

## Commentary on non-compliant results for 2012

1. National Surveillance Scheme
2. Meat Inspection Scheme
3. Pigs Testing Scheme
4. Bovine QA Scheme

### 1. NATIONAL SURVEILLANCE SCHEME

Samples collected under the UK National Surveillance Scheme may be taken at abattoirs or on-farm, and provide retrospective surveillance data. As a consequence, carcasses are not detained pending the laboratory result.

#### a) Prohibited and unauthorised substances

1. **Phenylbutazone.** This non-steroidal anti-inflammatory painkiller is licensed only to be given to horses that are not intended to be slaughtered for human consumption. It is not licensed for use in cattle. It has been used for the treatment of mastitis and lameness; however such treatments are illegal. Residues of phenylbutazone were detected in serum taken from a 5-year old cow from a dairy herd. There was no phenylbutazone on the farm. There were two horses on the farm, but the owner stated that neither these, nor any of the cattle had been treated with phenylbutazone. At a farm follow-up visit, no suspect animals were identified. Three follow-up samples were taken and were compliant.
2. **Flubendazole.** This is an antiparasitic drug, active against nematodes, that is licensed for use in pigs, but not in cattle. Residues of one of its metabolites were detected in liver from a two-year old bull. No obvious cause of the residue was identified during the on-farm follow-up and 11 follow-up samples, collected at slaughter, tested compliant.
3. A number of samples tested non-compliant for a range of compounds, mainly  $\alpha$ -boldenone,  $\alpha$ -nortestosterone (illegal growth-promoting hormones) and thiouracil (a thyrostat that promotes growth by increasing water retention). However, all these compounds can occur naturally because of dietary-, pregnancy- and injury related factors, etc. In all cases no evidence of misuse was uncovered and no penalties were applied.

#### b) Veterinary medicines

1. **Nitroxylnil.** This is an antiparasitic drug, which is active against immature and adult liver fluke and some gastro-intestinal roundworms in cattle & sheep, that is licensed for use in cattle & sheep. Residues were detected in an ovine liver sample in excess of the Maximum Residue Limit. The farm medicines records were incomplete, but the withdrawal period (49 days) had been adhered to. The problem was probably caused by a slight over-dosage of a lighter animal, resulting from an over-estimation of the weight of the animal.

2. **Closantel.** This is an antiparasitic drug, active against liver fluke, that is licensed for use in cattle and sheep. Residues were detected in an ovine liver sample in excess of the Maximum Residue Limit. The withdrawal period for the product (28 days) had been adhered to and no obvious cause of the residues was identified.

### c) Contaminants

1. **Cadmium.** Cadmium was found in the kidney of three cattle (ages 10 – 15 years). Cadmium is a metallic environmental contaminant that accumulates in kidney, with increasing age of the animal. In the EU, a Maximum Permitted Limit of 1.0 mg/kg has been established for this heavy metal. The corresponding muscle sample was compliant. At an on-farm investigation, no obvious cadmium sources were identified.

## 2. MEAT INSPECTION SCHEME

Under this Scheme, the carcass is detained at sampling, and excluded from the food chain if a non-compliant result is obtained.

### a) Prohibited and unauthorised substances

No non-compliant results. One sample tested non-compliant for thiouracil (a thyrostat that promotes growth by increasing water retention). However this compound can occur naturally because of dietary factors. No evidence of misuse was uncovered and no penalties were applied.

### b) Veterinary medicines

1. **Oxytetracycline.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of oxytetracycline above the Maximum Residue Limit were found in the muscle taken from nine cattle. On-farm investigations showed that the main causes of these residues included: the accidental administration of a long-acting preparation, a lack of food chain information accompanying animals that had only been on the presenter's farm for a short period of time, a mistake in the recording of the product used, and a failure to adhere to the withdrawal period.
2. **Marbofloxacin.** This is a fluoroquinolone antibiotic that is licensed for use in a wide range of species. Residues of marbofloxacin, above the Maximum Residue Limit were detected in the muscle of one nine-year old cow. The farmer did not keep any medicines records as required by law, so neither the dose nor the date of administration of the product (six days withdrawal period) had been recorded.
3. **Penicillin G.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of penicillin G above the Maximum Residue Limit were found in the muscle taken from two cattle. In one case, a breakdown in communication between the farmer and his son led to the animal being slaughtered too early and in the other case, no explanation was uncovered.

4. **Sulphadiazine & sulphamethazine.** These are antibiotics that are licensed for use in a wide range of animal species. Residues more than 10 times the Maximum Residue Limit were found in the muscle of one cow (welfare slaughter). No explanation was uncovered.

### 3. PIGS TESTING SCHEME

At Phase 1, the carcass is not detained at sampling, but if found to contain non compliant residues, the producer is allocated to Phase 2 intensified sampling with carcass detention. Non-compliant carcasses at Phase 2 are condemned. (After 3 consecutive, clear rounds of Phase 2 sampling, the producer is returned to Phase 1 sampling).

#### a) Prohibited and unauthorised substances

No positive samples were found.

#### b) Veterinary medicines

1. **Dihydrostreptomycin.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of dihydrostreptomycin, above the MRL, were detected in the kidney of a fattening pig. No withdrawal period was listed on the medicines records (it is 18 days) and the pig was sent for slaughter 15 days after the last treatment.
2. **Chlortetracycline.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of chlortetracycline, above the MRL, were detected in the kidney of 3 pigs from two producers of fattening pigs. In one case, the withdrawal period had not been fully observed and, in the other, no obvious case was identified. Follow up samples (60 and 30 pigs, respectively) were all compliant.
3. **Penicillin G.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of penicillin G, above the MRL, were detected in the kidney of 1 pig from a producer of fattening pigs. No on-farm follow-up information is available as the producer is from Ireland. Follow up samples, submitted to NI Meat Plants (60 pigs), were all compliant.
4. **Sulphadiazine.** This is an antibiotic that is licensed for use in a wide range of animal species. Residues of sulphadiazine, above the MRL, were detected in the kidney of 3 pigs from three producers of fattening pigs. No on-farm follow-up information is available as the producers were from Ireland. In the first two cases, follow up samples, submitted to NI Meat Plants (60 and 50 pigs, respectively), were all compliant.

### 4. BOVINE QA SCHEME

Bovine QA samples are taken at abattoirs, and are designed to provide retrospective surveillance data. As a consequence, carcasses are not detained pending the laboratory result.

#### a) Prohibited and unauthorised substances

No positive samples were found. A number of samples tested non-compliant for a range of

compounds, mainly  $\alpha$ -boldenone and testosterone (illegal growth-promoting hormones). However, these compounds can both occur naturally. In both cases no evidence of misuse was uncovered and no penalties were applied.

**b) Veterinary medicines**

1. **Closantel.** This is an antiparasitic drug, active against liver fluke, that is licensed for use in cattle and sheep. Residues were detected in a bovine liver sample in excess of the Maximum Residue Limit. No obvious cause of the residues was identified, although the product was present on the farm and was used to treat sheep (but not cattle). Five follow-up samples, collected at slaughter, were all compliant.