



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Directorate E Safety of the Food Chain
E3 - Chemical contaminants and pesticides

ANNEX I

**Report for 2007
on the results of residue monitoring in food of animal
origin in the Member States**

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Annex: ANNEX I TO DIRECTIVE 96/23/EC

1. 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

2. LEGAL BASIS

The aim of this report is to summarise the results of the national residue monitoring plans during the year 2007 in the Member States. This report includes for the second time the data obtained in Romania and Bulgaria.

Council Directive 96/23/EC on measures to monitor certain substances and residues thereof in live animals and animal products states that Member States should draft a national residue monitoring plan for the groups of residues detailed in its Annex I¹ in accordance with the sampling rules and levels referred to in Annex IV of the Directive. The Directive lays down sampling levels and frequency, as well as the groups of substances to be monitored for each food commodity. Decision 97/747/EC² lays down additional rules for certain animal products: milk, eggs, honey, rabbits and game.

National plans should be targeted to take the following minimum criteria into account: sex, age, species, fattening system, all available background information and all evidence of misuse or abuse of substances. Member States should forward to the Commission the results of their residue monitoring by 31 March of each year at the latest.

Additionally, suspect samples may also be taken as part of residue control. Suspect sample applies to a sample taken as a consequence of:

- non-compliant results
- suspicion of illegal treatment
- suspicion of non-compliance with the withdrawal period for an authorised veterinary medicinal product

What does “non-compliant result” mean?

Commission Decision 2002/657/EC³ concerning the performance of analytical methods and the interpretation of the results lays down rules for the analytical methods to be used in the testing of official samples and specifies common criteria for the interpretation of analytical results.

Since the entry into force of Decision 2002/657/EC (1 September 2002), the correct term for those analytical results exceeding the permitted limits (in previous reports termed “positives”) is “non-compliant”. A non-compliant result means that the result has a sufficient statistical certainty and can be used for legal purposes⁴.

¹ Annex I to Directive 96/23/EC lists the groups of substances to be covered by residue monitoring. It is presented in Annex 1 to this report for ease of reference.

² OJ L 303, 6.11.1997, p. 12-15

³ OJ L 221, 17.8.2002, p. 8-36

⁴ As laid down in Article 6 of Decision 2002/657/EC, the result of an analysis shall be considered non-compliant if the decision limit of the confirmatory method for the analyte is exceeded. Decision limit is defined in Article 6(3) as the lowest concentration at which the method can

Legal basis for permitted limits

For veterinary medicinal products, maximum residue limits (MRLs) are laid down in Council Regulation (EEC) No 2377/90⁵.

For pesticides, MRLs are laid down in Regulation (EC) No 396/2005⁶.

Maximum levels for lead, cadmium and mercury are laid down in Commission Regulation (EC) No 1881/2006⁷. For contaminants where no EU maximum levels had been fixed at the time of the collection of these samples, national tolerance levels were applied.

Minimum Required Performance Limits (MRPLs)

Annex to Commission Decision 2002/657/EC: means minimum content of an analyte in a sample, which at least 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, medroxyprogesterone acetate⁸ and malachite and leuco malachite green⁹ have been established so far.

3. MAIN FINDINGS IN 2007

This report includes for second time results from Bulgaria and Romania after their accession in 2006. Altogether, around 704 440 targeted samples (456 397 samples + 248 043 for inhibitor test in Germany) and 52 596 suspect samples were taken in all Member States in 2007, i.e. 687 445 targeted samples (439 445 samples for all groups + 248 000 for inhibitor tests in Germany and 52 000 suspect samples in 2006).

For hormones (stilbenes, steroids, thyrostats and zeranol derivatives), **0.14 %** of the samples taken in bovines were found to be non-compliant (0.18 % in 2006) and **0.06%** in pigs, compared to 0.09 % in 2006.

The number of non-compliant results for corticosteroids in bovines have decreased for the targeted sampling, from 74 target and 95 suspect in 2006 to **51** targeted and **7** suspect in 2007; dexamethasone was the most frequently found substance for corticosteroids both in terms of number of NC and number of MS finding it (8 Member States).

For Beta-agonists, the incidence of non-compliant results has again decreased from 0.08 % in 2005 to 0.06% in 2006 and to **0.01 %** in 2007. In addition to clenbuterol, 1 MS

confirm with a defined statistical certainty (99 % for substances for which no permitted limit has been established, and 95 % for all other substances) that the particular analyte is present.

⁵ OJ L 224, 18.8.1990, p. 1

⁶ OJ L 70, 16.3.2005, p. 1-16

⁷ OJ L 364, 20.12.2006, p. 5-24

⁸ OJ L 71, 15.3.2003, p.17

⁹ OJ L 6, 10.1.2004, p.38

reported in 2007 findings of cimaterol, mapenterol and tulobuterol and 2 MS of salbutamol.

For prohibited substances, the percentage of non-compliant results increased from 0.06 % in 2006 to **0.08 %** in 2007 in bovines. In pigs the percentage of non-compliant results for A6 remains at **0.07%**. Some non-compliant results were still found for chloramphenicol in different food commodities: bovines: 8 targeted, 7 suspect; pigs: 15 targeted; poultry: 7 targeted, 2 suspect, sheep: 1 targeted, aquaculture: 3 targeted, 4 suspect; milk: 9 targeted, and honey 1 target; for Nitrofurans clear decrease compared to 2006, bovines 1 target 1 suspect, poultry 1 target 3 suspect and 1 wild game. And for nitroimidazoles also decrease: pigs: 1 targeted; poultry: 5 targeted, farm game: 3 targeted. There were as well 3 NC for chlorpromazine in bovines.

The percentage of non-compliant results for antibacterials has decreased from 0.30 % in 2006 to **0.27 %** in 2007. 66 % of non-compliant results found in the meat were found in pigs. In terms of number of non-compliant results antibacterials remain the main problem for meat (bovines, pigs, sheep, goats, poultry, and rabbits) and for milk, rabbit meat and honey.

For veterinary medicinal products, in bovines most of the non-compliant results were for anti-inflammatory drugs such as dexamethasone (same as in 2005 and 2006), which has a MRL for meat, liver and milk but can also be used illegally as a growth-promoting agent. Additional investigations should be carried out when detecting residues in order to rule out that its presence is due to the illegal use as an anabolic substance. There were also some non-compliant results for non-steroid anti-inflammatory drugs (NSAIDs): phenylbutazone, flunixin meglumine, meloxicam and oxyphenbutazone in bovines, 1 phenylbutazone in milk, antipyrin in pigs, phenylbutazone and oxyphenbutazone in horses and 2 flunixin in poultry. 10 non compliant result for sedatives (promazine, azepromazine) were reported in bovines and 6 in pigs.

Non-compliant results for anticoccidials were reported in bovines (2), pigs (3), poultry (128, most of the non-compliants in poultry were for anticoccidials), eggs (71) and rabbits; the most commonly found substances were nicarbazin, lasalocid, and dinitrocarbanilide in 1 MS.

Anthelmintic residues were found in bovines (2 target, 1 suspect), pigs (5), sheep and goats (2) and milk (3). The most commonly found substances were ivermectines.

In 2007 there have not been findings of carbadox and olaquinox residues.

The results for the controls carried out on environmental contaminants are also included in this report: Non-compliant results for heavy metals (cadmium, lead, mercury, zinc and arsenic) were reported for bovines, pigs, sheep and goats, horses, aquaculture, milk, rabbit meat, farmed game, wild game and honey.

Also residues of organochlorine compounds such as e.g. DDT, dioxins, PCBs, HCH, PCDD, PCDF and PCBs were reported in bovines, poultry, sheep and goats, aquaculture, milk, eggs, rabbits and wild game. No organophosphorous were found in 2007.

Germany has reported findings of cotinin and nicotin residues in poultry and eggs.

Mycotoxins have been found in bovines and milk (aflatoxin M1) and ochratoxin A in bovines and pigs.

Regarding animal products, in aquaculture most of non-compliant results were as in previous years for malachite green, found in twelve Member States. The number of non-compliant results in 2006 was 68 targeted and 101 suspect and **47** target and **117** suspect in 2007. Other non compliant results were for chloramphenicol, antibacterials, organochlorines and heavy metals.

In milk, most of the non-compliant results were for antibacterials followed by aflatoxin M1 and organochlorine compounds (PCBs); chloramphenicol was also found by 1 Member States.

In eggs non-compliant results were mainly for anticoccidials, which are not authorised as feed additives for laying hens older than 16 weeks, but residues are often found in eggs, possibly due to cross-contamination of the feed in the feed mill, followed by organochlorine compounds and antibacterials .

The use of antibacterials in bees is not authorised; several non-compliant results for antibacterials were reported in honey as well as for heavy metals, carbamates, naphtalene and 1 for chloramphenicol.

OVERALL CONCLUSION

Overall the picture shows an increase of 3.7 % in the number of target samples taken for residue control. There has been a decrease in the percentage of NC results for group A substances such hormones, beta-agonists and illegal substances (except for chloramphenicol for which the total number of NC results in all food commodities remains the same as in 2006).

The same distribution of NC results remains as in previous years. There is a continuing problem with residues of antimicrobial agents throughout the commodities tested. This highlights the importance of Member States utilising broad spectrum antimicrobial screening tests and taking appropriate corrective and preventive measures to decrease the prevalence of such residues above the MRLs.

The issue of malachite green warrants highlighting, the total number of non-compliant have decreased however the prevalence rate of residues has increased relative to 2006 (target 2,86% in 2006 and 3,13% en 2007 and suspect 27,3% in 2006 and 30,2% in 2007). However in many cases investigations have not been able to identify illegal use of malachite green and the presence of residues can only be explained by the long persistence of the leuco-malachite green in water and soil.

4. BOVINES, PIGS, SHEEP AND GOATS, HORSES AND POULTRY

4.1. PRODUCTION AND PERCENTAGE OF TARGETED SAMPLES: BOVINES, PIGS, SHEEP AND GOATS, HORSES

Directive 96/23/EC establishes the minimum number of samples that have to be analysed for each food commodity in relation to the production figures for the previous year. As an example, the number of bovine samples that have to be analysed in 2008 is 0.4% of the number of bovine animals slaughtered in 2007. In all cases, the minimum number of samples is respected for the EU overall.

