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PART II/III

COMMISSION STAFF WORKING DOCUMENT

on the implementation of national residue monitoring plans in the Member States in 2011 (Council Directive 96/23/EC)

Part II/III - Report for 2011 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal products

Report for 2011 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal products[1]

European Food Safety Authority (EFSA), Parma, Italy

SUMMARY

The presence of unauthorised substances, residues of veterinary medicinal products or chemical contaminants in food may pose a risk factor for public health. The EU legislative framework defines maximum limits permitted in food and monitoring programmes for the control of the presence of these substances in the food chain. Maximum limits for residues of veterinary medicinal products in food-producing animals and animal products are established in Regulation (EU) No 37/2010[2]. Maximum limits for the presence of certain contaminants in animal products are laid down in Commission Regulation (EC) 1881/2006[3]. Council Directive 96/23/EC[4] lays down measures to monitor certain substances and residues thereof, mainly veterinary medicinal products, in live animals and animal products. Additionally, Commission Decision 97/747/EC[5] lays down levels and frequencies of sampling for certain animal products. The present report summarises the monitoring data from 2011 on the presence of residues of veterinary medicinal products and certain substances in live animals and animal products in the European Union (EU). Data were collected in aggregated form in a database managed by the European Commission (EC).

In the framework of Article 31 of Regulation EC 178/2002[6], the European Commission asked the European Food Safety Authority (EFSA) to produce an annual compilation of the monitoring results obtained under the provision of Council Directive 96/23. Animal categories and animal products covered in the monitoring are: bovines, pigs, sheep and goats, horses, poultry, rabbit, farmed game, wild game, aquaculture, milk, eggs and honey.

Data collected in aggregated form do not allow for an in-depth analysis. The limitations described in the previous EFSA reports (EFSA, 2010a; EFSA, 2010b;

[1] On request from the European Commission, Question No EFSA-Q-2012-00559, issued on 3 December 2012.

[2] Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin. OJ L 15/1, 20.1.2010, p. 1-72.

[3] Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs. OJ L 364/5, 20.12.2006, p. 5 – 24.

[4] Council Directive 96/23/EC on measures to monitor certain substances and residues thereof in live animals and animal products and repealing Directives 85/358/EEC and 86/469/EEC and Decisions 89/187/EEC and 91/664/EEC. OJ L 125, 23/05/1996, p. 10 – 32.

[5] Commission Decision 97/747/EC fixing the levels and frequencies of sampling provided for by Council Directive 96/23/EC for the monitoring of certain substances and residues thereof in certain animal products. OJ L 303, 6.11.1997, p. 12–15.

[6] Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety. OJ L 31/1, 1.2.2002, p. 1-24.

EFSA, 2011; EFSA, 2012) were still applicable in the present analysis. Therefore, the recommendations made with regard to the collection of data in the EFSA format similar to pesticides and contaminants data remain valid.

Altogether, 742,902 samples were reported by the 27 EU Member States in the framework of the residue monitoring in 2011. They included 415,909 targeted samples and 23,236 suspect samples reported under Council Directive 96/23/EC, 299,428 samples collected in the framework of other programmes developed under the national legislation and 4,329 samples checked at import. Considering all animal species and product categories included in the 2011 monitoring plans, 779 substances[7] were listed to be checked for. The frequency of analyses for a certain substance is highly variable depending on the targeted animal/product category. The data analysis presented in this report was focused on the targeted samples reported under Council Directive 96/23/EC. Samples collected through other sampling strategies (suspect, import or 'other') do not follow a designed monitoring plan, thus results on those samples were not pooled together with the results on targeted samples.

With regard to the minimum requirements for sampling frequency laid down in Council Directive 96/23/EC and in Commission Decision 97/747/EC, they were fulfilled by the vast majority of EU Member States.

Overall, 1,178 samples or 0.28 % of the 415,909 targeted samples were non-compliant in 2011. Similar to the previous four years, there were no non-compliant samples for stilbenes and derivatives (A1). For antithyroid agents (A2), there were 0.63 % non-compliant samples, all for thiouracil, most likely due to feeding diets rich in cruciferous plants. In the group of steroids (A3), there were 0.11 % non-compliant samples in all animal and product categories but only about half of them were non-compliant for anabolic steroids. The others were non-compliant for corticosteroids reported in the group A3. The non-compliant results for anabolic steroids (n = 32) were found in bovines (n = 17), pigs (n = 6), poultry (n = 6) and aquaculture (n = 3). For 80 % of the non-compliant results on anabolic steroids, Member States indicated that the source was most likely the endogenous production. Non-compliant results for corticosteroids were reported in group A3 (n = 29) and in B2f (n = 10). All but one of non-compliant results for corticosteroids (A3 and B2f) were reported in bovines (n = 38). In the group of resorcyclic acid lactones (A4), 0.08 % of the samples were non-compliant for zearalenone and derivatives. For beta-agonists (A5), there were 0.03 % non-compliant samples. Prohibited substances were found in 0.04 % of samples. Substances identified were chloramphenicol (n = 12), nitrofurans (n = 15) and nitroimidazoles (n = 2).

For antibacterials (B1), 0.19 % of the samples analysed under the Directive 96/23 monitoring were non-compliant. The highest frequency of non-compliant samples for antibacterials was found in honey (1.0 %).

In the group B2 (other veterinary drugs), the highest proportion of non-compliant samples was found for anticoccidials (0.26 %; B2b). Across animal

[7] The number of substances included in the monitoring plan might be slightly different from the true number of substances analysed. Due to the structure of the data collection, it was not possible to extract the exact number of substances analysed.

species and product categories, the non-compliant samples for anticoccidials accounted for 0.22 % in poultry, 0.06 % in pigs, 0.12 % in sheep and goats, 1.1 % in rabbit meat, 2.5 % in farmed game and 0.72 % in eggs. An important decrease has been observed in the frequency of non-compliant samples for anticoccidials in poultry (0.22 % in 2011 compared to 0.96 % in 2010 and 2.05 % in 2009). Instances of non-compliance for anthelmintics (B2a) were reported in bovines (0.1 %), sheep and goats (0.21 %), poultry (0.03 %) and milk (0.18 %). There was one non-compliant sample for pyrethroids (B2c) and one for sedatives (B2d). For non-steroidal anti-inflammatory drugs (B2e), non-compliant samples were found in bovines (0.15 %), pigs (0.02 %), horses (0.66 %), poultry (0.34 %) and milk (0.09 %). Non-compliant samples for "other pharmacologically active substances" (B2f) were reported in bovines (0.1 %), sheep and goats (0.18 %), poultry (0.14 %) and rabbit (1.9 %).

Similar to previous years, in the group B3 (other substances and environmental contaminants), the chemical elements (B3c) had the highest overall percentage of non-compliant samples (3.4 %). Cadmium, lead, mercury and copper were the most frequent elements identified. Instances of non-compliance for organochlorine compounds (B3a) and organophosphorus compounds (B3b) were much lower: 0.17 % and 0.03 %, respectively. For mycotoxins (B3d), there were non-compliant samples for zearalenone and derivatives, ochratoxin A, aflatoxin B1 and aflatoxin M1 in milk. Important to highlight that by a relatively constant sampling frequency over time, the number of non-compliant milk samples for aflatoxin M1 (n = 13) was higher compared to the period 2008 to 2010 (n = 4 to 7). Prevalence of dyes (B3e) in aquaculture samples remained relatively high in 2011 (1.8 %), a value similar to those reported in the previous years. Substances found were malachite green, leuco malachite green, crystal violet and leuco crystal violet.

A comparison of the data from the period 2007 to 2011 highlighted that the overall frequency of non-compliant samples in 2011 was slightly lower compared to the previous four years (0.32 % – 0.34 %). For several substance groups, there were no notable variations in the frequency of non-compliant samples in 2011 compared to previous years but a decrease was observed for steroids, resorcyclic acid lactones, prohibited substances, antimicrobials, anthelmintics and anticoccidials. The decrease in the frequency of non-compliant samples for anticoccidials is most likely the result of the awareness and the measures that followed the implementation of the Commission Directive 2009/8/EC[8] setting up maximum levels of unavoidable carry-over of coccidiostats in non-target feed. In contrast, the proportion of non-compliant samples for chemical elements (mainly metals) was similar to 2010 but higher compared to the period 2007 to 2009. This development is explained by the application since 2010 of a stricter legal basis in the evaluation of compliance for mercury and copper.

[8] Commission Directive 2009/8/EC of 10 February 2009 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels of unavoidable carry-over of coccidiostats or histomonostats in non-target feed. OJ L 40/19, 11.2.2009, p. 19-25.

The national sampling plans and the pattern of substances analysed were likely not the same over the years and the prescribing patterns of veterinary medicines vary between species. Therefore, the outcome of the data analysis at EU level may not reflect accurately the residue situation in each individual EU Member State and for each species or product category.

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BACKGROUND AS PROVIDED BY THE EUROPEAN COMMISSION

Council Directive 96/23/EC requires Member States to adopt and implement a national residue monitoring plan for specific groups of residues. The Directive lays down sampling levels and frequency, as well as the group of substances to be monitored for each category of live animals or animal products. Member States must submit to the Commission, by no later than 31 March of each year, the national monitoring plans together with the monitoring results for the previous year. According to Article 8.4 of the aforementioned Directive, each year or whenever it deems it necessary, the Commission shall report to the Member States on the outcome of the surveys. According to Article 8.5, the Commission sends to the European Parliament and the Council a Communication on the results and actions taken at regional, national or Community level. The Communication is drafted on the basis of a summary report which includes the main results reported by the Member States as the outcome of the implementation of national residue plans. Summary reports have been published since 1998. Since 2001, the Commission has published the annual Communication to the Parliament and the Council (http://ec.europa.eu/food/food/chemicalsafety/residues/control_en.htm).

TERMS OF REFERENCE AS PROVIDED BY THE EUROPEAN COMMISSION

In the framework of Article 31 of Regulation EC No 178/2002, the European Commission asked EFSA to prepare an annual compilation (report) of the results of residue monitoring in live animals and animal products in the Member States. EFSA shall present its report to the Member States in the Standing Committee of the Food Chain and Animal Health (SCFCAH). Together with the comments from the Member States and the answers to the questionnaires on actions taken as a consequence of non-compliant results, the Commission will use EFSA's report for the drafting of the Annual Report and the Communication to the European Parliament and the European Council.

Data used in the report were collected from Member States under Directive 96/23/EC and stored in the Commission's residue application. DG for Health & Consumers (DG SANCO) is in charge of the overall coordination of the residue data collection from Member States; it performs a preliminary format check and examines the data for inconsistencies, omissions or misreporting. It also requests that, where appropriate, the Member States check and update data that have been uploaded onto the application. When DG SANCO considers that data provided are in line with the requirements of Directive 96/23/EC, EFSA starts to produce its contribution.

ANALYSIS OF RESIDUE MONITORING DATA

1. Introduction

The presence of unauthorised substances, residues of veterinary medicinal products or chemical contaminants in food may pose a risk factor for public health. The EU legislative framework defines maximum limits permitted in food and monitoring programmes for the control of the presence of these substances in the food chain.

Council Directive 96/23/EC on measures to monitor certain substances and residues thereof in live animals and animal products requires Member States to adopt and implement a national residue monitoring plan for the groups of residues detailed in its Annex I in accordance with the sampling rules referred to in Annex IV. The Directive lays down sampling levels and frequency for bovines, pigs, sheep and goats, equine animals, poultry and aquaculture, as well as the groups of substances to be monitored for each food commodity. Commission Decision 97/747/EC lays down rules for levels and frequencies of sampling for milk, eggs, honey, rabbit meat and game.

Member States should forward to the European Commission the results of their residue monitoring by 31 March of each year at the latest. National residue control plans should be targeted to take the following minimum criteria into account: species, gender, age, fattening system, all available background information and all evidence of misuse or abuse of substances. Additionally, suspect samples may also be taken as part of the residue control.

The requirements for the analytical methods to be applied in the testing of official samples and the common criteria for the interpretation of analytical results are laid down in Commission Decision 2002/657/EC[9] of 12 August 2002 implementing Council Directive 96/23/EC.

Targeted samples are taken with the aim of detecting illegal treatment or controlling compliance with the maximum levels laid down in the relevant legislation. This means that, in their national plans Member States target the groups of animals (species, gender, age) where the probability of finding residues is the highest. Conversely, the objective of random sampling is to collect significant data to evaluate, for example, consumer exposure to a specific substance.

Suspect samples are taken as a consequence of i) non-compliant results on samples taken in accordance with the monitoring plan, ii) possession or presence of prohibited substances at any point during manufacture, storage, distribution or sale through the food and feed production chain, or iii) suspicion or evidence

[9] Commission Decision 2002/657/EC of 12 August 2002 implementing Council Directive 96/23/EC concerning the performance of analytical methods and the interpretation of results. OJ L 221/8, 17.8.2002, p. 1-29.

of illegal treatment or non-compliance with the withdrawal period for an authorised medicinal veterinary product.

Residues of pharmacologically active substances mean active substances, excipients or degradation products and their metabolites, which remain in food.

Unauthorised substances or products mean substances or products prohibited under European Union legislation.

Illegal treatment refers to the use of unauthorised substances or products or the use of substances or products authorised under EU legislation for purposes or under conditions other than those laid down in EU legislation or, where appropriate, in the various national legislation.

Withdrawal period represents the period necessary between the last administration of the veterinary medicinal product to animals under normal conditions of use and the production of foodstuffs from such animals, in order to ensure that such foodstuffs do not contain residues in quantities in excess of the maximum limits laid down in EU legislation.

Non-compliant result: since the entry into force of Decision 2005/657/EC, the term for analytical results exceeding the permitted limits (in previous reports termed "positives") is "non-compliant". The result of an analysis shall be considered non-compliant if the decision limit of the confirmatory method for the analyte is exceeded.

Non-compliant sample: is a sample that has been analysed for the presence of one or more substances and failed to comply with the legal provisions for at least one substance. Thus, a sample can be non-compliant for one or more substances.

Maximum residue limit means the maximum concentration of residue resulting from the use of a veterinary medicinal product, which may be legally permitted or recognised as acceptable in or on a food. For veterinary medicinal products, maximum residue limits (MRLs) are established according to the procedures laid down in Regulation (EC) No 470/2009 of the European Parliament and of the Council of 6 May 2009[10]. Pharmacologically active substances and their classification regarding maximum residue limits are set out in Commission Regulation (EU) No 37/2010 of 22 December 2009. In addition, Commission Directive No 2009/8/EC lays down maximum levels of unavoidable carry-over of coccidiostats or histomonostats in nontarget feed and Commission Regulation

[10] Regulation (EC) No 470/2009 of the European Parliament and of the Council of 6 May 2009 laying down Community procedures for the establishment of residue limits of pharmacologically active substances in foodstuffs of animal origin, repealing Council Regulation (EEC) No 2377/90 and amending Directive 2001/82/EC of the European Parliament and of the Council and Regulation (EC) No 726/2004 of the European Parliament and of the Council. OJ L 152/11, 16.6.2009, p. 1-12.

(EC) No 124/2009[11] lays down maximum levels for the presence of coccidiostats or histomonostats in food resulting from the unavoidable carry-over of these substances in non-target feed.

For pesticides, MRLs are laid down in Regulation (EC) No 396/2005[12]. Some substances (e.g. carbamates, pyrethroids, organophosphorus compounds) are recognised both as veterinary medicinal products and pesticides and therefore they might have different MRLs in the corresponding legislation.

Maximum levels for contaminants are laid down in Commission Regulation (EC) No 1881/2006[13]. For contaminants where no EU maximum levels had been fixed at the time when data included in this report were collected, national tolerance levels were applied.

Minimum Required Performance Limits (MRPLs). According to the Annex to Commission Decision 2002/657/EC, MRPL means the minimum content of an analyte in a sample which has to be detected and confirmed. It is intended to harmonise the analytical performance of methods for substances for which no permitted limit has been established.

MRPLs for chloramphenicol, nitrofurans metabolites and medroxyprogesterone acetate were established by Commission Decision 2003/181/EC and for malachite and leuco malachite green were established by Commission Decision 2004/25/EC[14].

2. Objectives

The present report summarises the monitoring data from 2011 submitted by the Member States to the European Commission. Data analysis was mainly focused on data submitted under Directive 96/23/EC and aimed to provide an overview on:

- Production volume and number of samples collected in each Member State. These data were used to check whether the Member States had fulfilled the

[11] Commission Regulation (EC) No 124/2009 of 10 February 2009 setting maximum levels for the presence of coccidiostats or histomonostats in food resulting from the unavoidable carry-over of these substances in non-target feed. OJ L 40/7, 11.2.2009, p. 7-11.

[12] Regulation (EC) 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC. OJ L 70/1, 16.3.2005, p. 1-16.

[13] Commission Regulation (EC) 1881/2006 setting maximum levels for certain contaminants in foodstuffs. OJ L 364/5, 20.12.2006.

[14] Commission Decision 2004/25/EC of 22 December 2003 amending Decision 2002/657/EC as regards the setting of minimum required performance limits (MRPLs) for certain residues in food of animal origin. OJ, L6, 10.1.2004, 38-39.

minimum requirements on sampling frequency as stated in Directive 96/23/EC and Commission Decision 97/747/EC.

- Number of samples analysed in each animal species or food commodity for substance groups and subgroups as defined in Annex I to Directive 96/23/EC (see Appendix E).
- Summary of non-compliant results per animal species or food commodity and substance group.
- Identification of main substances contributing to non-compliant results within a group.
- EU overall distribution of non-compliant samples in the substance groups.

3. Materials and Methods

3.1. Materials

Data used in this report have been collected from Member States under Directive 96/23/EC and stored in DG SANCO's residue database. The samples included in the monitoring were taken from the production process of animals and primary products of animal origin (live animals, their excrements, body fluids and tissues, animal products, animal feed and drinking water).

The DG for Health and Consumers (DG SANCO) is in charge of the overall coordination of the residue data collection from Member States (see "Terms of reference"). Each Member State assigns the coordination of the national monitoring plan to a central public department or body which is also in charge of the data collection at national level (Directive 96/23/EC Art. 4). The respective institution is also in charge of the aggregation of the data received from the various central and regional departments. DG SANCO verifies whether or not the transmitted results are in line with the established monitoring plan and indicates misreporting. In case of misreporting, the Member States in question are asked to update their data.

Aggregate data are transmitted to the Commission at the following level of detail:

- Animal category and animal products: bovines, pigs, sheep and goats, horses, poultry, rabbit, farmed game, wild game, aquaculture, milk, eggs and honey.
- Production volume expressed in number of animals for bovines, pigs, sheep and goats, and horses, and in tonnes for poultry, rabbit, farmed game, wild game, aquaculture, milk, eggs and honey.
- Sampling strategy: targeted, suspect, import and 'others'.
- Number of samples analysed for each substance group as defined in Annex I to Directive 96/23/EC.
- Number of non-compliant results within each substance group or subgroup and within each animal category or animal product. Non-compliant results are listed by the substance identified. Additional information about the non-compliant samples is given in a separate document (Questionnaires)

provided by the Member States. This information is not included in the database.

In this context, it is important to note that the number of non-compliant samples is not necessarily the same as the number of non-compliant results. One sample can be non-compliant for more than one substance and therefore the sum of non-compliant results might be higher than the sum of non-compliant samples. The information on sample identification, sample matrix and the corresponding results was not available in the database and thus it was impossible to perform a more elaborate statistical analysis at the matrix level (e.g. meat, liver, blood, etc.) and to identify the samples non-compliant for more substances (multi-residues samples).

Since information on the number of total analyses performed for an individual substance was only transmitted by the Member States which reported at least one non-compliant result for the respective substance, it was not possible to extract the full spectrum of substances analysed within one group or subgroup.

3.2. Methods

For the data analysis, the database and the data extraction tools available in DG SANCO's residue application were used. Making use of those tools it was possible to extract the production volume reported by the Member States and the number of samples analysed for each animal species or animal product category and for each substance group or subgroup. To check whether the minimum required sampling frequencies had been fulfilled, the number of samples collected in 2011 was referred to the production of 2010. The number of non-compliant samples could be extracted at the group or subgroup level. At the substance level, only Member States which found at least one non-compliant result reported the total number of samples analysed for that substance. The shortcomings mentioned in 3.1 represented considerable limitations in performing a more elaborate statistical analysis.

