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Federal Department of Home Affairs FDHA

**Federal Food Safety and Veterinary Office FSVO**
Food and Nutrition

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# National Residue Testing Programme (NRTP)

## Annual Report 2015

## Contents

# 1 Summary

Every year the Federal Food Safety and Veterinary Office (FSVO) conducts a national programme of testing for contaminants in animals and foodstuffs of animal origin, known as the National Residue Testing Programme (NRTP). The NRTP reviews the situation with regard to residues in animals and foodstuffs of animal origin and also entitles Switzerland to export such products to the EU. Under its bilateral agreement with the EU, Switzerland is obliged to comply with Directive 96/23/EC and to submit an annual report on the NRTP to the EU's Food and Veterinary Office (FVO). The NRTP covers analysis of samples from live and slaughtered animals, and tests on fish, milk, honey and eggs.

This annual report describes the number of samples tested per species or foodstuff in 2015 and for which species, foodstuffs and substances limits were exceeded. In addition, the results of the NRTP 2015 were assessed with regard to health risks for consumers and compared with residue surveillance programmes conducted in the EU.

Under the NRTP 2015, five samples out of a total of 4,958 tested were found to be non-compliant. The non-compliance rate (0.1 %) remains very low; it is also low in comparison with the EU, where the average non-compliance rate is 0.3 %. Most cases of non-compliance involved antibiotics, coccidiostats and lead. There were no health risks for consumers.

# 2 Statutory basis

Based on Switzerland's bilateral agreements with the EU (SR 0.916.026.81), the conditions governing the NRTP are laid down by EU Directive 96/23/EC and Decision 97/747/EC. As the coordinating central office, the FSVO determines for each canton, based on the annual slaughter and production figures and the size of animal populations, the number of animals and products of animal origin to be examined, as well as the substances to be tested for. Responsibility for enforcement lies with the cantonal veterinary offices and food inspection authorities. In addition to the stipulated minimum number of samples to be tested, some samples can be determined freely per species/foodstuff and substance group. This free distribution of samples is to be risk-based, i.e. taking account of results from previous years and other countries, veterinary drug consumption figures and expert advice.

The statutory basis for the assessment of residues in Switzerland is as follows:

Swiss Veterinary Medicinal Products Ordinance (VMPO, SR 812.212.27) of 18 August 2004, Annex 4: substances with anabolic effects and prohibited substances (Group A substances, see Table 1);

Swiss Xenobiotic Substances and Components Ordinance (XCO, SR 817.021.23) of 26 June 1995: veterinary medicinal products and contaminants (Group B substances).

If a statutory limit is exceeded, the sample concerned is deemed non-compliant and measures may be ordered by the competent cantonal enforcement authority. In the case of Group A substances, any finding that exceeds the limit of detection is deemed non-compliant. An exception applies to substances which occur naturally in an organism, such as 2-thiouracil, for which the European Union Reference Laboratory (EURL) has recommended an intervention value.[1]

[1] Sterk S, Blokland M, De Rijke E, Van Ginkel L. EURL reflection paper: Natural growth promoting substances in biological samples. Research Report RIKILT; 2014. p. 1-68.

# 3 Substance groups tested

Table 1: the substance groups to be tested in accordance with Directive 96/23/EC

| Designation | | Substance group | Comments |
|---|---|---|---|
| Substances with anabolic effects | A1 | Stilbenes | • Hormones & growth promoters<br>• Every finding above the detection limit represents non-compliance; exception: naturally occurring substances, e.g. testosterone, 2-thiouracil, which are regulated by an EURL intervention value. |
| | A2 | Thyrostatic agents | |
| | A3 | Steroids | |
| | A4 | Resorcylic acid lactones (incl. zeranol) | |
| | A5 | β-agonists | |
| Prohibited substances | A6 | Chloramphenicol (A6c), nitrofurans (A6n), nitroimidazoles (A6ni) | • Substances prohibited in animals reared for food production; in accordance with Annex IV to Council Regulation (EEC) No 2377/90 of 26 June 1990 |
| Veterinary drugs | B1 | Substances with antibacterial effects, including sulfonamides and quinolones | • Approved classes of antibiotics<br>• Maximum permissible concentrations according to Swiss Xenobiotic Substances and Components Ordinance (XCO), see Section 2) |
| | B2a | Anthelmintics (benzimidazoles / avermectins) | • For the treatment of worm infections |
| | B2b | Coccidiostats | • For the treatment of coccidia (single-cell parasites) |
| | B2cc | Carbamates (B2cc), pyrethroids (B2cp) | • Pesticides |
| | B2d | Sedatives | • Sedatives |
| | B2e | Non-steroidal anti-inflammatories (NSAID) | • Analgesics, antipyretics and anti-inflammatories |
| | B2f | Other substances with a pharmacological effect | • Anti-inflammatories, anti-allergens, immunosuppressants<br>• e.g. glucocorticoids |
| Other substances and environmental contaminants | B3a | Organic chlorine compounds (incl. PCB) | • Pesticides and environmental contaminants |
| | B3b | Organic phosphorus compounds | • Pesticides |
| | B3c | Chemical elements | • Soil contamination (e.g. cadmium, mercury)<br>• Ammunition containing lead |
| | B3d | Mycotoxins | • Metabolites of moulds, e.g. which may enter the food chain via contaminated feed |
| | B3e | Colourants | • Colourants with antimicrobial and/or antiparasitic effects, e.g. malachite green used to control fungus and parasites in fish |