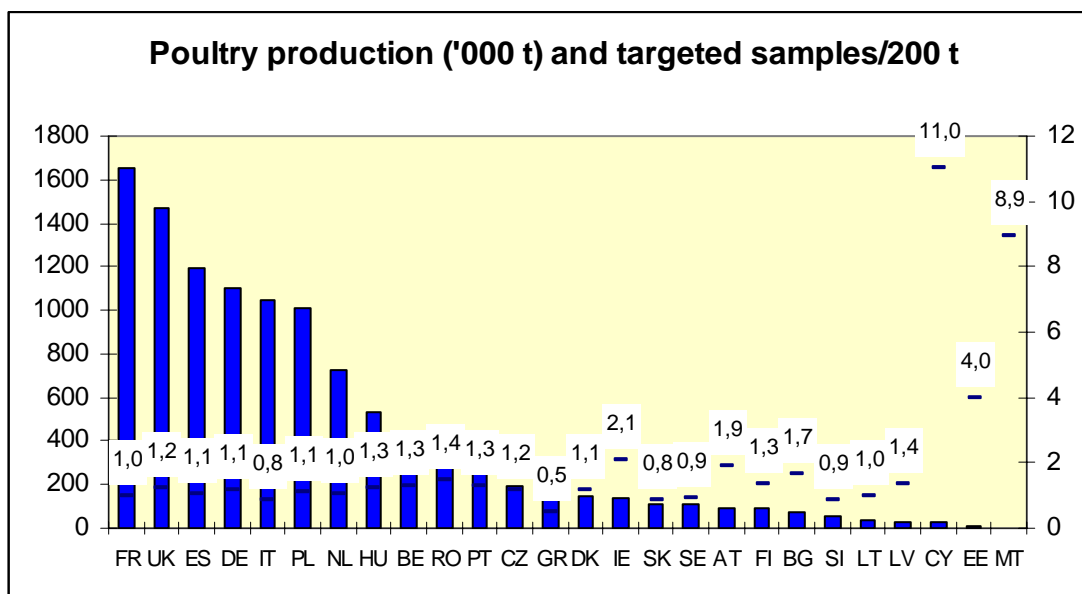
Table 1. Number of animals slaughtered and targeted samples

Bovines	Production	Targeted samples	% Animals tested	Minim. 96/23
2005 (EU 25)	27 900 727	139 152	0.49	0.4
2006 (EU 27)	27 674 217	132 675	0.48	
2007 (EU 27)	27 087 367	129 201	0.48	
Pigs				
2005 (EU 25)	232 383 755	162 179	0.07	0.05
2006 (EU 27)	235 533 027	145 788	0.06	
2007 (EU 27)	241 501 638	144 378	0.06	
Sheep-goats				
2005 (EU 25)	38 534 502	26 578	0.07	0.05
2006 (EU 27)	40 984 410	27 042	0.07	
2007 (EU 27)	40 935 665	26 599	0.06	
Horses				
2005 (EU 25)	340 317	3 543	0.88	Not specified
2006 (EU 27)	268 099	3 451	1.29	
2007 (EU 27)	312 969	3 115	1	

4.2 PRODUCTION AND PERCENTAGE OF TARGETED SAMPLES: 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 5,000t. The graph below shows poultry production in '000 t in the Member States arranged by level of production and the number of targeted samples per 200 t of annual production. IT, GR, SK, SE and SI did not achieve the minimum number of 1 sample per 200 tons.

Graph 1



For the EU as a whole, 62 101 targeted samples were taken in 2007, compared to 60 983 in 2006. The production increased from 10.7 million t in 2006 to 10.9 million t in 2007. The number of samples per 200 t remains unchanged.

Table 2. Poultry: production t and number of targeted samples

Poultry (t)	Production	Targeted samples	Samples tested/200t	Minimum
2005 (EU 25)	10 358 202	62 853	1.21	1/200 t
2006(EU 27)	10 786 077	60 983	1.13	
2007 (EU 27)	10 912 500	62 101	1.13	

4.3 NON-COMPLIANT RESULTS

4.3.1. HORMONES

Hormones are endogenous substances produced by endocrine glands (A3). In this chapter there are included also synthetic, hormonally active substances such as stilbenes (classified as A1, gestagens A3 and thyrostats -A2). A4 are resorcylic acid lactones, hormonally active as well and potentially used with growth promoting purposes but which presence in the food of animal origin could be linked to the ingestion of fungal contamination of feed.

In previous years, there were no non-compliant (NC) results for group A1 (stilbenes and derivatives), in 2007 Belgium reported 2 NC for diethylstilboestrol in materials.

In 2006 there were no NC results for thyrostatic agents continuing with the tendency on the absence of NC for this group since 2000, except in 2005 when FR reported 8 NC. However in 2007 ES has reported 1 NC for methylthiouracil in bovines (target) and FR has reported 40 NC for thiouracil (31 in bovines (17 tested in the farm and 14 in the slaughterhouse), 4 pigs and 5 sheep and goat tested at the slaughterhouse). FR has developed a very sensitive method capable of detecting concentrations below the recommended concentration values by the CRL (10 ppb). In all cases concentrations were below 10 ppb and FR reported that the presence of thiouracils at such low levels could be linked to diet containing cruciferous plants.

Regarding A4, zearalenone is a non-steroidal estrogenic mycotoxin produced by several *Fusarium* species, residues can occur in food of animal origin where animal ingest contaminated feed.

In terms of absolute results, in bovine 57 933 targeted were taken in 2007 for A1, A2, A3 and A4 (1.6 % less than in 2006). 86 non-compliant results were found for A3 (Some of them finally reported as naturally occurred (101 in 2006) which is 1.6 % of NC of the bovines tested for A3 (slight decrease compared to 2006 where the NC rate was of 1.8 %). 57 NC for A4 compared to 5 in 2006, however the feed contamination has been identified as the origin of all NC results for A4 in bovines in 2007 and therefore not linked to illegal use of growth promoting substances. If considering all target samples taken for A1, A2, A3 and A4 in bovines **0.14 %** were NC compared to **0.18 %** in 2006.

Belgium reported 2 NC for MPA in feed for bovines and 4 for different substances including clobetasolpropionate, MPA, testosterone and testosteronepropionate.

In pigs, 18 out of 12 167 were NC for A3 (26 out of 11 751 in 2006), 4 NC for A2 in FR and 4 for A4 in DE could not be linked to illegal use of growth promoters rather than to the presence in the feed. In total 27 907 targeted samples (1.7 % more than in 2006) were taken which result in **0.06 %** of non-compliant results for hormones in pigs in the EU (0.09 % in 2006).

In sheep 12 NC for nortestosterone cypionate in the UK there were no evidences of illegal use, animals were extensively reared. 5 NC for thyrostats in FR due to feed containing cruciferous.

In horses 1 NC for epinandrolone was reported by NL.

In poultry 1 NC for nandrolone was reported by FR and 1 NC for estradiol by the NL.

Specific substances and figures are given in Tables 3, 4, 5, 6, 7 and 8 for both targeted and suspect sampling.

Table 3: stilbenes (A1)

Stilbenes (A1)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovine	13 093	13 182	951	1 241
Pigs	6 502	6 431	38	22
Sheep and goats	565	514		0
Horses	111	79		8
Poultry	3 095	3 205	11	0

Table 4: antithyroid agents (A2)

Antithyroid agents (A2)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	5 638	5 361	185	62
Pigs	2 954	3 075	4	4
Sheep and goats	363	357	5	0
Horses	69	73	2	0
Poultry	1 022	910	0	0

Table 5: steroids (A3)

Steroids (A3)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	28 009	27 073	2 350	2 793
Pigs	11 751	12 167	83	68
Sheep and goats	1 156	1 148	10	0
Horses	193	152	3	8
Poultry	3 912	3 827	3	3

Table 6: Thyrostats (A2) non-compliant results

Species	Substances	MS	NC
BOVINES	5-Methyl-2-thiouracil	ES (1)	1
	Thiouracil	FR (31)	31
	TOTAL A2 Bovine target		32
PIGS	Thiouracil	FR (4)	4
	TOTAL A2 Pigs target:		4
SHEEP	Thiouracil	FR (5)	5
	TOTAL Sheep/Goat A2 target:		5

Table 7: steroids (A3) non-compliant results

Species	Substances	MS	NC
BOVINES	Boldenone	DE(1); UK (2)	3
	Boldenone-Alpha	DE (21)	21
	Dexamethasone	IT (23); NL (6)	29
	Epinandrolone (19-Norepitestosterone)	AT (2)	2
	Estradiol-17-Alpha	FR (1)	1
	Estradiol-17-Beta	FR (1)	1
	Nandrolone	DE (2); FR (2); UK (13)	17
	Prednisolone	IT (2)	2
	Progesterone	UK (7)	7
	Testosterone-17-Beta	AT (1); NL (1)	2
	Trenbolone	ES (1)	1
	TOTAL A3 bovine target:		
Suspect	Boldenone-Alpha	DE (1)	1
	Dexamethasone	IT (7)	7
	Estradiol-17-Alpha	UK (1)	1
	Estradiol-17-Beta	BE (20)	20
	Estradiol benzoate	BE (1)	1
	Nortestosterone cypionate	UK (3)	3
	Nortestosterone decanoate	UK (43)	43
	Prednisolone	IT (7)	7
	Testosterone-17-Alpha	BE (20)	20
	Testosterone phenylpropionate	BE (1)	1
TOTAL A3 bovine suspect:			104
PIGS	Boldenone	DE (2);	2
	Nandrolone	CZ(1); DE (3); FR (12)	16
Target	TOTAL A3 pigs target:		18
SHEEP/GOAT	Nortestosterone cypionate	UK (12)	12
Target	TOTAL A3 Sheep and goat target:		12
HORSES	Epinandrolone (19-Norepitestosterone)	NL (1)	1
Target	TOTAL A3 Horses target:		1
POULTRY	Estradiol-17-Beta	NL (1)	1
	Nandrolone	FR (1)	1
Target	TOTAL A3 poultry target:		2

Table 8: resorcilic acid lactones (A4)

Resorcilic acid lactones (A4)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	12 140	12 317	953	1 254
Pigs	6 233	6 234	50	45
Sheep and goats	588	543	7	0
Horses	95	98	2	8
Poultry	3 112	3 138	2	1

Table 9: resorcilic acid lactones (A4) non-compliant results

Species	Substances	MS	NC
BOVINES			
Target	Alpha-Zeralanol (Zeranol)	DE(9); FR (9); UK (2)	20
	Beta Zearalanol (Taleranol)	DE (23); EE (1); FR (9)	33
	Zearalanone	ES (4)	4
	TOTAL A4 bovine target:		57
Suspect	Zearalanone	ES (1)	1
	TOTAL A4 bovine suspect:		1
PIGS			
Target	Alpha-Zeralanol (Zeranol)	DE (4)	4
	Beta Zearalanol (Taleranol)	DE (2)	2
	TOTAL A4 pigs target:		6
SHEEP/GOATS			
Target	Alpha-Zeralanol (Zeranol)	GR (1)	1
	Beta Zearalanol (Taleranol)	DE (1); GR (1)	2
	TOTAL Sheep/goat A4 target:		3
HORSES			
Target	Alpha-Zeralanol (Zeranol)	DE (1)	1
	Beta Zearalanol (Taleranol)	DE(1)	1
	TOTAL A4 horses target:		2

4.3.2 CORTICOSTEROIDS

With regard to corticosteroids, some Member States (e.g. Italy, the Netherlands and Denmark) include these in group A3 because they are steroids, whereas others allocate them to B2f (other pharmacologically active substances). Though e.g. dexamethasone, betamethasone and prednisolone can be legally used in the EU it is also known their growth promotion effects if used in cocktails with other illegal substances. The Member States that include all corticosteroids in group A argue that they then have more legal powers to respond to fight against illegal use.

In 2007 there has been a clear decrease in the number of NC results for corticosteroids compared to previous years: bovines 51 NC target compared to 74 in 2006, and 7 suspect in 2007 compared to 95 in 2006, 60 targeted and 126 suspect in 2005.

