	N/A	Great Britain	Cattle are fed on a grass diet in summer, silage and oats through the winter. The medicine records are good and showed that the sample originated from a male castrate to which no medicines were administered whilst on the farm between purchase as a store and sale to abattoir. Medicine usage on the farm is limited to mainly antibiotics for bovine respiratory disease and no usage of wormers or flukicides. All vet and keeper administered medicine usage is recorded and withdrawal periods are extended based on assurance scheme rules. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 0.79 ug/kg 1607662	N/A	Great Britain	The medicine records were well maintained and showed entries for the animal of origin for fluke and worm treatments as required. The locked medicines store had one bottle of Ivomec Super and one bottle of Oxytetracycline. No breeding is carried out on farm therefore medicines associated with calving and the post-natal period were not present. Cattle are bought and finished all year round at about 400-410 kg, staying on farm for no more than a year. Grazing cattle did not receive feed supplement until July in the form of beef premium nuts. Cattle are housed in October and get the same nuts in addition to big bale grass silage. All cattle are sold direct to the abattoir at present. This animal came from a batch which was smaller than those usually purchased and had been on farm for longer than normal to get it to slaughter weight. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 1.1 µg/kg 1616280	N/A	Great Britain	This is a large beef farm which buys young stock (5-7 months old) from a mix of breeds from different farms. Cattle are reared to fat, sold to slaughter usually before 30 months old. The animals are kept in good clean conditions and showed normal calm behaviour. There was no evidence of illegal use of hormones and no specific treatment was found on the medicines records for this animal (castrated male, Hereford X). The medicines records and storage was inspected and found to be satisfactory. The animal did undergo a 5 hour transport to the abattoir the day prior to slaughter which could have contributed to stress related raised hormone levels. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from natural levels.
Fattening Cattle Urine	Alpha-nortestosterone 1.1 ug/kg 1627855	N/A	Great Britain	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Urine	Alpha-nortestosterone 1.4 ug/kg 1621254	N/A	Great Britain	This is a medium sized farm comprised of calves, sheep, cattle, pigs and poultry. The steer was slightly lame the day before slaughter and 4kg of thick flank was trimmed due to bruising. This suggests that the steer was stressed prior to killing which may have led to nortestosterone production. Remaining cattle were normal in behaviour and appearance. Most cattle are fattened and sold via the butcher's shop, but some Holstein/Friesian types are sold to the abattoir. Fattening ration is feed and waste bread from local bakery, no arable crops are grown. Most silage is made on farm and straw is bought in. Routine wormers are given at the beginning of the year and in summer. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 2.1 ug/kg 1616161	N/A	Great Britain	This is a large farm comprising of approximately 1,000 beef fattening herd. The cattle are fed whole crop barley, wheat, oats and grass silage. The medicines records were inspected and were found to be satisfactory showing that this animal had been treated with several medicines and withdrawal periods were observed. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 4.1 ug/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 5.3 µg/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 5.3 ug/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 5.9 ug/kg 1607598	N/A	Great Britain	This sample originated from a large dairy, cattle and sheep farm. The farmer keeps computerised records of purchases of veterinary medicinal products and no medicines were in the medicine store, apart from old worm-drench for lambs and cattle left over from the previous year. The farmer was advised to dispose of this medicine, accordingly. The farmer was also given advice on how to ensure the traceability of his medicines by using appropriate containers. The latest treatments included Bovaclox DC, Bovilis IBR and Eprizero Pour on (wormer). The animal in question was sent may have been running with bulls prior to slaughter therefore there is a possibility that the animal may have been in the early stages of a pregnancy at the time of sampling.
Fattening Cattle Urine	Alpha-nortestosterone 6.5 ug/kg 1600812	N/A	Great Britain	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 6.7 ug/lg	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 7.1 ug/kg 1616196	N/A	Great Britain	This is a mixed dairy and beef cattle farm with 3 bulls that service both dairy and beef cows and no artificial insemination is used. The farm buys in replacements of calved and bullying heifers from auctions and 2 breeding bulls were bought from a local dealer. Cull cows are sold to a local dealer, who sells them onto an abattoir. Cattle graze during summer and winter feed consists of silage, grass and cattle cakes. Other livestock on the farm include geese and bantam hens. The medicines records were found to be satisfactory and show the cow from which this sample originated was home bred and records show it was treated for mastitis. There was no evidence on farm of the use of anabolic steroids and it was possible that the cow had been running with the bulls and may have been in the early stages of pregnancy; therefore the most likely cause of residue is from natural levels.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Urine	Alpha-nortestosterone 7.1 ug/kg 1621329	N/A	Great Britain	This is a small farm of formerly cattle and sheep. The farmer purchased 40 dairy cows in April/May and grazed them over the summer before selling them on in the Autumn. Medicine record keeping was sufficient and in accordance with the regulations. The pregnancy status of the animals was unknown to the farmer prior to sale and they did not undergo a pregnancy diagnosis. Unbeknownst to the farmer, it is highly likely this animal may have been in-calf hence the cause of this residue. No further action was taken.
Cattle Urine	Alpha-nortestosterone 7.3 ug/lg	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Fattening Cattle Urine	Alpha-nortestosterone 7.8 ug/l 1611000	N/A	Great Britain	This is a large mixed farm of cattle, sheep and laying hens. The farmer buys replacement cows/heifers from markets or privately. The animals are vaccinated for BVD and Lepto and stock is routinely wormed and fluked. Silage is fed and grown locally with the addition of concentrates given to young stock only. The animal was in calf at the time of sampling but the farmer was the only person who knew this and was not on farm at the time of sampling, therefore, the cause of this residue is from natural levels. The medicines records were inspected and found to be incomplete with no official identity of one treatment. The farmer was given advice on the requirement for keeping complete and accurate records.
Fattening Cattle Urine	Alpha-nortestosterone 7.9 ug/l 1610825	N/A	Great Britain	Unbeknownst to the farmer the cow was in-calf at the time of testing. No further investigation was taken.
Cattle Urine	Alpha-nortestosterone 8.9 ug/lg	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 9 ug/l		Northern Ireland	An investigation was carried out on 16/2/17. The animal was 5.5 years old and was homebred. It is from a large farm with dairy (346), beef (277) and sheep (300). There is a possibility the cow may have been pregnant at the time of slaughter. 8 follow up samples were compliant.
Cattle Urine	Alpha-nortestosterone 9.3 ug/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Fattening Cattle Urine	Alpha-nortestosterone 9.6 ug/lg 1619106	N/A	Great Britain	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 12 ug/kg 1607755	N/A	Great Britain	The farm comprises of a suckler herd of pedigree cattle, (suckler cows, breeding bulls, store cattle). The store cattle are kept predominantly separated from the suckler herd and are sorted in age, weight/performance groups. Young stocks are selected as replacements between 12-30 months old. The cattle graze during summer and are fed bought in rolled oats (from a neighbouring farm). All the cattle were in good condition and well cared for. The farmer keeps a tight control on what/where cattle are sent for slaughter. The animal was bought and housed with other store cattle of similar age. It grazed over the summer with other stores and was housed again before being sent for slaughter. The weight gain for this animal was slow overtime. Contact with rig steers was possible, although contact with the store cattle/breeding bulls is avoided. The farmer could not exclude the possibility of contact between one of the breeding bulls and the store heifer. A badly closed pen/gate or other incident could have resulted in mixing. Movement and medicine records are computerised, well detailed and available for checking. The only medicines administered to the animal during its time on the farm, were for internal/external parasite control. There was no evidence of illegal use of hormones or any other medicines at this farm. There seemed to be a good control of the herd health, maintenance of good practices and quality controls. The animal had shown low performance when compared to others and this could be indicative of an underlying condition that could have been a cause of stress. The most likely cause of residue is as a result of a natural occurrence of the hormone.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Urine	Alpha-nortestosterone 16 µg/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 18 µg/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 20.5 µg/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 23 µg/l	N/A	Northern Ireland	Initial enquiries showed that this animal was in calf at the time of sampling, therefore the most likely cause of residue is from natural levels.
Cattle Urine	Alpha-nortestosterone 33 ug/kg & Alpha-boldenone 2.4 1607645	N/A	Great Britain	This sample originated from a 16 month old female which had not been treated with any hormonal growth promoter or steroid treatment. The animal had been running with a bull prior to slaughter which may have resulted in an undetected pregnancy. There was no evidence of the use of anabolic steroid on farm and the medicine records and storage were satisfactory. Therefore, the most likely cause of this residue is from naturally occurring hormones found during pregnancy.
Fattening Cattle Urine	Beta-boldenone 0.38 ug/kg 1600660	N/A	Great Britain	This farm is mainly comprised of beefsuckler (limousine herd) and sheep. The cattle are calved from April onwards and bull calves are not castrated and are sold as 'finished cattle' at auction markets at around 14 months of age. The cattle are housed until calving where calving heifers are fed homemade silage, minerals, nuts and straw. They are not fed any vegetable waste or nuts which are high in sterols. There was no evidence of the illegal use of anabolic steroids; therefore the cause of this residue is most likely due to natural levels. The medicine records were, on occasion, found to have missing information such as the animal identification numbers and withdrawal period end dates. The farmer was given written advice on the requirement for keeping complete and accurate records.
Cattle Serum	Beta-testosterone 1.4 ug/kg 1621455	N/A	Great Britain	This is a small farm comprised of beef cattle where breeding activity is no longer carried out. There were only nine cattle were present at the time of the investigation and all looked healthy. The computerised medicine records were satisfactory and showed no significant treatments had been given, only routine wormers during the previous year. There was no evidence on farm of the use of anabolic steroids, therefore the most likely cause of residue is from natural levels.
Cattle Kidney	Cadmium 1000 ug/kg 1614753	N/A	Great Britain	The medicine records were satisfactory and there was no evidence of illegal substances. The most likely cause of this residue is from ingestion from environmental contamination over time.
Cattle Kidney	Cadmium 1280 µg/kg	N/A	Northern Ireland	This is a dairy farm where lactating cows are housed at all times and dry cows are grazed locally. The medicine and movement records were not available at the visit. There was no evidence of mining in the area. The herd keeper was however, advised to keep animals away from a pile of tyres and old plastic oil containers in the yard
Cattle Kidney	Cadmium 1300 ug/kg 1633341		Great Britain	The medicine records were very good and there was no evidence of illegal substances. The most likely cause of this residue is from ingestion from environmental contamination over time.
Cattle Kidney	Cadmium 3900 ug/kg 1630130		Great Britain	The medicine records were satisfactory and there was no evidence of illegal substances. The most likely cause of this residue is from ingestion from environmental contamination over time.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Calf Kidney	Chlorletracycline 1600 ug/kg 1602950	Chloromed 150 mg/g Oral Powder for Calves	Great Britain	This sample originated from a dairy and beef finishing farm which is in the process of becoming an all-beef enterprise. Both the medicine records and medicine storage were found to be satisfactory and movement records showed the non-compliant animal as having been sold through auction accompanied by a declaration that stated the animal was still within a withdrawal period. Further enquiries established that the most likely cause of this residue was due to an error occurring by the auction house and the withdrawal period notice not being passed on to the purchaser.
Cattle Liver	Cortisol 19.1 µg/kg Cortisone 88.2 µg/kg Prednisone 1.03 µg/kg	Unknown	Northern Ireland	This animal was kept on an out farm. The herd keeper was insistent that this animal had not been treated with any drug. 14 follow up samples were taken and all were compliant.
Calf Kidney	Dihydrostreptomycin 4700 ug/kg 1613328	Pen & Strep Suspension for Injection	Great Britain	This calf was sold through market to a dealer who subsequently submitted this animal for slaughter. The investigation took place at the farm of origin where the medicines records were found to be inadequate. There was no record of this calf having been treated. However, due to recent illness with calves, it was possible that the farmer had given a treatment of Pen & Strep to this animal, but failed to update the record. On inspection, the medicines storage was adequate and contained Pen & Strep Suspension for Injection. Verbal and written advice on the requirement for keeping complete and accurate records and ensuring that Food Chain Information is accurately supplied at the time of sale.
Calf Kidney	Florfenicol 380 ug/kg 1605994	Nuflor 300 mg/ml Solution for Injection for Cattle and Sheep	Great Britain	This animal was sent to slaughter by a dealer who had purchased the calf the previous day. Initial investigation established that it was unlikely that the dealer had administered this substance as medicines records and storage showed the use of alternative medicines which do not contain florfenicol. The medicines records of the previous owner and place of this animal's birth showed Nurflor was used on calves for the treatment of pneumonia, but there was no entry for this calf. The farmer admitted that it was possible an unrecorded treatment was given which is most likely the cause of this residue. The medicines records also showed that this animal had been treated with baycox for suspected coccidiosis and was still within the withdrawal period at the time of sale. The farmer was given written advice on the requirements for keeping complete and accurate records and also requirements regarding declaring all relevant medicine administrations on Food Chain Information (FCI) documents.
Calf Kidney	Florfenicol 2300 ug/kg 1631900	-	Great Britain	This calf originated from a dairy farm and was sold to a dealer and sent for slaughter the following day. On inspection, the medicines records showed that two calves had been treated with Resflor 300 mg/ml Solution for injection four days prior to the sale of the calf in question. Although this calf was not recorded as having been treated, the ear tag numbers were similar, being only one digit different. It is most likely that these two animals had been mistaken and either the wrong animal was treated or the wrong eartag was recorded, then being sent for slaughter within a withdrawal period. The medicines records were otherwise satisfactory, however, the farmer was given written reminder on the requirement for keeping complete and accurate records.
Cattle Liver	Ivermectin 190 ug/kg 1622288	-	Great Britain	It was not possible to establish the cause of this residue.
Cattle Kidney	Lead 600 ug/kg 1614749	N/A	Great Britain	An investigation was carried out on the farm where the animal had spent the last 8 months prior to slaughter. However there was no obvious source of lead contamination, therefore the previous farm was also visited. This farm is located in an area of known historic lead mining activities adjacent to fields used for grazing. The farmer was not aware of any lead poisoning cases on neighbouring farms and the animal sampled was in good health. The other animals were in good condition. All water is ducted through pipes from the water authority. It was also noted that two old cars were found parked in a field however, the animal did not have access to this field. The medicine records were inspected, storage and cross compliance checks were found to be satisfactory and there was no evidence of the use of illegal substances. The most likely cause of this residue is from ingestion from environmental contamination, over time. The farmer was given written advice on how to avoid such residues in future.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Kidney	Lead 1100 ug/kg 1620908	N/A	Great Britain	It was not possible to establish the source of this residue.
Cattle Kidney	Meloxicam 130 ug/kg 1606821	Metacam 20 mg/ml Solution for Injection for Cattle, Pigs and Horses	Great Britain	This sample originated from a large farm dairy farm with 1100 animals in total. The farmer is solely responsible for drug administration, storage and record keeping. The medicine records showed the animal having been treated with Meloxicam (Metacam 20mg/ml) prior to slaughter. There were no records of the withdrawal periods for the medicines administered, however the farmer was aware of withdrawal periods and the importance of observing them, which he had appeared to have done in this case. The identity of treated animals recorded in the records book was also inadequate. Given the poor record keeping, it is most likely that this residue was caused by an unrecorded or mis-recorded treatment resulting in this animal being slaughtered within the withdrawal period. A Summary of the Medicines Recording Requirements for Keepers of Food-Producing Animals was issued and written advice on the on the requirement for keeping complete and accurate records.
Cattle Kidney	Sulfadiazine 1100 ug/kg 1612752	Flunixin 50 mg/ml Solution for Injection for Cattle, Horses and Pigs Norodine 24 Solution for Injection	Great Britain	This is a large enterprise comprising of 3 dairy farms, the largest of which holds about 1200 cattle. Dairy cows feed at barriers a total ration which is mixed on the farm (main ingredients being whole crop, silage, caustic wheat, chopped straw, spey syrup, protein pre-mix and an energy premix). Cows showing signs of mastitis are removed from the rotary and placed in a hospital group. The animal is then treated by one of the three people responsible for this and details entered into the computer with automatic warnings for withdrawal periods. Records showed that this cow was treated initially with Flunixin, and then Norodine 24 for what appeared to be pneumonia. It is possible that this animal was given a further unrecorded treatment and therefore the withdrawal period not observed. However, it is possible that the recorded treatments effected the kidney function sufficiently, that high levels of Sulfadiazine were later identified past the normal withhold time. The farmer was reminded of the requirement for keeping complete and accurate medicines records.
Cattle Urine	Taleranol 1.5 ug/kg	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 feeding-stuffs contaminated with the fusarium fungus.		
Cattle Urine	Taleranol 1.6 ug/kg 1608258	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 feeding-stuffs contaminated with the fusarium fungus.		
Fattening Cattle Urine	Taleranol 1 ug/kg & zeranol 0.49 ug/kg (1.49 ug/kg) 1628166	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 feeding-stuffs contaminated with the fusarium fungus.		
Fattening Cattle Urine	Taleranol 1.2 ug/kg & 0.40 ug/kg (1.6 ug/kg) 1628170	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 feeding-stuffs contaminated with the fusarium fungus.		
Cattle Urine	Taleranol 1.2 ug/l & zeranol 0.77 ug/l (1.97 ug/l)	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 feeding-stuffs contaminated with the fusarium fungus.		
Cattle Urine	Taleranol 1.2 µg/l & zeranol 1.1 µg/l (2.3 ug/l)	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 feeding-stuffs contaminated with the fusarium fungus.		
Cattle Urine	Taleranol 1.8 µg/l & zeranol 0.7 µg/l (2.5 ug/l)	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 feeding-stuffs contaminated with the fusarium fungus.		