# 4 Results of the NRTP 2015

The sections below contain information on the scope of testing and the non-compliant results under the NRTP 2015. The detailed results per species or foodstuff are given in Tables 4 to 16 in the Annex.

## 4.1 Scope of testing

A total of 5,075 samples were planned for 2015, of which 4,958 (97.6 %) were collected and analysed. One half of all samples came from bovine animals (2,468 samples) and over a quarter from pigs (1,324) (see Figure 1). This is because the national production figures for bovines and pigs are higher than those for other species.

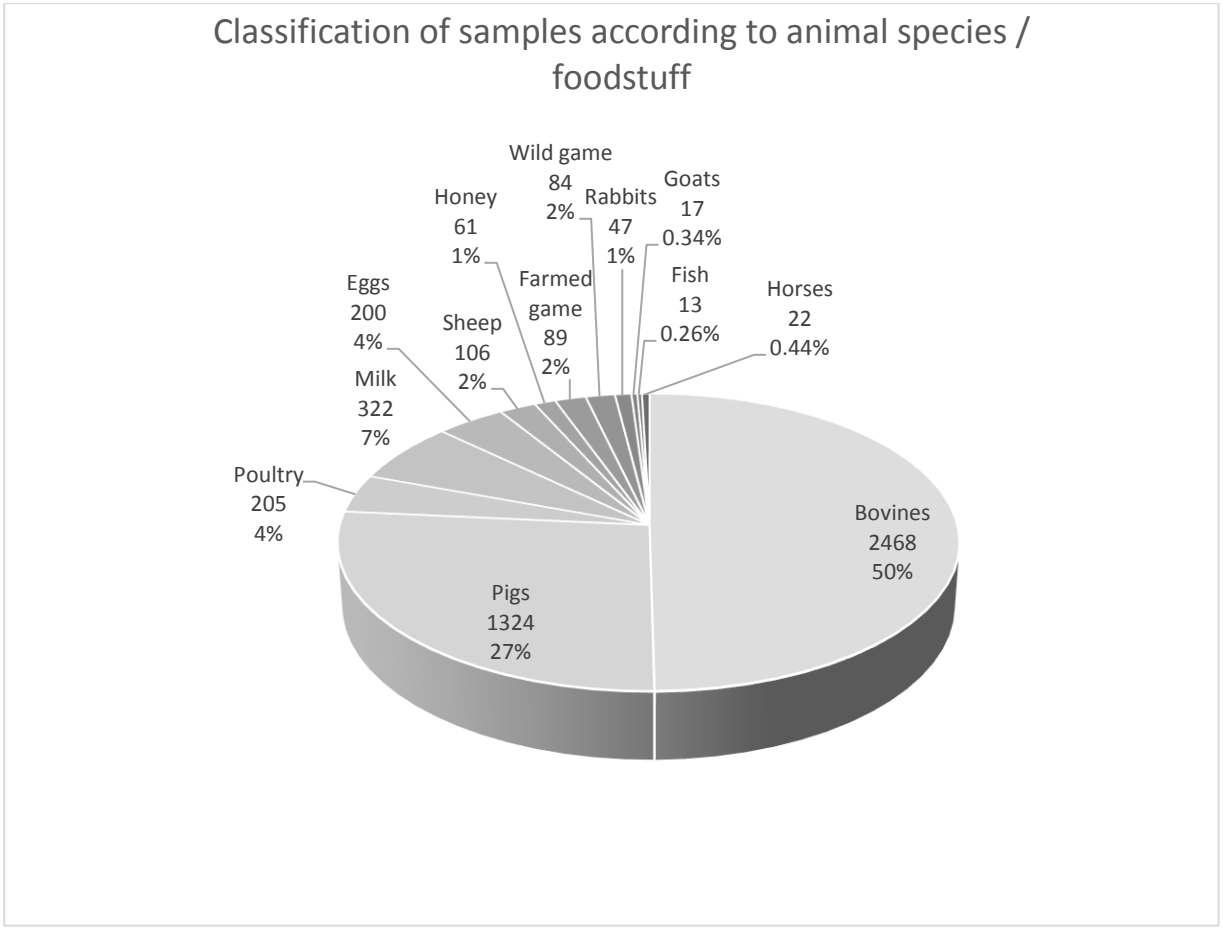


Figure 1: Samples collected according to species or foodstuff

## 4.2 Non-compliant samples

Of the 4,958 samples analysed, only five were found to be non-compliant. As in previous years, therefore, the non-compliance rate (0.1 %) in NRTP 2015 was very low.