It is interesting that the same MS that found NC results for corticosteroids in previous years have also found them in 2007 (AT, IT, ES, FR, BE, NL, DE), except for AT that had 1 NC in 2006 and 0 in 2007 and PT and MT that had 0 NC in 2006 and 1 each in 2007. In addition Belgium reported 13 NC for several corticosteroids in materials (prednisolone, triamcinolone acetonide in cocktail with Mabuterol (beta-agonist) and methylboldenone (A3), 2 dexamethasone and 7 isonicotinate of dexamethasone).

Information on substances found is given in Table 10.

Table 10: corticosteroids non-compliant results

Species	Substances	MS	NC
BOVINES Target			
A3	Dexamethasone	IT (23); NL (6)	29
	Prednisolone	IT (2)	2
B2f	Dexamethasone	DE (1);ES (7);FR (2); MT (1); PT (1)	12
	Methylprednisolone	ES (1); FR (1)	2
	Prednisolone	BE (3); ES (3)	6
TOTAL Corticosteroids bovine target:			51
BOVINES Suspect			
A3	Prednisolone	IT (7)	7
B2f	Dexamethasone	BE (1); ES (6)	7
TOTAL Corticosteroids bovine suspect:			7
PIGS Target			
B3f	Prednisolone	FR (1)	1
	Prednisone	FR (1)	1
TOTAL Corticosteroids pigs target:			2

Table 11: corticosteroids non-compliant results

Corticosteroid	Species/number of non-compliance
Dexamethasone	Bovine: 41 target, 7suspect -8 MS
Prednisolone	Bovine: 8 target, 14 suspect – 3 MS Pigs: 1 target – 1 MS
Methylprednisolone	Bovine: 2 target – 2 MS
Prednisone	Pigs: 1 target -1 MS

4.3.3. BETA-AGONISTS

The group beta-agonist includes several substances chemically classified as phenethanolamine derivatives which have in common to react with the beta-receptors in the body. Beta-agonists are known to have growth promoting effects, Directive 96/22/EC prohibits the use of beta-agonist in food producing animals except for well-defined therapeutic purposes and under strict veterinary control.

The percentage of non-compliant results for Beta-agonists is calculated by comparing the total number of samples in bovines tested for Beta-agonists with the non-compliant results found.

The number of targeted samples taken for the control of beta-agonists has decrease by 4 % compared to 2006. There has been a clear decrease in the number of NC results for beta-agonists. The percentage of non-compliant results for Beta-agonists in bovines has decreased from 0.06 % in 2006 to 0.01 % in 2007. In terms of absolute results, 17 targeted and 87 suspect non-compliant results were found in 2006 and **3** targeted and **24** suspects in bovines in 2007; in pigs 10 targeted non-compliant results and 3 suspect in

2006 and 2 targeted in 2007. No non-compliant results were found for sheep in 2007 or 2006, and 3 NC were found in feed for poultry in 2007.

Table 12: beta-agonists (A5)

Beta-agonists (A5)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	25 600	24 907	1 944	1 113
Pigs	13 561	12 753	262	52
Sheep and goats	1 688	1 553	27	6
Horses	342	149	6	5
Poultry	5 594	5 562	45	4
TOTAL	46 785	44 924	2 284	1 225

Table 13: beta-agonists (A5) non-compliant results

Species	Substances	MS	NC
BOVINES			
Target	Cimaterol	GR (1)	1
	Clenbuterol	NL (1); PT (1)	2
	TOTAL bovine target:		3
Suspect	Clenbuterol	IT (22)	22
	Salbutamol	BE (1); ES (1)	2
	TOTAL bovine suspect:		24
PIGS			
Target	Mapenterol	GR (1)	1
	Tulobuterol	GR (1)	1
	TOTAL pigs target:		2
POULTRY			
Target	Clenbuterol	GR (3)	3
	TOTAL poultry target:		3

4.3.4. PROHIBITED SUBSTANCES (A6)

Group A6 lists compounds included in Annex IV to Council Regulation No 2377/90/EEC which are prohibited substances other than the ones covered by Directive 96/22/EC.

For bovines, the percentage of non-compliant targeted results in the EU increased from 0.06 % in 2006 to **0.08%** in 2007. In absolute terms **12** NC were found in 2007(8 chloramphenicol, 1 nitrofurans and 3 chlorpromazine) and **9** in 2006 (chloramphenicol only). See Table 14 for details.

For pigs, the percentage of non-compliant for targeted samples has not changed 0.07 % in 2007 same as in 2006. In absolute terms the number of non-compliant samples for A6 in pigs increased from 9 in 2006 to **16** in 2007. 7 MS reported findings of chloramphenicol in pigs in 2006 and 6 in 2007, three of them found chloramphenicol in 2006 and 2007.

For poultry, in 2006, **15** target samples were found non-compliant for A6 (11 chloramphenicol, 3 nitrofurans and metabolites and 1 ronidazol) compared to 13 target and 5 suspect in 2007 (9 chloramphenicol, 4 nitrofurans and 5 nitroimidazoles, see Table 14 for details).

For sheep and goats **1** NC result for target samples for chloramphenicol was reported compared to 3 in 2006.

Considering all food commodities (see also 5. animal products: aquaculture (1 DE, 1 FR and 1 IT), milk (ES 9), Honey (ES 1) 12 MS have found chloramphenicol residues in targeted and/or suspect samples.

Table 14: prohibited substances

Prohibited substances (A6)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	15 073	14 547	3 510	3 885
Pigs	18 868	19 880	302	256
Sheep and goats	2 008	1 924	41	12
Horses	220	169	11	8
Poultry	16 888	16 552	152	122
TOTAL	53 057	53 072	4 016	4 283

The list of substances found for targeted and suspect samples is shown in the following table.

Table 15: prohibited substances (A6) non-compliant results

Species	Substances	MS	NC
BOVINES			
	AMOZ	ES (1)	1
	Chloramphenicol	CZ (2); DE (2); ES (2); FR (1), NL (1)	8
	Chlorpromazine	GR (3)	3
TOTAL A6 Bovine target:			12
Suspect	AOZ	ES (1)	1
	Chloramphenicol	AT (1); CZ (4); PL (2)	7
TOTAL A6 bovine suspect:			8
PIGS			
Target	Chloramphenicol	AT (2); CZ (5); FR (1); GR (4); LT (1)LV (2);	15
	Metronidazole	FR (1)	1
TOTAL A6 pigs target:			16
Sheep/Goats			
Target	Chloramphenicol	ES (1)	1
TOTAL A6 Sheep/goat target			1
POULTRY			
Target	Chloramphenicol	BE (1); CZ (2); UK (1); IT (2); NL (1)	7
	Furaltadone	ES (1)	1
	Nitroimidazoles (group)	FR (4)	4
	Ronidazol	CY (1)	1
TOTAL A6 poultry target:			13
Suspect	AOZ	IT (3)	3
	Chloramphenicol	CZ (2)	2
TOTAL A6 poultry suspect:			5

Table 16 : A6 non-compliant

Chloramphenicol	• Bovines: 6 target, 7 suspect	6 MS
	• Pigs: 15 target	7 MS
	• Sheep/goats: 1 target	1 MS
	• Poultry: 7 target, 2 suspect	5 MS
Nitrofurans	• Bovines: 3 target, 1 suspect	2 MS
	• Poultry: 1 target, 3 suspect	2 MS

4.3.5. ANTIBACTERIALS

In this report results for antibacterials include several groups of active substances against bacteria e.g: sulfonamides, penicillins, quinolones, tetracyclines, etc. It should be pointed out that there are different ways of interpreting the results of the analysis for antimicrobials, depending on the analytical method used: Screening tests allow a high sample throughput and a high number of samples to be analysed in a relatively short time and they are designed to minimise the number of false negatives. When residues are found in a screening test, a confirmatory test shall be carried out, which normally involves a more sophisticated testing method, providing full or complementary information enabling the substance to be identified precisely and confirming that the MRL has been exceeded. These tests are intended to keep the number of false non-compliant results as low as possible.

In the case of antibacterials, some of the screening tests are based on microbiological tests, whereby the sample is cultivated in different bacterial media. If, after the incubation period, the sample has inhibited the growth of the bacteria, it is considered that an antibacterial is present, but the specific substance is not identified. Given that this is a qualitative analytical method, a misinterpretation of the results cannot be ruled out, and some false positives can occur. Physico-chemical analysis provides information on the specific substance present in the sample.

In some Member States and under specific control programmes, 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 there is thus no conclusive identification of the substance concerned. In other cases, a positive result in the screening test is confirmed by means of a physico-chemical test, and it is then possible to identify the substance and establish whether its concentration is above the MRL. Another possibility is to analyse directly with a physico-chemical test (i.e. sulfonamides analysis).

In Germany, for instance, there are two different strategies. One is to fulfil the requirements of Directive 96/23/EC and for which all results obtained by inhibitor tests are confirmed by physico-chemical methods to check compliance with MRLs. For the second strategy, all analyses are carried out by inhibitor tests (e.g. n-plate test) and food for which positive results are obtained is considered unfit for human consumption according to national law. 18 948 samples for bovines, 225 788 for pigs, 3 687 for sheep, were analysed under this scheme, giving rise to 93 positive inhibitor tests for bovines, 302 for pigs and 4 for sheep.

With regard to suspect samples, NL had the highest absolute number of non-compliant results (230 for bovines, and 191 for pigs). In NL, in the event of positive results for inhibitor tests, investigations in the farm of origin are carried out to check whether the withdrawal period has been respected; also, carcasses are detained for 24 hours until the result is available. If it is positive for the inhibitor test, the sample is considered non-compliant, without the need for physico-chemical methods. This strategy explains the higher number of samples taken by the Netherlands compared to other Member States.

In Belgium, during meat inspections in the slaughterhouses, carcasses considered suspect by the veterinary inspector are subject to an inhibitor test. If the results are non-compliant, the carcasses are considered unfit for human consumption. In Austria there is

a similar system as in Belgium; if a carcass considered suspect by the veterinary inspector, it is detained and subject to an inhibitor and chloramphenicol test. If the result is non-compliant, the carcass is considered unfit for human consumption. In addition to the Belgium system a confirmation by a physico-chemical method is done in order to have more information available for the check of the farm of origin.

The number of targeted samples in 2006 was 114 548 targeted samples + 248 043 inhibitor test in Germany, total 362 551 targeted samples compared to 110 541 + 248 103 (inhibitors in Germany) total 358 644 targeted samples for bovines, pig, sheep and goats, horses and poultry in 2007.

The number of targeted non-compliant results without considering the NC results for inhibitors test in Germany has decreased from 389 in 2006 to **304** in 2007 which in percentage corresponds to 0.33 % in 2006 and **0.27 %** in 2007. When considering also results for inhibitor tests carried out in Germany the percentage also decrease from 0.21 % in 2006 to 0.19 % in 2007 corresponding to 781 and **703 NC** respectively in 2006 and 2007. 66% of non-compliant targeted samples were found in pigs, 25% in bovines, 5% in sheep and goats and 5% in poultry.

In the table below, the number of target and suspect samples taken for antibacterials in bovines, pigs, sheep, goats, horses and poultry is listed. In addition to this some MS have reported the number of samples taken for inhibitor tests as explained above.