4. Results

The structure and the data analysis performed in the present report follows the one of the 2010 report:

- The EU overall assessment includes all animal/animal product categories and is presented for each main substance group.
- Assessment of samples analysed, non-compliant samples and non-compliant results are presented for each animal/animal product category separately.
- Suspect samples are evaluated separately from the targeted samples.
- Results which were not reported under the Council Directive 96/23/EC (import and 'others') are not included in the overall assessment but treated separately. Non-compliant results for the individual substances in each animal/animal product category are listed in Appendix A (targeted

samples), Appendix B (suspect samples), Appendix C (import samples) and Annex D ('other' samples).

4.1. EU overall assessment

The aim of this assessment was to give an overview of the total number of samples analysed for the individual substance groups and to summarise the non-compliant samples for the major substance groups at EU level. Further details on the non-compliant samples found in each animal/product category are presented in chapters 4.2 to 4.13.

In 2011, 742,902 samples were reported by the 27 Member States for analysis of substances and residues covered by Directive 96/23/EC. Out of this, 415,909 were targeted samples collected in conformity with the specification of the National Residue Control Plans (NRCPs) for 2011. Additionally, 23,236 suspect samples were reported as follow-up of non-compliant targeted samples or suspicion of illegal treatment or non-compliance with the withdrawal period. Apart from the data submitted in accordance to NRCPs, Member States reported in total 299,428 samples collected in the framework of other programmes developed under the national legislation. Only a relatively limited number of data (n = 4,329) was reported for samples checked at import. This is because the control of samples at import is more linked to the third country monitoring than to the residue monitoring in EU; thus Member States report those results to the European Commission ((EC) using other tools e.g. the Trade Control and Expert System (TRACES) and the Rapid Alert System for Food and Feed (RASFF).

In total, the 2011 monitoring plan covered 779 substances[15] to be checked for in all animal species and product categories. The list of substances included in the National Residue Control Plans is adjusted every year by the Member States under the coordination of the EC taking into consideration several factors such as the prescribing patterns of veterinary medicines and the emerging or recurrent issues concerning certain substances.

Of the total of targeted samples, 45 % were analysed for substances having an anabolic effect and unauthorised substances (group A) and 61 % for veterinary drugs and contaminants (group B)[16]. Of the 415,909 targeted samples, 1,178 were non-compliant (0.28 %) (1,268 non-compliant results). The percentage of non-compliant samples calculated from the total number of samples analysed for substances in that category was: 0.09 % for substances having an anabolic effect and unauthorized substances (A), 0.19 % for antibacterials (B1), 0.12 % for the "other veterinary drugs" (B2) and 1.5 % for "other substances and environmental contaminants" (B3) (Table 1, Figure 1).

[15] The number of substances included in the plan might be slightly different from the true number of substances analysed. Due to the structure of the data collection, it was not possible to extract the exact number of substances analysed.

[16] Some samples were analysed for substances in both groups therefore the sum of percentages is higher than 100.

Table 1: Number of targeted samples analysed, non-compliant samples and non-compliant results in all species and product categories.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	186,152	45	174	0.09	185
A1	23,575	5.7	0	0.00	0
A2	10,155	2.4	64	0.63	64
A3	46,378	11	53	0.11	61
A4	21,288	5.1	18	0.08	19
A5	42,541	10	12	0.03	12
A6	73,258	18	27	0.04	29
B	251,643	61	1,004	0.40	1,083
B1	124,895	30	242	0.19	249
B2	90,744	22	106	0.12	109
B2a	25,900	6.2	21	0.08	23
B2b	20,768	5.0	54	0.2	54
B2c	8,826	2.1	1	0.01	1
B2d	9,673	2.3	1	0.01	1
B2e	15,213	3.7	17	0.11	18
B2f	16,837	4.0	12	0.07	12
B3	44,594	11	656	1.5	725
B3a	16,992	4.1	29	0.17	39
B3b	7,534	9.6	2	0.03	2
B3c	16,506	4.0	564	3.4	602
B3d	6,440	1.5	26	0.40	44
B3e	1,932	0.46	34	1.8	37
B3f	2,604	0.63	1	0.04	1
Total	**415,909**	**100**	**1,178**	**0.28**	**1,268**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

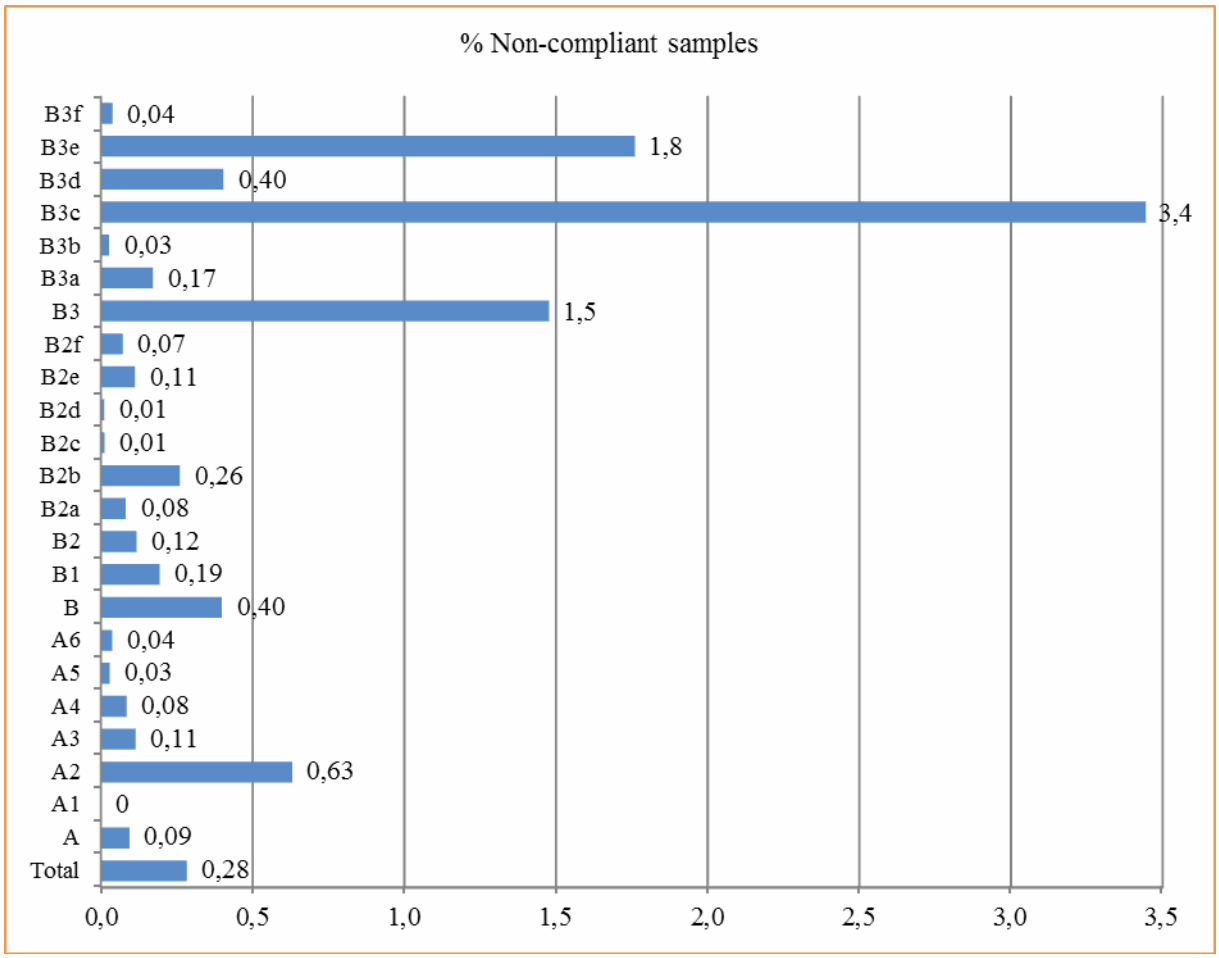


Figure 1: Percentage of non-compliant samples in each substance group.

4.1.1. Hormones

Directive 96/22/EC prohibits the use of hormones in food producing animals except for well-defined therapeutic and zootechnical purposes and under strict veterinary control.

This group includes also synthetic, hormonally active substances such as stilbenes and their derivatives (A1), antithyroid agents (A2) and steroids (A3). Resorcyclic acid lactones (A4) are hormonally active as well and potentially used for growth promoting purposes, but their presence in animals and products of animal origin could also be linked to the ingestion of feed contaminated with fungi belonging to the genus *Fusarium*.

Of all the targeted samples analysed for the category "hormones" in all animal/product categories (101,396 samples) there were 135 non-compliant samples (0.13 %) (144 non-compliant results).

The number of targeted samples analysed for stilbenes and derivatives (A1) in all animal/product categories together was 23,575. Similar to the previous years, no non-compliant sample was reported for this group.

Antithyroid agents (A2) were analysed in 10,155 targeted samples of which 64 samples were non-compliant (0.63 %) (64 non-compliant results). All non-compliant samples in the group A2 were for thiouracil. They were found in bovines (n = 50; 0.9 %), pigs (n = 5; 0.16 %) and sheep and goats (n = 9; 3.7 %). Residues of thiouracil resulted most probably from feeding diets rich in cruciferous plants. Pinel et al. (2006) demonstrated that urinary excretion of thiouracil in adult bovines fed with cruciferous plants can give erroneous indications of the possible illegal use of thyrostats in meat production animals.

For steroids (A3), of the 46,378 samples analysed in all animal species and product categories, 53 were non-compliant (0.11 %) (61 non-compliant results). Overall, there were 32 non-compliant results for anabolic steroids and 29 non-compliant results for corticosteroids reported in the group A3. The non-compliant samples were found in bovines (n = 39; 0.13 %), pigs (n = 6; 0.06 %), poultry (n = 6; 0.13 %) and aquaculture (n = 2; 0.57 %). For 26 results of anabolic steroids (80 %), Member States indicated that the source was most likely the endogenous production as reported in previous studies (Clouet et al., 1997; Samuels et al., 1998). No evidence of illegal use was found for other 5 non-compliant results for anabolic steroids.

For resorcyclic acid lactones (A4), of 21,288 samples analysed in all animal species and product categories, 18 were found non-compliant (0.08 %) (19 non-compliant results). All non-compliant samples were in bovines.

4.1.2. Corticosteroids

There are several substances (e.g. dexamethasone, betamethasone and prednisone) legally used in the therapy of food producing animals in the EU. The legal utilisation of corticosteroids, as for any other veterinary medicine, is strictly regulated in the EU, with withdrawal periods given between treatment and slaughtering. Due to their growth promoting effects (increase of appetite and weight gain) corticosteroids might be used in cocktails with other illegal substances in animal feeding. Thus, some Member States include these substances in group A3 (steroids), whereas others allocate them to the group B2f (other pharmacologically active substances). The Member States that include all corticosteroids in group A3 claim that in this way they have more legal action power against illegal use.

Of the total of 39 non-compliant results for corticosteroids in all species (targeted samples), 29 were reported in group A3 and 10 in group B2f. All but one of the 39 non-compliant results were reported in bovines. Italy reported 29 of them. Substances identified were dexamethasone (n = 24), prednisolone (n = 9) and prednisone (n = 6) (Table 2). Important to note that recent studies suggest that prednisolone could be produced endogenously by animals, especially by those found in a state of stress (Pompa et al., 2011; Fidani et al., 2012).

Table 2: Overview on corticosteroids non-compliant results.

Substance	Substance group [(a)]	Species	Number of non-compliant results	Member States reporting non-

				compliant results
Dexamethasone	A3	bovine	16	IT
	B2f	bovine	8	DE, ES, PL
Prednisolone	A3	bovine	7	IT
	B2f	bovine	1	BE
	B2f	sheep/goats	1	BE
Prednisone	A3	bovine	6	IT

(a): as detailed in Appendix E.

4.1.3. Beta-agonists

Beta-agonists (A5) are used therapeutically in human and animal medicine for specific effects on smooth muscle. When misused at higher doses, they can also act as growth promoters by stimulating the increase of the muscular mass and reducing the adipose tissue. Directive 96/22/EC[17] prohibits the use of beta-agonists in food producing animals except for well-defined therapeutic purposes and under strict veterinary control. In 2011, 42,541 targeted samples were analysed for beta-agonists and 12 non-compliant samples (0.03 %) were reported (in bovines: eight for clenbuterol, one for clencyclohexerol and two for isoxsuprine; in poultry one for isoxsuprine).

4.1.4. Prohibited substances

This group (A6) includes substances listed in Commission Regulation (EU) No 37/2010 under prohibited substances for which MRLs cannot be established. These substances are not allowed to be administered to food-producing animals. Examples of substances belonging to this group are chloramphenicol, nitrofurans and nitroimidazoles.

In the framework of the 2011 residue monitoring, 73,258 targeted samples were analysed for prohibited substances and 27 samples (0.04 %) were non-compliant (29 non-compliant results). Altogether, there were 12 non-compliant results for chloramphenicol, 15 for nitrofurans and two for nitroimidazoles (Table 3). The distribution of the non-compliant results by individual substances and Member States is presented in Appendix A.

Table 3: Overview on the non-compliant results for prohibited substances.

Substance	Species	Number of non-compliant results	Member States reporting non-compliant results
Chloramphenicol	bovine	3	CZ, DE, FR
	pigs	1	DE

[17] Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stock farming of certain substances having a hormonal or thyrostatic action and of beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC. OJ, L 125, 29.5.1996, 3-9.

	poultry	3	CZ, FR, HU
	aquaculture	1	IT
	milk	1	ES
	rabbit	2	FR, IT
	honey	1	SE
Nitrofurans			
SEM (semicarbazide)	bovine	4	IE, IT, PL
	sheep/goats	4	IE
AOZ (3-amino-2-oxazolidone)	honey	1	LV
AMOZ (5-methylmorpholino-3-amino-2-oxazolidone)	bovines	3	IT
	farmed	1	BE
Nitrofurazone	pigs	1	ES
	poultry	1	NL
Nitroimidazoles			
Metronidazole	bovines	2	DE

4.1.5. Antibacterials

The group of antibacterials (B1) includes antibiotics (e.g. beta-lactams, tetracyclines, macrolides, aminoglycosides) but also sulphonamides and quinolones.

The total number of analyses carried out in 2011 for antimicrobials in targeted samples was 124,895, of which 242 (0.19 %) were non-compliant (249 non-compliant results) (Table 1). The highest frequency of non-compliant samples for antibacterials was observed in honey (1.0 %) (Figure 2).

It is important to mention that in some Member States there are specific control programmes which use microbiological tests (inhibitor tests). In some cases, a positive result in a microbiological test is sufficient to reject the sample. This may mean that no confirmation by a physico-chemical method is carried out and thus there is no conclusive identification of the substance concerned. In other cases, a positive result in the screening test is confirmed by means of an immunochemical or physico-chemical test and it is then possible to identify the substance and establish whether its concentration is above the MRL or not.

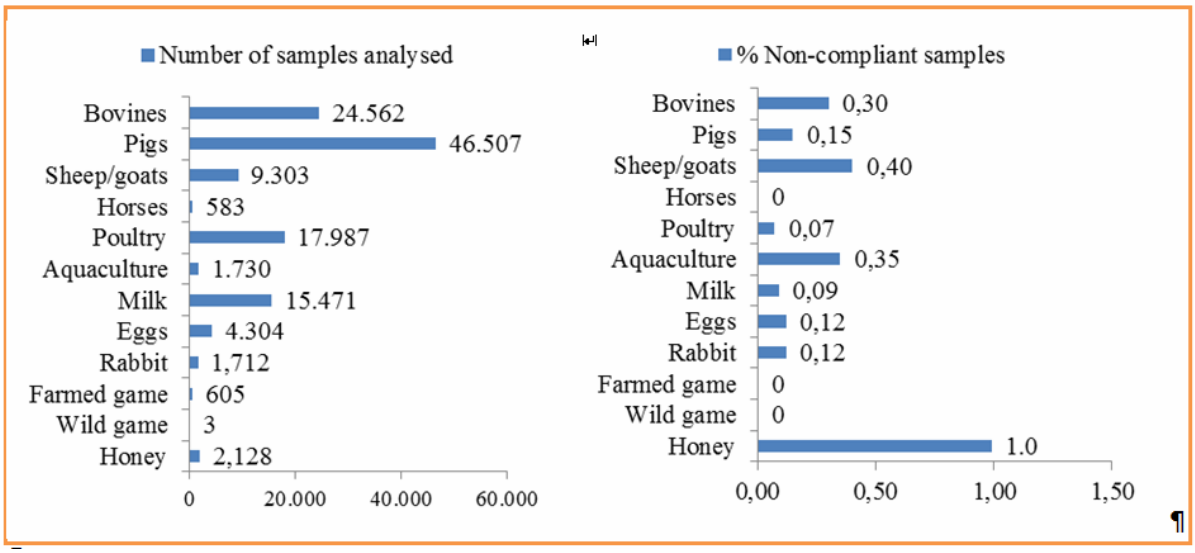


Figure 2: Number of targeted samples analysed and percentage of non-compliant samples for antibacterials (B1) in animal/product categories.

In Germany, for instance, there are two different strategies. One is to fulfil the requirements of Directive 96/23/EC. The second strategy is based on national law and means that at least 2 % of all commercially slaughtered calves and 0.5 % of all other commercially slaughtered hoofed animals must be officially sampled and analysed for residues of antimicrobials using inhibitor tests. To finally assess compliance with MRLs, all positive or suspicious results obtained with the inhibitor tests must be confirmed using chemical instrument analyses, as it is also the case with the screening results of tests performed pursuant to Directive 96/23/EC. In 2011, 288,786 samples were analysed in Germany under this scheme (28,163 for bovines, 257,443 for pigs, 2,938 for sheep and goats, 130 for horses, 38 for poultry, 47 for aquaculture, 10 for farmed game and 17 for rabbit meat) giving rise to 709 positive inhibitor tests (162 in bovines, 536 in pigs, six in sheep and goats, three in horses, one in poultry and one in aquaculture). A similar monitoring programme for residues of antibiotic exists in the Netherlands. The control program concerns suspect animals and therefore those results are included in the data on suspect samples (section 4.14).

4.1.6. Other veterinary drugs

The group "other veterinary drugs" (B2) includes a variety of veterinary medicinal products classified according to their pharmacological action in:

- Anthelmintics (B2a)
- Anticoccidials (B2b)
- Carbamates and pyrethroids (B2c)
- Sedatives (B2d)
- Non-steroidal anti-inflammatory drugs (NSAIDs) (B2e) and
- Other pharmacologically active substances (B2f)

In the 2011 monitoring, 90,778 targeted samples were analysed for substances in the group B2 and 106 samples (0.12 %) were non-compliant. The total number of targeted samples analysed for each subgroup in the group B2 and the percentage of non-compliant samples is presented in Figure 3. It is important to note that the frequency of analyses for substances in the B2 subgroups follows a different pattern in each species, depending on their animal specific therapeutic application. For example, in bovines, the anthelmintics, NSAIDs and other pharmacologically active substances (corticosteroids are largely represented in this subgroup) were more frequently analysed than anticoccidials or sedatives. Conversely, in poultry, anticoccidials was the largest subgroup. An overview of the number of samples analysed and the percentage of non-compliant samples for the B2 subgroups in the specific animal/product category is presented in Table 4.

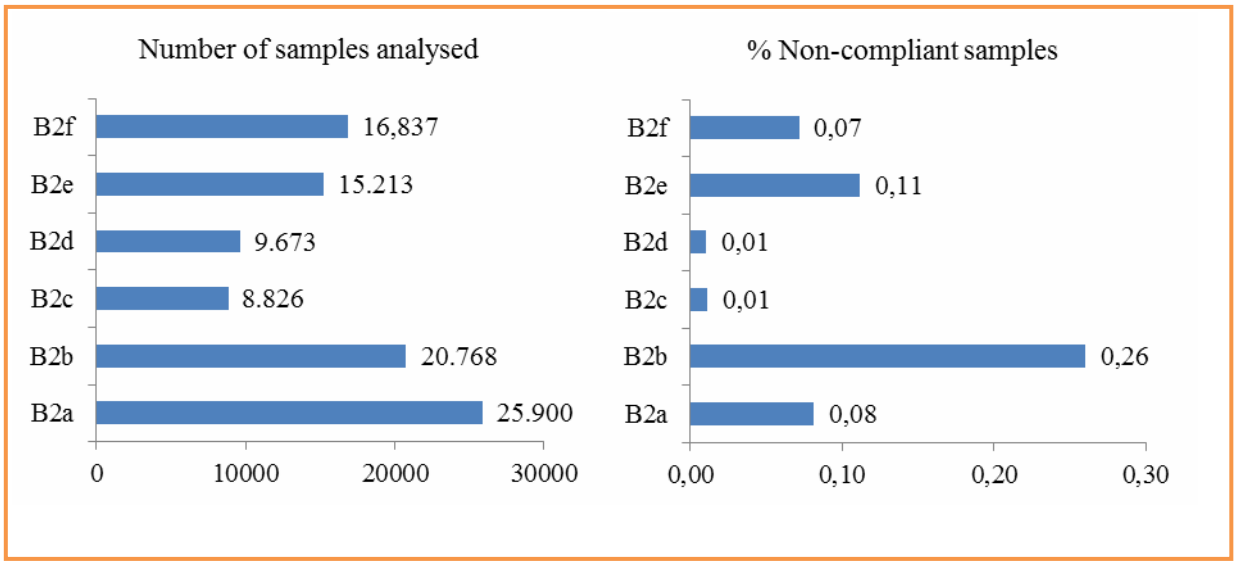


Figure 3: Number of targeted samples analysed within the group "other veterinary drugs" (B2) and the percentage of non-compliant samples.