In contrast to NRTP 2014, where five urine samples from calves showed excessive concentrations of 2-thiouracil (TU), there were no cases of non-compliance involving thyrostatic agents in 2015. The reason for this is that the intervention value for TU in livestock urine was raised by the EURL from 10 to 30 µg based on the latest scientific findings. At TU concentrations over 30 µg/l, the EURL recommends performing feed analysis

to distinguish whether the elevated TU levels are due to feed containing Brassicaceae or to a possible illegal use of growth promoters.[2]

The non-compliant samples under the NRTP 2015 are summarised in Table 2. Limits were exceeded for the following substances:

### 4.2.1 Antibiotics (Group B1)

Two liver samples from cows exceeded the limit for dihydrostreptomycin, from the aminoglycosides group. In both cases, the withdrawal period was complied with and the treatment journal was properly kept. In one case, it is assumed that the drug was broken down more slowly because it was an older animal (born 2001). In the second case, the competent veterinary service reserves the right to conduct an unannounced follow-up inspection on the farm.

In a pig's liver, a figure exceeding the limit for the sulfonamide sulfadimidine was detected and challenged. The animal was treated once with tandozin, eleven days before slaughter. The prescribed withdrawal period of seven days for edible tissue was observed. On the basis of proportionality, no further clarification measures were undertaken. It is conceivable that the animal affected had a slow metabolism.

### 4.2.2 Coccidiostats (Group B2b)

One egg sample was challenged for exceeding the limit for narasin. A farm inspection did not reveal any deficiencies and the follow-up examination of further samples was negative. The competent veterinary office suspects contamination of a batch of feed. The case was closed without further measures.

### 4.2.3 Chemical elements (Group B3c)

A sheep kidney showed excessive levels of lead. Clarification by the competent veterinary office showed that the lamb had occasionally grazed a pasture located on the re-naturalised site of a former chemical factory. There may be a connection with the lead contamination.

### 4.2.4 Risk assessment of non-compliance

Monitoring of compliance with the limits for veterinary drug residues and contaminants such as lead is an important tool in protecting the health of consumers. Limits were exceeded in a few cases only, so very few consumers are likely to have eaten such foods. And since the figures were significantly below levels that can produce acute toxic effects in humans, there was no risk to health in any of the five cases.

[2] Sterk S, Blokland M, De Rijke E, Van Ginkel L. EURL reflection paper: Natural growth promoting substances in biological samples. Research Report RIKILT; 2014. p. 1-68.

Table 2: Non-compliant samples under the National Residue Testing Programme 2015

| **Substance group** | | **Samples exceeding maximum concentration** | | | | |
|---|---|---|---|---|---|---|
| | | **Number** | **Substance** | **Result (µg/kg)** | **Limit (µg/kg)** | **Species/foodstuff (matrix)** |
| A1 | Stilbenes | 0 | | | | |
| A2 | Thyrostatic agents | 0 | | | | |
| A3 | Steroids | 0 | | | | |
| A4 | Resorcylic acid lactones | 0 | | | | |
| A5 | β-agonists | 0 | | | | |
| A6c | Chloramphenicol | 0 | | | | |
| A6n/ni | Nitrofurans/nitroimidazoles | 0 | | | | |
| B1 | Antibiotics | 2 | Dihydrostreptomycin | 1560; 2100 | 500 | Cow (liver) |
| | | 1 | Sulfadimidine | 195 | 100 | Pig (liver) |
| B2a | Anthelmintics | 0 | | | | |
| B2b | Coccidiostats | 1 | Narasin | 2.8 | 2 | Chicken (egg) |
| B2c | Carbamates / pyrethroids | 0 | | | | |
| B2d | Sedatives | 0 | | | | |
| B2e | NSAID | 0 | | | | |
| B2f | Other substances with a pharmaco-logical effect | 0 | | | | |
| B3a | Organic chlorine compounds (incl. PCB) | 0 | | | | |
| B3b | Organic phosphorus compounds | 0 | | | | |
| B3c | Chemical elements | 1 | Lead | 734 | 500 | Sheep (kidney) |
| B3d | Mycotoxins | 0 | | | | |
| B3e | Colourants | 0 | | | | |
| **Total** | | 5 | | | | |
| **Non-compliance rate (%)** | | **0.10** | | | | |

## 4.3 The NRTP 2015 in comparison with residue surveillance programmes in the EU

To classify the 0.1 % non-compliance rate in the NRTP 2015, the current residue situation in foodstuffs of animal origin in Germany, France, Austria and the EU is summarised below. The non-compliance rates for the different countries are shown in graph form in Figure 2.