Table 17: antibacterials

Antibacterials (B1)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	27 012	25 054	22 381	20 984
Pigs	58 884	56 554	16 825	18 294
Sheep and goats	11 715	11 407	407	415
Horses	585	572	33	62
Poultry	16 352	16 954	203	149
Total	114 548	110 541	39 849	39 904

Table 18: antibacterials non-compliant results

Species	Substances	MS	NC
Bovines			
Target	Amoxicillin	BE	1
	Antibacterials	FR (1); UK (8); PL (8)	17
	Benzylpenicillin (Penicillin G)	SE (3)	3
	Chlortetracyclin	FR (1); IT (1)	2
	Ciprofloxacin	ES (1)	1
	Dihydrostreptomycin	FR (3)	3
	Doxycycline	FR (1); NL (1)	2
	Florfenicol	UK (2)	2
	Gentamicin	DE (1)	1
	Inhibitors	DE (93)	93
	Neomycin	ES (2)	2
	Neospiramycin	FR (1)	1
	Oxolinic acid	FR (1)	1

	Oxytetracycline	ES (5); FR (12); IT (2); NL (4)	23
	Penicillin	FR (2)	2
	Sarafloxacin	ES (3)	3
	Spiramycin	FR (1)	1
	Sulfadiazine	BE (1); ES (1)	2
	Sulfadimethoxine	BE (1); IT (3)	4
	Sulfaethoxypyridazine	FR (1)	1
	Tetracycline	DE (2); FR (5)	7
	Tulathromycin	FR (1)	1
	Tylon (Tylosin, Tylosin A)	FR (1)	1
TOTAL B1 Bovine target:			174
Suspect	Amoxicillin	IT (2)	2
	Antibacterials	UK (6); PL (3); NL (230)	239
	Benzylpenicillin (Penicillin G)	AT (1); BE (3); DK (11); IT (1)	16
	Ceftiofur	BE (2)	2
	Ciprofloxacin	AT (1); FI* (1); IT (1)	4
	Danofloxacin	BE (1); IT (1)	2
	Dihydrostreptomycin	ES (3)	3
	Enrofloxacin	FI* (1); IE (1); IT (2)	4
	Florfenicol	BE (1)	1
	Inhibitors	DE (25); ES (16)	41
	Marbofloxacin	IE (1)	1
	Neomycin	ES (1)	1
	Oxytetracycline	AT (2); BE (4); DK (5); ES (2); IE (4); IT (2)	19
	Procain-Benzylpenicillin	BE (3)	3
	Spiramycin	DK (7)	7
	Sulfadimethoxine	BE (2)	2
	Sulfadimidine	AT (1)	1
	Tetracycline	AT (1); DE (5)	6
Tilmicosin	BE (3)	3	
Trimethoprim	BE	3	
Tylon (Tylosin, Tylosin A)	BE (3)	3	
Fi* same animal NC for ciprofloxacin and enrofloxacin			TOTAL B1 Bovine suspect: 363
Pigs			
Target	Amoxicillin	BE (6); DE (1); DK (1)	8
	Ampicillin	BE (3)	3
	Antibacterials	FR (1); UK (2); PL (8);	11
	Benzylpenicillin (Penicillin G)	BE (2); DE (1); DK (3)	6
	Chlortetracyclin	DE (1); ES (9); GR (1); NL (4)	15
	Ciprofloxacin	ES (1)	1
	Dihydrostreptomycin	CZ (1)	1
	Doxycycline	BE (1); ES (2); GR (1); NL (2)	6
	Enrofloxacin	ES (3)	3
	Inhibitors	DE (302)	302
	Lincosamides	CY (1)	1
	Marbofloxacin	FR (1)	1
	Oxytetracycline	ES (31); FI (1); FR (1); GR (2)	35
	Penicillin	FR (1)	1
	Spiramycin	BE (1)	1
	Sulfachlorpyridazine	GR (3)	3
	Sulfadiazine	BE (2); CY (2); ES (6); GR (4); IT (1); NL (1); PT	19

		(3)	
	Sulfadimethoxine	BE (1); DE (1); IT (8)	10
	Sulfadimidine	ES (1); GR (13)	14
	Sulfadoxine	BE (1)	1
	Sulfamerazine	IT (3)	3
	Sulfamethoxazole	AT (1)	1
	Sulfamethoxy pyridazine	GR (1)	1
	Sulfonamides	UK (4)	4
	Tetracycline	DE (2); ES (4)	6
	Tetracyclines	IT (1)	1
	Tilmicosin	NL (1)	1
	Trimethoprim	DE (1)	1
	Tylon (Tylosin, Tylosin A)	ES (2)	2
TOTAL B1 Pigs target:			462
Suspect	Amoxicillin	BE (1); IT (2)	3
	Antibacterials	MT (5); NL (191)	196
	Chlortetracyclin	DE (1); IT (1)	2
	Ciprofloxacin	IT (1)	1
	Dihydrostreptomycin	CZ (1)	1
	Doxycycline	ES (1)	1
	Enrofloxacin	IT (1)	1
	Inhibitors	DE (5)	5
	Marbofloxacin	IE (1)	1
	Oxytetracycline	AT (1); BE (2); ES (9)	12
	Sulfadiazine	ES (3)	3
	Sulfadimethoxine	IT (1)	1
TOTAL B1 Pigs suspect:			227
Sheep/Goats	Amoxicillin	ES (1)	1
Target	Chlortetracyclin	ES (3)	3
	Doxycycline	FR (1)	1
	Inhibitors	DE (4)	4
	Oxytetracycline	ES (3); FR (1)	4
	Sulfadiazine	BE (1); ES (15); FR (1); PT (1)	18
	Sulfamethoxy pyridazine	BE (1)	1
	Tetracycline	ES (1)	1
TOTAL B1 Sheep/goats target:			33
Suspect	Sulfadiazine	ES (4)	4
	Antibacterials	NL (2)	2
TOTAL B1 Sheep/goat suspect:			6
Horses	Antibacterials	PL (1)	1
Target	TOTAL B1 Horses target:		1
Suspect	Antibacterials	MT (1); PT (1)	2
TOTAL B1 Horses suspect:			2

Poultry	Antibacterials	UK (1); PL (6)	7
Target	Chlortetracyclin	ES (1)	1
	Ciprofloxacin	ES (1)	1
	Doxycycline	BE (2); DE (1);	3
	Enrofloxacin	ES (14)	14
	Oxytetracycline	ES (1); FR (1)	2
	Sulfachlorpyridazine	BE (1)	1
	Sulfadimidine	AT (1)	1
	Sulfaquinoxaline	HU (2)	2
	Tetracyclines	PL (1)	1
TOTAL B1 Poultry target:			33
Suspect	Antibacterials	PL (1)	1
	Enrofloxacin	ES (3)	3
	Oxytetracycline	ES (1)	1
	Quinolones	ES (3)	3
	Tetracyclines	ES (1)	1
TOTAL B1 Poultry suspect:			9

4.3.6. OTHER VETERINARY MEDICINAL PRODUCTS (B2)

Residues of other veterinary medicinal products are classified according to their pharmacological action in group B2 e.g.: anthelmintics, coccidiostats, carbamates and pyrethroids, sedatives, NSAIDs and others. The following table shows the non-compliant results found for group B2, which includes “other veterinary medicinal products” for both targeted and suspect sampling.

For anthelmintics (B2a) 2 target and 1 suspect NC (above MRLs established for these substances) were found in bovine, 5 target in pigs, and 2 in sheep and goats.

For coccidiostats (B2b) 128 NC were found in poultry (110 in 2006) the most found substance/specie is nicarbazin/poultry (46 in 7 MS) and 50 NC for dinitrocarbanilide in FR (see also results for eggs see chapter 5.3).

No carbamates or pyrethroids (B2c) were found in 2006 and 2007.

11 NC was reported for sedatives (B2d) in bovines and 6 in pigs.

Non-steroidal anti-inflammatory drugs NSAIDs: 22 NC were found in 4 MS including target and suspect samples in bovines, 1 in pigs, 4 in horses and poultry (2).

All NC results for group B2f (other veterinary medicines) were for anti-inflammatory steroids found above MRLs in 6 MS.

Table 19: other veterinary medicinal products B2

Other veterinary medicinal products (B2)	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	20 555	22 393	1 725	1 097
Pigs	28 859	29 496	127	72
Sheep and goats	6 439	6 766	43	14
Horses	864	829	18	8
Poultry	11 312	12 177	97	133
Total	68 029	71 661	2 010	1 324

Table 20: other veterinary medicinal products B2 non-compliant results

Species	Group	Substances	MS	NC
Bovines	B2a	Ivermectin	ES (1); IT (1)	2
TOTAL B2a Bovines target:				2
	B2b	Lasalocid	DE (1)	1
		Salinomycin	BE (1)	1
TOTAL B2b Bovine target:				2
	B2d	Acepromazine	GR (1)	1
		Promazine	GR (9)	9
TOTAL B2d Bovine target:				10
	B2e	Flunixin	DE (1)	1
		Meloxicam	FR (1)	1
		Oxyphenbutazone Anhydrate	DE (1)	1
		Phenylbutazone	AT (1); DE (1); FR (2); UK (1)	5
TOTAL B2e Bovine target:				8
	B2f	Dexamethasone	DE (1); ES (7); FR (2); MT (1); PT (1)	12
		Methylprednisolone	ES (1); FR (1)	2
		Prednisolone	BE (3); ES (3)	6
TOTAL B2f Bovine target:				20
Suspect	B2a	Ivermectin	BE (1)	1
TOTAL B2a Bovine suspect:				1
	B2d	Acepromazine	DE (1)	1
TOTAL B2s Bovine suspect:				1
	B2e	Antipyrin-4-Methylamino	AT (2)	2
		Flunixin	BE (7)	7
		Phenylbutazone	DE (1)	1
		Tolfenamic acid	BE (4)	4
TOTAL B2e Bovine suspect:				14
	B2f	Dexamethasone	BE (1); ES (6)	7
TOTAL B2f Bovine suspect:				7
Pigs	B2a	Doramectin	ES (1)	1
		Levamisole	LT (1); NL (1); PT (2)	4
TOTAL B2a Pigs target:				5
	B2b	Nicarbazin	ES (1)	1
		Sulfadiazine	IT (2)	2
TOTAL B2s Pigs target:				3
	B2d	Acepromazine	DE (1)	1

		Azaperone	DE (1)	1
		Xylazine	GR (4)	4
TOTAL B2d Pigs target:				6
	B2e	Antipyrin-4-Methylamino	AT (1)	1
TOTAL B2e Pigs target:				1
	B2f	Prednisolone	FR (1)	1
		Prednisone	FR (1)	1
TOTAL B2e Pigs target:				2
Sheep/Goats	B2a	Abamectin (Avermectin B1)	UK (1)	1
		Ivermectin	NL (1)	1
TOTAL B2a Sheep/goat target:				2
Horses	B2e	Oxyphenbutazone Monohydrate	PL (1)	1
		Phenylbutazone	AT (1); UK (1); PL (1)	3
TOTAL B2e Horses target:				4
Poultry	B2b	Chlopidol	CY (3)	3
Target		Diclazuril	DE (1); ES (2); FR (3);	6
		Dinitrocarbanilide	FR (50)	50
		Lasalocid	CZ (1), UK (1); PL (4)	6
		Maduramicin	FR (9); PL (1)	10
		Monensin	CY (1)	1
		Nicarbazine	BE (1); ES (5); UK (21); IE (14); IT (2); NL (1); PL (2)	46
		Robenidine	ES (1); FR (1)	2
		Salinomycin	MT (1); PL (3)	4
TOTAL B2b Poultry target:				128
	B2e	Flunixin	AT (2)	2
TOTAL B2e Poultry target:				2
Suspect	B2b	Diclazuril	ES (1)	1
		Monensin	ES (1)	1
		Narasin	PL (1)	1
		Nicarbazine	ES (5)	5
		Salinomycin	ES (1); MT (2); PL (4)	7
		Semduramicin	PL (2)	2
TOTAL B2b Poultry suspect:				17

4.3.7. OTHER SUBSTANCES AND ENVIRONMENTAL CONTAMINANTS (B3)

The following table shows the non-compliant results found for group B3, which includes “other substances and contaminants” for targeted and suspect sampling.