Regarding the number of samples analysed in each B2 subgroup the highest proportion of non-compliant samples was found for anticoccidials (0.26 %; B2b): 0.22 % in poultry, 0.06 % in pigs, 0.12 % in sheep and goats, 1.1 % in rabbit, 2.5 % in farmed game and 0.72 % in eggs. An important decrease has been observed for the frequency of non-compliant samples for anticoccidials in poultry in 2011 (0.22 % compared to 0.96 % in 2010 and 2.05 % in 2009).

Non-compliant samples for anthelmintics (B2a) were reported in bovines (0.1 %), sheep and goats (0.21 %), poultry (0.03 %) and milk (0.18 %).

There was one non-compliant sample for pyrethroids (B2c) and one for sedatives (B2d).

For non-steroidal anti-inflammatory drugs (B2e), non-compliant samples were reported in bovines (0.15 %), pigs (0.02 %), horses (0.66 %), poultry (0.34 %) and milk (0.09 %).

Table 4: Number of targeted samples analysed for B2 subgroups in different animal categories and the frequency of non-compliant samples (percentage from the total number of samples analysed in each animal category).

Group	B2a		B2b		B2c		B2d		B2e		B2f	
	n	% nc	n	% nc	n	% nc	n	% nc	n	% nc	n	% nc
Bovines	4,973	0.10	1,863	0	1,633	0	2,199	0	4,824	0.15	7,849	0.11
Pigs	8,363	0	6,423	0.06	2,626	0	6,688	0.01	5,172	0.02	6,300	0
Sheep/goats	2,800	0.21	846	0.12	1,120	0.09	556	0	441	0	542	0.18
Horses	191	0	61	0	81	0	136	0	456	0.66	170	0
Poultry	3,096	0.03	7,186	0.22	1,632	0	32	0	883	0.34	717	0.14
Aquaculture	690	0	45	0	288	0	8	0	0	0	104	0
Milk	4,985	0.18	375	0	245	0	36	0	3,285	0.09	677	0
Eggs	305	0	3,480	0.72	201	0	7	0	17	0	113	0
Rabbit	175	0	272	1.1	109	0	3	0	66	0	54	1.85
Farmed game	260	0	202	2.5	136	0	7	0	67	0	7	0
Wild game	54	0	5	0	91	0	1	0	2	0	0	0
Honey	8	0	10	0	664	0	0	0	0	0	304	0

n: Number of samples analysed; % nc: Percentage of non-compliant samples.

Non-compliant samples for "other pharmacologically active substances" (B2f) were reported in bovines (0.1 %), sheep and goats (0.18 %), poultry (0.14 %) and rabbits (1.9 %). More details on the number of samples analysed and the non-compliant samples found in each category are given in sections 4.2 to 4.13 and in Appendix A.

4.1.7. Other substances and environmental contaminants

The group "other substances and environmental contaminants" (B3) includes the following subcategories:

- Organochlorine compounds including PCBs (B3a)
- Organophosphorus compounds (B3b)
- Chemical elements (B3c)
- Mycotoxins (B3d)
- Dyes (B3e) and
- Others (B3f)

In the 2011 residues monitoring, 44,594 samples were analysed for substances in group B3 of which 656 samples were non-compliant (1.5 %) (725 non-compliant results). The total number of targeted samples analysed for each subgroup in group B3 and the percentage of non-compliant samples is presented in Figure 4. Similar to group B2, the frequency of analyses for certain B3

subgroups is highly variable with the targeted animal/product category. While chemical contaminants (B3c) are analysed in all animal/product categories, dyes (B3e) are analysed only in aquaculture products. An overview of the number of samples analysed and the percentage of non-compliant samples for the B3 subgroups in the specific animal group and animal product category is presented in Table 5.

The highest percentage of non-compliant samples was found, in almost all species, in the subgroup B3c "chemical elements" (3.4 %). Similar to previous years, cadmium, lead, mercury and copper were the chemical elements frequently identified as responsible for non-compliance.

Instances of non-compliance for organochlorine compounds (B3a) and organophosphorus compounds (B3b) were lower: 0.17 % and 0.03 %, respectively.

For mycotoxins (B3d), there were non-compliant samples for zearalenone and derivatives in bovines (n = 1) and in pigs (n = 8), ochratoxin A in pigs (n = 2), aflatoxin B1 in horses (n = 1) and in milk (n = 1), and aflatoxin M1 in milk (n = 14).

Dyes (B3e) were reported in aquaculture (34 non-compliant samples; 1.8 %). Substances found were malachite green, leuco malachite green, crystal violet and leuco crystal violet. In the subgroup "others" (B3f), only one non-compliant sample was reported in wild game for Cesium-137.

More details on the number of samples analysed and non-compliant samples in each category are given in the sections 4.2 to 4.13 and in Appendix A.

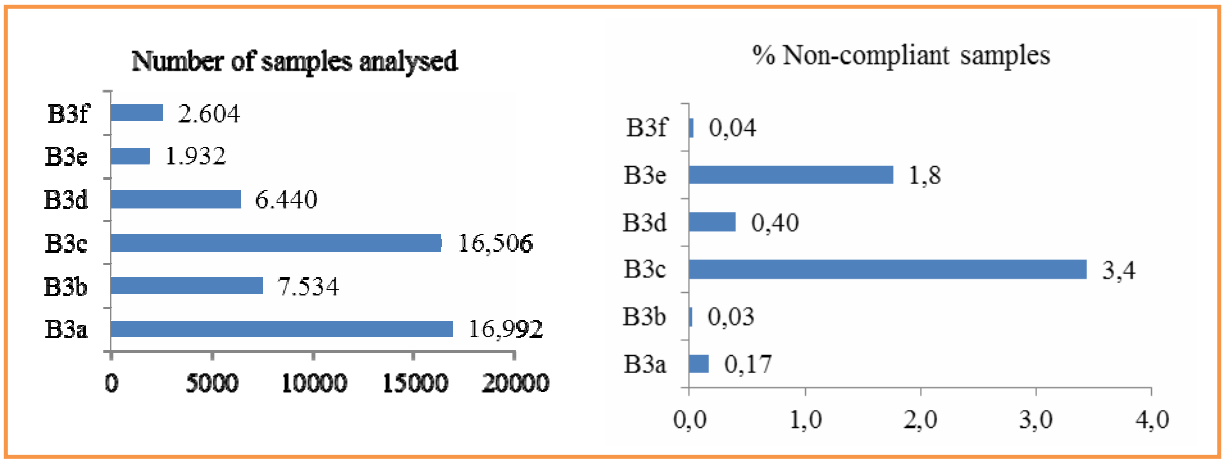


Figure 4: Number of samples analysed within the group "other substances and environmental contaminants" (B3) and the percentage of non-compliant samples.

Table 5: Number of targeted samples analysed for B3 subgroups in different animal and product categories and the frequency of non-compliant samples (percentage from the total number of samples analysed in each animal/product category).

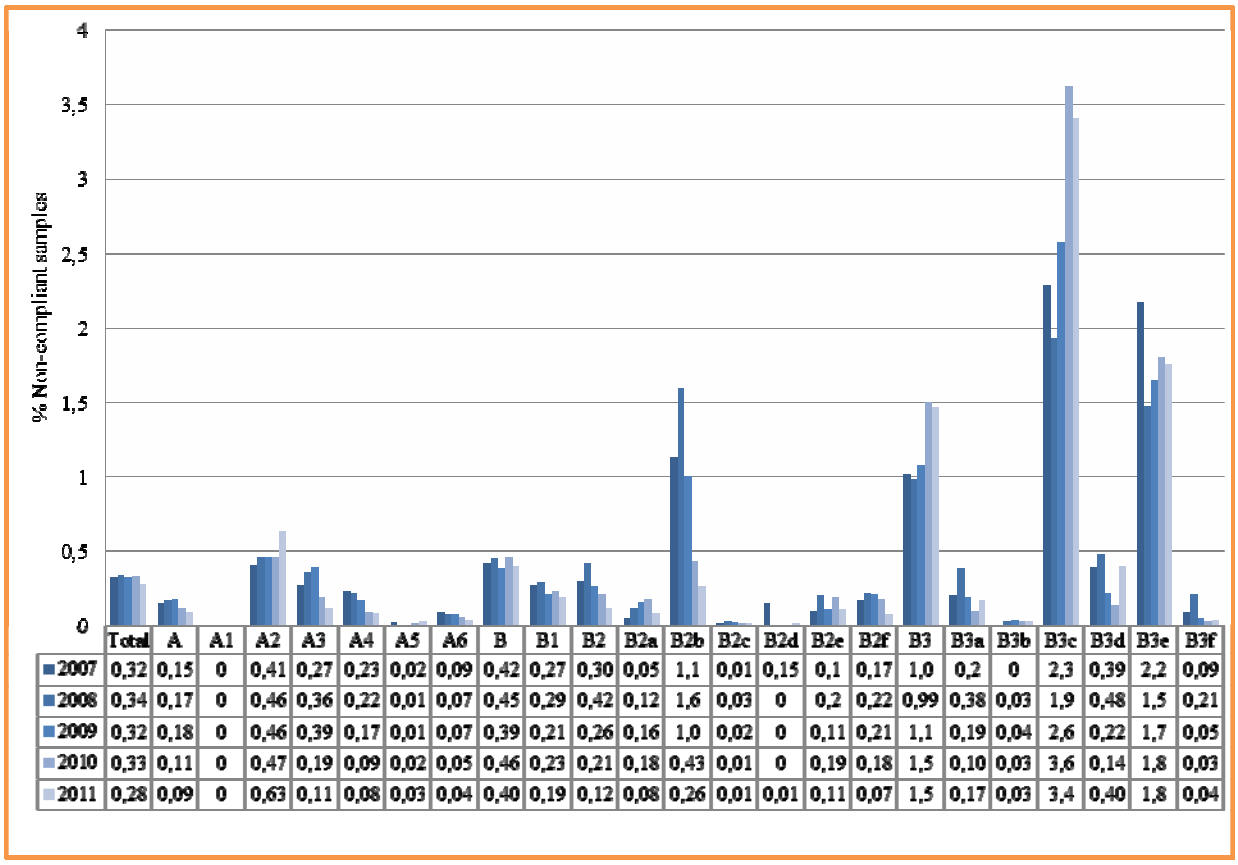
Group	B3a		B3b		B3c		B3d		B3e		B3f	
	n	% nc	n	% nc	n	% nc	n	% nc	n	% nc	n	% nc
Bovines	2,739	0	1,564	0.06	2,840	3.8	1,128	0.09	0	0	391	0
Pigs	4,391	0.09	2,305	0.04	4,324	3.8	1,891	0.53	0	0	933	0
Sheep/goats	997	0	1,031	0	1,074	3.5	228	0	0	0	32	0
Horses	136	0	86	0	696	3.6	60	1.7	0	0	6	0
Poultry	2,680	0.07	605	0	1,978	0.2	753	0	0	0	229	0
Aquaculture	784	0.26	70	0	867	0	223	0	1,932	1.8	175	0
Milk	1,975	0.05	877	0	1,339	0.1	2,013	0.70	0	0	226	0
Eggs	1,784	0.45	214	0	177	0	7	0	0	0	180	0
Rabbit	188	0.53	20	0	196	0	36	0	0	0	10	0
Farmed game	222	0	49	0	320	5.3	43	0	0	0	45	0
Wild game	385	2.1	57	0	2,175	9.0	10	0	0	0	205	0
Honey	711	0.42	656	0	520	2.3	48	0	0	0	172	0

n: Number of samples analysed; % nc: Percentage of non-compliant samples.

4.1.8. Multi-year comparison

It is important to note that this analysis is based on data that were partially aggregated. In addition, the number of samples analysed for each substance and animal/product category was not necessarily the same over the five years. Therefore this analysis should be regarded as having a certain degree of uncertainty. The purpose of this exercise was to check whether major variations of the proportion of non-compliant samples occurred at substance group level in the EU. When such variations are noted, a more in-depth analysis of the monitoring plans per species, country and pattern of substances analysed has to be carried out in order to identify the trigger for the differences observed and in consequence to take corrective measures.

An overall picture covering the period 2007 - 2011 (EU 27) is presented in Figure 5. The percentage of overall non-compliant samples in 2011 (0.28 %) was slightly lower compared to the previous four years (0.32 % - 0.34 %).



	Total	A	A1	A2	A3	A4	A5	A6	B	B1	B2	B2a	B2b	B2c	B2d	B2e	B2f	B3	B3a	B3b	B3c	B3d	B3e	B3f
2007	0,32	0,15	0	0,41	0,27	0,23	0,02	0,09	0,42	0,27	0,30	0,05	1,1	0,01	0,15	0,1	0,17	1,0	0,2	0	2,3	0,39	2,2	0,09
2008	0,34	0,17	0	0,46	0,36	0,22	0,01	0,07	0,45	0,29	0,42	0,12	1,6	0,03	0	0,2	0,22	0,99	0,38	0,03	1,9	0,48	1,5	0,21
2009	0,32	0,18	0	0,46	0,39	0,17	0,01	0,07	0,39	0,21	0,26	0,16	1,0	0,02	0	0,11	0,21	1,1	0,19	0,04	2,6	0,22	1,7	0,05
2010	0,33	0,11	0	0,47	0,19	0,09	0,02	0,05	0,46	0,23	0,21	0,18	0,43	0,01	0	0,19	0,18	1,5	0,10	0,03	3,6	0,14	1,8	0,03
2011	0,28	0,09	0	0,63	0,11	0,08	0,03	0,04	0,40	0,19	0,12	0,08	0,26	0,01	0,01	0,11	0,07	1,5	0,17	0,03	3,4	0,40	1,8	0,04

Figure 5: Percentage of non-compliant samples reported in relation to the total number of targeted samples analysed for the respective group in 2007, 2008, 2009, 2010 and 2011 (substance groups are detailed in Appendix E).

Among hormones and prohibited substances (group A) the proportion of non-compliant samples was the lowest in 2011 (0.09 %). However, between 2007 and 2010 the percentage of non-compliant samples in this group accounted for less than 0.2 %. There was no non-compliant sample for stilbenes (A1) in the five years included in the analysis and only a very limited number of non-compliant samples for beta-agonists (A5) (0.005 % - 0.03 %). The percentage of non-compliant samples for antithyroid agents (A2) was slightly higher in 2011 (0.63 %) compared to 2007 - 2010 (0.41 %- 0.47 %). For steroids (A3), the percentage of non-compliant samples was lower in 2011 compared to 2007 - 2010 (0.11 % compared to 0.19 % - 0.39 %). With regard to steroids, it is important to note that some Member States reported corticosteroids in this group (see chapter 4.1.1.1) and thus they have been included in this calculation. The percentage of non-compliant samples reported in 2011 for resorcyclic acid lactones (A4) was similar to the one reported in 2010 (0.08 % - 0.09 %) but lower compared to 2007 - 2009 (0.17 % - 0.23 %). For prohibited substances (A6), the proportion of non-compliant samples remained at very low level over the five years (0.04 % - 0.09 %).

In the group of antibacterials (B1), the percentage of non-compliant samples was the lowest in 2011 (0.19 %) compared to the previous four years (0.21 % - 0.29 %).

In the group B2 (other veterinary drugs), the highest percentage of non-compliant samples over the five years was observed for anticoccidials (B2b) (0.26 % - 1.6 %). However, since 2009 an important decrease in the frequency of non-compliant samples for anticoccidials has been recorded. The most notable effect was present in poultry where the frequency of non-compliant samples dropped from 2.05 % in 2009, to 0.96 % in 2010 and to 0.22 % in 2011. This development is most likely the result of the awareness raised by and the measures taken after Commission Directive 2009/8/EC laying down maximum levels of unavoidable carry-over of coccidiostats in non-target feed entered into force.

Proportion of non-compliant samples for anthelmintics (B2a) increased slightly from 0.05 % in 2007 to 0.18 % in 2010, but in 2011 it decreased to 0.08 %. In the groups of non-steroidal anti-inflammatory drugs (B2e) the proportion of non-compliant samples remained relatively constant (around 0.1 % - 0.2 %). For "other pharmacologically active substances" (B2f), the percentage of non-compliant samples decreased from 0.17 % - 0.22 % in the period 2007 – 2010 to 0.07 % in 2011. Non-compliant samples for carbamates and pyrethroids (B2c) were found in only a few isolated cases. Similarly, there was only one non-compliant sample for sedatives (B2d) since 2008.

In the group of "other substances and environmental contaminants" (B3), the percentage of non-compliant samples increased from 1 % in 2007 – 2009 to 1.5 % in 2010 and 2011. The increase was mainly due to the higher proportion of non-compliant samples for chemical elements (B3c) where the non-compliant samples accounted for around 2 % in 2007 and 2008 and for 3.6 % in 2010 and 3.4 % in 2011. This evolution is mainly explained by the practice introduced since 2009 with regard to the legal basis applied for compliance checking for mercury and copper. Commission Regulation (EC) No 1881/2006 specifies maximum limits for mercury only in aquaculture and does not specify any maximum limits for copper in food. Since 2009, the maximum limits laid down in Commission Regulation (EC) No 149/2008[18] amending Regulation (EC) No 396/2005 are applied to evaluate the compliance for copper and mercury (excepting aquaculture) which led to a substantial higher proportion of non-compliant samples for the two chemical elements. For example, in 2007 and 2008 only 30 and 47 non-compliant samples, respectively, were reported for mercury in all species and product categories whereas in 2010 and 2011 their

[18] Commission Regulation (EC) No 149/2008 of 29 January 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by establishing Annexes II, III and IV setting maximum residue levels for products covered by Annex I thereto. OJ L 58/1, 1.3.2008, p. 1-398.

number reached 269 and 218, respectively. Similarly, no non-compliant sample was reported for copper in 2007, 2008 and 2009 but after applying the new legal provision in 2010 and 2011 there were 73 and, respectively, 67 non-compliant samples for copper.

Non-compliant samples in the groups of organochlorine compounds (B3a), mycotoxins (B3d) and "other substances" (B3f) represented about 0.1 % - 0.5 % of the total number of samples analysed in each year. For organophosphorus compounds (B3b), the number of non-compliant samples remained very low over the five years (zero to three samples per year). The proportion of non-compliant samples for dyes (B3e) remained relatively constant over the five years (1.5 – 2.2 %).

Taking into account the limitations mentioned at the beginning of this section, it appears that the frequency of non-compliant samples for steroids (A3), resorcyclic acid lactones (A4), prohibited substances (A6), antibacterials (B1) and anticoccidials (B2b) was lower in 2011 compared to the previous years whereas the proportion of non-compliant samples for chemical elements (B3c; mainly metals) was similar to 2010 and higher compared to 2007, 2008 and 2009. For the other substance groups, apparently there were no notable variations over the five years (see also EC, 2007; EFSA, 2010b; EFSA, 2011; EFSA, 2012).

4.2. Bovines

Council Directive 96/23/EC requires that the minimum number of bovine animals to be controlled each year for all kinds of residues and substances is 0.4 % of the bovine animals slaughtered the previous year. The minimum requirements for the number of samples were fulfilled in 2011 for the EU overall, and by the vast majority of the Member States (Table 6). Only Greece did not achieve the minimum required. The percentage of targeted samples taken in each Member State for the reported production of bovines is presented in Table 7.

Table 6: Production of bovines and number of targeted samples over 2007-2011.

Year	Production (animals)	Targeted samples	% Animals tested[(a)]	Minimum 96/23/EC
2007 (EU 27)	27,087,367	129,201	0.47	
2008 (EU 27)	26,898,702	122,648	0.48	
2009 (EU 27)	26,677,946	127,897	0.48	0.4
2010 (EU 27)	26,267,917	128,130	0.48	
2011 (EU 27)	26,566,593	126,540	0.48	

(a): in relation to the production of the previous year.