### 4.3.1 Germany

Under the German residue surveillance plan (NRKP) for 2014, 489 (0.9 %) of the 57,469 samples tested were found to be non-compliant. Most of these cases of non-compliance involved chemical elements.[3]

### 4.3.2 France

In France, 188 out of a total of 45,352 samples of animals/foodstuffs tested in 2014 were non-compliant. This corresponds to a non-compliance rate of 0.4 %. Most of these cases were attributable to contamination of horse liver samples with cadmium (140 cases). With 28 cases, antibiotics were the substance group with the second-highest non-compliance rate.[4]

### 4.3.3 Austria

The Austrian residue monitoring plan for 2014 reports a non-compliance rate of 0.2 %. In 20 out of a total of 9,961 samples tested, limits were found to be exceeded for veterinary drugs or contaminants, or non-approved or prohibited substances. The cases of non-compliance mainly concerned lead, non-steroidal anti-inflammatories and coccidiostats.[5]

### 4.3.4 EU

The European Food Safety Authority (EFSA) publishes an annual report summarising the data on veterinary drug residues and contaminants in all EU Member States. Of the 425,232 samples tested in 2014, 0.4 % (1,558 samples) failed to meet the requirements. The cases of non-compliance mainly involved the substance categories B3c (chemical elements cadmium, lead, mercury, copper) and B3d (mycotoxins): 5.4 % (809) of the samples tested for B3c and 2.2 % (140) of the samples tested for B3d were non-compliant.

In comparison with the past seven years (2007 to 2013), the non-compliance rate for resorcylic acid lactones, chemical elements (especially metals) and mycotoxins was higher in 2014. On the other hand, fewer samples were non-compliant for prohibited substances.[6]

[3] http://www.bvl.bund.de/SharedDocs/Downloads/01_Lebensmittel/08_nrkp_erkp/nrkp2014_bericht.pdf;jsessionid=68227E74F8293C9914ACD576E2377D56.2_cid340?__blob=publicationFile&v=3
[4] http://agriculture.gouv.fr/sites/minagri/files/bilan_pspc_2014.pdf
[5] http://www.ages.at/fileadmin/AGES2015/Themen/Schadereger_Bilder/R%C3%BCckst%C3%A4nde___Kontaminanten_Dateien/Bewertung_Rueckstandskontrollplan_2014.pdf
[6] https://www.efsa.europa.eu/en/supporting/pub/923e

Table 3: Non-compliance rates of residue surveillance programmes in Switzerland, Germany, France, Austria and the EU

| **Country / year** | **Non-compliance rate (%)** |
|---|---|
| Switzerland / 2015 | 0.1 |
| Germany / 2014 | 0.9 |
| France / 2014 | 0.4 |
| Austria / 2014 | 0.2 |
| EU / 2014 | 0.4 |

The rate of non-compliant findings in the NRTP 2015 is very low (0.1 %) and below the average non-compliance rate of 0.4 % for the EU Member States. A direct comparison between the different residue monitoring programmes is not possible due to the different production figures and substances tested. However, it is striking that non-compliance is due especially to contamination of foodstuffs of animal origin with chemical elements.

# 5 Conclusion

- In 2015, five out of a total of 4,958 samples tested in Switzerland were found to be non-compliant;
- limits were exceeded in the case of antibiotics, coccidiostats and lead. However, there was no health risk to the consumer;
- the non-compliance rate (0.1 %) in the NRTP 2015 is very low, as in previous years. It is also low in comparison with the EU, where the average non-compliance rate is 0.4 %.