Both the number of targeted samples (see table) and the number of NC results have decreased in 2007 compared to 2006: 264 target and 364 suspect in 2006 and 241 NC target and 81 suspect in 2007

Table 21: other substances and environmental contaminants B3

Other substances and environmental contaminants B3	Targeted samples		Suspect samples	
	2006	2007	2006	2007
Bovines	9 161	8 345	144	153
Pigs	12 061	11 929	739	66
Sheep and goats	3 416	3 532	46	23
Horses	1 224	1 060	18	2
Poultry	5 706	5 369	376	12
Total	31 568	30 235	1 323	256

Table 22: other substances and environmental contaminants non-compliant results

Species	Group	Substances	MS	NC
Bovines	B3a	gamma-HCH (Lindane)	ES (1)	1
		WHO-PCDD/F-PCB-TEQ	BE (4); DE (1)	5
		WHO-PCDD/F-TEQ	BE (2)	2
TOTAL B3a Bovine target:				8
	B3c	Cadmium Cd	CZ (6); DE (4); DK (5); ES (3); UK (9); HU (4) LT (1); NL (14); PL (5); SI (4)	55
		Lead Pb	DE (1); DK (1); UK (2); HU (3); IT (1)	8
		Mercury Hg	DE (1)	1
TOTALB3c Bovine target:				64
	B3d	Aflatoxin B1	IT (2)	2
		Ochratoxin A	CY (4)	4
TOTAL B3d Bovine target:				6
Suspect	B3a	Dioxins	IT (1)	1
		WHO-PCDD/F-PCB-TEQ	DE (1)	1
		WHO-PCDD/F-TEQ	DE (1)	1
TOTALB3a Bovine suspect:				3
	B3c	Cadmium Cd	CZ (44); DE (4)	48
TOTAL B3b Bovine suspect:				48
Pigs	B3c	Cadmium Cd	BE (1); DE (2); ES (4); GR (2); NL (1); PL (8); PT (1)	19
		Lead Pb	ES (1); FR (1); GR 91); IT (2); PL (2)	7
		Mercury Hg	CY (1); DE (23)	24
		Zinc Zn	PT (2)	2
TOTAL B3c Pigs target:				52
	B3d	Ochratoxin A*	CY (7); FI (1); PL (4)	12
TOTAL B3d Pigs target:				12
Suspect	B3c	Cadmium Cd	PL (10)	10

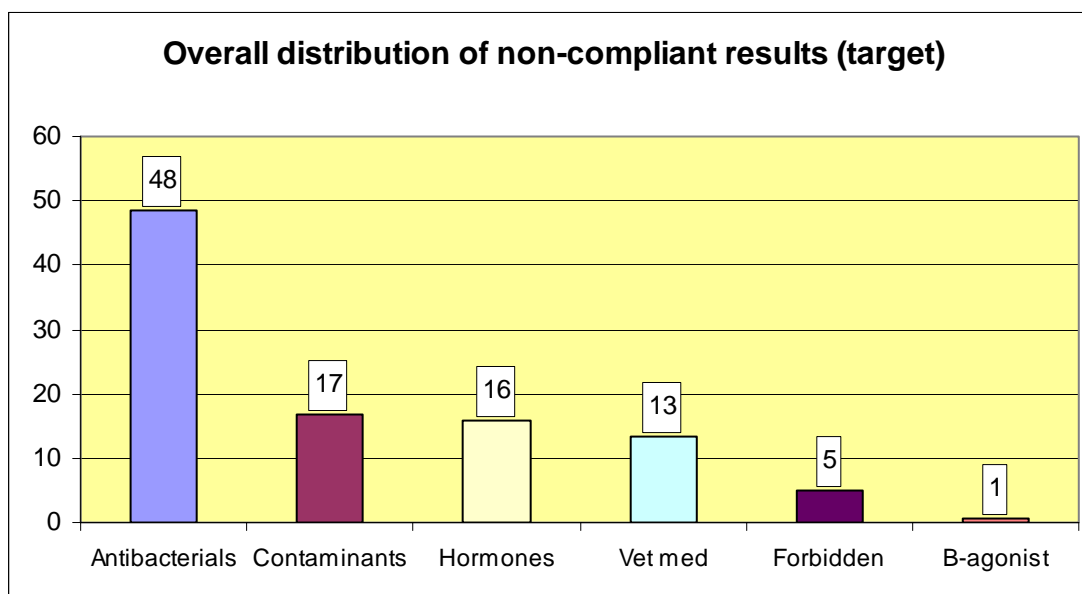
		Lead Pb	PL (3)	3
TOTAL B3c Pigs suspect:				13
Sheep/Goats	B3a	HCH-Beta	BG (2)	2
Target		PCB 138	SK (1)	1
		PCB 153	SK (1)	1
		PCB 180	SK (1)	1
		PCB 28	SK (1)	1
		WHO-PCDD/F-PCB-TEQ	BE (1)	1
TOTAL B3a Sheep/goat target:				7
	B3c	Cadmium Cd	DE (5); ES (3); UK (4); GR (23); HU (1); NL (2)	38
		Lead Pb	ES (1); GR (13)	14
		Mercury Hg	CY (1); DE (2)	3
		Zinc Zn	ES (1)	1
TOTAL B3c sheep/goat target:				56
Suspect	B3a	WHO-PCDD/F-PCB-TEQ	DE (6)	6
		WHO-PCDD/F-TEQ	DE (5)	5
TOTAL B3a sheep/goat suspect:				11
	B3c	Zinc Zn	ES (1)	1
TOTAL B3c sheep/goat suspect:				1
Horses	B3c	Cadmium Cd	AT (1); BE (1); CZ (3); DE (1); DK (5); ES (6); FR (5); IT (1); MT (1); PL (4); RO (1); SK (1)	30
TOTAL B3c Horses Target:				30
Poultry	B3a	Dioxins	IT (1)	1
TOTAL B3a Poultry target:				1
	B3c	Cadmium Cd	ES (1); HU (2); IT (1); NL (1)	5
TOTAL B3c Poultry Target:				5
Suspect	B3a	WHO-PCDD/F-PCB-TEQ	DE (1)	1
		WHO-PCDD/F-TEQ	DE (1)	1
TOTAL B3a Poultry suspect:				2
	B3f	Nicotine	DE (3)	3
TOTAL B3f Poultry suspect:				3

*National levels

4.3.8. EU OVERALL DISTRIBUTION OF NON-COMPLIANT RESULTS BOVINES, PIGS, SHEEP, GOATS, HORSES, POULTRY

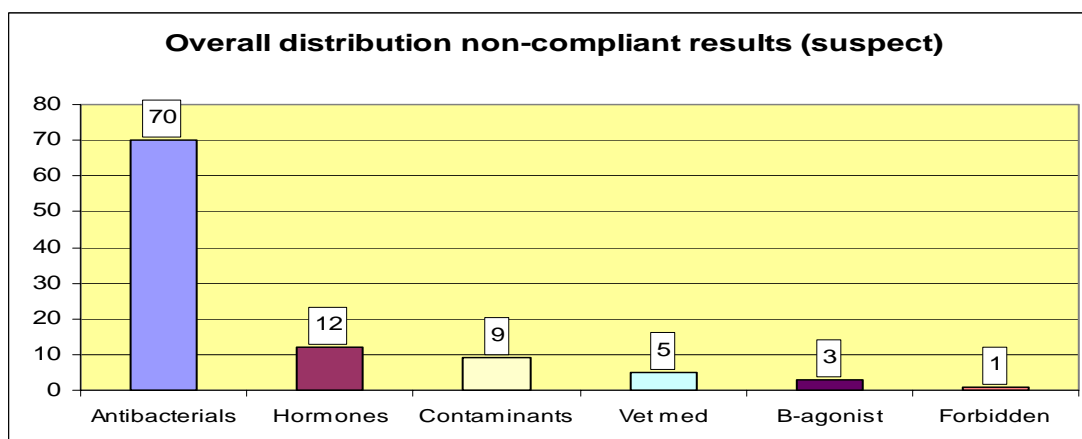
The boxes below show the overall distribution of non-compliant results in the EU. With regard to targeted samples, 48 % the non-compliant results were non-compliant for antibacterials, 17% for environmental contaminants, 16 % for hormones, 13% for veterinary medicinal products, 5 % for prohibited substances and 1 % for Beta-agonists.

Graph 2



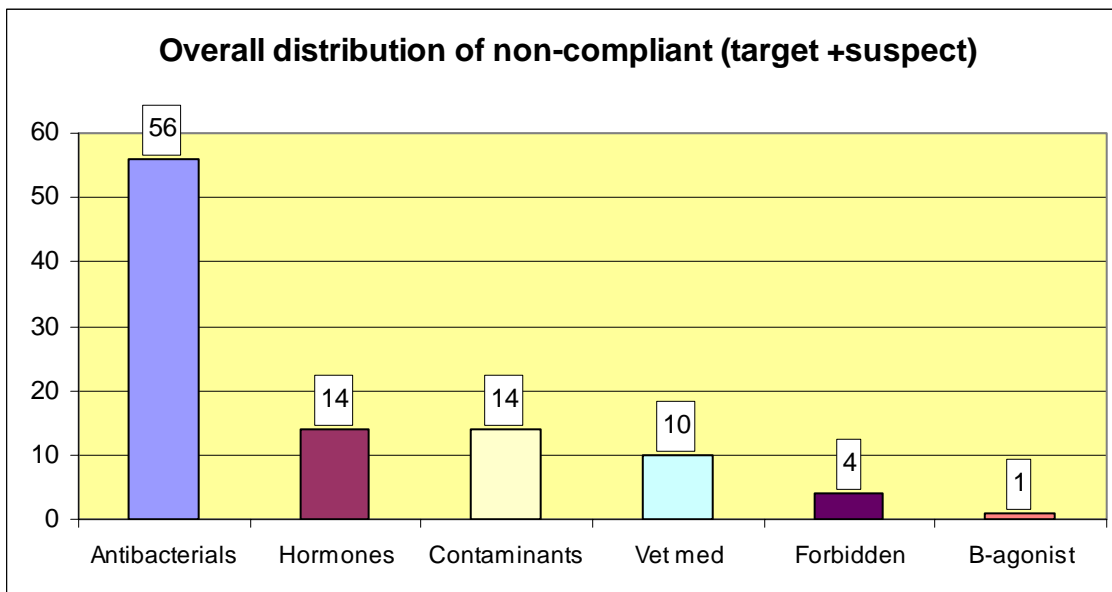
For suspect samples, 70 % were non-compliant for antibacterials, 12 % for hormones, 9% for environmental contaminants, 5% for veterinary medicinal products, 3 % for Beta-agonists and 1 for prohibited substances. The number of non-compliant results after suspect sampling is not indicative of the prevalence of non-compliance since investigations of one single case of a non-compliant targeted sample may imply many suspect samples taken in the same farm.