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Fattening Cattle Urine	Taleranol 1.2 ug/kg & zeranol 1.5 ug/kg (2.7 ug/kg) 1628160			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol & zeranol 2.3 ug/kg & 0.79 ug/kg (3.09 ug/kg) 1608282			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol 2.7 ug/kg & zeranol 0.65 ug/kg (3.35 ug/kg) 1633416			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 feeding-stuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol 2.4 ug/kg & zeranol 1.3 ug/kg (3.7 ug/kg) 1601022			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 feeding-stuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol 2.7 ug/kg & zeranol 1.2 ug/kg (3.9 ug/kg) 1601041			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol 3 ug/kg & zeranol 1.2 ug/kg (4.2 ug/kg) 1629717			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol 3.3 µg/l & zeranol 1.5 µg/l (4.8 ug/l)			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 feeding-stuffs contaminated with the fusarium fungus.
Fattening Cattle Urine	Taleranol 10 ug/kg & Zeranol 3.9 (13.9) 1628155			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Taleranol 13.1 µg/l & zeranol 5.2 µg/l (18.3 ug/l)			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 feeding-stuffs contaminated with the fusarium fungus.
Cattle Urine	Testosterone 16 µg/l		Northern Ireland	No investigating visit was undertaken as animal concerned was re-sampled 3 weeks later and was compliant.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Calves Kidney	Tilmicosin 5900 ug/kg 1612528	Unknown	Great Britain	This calf originated from a dairy farm from where it was sold through market at 27 days of age. The farm kept good records which are routinely checked by the farmer when selling animals to ensure that there is no current withdrawal period. These records showed no use of medicines containing tilmicosin and the veterinary practice confirmed that they had not supplied any products in recent years. The calf spent 4 days at a dealer's farm prior to slaughter where 300-500 calves are purchased each week. This farmer stated that no veterinary medicines are use on farm due to economic reasons opting to cull unfit calves instead. Consequently there were no medicines records kept and no medicines storage facility. It was not possible to adequately determine the cause of this residue; however, it is most likely that it was given un recorded treatment and sent to slaughter within the withdrawal period.
Pigs				
Pig Kidney	Semicarbazide 8.5 ug/kg 1606430	N/A	Great Britain	This sample originated from a gilt pig less than 6 months old from a large pig breeding and growing farm. The medicines records were inspected and appeared complete and accurate, showing 5 animals treated with Rapidexom and lincoject. The main conditions at the farm are joint lesion, already diagnosed and treated by PVS (Mycoplasma Sinovia). Follow up samples of feed and water were taken during the investigation all of which confirmed compliant. It was not possible to adequately determine the cause of this residue; however, it is possible that environmental contamination of the feed was the cause.
Pig Kidney	Sulfadiazine 140 µg/kg 1612850	Medicated feed	Great Britain	This is a well-run 4500 grower finisher outdoor pig unit. Feed is stored in bulk bins and dropped into trailers and augered into the pig tents. Final stage finishing pigs are fed a non-medication ration the 6 weeks prior to slaughter. Due to a disease issue, feed medicated with trimediazine was fed to first stage finishers. However, it is most likely that the finishing pig were inadvertently given medicated feed. The farmer was given verbal and written advice regarding the use of medicated feed, maintaining accurate records and cross contamination procedures. The farmer now only buys medicated feed in bags to avoid such residues in future.
Pig Kidney	Sulfadiazine 180 ug/kg 1630415	Unknown	Great Britain	This is a large intensive indoor pig unit of 6500 pigs which comprises a breeding herd and finishing enterprise with all pigs going directly to slaughter. The pigs are fed with pre-mix diets of various medicated feeds and plain feeds. Upon inspection the potential for human error was deemed to high due to the lack of separation and distinction between the feeds when mixed. It is therefore likely the cause of residue was due to feed contamination. Following the investigation the farmer was advised to alter his methods and procedures to avoid residual contamination in the future.
Pig Kidney	Sulfadiazine 990 µg/kg	Uniprim 150 Powder 150 g/kg Premix for Medicated Feed	Northern Ireland	The investigation showed that Uniprim, which contains trimethoprim and sulfadiazine, is used in feed for the first 7 weeks of life as a preventative treatment. The last recorded administration to this animal was several months before slaughter and although there was no evidence of cross contamination on farm, this is the most likely cause of this residue. Twenty follow up samples were taken, all of which were found to be compliant. The farmer was given advice on how best to avoid such residues occurring in future. A further 20 samples were taken and 16 of these were non-compliant. 20 further samples were then taken and all were compliant.
Sheep				
Sheep Urine	Alpha-boldenone 1.5 ug/l	N/A	Northern Ireland	Level indicative of faecal contamination.
Sheep Urine	Alpha-boldenone 2 ug/kg 1623896	N/A	Great Britain	This is a small sheep farm with 34 breeding ewes, two rams and a 16 spring lambs. One ram is kept for breeding and the remaining go to abattoir or are sold on if not at a suitable weight. Ewes are grazing all year and lambing take place outside in spring. There are four paddocks for grazing with water troughs which are filled with mains water. Medicine records and medicine products were inspected and the only products used were Oramec, Rycoben and Crovect. All of the treatments were recorded in the medicines book; however, withdrawal periods and the identity of the animals were incomplete. The farmer was given written advice on the requirements for keeping complete and accurate records. There was no evidence of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 2.2 ug/kg 1616020	N/A	Great Britain	This is a medium sized beef cattle and sheep farm which uses its own rams for breeding. This male lamb was sold through auction with a group of 46 fat lambs, where it went directly to slaughter. Lambs are born in the spring and wormed with Parafend 2.265% Oral Suspension. The sheep are fed with homemade silage and concentrates and the electronic medicine records were satisfactory. Animals under treatment were separated from the rest of the flock and withdrawal periods observed. Medicines were stored appropriately and there was no evidence to suggest the use of anabolic steroids; therefore the cause of this residue is likely to be from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.2 ug/kg 1616041	N/A	Great Britain	This is a small enterprise which farms sheep, beef cattle, ducks and horses. The animal from which this sample originated was presented to slaughter via intermediary market. At the time of the investigation, 85 sheep and 5 beef cattle (stores) were on farm. Home bred sheep are grazed locally on farm land, where red clove appears to be one of the most commonly found plant species. Medicine records were checked for both sheep and cattle, all data appeared to be compliant with the relevant legal requirements. Medicines storage was also inspected, all medicines in the storage facilities were compliant with UK legislation and UK authorised products used. No expired medicines were found and there was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.3 ug/kg 1607829	N/A	Great Britain	The farm keeps 120 beef cattle and about 290 ewes on the premises. The veterinary medicine records and storage were checked and were satisfactory. There was no evidence of the use of anabolic steroids at this farm; therefore, the most likely cause of residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.4 ug/kg 1616029	N/A	Great Britain	This is a medium sized farm where sheep, growing cattle and horses are kept. Sheep are purchased to order from markets and taken to slaughter within 2-4 weeks of being purchased. The investigation established that there was insufficient tracing information available to be able to adequately ascertain the source premises. Sheep are not medicated during their brief stay and are kept in groups with access to minimal grazing and feed concentrates. Bulk feed is purchased and the current ration is finisher nuts and this is fed in troughs. The medicines records were inspected and were satisfactory with withdrawal periods observed and the owner is aware that the use of all veterinary medicines must be recorded. There was no evidence of the use of anabolic steroids at this farm; therefore, the most likely cause of residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.4 ug/kg 1616047	N/A	Great Britain	The medicine and movement records were inspected and found to be satisfactory and no medicines were stored on site. The farmer purchases sheep from markets and farmers to sell to abattoirs. The purchased sheep only spend 1-3 weeks on site and the sheep are kept in sheds. The previous farm was also visited as part of this investigation where, again, medicine movement records and storage facilities were checked and found to be satisfactory. The farmer buys lambs which graze until they are ready for slaughter (the farm also keeps cattle). There was no evidence of the use of anabolic steroids at these farms; therefore, the most likely cause of residue is due to faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.4 ug/kg 1616114	N/A	Great Britain	This is a mixed farm enterprise rearing cattle and sheep to finish, and sale for slaughter. Approximately 650 ewes are maintained on the farm as breeding stock, producing approximately 1100 lambs per year. Breeding sheep are purchased in the late summer/autumn. Movement records were consistent with the market records and Food Chain Information gathered. Water is provided by stream, bore-hole, mains supply, field surface water and river (acting as part of the farm boundary). The affected lamb group had access to a stream, (with another farm upstream). Medicine records were inspected and found to be satisfactory. There was no evidence of the use of anabolic steroids at this farm; therefore, the most likely cause of residue is due to faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 2.5 ug/kg 1607840	N/A	Great Britain	The farm of origin is a ewe and beef sucker enterprise. The movement and medicines records were satisfactory and a small stock of medicine was on the farm at the time of the investigation. According to records, the main medicines used were fluke, worm treatments and sheep vaccines as expected with this type of farm. There was no evidence of the use of anabolic steroids; therefore, the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.5 ug/kg 1616024	N/A	Great Britain	This is a medium sized beef and sheep farm. The cattle are put out to grass during the summer and housed during the winter months. Breeding sheep and cattle have molasses/mineral feed blocks in the fields as and when, otherwise there are no supplements. Any fattening sheep are either sold off, put to summer grazing or have a hopper of lamb pellets for fattening over winter. All the silage is produced on the farm. The medicines records and storage were satisfactory and showed medicinal use expected with this type of enterprise. There was no evidence of the use of anabolic steroids; therefore, the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.5 ug/kg 1616071	N/A	Great Britain	This is a large breeding farm with a flock of approximately 990 sheep, the majority of which are homebred hill ewes. The ewes are mated in November and scanned after 60/90 days. Lambing takes place outdoors during April-May. The previous year 10 rams were bought in, 10% new born kept as replacement and 10% sold as stores at 5-8 months old, 80% sold as finished, usually direct to abattoirs at 4/12 months. The veterinary medicines records and storage were checked and were found to be satisfactory. There was no evidence of the use of anabolic steroids at this farm; therefore the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.6 ug/kg 1607857	N/A	Great Britain	This is a medium sized organic farm used for grazing sheep, cattle and horses as well as producing bale silage and hay. The farm has 700 ewes and some of the ewe lambs are kept as replacements with three to four replacement rams purchased each year. The lambs are kept outdoors from March to May and ewes are fed an organic all-rounder nut. The medicines records and storage were satisfactory and showed that treatments recorded were for fly strike and lameness with withdrawal times doubled as organic. There was no evidence of the use of anabolic steroids; therefore, the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.6 ug/kg 1616073	N/A	Great Britain	This sheep farm has a standing flock of 150 ewes and 5 rams, with 250 lambs at present. 100 acres is used for grass grazing during the summer, 70 acres are used for fodder rape, and fodder turnips in winter, with purchased concentrates of finishing stock. This is transferred to wildlife secure feed trailers prior to feeding in troughs on the ground. The farmer mainly buys in stores in autumn at 6-9 months old, taking to slaughter spring onwards. The animal sent for slaughter was one of a batch of 106 cross bred hoggets. The medicines records and storage facilities were inspected and found to be satisfactory and correctly recorded. However, there was an unused bottle of Alamyacin in the drugs cabinet was out of date and empty POM medicine bottles that had not been disposed of as the farmer did not know what to do with them. The farmer was given verbal and written advice following the inspector's visit. There was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 2.6 ug/kg 1623930	N/A	Great Britain	This medium sized sheep breeding enterprise used routine wormers, fluke treatments and fly strike prevention products. The medicines records appeared satisfactory. Grazing consists of grass, white clover and chicory, supplemented by homemade silage and bought in feed for finishing. There was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 2.7 ug/kg 1623910	N/A	Great Britain	This is a medium sized sheep and beef fattening enterprise. At the time of the inspection, there were approximately 600 ewes 70 beef cattle and followers. Home bred animals are grazed locally on farm land, where red clover appears to be one of the most commonly found species. The animal in question was presented directly to slaughter via no intermediary. An inspection of the medicines records back to 2013, both for sheep and cattle was carried out and all data appeared to be compliant with the relevant legal requirements. Medicine storage was satisfactory. There was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from natural levels due accidental faecal contamination of the urine at the time of sampling.