# 6 Annex

## 6.1 Tables 4 to 16: detailed results per species / foodstuff

Table 4: Details of analyses on bovines

| Designation | Substance group | Number of samples analysed | <LOD[7] | <LOQ[8] | Compliant[9] | Non-compliant[10] |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 80 | 80 | - | 80 | 0 |
| A2 | Thyrostatic agents | 606 | 324 | 107 | 606 | 0 |
| A3 | Steroids | 626 | 625 | - | 626 | 0 |
| A4 | Resorcylic acid lactones | 80 | 80 | - | 80 | 0 |
| A5 | β-agonists | 337 | 337 | - | 337 | 0 |
| A6c | Chloramphenicol | 77 | 77 | - | 77 | 0 |
| A6ni | Nitroimidazoles | 286 | 286 | - | 286 | 0 |
| B1 | Inhibitors (4-plate test) | 75 | 57 | 17 | 75 | 0 |
| | Sulfonamides | 438 | 262 | 175 | 438 | 0 |
| | Tetracyclines | 438 | 257 | 170 | 438 | 0 |
| | Quinolones | 438 | 262 | 174 | 438 | 0 |
| | Penicillins | 286 | 263 | 23 | 286 | 0 |
| | Cephalosporins | 286 | 263 | 23 | 286 | 0 |
| | Macrolides | 286 | 263 | 23 | 286 | 0 |
| | Lincosamides | 23 | - | 23 | 23 | 0 |
| | Aminoglycosides | 77 | - | 72 | 75 | 2 |
| B2a | Avermectins | 26 | 26 | - | 26 | 0 |
| | Benzimidazoles | 286 | 262 | 23 | 286 | 0 |
| B2b | Coccidiostats | 263 | 263 | - | 263 | 0 |
| B2cc | Carbamates | 25 | 25 | - | 25 | 0 |
| B2cp | Pyrethroids | 52 | 52 | - | 52 | 0 |
| B2e | NSAID | 77 | 74 | 2 | 77 | 0 |
| B2f | Glucocorticoids | 263 | 263 | - | 263 | 0 |
| | Phenothiazines | 263 | 263 | - | 263 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 36 | - | - | 36 | 0 |
| B3b | Organophosphorus compounds | 36 | 18 | - | 36 | 0 |
| B3c | Lead | 25 | - | 9 | 25 | 0 |
| | Cadmium | 81 | - | 2 | 81 | 0 |

[7] LOD: Limit of detection = the minimum concentration of a substance that can be reliably detected or measured in an analytical procedure. < LOD means that the substance in question cannot be detected with the analysis method used.

[8] LOQ: Limit of quantification = the smallest concentration of an analyte that can be detected quantitatively.

[9] Measurement results which are within the limits defined by law.

[10] Measurement results which exceed the limits defined by law or, in the case of Group A substances, any finding that exceeds the limit of detection (with the exception of substances that are naturally occurring, e.g. testosterone or 2-thiouracil).

Table 5: Details of analyses on pigs

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 89 | 89 | - | 89 | 0 |
| A2 | Thyrostatic agents | 89 | 13 | 1 | 89 | 0 |
| A3 | Steroids | 89 | 89 | - | 89 | 0 |
| A4 | Resorcylic acid lactones | 89 | 89 | - | 89 | 0 |
| A5 | β-agonists | 308 | 308 | - | 308 | 0 |
| A6c | Chloramphenicol | 71 | 71 | - | 71 | 0 |
| A6ni | Nitroimidazoles | 271 | 271 | - | 271 | 0 |
| A6n | Nitrofurans | 9 | 9 | - | 9 | 0 |
| B1 | Inhibitors (4-plate test) | 64 | - | 64 | 64 | 0 |
| | Sulfonamides | 390 | 212 | 162 | 389 | 1 |
| | Tetracyclines | 390 | 218 | 168 | 390 | 0 |
| | Quinolones | 390 | 220 | 170 | 390 | 0 |
| | | 262 | 220 | 41 | 262 | 0 |
| | Cephalosporins | 262 | 220 | 42 | 262 | 0 |
| | Macrolides | 220 | 220 | - | 220 | 0 |
| | Lincosamides | 42 | - | 42 | 42 | 0 |
| B2a | Avermectins | 28 | 28 | - | 28 | 0 |
| | Benzimidazoles | 220 | 220 | - | 220 | 0 |
| B2b | Coccidiostats | 220 | 220 | - | 220 | 0 |
| B2d | Sedatives | 55 | 16 | 39 | 55 | 0 |
| B2e | NSAID | 60 | 60 | - | 60 | 0 |
| B2f | Glucocorticoids | 220 | 220 | - | 220 | 0 |
| | Phenothiazines | 220 | 220 | - | 220 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 20 | 20 | - | 20 | 0 |
| B3b | Organophosphorus compounds | 99 | 60 | - | 99 | 0 |
| B3c | Mercury | 10 | 3 | 6 | 10 | 0 |
| | Cadmium | 10 | 5 | - | 10 | 0 |
| B3d | Mycotoxins | 18 | 18 | - | 18 | 0 |

Table 6: Details of analyses on sheep

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 1 | 1 | - | 1 | 0 |
| A2 | Thyrostatic agents | 9 | - | 2 | 9 | 0 |
| A3 | Steroids | 9 | 9 | - | 9 | 0 |
| A4 | Resorcylic acid lactones | 1 | 1 | - | 1 | 0 |
| A5 | β-agonists | 10 | 10 | - | 10 | 0 |
| A6c | Chloramphenicol | 1 | 1 | - | 1 | 0 |
| A6ni | Nitroimidazoles | 9 | 9 | - | 9 | 0 |
| B1 | Inhibitors (4-plate test) | 5 | - | 5 | 5 | 0 |
| | Sulfonamides | 30 | 9 | 21 | 30 | 0 |
| | Tetracyclines | 30 | 9 | 21 | 30 | 0 |
| | Quinolones | 30 | 9 | 21 | 30 | 0 |
| | Penicillins | 9 | 9 | - | 9 | 0 |
| | Cephalosporins | 9 | 9 | - | 9 | 0 |
| | Macrolides | 9 | 9 | - | 9 | 0 |
| B2a | Benzimidazoles | 9 | 9 | - | 9 | 0 |
| B2b | Coccidiostats | 9 | 9 | - | 9 | 0 |
| B2cc | Carbamates | 9 | 9 | - | 9 | 0 |
| B2d | Sedatives | 9 | 9 | - | 9 | 0 |
| B2f | Glucocorticoids | 9 | 9 | - | 9 | 0 |
| | Phenothiazines | 9 | 9 | - | 9 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 17 | - | - | 17 | 0 |
| B3c | Lead | 14 | - | 2 | 13 | 1 |
| | Cadmium | 14 | - | - | 14 | 0 |