The distribution of samples analysed, non-compliant samples and non-compliant results in bovines are presented in Table 8. Of the 126,540 samples analysed in

this category 330 (0.26 %) were non-compliant (353 non-compliant results). The non-compliant samples were reported by 18 Member States.

Table 7: Production volume and number of targeted samples collected in bovines.

Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)	Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)
Austria	702,333	3,955	0.56	Latvia	97,151	389	0.40
Belgium	799,256	4,675	0.58	Lithuania	178,705	955	0.53
Bulgaria	17,324	172	0.99	Luxemburg	25,803	106	0.41
Cyprus	16,442	739	4.49	Malta	5,691	64	1.12
Czech Republic	279,164	1,392	0.50	Netherlands	2,042,000	14,898	0.73
Denmark	496,500	1,998	0.40	Poland	1,612,417	6,622	0.41
Estonia	46,934	189	0.40	Portugal	446,082	1,883	0.42
Finland	267,828	1,272	0.47	Romania	140,319	547	0.39
France	4,961,750	20,160	0.41	Slovakia	69,717	297	0.43
Germany	3,775,142	14,652	0.39	Slovenia	117,242	525	0.45
Greece	242,858	785	0.32	Spain	2,326,661	10,762	0.46
Hungary	101,409	553	0.55	Sweden	425,967	2029	0.48
Ireland	1,714,465	7,955	0.46	United	2,517,513	11,423	0.45
Italy	2,841,244	17,543	0.62	**Total (EU**	**26,267,9**	**126,540**	**0.48**

No non-compliant samples were reported for the group A1. In the group A2, three Member States reported a total of 50 non-compliant samples, all for thiouracil. In the group A3, five Member States reported a total of 39 non-compliant samples (46 non-compliant results) of which nine for 17-beta testosteron, four for boldenone-alpha and 35 for corticosteroids. Together with the results for corticosteroids reported in the group B2f, there were 38 non-compliant samples for corticosteroids in bovine animals. In the group A4, two Member States reported 18 non-compliant samples (19 non-compliant results) for alpha and beta-zearalanol. Beta-agonists (A5) determined 11 non-compliances (eight for clenbuterol, two for isoxsuprine and one for clencyclohexerol). Prohibited substances (A6) were found in eight samples. Substances identified were: chloramphenicol, semicarbazide and AMOZ.

For antibacterials (B1), 11 Member States reported a total of 74 non-compliant samples (77 non-compliant results). Among the substances identified, oxytetracycline was the most frequent one (20 non-compliant samples).

In the group B2, non-compliant samples were reported for ivermectin, (n = 4; B2a), triclabendazole (n = 1; B2a), non-steroidal (n = 7; B2e) and steroidal (n = 9; B2f) anti-inflammatory drugs.

Table 8: Number of samples analysed, non-compliant samples and non-compliant results in bovines.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	78,206	62	126	0.16	136
A1	11,980	9.5	0	0	0
A2	5,539	4.4	50	0.90	50
A3	29,201	23	39	0.13	46
A4	11,311	8.9	18	0.16	19
A5	22,944	18	11	0.05	11
A6	15,390	12	8	0.05	10
B	53,283	42	204	0.38	217
B1	24,562	19	74	0.30	77
B2	22,439	18	21	0.09	22
B2a	4,973	3.9	5	0.10	5
B2b	1,863	1.5	0	0	0
B2c	1,633	1.3	0	0	0
B2d	2,199	1.7	0	0	0
B2e	4,824	3.8	7	0.15	8
B2f	7,849	6.2	9	0.11	9
B3	6,973	5.5	109	1.56	118
B3a	2,739	2.2	0	0	0
B3b	1,564	1.2	1	0.06	1
B3c	2,840	2.2	107	3.8	114
B3d	1,128	0.9	1	0.09	3
B3e	0	0	0	0	0
B3f	391	0.31	0	0	0
Total	**126,540**	**100**	**330**	**0.26**	**353**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

In the group B3, there was one non-compliant sample for chlorpyrifos (B3b), 107 non-compliant samples for heavy metals (B3c) and one non-compliant sample for zearalenone and derivatives. Within the 107 samples non-compliant for heavy metals (114 non-compliant results) there were 52 non-compliant results for cadmium, 32 for mercury, 29 for copper and one for lead.

A detailed presentation on the specific substances identified and the number of non-compliant results reported by each Member State is given in Appendix A.

4.3. Pigs

Council Directive 96/23/EC requires that the minimum number of pigs that have to be controlled each year for all kinds of residues and substances is 0.05 % of the pigs slaughtered the previous year. The minimum requirements for the number of samples to be taken were fulfilled in 2011 for the EU overall, and by

the vast majority of the Member States (Table 9). Only Greece did not achieve the minimum required. The percentage of targeted samples taken in each Member State for the reported pig production is presented in Table 10.

The distribution of samples analysed, non-compliant samples and non-compliant results in pigs are presented in Table 11. Of the 133,255 samples analysed in this category, 268 (0.2 %) were non-compliant (309 non-compliant results). The non-compliant samples were reported by 19 Member States.

Table 9: Production of pigs and number of targeted samples over 2007-2011.

Year	Production (animals)	Targeted samples	% Animals tested[(a)]	Minimum 96/23/EC
2007 (EU 27)	241,501,638	144,378	0.06	
2008 (EU 27)	244,965,996	137,281	0.06	
2009 (EU 27)	242,260,526	138,137	0.06	0.05
2010 (EU 27)	245,149,546	136,792	0.06	
2011 (EU 27)	249,082,904	133,255	0.05	

(a): in relation to the production of the previous year.

There were no non-compliant samples in the group A1. In the group A2, three Member States reported a total of five non-compliant samples, all for thiouracil. In the group A3, two Member States reported six non-compliant samples (four for nandrolone and two for 18-beta-nortestosteron). Prohibited substances (A6) were found in two samples: one for chloramphenicol and one for nitrofurazone.

Table 10: Production volume and number of targeted samples collected in pigs.

Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)	Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)
Austria	5,577,579	3,365	0.06	Latvia	316,415	173	0.05
Belgium	11,677,88	6,162	0.05	Lithuania	721,075	609	0.08
Bulgaria	497,577	439	0.09	Luxemburg	134,417	77	0.06
Cyprus	734,064	3,703	0.50	Malta	85,228	68	0.08
Czech Republic	3,190,806	1,893	0.06	Netherlands	13,920,00	8,375	0.06
Denmark	20,228,16	10,360	0.05	Poland	19,710,69	10,314	0.05
Estonia	407,710	204	0.05	Portugal	4,629,297	2,484	0.05
Finland	2,328,048	1,406	0.06	Romania	2,976,071	1,352	0.05
France	24,907,76	12,710	0.05	Slovakia	938,141	448	0.05
Germany	57,765,44	29,115	0.05	Slovenia	292,325	171	0.06
Greece	1,804,625	732	0.04	Spain	39,645,66	19,625	0.05
Hungary	4,614,263	2,351	0.05	Sweden	2,946,350	1,583	0.05
Ireland	2,586,303	2,640	0.10	United	8,919,870	4,513	0.05
Italy	13,593,77	8,383	0.06	**Total (EU**	**245,149,**	**133,255**	**0.05**

For antibacterials (B1), 18 Member States reported a total of 69 non-compliant samples (70 non-compliant results). The most frequent substances reported

were: doxycycline (n = 10), dihydrostreptomycin (n = 9) and oxytetracycline (n = 9).

In the group B2, five Member States reported six non-compliant samples. They were distributed as follows: four for anticoccidials (B2a), one for sedatives (B2d) and one for NSAIDs (B2e). There were no non-compliant samples for the groups B2a, B2c and B2f.

In the group B3, there were 180 non-compliant samples (220 non-compliant results). The non-compliant results were distributed as follows: four for organochlorine compounds (B3a), one for organophosphorus compounds (B3b), 189 for heavy metals (B3c) and 24 for zearalenone and alpha and beta zearalenol and two for ochratoxin A (B3d). Of the 189 non-compliant results for heavy metals, 124 were reported by one Member State as non-compliant for mercury.

The specific substances identified and the number of non-compliant results reported by each Member State are presented in Appendix A.

Table 11: Number of targeted samples analysed, non-compliant samples and non-compliant results in pigs.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	54,476	41	13	0.02	13
A1	7,626	5.7	0	0	0
A2	3,188	2.4	5	0.16	5
A3	10,623	8.0	6	0.06	6
A4	6,083	4.6	0	0	0
A5	11,621	8.7	0	0	0
A6	23,788	18	2	0.01	2
B	88,934	67	255	0.29	296
B1	46,507	35	69	0.15	70
B2	33,251	25	6	0.02	6
B2a	8,363	6.3	0	0	0
B2b	6,423	4.8	4	0.06	4
B2c	2,626	2.0	0	0	0
B2d	6,688	5.0	1	0.01	1
B2e	5,172	3.9	1	0.02	1
B2f	6,300	4.7	0	0	0
B3	11,235	8.4	180	1.6	220
B3a	4,391	3.3	4	0.09	4
B3b	2,305	1.7	1	0.04	1
B3c	4,324	3.2	165	3.8	189
B3d	1,891	1.4	10	0.53	26
B3e	0	0	0	0	0
B3f	933	0.7	0	0	0
Total	133,255	100	268	0.20	**309**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.4. Sheep and goats

Council Directive 96/23/EC requires that the minimum number of sheep and goats that have to be controlled each year for all kinds of residues and substances is 0.05 % of the sheep and goats slaughtered the previous year. The minimum requirements for the number of samples were fulfilled in 2011 for the EU overall (Table 12), and by the vast majority of the Member States (Table 13). Greece and Romania did not achieve the minimum sampling frequency for sheep and goats.

Table 12: Production of sheep and goats and number of targeted samples over 2007-2011.

Year	Production (animals)	Targeted samples	% Animals tested[(a)]	Minimum 96/23/EC
2007 (EU 27)	40,935,665	26,599	0.06	
2008 (EU 27)	41,435,268	24,320	0.06	
2009 (EU 27)	39,584,954	26,265	0.06	0.05
2010 (EU 27)	36,121,283	23,894	0.06	
2011 (EU 27)	37,217,484	23,112	0.06	

(a): in relation to the production of the previous year.

Of the 23,112 samples analysed in this category 97 (0.42 %) were non-compliant (100 non-compliant results). The non-compliant samples were reported by 15 Member States. There were no non-compliant samples for the group A1, A3, A4 and A5. In the group A2, two Member States reported nine non-compliant samples, all for thiouracil. In the group A6, one Member State reported four non-compliant samples for semicarbazide.

Table 13: Production volume and number of targeted samples collected in sheep and goats.

Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)		Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)
Austria	127,354	376	0.30		Latvia	9,317	19	0.20
Belgium	141,214	245	0.17		Lithuania	4,990	18	0.36
Bulgaria	176,021	114	0.06		Luxemburg	4,602	14	0.30
Cyprus	253,330	1,212	0.48		Malta	3,959	18	0.45
Czech Republic	11,074	58	0.52		Netherlands	702,500	400	0.06
Denmark	87,965	49	0.06		Poland	22,503	100	0.44
Estonia	5,846	3	0.05		Portugal	1,077,000	544	0.05
Finland	33,555	44	0.13		Romania	403,131	90	0.02
France	4,585,34	2,572	0.06		Slovakia	117,664	97	0.08
Germany	985,027	566	0.06		Slovenia	9,616	33	0.34
Greece	1,329,06	600	0.04		Spain	8,381,543	5,671	0.07
Hungary	15,363	73	0.48		Sweden	254,630	119	0.05
Ireland	2,463,57	1,898	0.08		United	14,285,06	7,204	0.05
Italy					**Total (EU**	**36,121,2**	**23,112**	**0.06**
	630,029	975	0.15					

The distribution of samples analysed, non-compliant samples and non-compliant results in sheep and goats is presented in Table 14.

Table 14: Number of targeted samples analysed, non-compliant samples and non-compliant results in sheep and goats.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	4,964	21	13	0.26	13
A1	400	1.7	0	0	0
A2	246	1.1	9	3.7	9
A3	1,141	4.9	0	0	0
A4	447	1.9	0	0	0
A5	1,301	5.6	0	0	0
A6	1,925	8.3	4	0.21	4
B	18,508	80	84	0.45	87
B1	9,303	40	37	0.40	39
B2	6,250	27	9	0.14	10
B2a	2,800	12	6	0.21	7
B2b	846	3.7	1	0.12	1
B2c	1,120	4.8	1	0.09	1
B2d	556	2.4	0	0	0
B2e	441	1.9	0	0	0
B2f	542	2.3	1	0.18	1
B3	3,031	13	38	1.25	38
B3a	997	4.3	0	0	0
B3b	1,031	4.5	0	0	0
B3c	1,074	4.6	38	3.5	38
B3d	228	1.0	0	0	0
B3e	0	0	0	0	0
B3f	32	0.14	0	0	0
Total	**23,112**	**100**	**97**	**0.42**	**100**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

For antibacterials (B1), seven Member States reported a total of 37 non-compliant samples (39 non-compliant results). Sulfamides were the most frequent substances reported (n = 22).

In the group B2, three Member States reported nine non-compliant samples (10 non-compliant results: seven for anthelmintics (B2a), one for anticoccidials (B2b), one for pyrethroids (B2c) and one for corticosteroids (B2f)). There were no non-compliant samples in the groups B2d and B2e.

In the group B3, there were 38 non-compliant samples (38 non-compliant results), all from the subgroup B3c – heavy metals: 26 for cadmium, seven for mercury and five for lead.

A detailed presentation on the specific substances identified and the number of non-compliant results reported by each Member State is given in Appendix A.

4.5. Horses

For horses, Council Directive 96/23/EC requires that the number of samples is to be determined by each Member State in relation to the identified problem. The number of targeted samples taken in 2011 at EU level was similar to previous years (Table 15). The percentage of targeted samples taken in each Member State for the reported horse production is presented in Table 16. Estonia, Greece, Luxembourg and Slovakia did not report horse production and thus no samples have been taken.

Table 15: Production of horses and number of targeted samples over 2007-2011.

Year	Production (animals)	Targeted samples	% Animals tested[(a)]	Minimum 96/23/EC
2007 (EU 27)	312,969	3,115	1.16	
2008 (EU 27)	386,302	2,545	0.81	
2009 (EU 27)	264,538	3,000	0.78	Not specified
2010 (EU 27)	258,362	3,094	1.17	
2011 (EU 27)	249,403	3,309	1.28	

(a): in relation to the production of the previous year.

The distribution of samples analysed, non-compliant samples and non-compliant results in horses is presented in Table 16.

Table 16: Production volume and number of targeted samples collected for horses.

Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)	Country	Production 2010 (animals)	Number of samples 2011	Animals tested (%)
Austria	947	67	7.1	Latvia	400	22	5.5
Belgium	12,000	336	2.8	Lithuania	2,250	18	0.8
Bulgaria	214	40	19	Luxemburg	0	0	NA
Cyprus	6,800	0	0	Malta	173	1	0.58
Czech	336	23	6.9	Netherlands	2,083	99	4.8
Denmark	1,872	45	2.4	Poland	45,152	371	0.82
Estonia	0	0	NA	Portugal	907	57	6.3
Finland	1,179	51	4.3	Romania	27,520	51	0.19
France	15,468	384	2.5	Slovakia	0	0	NA
Germany	8,937	119	1.3	Slovenia	1,578	32	2.0
Greece	0	0	NA	Spain	29,638	279	0.94
Hungary	394	39	9.9	Sweden	3,940	234	5.9
Ireland	7,449	288	3.9	United	5,062	102	2.0
Italy	84,063	651	0.77	**Total (EU**	**258,362**	**3,309**	**1.28**

NA: not applicable

Of the 3,309 samples analysed in this category 29 samples (0.88 %) were non-compliant (36 non-compliant results). The non-compliant samples were reported by 10 Member States. No non-compliant sample was reported for the groups A and B1.

In the group B2, two Member States reported three non-compliant samples for NSAIDs (B2e).

In the group B3, there were 26 non-compliant samples giving 33 non-compliant results: 32 for heavy metals (25 for cadmium, six for mercury and one for lead) and one for aflatoxin B1.

A detailed presentation on the specific substances identified and the number of non-compliant results reported by each Member State is given in Appendix A.

Table 17: Number of targeted samples analysed, non-compliant samples and non-compliant results in horses.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	769	23	0	0	0
A1	70	2.1	0	0	0
A2	42	1.3	0	0	0
A3	160	4.8	0	0	0
A4	77	2.3	0	0	0
A5	192	5.8	0	0	0
A6	260	7.9	0	0	0
B	2,583	78	29	1.1	36
B1	583	18	0	0	0
B2	1,073	32	3	0.28	3
B2a	191	5.8	0	0	0
B2b	61	1.8	0	0	0
B2c	81	2.4	0	0	0
B2d	136	4.1	0	0	0
B2e	456	14	3	0.66	3
B2f	170	5.1	0	0	0
B3	946	29	26	2.8	33
B3a	136	4.1	0	0	0
B3b	86	2.6	0	0	0
B3c	696	21	25	3.6	32
B3d	60	1.8	1	1.7	1
B3e	0	0	0	0	0
B3f	6	0.18	0	0	0
Total	**3,309**	**100**	**29**	**0.88**	**36**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.6. Poultry

According to Directive 96/23/EC, the minimum number of samples for each category of poultry must be one per 200 t of annual production, with a minimum of 100 samples for each group of substances where annual production in the category concerned is over 5,000 t. The minimum requirement of one sample analysed per 200 t production was achieved for the EU overall (Table 18).

Percentage of targeted samples taken in each Member State for the reported production of poultry is given in Table 19. Member States which did not achieve this requirement were Greece and Slovakia. Luxembourg did not report poultry production for 2010 and in consequence no samples were taken in 2011. The distribution of samples analysed, non-compliant samples and non-compliant results in poultry are presented in Table 20.

Table 18: Production of poultry and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples	% Samples tested/ 200 t tested[(a)]	Minimum 96/23/EC
2007 (EU 27)	10,912,500	62,101	1.15	
2008 (EU 27)	12,421,566	60,406	1.11	
2009 (EU 27)	11,383,434	61,989	1.00	1/200 t
2010 (EU 27)	11,804,262	61,259	1.08	
2011 (EU 27)	12,417,108	65,942	1.12	

(a): in relation to the production of the previous year.

Table 19: Production volume and number of targeted samples collected for poultry.

Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 200 t		Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 200 t
Austria	102,812	857	1.7		Latvia	23,200	200	1.7
Belgium	382,045	2,321	1.2		Lithuania	61,810	310	1.0
Bulgaria	74,204	521	1.4		Luxemburg	0	0	NA
Cyprus	22,346	1,481	13		Malta	4,398	215	9.8
Czech Republic	176,275	889	1.0		Netherlands	800,505	4,357	1.1
Denmark	155,619	810	1.0		Poland	1,236,608	6,335	1.0
Estonia	12,966	200	3.1		Portugal	290,302	1,877	1.3
Finland	94,248	622	1.3		Romania	344,096	1,575	0.9
France	1,652,235	8,321	1.0		Slovakia	75,751	237	0.6
Germany	1,353,468	8,367	1.2		Slovenia	53,266	328	1.2
Greece	186,581	449	0.5		Spain	1,281,454	6,884	1.1
Hungary	476,245	3,167	1.3		Sweden	119,080	605	1.0
Ireland	143,280	1,091	1.5		United	1,484,168	7,580	1.0
Italy	1,197,300	6,343	1.1		**Total (EU**	**11,804,2**	**65,942**	**1.12**

NA: not applicable

Of the 65,942 samples analysed in this category 52 (0.08 %) were non-compliant (54 non-compliant results). The non-compliant samples were reported by 16 Member States. No non-compliant samples were reported in the groups A1, A2 and A4. In the group A3, one Member State reported six non-compliant samples for 17-beta-estradiol. In A5, one non-compliant sample was reported for isoxsuprine. Prohibited substances (A6) were reported by five Member States. They included chloramphenicol (n = 3), metronidazole (n = 2) and nitrofurazone (n = 1).

For antibacterials (B1), six Member States reported a total of 13 non-compliant samples (14 non-compliant results). Similar to previous year, the most frequent substance reported was doxycycline (n = 7).

In the group B2, the highest number of non-compliant samples reported was for anticoccidials (B2b): 16 samples from six Member States. The number of non-compliant samples for anticoccidials was much lower compared to 2010 where 13 Member States reported 73 non-compliant samples. Other non-compliant results reported in the group B2 were for anthelmintics (B2a) (n = 1), non-steroidal anti-inflammatory drugs (B2e) (n = 3) and other pharmacologically active substances (B2f) (n = 1). No non-compliant samples were reported in the groups B2c and B2d.