Sheep Urine	Alpha-boldenone 2.9 ug/kg 1623909	N/A	Great Britain	The sheep on this 80 acre farm are at grass grazing for most of the year. The ewes are housed for lambing and fed hay and a commercial feed. The usual medicines and vaccines associated with this type of enterprise was found and the medicines and store were satisfactory. There was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from natural levels due accidental faecal contamination of the urine at the time of sampling.
Sheep Urine	Alpha-boldenone 2.9 ug/kg 1623948	N/A	Great Britain	This is a mixed cattle and sheep enterprise with a multi breed combined flock of over 3000 ewes. The ewes lamb from April to May and lambs are sold from September until the following spring. Feed is minimal mainly being silage and haylage given to lower ground ewes on this predominantly hill side grazing. Hill ewes also receive mineral supplements. The medicines records appeared satisfactory but the storage facility contained bottles of expired injectable antibiotics which was highlighted to the farmer for disposal. There was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from natural levels due accidental faecal contamination of the urine at the time of sampling.
Sheep Urine	Alpha-boldenone 3 ug/kg 1623898	N/A	Great Britain	This is a medium sized farm comprised of beef, cattle and sheep. Prior to slaughter, the sheep had been grazing on some autumn crocuses in the field. There is a compound within this that can be and is used as an analgesic and it was thought that the residue could have originated from this source and probable ingestion of 'natural' herbage. The animal sampled was born in Feb/March this year and fattened off grass and was sent direct to slaughter in the farmer's own trailer. All medicines on site are stored appropriately and withdrawal periods observed. There was no evidence of the use of banned substances on this farm; therefore the cause of residue is likely to be from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3.1 ug/kg 1623917	N/A	Great Britain	The farm is comprised of 180 sheep and a small calf herd of 50 animals. Sheep are managed in a traditional way, natural breeding, lambing in autumn and not housed in winter. There are 180 acres of grass available for grazing and sheep rotate fields. Female lambs are kept for replacements and males are sent to abattoir at less than 1 year old. A previous trading standards visit had documented insufficient medicines records and this investigation noted continuing non-compliances with incomplete batch numbers and withdrawal periods. Further, an anticoccidial drug was not recorded and an antiparasitic incorrectly stored. The farmer was written given advice on requirements for keeping complete and accurate records, observing withdrawal periods and the responsible storage of medicines. There was no evidence to suggest the use of anabolic steroids; therefore the cause of this residue is likely to be from faecal contamination of the sample at the time of sampling.
Sheep Urine	Alpha-boldenone 3.2 ug/kg 1623845	N/A	Great Britain	This farm is comprised of sheep, breeding and growing pigs. The farm is mostly organic with minimal use of veterinary medicines. The medicine records were checked and appeared to be up to date and in good order and showed the lambs were wormed in April and May. Animals are normally taken direct to slaughter with a view to selling the meat at the on-site farm shop. Lambs were not given any concentrate feed or any form of mineral supplement. Weeds were present in the pasture and a nearby field had been contaminated with ragwort. There was no evidence of the use of banned substances on this farm; therefore the cause of residue is likely to be from faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 3.4 ug/kg 1616089	N/A	Great Britain	This is a medium size sheep and beef fattening enterprise with approximately 350 ewes, 300 lambs and 71 beef cattle were on the farm. Home bred sheep are fed concentrates, protein, own grown barley and are grazed locally on farm land. Fat lambs are sold directly to slaughter, while cull ewes are usually sent for slaughter via market. Cattle stores are sourced in the autumn from local farms or markets, fed own hay and silage plus own grown barley and sent directly to slaughter. The medicine and storage records were inspected and found to be satisfactory. No expired medicines were found and there was no evidence of the use of anabolic steroids; therefore the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 3.4 ug/kg	N/A	Northern Ireland	Level indicative of faecal contamination.
Sheep Urine	Alpha-boldenone 3.6 ug/kg 1616035	N/A	Great Britain	Beef cattle and sheep are kept on this medium sized farm. The medicines records and storage were inspected and found to be satisfactory. No out of date medicines are retained and there was no evidence of banned substances on this farm. The general management on this farm appears to be excellent. The animal was purchased as part of a small pure bred breeding enterprise separate from commercial flock of 280 Llewyn ewes. There was no evidence of anabolic steroid use on the farm; therefore the presence of this hormone is considered to be natural due to accidental faecal contamination of the urine during sampling.
Sheep Urine	Alpha-boldenone 4 ug/kg 1616094	N/A	Great Britain	This is a medium sized farm comprised of calves, dairy cattle, growing cattle and sheep. The sheep spend summer away at grass April-October and are housed from late December for lambing (fed hay and ewe nuts). Lambing takes place January-April. Ewes are vaccinated and fluked at housing and the only treatment for lambs is a vitamin/mineral drench and wormed when required. Early lambs have a purchased creep feed, while later lambs are reared on grass. All lambs go direct to slaughter. There was no evidence of the use of anabolic steroids on this farm; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 4.2 ug/kg 1630814	N/A	Great Britain	There was no evidence to suggest the use of anabolic steroids; therefore the cause of this residue is likely to be from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 4.3 ug/kg	Endospec	Northern Ireland	An investigation was completed on 25/01/2017. The flock consisted of 670 animals with mixture of lambs and breeding ewes. The medicine and movement records were available. The animal had received Endopsec (Albendazole).
Sheep Urine	Alpha-boldenone 4.6 ug/kg 1623905	N/A	Great Britain	This is a medium sized farm with 1500 sheep on site. All sheep are treated with a wormer in the summer and are all grazed or fed and all-rounder concentrates in the winter. The medicines records and storage appeared satisfactory and the farm was well aware of withdrawal periods. There was no evidence of the use of anabolic steroids on this farm; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 4.7 ug/kg 1616095	N/A	Great Britain	This animal originated from a large mixed cattle and sheep farm. The medicine records and storage were inspected and were found to be incomplete as batch numbers and the number of animals treated was not recorded for each entry. Also, an unused out of date medicines were found and the medicine. The farmer was given verbal and written advice on the requirements for keeping complete and accurate records and on the responsible use and storage of veterinary medicines. There was no evidence to suggest the use of anabolic steroids; therefore the cause of this residue is likely to be from faecal contamination at the time of sampling.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 4.9 ug/kg 1616116	N/A	Great Britain	This is a large farm mainly comprised of sheep that are kept in an extensive system. The sheep including lambs are fed on grass only on 'old pasture' which is clean and of good quality. New breeding stock are bought in Scotland and vaccinated for Chlamydia and Toxoplasmosis. The only routine treatments used on the sheep are worm and flystrike treatment. The medicine records were inspected and found to be in good order and withdrawal periods are observed. There was no evidence to suggest the use of anabolic steroids; therefore the cause of this residue is likely to be from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 5.7 ug/kg 1623872	N/A	Great Britain	This is a small farm with a flock of 180 sheep. The animal in question was transported directly to the abattoir by the owner. The medicines records and storage were satisfactory and show routine treatments for wormers and other drug usage is minimal. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 6.1 ug/kg 1623941	N/A	Great Britain	This is a medium sized farm comprised of beef cattle, sheep and poultry. The investigation established that general good practice and compliance were observed. The medicines records were inspected and found to be satisfactory. Medicines are stored appropriately and withdrawal periods observed. There was no evidence on farm of the use of anabolic steroids; therefore the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 6.2 ug/kg 1623914	N/A	Great Britain	The sheep came from a large family run farm. Records were well kept with medicines stored appropriately. There was no evidence of any steroidal substance found. No further action has been taken.
Sheep Urine	Alpha-boldenone 6.7 ug/kg 1633527	N/A	Great Britain	This is a large family run farm comprised of sheep and roughly 300 beef cattle. The farm is run to high standard and is a beef supplier. The sheep at the farm are specifically fed with turnip, feed cake and grass. There was no evidence of any steroidal use on farm and the cause of residue is likely to be due to faecal contamination. The farmer was given general advice with regards to the presence of alpha boldenone in sheep urine and provided with the Veterinary Medicines Directorate (VMD) address to look for further veterinary residue information.
Sheep Urine	Alpha-boldenone 7.4 ug/kg 1607896	N/A	Great Britain	This is a large remote hill farm which grazes single lamb ewes without additional feed and ewes with twin lambs are grazed at a lower level and supplemented with a concentrate. The movement records and the medicine records were all kept in a computer based system and were up-to-date and all the ewes and lambs seen appeared to be in good physical condition. There was no evidence of the use of anabolic steroids; therefore, the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 8.3 ug/kg 1623867	N/A	Great Britain	This is a small farm comprised of sheep and ducks. Home bred ewe lambs graze on 40 acres of land, loaded from the fields and taken directly to the slaughterhouse. There are approximately 30 breeding ewes and 19 lambs for slaughter each year. All medicine records are up to date however the owner had not recorded the date of the drug withdrawal clearance in the medicine book, but was aware of withdrawal times. The farmer was given verbal and written advice on the requirements for keeping complete and accurate records. The fat lambs go to slaughter in 2 batches each year, so it is easy to ensure they have not been treated with a medicinal product in the months leading up to the dates of slaughter. Low drug usage was recorded in the medicines book (only wormer and vaccinations). All medicines were stored appropriately. There was no evidence of the use of anabolic steroids on this farm; therefore the most likely cause of this residue is from faecal contamination.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Alpha-boldenone 9.6 ug/kg 1607858	N/A	Great Britain	This is mainly a large dairy farm which buys in store lambs in winter and sends to slaughter in the spring. Sheep are also bought at market and sent directly for slaughter. Poultry are also kept on the farm. The animal from which this sample originated was from a batch of sheep bought at market and directly slaughtered. The movement records and medicines storage were inspected and found to be unsatisfactory as there was out of date medicines and the movement record did not contain animal or batch identification. The medicine records were also incomplete as withdrawal dates were not entered. The farmer was given written advice on the requirements for keeping complete and accurate records and the responsible use and storage of veterinary medicines. It was not possible to further back trace to the farm of origin, therefore it was not possible to determine the cause of this residue.
Sheep Urine	Alpha-boldenone 11 ug/kg 1623950	N/A	Great Britain	No investigation into this residue was carried out as it was not possible to adequately identify the origin of this animal.
Sheep Urine	Alpha-boldenone 11 ug/kg 1630836	N/A	Great Britain	This is a small farming enterprise of approximately 115 sheep. Records were stored correctly and kept in accordance of the regulations. There was no evidence of any use of unauthorised substances. The conclusion reached was the cause of residue is likely to have been faecal contamination of the sample. The farmer has been advised to continue with careful use, administration and recording of all authorised veterinary medicines.
Sheep Urine	Alpha-boldenone 12 ug/kg & Beta-bold 0.81 1616038	N/A	Great Britain	This farm is mainly comprised of breeding herd; horses and a dog are also kept at the farm. The animal had been located at this farm for 5 years and all movement and medicines records were found to be satisfactory. The overall standard of husbandry was found to be excellent and there was no evidence of use of any growth promoters or hormones. Therefore, the most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 13 ug/kg 1633534	N/A	Great Britain	The most likely cause of this residue is from faecal contamination at the time of sampling.
Sheep Urine	Alpha-boldenone 14 ug/kg 1616055	N/A	Great Britain	This is a medium sized sheep and beef fattening enterprise. At the time of the investigation there were approximately 900 ewes, lambs and 140 beef cattle. Home bred sheep are grazed locally on farm land, where red clover appears to be one of the most commonly found species. The medicine records dating back to 2013 for both sheep and cattle were checked and found to be satisfactory. The medicines storage was inspected and found to be compliant with legislation. There were no expired medicines found and there was no evidence of banned substances, therefore the most likely cause of residue is from faecal contamination at the time of sampling.
Sheep Urine	Beta-nortestosterone 0.85 ug/kg 1607814	N/A	Great Britain	This large lamb breeding farm which supplements ewes carrying twins with additional nuggets. The animal from which this sample was taken was housed for a month prior to slaughter and fed bought in blend feed. The farm uses very few veterinary medicines, mainly those for protecting against ticks, fly strike, worms and fluke. All records and medicines storage appeared to be in good order and there was no evidence of the use of anabolic steroids, therefore, the most likely cause of residue is from natural levels.