Graph 3



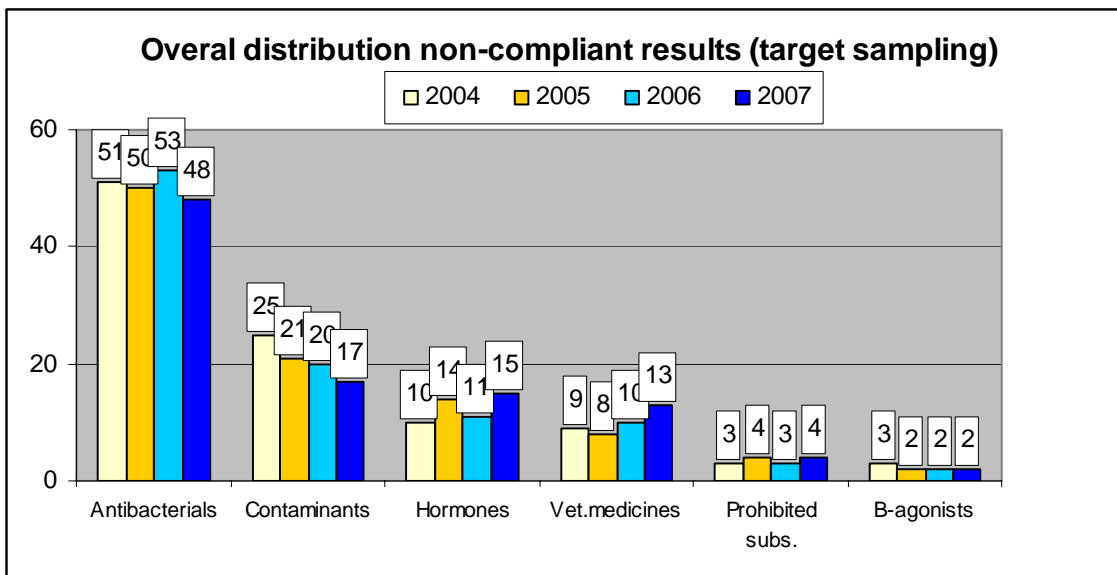
The box below shows the overall distribution of non-compliant results, including targeted and suspect samples.

Graph 4



The following boxes show the pattern of the overall distribution for targeted sampling in 2004 (EU 25), 2005 (EU 25) and 2006-2007 (EU 27) with no significant changes on the overall distribution of NC.

Graph 5



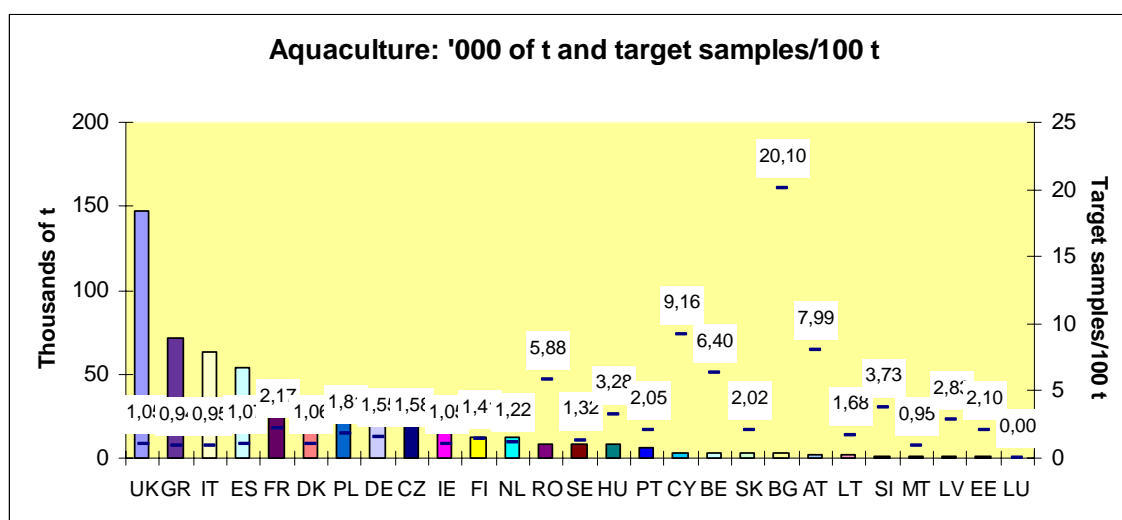
5. ANIMAL PRODUCTS

5.1. AQUACULTURE

The number of samples to be collected each year must be at least 1 per 100 t of annual production. In 2006, EU production was 602 555 t (compared to 596 558 t in 2005). 9,257 targeted samples were taken (9,099 targeted samples in 2006) and 344 suspect samples in 2007 were collected (355 in 2006).

In the graph below, the columns show aquaculture production in '000 t in 2006. Member States are classified by volume of production. The numbers at the top represent the number of targeted samples per 100 t. LU had no production and took no samples. GR, IT and MT did not achieve the minimum number of samples.

Graph 6



There was a decrease in the number of non-compliant results for target samples in 2007 compared to 2006 (81 target in 2006 and 69 in 2007). The number of NC results for suspect sampling has however increased from 101 in 2006 to 122 in 2007. 1 % production increase in production and 1.7 % increase in the number of targeted samples.

In 2007 there were **2** non-compliant results for steroids (estradiol 17-beta), **3** for banned substances (chloramphenicol), **10** for antibacterials, **4** for organochlorines, **3** for heavy metals. Most non-compliant results were as in previous years for **malachite green** (**47** targeted and **117** suspect compared to 68 targeted and 101 suspect in 2006). Non-compliant results for malachite green were found in 12 Member States. Malachite green is a chemical pharmacologically active substance whose use as a veterinary medicinal product for food-producing animals is not authorised in the Community.

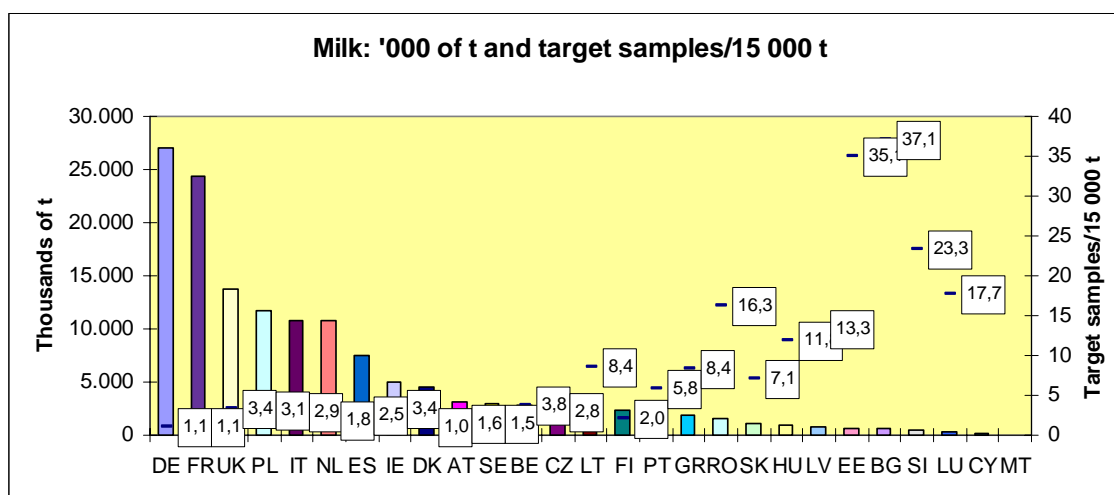
Table 23: aquaculture non-compliant results

Species	Group	MS	Substances	Samples	NC
TARGET					
	A3	NL	Estradiol-17-Beta	5	2
A3 Hormones			1	5	2
	A6	DE	Chloramphenicol	59	1
		FR	Chloramphenicol	86	1
		IT	Chloramphenicol	149	1
A6 Forbidden substances			3	294	3
	B1	DE	Inhibitors	50	1
		FR	Flumequine	168	2
		FR	Sulfadiazine	84	1
		UK	Antibacterials	87	3
		UK	Tetracyclines	84	2
		PL	Antibacterials	85	1
B1 Antibacterials			6	558	10
	B3a	CY	PCB 8	25	1
		LT	Dioxins	6	2
		PL	DDT: Sum DDT, DDE, DDD	61	1
B3a Organochlorines			3	92	4
	B3c	CY	Lead Pb	24	1
		ES	Lead Pb	94	1
		RO	Cadmium Cd	97	1
B3c Heavy Metals			6	488	3
	B3e	AT	Malachite Green-Leuco	85	6
		BE	Malachite Green-Leuco	78	1
		BG	Malachite Green-Leuco		1
		CZ	Malachite Green-Leuco	81	5
		DE	Malachite Green-Leuco	370	12
		ES	Malachite Green-Leuco	52	2
		FR	Malachite Green-Leuco	381	3
		UK	Malachite Green-Leuco	240	2
		NL	Malachite Green-Leuco	47	3
		PL	Malachite Green	127	8
		SK	Malachite Green	30	1
		SK	Malachite Green-Leuco	30	3
B3e Dyes			13	1521	47
Aquaculture Target sampling				2958	69
SUSPECT					
	A6	DE	Chloramphenicol	48	4
A6 forbidden substances			1	48	4
	B3a	BE	WHO-PCDD/F-PCB	1	1
B3a Organochlorines			1	1	1
	B3e	AT	Malachite Green	138	4
		AT	Malachite Green-Leuco	138	66
		CZ	Malachite Green-Leuco	8	1
		DE	Malachite Green-Leuco	54	23
		PL	Malachite Green	49	23
B3e Dyes			5	387	117
Aquaculture Suspect sampling				436	122

5.2 MILK

The annual number of samples should be 1 per 15 000 t of annual milk production, with a minimum of 300 samples. In 2006, the EU produced 142 461 705 t, (145 066 930 t in 2005) and 51 571 targeted samples were analysed in 2007 (32 771 in 2006). The following graph shows production in '000 t and the number of samples taken/15 000 t. Member States are classified by volume of production. For the whole of the EU there was an increase in the number of non-compliant results in 2007 (140 targeted and 53 suspect) compared to 2006 (109 targeted, 22 suspect).

Graph 7



*Cyprus, Malta number of samples/15 000 t falls out of the scale of the graph.

There were **9** targeted non-compliant results for chloramphenicol, **106** for antibacterials, **3** for anthelmintics, **1** for NSAIDs, **2** for organochlorines, **6** for heavy metals and **13** for mycotoxins. The total number of NC for target samples has increased from 109 in 2006 to 140 in 2007, same for suspect sampling 22 to 53.

The following table shows the number of non-compliant results for **milk**, broken down by group of substances.