In the group B3, there were three non-compliant samples for heavy metals (B3c).

The specific substances identified and the number of non-compliant results reported by each Member State are presented in Appendix A.

Table 20: Number of targeted samples analysed, non-compliant samples and non-compliant results in poultry.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	32,843	50	13	0.04	13
A1	3,141	4.8	0	0	0
A2	1,067	1.6	0	0	0
A3	4,670	7.1	6	0.13	6
A4	3,155	4.8	0	0	0
A5	5,954	9.0	1	0.02	1
A6	18,251	28	6	0.03	6
B	35,719	54	39	0.11	41
B1	17,987	27	13	0.07	14
B2	13,274	20	21	0.16	21
B2a	3,096	4.7	1	0.03	1
B2b	7,186	11	16	0.22	16
B2c	1,632	2.5	0	0	0
B2d	32	0.05	0	0	0
B2e	883	1.3	3	0.34	3
B2f	717	1.1	1	0.14	1
B3	5,252	8.0	5	0.10	6
B3a	2,680	4.1	2	0.07	3
B3b	605	0.92	0	0	0
B3c	1,978	3.0	3	0.15	3
B3d	753	1.1	0	0	0
B3e	0	0	0	0	0
B3f	229	0.3	0	0	0
Total	**65,942**	**100**	**52**	**0.08**	**54**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.7. Aquaculture

Directive 96/23/EC specifies that the minimum number of samples to be collected each year must be at least one per 100 t of annual production. The minimum requirements for the number of samples to be taken were fulfilled in 2011 for the EU overall (Table 21) and by the vast majority of Member States. The production volume and the number of samples analysed in each Member State are given in Table 22. Only Greece did not analyse at least one sample/100 t of production. Luxembourg did not report aquaculture production and consequently no samples were taken.

The distribution of samples analysed, non-compliant samples and non-compliant results in aquaculture are presented in Table 23.

Table 21: Production of aquaculture and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples	% Samples tested/ 100 t[(a)]	Minimum 96/23/EC
2007 (EU 27)	602,555	9,257	1.5	
2008 (EU 27)	644,875	8,751	1.4	
2009 (EU 27)	627,109	8,606	1.3	1/100 t
2010 (EU 27)	622,032	8,668	1.4	
2011 (EU 27)	655,772	8,241	1.3	

(a): related to the production of the previous year.

Of the 8,241 samples analysed for aquaculture 45 samples (0.55 %) were non-compliant (49 non-compliant results). The non-compliant samples were reported by 10 Member States. In the group A, there were three non-compliant samples for boldenone (A3) and one for chloramphenicol (A6). There were no non-compliant samples for the groups A1, A2, A4 and A5. For antibacterials (B1), five Member States reported six non-compliant samples.

Table 22: Production volume and number of targeted samples collected for aquaculture.

Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 100 t	Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 100 t
Austria	2,919	222	7.6	Latvia	502	12	2.4
Belgium	3,000	166	5.5	Lithuania	3,216	41	1.3
Bulgaria	4,013	373	9.3	Luxemburg	0	0	NA
Cyprus	4,070	463	11.4	Malta	2,900	29	1.0
Czech	20,100	275	1.4	Netherlands	7,000	99	1.4
Denmark	36,000	363	1.0	Poland	34,000	604	1.8
Estonia	655	15	2.3	Portugal	4,074	42	1.0
Finland	13,627	182	1.3	Romania	5,249	71	1.4
France	42,104	742	1.8	Slovakia	686	37	5.4
Germany	36,772	550	1.5	Slovenia	1,307	27	2.1
Greece	98,504	657	0.7	Spain	49,911	554	1.1
Hungary				Sweden			
Ireland	9,685	163	1.7	United	10,000	106	1.1
	13,584	140	1.0		152,554	1,527	1.0

Italy	65,600	781	1.2		**Total (EU 27)**	**622,032**	**8,241**	**1.3**

NA: not applicable.

Table 23: Number of targeted samples analysed, non-compliant samples and non-compliant results in aquaculture.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	2,304	28	3	0.13	4
A1	229	2.8	0	0	0
A2	2	0.0	0	0	0
A3	349	4.2	2	0.57	3
A4	87	1.1	0	0	0
A5	87	1.1	0	0	0
A6	1,677	20	1	0.06	1
B	6,177	75	42	0.68	45
B1	1,730	21	6	0.35	6
B2	951	12	0	0	0
B2a	690	8.4	0	0	0
B2b	45	0.5	0	0	0
B2c	288	3.5	0	0	0
B2d	8	0.1	0	0	0
B2e	0	0	0	0	0
B2f	104	1.3	0	0	0
B3	3,774	46	36	0.95	39
B3a	784	9.5	2	0.26	2
B3b	70	0.8	0	0	0
B3c	867	11	0	0	0
B3d	223	2.7	0	0	0
B3e	1,932	23	34	1.8	37
B3f	175	2.1	0	0	0
Total	**8,241**	**100**	**45**	**0.55**	**49**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

There were no non-compliant samples in any of the B2 subgroups. No monitoring is required for substances in the groups B2d (sedatives) and B2e (non-steroidal anti-inflammatory drugs) in aquaculture (Annex II to Council Directive 96/23/EC).

In the group B3, 36 samples proved to be non-compliant (39 non-compliant results). The non-compliant results were distributed as follows: two for PCBs (B3a) and 37 for dyes (malachite green, leuco-malachite green, crystal violet and leuco-crystal violet (B3d). It is evident that with 1.8 % non-compliant samples in group B3e, residues of dyes are the most frequently found residues in aquaculture.

The specific substances identified and the number of non-compliant results reported by each Member State are presented in Appendix A.

4.8. Milk

Commission Decision 97/747/EC lays down that the annual number of samples taken should be one per 15,000 t of annual milk production, with a minimum of 300 samples. The minimum requirements for the number of samples to be taken were fulfilled in 2011 by all Member States (Table 24). The production volume and the number of samples analysed in each Member State are given in Table 25.

Table 24: Production of milk and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples	Samples tested/ 15 000 t [(a)]	Minimum 96/23/EC
2007 (EU 27)	142,461,705	51,571	5.3	
2008 (EU 27)	145,006,173	53,333	5.6	
2009 (EU 27)	141,669,974	54,063	5.6	1/15 000 t
2010 (EU 27)	144,705,166	30,372	3.2	
2011 (EU 27)	143,022,677	29,592	3.1	

(a): related to the production of the previous year.

The distribution of samples analysed, non-compliant samples and non-compliant results in milk and the number of Member States reporting non-compliant results is presented in Table 26.

Of the 29,592 milk samples analysed 43 (0.15 %) were non-compliant (44 non-compliant results). The non-compliant samples were reported by 14 Member States. In the group A, there was only one non-compliant sample for chloramphenicol (A6). According to Annex II to Council Directive 96/23/EC there is no requirement for residue monitoring of the substances in groups A1, A2, A3, A4 and A5 in milk.

For antibacterials (B1), six Member States reported a total of 14 non-compliant samples (14 non-compliant results) of which eight were found by applying inhibitor tests, two for benzylpenicillin, two for tetracycline, one for doxycyclin and one for cefoperazon.

In the group B2, there were nine non-compliant samples (10 non-compliant results) for anthelmintics (B2a) and three for non-steroidal anti-inflammatory drugs (B2e). In the group B3, there were 16 non-compliant samples (16 non-compliant results) distributed as follows: one for organochlorine compounds (B3a), one for heavy metals (B3c), one for aflatoxin B1 and 13 for aflatoxin M1 (B3d). The 14 non-compliant results for aflatoxin B1 or M1 were reported by four Member States.

More information on the specific substances identified and the number of non-compliant results reported by each Member State is given in Appendix A.

Table 25: Production volume and number of targeted samples collected for milk.

Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 15 000 t	Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 15 000 t
Austria	3,256,926	342	1.6	Latvia	831,500	723	13
Belgium	3,070,000	642	3.1	Lithuania	1,278,130	1,157	14
Bulgaria	454,253	1107	37	Luxemburg	281,000	305	16
Cyprus	151,000	4244	422	Malta	44,862	520	174
Czech Republic	2,620,000	396	2.3	Netherlands	11,635,000	1,455	1.9
Denmark	4,500,000	307	1.0	Poland	12,083,000	2,649	3.3
Estonia	671,000	300	6.7	Portugal	2,021,686	1,075	8.0
Finland	2,268,200	308	2.0	Romania	1,015,416	298	4
France	24,416,252	1960	1.2	Slovakia	957,327	392	6.1
Germany	28,248,005	1837	1.0	Slovenia	428,806	335	12
Greece	1,890,649	786	6.2	Spain	7,164,233	1201	2.5
Hungary	1,169,142	626	8.0	Sweden	2,863,000	300	1.6
Ireland	5,038,465	1211	3.6	United	15,441,553	3,245	3.2
Italy	10,905,761	1871	2.6	**Total (EU**	**144,705,16**	**29,592**	**3.1**

Table 26: Number of targeted samples analysed, non-compliant samples and non-compliant results in milk.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	6,672	23	1	0.01	1
A1	0	0	0	0	0
A2	0	0	0	0	0
A3	64	0.22	0	0	0
A4	0	0	0	0	0
A5	154	0.5	0	0	0
A6	6,707	22.7	1	0.01	1
B	25,343	86	42	0.17	43
B1	15,471	52	14	0.09	14
B2	7,215	24	12	0.17	13
B2a	4,985	17	9	0.18	10
B2b	375	1.3	0	0	0
B2c	245	0.83	0	0	0
B2d	36	0.12	0	0	0
B2e	3,285	11	3	0.09	3
B2f	677	2.3	0	0	0
B3	5,916	20	16	0.27	16
B3a	1,975	6.7	1	0.05	1
B3b	877	3.0	0	0	0
B3c	1,339	4.5	1	0.07	1
B3d	2,013	6.8	14	0.70	14
B3e	0	0	0	0	0
B3f	226	0.8	0	0	0
Total	**29,592**	**100**	**43**	**0.15**	**44**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the

respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.9. Eggs

The number of samples to be taken each year must be at least equal to one per 1,000 t of annual egg production, with a minimum of 200 samples. This requirement was fulfilled at the EU level (Table 27) and by all Member States (Table 28).

The distribution of samples analysed, non-compliant samples and non-compliant results in eggs is presented in Table 29.

Of the 12,248 egg samples analysed, 38 (0.31 %) were non-compliant (41 non-compliant results). The non-compliant samples were reported by 12 Member States.

Directive 96/23/EC, Annex II requires Member States to monitor in the group A only the residues of prohibited substances (A6). Although 3,451 samples were analysed for one ore more substances in this group (3,489 analyses), no non-compliant sample was reported.

Table 27: Production of eggs and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples	Samples tested/ 1000 t [(a)]	Minimum 96/23/EC
2007 (EU 27)	6,114,369	13,685	2.3	
2008 (EU 27)	6,021,476	10,859	1.8	
2009 (EU 27)	6,137,732	13,031	2.2	1/1000 t
2010 (EU 27)	6,101,039	12,715	2.1	
2011 (EU 27)	6,136,691	12,248	2.0	

(a): related to the production of the previous year.

For antibacterials (B1), five non-compliant samples were reported by three Member States. Substances found were: enrofloxacin (n = 2), flumequine (n = 2) and doxycycline (n = 1).

In the group B2, 25 non-compliant samples were found (25 non-compliant results) for anticoccidials (B2b) representing 0.72 % of the total samples analysed for this substance group.

In the group B3, eight non-compliant samples (11 non-compliant results) were reported for dioxins and PCBs (B3a) by three Member States.

Table 28: Production volume and number of targeted samples collected for eggs.

Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 1000 t	Country	Production 2010 (t)	Number of samples 2011	Samples tested/ 1000 t
Austria	91,911	221	2.4	Latvia	40,884	480	12
Belgium	153,600	252	1.6	Lithuania	48,675	200	4.1
Bulgaria	26,909	434	16.1	Luxemburg	1,300	200	154
Cyprus	7,313	423	58	Malta	3,553	203	57
Czech	123,563	256	2.1	Netherlands	607,200	1,233	2.0
Denmark	56,005	204	3.6	Poland	510,000	702	1.4
Estonia	10,916	200	18	Portugal	88,975	483	5.4
Finland	61,500	200	3.3	Romania	84,650	159	2
France	963,200	984	1.0	Slovakia	59,000	203	3.4
Germany	627,294	673	1.1	Slovenia	25,221	215	8.5
Greece	99,800	122	1.2	Spain	823,276	927	1.1
Hungary	85,223	308	3.6	Sweden	112,800	200	1.8
Ireland	37,370	283	7.6	United	526,601	1273	2.4
Italy	824,300	1,210	1.5	**Total (EU 27)**	**6,101,03**	**12,248**	**2.0**

More details on the specific substances identified and the number of non-compliant results reported by each Member State are given in Appendix A.

Table 29: Number of targeted samples analysed, non-compliant samples and non-compliant results in eggs.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	3,451	28	0	0	0
A1	0	0	0	0	0
A2	0	0	0	0	0
A3	0	0	0	0	0
A4	0	0	0	0	0
A5	0	0	0	0	0
A6	3,489	29	0	0	0
B	9,704	79	38	0.39	41
B1	4,304	35	5	0.12	5
B2	4,072	33	25	0.61	25
B2a	305	2.5	0	0	0
B2b	3,480	28	25	0.72	25
B2c	201	1.6	0	0	0
B2d	7	0.06	0	0	0
B2e	17	0.14	0	0	0
B2f	113	0.92	0	0	0
B3	2,161	18	8	0.37	11

B3a	1,784	15	8	0.45	11
B3b	214	1.7	0	0	0
B3c	177	1.4	0	0	0
B3d	7	0.06	0	0	0
B3e	0	0	0	0	0
B3f	180	1.5	0	0	0
Total	**12,248**	**100**	38	0.31	41

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.10. Rabbit meat

The number of samples to be taken each year must be equal to 10 per 300 t of annual production (dead weight) for the first 3,000 t, plus one sample for each additional 300 t. The rate between the total targeted samples reported and the minimum number of samples that should be collected for the reported production, as specified in Commission Decision 97/147/EC, was calculated.

Table 30: Production of rabbit meat and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples
2007 (EU 27)	189,932	4,480
2008 (EU 27)	187,389	3,625
2009 (EU 27)	199,655	3,691
2010 (EU 27)	172,353	3,885
2011 (EU 27)	176,315	3,737

To calculate the total number of samples that should be collected, two different equations were applied depending on the production volume, as follows:

a) For countries with production above 3000 t
   Total samples required = {(10/300x3000) + [(Production reported in tonnes -3000) x (1/300)]}
b) For countries with production below 3000 t
   Total samples required = Production reported in t x (10/300)

Countries with a rate equal to one or above completely fulfilled the requirements for sampling frequency. Countries with a value below one did not.

Production volume and number of targeted samples broken down by Member States are presented in Table 31. Greece and Slovakia did not achieve the minimum sampling frequency requirement. Austria, Denmark, Estonia, Finland, Ireland, Romania and Sweden did not report rabbit meat production for the year 2010 and in consequence no rabbit meat samples were taken in 2011.

The distribution of samples analysed, non-compliant samples and non-compliant results in rabbit meat are presented in Table 32.

Table 31: Production volume and number of targeted samples collected for rabbit meat.

Country	Production 2010 (t)	Number of samples 2011	Samples tested/ required	Country	Production 2010 (t)	Number of samples 2011	Samples tested/ required
Austria	0	0	NA	Latvia	7	21	90
Belgium	4,355	169	1.6	Lithuania	58	13	7
Bulgaria	18	90	150	Luxemburg	8	10	38
Cyprus	214	498	70	Malta	300	21	2.0
Czech Republic	1,133	42	1.1	Netherlands	32	32	30
Denmark	0	0	NA	Poland	2,304	133	1.7
Estonia	0	0	NA	Portugal	7,452	124	1.1
Finland	0	0	NA	Romania	0	0	NA
France	48,478	820	3.3	Slovakia	1,367	14	0.3
Germany	371	36	2.9	Slovenia	25	18	22
Greece	3,570	60	0.6	Spain	61,082	1,092	3.7
Hungary	5,631	144	1.3	Sweden	0	0	NA
Ireland	0	0	NA	United	9	7	23
Italy	35,939	393	1.9	**Total (EU**	**172,353**	**3,737**	**NA**

NA: not applicable.

Of the 3,737 samples analysed for rabbits, nine (0.24 %) were non-compliant (nine non-compliant results). The non-compliant samples were reported by six Member States.

In the group A, only two non-compliant samples were reported for chloramphenicol (A6).

In the group B, there were two non-compliant samples for antibacterials (B1), three non-compliant results for anticoccidials (B2b), one for "other pharmacologically active substances" (B2f), and one for organochlorine compounds (B3a).

More details on the specific substances identified and the number of non-compliant results reported by each Member State are given in Appendix A.

Table 32: Number of targeted samples analysed, non-compliant samples and non-compliant results in rabbit meat.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	1,074	29	2	0.19	2
A1	74	2.0	0	0	0
A2	35	0.94	0	0	0
A3	91	2.4	0	0	0
A4	67	1.8	0	0	0
A5	153	4.1	0	0	0
A6	714	19	2	0.28	2
B	2,709	72	7	0.26	7
B1	1,712	46	2	0.12	2
B2	660	18	4	0.61	4
B2a	175	4.7	0	0	0
B2b	272	7.3	3	1.1	3
B2c	109	2.9	0	0	0
B2d	3	0.08	0	0	0
B2e	66	1.8	0	0	0
B2f	54	1.4	1	1.8	1
B3	375	10	1	0.27	1
B3a	188	5.0	1	0.53	1
B3b	20	0.5	0	0	0
B3c	196	5.2	0	0	0
B3d	36	1.0	0	0	0
B3e	0	0	0	0	0
B3f	10	0.3	0	0	0
Total	**3,737**	**100**	**9**	**0.24**	**9**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.11. Farmed game

European Commission Decision 97/747/EC requires the number of samples to be taken each year in the Member States to be at least 100. The minimum number of samples was set as a provisional rule to be reviewed in light of the information provided by the Member States on their production figures. For farmed game, a total of 2,575 targeted samples were collected in 2011 in the EU (Table 33). Estonia, Luxembourg, Malta, Poland, Slovakia and Slovenia did not report farmed game production in 2010 (Table 34). The distribution of samples analysed, non-compliant samples and non-compliant results in farmed game are presented in Table 35.

Table 33: Production of farmed game and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples
2007 (EU 27)	40,895	2,286
2008 (EU 27)	18,485	1,959
2009 (EU 27)	84,482	1,975
2010 (EU 27)	25,449	2,157
2011 (EU 27)	24,991	2,575

Of the 2,575 samples analysed for farmed game, 23 (0.89 %) were non-compliant (23 non-compliant results). The non-compliant samples were reported by five Member States.

There was only one non-compliant sample in the group A, namely for AMOZ (A6). In the group B, there were 17 non-compliant samples for heavy metals (B3c) and five for anticoccidials (B2b). More details on the specific substances identified and the number of non-compliant results reported by each Member State are given in Appendix A.

Table 34: Production volume and number of targeted samples collected for farmed game.

Country	Production 2010 (t)	Number of samples, 2011	Country	Production 2010 (t)	Number of samples, 2011
Austria	297	160	Latvia	26	19
Belgium	140	185	Lithuania	24	99
Bulgaria	11	166	Luxemburg	0	0
Cyprus	65	173	Malta	0	0
Czech Republic	96	101	Netherlands	67	128
Denmark	89	83	Poland	0	108
Estonia	0	0	Portugal	1,212	103
Finland	1,972	143	Romania	23	35
France	9,598	195	Slovakia	0	0
Germany	1,645	100	Slovenia	0	0
Greece	140	51	Spain	1,761	82
Hungary	29	19	Sweden	2,298	89
Ireland	44	136	United	2,403	120
Italy	3,509	280	**Total (EU 27)**	**25,449**	**2,575**

Table 35: Number of targeted samples analysed, non-compliant samples and non-compliant results in farmed game.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	712	28	1	0.14	1
A1	52	2.0	0	0	0
A2	35	1.4	0	0	0
A3	78	3.0	0	0	0
A4	60	2.3	0	0	0
A5	135	5.2	0	0	0
A6	382	15	1	0.26	1
B	1,874	73	22	1.8	22
B1	605	23	0	0	0
B2	667	26	5	0.75	5
B2a	260	10	0	0	0
B2b	202	7.8	5	2.5	5
B2c	136	5.3	0	0	0
B2d	7	0.27	0	0	0
B2e	67	2.6	0	0	0
B2f	7	0.27	0	0	0
B3	616	24	17	2.8	17
B3a	222	8.6	0	0	0
B3b	49	1.9	0	0	0
B3c	320	12	17	5.3	17
B3d	43	1.7	0	0	0
B3e	0	0	0	0	0
B3f	45	1.7	0	0	0
Total	**2,575**	**100**	**23**	**0.89**	**23**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.12. Wild game

European Commission Decision 97/747/EC requires the number of samples to be taken each year in the Member States to be at least 100 samples. Samples must be taken to analyse residues of chemical elements. For wild game, a total of 2,671 targeted samples were collected in 2011 in the EU (Table 36). Cyprus, Malta and Sweden did not report wild game production in 2010 thus no samples were taken in 2011 (Table 37).