Sheep Urine	Beta-nortestosterone 1.3 ug/kg 1616053	N/A	Great Britain	This is a medium-sized sheep farm producing commercial fat lambs sold through markets. There are around 530 breeding ewes divided into two groups according to breed. All record keeping and medicines storage were found to be correct and satisfactory. All medicines are purchased from a veterinary practice except wormers which are sold through wholesaler and receipts are kept on farm for all purchases. There was no evidence of the use of anabolic steroids, therefore, the most likely cause of residue is from natural levels.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Kidney	Cadmium 1600 ug/kg 1606271	N/A	Great Britain	This sample originated from a well-managed farm which produces home grown feed. This animal was finished in the shed for approximately two months prior to slaughter on a silage-based diet. Previously it had been grazing on the fertilized low ground fields surrounding the farm which are well fenced and tidy. There is a public footpath on the grazing fields, but this is not well used. The medicines records were checked and it was noted that the identity of animals being treated was not always clear. There was no obvious source of cadmium contamination on farm; however, it is most likely that this residue resulted from environmental contamination. The farmer was given written advice about the requirements for keeping complete and accurate medicines record.
Sheep Kidney	Cadmium 1700 ug/kg 1614735	N/A	Great Britain	The animal came from a large farm of sheep and approximately 133 cattle. Farming practices were of high standard with the regulations adhered to. The sheep had a stable diet of grass, turnips, wheat, barley and other confectionary products. The farm area is rural with the closest towns 8km & 13km away respectively hence no evidence of environmental contamination. The most likely cause of this residue was accumulation through diet. It is also possible the sheep could have been purchased with high cadmium levels albeit there are now currently no sheep on farm. No further action has been taken.
Sheep Kidney	Cadmium 1800 ug/kg 1625828	N/A	Great Britain	This animal originated from a large sheep farm in an area known to have a natural higher concentration of cadmium in the soil. There was no obvious source of cadmium contamination on farm; however, it is most likely that this residue resulted from prolonged grazing on naturally contaminate pasture.
Sheep Kidney	Cadmium 1800 ug/kg 1625829	N/A	Great Britain	<p>This animal spent a few days at this farm before being sent to slaughter and as there was no obvious source of cadmium on farm the investigation back-traced to the previous owner. However, on inspection of the medicine record at this farm it was noted to be incomplete. The medication given is recorded but it is difficult to trace back to which animals were treated on which date. Information on batch numbers, withdrawal times and persons administering was also not recorded, therefore, the farmer was given written advice on the requirement for keeping complete and accurate records.</p> <p>The previous farm had a breeding flock of approximately 1700 sheep which are mainly grass fed. Routine worming takes place twice a year and anthelmintic treatments up to three times a year. The medicines records were inspected and found to be satisfactory except for the identity of one sheep was not recorded for non-routine treatment. The farmer was given a written reminder regarding the requirements for keeping complete and accurate records. There was no obvious source of cadmium on farm, however, this animal was 6 years old at the time of slaughter therefore the most likely cause of the residue is from an accumulation of cadmium ingestion from low level soil contamination, over time.</p>
Sheep Kidney	Cadmium 2300 ug/kg 1625827	N/A	Great Britain	This farm has approximately 1600 sheep, four fattening pigs and free range hens. The sheep flock go to different locations where there are some water streams nearby. All sheep return to the main holding for treatment, lambing or to be sold. The medicines and storage records were inspected and found to be satisfactory. This animal had been kept in two different geographical areas where there are no obvious history of mining or industry in the local area. The farmer used phosphate fertilizer in some grazing premises and was advised that long-term application of phosphate fertilizers can increase cadmium concentration in crops. The most likely cause of the residue is from an accumulation of cadmium ingestion from low level soil contamination, over time.
Sheep Kidney	Cadmium 2400 ug/kg 1614737	N/A	Great Britain	The sample originated from a 6 year old sheep which had resided on this farm for approximately 4 years. The investigation showed no obvious history of mining or industry in the local area and the closest residual waters are several miles away. The most likely cause of the residue is from an accumulation of cadmium ingestion from low level soil contamination, over time.
Sheep Liver	Closantel 1631 µg/kg		Northern Ireland	An investigation was carried out on 21/11/16. Lambs treated with Supaverm (Closantel & Mebendazole). The last date of administration was 2/7/16 and there is a 65 days withdrawal with this product; the animal had been given 80 days withdrawal. Farm of 40 sheep with laying hens and cattle. Medicine records had the usage of medicines detailed however the purchase records were not fully completed. Follow up samples taken on 06/10/16 were compliant.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Liver	Closantel 1909 µg/kg	Flukiver 5% w/v Oral Suspension	Northern Ireland	The medicines records showed that lambs were treated with flukiver and the withdrawal period was observed. The treatment was based on estimated average weight; therefore the most likely cause of this residue is from an overdose. Five follow up samples were and all were found to be compliant. The farmer was given advice on how to avoid such residues in future.
Sheep Liver	Closantel 3400 ug/kg 1631488	Unknown	Great Britain	Unable to trace animal.
Sheep Liver	Closantel 3600 ug/kg 1604293	Supaverm Oral Suspension	Great Britain	This is a medium sized breeding flock which is mated in the autumn for lambing in the spring. There is also a beef suckler herd on the farm. A previous medicines inspection identified issues where medicine records were not available and the farmer was advised on appropriate record keeping. Records were made available on this visit, but were incorrect and incomplete. The medicines records show that two closantel products were used, Flukiver 5% and Supaverm, however the withdrawal periods noted for these were incorrect. Nevertheless, the animal had completed the correct withdrawal period prior to slaughter but given the lack of proper identification during treatment, it is possible that the farmer treated the same sheep twice which led to this animal being sent for slaughter within the withdrawal period. The farmer has been given advice on the requirement for keeping complete and accurate records and for using medicines correctly.
Sheep Liver	Closantel 3700 ug/kg 1604480	N/A	Great Britain	This sheep originated from Northern Ireland therefore the investigation was carried out there. This animal was purchased at market and kept for eight days before being moved to an export centre where it was transported to Great Britain for breeding and production. It was not intended that this animal would be sent directly for slaughter. The cause of residue in this animal was unable to be established.
Sheep Liver	Closantel 5800 ug/kg 1604342	Flukiver	Great Britain	The sheep came from a medium sized farm supporting 550 growing cattle, 380 breeding ewes and 750 store lambs. The high level of Closantel found was likely to have been the result of poor animal identification following treatment. It is likely the wrong sheep was sent for slaughter
Sheep Kidney	Dihydrostreptomycin 11300 µg/kg	Pen & Strep Suspension for Injection	Northern Ireland	The investigation showed that pen/strep was used 33 days prior to slaughter which is within the withdrawal period of 31 days. This animal was also given an overdose of 10ml at one site rather than the recommended multiple sites of less than 3ml. The farmer was given advice on the responsible use of veterinary medicines and the requirement to adhere to withdrawal periods.
Sheep Liver	Ivermectin 580 ug/kg 1625341	N/A	Great Britain	The sheep came from a medium sized farm with approximately 300 breeding ewes, producing 500 lambs annually. There was no evidence of illegal or unauthorised substances use. Records of use of veterinary medicines are kept for at least 5 years; however, key details have been omitted. The likely cause of this residue was an overdose or unrecorded treatment of the animal due caused by insufficient record keeping. As a result of the non-compliance the farmer has seen been advised to keep records precisely in accordance with the regulations.
Sheep Kidney	Lead 1500 ug/kg 1606283	N/A	Great Britain	This is a large sheep rearing enterprise which can comprise of about 5000 store lambs at this holding. Beef and dairy cattle are also kept on farm and these can occupy the same buildings and fields as the sheep. The animal in question was from a batch of animals bought in and treated for internal parasites (flukes and worms) with Cydectin Triclamox. There were no records of local mining or industry in the area and no reports of particular health problems relating to lead poisoning. The farm of origin where this animal spent its first 5 months since birth is known for regular shooting activities which may have resulted in lead contaminated soil from lead pellets, which is the most likely cause of this residue.
Sheep Kidney	Sulfadimethoxine 166 ug/kg	N/A	Northern Ireland	This is a birth to bacon unit where finishers do not receive any medication. No medication feed has been used for 3 years in weaners. The cause of residue in this animal was not established and there was no explanation for this. All follow up samples have been compliant.
Sheep Urine	Taleranol 1.3 ug/l & zeranol 1.1 ug/l (1.4 ug/l) 1630896		Great Britain	This was a very smallholder with three acres. The sheep were raised solely on grass and fed additional hay prior to slaughter. The medicines book was satisfactory. +There was no evidence of illegal use of growth promoters and the most likely cause of this residue is from fungi-infected feed.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Urine	Taleranol 1.1 ug/l & zeranol 0.70 ug/l (1.8 ug/l) 1623969	N/A	Great Britain	This is a small farm which has a small pedigree cattle herd, a small flock of Zwartbles sheep and some livery horses. The haylage grown on farm primarily goes for horse feed, however, any visible evidence of mould on the feed will be rejected and fed to the sheep. Zeranol and taleranol are a fungus in the <i>Fusarium</i> family, therefore, the most likely cause of this residue is from fungi-infected feed. The farmer has been given advice on how to avoid such residues occurring in the future.
Sheep Urine	Taleranol 1.6 ug/l & Zeranol 1.2 ug/l (2.8 ug/l) 1623969	N/A	Great Britain	This is a commercial closed flock with approximately 450 ewes which are traditionally farmed and grazed on mountain land. The medicines records were complete.
Horse				
Horse Kidney	Cadmium 17000 ug/kg 1614731	N/A	Great Britain	An investigation in to this case was not carried out as this premises is no longer used for livestock.
Horse Kidney	Phenylbutazone 6.8 ug/kg 1631960	-	Great Britain	Source of residue could not be established. The animal was receiving anti-inflammatory treatment, however, the treatment did not contain any phenylbutazone.
Poultry				
Broiler Liver	Salinomycin 5.7 ug/kg 1627162	-	Great Britain	Source of residue could not be established but it is most likely feed contamination.
Broiler Liver	Salinomycin 10 ug/kg 1627087	-	Great Britain	The farm concerned has 44,800 spread across 4 houses. The farmer uses 4 bins, 2 of which hold concentrate and another 2 which hold wheat. It is conceivable traces of salinomycin could have been consumed by the broilers thus the most likely cause of residue was feed contamination. It was recommended an alarm is fitted to the sensor of each feed weigher connecting the two bins to ensure there is reduced likelihood of contamination.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Farmed Fish				
Farmed Trout	Dieldrin 160 ug/kg 1601659	-	Great Britain	The sample was taken from a farm unit at a College and the site is used to take feed trails student thesis and the fish generally do not get sold. Movement restrictions were put in place and five target samples taken were non-compliant. The monthly quality analysis carried out by the Environment Agency includes analysis for Dieldrin and has always been zero. It is likely that a shallow borehole drawing water from the aquifer could be the source of the residue as this is a persistent organic pollutant. The FSA established that as the reported pattern of consumption of trout from this college would not be a health concern and movement restrictions were lifted.
Farmed Salmon	Emamectin 120 ug/kg 1601859	N/A	Great Britain	Linked with 1601858 and 1601857. The investigation established that there was an error in the biomass calculation which led to an incorrect split of the medicated feed between the cages being treated and resulted in an overdose. The farm has implemented additional control check points with regard to biomass calculations to prevent this type of error re-occurring in future. The farmer has been given written advice on the requirements for responsible use of veterinary medicines.
Farmed Salmon	Emamectin 150 ug/kg 1601858	N/A	Great Britain	Linked with 1601859 and 1601857. The investigation established that there was an error in the biomass calculation which led to an incorrect split of the medicated feed between the cages being treated and resulted in an overdose. The farm has implemented additional control check points with regard to biomass calculations to prevent this type of error re-occurring in future. The farmer has been given written advice on the requirements for responsible use of veterinary medicines.
Farmed Salmon	Emamectin 170 ug/kg 1601857	N/A	Great Britain	Linked with 1601858 and 1601859. The investigation established that there was an error in the biomass calculation which led to an incorrect split of the medicated feed between the cages being treated and resulted in an overdose. The farm has implemented additional control check points with regard to biomass calculations to prevent this type of error re-occurring in future. The farmer has been given written advice on the requirements for responsible use of veterinary medicines.
Milk				
Cattle	Amoxycillin 44.3 µg/l	N/A	Northern Ireland	No investigating visit was undertaken as no milk entered into food chain. Follow up samples were taken and were all compliant (5 Kidney samples).
Cattle	Triclabendazole 108 µg/l	-	Northern Ireland	An investigation was completed on 27/2/12. It is a large dairy herd of 559 animals. Herdkeeper unsure how non compliance occurred. Possibility he treated with fasinex (triclabendazole) when he had intended to treat with Zaniil (oxyclosanide).
Egg				
Free Range	Lasalocid 370 ug/kg 1619824	-	Great Britain	Awaiting investigation report.
Free Range	Monensin 2.6 ug/kg	-	Great Britain	Awaiting investigation report.
Avian	Monensin 15 ug/kg	Unknown	Northern Ireland	The flock keeper was not aware that some of the feeds that he uses are medicated with monensin. He has 5 sites and the investigation determined that it is possible that birds from a treated site could have ended up amongst the layers.