Table 7: Details of analyses on goats

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 1 | 1 | - | 1 | 0 |
| A3 | Steroids | 2 | 2 | - | 2 | 0 |
| A4 | Resorcylic acid lactones | 1 | 1 | - | 1 | 0 |
| A5 | β-agonists | 3 | 3 | - | 3 | 0 |
| A6c | Chloramphenicol | 1 | 1 | - | 1 | 0 |
| A6ni | Nitroimidazoles | 2 | 2 | - | 2 | 0 |
| B1 | Inhibitors (4-plate test) | 1 | - | 1 | 1 | 0 |
| | Sulfonamides | 3 | 2 | 1 | 3 | 0 |
| | Tetracyclines | 3 | 2 | 1 | 3 | 0 |
| | Quinolones | 3 | 2 | 1 | 3 | 0 |
| | Penicillins | 2 | 2 | - | 2 | 0 |
| | Cephalosporins | 2 | 2 | - | 2 | 0 |
| | Macrolides | 2 | 2 | - | 2 | 0 |
| B2a | Benzimidazoles | 2 | 2 | - | 2 | 0 |
| B2b | Coccidiostats | 2 | 2 | - | 2 | 0 |
| B2d | Sedatives | 2 | 2 | - | 2 | 0 |
| B2f | Glucocorticoids | 2 | 2 | - | 2 | 0 |
| | Phenothiazines | 2 | 2 | - | 2 | 0 |
| B3c | Lead | 5 | - | 5 | 5 | 0 |
| | Cadmium | 5 | - | 1 | 5 | 0 |

Table 8: Details of analyses on rabbits

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 1 | 1 | - | 1 | 0 |
| A3 | Steroids | 1 | 1 | - | 1 | 0 |
| A4 | Resorcylic acid lactones | 1 | 1 | - | 1 | 0 |
| A5 | β-agonists | 3 | 3 | - | 3 | 0 |
| A6c | Chloramphenicol | 3 | 3 | - | 3 | 0 |
| A6ni | Nitroimidazoles | 5 | 5 | - | 5 | 0 |
| A6n | Nitrofurans | 3 | 3 | - | 3 | 0 |
| B1 | Inhibitors (4-plate test) | 4 | - | 4 | 4 | 0 |
| | Sulfonamides | 18 | 2 | 16 | 18 | 0 |
| | Tetracyclines | 18 | 2 | 16 | 18 | 0 |
| | Quinolones | 18 | 2 | 16 | 18 | 0 |
| | Penicillins | 2 | 2 | - | 2 | 0 |
| | Cephalosporins | 2 | 2 | - | 2 | 0 |
| | Macrolides | 2 | 2 | - | 2 | 0 |
| B2a | Benzimidazoles | 2 | 2 | - | 2 | 0 |
| B2b | Coccidiostats | 7 | 2 | - | 7 | 0 |
| B2cp | Pyrethroids | 3 | 3 | - | 3 | 0 |
| B2f | Glucocorticoids | 2 | 2 | - | 2 | 0 |
| | Phenothiazines | 2 | 2 | - | 2 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 2 | - | - | 2 | 0 |
| B3c | Lead | 2 | - | 2 | 2 | 0 |
| | Cadmium | 2 | - | - | 2 | 0 |