Table 36: Production of wild game and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples
2007 (EU 27)	270,704	2,360
2008 (EU 27)	316,541	2,443
2009 (EU 27)	252,328	2,488
2010 (EU 27)	147,097	2,395
2011 (EU 27)	263,860	2,674

The distribution of samples analysed, non-compliant samples and non-compliant results in wild game are presented in Table 38.

Of the 2,674 samples analysed for wild game, 205 (7.7 %) were non-compliant (211 non-compliant results). The non-compliant samples were reported by 14 Member States. The vast majority of the non-compliant results (n = 196) were reported for heavy metals (B3c) representing 9 % of the total number of samples analysed for elements in this group. Other non-compliant samples (n = 8) were reported for organochlorine compounds including dioxins and PCBs (B3a) and one for Cesium 137 (B3f).

Table 37: Production volume and number of targeted samples collected for wild game.

Country	Production 2010 (t)	Number of samples, 2011		Country	Production 2010 (t)	Number of samples, 2011
Austria	8,779	180		Latvia	148	80
Belgium	1,566	119		Lithuania	162	101
Bulgaria	27	89		Luxemburg	360	100
Cyprus	0	0		Malta	0	0
Czech Republic	7,625	197		Netherlands	253	107
Denmark	226	50		Poland	19,676	210
Estonia	462	86		Portugal	57	100
Finland	33	81		Romania	1,791	70
France	36,312	96		Slovakia	2,864	112
Germany	45,340	129		Slovenia	1,247	101
Greece	100	10		Spain	10,198	121
Hungary	5,897	108		Sweden	0	0
Ireland	124	108		United Kingdom	550	109
Italy	3,300	104		**Total (EU 27)**	147,097	2,674

More details on the specific substances identified and the number of non-compliant results reported by each Member State are given in Appendix A.

Table 38: Number of targeted samples analysed, non-compliant samples and non-compliant results in wild game.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	14	0.52	0	0	0
A1	3	0.1	0	0	0
A2	1	0.04	0	0	0
A3	1	0.04	0	0	0
A4	1	0.04	0	0	0
A5	0	0	0	0	0
A6	8	0.30	0	0	0
B	2,661	99.5	205	7.70	211
B1	3	0.11	0	0	0
B2	138	5.2	0	0	0
B2a	54	2.0	0	0	0
B2b	5	0.2	0	0	0
B2c	91	3.4	0	0	0
B2d	1	0.04	0	0	0
B2e	2	0.1	0	0	0
B2f	0	0	0	0	0
B3	2,579	96	205	7.9	211
B3a	385	14.4	8	2.1	14
B3b	57	2.1	0	0	0
B3c	2,175	81.3	196	9	196
B3d	10	0.4	0	0	0
B3e	0	0	0	0	0
B3f	205	7.7	1	0.49	1
Total	**2,674**	**100**	**205**	**7.7**	**211**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

4.13. Honey

The number of samples to be taken must be at least 10 per 300 t of annual production for the first 3 000 t, plus one sample for each additional 300 t. In order to check the fulfilment of this requirement the same equations were applied as described in chapter 4.10.

Where the rate between the total targeted samples reported and the number of samples to be collected for the reported production is equal to one or higher, Member States completely fulfilled the requirements for sampling frequency. Member States with a value below one did not.

In 2011, 4,684 targeted samples were collected for honey in the EU (Table 39). Production volume and number of targeted samples broken down by Member

State are presented in Table 40. Only Sweden did not achieve the minimum sampling frequency requirement.

Table 39: Production of honey and number of targeted samples over 2007-2011.

Year	Production (t)	Targeted samples
2007 (EU 27)	188,945	5,850
2008 (EU 27)	158,694	5,257
2009 (EU 27)	162,213	4,826
2010 (EU 27)	191,501	4,720
2011 (EU 27)	215,141	4,684

The distribution of samples analysed, non-compliant samples and non-compliant results in honey are presented in Table 41.

Table 40: Production volume and number of targeted samples collected for honey.

Country	Production 2010 (t)	Number of samples, 2011	Samples tested/ required	Country	Production 2010 (t)	Number of samples, 2011	Samples tested/ required
Austria	5,500	175	1.6	Latvia	631	21	1.0
Belgium	1,500	115	2.3	Lithuania	1,110	39	1.1
Bulgaria	12,084	342	2.6	Luxemburg	120	30	7.5
Cyprus	590	412	21	Malta	15	15	28.0
Czech Republic	6,300	130	1.2	Netherlands	100	28	8.4
Denmark	2,500	83	1.0	Poland	12,500	263	2.0
Estonia	575	20	1.0	Portugal	6,919	114	1.0
Finland	1,700	60	1.1	Romania	11,751	153	1.2
France	15,584	438	3.1	Slovakia	1,084	62	1.7
Germany	18,150	181	1.2	Slovenia	1,910	73	1.1
Greece	16,532	240	1.7	Spain	29,860	713	3.8
Hungary	18,337	297	2.0	Sweden	2,596	79	0.9
Ireland	250	105	13	United	3,303	148	1.5
Italy	20,000	348	2.2	**Total (EU**	191,501	4,684	**NA**

NA: not applicable.

Table 41: Number of targeted samples analysed, non-compliant samples and non-compliant results in honey.

Substance group [a]	Samples analysed		Non-compliant samples		Non-compliant results
	n[b]	%	n[c]	%	n[d]
A	667	14	2	0.30	2
A1	0	0	0	0	0
A2	0	0	0	0	0
A3	0	0	0	0	0
A4	0	0	0	0	0
A5	0	0	0	0	0
A6	667	14	2	0.30	2
B	4,148	89	37	0.89	37
B1	2,128	45	22	1.0	22
B2	788	17	0	0	0
B2a	8	0.17	0	0	0
B2b	10	0.21	0	0	0
B2c	664	14	0	0	0
B2d	0	0	0	0	0
B2e	0	0	0	0	0
B2f	304	6.5	0	0	0
B3	1,736	37	15	0.86	15
B3a	711	15	3	0.42	3
B3b	656	14	0	0	0
B3c	520	11	12	2.3	12
B3d	48	1.0	0	0	0
B3e	0	0	0	0	0
B3f	172	3.7	0	0	0
Total	**4,684**	**100**	**39**	**0.83**	**39**

(a): as detailed in Appendix E; (b): number of samples analysed for one or more substances of the respective group; (c): number of non-compliant samples for one or more substances in the respective group; (d): number of non-compliant results; one sample can be non-compliant for more substances therefore the number of non-compliant results can be higher than the number of non-compliant samples of the same group.

Of the 4,684 samples analysed for honey 39 (0.83 %) were non-compliant (39 non-compliant results). The non-compliant samples were reported by 12 Member States. The majority of the non-compliant results (n = 21) were for antibacterials (B1). Substances found belonged to the class of tetracyclines (n = 15) and sulfonamids (n = 7). Other non-compliant results were reported for organochlorines (B3a) (n = 3) and heavy metals (B3c) (n = 12).

More details on the specific substances identified and the number of non-compliant results reported by each Member State are given in Appendix A.

4.14. Suspect, import and other samples

In addition to the targeted samples collected in conformity with the specification of the NRCP for 2010, Member States also reported results on samples collected through other sampling strategies than targeted. According to Directive

96/23/EC in case of infringements of maximum residue limits when animals or animal products are placed on the market, intensified checks on the animals and products from the farm and/or establishment in question must be carried out by the competent authorities. Also, in the event of possession or presence of prohibited substances at any point during manufacture, storage, distribution or sale through the food and feed production chain, or suspicion or evidence of illegal treatment or non-compliance with the withdrawal period for an authorised medicinal veterinary product the competent authorities have to apply special measures including repeated sampling in the farm or establishment concerned. Thus, these samples are not representative for the assessment of the residue situation in the Member States and therefore they are reported separately in the residue database as "suspect samples", as part of the follow-up measure taken in case of infringements.

In 2011, 23,236 suspect samples were reported of which 512 (2.2 %) were non-compliant (625 non-compliant results). It is to note that the number of non-compliant results from suspect sampling reported by a Member State does not accurately reflect the residue situation in that Member State. The suspect samples are taken as follow-up of non-compliance of targeted samples or evidence of possession and use of prohibited substances. In addition, the sampling procedure applied in case of suspicion might be different among Member States. For example, in Belgium, at slaughterhouse each injection site must be sampled together with a sample of muscle which are then analysed by a multi-residue method. This approach results in a higher probability that a suspect sample is found non-compliant for more than one substance. An overview on the number of suspect samples analysed for the different animal species/product categories and the frequency of non-compliant samples is presented in Table 42. Further details on the substances identified and Member States which reported non-compliant results are given in Appendix B.

Apart from the data submitted in accordance to NRCPs, Member States reported a relatively limited number of results on samples checked at import (n = 5,377). As the control of samples at import is more linked to the third country monitoring than to residue monitoring in the EU, Member States report those results to the EC using the Trade Control and Expert System (TRACES) and the Rapid Alert System for Food and Feed (RASFF) tools. Therefore, those data are of limited value and are not representative of the overall situation of residue control at import. An overview on the number of import samples analysed for the different animal species/product categories and the frequency of non-compliant samples is presented in Table 42. Further details on the substances identified and Member States which reported non-compliant results are given in Appendix C.

In total, 299,424 samples were collected in the framework of other monitoring programmes developed under the national legislation. Of that, 288,786 were samples analysed in Germany for antibacterials by means of inhibitor tests (see section 4.1.4). An overview on the number of 'other' samples analysed for the different animal species/product categories and the frequency of non-compliant samples is presented in Table 42. Further details on the substances identified and Member States which reported non-compliant results are given in Appendix D.

Table 42: Number of suspect, import and other samples analysed and frequency of non-compliant samples and in all species and product categories.

Group	Sampling type					
	Suspect		Import		Other sampling	
	n	nc	n	nc	n	nc
Bovines	16,636	213	576	2	30,679	249
Pigs	4,735	143	183	5	259,365	687
Sheep/goats	357	8	171	0	2,973	9
Horses	51	0	136	0	290	6
Poultry	581	59	774	2	1,119	12
Aquaculture	107	29	1,954	11	70	1
Milk	525	21	18	0	3,766	12
Eggs	54	5	17	0	176	5
Rabbit	76	10	19	1	129	0
Farmed game	1	0	59	0	16	0
Wild game	35	12	23	1	10	0
Honey	78	11	399	3	831	7
Total	**23,236**	**511**	**4,329**	**25**	**299,424**	**988**
Percentage non-compliant samples		**2.2**		**0.58**		**0.33**

n: number of samples analysed; nc: number of non-compliant samples.

CONCLUSIONS

- In 2011, 27 EU Member States reported in the framework of the residue monitoring the results for 742,902 samples. A total of 415,909 targeted samples and 23,236 suspect samples were reported under Council Directive 96/23/EC. Additionally, 299,428 samples collected in the framework of other programmes developed under the national legislation and 4,329 samples checked at import were reported. The 2011 monitoring plan covered 779 substances to be checked for in all animal species and product categories together.

- The majority of Member States fulfilled the requirements for sampling frequency laid down in Council Directive 96/23/EC and in Commission Decision 97/747/EC.

- There were 1,178 or 0.28 % of non-compliant samples out of the 415,909 targeted samples in 2011.

- Similar to the previous four years there were no non-compliant samples for stilbenes and derivatives (A1).

- For antithyroid agents (A2), there were 0.63 % non-compliant samples, all for thiouracil. Feeding diets rich in cruciferous plants was considered to be the source of non-compliance.

- In the group of steroids (A3), there were 0.11 % non-compliant samples in all animal and product categories but only about half of them were non-compliant for anabolic steroids. The others were non-compliant for corticosteroids reported in the group A3. The non-compliant results for anabolic steroids were found in bovines (n = 17), pigs (n = 6), poultry (n = 6) and aquaculture (n = 3). However, for 80 % of the non-compliant results on anabolic steroids, Member States indicated that the source was most likely the endogenous production. All but one of the non-compliant results for corticosteroids were reported in bovines (n = 38).

- In the group of resorcyclic acid lactones (A4), 0.08 % of the samples were non-compliant for zearalenone and derivatives, mainly as a result of feeding diets contaminated with *Fusarium* sp.

- For prohibited substances, 0.04 % of samples were non-compliant. Substances identified were chloramphenicol (n = 12), nitrofurans (n = 15) and nitroimidazoles (n = 2).

- For antibacterials (B1), 0.19 % of the samples analysed under the Directive 96/23 monitoring were non-compliant. The highest frequency of non-compliant samples for antibacterials was found in honey (1.0 %).

- In the group B2 (other veterinary drugs), the highest proportion of non-compliant samples was found for anticoccidials (0.26 %; B2b). Across

animal species and product categories, the non-compliant samples for anticoccidials represented 0.22 % in poultry, 0.06 % in pigs, 0.12 % in sheep and goats, 1.1 % in rabbit meat, 2.5 % in farmed game and 0.72 % in eggs.

- Instances of non-compliance for anthelmintics (B2a) were reported in bovines (0.1 %), sheep and goats (0.21 %), poultry (0.03 %) and milk (0.18 %).

- There was one non-compliant sample for pyrethroids (B2c) and one for sedatives (B2d).

- For non-steroidal anti-inflammatory drugs (B2e), non-compliant samples were found in bovines (0.15 %), pigs (0.02 %), horses (0.66 %), poultry (0.34 %) and milk (0.09 %).

- Non-compliant samples for "other pharmacologically active substances" (B2f) were reported in bovines (0.1 %), sheep and goats (0.18 %), poultry (0.14 %) and rabbit (1.9 %).

- Similar to previous years, in the group B3 (other substances and environmental contaminants), the chemical elements (B3c) had the highest overall percentage of non-compliant samples (3.4 %). Cadmium, lead, mercury and copper were the most frequent elements identified.

- Non-compliance for organochlorine compounds (B3a) and organophosphorus compounds (B3b) was 0.17 % and 0.03 %, respectively.

- For mycotoxins (B3d), there were non-compliant samples for zearalenone and derivatives, ochratoxin A, aflatoxin B1 and aflatoxin M1 in milk. It is important to highlight that by a relatively constant sampling frequency over time, the number of non-compliant milk samples for aflatoxin M1 (n = 14) was higher compared to the period 2008 to 2010 (n = 4 to 7).

- Prevalence of dyes (B3e) in aquaculture samples remained relatively high in 2011 (1.8 %), a value similar to those reported in the previous years. Substances found were malachite green, leuco malachite green, crystal violet and leuco crystal violet.

- The overall frequency of non-compliant samples in 2011 (0.28 %) was by about 15 % lower compared to the previous four years (0.32 % – 0.34 %). For several substance groups, there were no notable variations in the frequency of non-compliant samples in 2011 compared to the previous four years but a decrease was observed for steroids, resorcyclic acid lactones, prohibited substances, antimicrobials, anthelmintics and

anticoccidials. Non-compliances for anticoccidials decreased most likely as a result of the implementation of Commission Directive 2009/8/EC laying down maximum levels of unavoidable carry-over of coccidiostats in non-target feed. In contrast, the proportion of non-compliant samples for chemical elements (mainly metals) was similar to 2010 but higher compared to the period 2007 - 2009. This development is explained by the application since 2010 of a stricter legal basis in the evaluation of compliance for mercury and copper which resulted in more non-compliant samples.

- The national sampling plans and the pattern of substances analysed were likely not the same over the years and the prescribing patterns of veterinary medicines vary between species. Therefore, the outcome of the multi-year analysis may not reflect accurately the residue situation in each individual EU Member State and for each species or product category over the period considered.

REFERENCES

Clouet AS, Le Bizec B, Montrade MP, Monteau F, Andre F, 1997. Identification of endogenous 19-nortestosterone in pregnant ewes by Gas-Chromatography-Mass Spectrometry. Analyst, 122, 471-474.

European Commission (EC), 2007. European Commission Staff Working Document on the implementation of National Residue Monitoring Plans in the Member States in 2007. Available at http://ec.europa.eu/food/food/chemicalsafety/residues/workdoc_2007_en.pdf

European Food Safety Authority (EFSA), 2010a. Report for 2008 on the results from the monitoring of veterinary medicinal product residues and other substances in food of animal origin in the Member States. EFSA Journal 2010; 8:1559. Available online: www.efsa.europa.eu

European Food Safety Authority (EFSA), 2010b. Technical report of EFSA: Evaluation of the data collection performed in the framework of Directive 96/23/EC. Available at http://www.efsa.europa.eu/en/supporting/doc/103e.pdf

European Food Safety Authority (EFSA), 2011. Technical report of EFSA: Report for 2009 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal products. Supporting Publications 2011:158. Available online: www.efsa.europa.eu

European Food Safety Authority (EFSA), 2012. Technical report of EFSA: Report for 2010 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal products. Supporting Publications 2012:212. Available online: www.efsa.europa.eu

European Medicines Agency, 2011. Trends in the sales of veterinary antimicrobial agents in nine European countries (2005-2009). Available online: http://www.ema.europa.eu

Fidani M, Pompa G, Mungiguerra F, Casati A, Fracchiolla ML, Arioli F, 2012. Investigation of the presence of endogenous prednisolone in equine urine by high-performance liquid chromatography mass spectrometry and high-resolution mass spectrometry. Rapid Communications in Mass Spectrometry, 26:879-86.

Pinel G, Mathieu S, Cesbron N, Maume D, De Brabander HF, Andre F, Le Bizec B, 2006. Evidence that urinary excretion of thiouracil in adult bovine submitted to a cruciferous diet can give erroneous indications of the possible illegal use of thyrostats in meat production. Food Additives and Contaminants, 23:974-980.

Pompa G, Arioli F, Casati A, Fidani M, Bertocchi L, Dusi G. 2011, Investigation of the origin of prednisolone in cow urine. Steroids, 76:104–110.

Samuels TP, Nedderman A, Seymour MA, Houghton E, 1998. Study of the metabolism of testosterone, nandrolone and estradiol in cattle. Analyst, 123:2401-2404.

APPENDICES

A. LIST OF NON-COMPLIANT RESULTS: TARGETED SAMPLING 2011

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
Bovines	**A2**	Thiouracil	IE	242	11	4.6
			NL	401	8	2.0
			UK	398	31	7.8
		Sub-total for A2	**3**		**50**	
	A3	Boldenone-Alpha	NL	1615	4	0.3
		Dexamethasone	IT	3336	16	0.5
		Estradiol-17-Alpha	FR	2010	1	0.5
		Estradiol-17-Beta	LT	17	1	5.9
		Nandrolone	SK	9	1	11.1
		Prednisolone	IT	3336	7	0.2
		Prednisone	IT	3336	6	0.2
		Stanozolol	IT	53	1	1.9
		Testosterone-17-Beta	NL	152	9	5.9
		Sub-total for A3	**5**		**46**	
	A4	Alpha-Zeralanol (Zeranol)	IT	335	1	0.3
			UK	161	5	3.1
		Beta Zearalanol (Taleranol)	IT	628	5	0.8
			UK	364	8	2.2
		Sub-total for A4	**2**		**19**	
	A5	Clenbuterol	FR	1866	1	0.5
			IE	510	2	0.4
			IT	3317	2	0.6
			PT	209	3	1.4
		Clencyclohexerol	NL	320	1	0.3
		Isoxsuprine	NL	320	2	0.6

(a): The number of samples analysed for the individual substances was reported by the Member States only if there was at least one non-compliant sample for the substance in question. In case that all samples were compliant, the number of samples analysed was not reported. Furthermore, in case of animals controlled at farm and slaughterhouse, the number of samples may include either samples taken at farm or slaughterhouse depending where the non-compliant samples were found. Where non-compliant samples were found at both farm and slaughterhouse, the number of samples represents the sum of samples taken at both sampling points.