SAMPLING OF ANIMALS SUSPECTED OF CONTAINING A RESIDUE AT THE TIME OF SLAUGHTER: 2016

RESIDUES DETECTED ABOVE THE REFERENCE POINT TO DATE: 31 DECEMBER 2016

Sample	Analysed for	No. of analyses	No. of Non-compliant samples	Reference Point µg/kg/l	Concentrations above the Reference Point µg/kg/l (more than one substance may be found in one sample)
Broiler Liver	Coccidiostats	127	1	8	12 (monensin)
Calf Kidney	Antimicrobial (Screen 1)	127	13	50 100 600 50 3000 100	140 (amoxicillin) 1800 (gamithromycin) 920, 2600, 3700, 4600, 5600, 6600, 9500, 13000, 19000, 40000 (oxytetracycline) 147 (penicillin G) 31000 (tulathromycin) 281 (tylosin)
Calf Kidney	Antimicrobial (Screen 2)	5	2	150	380, 6500 (marbofloxacin)
Calf Kidney	Antimicrobial (Screen 4)	123	2	1000	2500, 6500 (dihydrostreptomycin)
Cattle Kidney	Antimicrobial (Screen 1)	1055	4	600	887, 938, 1000, 1960, (oxytetracycline)
Cattle Kidney	Antimicrobial (Screen 2)	146	1	150	4700 (marbofloxacin)
Cattle Kidney	Antimicrobial (Screen 4)	183	2	1000	1950, 2800 (dihydrostreptomycin)
Cattle Liver	Antiparasitics	656	9	100 20	332 (ivermectin) 22, 25, 33, 39, 110, 484, 810, 1037 (nitroxylin)
Cattle Kidney	Metals	61	1	Presence	2976 (cadmium)
Cattle Liver	NSAIDs	-	1	65	267 (meloxicam)
Cattle Serum	NSAIDs	561	1	Presence	1.22 (phenylbutazone)
Pig Kidney	Antimicrobial (Screen 1)	1283	20	100	119, 130, 133, 137, 144, 167, 183, 196, 196, 211, 216, 233, 244, 256, 268, 278, 298, 312, 352, 436 (sulfadiazine)
Sheep Muscle	Antimicrobial (Screen 1)	-	2	100	279, 383 (oxytetracycline)
Sheep Kidney	Antimicrobial (Screen 1)	2613	1	600	840 (oxytetracycline)
Sheep Liver	Antiparasitics	1988	18	1500 500 Presence 20 150	1700, 1955, 2080, 2120, 2200, 2340, 2590, 3100, 4100, 4575, 4830 (closantel) 1120 (fenbendazole) 13, 14, 15, 44, 19 (flubendazole) 650 (nitroxylin) 229 (rafoxanide)