Table 24: milk non-compliant results

Group	MS	Substances	Samples	NC
TARGET				
A6	ES	Chloramphenicol	371	9
A6 forbidden substances		1	371	9
B1	CY	Antibacterials	21651	73
	DE	Benzylpenicillin	304	1
	EE	Benzylpenicillin	60	1
	ES	Benzylpenicillin	28	1
	FR	Oxacillin	640	1
	LT	Antibacterials	1163	17
	LT	Penicillins (group)	45	4
	NL	Antibacterials	410	1

	PL	Antibacterials	1488	4
	SE	Benzylpenicillin	299	1
	SK	Amoxycillin	110	1
	SK	Oxytetracycline	110	1
B1 antibacterials			12	26308
				106
B2a	DE	Doramectin	1344	1
	IE	Albendazol	229	1
	IE	Ivermectin	229	1
B2a anthelmintics			3	1802
				3
B2e	DE	Phenylbutazone	1290	1
B2e NSAIDs			1	1290
				1
B3a	IT	Dioxins	23	2
B3a Organochlorines			1	23
				2
B3c	GR	Lead Pb	6	6
B3c heavy metals			1	6
				6
B3d	FI	Aflatoxin M1	169	2
	GR	Aflatoxin M1	4	4
	IT	Aflatoxin M1	932	5
	PT	Aflatoxin M1	24	2
B3d Mycotoxins			4	1129
				13
Milk target sampling			30929	140
SUSPECT				
B1	ES	Amoxycillin	2	2
	ES	Ampicillin	3	3
	ES	Cloxacillin	8	8
	ES	Procain-Penicillin	18	18
B1 antibacterials			4	31
				31
B3a	IT	Dioxins	4	3
B3a organochlorines			1	4
				3
B3d	FI	Aflatoxin M1	25	4
	IT	Aflatoxin M1	63	15
B3d mycotoxines			2	88
				19
Milk suspect sampling			123	53

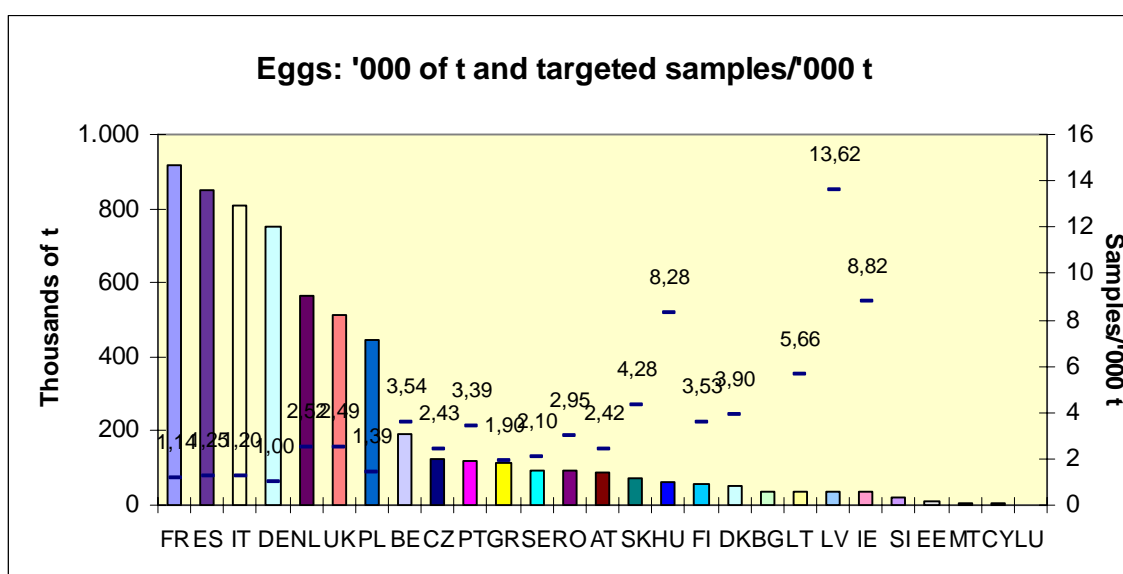
5.3 EGGS

The number of samples to be taken each year must be at least equal to 1 per 1 000 t of annual egg production, with a minimum of 200 samples.

In 2006, the EU produced 6 114 369 t of eggs (5 956 800 t in 2005) and 13 685 targeted samples (compared to 13 013 targeted samples in 2006) were analysed.

In the graph below, the columns show egg production in '000 t in 2006. Member States are classified by volume of production. The numbers at the top represent the number of targeted samples per 1 000 t. CY, LU, EE, BU, SI and MT have low production and compared with the number of samples give to figures well above the other Member States falling outside the graph below.

Graph 8



The number of non-compliant results has not changed for the targeted sampling (82 in 2006 and 2007) and decreased for the suspect (24 suspect in 2007 and 56 suspect in 2006). Non-compliant results were mainly for anticoccidials (72 targeted and 21 suspect found in 9 different MS), followed by antibacterials (3 targeted, 1 suspect) and organochlorine compounds (7 targeted). In 2007 again no MS reported non-compliant results for A6 substances as it was the case in 2006 and 2005.

The following table shows the number of non-compliant results for **eggs**, broken down by group of substances.

Table 25: eggs non-compliant results

Group	MS	Substances	Samples	NC
TARGET				
B1	FR	Sulfadiazine	211	1
	SI	Ciprofloxacin	53	1
	SI	Enrofloxacin	53	1
B1 antibacterials			3	317
B2b	AT	Salinomycin	209	3
	CZ	Narasin	54	1
	CZ	Nicarbazin	54	8
	DE	Lasalocid	259	4
	DE	Nicarbazin	235	1
	DK	Salinomycin	139	6
	ES	Nicarbazin	65	6
	ES	Robenidine	56	1
	FR	Diclazuril	108	7
	FR	Dinitrocarbanilide	108	18
	FR	Maduramicin	108	1
	FR	Robenidine	108	7
	UK	Nicarbazin	234	2
	LV	Lasalocid	0	1
	LV	Salinomycin	0	2
	PL	Nicarbazin	69	1
	PL	Salinomycin	69	2
	PL	Semduramicin	69	1
B2b anticoccidials			18	1944
B3a	DE	DDT: Sum DDT, DDE, DDD	39	1
	DE	WHO-PCDD/F-PCB-TEQ	76	3
	DE	WHO-PCDD/F-TEQ	105	2
	EE	DDT: Sum DDT, DDE, DDD	30	1
B3a organochlorines			4	250
B3c	SK	Cadmium Cd	90	1
			1	90
Eggs target sampling			2565	82
SUSPECT				
Group	MS	Substances	Samples	NC
B1	PL	Tetracyclines	1	1
B1 antibacterials			1	1
B2b	AT	Salinomycin	2	1
	CZ	Narasin	27	1
	CZ	Nicarbazin	27	8
	DE	Nicarbazin	7	4
	ES	Nicarbazin	26	6
	PL	Nicarbazin	8	1
B2b anticoccidials			6	97
B3f	DE	Cotinine	1	1
	DE	Nicotine	7	1
B3f other contaminants			2	8
Eggs suspect sampling			106	24

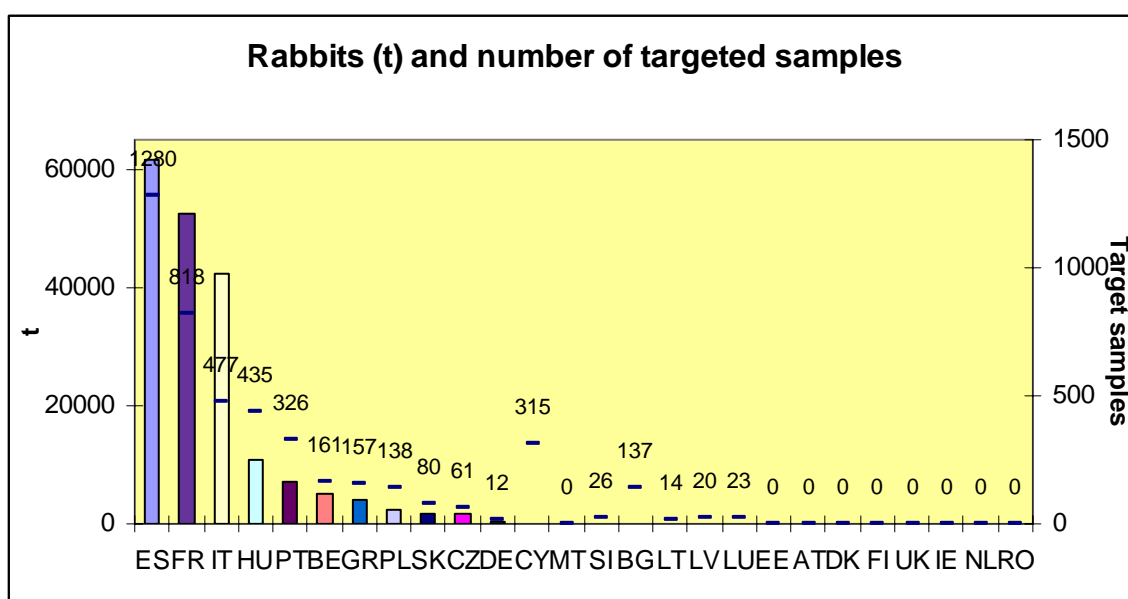
5.4 RABBIT MEAT

The number of samples to be taken each year must be equal to 10 per 300 t of annual production for the first 3 000 t, plus one sample for each additional 300 t. The following graph shows the production in t and the number of samples taken/300 t.

AT, DK, FIN, IRL, NL, RO, SE and UK reported no production for rabbits. MT took no samples. Total production in the EU in 2006 was 189 932 t (181 603 t in 2005) and 4 480 targeted samples (4 061 in 2006) were taken.

In the graph below, the columns show rabbit meat production in t in 2006. Member States are classified by volume of production. The numbers at the top represent the number of targeted samples.

Graph 9



The number of non-compliant results for targeted samples has decreased in relation to 2006 (38 targeted in 2006 and 28 in 2007). In 2007 there has not been any NC for suspect sampling in rabbits whereas in 2006 there were 24 non-compliant results and 23 in 2006.

Most non-compliant results were for antibacterials (**21** targeted). The following table shows the number of non-compliant results for **rabbit meat**, broken down by group of substances.