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Sub-total for A5	**5**		**11**	
	A6	AMOZ (5-methylmorpholino-3-amino-2-oxazolidone)	IT	115	3	2.6
		Chloramphenicol	CZ	167	1	0.6
			DE	1649	1	0.6
			FR	1628	1	0.6
		SEM (semicarbazide)	IE	196	1	0.5
			IT	115	2	1.7
			PL	140	1	0.7
		Sub-total for A6	**6**		**10**	
	B1	Amoxycillin	HU	5	1	20.0
		Benzylpenicillin (Penicillin G)	CZ	177	1	0.6
			IT	1369	1	0.7
			PL	1024	4	0.4
			UK	1638	1	0.6
		Chlortetracyclin	FR	3224	1	0.3
			IT	1391	3	0.2
		Dihydrostreptomycin	FR	2428	1	0.4
			LT	140	1	0.7
			NL	1917	1	0.5
			PL	1024	5	0.5
			UK	1638	4	0.2
		Doxycycline	ES	671	1	0.2
		Florfenicol	UK	1638	1	0.6
		Gentamicin	NL	1917	3	0.2
			PL	1024	1	0.1
		Macrolides	FR	2428	2	0.8
		Marbofloxacin	FR	2626	1	0.4
		Neomycin	NL	1917	3	0.2
			PL	1024	1	0.1
			UK	1638	1	0.6
		Neospiramycin	FR	2428	1	0.4
		Oxytetracycline	DE	788	1	0.1
			FR	3224	13	0.4
			IT	1391	4	0.3
			LT	140	1	0.7
			UK	1638	1	0.6
		Penicillin	FR	2428	1	0.4
		Spiramycin	FR	2428	1	0.4
		Spiramycin 1	LV	66	1	1.5
		Sulfadimethoxine	IT	2265	5	0.2

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Sulfadimidine	IT	2265	1	0.4
		Sulfamerazine	FR	3174	1	0.3
			IT	2265	1	0.4
		Sulfathiazole	IT	2265	1	0.4
		Tetracycline	DE	709	1	0.1
			FR	3224	3	0.9
		Trimethoprim	LV	66	1	1.5
		Tulathromycin	FR	2428	1	0.4
		Sub-total for B1	**11**		**77**	
	B2a	Ivermectin	FR	500	1	0.2
			IE	498	2	0.4
			UK	736	1	0.1
		Triclabendazole	IE	498	1	0.2
		Sub-total for B2a	**3**		**5**	
	B2e	Diclofen (Diclofenac)	LT	20	1	5.0
		Ibuprofen	UK	682	1	0.2
		Meloxicam	FR	592	1	0.2
		Phenylbutazone	DE	1312	1	0.8
			UK	682	2	0.3
		Tolfenamic acid	FR	592	2	0.3
		Sub-total for B2e	**4**		**8**	
	B2f	Dexamethasone	DE	750	2	0.3
			ES	647	5	0.8
			PL	50	1	2.0
		Prednisolone	BE	498	1	0.2
		Sub-total for B2f	**4**		**9**	
	B3b	Chlorpyrifos	AT	1	1	100.0
		Sub-total for B3b	**1**		**1**	
	B3c	Cadmium Cd	CZ	47	1	2.1
			DE	359	16	4.5
			ES	221	4	1.8
			HU	6	1	16.7
			LT	18	1	5.6
			NL	150	25	16.7
			SE	25	1	4.0
			SI	11	1	9.1
			UK	107	2	1.9
		Copper Cu	DE	119	29	24.4
		Lead Pb	DE	359	1	0.3
		Mercury Hg	CZ	47	2	4.3
			DE	359	30	8.4
		Sub-total for B3c	**9**		**114**	
	B3d	Zearalenol-alpha	HU	28	1	3.6

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Zearalenol-beta	HU	28	1	3.6
		Zearalenone (Mycotoxin F)	HU	28	1	3.6
		Sub-total for B3d	**1**		**3**	
		Total in Bovines	**18**		**353**	
Pigs	**A2**	Thiouracil	LT	10	1	10.0
			PL	208	1	0.5
			UK	70	3	4.3
		Sub-total for A2	**3**		**5**	
	A3	17-Beta nortestosteron	NL	569	2	0.4
		Nandrolone	PL	695	4	0.6
		Sub-total for A3	**2**		**6**	
	A6	Chloramphenicol	DE	183	1	0.6
		Nitrofurazone	ES	450	1	0.2
		Sub-total for A6	**2**		**2**	
	B1	Amoxycillin	CZ	377	3	0.8
		Benzylpenicillin (Penicillin G)	CZ	377	1	0.3
			DK	1122	1	0.9
			LT	79	1	1.3
			PL	3222	3	0.9
		Chlortetracyclin	PL	3222	1	0.3
		Dihydrostreptomycin	CZ	377	5	1.3
			NL	2506	1	0.4
			PL	3222	3	0.9
		Doxycycline	ES	4078	2	0.5
			IT	952	2	0.2
			NL	2506	2	0.8
			PL	3222	4	0.1
		Enrofloxacin	ES	3950	3	0.8
			HU	62	1	1.6
		Inhibitors	SK	23	1	4.4
		Lincomycin	BE	1729	1	0.6
		Marbofloxacin	ES	3417	1	0.3
			FR	2399	1	0.4
		Oxytetracycline	FR	3050	1	0.3
			HU	12	1	8.3
			LT	79	1	1.3
			NL	2506	4	0.2
			PL	3222	2	0.6
		Sulfadiazine	BE	1841	2	0.1
			DE	3921	1	0.3
			FR	3499	1	0.3

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			IE	1493	1	0.7
			UK	1609	1	0.6
		Sulfadimethoxine	FR	3499	1	0.3
			IT	1516	5	0.3
			PT	679	1	0.2
		Sulfadimidine	AT	239	1	0.4
			CY	100	1	1.0
			DE	3926	1	0.3
			IE	1493	1	0.7
			IT	1516	2	0.1
		Sulfamerazine	GR	159	1	0.6
		Sulfamethazine	PT	679	2	0.3
		Tetracycline	DE	2357	1	0.4
		Tylosin, Tylosin A	ES	3410	1	0.3
		Sub-total for B1	**18**		**70**	
	B2b	Maduramicin	CY	66	1	1.5
		Monensin	BE	50	1	2.0
		Narasin	ES	729	2	0.3
		Sub-total for B2b	**3**		**4**	
	B2d	Azaperone	DE	771	1	0.1
		Sub-total for B2d	**1**		**1**	
	B2e	Diclofen (Diclofenac)	NL	130	1	0.8
		Sub-total for B2e	**1**		**1**	
	B3a	DDT: Sum DDT, DDE, DDD	CZ	93	1	1.1
		gamma-HCH (HCH, Lindane)	ES	828	3	0.4
		Sub-total for B3a	**2**		**4**	
	B3b	Diazinon	ES	179	1	0.6
		Sub-total for B3b	**1**		**1**	
	B3c	Cadmium Cd	DE	1421	24	1.7
			ES	303	1	0.3
		Copper Cu	DE	354	33	9.3
		Lead Pb	PL	470	2	0.4
		Mercury Hg	CZ	77	5	6.5
			DE	1419	124	8.7
		Sub-total for B3c	**4**		**189**	
	B3d	Ochratoxin A	FI	44	1	2.3
			PL	102	1	1.0
		Zearalenol-alpha	HU	123	8	6.5
		Zearalenol-beta	HU	123	8	6.5
		Zearalenone (Mycotoxin F)	HU	123	8	6.5

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Sub-total for B3d	**3**		**26**	
		Total in Pigs	**19**		**309**	
Sheep/Goats	**A2**	Thiouracil	IE	11	1	9.1
			UK	72	8	11.1
		Sub-total for A2	**2**		**9**	
	A6	SEM (semicarbazide)	IE	26	4	15.4
		Sub-total for A6	**1**		**4**	
	B1	Chlortetracyclin	ES	918	3	0.3
			GR	149	1	0.7
		Dihydrostreptomycin	GR	149	2	1.3
			NL	121	2	1.7
		Enrofloxacin	ES	856	5	0.6
		Oxytetracycline	CY	52	1	1.9
			ES	905	1	0.1
			NL	121	2	1.7
		Sulfadiazine	AT	17	1	5.9
			ES	1223	13	1.1
			FR	688	1	0.2
			PT	143	1	0.7
		Sulfadimethoxine	FR	688	3	0.4
			PT	143	1	0.7
		Sulfadoxine	PT	143	1	0.7
		Sulfaquinoxaline	FR	688	1	0.2
		Sub-total for B1	**7**		**39**	
	B2a	2-Aminoflubendazole	IE	260	1	0.4
		Closantel	IE	260	3	1.2
		Hydroxyflubendazole	IE	260	1	0.4
		Oxfendazole	UK	1338	2	0.2
		Sub-total for B2a	**2**		**7**	
	B2b	Monensin	BE	12	1	8.3
		Sub-total for B2b	**1**		**1**	
	B2c	Cypermethrin	UK	526	1	0.2
		Sub-total for B2c	**1**		**1**	
	B2f	Prednisolone	BE	21	1	4.8
		Sub-total for B2f	**1**		**1**	
	B3c	Cadmium Cd	CZ	3	2	66.7
			DE	32	1	3.1
			ES	171	3	1.8
			GR	114	6	6.1
			IT	61	2	3.3
			NL	7	2	28
			PL	20	7	35
			SK	11	1	9.1

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			UK	56	1	1.8
		Lead Pb	GR	92	2	2.2
			PT	24	1	4.2
			UK	56	2	3.6
		Mercury Hg	DE	32	7	21.9
		Sub-total for B3c	**10**		**38**	
		Total in Sheep/Goats	**15**		**100**	
		Oxyphenbutazone				
Horses	**B2e**	Monohydrate	CZ	3	1	33.3
		Phenylbutazone	CZ	3	1	33.3
			UK	68	1	1.5
		Sub-total for B2e	**2**		**3**	
	B3c	Cadmium Cd	CZ	1	1	100.0
			DE	7	6	85.7
			ES	86	5	5.8
			HU	1	1	100.0
			IT	227	3	1.3
			LT	1	1	100.0
			PL	157	1	0.6
			PT	9	5	55.6
			SI	2	2	100.0
		Lead Pb	ES	86	1	1.2
		Mercury Hg	DE	7	6	85.7
		Sub-total for B3c	**9**		**32**	
	B3d	Aflatoxin B1	IT	13	1	7.7
		Sub-total for B3d	**1**		**1**	
		Total in Horses	**10**		**36**	
Poultry	**A3**	Estradiol-17-Beta	NL	88	6	6.8
		Sub-total for A3	**1**		**6**	
	A5	Isoxsuprine	IE	44	1	2.3
		Sub-total for A5	**1**		**1**	
	A6	Chloramphenicol	CZ	174	1	0.6
			FR	928	1	0.1
			HU	81	1	1.2
		Metronidazole	DE	1243	2	0.2
		Nitrofurazone	NL	419	1	0.2
		Sub-total for A6	**5**		**6**	
	B1	Aminoglycosides	BG	77	1	1.3
		Chlortetracyclin	BG	77	1	1.3
		Doxycycline	DE	1054	1	0.9
			ES	730	1	0.1
			NL	1147	2	0.2

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			PL	1295	3	0.2
		Enrofloxacin	ES	684	1	0.2
			PL	1264	1	0.8
		Inhibitors	DE	14	1	7.1
		Oxytetracycline	IT	456	1	0.2
		Sulfadimethoxine	IT	774	1	0.1
		Sub-total for B1	**6**		**14**	
	B2a	Oxfendazole sulfon	UK	342	1	0.3
		Sub-total for B2a	**1**		**1**	
	B2b	Lasalocid	IT	206	1	0.5
			PL	675	2	0.3
		Maduramicin	CY	21	1	4.8
			PT	102	1	1.0
			UK	772	2	0.3
		Monensin	PL	642	1	0.2
		Nicarbazin	ES	377	1	0.3
		Robenidine	CY	21	3	14.3
			PT	102	1	1.0
		Salinomycin	MT	29	1	3.5
		Semduramicin	CZ	96	2	2.1
		Sub-total for B2b	**8**		**16**	
	B2e	Diclofen (Diclofenac)	LT	5	1	20.0
		Ketoprofen	BE	130	1	0.8
		Salicylic acid	NL	93	1	1.1
		Sub-total for B2e	**3**		**3**	
	B2f	Metoprolol	DE	55	1	1.8
		Sub-total for B2f	**1**		**1**	
	B3a	gamma-HCH (HCH, Lindane)	ES	456	2	0.4
		HCB (Hexachlorbenzene)	ES	396	1	0.3
		Sub-total for B3a	**1**		**3**	
	B3c	Cadmium Cd	DE	147	1	0.7
		Lead Pb	IT	199	1	0.5
		Mercury Hg	DE	147	1	0.7
		Sub-total for B3c	**2**		**3**	
		Total in Poultry	**16**		**54**	
Aquaculture	**A3**	Boldenone	FR	60	3	5.0
		Sub-total for A3	**1**		**3**	
	A6	Chloramphenicol	IT	163	1	0.6
		Sub-total for A6	**1**		**1**	
	B1	Doxycycline	PL	58	1	1.7
		Enrofloxacin	EE	3	1	33.3

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Flumequine	FR	70	1	1.4
		Inhibitors	DE	44	1	2.3
		Oxytetracycline	UK	380	1	0.3
		Sulfadiazine	PL	58	1	1.7
		Sub-total for B1	**5**		**6**	
	B3a	PCB sum	UK	11	2	18.2
		Sub-total for B3a	**1**		**2**	
	B3e	Cristal Violet	FR	249	1	0.4
		Cristal Violet-Leuco	AT	75	1	1.3
			CZ	80	2	2.5
			DK	62	1	1.6
			FR	249	1	0.4
		Malachite Green	CZ	80	1	1.3
			PL	148	6	4.1
		Malachite Green-Leuco	AT	75	2	2.7
			CZ	80	16	20.0
			DE	441	2	0.5
			DK	62	1	1.6
			FR	249	1	0.4
			IT	189	1	0.5
			SK	10	1	10.0
		Sub-total for B3e	**8**		**37**	
		Total in Aquaculture	**10**		**49**	
Milk	**A6**	Chloramphenicol	ES	314	1	0.3
		Sub-total for A6	**1**		**1**	
	B1	Benzylpenicillin (Penicillin G)	FI	220	1	0.5
			LT	211	1	0.5
		Cefoperazon	CZ	1	1	100.0
		Doxycycline	ES	471	1	0.2
		Inhibitors	CY	2600	8	0.3
		Tetracycline	PL	1797	2	0.1
		Sub-total for B1	**6**		**14**	
	B2a	Fenbendazole	FR	300	1	0.3
		Ivermectin	IE	305	1	0.3
			UK	169	1	0.6
		Levamisole	BE	54	1	1.9
		Nitroxinil	IE	305	1	0.3
			UK	178	4	2.3
		Triclabendazole	BE	54	1	1.9
		Sub-total for B2a	**4**		**10**	
	B2e	Diclofen (Diclofenac)	BE	54	1	1.9
			CY	83	1	1.2

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			DE	1173	1	0.9
		Sub-total for B2e	**3**		**3**	
	B3a	HCH-Beta	FR	80	1	1.3
		Sub-total for B3a	**1**		**1**	
	B3c	Lead Pb	HU	5	1	20.0
		Sub-total for B3c	**1**		**1**	
	B3d	Aflatoxin B1	CY	62	1	1.6
		Aflatoxin M1	FI	227	2	0.9
			GR	170	7	4.1
			IT	442	4	0.9
		Sub-total for B3d	**4**		**14**	
		Total in Milk	**14**		**44**	
Eggs	**B1**	Doxycycline	PL	198	1	0.5
		Enrofloxacin	LV	140	1	0.7
			PL	198	1	0.5
		Flumequine	BE	65	2	3.1
		Sub-total for B1	**3**		**5**	
	B2b	Decoquinate	PL	102	1	1.0
		Diclazuril	AT	210	1	0.5
			MT	20	1	5.0
			PL	102	1	1.0
			UK	476	2	0.4
		Lasalocid	DE	225	1	0.4
			FR	156	2	1.3
			SI	165	1	0.6
		Maduramicin	FR	156	2	1.3
			MT	20	2	10.0
			PL	102	2	2.0
			SI	165	3	1.8
		Monensin	FR	156	1	0.6
			IE	46	1	2.2
		Narasin	AT	210	1	0.5
		Salinomycin	PL	102	1	1.0
		Salinomycin sodium	EE	42	1	2.4
		Semduramicin	FR	156	1	0.6
		Sub-total for B2b	**9**		**25**	
	B3a	Dioxins	IT	74	1	1.4
		PCB sum	EE	32	4	12.5
		WHO-PCDD/F-PCB-TEQ	DE	28	3	3.6
		WHO-PCDD/F-TEQ	DE	109	3	2.8
		Sub-total for B3a	**3**		**11**	
		Total in Eggs	**12**		**41**	
Rabbit	**A6**	Chloramphenicol	FR	60	1	1.7

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			IT	27	1	3.7
		Sub-total for A6	**2**		**2**	
	B1	Sulfadimethoxine	FR	250	1	0.4
		Tulathromycin	CZ	1	1	100.0
		Sub-total for B1	**2**		**2**	
	B2b	Diclazuril	CY	6	2	33.3
		Robenidine	CZ	9	1	11.1
		Sub-total for B2b	**2**		**3**	
	B2f	Olaquindox	PT	7	1	14.3
		Sub-total for B2f	**1**		**1**	
	B3a	HCB (Hexachlorbenzene)	ES	42	1	2.4
		Sub-total for B3a	**1**		**1**	
		Total in Rabbit	**6**		**9**	
Farmed Game	**A6**	AMOZ (5-methylmorpholino-3-amino-2-oxazolidone)	BE	21	1	4.8
		Sub-total for A6	**1**		**1**	
	B2b	Diclazuril	PT	15	1	6.7
		Monensin	BE	12	4	33.3
		Sub-total for B2b	**2**		**5**	
	B3c	Cadmium Cd	FI	30	13	43.3
		Lead Pb	CZ	11	1	9.1
		Mercury Hg	DE	10	3	30.0
		Sub-total for B3c	**3**		**17**	
		Total in Farmed Game	**5**		**23**	
Wild game	**B3a**	DDE, pp'-	DE	81	3	3.7
		DDT: Sum DDT, DDE, DDD	DE	81	4	4.9
		HCB (Hexachlorbenzene)	DE	80	2	2.5
			LU	30	1	3.3
		HCH-Alpha	LU	30	1	3.3
		HCH-Beta	LU	30	1	3.3
		WHO-PCDD/F-PCB-TEQ	CZ	3	1	33.3
		WHO-PCDD/F-TEQ	CZ	3	1	33.3
		Sub-total for B3a	**3**		**14**	
	B3c	Cadmium Cd	DK	50	1	2.0
			ES	96	1	1.0
			FI	60	32	53.3
			FR	62	2	3.2
			GR	7	1	14.3

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			LU	30	1	3.3
			LV	80	36	45.0
		Lead Pb	AT	122	8	6.6
			CZ	105	27	25.7
			DK	50	1	2.0
			EE	34	1	2.9
			ES	96	1	1.0
			FI	60	1	1.7
			GR	7	1	14.3
			LV	80	4	5.0
			NL	107	24	22.4
			PL	106	7	6.6
			PT	50	7	14.0
		Mercury Hg	DE	98	39	39.8
			DK	50	1	2.0
		Sub-total for B3c	**14**		**196**	
	B3f	Cesium 137	CZ	28	1	3.6
		Sub-total for B3f	**1**		**1**	
		Total in Wild game	**14**		**211**	
Honey	**A6**	AOZ (3-amino-2-oxazolidone)	LV	2	1	50.0
		Chloramphenicol	SE	10	1	10.0
		Sub-total for A6	**2**		**2**	
	B1	Chlortetracyclin	GR	130	5	3.9
		Sulfadimethoxine	HU	67	2	3.0
		Sulfathiazole	LT	5	1	20.0
		Sulfonamides	PL	129	4	3.1
		Tetracycline	FR	50	1	2.0
			HU	32	6	18.8
			IT	61	2	3.3
			LT	5	1	20.0
		Sub-total for B1	**6**		**22**	
	B3a	Dichlorobenzene 1,2	UK	19	2	10.5
		Vinclozolin	FR	57	1	1.8
		Sub-total for B3a	**2**		**3**	
	B3c	Copper Cu	DE	7	5	71.4
		Lead Pb	CZ	15	1	6.7
			FR	51	1	2.0
			IE	10	2	20.0
			LV	3	3	100.0
		Sub-total for B3c	**5**		**12**	
		Total in Honey	**12**		**39**	

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
Total in all categories					**1268**	

B. LIST OF NON-COMPLIANT RESULTS: SUSPECT SAMPLING

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
Bovines	**A3**	Dexamethasone	IT	659	7	1.1
		Prednisolone	IT	588	2	0.3
		Prednisone	IT	588	1	0.2
		Sub-total for A3	**2**		**10**	
	A5	Clenbuterol	IT	272	5	1.8
		Clenbuterol-Hydroxymethyl (NA 1142)	IT	272	5	1.8
		Clenpenterol (NAB 762, Methylclenbuterol)	IT	272	5	1.8
		Mabuterol	IT	272	5	1.8
		Mapenterol	IT	272	5	1.8
		Ractopamine	IT	272	5	1.8
		Sub-total for A5	**1**		**30**	
	A6	AMOZ (5-methylmorpholino-3-amino-2-oxazolidone)	IT	42	2	4.8
		Chloramphenicol	CZ	10	5	50.0
		SEM (semicarbazide)	IT	42	13	31.0
		Sub-total for A6	**2**		**20**	
	B1	Amoxycillin	IT	107	1	0.9
		Ampicillin	IT	107	1	0.9
		Antibacterials	NL	7053	70	1.0
		Benzylpenicillin (Penicillin G)	AT	482	1	0.2

(a): The number of samples analysed for the individual substances was reported by the Member States only if there was at least one non-compliant sample for the substance in question. In case that all samples were compliant, the number of samples analysed was not reported. Furthermore, in case of animals controlled at farm and slaughterhouse, the number of samples may include either samples taken at farm or slaughterhouse depending where the non-compliant samples were found. Where non-compliant samples were found at both farm and slaughterhouse, the number of samples represents the sum of samples taken at both sampling points.