RESULTS OF FOLLOW-UP INVESTIGATIONS: 31 DECEMBER 2016

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle				
Cattle Kidney	Cadmium 2976 ug/kg		Northern Ireland	This sample was a follow up sample to a planned non-compliant sample for cadmium (1279 µg/kg). Other follow up samples were compliant.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Kidney	Dihydrostreptomycin 1950 ug/kg	Pen & Strep Suspension for Injection	Northern Ireland	An investigation was completed on 19/01/17. This beef finisher was 28 months old and had been purchased 18 months prior to slaughter. It had been treated with pen strep and meloxicam. Pen strep was given subcutaneously rather than intramuscularly. The withdrawal was adhered to.
Cattle Kidney	Dihydrostreptomycin 2800 ug/kg	Pen & Strep Suspension for Injection	Northern Ireland	An investigation showed that the animal was treated with Pen & Strep in according to requirements of the product label. The animal was withdrawn 2 weeks longer than the recommended 23 days. Veterinary advice had been sought due to eating difficulties and the antibiotic was provided. There was no response to the treatment and the animal was slaughtered..
Cattle Kidney	Dihydrostreptomycin 6500 ug/kg 1697079	Pen & Strep Suspension for Injection	Great Britain	The animal sampled was presented for sale at market, purchased and submitted for slaughter the same day. The farm of origin was investigated and the medicines records inspected which appeared in good order and showed a treatment of Pen and Strep Suspension for injection to this animal. The farmer recorded the dates the withdrawal periods end for both meat and milk but failed to observe the longer meat withdrawal period, subsequently submitting the calf for sale whilst in a withdrawal period, without notification. The farmer was given written advice on the requirements for keeping complete and accurate records and also requirements regarding declaring all relevant medicine administrations on Food Chain Information (FCI) documents.
Cattle Kidney	Gamithromycin 1800 ug/kg 1697022	Marbocyl 10% Zactran 150 mg/ml	Great Britain	This is a large farm of around 450 Holstein Friesian milking cows calving all year round, plus dry replacement heifers. The medicines record for the dairy herd and heifers is computerised, however, the treatment for calves is handwritten and does not include essential information such as withdrawal periods. The cause of residue is likely to be due to poor record keeping and inaccuracies regarding observation of withdrawal periods. The farmer has since been advised to ensure all medicines for both cattle and calves are recorded in accordance with the regulations.
Cattle Liver	Ivermectin 332 µg/kg	Unknown	Northern Ireland	The investigation established that the herd keeper purchased the animal one day prior to slaughter. The animal was not treated. It was not possible to establish the cause of this residue.
Cattle Kidney	Marbofloxacin 380 ug/kg 1697022	Marbocyl 10% Zactran 150 mg/ml	Great Britain	This is a large farm of around 450 Holstein Friesian milking cows calving all year round, plus dry replacement heifers. The medicines record for the dairy herd and heifers is computerised, however, the treatment for calves is handwritten and does not include essential information such as withdrawal periods. The cause of residue is likely to be due to poor record keeping and inaccuracies regarding observation of withdrawal periods. The farmer has since been advised to ensure all medicines for both cattle and calves are recorded in accordance with the regulations.
Cattle Kidney	Marbofloxacin 4700 ug/kg	Unknown	Northern Ireland	This animal was purchased one day prior to slaughter and had not been treated by the Herd keeper. He had detailed medicine records available.
Cattle Liver	Meloxicam 267 µg/kg	Unknown	Northern Ireland	The animal was treated in line with the manufacturer's instructions however on failing to respond to treatment the herd keeper contacted the vet who advised slaughter. Slaughter took place seven days after treatment; however, the withdrawal period is 15 days for meat. Two follow up samples were taken and both were both compliant. Two more follow up samples taken and these were both compliant. The farmer has been given advice on the requirement for keeping complete and accurate records and for using medicines correctly.
Cattle Liver	Nitroxinil 22 ug/kg 1697054	Trodax 34% w/v Solution for Injection	Great Britain	This is a finishing unit with an annual throughput of 5000 to 6000 cattle. The farmer buys cattle from other farmers and sells them on directly to slaughterhouses. After housing the cows are treated with Trodax as routine medication. The medicines records were generally satisfactory and included the correct withdrawal period for Trodax and all cattle are tagged with electronic tags at the time of medicine administration. The source of the residues is inconclusive and neither the farmer or the vet could provide an explanation for the residue. The vet has submitted a suspected adverse event report to the Marketing Authorisation Holder.
Cattle Liver	Nitroxinil 25 ug/kg 1697058	Trodax 34% w/v Solution for Injection	Great Britain	

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Liver	Nitroxinil 33 ug/kg 1697056	Trodaq 34% w/v Solution for Injection	Great Britain	
Cattle Liver	Nitroxinil 39 ug/kg 1697053	Trodaq 34% w/v Solution for Injection	Great Britain	
Cattle Liver	Nitroxinil 110 µg/kg	Trodaq 34% w/v Solution for Injection	Northern Ireland	Linked to Nitroxinil 810 & 1037: The medicines records showed that this animal was treated with Trodaq, however, the farmer mistakenly thought it was treated months prior to sending for slaughter but was in fact still within the withdrawal period. Nine follow up samples were taken and all were compliant. The farmer has been given advice on the requirement for keeping complete and accurate records and for using medicines correctly. This case is linked to two other non-compliant.
Cattle Liver	Nitroxinil 484 µg/kg	Unknown	Northern Ireland	The investigation established that this animal was purchased seven day prior to slaughter. No medicines were administered during this period therefore it was not possible to determine the cause of this residue.
Cattle Liver	Nitroxinil 810 µg/kg	Trodaq 34% w/v Solution for Injection	Northern Ireland	Linked to Nitroxinil 110 & 1037: The medicines records showed that this animal was treated with Trodaq, however, the farmer mistakenly thought it was treated months prior to sending for slaughter but was in fact still within the withdrawal period. Nine follow up samples were taken and all were compliant. The farmer has been given advice on the requirement for keeping complete and accurate records and for using medicines correctly. This case is linked to two other non-compliant.
Cattle Liver	Nitroxinil 1037 µg/kg	Trodaq 34% w/v Solution for Injection	Northern Ireland	Linked to Nitroxinil 110 & 810: The medicines records showed that this animal was treated with Trodaq, however, the farmer mistakenly thought it was treated months prior to sending for slaughter but was in fact still within the withdrawal period. Nine follow up samples were taken and all were compliant. The farmer has been given advice on the requirement for keeping complete and accurate records and for using medicines correctly. This case is linked to two other non-compliant.
Cattle Kidney	Oxytetracycline 887 ug/kg	Alamycin	Northern Ireland	According to the medicines records, this animal was treated with Alamycin and the withdrawal period was observed. However, the investigation established that a double dose was given. Therefore the withdrawal period was inadequate which is the most likely cause of this residue.
Cattle Kidney	Oxytetracycline 920 ug/kg 1697008	Marbofloxacin	Great Britain	This is a medium sized farm comprised of 221 animals, 29 males, 192 females. The animal movement records, medicine records and storage facilities were inspected and found to be satisfactory. The farmer is responsible to all the medicinal treatments and the records of those treatments which showed that this animal was treated with 4ml of Marbofloxacin for pneumonia. There was no evidence of the use of oxytetracycline on farm; therefore it was not possible to adequately determine the cause of this residue.
Cattle Kidney	Oxytetracycline 938 ug/kg	Nuflor	Northern Ireland	An inspection was completed on 03/02/17. The animal had been on the farm for approx 6 months prior to slaughter. Herdkeeper had treated the animal with nuflor (florfenicol) and had adhered to withdrawal time. There is a discrepancy within the herdbook in relation to ID of animals. According to APHIS this animal is still alive and a different one was slaughtered.
Cattle Kidney	Oxytetracycline 1000 ug/kg	Hexasol LA Solution for Injection for Cattle	Northern Ireland	The investigation established that this animal was treated by the vet with Hexasol, which contains oxytetracycline, and erroneously sent for slaughter within the 35 day withdrawal period. The farmer has been given written advice on the requirement for keeping complete and accurate records.
Cattle Kidney	Oxytetracycline 1960 ug/kg	Alamycin LA	Northern Ireland	The investigation established that this animal was treated, two days after purchase, with Alamycin LA. The animal was slaughtered 41 days later (the withdrawal period 31 days). Therefore it was not possible to adequately determine the cause of this residue.
Cattle Kidney	Oxytetracycline 2600 ug/kg	Oxytetracycline LA	Great Britain	The calf had been treated with Oxytetracycline LA on two occasions 4 days apart, however, the recommendation on the data sheet is to administer a single dose. Although the withdrawal period was observed, it was considered that this was inadequate for the volume administered which is the most likely cause of this residue.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Cattle Kidney	Oxytetracycline 3700 ug/kg 1697072	Unknown	Great Britain	Linked to 1697068: This calf originated from a medium sized dairy farm when the farmer breeds his own replacements and sells bull calves at market at 4-5 weeks of age, after being fed waste milk. On inspection the medicines records were incomplete, inconsistent and for some periods not kept at all. The farmer admitted that records were not kept, especially for calves, and therefore the likely cause of this residue is from an unrecorded treatment and sent for slaughter within the withdrawal period. The farmer was given written advice on the requirements for keeping complete and accurate records.
Calf Kidney	Oxytetracycline 4600 ug/kg 1697076	Engemycin 10% Farm Pack Solution for Injection	Great Britain	This calf originated from a dairy farm of about 300 cattle. Heifer calves are kept as replacements and bull calves are sent for slaughter at around 1 week to 10 days old. The medicines records were, for the most part satisfactory, although an incorrect withdrawal period for Engemycin had been recorded as 4 days instead of 6. The calves are fed pooled milk and due to the error in the medicines records this calf is likely to have been fed with milk containing oxytetracycline which led to this residue. The farmer has been given written advice on the requirement for keeping complete and accurate records and on the responsible use of veterinary medicines.
Cattle Kidney	Oxytetracycline 5600 ug/kg 1697068	Unknown	Great Britain	Linked to 1697072: This calf originated from a medium sized dairy farm when the farmer breeds his own replacements and sells bull calves at market at 4-5 weeks of age, after being fed waste milk. On inspection the medicines records were incomplete, inconsistent and for some periods not kept at all. The farmer admitted that records were not kept, especially for calves, and therefore the likely cause of this residue is from an unrecorded treatment and sent for slaughter within the withdrawal period. The farmer was given written advice on the requirements for keeping complete and accurate records.
Cattle Kidney	Oxytetracycline 6600 1697032	Unknown	Great Britain	This male dairy calf originated mixed breed dairy farm with 900 cattle. The medicines and movement records were inspected and appeared satisfactory, however, there was no entry of any treatment for the calf in question. There were records of Alamycin treatments to 21 animals during the month prior to slaughter. The cause of this residues is most likely that this animal was given an unrecorded treatment and sent to slaughter within a withdrawal period. The farmer has been given written advice on the requirements for keeping complete and accurate records.
Calf Kidney	Oxytetracycline 9500 ug/kg 1697049	Hexasol LA Solution for Injection for Cattle	Great Britain	The animal had been sold at market and taken direct for slaughter. An investigation was carried out at the farm of origin which was a dairy farm with 460 cattle in total. The bull calves are old at market which has happened in this case. One calf was treated with Hexasol LA and it is possible that this was this calf but the tag number had not been recorded. This product was also administered to other calves, however, none of the IDs matched the non-compliant calf. The farmer has been given written advice on the requirements for keeping complete and accurate medicines records.
Cattle Kidney	Oxytetracycline 13000 ug/kg 1697062	Alamycin LA 200 mg/ml solution for injection	Great Britain	The animal had been sold at market and slaughtered the following day. An investigation at the farm of origin found that the medicines records were satisfactory; however, the animal was likely to have been treated with Alamycin LA but had not been recorded in the medicines records. The animal was slaughtered within the withdrawal period.
Calf Kidney	Oxytetracycline 19000 1697028	Unknown	Great Britain	This is a large dairy farm of 800 cattle kept over two locations. This calf was sold to market at 3-4 weeks old and sent for slaughter the next day. There were detailed medicine records for treatments of milking cows, dry cows and heifers which were up to date, but incomplete as they did not contain all the administered medicines. There were no medicine records for any calves reared at the second location and incomplete records for other age groups. Products containing oxytetracycline were on farm and found to be stored outside of the medicines store. The farmer admitted that it was likely this animal had received an unrecorded treatment and sold whilst within a withdrawal period without the Food Chain Information being complete correctly. The farmer has been given written advice on the requirements for keeping complete and accurate records.