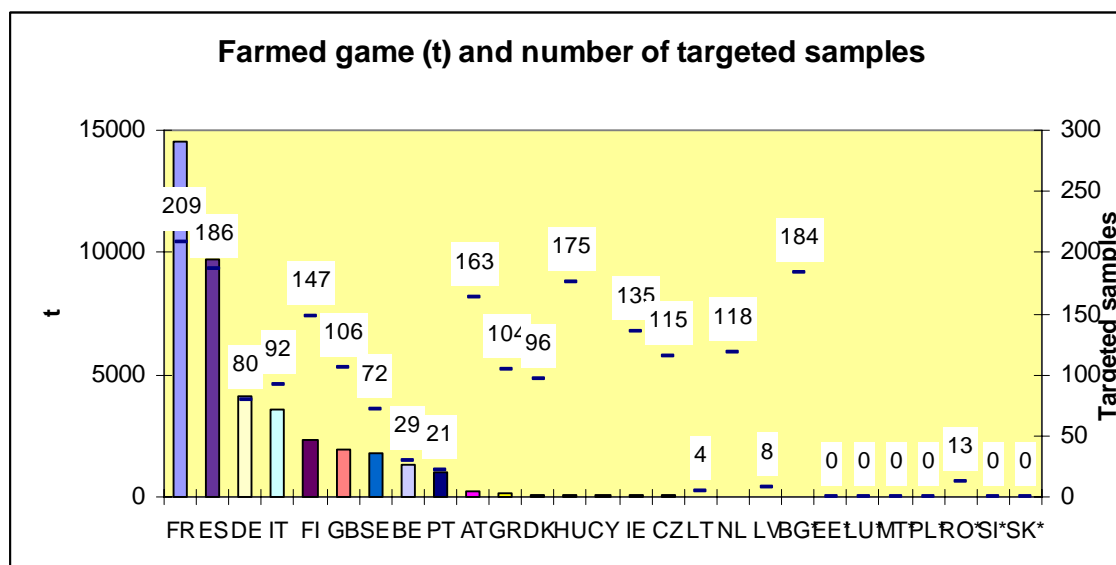
Table 26: rabbits non-compliant results

Group	MS	Substances	Samples	NC
TARGET				
B1	CY	Sulfonamides	10	1
	ES	Doxycycline	65	2
	ES	Enrofloxacin	38	4
	ES	Oxytetracycline	66	2
	FR	Sulfadimethoxine	250	9
	IT	Oxytetracycline	26	2
	IT	Sulfadimethoxine	95	1
B1 antibacterials			7	550
B2b	ES	Robenidine	50	4
	IT	Robenidine	60	1
B2b anticoccidials			2	110
B3a	ES	Gamma-HCH (HCH, Lindane)	78	1
B3a organochlorines			1	78
B3c	CY	Cadmium Cd	5	1
B3c Heavy Metals			1	45
Rabbits target sampling			743	28

5.5. FARMED GAME

The number of samples to be taken each year must 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). Total production in the EU in 2006 was 40 895 t (51 944 t in 2005). 2 286 targeted samples were taken (2 236 in 2006). In the graph below, the columns show farmed game production in t in 2006. The Member States are classified by volume of production. The numbers at the top represent the number of targeted samples.

Graph 10



There were **29** non-compliant targeted results in 2007 (13 in 2006). 1 non-compliant result was for Beta-agonists, 3 for ronidazol, 1 for antibacterials, 2 for coccidiostats, and 22 for heavy metals.

Table 27: farmed game non-compliant results

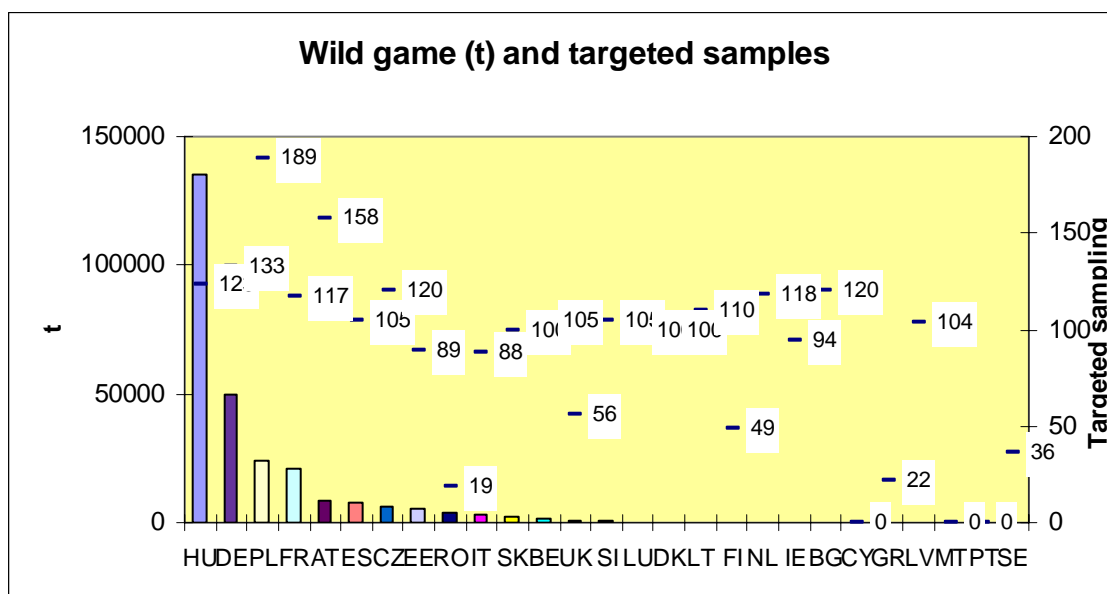
Group	MS	Substances	Samples	NC
TARGET				
A5	AT	Salbutamol	11	1
A5 Beta-agonists			11	1
A6	BE	Ronidazol	17	3
A6 forbidden substances			17	3
B1	ES	Enrofloxacin	2	1
B1 antibacterials			2	1
B2b	CY	Monensin	8	1
	CZ	Salinomycin	13	1
B2b coccidiostats			21	2
B3c	CY	Lead Pb	20	3
	FI	Cadmium Cd	47	17
	FR	Lead Pb	23	1
	NL	Lead Pb	10	1
B3c Heavy Metals			124	22
Farmed game: target sampling			178	29

5.6 WILD GAME

The number of samples to be taken each year must be at least 100. In the graph below, the columns show wild game production in t in 2006. The Member States are classified by volume of production. The numbers at the top represent the number of targeted samples. The minimum number of 100 samples was not achieved by some MS. However, the minimum number of 100 samples was set as a provisional rule to be reviewed in light of the information provided by the Member States on their production figures.

BG, CY, GR, LV, MT, PT and SE reported no wild game production and took no samples.

Graph 11



There was a decrease in the number of non-compliant results (**203** in 2006 and **145** in 2007). With the exception of **9** non-compliant results for organochlorine compounds and **1** for nitrofurans the rest (**135** targeted) of the non-compliant results reported were for chemical elements.

The following table shows the number of non-compliant results for **wild game**, broken down by group of substances.

Table 28: wild game non-compliant results

Group	MS	Substances	Samples	NC
TARGET				
A6	IT	AOZ (3-amino-2-oxazolidone)	1	1
A6 forbidden			1	1
B3a	DE	gamma-HCH (HCH, Lindane)	126	1
	DE	HCH-Alpha	126	2
	DE	HCH-Beta	126	3
	PL	DDT: Sum DDT, DDE, DDD	80	2
B3a organochlorine			4	458
B3c	AT	Lead Pb	115	8
	CZ	Lead Pb	87	3
	DK	Cadmium Cd		1
	DK	Lead Pb	100	3
	EE	Cadmium Cd	42	30
	ES	Cadmium Cd	40	1
	FI	Cadmium Cd	21	10
	FR	Cadmium Cd	90	10
	HU	Lead Pb	0	6
	IE	Lead Pb	94	1
	LT	Lead Pb	40	3

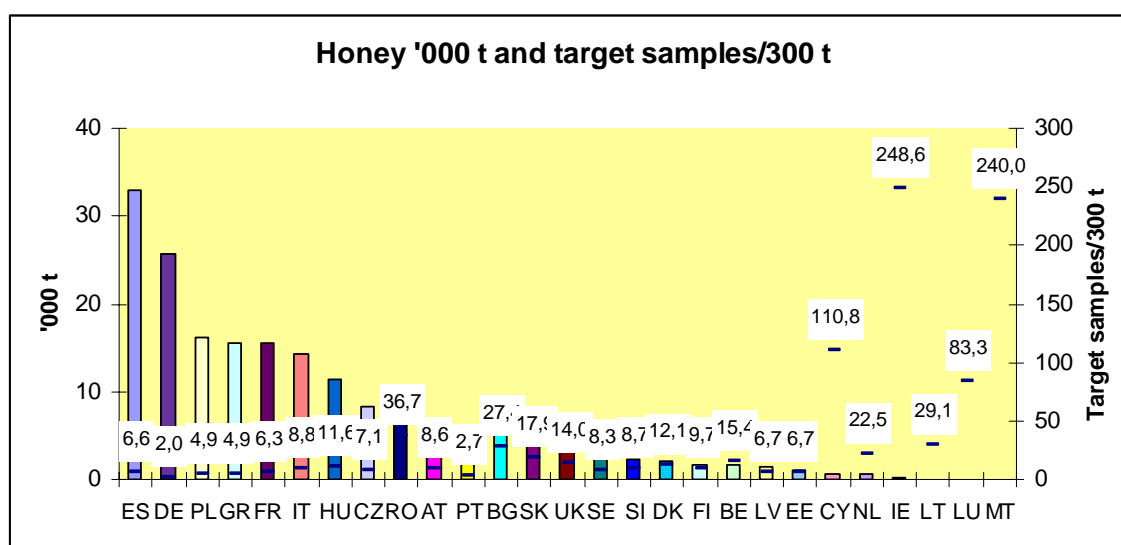
	LV	Cadmium Cd		19
	LV	Lead Pb		5
	NL	Cadmium Cd	118	6
	NL	Lead Pb	118	7
	PL	Cadmium Cd	109	16
	PL	Lead Pb	109	5
	PT	Lead Pb	65	1
B3c Heavy metals			18	1148
Wild game target sampling			1607	144

5.7 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. The following graph shows the production in t and the number of samples taken/300 t. Member States are classified by volume of production. The numbers at the top represent the number of targeted samples per 300 t.

Total EU production in 2006 was 188 945 t (in 2005 was 179 211 t) and the total number of targeted samples was 5 850 (5 891 in 2006).

Graph 12



Most of the non-compliant results were for antibacterials (19 targeted and 13 suspects, compared to 28 targeted and 16 suspect in 2006). Additionally 16 targeted non-compliant results were found for heavy metals (compared to 5 in 2006), 1 for carbamates, 1 for chloramphenicol and 2 target and 7 suspect for the contaminant naphtalene.

Table 29 shows the number of non-compliant results for **honey**, broken down by group of substances.

Table 29: honey non-compliant results

HONEY	Group	MS	Substances	Samples	NC	
TARGET						
	A6	ES	Chloramphenicol	34	1	
A6 forbidden				1	34	1
	B1	AT	Sulfathiazole	123	1	
		BG	Sulfadiazine	81	1	
		BG	Tetracycline	79	3	
		CY	Sulfonamides	18	3	
		CY	Tetracyclines	20	1	
		DE	Sulfathiazole	79	1	
		EE	Dihydrostreptomycin	4	1	
		FR	Oxytetracycline	48	1	
		FR	Tetracycline	48	1	
		HU	Oxytetracycline		1	
		IT	Tylosin	68	1	
		RO	Streptomycin	215	2	
	SK	Tylosin	104	2		
B1 antibacterials				14	969	19
	B2c	FR	Fluvalinate	40	1	
B2c carbamates/pyrethroids				1	40	1
	B3c	CY	Lead Pb	16	9	
		CY	Mercury Hg	16	2	
		DK	Cadmium Cd	28	1	
		FR	Lead Pb	48	4	
B3c heavy metals				5	156	16
	B3f	UK	Naphthalene	10	2	
B3f other contaminants				1	10	2
Honey target sampling				1209	39	
SUSPECT						
	B1	CY	Sulfonamides	2	1	
		IT	Tylosin	5	5	
		PL	Sulfonamides	17	7	
B1 antibacterials				3	24	13
	B3f	UK	Naphthalene	34	7	
B3f other contaminants				1	34	7
Honey suspect sampling				58	20	

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. Resorcylic 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, including nitroimidazoles
 - 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