Table 9: Details of analyses on horses

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 1 | 1 | - | 1 | 0 |
| A2 | Thyrostatic agents | 1 | - | - | 1 | 0 |
| A3 | Steroids | 2 | 2 | - | 2 | 0 |
| A4 | Resorcylic acid lactones | 2 | 2 | - | 2 | 0 |
| A5 | β-agonists | 4 | 4 | - | 4 | 0 |
| A6c | Chloramphenicol | 1 | 1 | - | 1 | 0 |
| A6ni | Nitroimidazoles | 2 | 2 | - | 2 | 0 |
| B1 | Sulfonamides | 4 | 1 | 3 | 4 | 0 |
| | Tetracyclines | 4 | 1 | 3 | 4 | 0 |
| | Quinolones | 4 | 1 | 3 | 4 | 0 |
| | Penicillins | 1 | 1 | - | 1 | 0 |
| | Cephalosporins | 1 | 1 | - | 1 | 0 |
| | Macrolides | 1 | 1 | - | 1 | 0 |
| | Aminoglycosides | 1 | - | 1 | 1 | 0 |
| B2a | Benzimidazoles | 1 | 1 | - | 1 | 0 |
| B2b | Coccidiostats | 1 | 1 | - | 1 | 0 |
| B2d | Sedatives | 2 | 2 | - | 2 | 0 |
| B2e | NSAID | 2 | - | 2 | 2 | 0 |
| B2f | Glucocorticoids | 1 | 1 | - | 1 | 0 |
| | Phenothiazines | 1 | 1 | - | 1 | 0 |
| B3c | Lead | 2 | - | 1 | 2 | 0 |
| | Cadmium | 2 | - | - | 2 | 0 |

Table 10: Details of analyses on poultry

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 21 | 21 | - | 21 | 0 |
| A2 | Thyrostatic agents | 1 | - | - | 1 | 0 |
| A3 | Steroids | 27 | 26 | - | 27 | 0 |
| A4 | Resorcylic acid lactones | 26 | 26 | - | 26 | 0 |
| A5 | β-agonists | 33 | 33 | - | 33 | 0 |
| A6c | Chloramphenicol | 8 | 8 | - | 8 | 0 |
| A6n | Nitrofurans | 3 | 3 | - | 3 | 0 |
| A6ni | Nitroimidazoles | 17 | 17 | - | 17 | 0 |
| B1 | Inhibitors (4-plate test) | 6 | - | 6 | 6 | 0 |
| | Sulfonamides | 39 | 14 | 25 | 39 | 0 |
| | Tetracyclines | 39 | 14 | 25 | 39 | 0 |
| | Quinolones | 39 | 14 | 25 | 39 | 0 |
| | Penicillins | 14 | 14 | - | 14 | 0 |
| | Cephalosporins | 14 | 14 | - | 14 | 0 |
| | Macrolides | 14 | 14 | - | 14 | 0 |
| B2a | Benzimidazoles | 14 | 14 | - | 14 | 0 |
| B2b | Coccidiostats | 59 | 27 | 15 | 59 | 0 |
| B2f | Corticoids | 14 | 14 | - | 14 | 0 |
| | Phenothiazines | 14 | 14 | - | 14 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 4 | 3 | - | 4 | 0 |
| B3c | Lead | 3 | 3 | - | 3 | 0 |
| | Cadmium | 3 | - | - | 3 | 0 |

Table 11: Details of analyses on wild game

| Designation | Substance | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| B3c | Lead | 84 | 45 | 25 | 84 | 0 |
| | Cadmium | 84 | 70 | 13 | 84 | 0 |

Table 12: Details of analyses on farmed game

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 2 | 2 | - | 2 | 0 |
| A3 | Steroids | 1 | 1 | - | 1 | 0 |
| A4 | Resorcylic acid lactones | 2 | 2 | - | 2 | 0 |
| A5 | β-agonists | 29 | 29 | - | 29 | 0 |
| A6c | Chloramphenicol | 8 | 8 | - | 8 | 0 |
| A6ni | Nitroimidazoles | 23 | 23 | - | 23 | 0 |
| B1 | Inhibitors (4-plate test) | 4 | - | 4 | 4 | 0 |
| | Sulfonamides | 23 | 23 | - | 23 | 0 |
| | Tetracyclines | 23 | 23 | - | 23 | 0 |
| | Quinolones | 23 | 23 | - | 23 | 0 |
| | Penicillins | 23 | 23 | - | 23 | 0 |
| | Cephalosporins | 23 | 23 | - | 23 | 0 |
| | Macrolides | 23 | 23 | - | 23 | 0 |
| B2a | Benzimidazoles | 23 | 23 | - | 23 | 0 |
| B2b | Coccidiostats | 32 | 23 | 9 | 32 | 0 |
| B2cc | Carbamates | 1 | 1 | - | 1 | 0 |
| B2d | Sedatives | 11 | 11 | - | 11 | 0 |
| B2e | NSAID | 1 | 1 | - | 1 | 0 |
| B2f | Glucocorticoids | 23 | 23 | - | 23 | 0 |
| | Phenothiazines | 23 | 23 | - | 23 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 11 | 11 | - | 11 | 0 |
| B3c | Lead | 11 | - | - | 11 | 0 |
| | Cadmium | 11 | - | - | 11 | 0 |

Table 13: Details of analyses on fish (farmed)

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A1 | Stilbenes | 2 | 2 | - | 2 | 0 |
| A3 | Steroids | 2 | 2 | - | 2 | 0 |
| B1 | Sulfonamides | 4 | - | 4 | 4 | 0 |
| | Tetracyclines | 4 | - | 4 | 4 | 0 |
| | Quinolones | 4 | - | 4 | 4 | 0 |
| B3e | Malachite green | 5 | - | - | 5 | 0 |