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Calf Kidney	Oxytetracycline 40000 ug/kg Marbofloxacin 6500 ug/kg Dihydrostreptomycin 2500 ug/kg Amoxicillin 140 ug/kg 1697074	Alamycin LA 200 mg/ml solution for injection Tetra-Delta Intramammary Suspension Marbiflox 100 mg/ml Solution for Injection for Cattle and Pigs (Sows)	Great Britain	This calf originated from a large dairy farm which sells bull calves at market. The farmer is personally responsible for all treatments to calves and the medicines records, however there were no records of any calf treatments nor did the farmer remember calves having had any treatment. The medicines records did show the use of several products which contained these substances and farm practice is to feed waste milk to calves. The cause of these residues is most likely to be caused by the feeding of waste mil from cows in a withdrawal period. The medicines records were incomplete for some details such as individual identification numbers, therefore, the farmer was given written advice on the requirements for keeping complete and accurate records and ensuring Food Chain Information is accurate.
Cattle Kidney	Penicillin G 147 µg/kg	Depocillin 300 mg/ml Suspension for Injection	Northern Ireland	According to the data sheet, the animal had been injected with depocillin and the withdrawal period adhered to. Therefore it was not possible to adequately determine the cause of this residue. Eleven follow up samples were all compliant.
Cattle Plasma	Phenylbutazone 1.22 µg/l	Unknown	Northern Ireland	This sample was a follow up sample to a RISK non compliant sample for Phenylbutazone (0.29 µg/l). Other follow up samples were compliant. Investigation report for initial RISK sample detailed in RISK section.
Cattle Kidney	Tulathromycin 31000 ug/kg 1697034	Draxxin 100 mg/ml Solution for Injection for Cattle, Pigs and Sheep	Great Britain	This dairy farm breeds their own replacements and bull calves get waste milk and Friesian bull calves do are not usually treated unless for welfare reasons. The inspection of the medicines records showed that it was significantly insufficient. There did not appear to be anyone responsible for the records of treatments to calves which was a clipboard with loose sheets of paper attached of which some were illegible due to water damage. There were pages missing and the withdrawal period as well as other information was not recorded. Similar issues were apparent for the adult cattle medicines records. There was a computerised version of the records but again did not hold all the required information. The investigation was able to establish that this calf was treated with Draxxin, Flunixin and Nuflor on two consecutive days and slaughtered 22 day later. Although this was the correct withdrawal for Draxxin, this animal was still within the withdrawal period for Nurflo (florfenicol). It is most likely that this double dose is the cause of this residue. The farmer has been given written advice on the requirement for keeping complete and accurate records.
Cattle Kidney	Tylosin 281 µg/kg	Tylan 200, 200 mg/ml Solution for Injection	Northern Ireland	An investigation showed that the animal was given tylan 200 injection for a swollen hock. Following calving its health deteriorated slowly so the animal was slaughtered. Withdrawal periods were observed. However, the herd keeper gave a total dose of 40ml (manufacturer's recommendation is a maximum of 15ml per site). Therefore, a significant overdose is the most likely cause of this residue.
Pig				
Pig Kidney	Sulfadiazine 119, 130, 133, 137, 144, 183, 196, 196, 211, 216, 233, 244, 256, 268, 278, 298, 312, 352, 436 ug/kg	Unknown	Northern Ireland	All samples were taken as part of the same case. An investigation was carried out on 21/06/16. There is a herd of some 2817 pigs. No sulfadiazine has been used on this site although it has been used orally on other sites owned. No explanation for non compliance. 3 batches of follow up samples were taken from August through to December. There were 3 non-complaint samples in the first batch of samples; all other samples have been complaint. Details of non complaint samples shown below (312, 352, 167 µg/kg SDZ).
Pig Kidney	Sulfadiazine 167, 312, 352 ug/kg	Unknown	Northern Ireland	This relates to the 3 non-compliant samples above. An investigation was carried out on 21/06/16. sulfadiazine has been used on this site although it has been used orally on other sites owned. No explanation for non compliance.
Pig Kidney	Sulfadiazine 436 ug/kg	Unknown	Northern Ireland	The medicines records on this farm showed no treatments containing sulfadiazine has been used on this site, although it has been used orally on other sites owned. It was most likely that this animal had been given an unrecorded treatment and sent for slaughter within the withdrawal period. The farmer has been given written advice on the requirement for keeping complete and accurate records.
Sheep				

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Liver	Closantel 1700 ug/kg	Unknown	Northern Ireland	An investigation was carried out on 07/09/2016 after a Closantel (2043 µg/kg) non-complaint RISK sample. This original animal had been purchased 2 days prior to slaughter and not treated by Herdkeeper; it could not be traced to original owner. Follow up samples were taken; some of these were non-compliant as detailed.
Sheep Liver	Closantel 1955 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Closantel 2080 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Closantel 2120 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Closantel 2340 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Closantel 2590 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Closantel 3100 ug/kg	Unknown	Northern Ireland	An investigation was carried out on 07/09/2016 after a Closantel (2043 µg/kg) non-complaint RISK sample. This original animal had been purchased 2 days prior to slaughter and not treated by Herdkeeper; it could not be traced to original owner. Follow up samples were taken; some of these were non-compliant as detailed.
Sheep Liver	Closantel 4100 ug/kg	Unknown	Northern Ireland	An investigation was carried out on 07/09/2016 after a Closantel (2043 µg/kg) non-complaint RISK sample. This original animal had been purchased 2 days prior to slaughter and not treated by Herdkeeper; it could not be traced to original owner. Follow up samples were taken; some of these were non-compliant as detailed.
Sheep Liver	Closantel 4575 ug/kg	Unknown	Northern Ireland	An investigation was carried out on 07/09/2016 after a Closantel (2043 µg/kg) non-complaint RISK sample. This original animal had been purchased 2 days prior to slaughter and not treated by Herdkeeper; it could not be traced to original owner. Follow up samples were taken; some of these were non-compliant as detailed.
Sheep Liver	Closantel 4830 ug/kg	Unknown	Northern Ireland	These are follow up samples from a RISK non-complaint sample (2496 µg/kg). Investigation as detailed in RISK section: The investigation was carried out on 11/10/16. There was a flock of 400. The flock keeper had administered the same volume of closamection (injectable) to all the lambs in the lock and complied with the withdrawal period (withdrawn for 31 days and recommended is 28 days). It is possible that lighter lambs were overdosed.
Sheep Liver	Flubendazole 13 ug/kg	Unknown	Northern Ireland	An investigation was carried out on 13/10/16. The flock keeper insisted that the lambs sampled were not his and that a mix up had occurred at the abattoir. This is to be further investigated. Chickens were also kept on farm

Species & Matrix	Residue detected & concentration (RIM Ref)	Products used	Region	Cause of residue
Sheep Liver	Flubendazole 14, 15, 19, 44 ug/kg	Unknown	Northern Ireland	The flock keeper insisted that the lambs sampled were not his and that a mix up had occurred at the abattoir. Chickens were also kept at this farm. Further investigations will be carried out to determine the cause of residue.
Sheep Muscle	Oxytetracycline 279 ug/kg	Alamycin LA	Northern Ireland	An investigation showed that the animal was treated with Alamycin LA. And did not complete the nine day withdrawal period which is the cause of this residue. The medicine records were not in accordance with the legislation as the treatment had been noted but records did not identify which lamb had been treated. The farmer has been given written advice on the requirement for keeping complete and accurate records.
Sheep Kidney	Oxytetracycline 840 ug/kg	Unknown	Northern Ireland	The investigation established that the lamb was not treated by the herd keeper. The animal was purchased within one week of slaughter. The investigation could not adequately determine the cause of this residue.

Full details of 2016 UK statutory surveillance programme by sector

RED MEAT						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A2 Thyrostats						
Thyrostats	Cattle		Urine	165		
	Fattening cattle		Urine	223		
	Horses		Urine	1		
	Pigs		Urine	101		
	Sheep		Urine	77		
A3 Hormones						
Gestagens	Cattle		Kidney Fat	283		
	Fattening cattle		Serum	280		
	Pigs		Kidney Fat	112		
	Sheep		Kidney Fat	83		
Methyltestosterone	Pigs		Feed	26		
Oestradiol	Cattle	Male	Serum	198		
	Fattening cattle	Male	Serum	331	2	Alpha-estradiol 960 Beta-estradiol 130
Steroid screen 1	Cattle		Urine	994	12	Alpha-bold 2, 2.4 Alpha-nort 0.61, 0.79, 1.1, 1.4, 2.1, 5.9, 7.1, 7.1, 12, 33 Testosterone 16
	Fattening cattle		Urine	1124	26	Alpha-bold 2.5, 2.6, 2.8, 3.1, 3.6, 4.9, 10 Beta-bold 0.38, 3.94 Alpha-nort 1.1, 4.1, 5.3, 5.3, 6.5, 6.7, 7.3, 7.8, 7.9, 8.9, 9, 9.3, 9.6, 16, 18, 20.5, 23
	Horses		Urine	2		
	Pigs		Urine	343		
	Sheep		Urine	506	46	Alpha-bold 1.5, 2, 2.2, 2.2, 2.3, 2.4, 2.4, 2.4, 2.5, 2.5, 2.5, 2.6, 2.6, 2.6, 2.7, 2.9, 2.9, 3, 3.1, 3.2, 3.4, 3.4, 3.6, 4, 4.2, 4.3, 4.6, 4.7, 4.9, 4.9, 5.7, 6.1, 6.2, 6.7, 7.4, 8.3, 9.6, 11, 11, 12, 13, 14 Beta-bold 0.81 Beta-nort 0.85, 1.3
Testosterone	Cattle	Female	Serum	358	1	Beta-testosterone 1.4
	Fattening cattle	Female	Serum	317		
A4 Hormones						
Zeranol	Cattle		Urine	359	6	Taleranol 1.5, 1.6 Taleranol & Zeranol 1.97, 3.09, 3.35, 4.2
	Fattening cattle		Urine	346	10	Taleranol & Zeranol 1.49, 1.6, 2.3, 2.5, 2.7, 3.7, 3.9, 4.8, 13.9, 18.3
	Horses		Urine	1		
	Pigs		Urine	231		
	Sheep		Urine	112	3	Taleranol & Zeranol 1.4, 1.8, 2.8
A5 Beta-Agonists						
	Calves	< 6 months	Liver	7		
	Cattle		Liver	538		
	Fattening cattle		Feed	215		
	Fattening cattle		Urine	234		
	Horses		Liver	18		
	Pigs		Feed	48		
	Pigs		Liver	387		
	Sheep		Liver	286		

A6 Annex IV						
Chloramphenicol	Calves	< 6 months	Kidney	6		
	Cattle		Kidney	288		
	Fattening cattle		Feed	297		
	Fattening cattle		Urine	49		
	Horses		Kidney	3		
	Pigs		Kidney	264		
	Sheep		Kidney	162		
Nitrofurans	Calves	< 6 months	Kidney	4		
	Cattle		Kidney	159		
	Fattening cattle		Feed	201		
	Horses		Kidney	2		
	Pigs		Feed	9		
	Pigs		Kidney	324	1	Semicarbazide 8.5
	Sheep		Kidney	242		
Nitroimidazoles	Calves	< 6 months	Kidney	3		
	Cattle		Kidney	166		
	Horses		Kidney	2		
	Pigs		Feed	17		
	Pigs		Kidney	238		
	Sheep		Kidney	115		
B1 Antimicrobial						
AMS1	Calves	< 6 months	Kidney	86	2	Chlortetracycline 1600, Timicosin 5900
	Cattle		Kidney	1195	2	Marbofloxacin 273 Sulfadiazine 1100
	Horses		kidney	7		
	Pigs		Kidney	1359	4	Sulfadiazine 140, 180, 990 Sulfadimethoxide 166
	Sheep		Kidney	2609	1	Dihydrostreptomycin 11300
AMS2	Calves	< 6 months	kidney	1		
	Cattle		kidney	345		
	Pigs		kidney	378		
AMS4	Calves	< 6 months	Kidney	88	1	Dihydrostreptomycin 4700
	Cattle		kidney	135		
	Sheep		kidney	102		
Ceftiofur	Pigs		kidney	106		
Florfenicol	Calves	< 6 months	Kidney	90	2	Florfenicol 380, 2300
	Sheep		Kidney	97		
B2A Anthelmintics						
Anthelmintics	Cattle		Liver	725	3	Closantel 3390 Nitroxynil 161, 502
	Pigs		Liver	320		
	Sheep		Liver	1434	20	Closantel 1299, 1631, 1909, 1950, 1985, 2043, 2483, 2496, 2834, 3110, 3400, 3600, 3700, 3976, 4149, 4395, 5370, 5516, 5733, 5800.
Avermectins	Cattle		Liver	420	1	Ivermectin 190
	Horses		Liver	7		
	Pigs		Liver	179		
	Sheep		Liver	1058	4	Fenbendazole 1120 Ivermectin 580 Nitroxynil 650 Rafoxanide 229
B2B Coccidiostats						