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
			BE	196	4	2.0
			IT	107	2	1.9
		Chlortetracyclin	AT	47	1	2.1
		Ciprofloxacin	BE	196	3	1.5
		Dicloxacillin	IT	107	1	0.9
		Dihydrostreptomycin	AT	538	2	0.4
			BE	196	7	3.6
			DE	2	1	50.0
		Enrofloxacin	BE	196	4	2.0
		Inhibitors	DE	2	1	50.0
		Marbofloxacin	IE	3583	1	0.3
			UK	33	1	3.0
		Neomycin	BE	196	1	0.5
		Oxytetracycline	BE	196	8	4.1
			GR	11	1	9.1
			IE	3583	3	0.8
			IT	108	5	4.6
			UK	33	4	12.1
		Spectinomycin	BE	196	2	1.0
		Spiramycin	BE	196	1	0.5
		Streptomycin	BE	196	1	0.5
		Sulfadiazine	IT	81	2	2.5
			UK	33	1	3.0
		Sulfadimethoxine	BE	196	3	1.5
		Sulfadimidine	IT	81	2	2.5
		Sulfamerazine	IT	81	1	1.2
		Sulfamethazine	IE	3583	1	0.3
		Tetracycline	BE	196	5	2.6
		Tilmicosin	BE	196	6	3.1
		Trimethoprim	BE	196	3	1.5
		Tylosin, Tylosin A	BE	196	7	3.6
		Sub-total for B1	**8**		**158**	
	B2a	Clorsulon	BE	173	1	0.6
		Closantel	BE	173	4	2.3
		Ivermectin	BE	173	4	2.3
		Levamisole	BE	173	2	1.2
		Moxidectin	BE	173	2	1.2
		Sub-total for B2a	**2**		**13**	
	B2e	Antipyrin-4-Methylamino	AT	1	1	100.0
		Carprofen	BE	189	2	1.1
		Flunixin	BE	189	6	3.2
		Meloxicam	BE	189	4	2.1

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
		Metamizole (Dipyrone Monohydrate)	BE	189	1	0.5
		Phenylbutazone	BE	189	1	0.5
		Tolfenamic acid	BE	189	10	5.3
		Sub-total for B2e	**2**		**25**	
	B2f	Dexamethasone	BE	610	1	0.2
		Prednisolone	BE	380	2	0.5
		Sub-total for B2f	**1**		**3**	
	B3c	Cadmium Cd	DE	23	9	39.1
			UK	16	1	6.3
		Copper Cu	DE	13	4	30.8
		Lead Pb	DE	14	6	42.9
		Mercury Hg	DE	17	5	29.4
		Sub-total for B3c	**2**		**25**	
		Total in Bovines	**10**		**284**	
Pigs	**A6**	Chloramphenicol	DE	49	28	57.1
		Sub-total for A6	**1**		**28**	
	B1	Antibacterials	NL	2685	32	1.2
		Benzylpenicillin (Penicillin G)	BE	79	7	8.9
		Beta-lactams	MT	371	17	4.6
		Ciprofloxacin	BE	79	1	1.3
		Dihydrostreptomycin	BE	79	6	7.6
			CZ	12	4	33.3
		Enrofloxacin	BE	79	2	2.5
		Florfenicol	BE	79	1	1.3
		Marbofloxacin	BE	79	1	1.3
		Neomycin	BE	79	3	3.8
		Oxytetracycline	BE	79	1	1.3
		Penicillin V (Phenoxymethylpenicillin)	BE	79	1	1.3
		Quinolones	MT	371	11	3.0
		Spectinomycin	BE	79	1	1.3
		Spiramycin	BE	79	1	1.3
		Sulfadiazine	BE	79	1	1.3
		Sulfadimethoxine	BE	79	2	2.5
		Sulfadoxine	BE	79	1	1.3
		Sulfamethoxazole	BE	79	1	1.3
		Tetracycline	BE	79	1	1.3
			MT	371	13	3.5
		Trimethoprim	BE	79	3	3.8
		Tylosin, Tylosin A	BE	79	2	2.5
		Sub-total for B1	**5**		**113**	

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
	B2a	Ivermectin	BE	56	1	1.8
		Moxidectin	BE	56	1	1.8
		Sub-total for B2a	**1**		**2**	
	B2d	Azaperol	BE	56	2	3.6
		Azaperone	BE	56	2	3.6
		Sub-total for B2d	**1**		**4**	
	B2e	Flunixin	BE	56	11	19.6
		Ketoprofen	BE	56	2	3.6
		Meloxicam	BE	56	1	1.8
		Metamizole (Dipyrone Monohydrate)	BE	56	3	5.4
		Tolfenamic acid	BE	56	1	1.8
		Sub-total for B2e	**1**		**18**	
	B2f	Dexamethasone	BE	56	3	5.4
		Methylprednisolone	BE	56	2	3.6
		Sub-total for B2f	**1**		**5**	
	B3c	Mercury Hg	CZ	17	7	41.2
			DE	7	1	14.3
		Sub-total for B3c	**2**		**8**	
		Total in Pigs	**6**		**178**	
Sheep/ Goats	**B1**	Sulfadiazine	ES	166	4	2.4
		Sub-total for B1	**1**		**4**	
	B3c	Cadmium Cd	CZ	8	4	50.0
		Sub-total for B3c	**1**		**4**	
		Total in Sheep/Goats	**2**		**8**	
Poultry	**A6**	Metronidazole	DE	313	54	17.3
		Sub-total for A6	**1**		**54**	
	B2b	Decoquinate	PL	17	1	5.9
		Salinomycin	MT	17	3	17.7
		Sub-total for B2b	**2**		**4**	
	B3a	WHO-PCDD/F-PCB-TEQ	DE	1	1	100.0
		WHO-PCDD/F-TEQ	DE	1	1	100.0
		Sub-total for B3a	**1**		**2**	
		Total in Poultry	**4**		**60**	
Aqua-culture	**B1**	Enrofloxacin	EE	2	2	100.0
		Sub-total for B1	**1**		**2**	
	B3a	Endrin	AT	1	1	100.0
		Sub-total for B3a	**1**		**1**	
	B3e	Cristal Violet-Leuco	DK	5	4	80.0
		Malachite Green	PL	13	4	30.8
		Malachite Green-Leuco	AT	29	6	20.7

Category	Group	Substances	MS	Number of samples analysed [a]	Non-compliant results	
					N	%
			CZ	12	6	50.0
			DE	18	5	27.8
			IT	1	1	100.0
		Sub-total for B3e	**7**		**26**	
		Total in Aquaculture	**8**		**29**	
Milk	**B1**	Ampicillin	IT	224	1	0.5
		Sub-total for B1	**2**		**1**	
	B2a	Nitroxinil	UK	9	6	66.7
		Sub-total for B2a	**1**		**6**	
	B3a	HCH-Alpha	IT	27	2	7.4
		HCH-Beta	IT	27	4	14.8
		Sub-total for B3a	**1**		**6**	
	B3d	Aflatoxin M1	FI	21	4	19.1
			IT	72	5	6.9
		Sub-total for B3d	**2**		**9**	
		Total in Milk	**4**		**22**	
Eggs	**B2b**	Maduramicin	PL	6	2	33.3
		Narasin	AT	4	1	25.0
		Salinomycin sodium	EE	2	1	50.0
		Sub-total for B2b	**3**		**4**	
	B3a	WHO-PCDD/F-TEQ	DE	2	1	50.0
		Sub-total for B3a	**1**		**1**	
		Total in Eggs	**4**		**5**	
Rabbit	**B2b**	Robenidine	CZ	3	2	66.7
		Sub-total for B2b	**1**		**2**	
	B2f	Olaquindox	PT	22	8	36.4
		Sub-total for B2f	**1**		**8**	
		Total in Rabbit	**2**		**10**	
Wild game	**B3a**	WHO-PCDD/F-PCB-TEQ	CZ	3	3	100.0
		WHO-PCDD/F-TEQ	CZ	3	3	100.0
		Sub-total for B3a	**1**		**6**	
	B3c	Lead Pb	AT	15	2	13.3
		Sub-total for B3c	**1**		**2**	
	B3f	Cesium 137	CZ	11	7	63.6
		Sub-total for B3f	**1**		**7**	
		Total in Wild game	**2**		**15**	
Honey	**B1**	Chlortetracyclin	IT	25	3	12.0
		Sulfathiazole	DE	9	3	33.3
		Sulfonamides	PL	10	4	40.0
		Sub-total for B1	**3**		**10**	
	B3c	Lead Pb	IE	6	1	16.7
		Sub-total for B3c	**1**		**1**	

Category	Group	Substances	MS	Number of samples analysed [(a)]	Non-compliant results	
					N	%
		Total in Honey	**4**		**11**	
Total in all categories					**622**	

C. LIST OF NON-COMPLIANT RESULTS: IMPORT SAMPLING

Category	Group	Substances	MS	Number of samples analysed (a)	Non-compliant results	
					N	%
Bovines	**B2a**	Ivermectin	DE	35	1	2.9
			IE	9	1	11
		Sub-total for B2a	**2**		**2**	
		Total in Bovines	**2**		**2**	
Pigs	**A6**	Chloramphenicol	DK	43	3	7.0
		SEM (semicarbazide)	DE	3	2	67
		Sub-total for A6	**2**		**5**	
		Total in Pigs	**2**		**5**	
Poultry	**B2b**	Chlopidol	IE	10	1	10
		Sub-total for B2b	**1**		**1**	
	B3c	Mercury Hg	DE	31	1	3.2
		Sub-total for B3c	**1**		**1**	
		Total in Poultry	**2**		**2**	
Aquaculture	**A6**	AOZ (3-amino-2-oxazolidone)	DE	141	1	0.7
		Sub-total for A6	**1**		**1**	
	B2c	Permethrin	DE	58	1	1.7
		Sub-total for B2c	**1**		**1**	
	B3c	Arsenic As	PL	99	1	1.0
		Cadmium Cd	DE	181	8	4.4
		Mercury Hg	DE	182	5	2.8
		Sub-total for B3c	**2**		**14**	
		Total in Aquaculture	**3**		**16**	
Rabbit	**B3c**	Mercury Hg	DE	7	1	14
		Sub-total for B3c	**1**		**1**	
		Total in Rabbit	**1**		**1**	
Wild game	**B3c**	Mercury Hg	DE	9	1	11
		Sub-total for B3c	**1**		**1**	
		Total in Wild game	**1**		**1**	
Honey	**A6**	Chloramphenicol	EE	2	1	50
		Metronidazole	BE	31	2	6.5

(a): The number of samples analysed for the individual substances was reported by the Member States only if there was at least one non-compliant sample for the substance in question. In case that all samples were compliant, the number of samples analysed was not reported. Furthermore, in case of animals controlled at farm and slaughterhouse, the number of samples may include either samples taken at farm or slaughterhouse depending where the non-compliant samples were found. Where non-compliant samples were found at both farm and slaughterhouse, the number of samples represents the sum of samples taken at both sampling points.

	Sub-total for A6	**2**		**3**
	Total in Honey	**2**		**3**
Total in all categories				**30**

D. LIST OF NON-COMPLIANT RESULTS: OTHER SAMPLING

Category	Group	Substances	MS	Number of samples analysed[(a)]	Non-compliant results	
					N	%
Bovines	**A3**	Dexamethasone	IT	528	8	1.5
		Sub-total for A3	**1**		**8**	
	B1	Amoxycillin	DE	110	5	4.6
		Benzylpenicillin (Penicillin G)	DE	120	19	16
			IT	183	2	1.1
		Chlortetracyclin	DE	91	1	1.1
			IT	190	1	0.5
		Ciprofloxacin	DE	74	2	2.7
		Dihydrostreptomycin	DE	105	6	5.7
		Enrofloxacin	DE	67	5	7.5
		Gentamicin	DE	96	13	14
		Inhibitors	DE	28163	162	0.6
		Marbofloxacin	DE	90	4	4.4
		Neomycin	DE	95	6	6.3
		Oxytetracycline	DE	91	1	1.1
			IT	190	2	1.1
		Sulfadiazine	IT	69	1	1.5
		Sulfadimidine	IT	69	1	1.5
		Sulfadoxine	DE	116	2	1.7
		Sulfamerazine	IT	69	1	1.5
		Sulfamethoxypyridazine	DE	103	1	1.0
		Tetracycline	DE	92	2	2.2
		Tylosin, Tylosin A	DE	93	2	2.2
		Sub-total for B1	**3**		**239**	
	B2e	Antipyrin-4-Amino	DE	18	1	5.6
		Antipyrin-4-Methylamino	DE	19	2	11
		Carprofen	DE	5	2	40
		Meloxicam	DE	22	1	4.6
		Sub-total for B2e	**1**		**6**	
	B2f	Dexamethasone	DE	13	2	15
		Sub-total for B2f	**1**		**2**	
	B3a	Dioxins	IT	16	1	6.3
		HCH-Beta	IT	48	4	8.3
		Sub-total for B3a	**1**		**5**	

Category	Group	Substances	MS	Number of samples analysed[(a)]	Non-compliant results	
					N	%
		Total in Bovines	**3**		**260**	
Pigs	**B1**	Amoxycillin	DE	217	5	2.3
		Ampicillin	DE	252	1	0.4
		Benzylpenicillin (Penicillin G)	DE	253	20	7.9
		Chlortetracyclin	DE	204	8	3.9
			IT	215	1	0.5
		Danofloxacin	DE	260	1	0.4
		Dihydrostreptomycin	DE	192	13	6.8
		Doxycycline	DE	377	29	7.7
		Enrofloxacin	DE	180	9	5.0
		Epi-Tetracycline	DE	40	2	5.0
		Gentamicin	DE	184	3	1.6
		Inhibitors	DE	257443	536	0.2
		Marbofloxacin	DE	261	10	3.8
		Neomycin	DE	1381	1	0.7
		Oxytetracycline	DE	204	2	1.0
		Sulfadiazine	DE	303	23	7.6
		Sulfadimethoxine	DE	303	2	0.7
			IT	85	2	2.4
		Sulfadimidine	DE	303	2	0.7
		Tetracycline	DE	204	9	4.4
			IT	215	1	0.5
		Tilmicosin	DE	251	1	0.4
		Trimethoprim	DE	234	21	9.0
		Sub-total for B1	**3**		**702**	
	B2a	2-Aminoflubendazole	DE	86	1	1.2
		Sub-total for B2a	**1**		**1**	
	B2e	Antipyrin-4-Amino	DE	86	3	3.5
		Antipyrin-4-Formylamino	DE	6	1	17
		Antipyrin-4-Methylamino	DE	90	1	1.1
		Flunixin-Meglumine	DE	86	1	1.2
		Phenazone	DE	10	2	20
		Sub-total for B2e	**1**		**8**	
		Total in Pigs	**3**		**711**	
Sheep/Goats	**B1**	Benzylpenicillin (Penicillin G)	DE	5	1	20
		Cefquinom	DE	3	1	33
		Inhibitors	DE	2938	6	0.2
		Marbofloxacin	DE	4	1	25
		Oxytetracycline	DE	2	1	50
		Sulfadoxine	DE	6	1	17
		Sulfonamides	DE	2	1	50
		Trimethoprim	DE	4	1	25

Category	Group	Substances	MS	Number of samples analysed[(a)]	Non-compliant results	
					N	%
		Sub-total for B1	**1**		**13**	
		Total in Sheep/Goats	**1**		**13**	
Horses	**A5**	Clenbuterol	BE	50	1	2.0
		Sub-total for A5	**1**		**1**	
	B1	Chlortetracyclin	DE	2	1	50
		Inhibitors	DE	130	3	2.3
		Oxytetracycline	DE	2	1	50
		Sub-total for B1	**1**		**5**	
	B2e	Acetylsalicylic acid	BE	50	1	2.0
		Phenylbutazone	BE	50	1	2.0
		Sub-total for B2e	**1**		**1**	
	B2f	Methylprednisolone	BE	50	1	2.0
		Sub-total for B2f	**1**		**1**	
		Total in Horses	**2**		**9**	
Poultry	**B1**	Doxycycline	IT	161	4	2.5
		Flumequine	IT	145	1	0.7
		Inhibitors	DE	38	1	2.6
		Sulfadimethoxine	IT	81	1	1.2
		Sub-total for B1	**2**		**7**	
	B2b	Robenidine	MT	7	1	14
		Sub-total for B2b	**1**		**1**	
	B3a	Dioxins	IT	15	4	27
		Sub-total for B3a	**1**		**4**	
		Total in Poultry	**3**		**12**	
Aquaculture	**B1**	Inhibitors	DE	47	1	2.1
		Sub-total for B1	**1**		**1**	
Milk	**B3a**	HCH-Alpha	IT	253	1	0.4
		HCH-Beta	IT	253	2	0.8
		Sub-total for B3a	**1**		**3**	
	B3d	Aflatoxin M1	IT	2544	9	0.35
		Sub-total for B3d	**1**		**9**	
		Total in Milk	**2**		**12**	
Eggs	**B3a**	Dioxins	IT	42	5	12
		Sub-total for B3a	**1**		**5**	
		Total in Eggs	**1**		**5**	
Honey	**B1**	Chlortetracyclin	IT	190	1	0.53
		Sulfamethoxazole	IT	172	1	0.58
		Tetracycline	IT	190	1	0.53
		Tylosin, Tylosin A	IT	110	1	0.91
		Sub-total for B1	**1**		**4**	
	B2c	Cypermethrin	IT	33	3	9.1
		Sub-total for B2c	**1**		**3**	
		Total in Honey	**1**		**7**	

Category	Group	Substances	MS	Number of samples analysed[(a)]	Non-compliant results	
					N	%
Total in all categories					**1030**	

E. ANNEX I TO DIRECTIVE 96/23/EC

ANNEX I TO DIRECTIVE 96/23/EC

GROUP A – Substances having anabolic effect and unauthorized substances

A.1. Stilbenes, stilbene derivatives, and their salts and esters

A.2. Antithyroid agents

A.3. Steroids

A.4. Resorcyclic acid lactones, including zeranol

A.5. Beta-agonists

A.6. Compounds included in Annex IV to Council Regulation (EEC) N° 2377/90 of 26 June 1990

GROUP B – Veterinary drugs and contaminants

B.1. Antibacterial substances, including sulphonamides, quinolones

B.2. Other veterinary drugs

a) Anthelmintics

b) Anticoccidials

c) Carbamates and pyrethroids

d) Sedatives

e) Non-steroidal anti-inflammatory drugs (NSAIDs)

f) Other pharmacologically active substances

B.3. Other substances and environmental contaminants

a) Organochlorine compounds, including PCBs

b) Organophosphorus compounds

c) Chemical elements

d) Mycotoxins

e) Dyes

f) Others

ABBREVIATIONS

Country Codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DK	Denmark
EE	Estonia
FI	Finland
FR	France
DE	Germany
GR	Greece
HU	Hungary
IE	Ireland
IT	Italy
LV	Latvia
LT	Lithuania
LU	Luxembourg
MT	Malta
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia

SK	Slovak Republic
ES	Spain
SE	Sweden
NL	The Netherlands
UK	United Kingdom