Table 14: Details of analyses on milk

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A5 | β-agonists | 69 | 69 | - | 69 | 0 |
| A6c | Chloramphenicol | 31 | 31 | - | 31 | 0 |
| A6n | Nitrofurans | 31 | 31 | - | 31 | 0 |
| A6ni | Nitroimidazoles | 128 | 128 | - | 128 | 0 |
| B1 | Inhibitors (4-plate test) | 4 | 4 | - | 4 | 0 |
| | Sulfonamides | 128 | 69 | 59 | 128 | 0 |
| | Tetracyclines | 128 | 68 | 58 | 128 | 0 |
| | Quinolones | 128 | 69 | 59 | 128 | 0 |
| | Lincosamides | 59 | - | 59 | 59 | 0 |
| | Penicillins | 128 | 69 | 59 | 128 | 0 |
| | Cephalosporins | 128 | 69 | 59 | 128 | 0 |
| | Macrolides | 128 | 69 | 59 | 128 | 0 |
| | Aminoglycosides | 14 | - | 14 | 14 | 0 |
| B2a | Avermectins | 50 | 50 | - | 50 | 0 |
| | Benzimidazoles | 128 | 69 | 59 | 128 | 0 |
| B2b | Coccidiostats | 69 | 69 | - | 69 | 0 |
| B2e | NSAID | 58 | 58 | - | 58 | 0 |
| B2f | Glucocorticoids | 69 | 69 | - | 69 | 0 |
| | Phenothiazines | 69 | 69 | - | 69 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 9 | 9 | - | 9 | 0 |
| B3b | Organophosphorus compounds | 14 | - | - | 14 | 0 |
| B3c | Lead | 9 | 9 | - | 9 | 0 |
| | Cadmium | 9 | 9 | - | 9 | 0 |
| B3d | Mycotoxins | 14 | 14 | - | 14 | 0 |

Table 25: Details of analyses on eggs

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A5 | β-agonists | 8 | 8 | - | 8 | 0 |
| A6c | Chloramphenicol | 30 | 30 | - | 30 | 0 |
| A6ni | Nitroimidazoles | 8 | 8 | - | 8 | 0 |
| B1 | Sulfonamides | 40 | 8 | 32 | 40 | 0 |
| | Quinolones | 40 | 8 | 32 | 40 | 0 |
| | Tetracyclines | 40 | 8 | 32 | 40 | 0 |
| | Penicillins | 8 | 8 | - | 8 | 0 |
| | Cephalosporins | 8 | 8 | - | 8 | 0 |
| | Macrolides | 8 | 8 | - | 8 | 0 |
| B2a | Benzimidazoles | 8 | 7 | - | 8 | 0 |
| B2b | Coccidiostats | 48 | 8 | 28 | 47 | 1 |
| B2f | Phenothiazines | 8 | 8 | - | 8 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 60 | 41 | 19 | 60 | 0 |

Table 36: Details of analyses on honey

| Designation | Substance group | Number of samples analysed | <LOD | <LOQ | Compliant | Non-compliant |
|---|---|---|---|---|---|---|
| A5 | β-agonists | 8 | 8 | - | 8 | 0 |
| A6c | Chloramphenicol | 4 | 4 | - | 4 | 0 |
| A6n | Nitrofurans | 4 | 4 | - | 4 | 0 |
| A6ni | Nitroimidazoles | 8 | 8 | - | 8 | 0 |
| B1 | Sulfonamides | 12 | 12 | - | 12 | 0 |
| | Tetracyclines | 12 | 12 | - | 12 | 0 |
| | Quinolones | 12 | 12 | - | 12 | 0 |
| | Penicillins | 8 | 8 | - | 8 | 0 |
| | Cephalosporins | 8 | 8 | - | 8 | 0 |
| | Macrolides | 8 | 8 | - | 8 | 0 |
| | Aminoglycosides | 4 | - | 4 | 4 | 0 |
| B2a | Benzimidazoles | 8 | 8 | - | 8 | 0 |
| B2b | Coccidiostats | 8 | 8 | - | 8 | 0 |
| B2cp | Pyrethroids | 13 | 13 | - | 13 | 0 |
| B2f | Glucocorticoids | 8 | 8 | - | 8 | 0 |
| | Phenothiazines | 8 | 8 | - | 8 | 0 |
| B3a | Organochlorine compounds (incl. PCB) | 5 | 5 | - | 5 | 0 |
| B3b | Organophosphorus compounds | 14 | 6 | - | 14 | 0 |
| B3c | Lead | 5 | - | 2 | 5 | 0 |
| | Cadmium | 5 | 1 | 3 | 5 | 0 |