Coccidiostats	Calves	< 6 months	Liver	17		
	Horses		Liver	2		
	Pigs		Liver	109		
	Sheep		Liver	337		
B2C Pesticide Screen						
Pyrethroids	Calves	< 6 months	Kidney Fat	31		
	Cattle		Kidney Fat	5		
	Cattle		Liver	5		
	Horses		Kidney Fat	2		
	Pigs		Kidney Fat	74		
	Pigs		Liver	8		
	Sheep		Kidney Fat	566		
B2D Sedatives						
	Breeding Boar		Liver	88		
	Cattle		Liver	36		
	Horses		Liver	7		
	Pigs		Liver	115		
	Sheep		Liver	107		
B2E NSAIDs						
	Cattle		Kidney	613	1	Meloxicam 130
	Horses		Kidney	36	1	Phenylbutazone 6.8
	Pigs		Kidney	40		
	Sheep		Kidney	50		
	Cattle		Plasma	561	1	Phenylbutazone 0.29
B2F Glucocorticoids						
	Cattle		Liver	331	3	Cortisol 19.1, Cortisone 88.2, Prednisone 1.03
	Horses		Liver	6		
	Pigs		Liver	54		
	Sheep		Liver	24		
B3A Pesticide Screen						
OC/PCBs	Cattle		Kidney Fat	75		
	Horse		Kidney Fat	1		
	Pigs		Kidney Fat	72		
	Sheep		Kidney Fat	130		
B3B Pesticide Screen						
OPs	Cattle		Kidney Fat	230		
	Horses		Kidney Fat	1		
	Pigs		Kidney Fat	153		
	Sheep		Kidney Fat	585		
B3C Heavy Metals						
Metals	Cattle		Kidney	67	6	Lead 600, 1100 Cadmium 1000, 1280, 1300, 3900
	Cattle		Muscle	10		
	Horses		Kidney	1	1	Cadmium 17000
	Pigs		Kidney	14		
	Pigs		Muscle	2		
	Sheep		Kidney	52	7	Lead 1500 Cadmium 1600, 1700, 1800, 1800, 2300, 2400
	Sheep		Muscle	4		
B3D Mycotoxins						
Mycotoxins	Cattle		Liver	28		
	Horses		Liver	1		

	Pigs		Liver	72		
	Sheep		Liver	16		

POULTRY						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A3 Hormones						
Steroid screen 2	Broilers		Liver	478		
	Broilers		Serum	66		
	Ducks		Liver	8		
	Hens		Liver	24		
	Turkeys		Liver	83		
A5 Beta-Agonists						
	Broilers		Feed	190		
	Broilers		Liver	347		
	Ducks		Feed	5		
	Ducks		Liver	9		
	Hens		Feed	10		
	Hens		Liver	22		
	Turkeys		Feed	24		
	Turkeys		Liver	72		
A6 Annex IV						
Chloramphenicol	Broilers		Muscle	603		
	Ducks		Muscle	10		
	Hens		Muscle	24		
	Turkeys		Muscle	49		
Nitrofurans	Broilers		Feed	271		
	Broilers		Muscle	507		
	Ducks		Feed	5		
	Ducks		Muscle	11		
	Hens		Feed	10		
	Hens		Muscle	23		
	Turkeys		Feed	32		
	Turkeys		Muscle	59		
Nitroimidazoles	Broilers		Feed	259		
	Broilers		Serum	861		
	Ducks		Feed	4		
	Ducks		Serum	12		
	Hens		Feed	10		
	Hens		Serum	31		
	Turkeys		Feed	30		
	Turkeys		Serum	89		
B1 Antimicrobial						
AMS1	Broilers		Muscle	1613		
	Ducks		Muscle	25		
	Hens		Muscle	60		
	Turkeys		Muscle	183		
AMS2	Broilers		Muscle	649		
	Ducks		Muscle	9		

	Geese		Muscle	2		
	Hens		Muscle	22		
	Turkeys		Muscle	91		
Tiamulin	Broilers		Muscle	10		
B2A Anthelmintics						
Anthelmintics	Broilers		Liver	276		
	Ducks		Liver	6		
	Hens		Liver	23		
	Turkeys		Liver	70		
B2B Coccidiostats						
Coccidiostats	Broilers		Liver	752	3	Monensin 12 Salinomycin 5.7, 10
	Hens		Liver	19		
	Turkeys		Liver	43		
B2C Pesticide Screen						
Pyrethroids + Carbamates	Broilers		Fat	8		
	Broilers		Liver	83		
	Ducks		Liver	6		
	Hens		Liver	8		
	Turkeys		Liver	15		
B2E NSAIDs						
	Broilers		Liver	5		
	Ducks		Liver	4		
	Hens		Liver	5		
	Turkeys		Liver	5		
B3A Pesticide Screen						
OC/PCBs	Broilers		Fat	32		
	Broilers		Liver	235		
	Ducks		Liver	4		
	Hens		Liver	9		
	Turkeys		Fat	1		
	Turkeys		Liver	13		
B3C Heavy Metals						
Metals	Broilers		Muscle	89		
	Ducks		Muscle	2		
	Hens		Muscle	3		
	Turkeys		Muscle	8		
B3D Mycotoxins						
Mycotoxins	Broilers		Liver	17		
	Hens		Liver	1		
	Turkeys		Liver	1		

EGGS						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A6 Annex IV						
Chloramphenicol	Eggs		Eggs	165		
Nitrofurans	Eggs		Eggs	146		
Nitroimidazoles	Eggs		Eggs	146		
B1 Antimicrobial						
AMS1	Eggs		Eggs	157		

AMS2	Eggs		Eggs	97		
AMS3	Eggs		Eggs	199		
Tiamulin	Eggs		Eggs	32		
B2B Coccidiostats						
Coccidiostats	Eggs		Eggs	579	3	Lasalocid 370 Monensin 2.6, 12, 15
B3A Pesticide Screen						
	Eggs		Eggs	58		

FISH						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A3 Hormones						
Methyltestosterone	Trout		Muscle & Skin	3		
A6 Annex IV						
Chloramphenicol	Halibut		Muscle & Skin	1		
	Salmon		Muscle & Skin	208		
	Trout		Muscle & Skin	12		
Nitrofurans	Halibut		Muscle & Skin	1		
	Salmon		Muscle & Skin	104		
	Trout		Muscle & Skin	3		
Nitroimidazoles	Salmon		Muscle & Skin	184		
	Trout		Muscle & Skin	7		
B1 Antimicrobial						
AMS1	Salmon		Muscle & Skin	100		
	Trout		Muscle & Skin	4		
AMS2	Halibut		Muscle & Skin	1		
	Salmon		Muscle & Skin	33		
	Trout		Muscle & Skin	4		
	Turbot		Muscle & Skin	1		
AMS3	Halibut		Muscle & Skin	1		
	Salmon		Muscle & Skin	170		
	Trout		Muscle & Skin	4		
	Turbot		Muscle & Skin	1		
Florfenicol	Salmon		Muscle & Skin	86		
B2A Anthelmintics						
Anthelmintics	Halibut		Muscle & Skin	1		
	Salmon		Muscle & Skin	105		
	Trout		Muscle & Skin	2		
Avermectins	Salmon		Muscle & Skin	91	3	Emamectin 120, 150, 170
	Trout		Muscle & Skin	1		
B2C Pesticide Screen						
Pyrethroids	Salmon		Muscle & Skin	122		
B3A Pesticide Screen						
OCs/PCBs	Salmon		Muscle & Skin	10		
	Trout		Muscle & Skin	2	1	Dieldrin 160
B3B Pesticide Screen						
OPs	Salmon		Muscle & Skin	40		
B3C Heavy Metals						
Metals	Salmon		Muscle & Skin	22		
	Trout		Muscle & Skin	2		

B3D Mycotoxins						
Mycotoxins	Salmon		Muscle & Skin	8		
	Trout		Muscle & Skin	3		
B3E Dyes						
Dyes	Salmon		Muscle & Skin	205		
	Trout		Muscle & Skin	55		

MILK						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A6 Annex IV						
Chloramphenicol	Cattle		Milk	842		
	Goats		Milk	4		
	Sheep		Milk	8		
Dapsone	Cattle		Milk	21		
B1 Antimicrobial						
AMS1	Cattle		Milk	481	1	Amoxycillin 44.3
	Goats		Milk	1		
	Sheep		Milk	6		
AMS2	Cattle		Milk	243		
	Goats		Milk	1		
	Sheep		Milk	3		
AMS3	Cattle		Milk	388		
	Goats		Milk	2		
	Sheep		Milk	3		
AMS4	Cattle		Milk	221		
	Goats		Milk	1		
	Sheep		Milk	1		
Cefquinome	Cattle		Milk	153		
	Goats		Milk	2		
	Sheep		Milk	2		
Ceftiofur	Cattle		Milk	104		
	Goats		Milk	1		
	Sheep		Milk	1		
B2A Anthelmintics						
Anthelmintics	Cattle		Milk	430	2	Nitroxynil 42 Triclabendazole 108
	Goats		Milk	4		
	Sheep		Milk	6		
Avermectins	Cattle		Milk	388		
	Goats		Milk	2		
	Sheep		Milk	6		
B2E NSAIDs						
	Cattle		Milk	172		
	Goats		Milk	2		
	Sheep		Milk	3		
B3A Pesticide Screen						
OCs/PCBs	Cattle		Milk	31		
	Goats		Milk	1		
	Sheep		Milk	1		
B3B Pesticide Screen						

OPs	Cattle		Milk	38		
	Sheep		Milk	1		
B3C Heavy Metals						
Metals	Cattle		Milk	41		
B3D Mycotoxins						
Mycotoxins	Cattle		Milk	36		

GAME						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A2 Thyrostats						
Thyrostats	Deer		Liver	4		
A3 Hormones						
Steroid screen 2	Deer		Liver	8		
A5 Beta-Agonists						
	Deer		Liver	12		
A6 Annex IV						
Nitroimidazoles	Deer		Muscle	4		
B1 Antimicrobial						
AMS1	Deer		Kidney	28		
AMS3	Deer		Kidney	2		
B2A Anthelmintics						
Anthelmintics	Deer		Liver	6		
	Partridge		Liver	4		
	Pheasant		Liver	5		
	Red Grouse		Liver	6		
B2B Coccidiostats						
Coccidiostats	Partridge		Muscle	5		
	Pheasant		Muscle	5		
	Quail		Muscle	4		
B2C Pesticide Screen						
Pyrethroids	Deer		Kidney Fat	4		
B2D Sedatives						
	Deer		Liver	5		
B2E NSAIDs						
	Deer		Kidney	3		
B3A Pesticide Screen						
	Deer		Kidney Fat	7		
B3C Heavy Metals						
Metals	Deer		Muscle	5		
	Partridge		Muscle	7		
	Pheasant		Muscle	7		
	Wild Deer		Muscle	100		

Honey						
Substance Group/Analyte	Species	Age & Sex	Matrix	No of Analyses	No. above Action Level	Concentration where samples above the Action Level (Ug/Kg)
A6 Annex IV						
Chloramphenicol	Bees		Honey	10		

Nitrofurans	Bees		Honey	10		
B1 Antimicrobial						
AMS1	Bees		Honey	22		
AMS3	Bees		Honey	22		
AMS4	Bees		Honey	20		
AMS5	Bees		Honey	20		
B2C Pesticide Screen						
Pyrethroids	Bees		Honey	10		
B3A Pesticide Screen						
	Bees		Honey	22		
B3B Pesticide Screen						
OPs	Bees		Honey	12		
B3C Heavy Metals						
Metals	Bees		Honey	13		
B3F						
Amitraz	Bees		Honey	10		
Naphthalene	Bees		Honey	10		