

**For information on
25 May 2004**

LegCo Panel on Food Safety and Environmental Hygiene

Chemical Residues in Food Animals and Food

PURPOSE

This paper briefs Members on the results of tests for chemical residues in food animals and food since the enactment of the Public Health (Animals and Birds) (Chemical Residues) Regulation (Cap. 139 Sub. Leg.) to regulate the feeding of drugs and chemicals to food animals to safeguard food safety.

BACKGROUND

2. To protect public health and ensure food safety, the Public Health (Animals and Birds) (Chemical Residues) Regulation made under the Public Health (Animals and Birds) Ordinance (Cap. 139) was enacted at the end of 2001 to control the use of agricultural and veterinary chemicals in food animals. The regulation prohibits the use of some beta-agonists, synthetic hormonal substances and certain antibiotics, which could cause unacceptable health risk to the public. Maximum Residue Limits (MRLs) are also established for 37 restricted chemicals in meat, offal and milk of food animals. Lists of the seven prohibited chemicals and the 37 restricted chemicals are at Annex A and Annex B respectively.

3. To apply consistent standards on chemical residues in the whole food supply chain and exercise effective control on related food products, e.g. meat, the Harmful Substances in Food Regulations under the Public Health and Municipal Services Ordinance (Cap. 132) was also amended and enacted at the same time to prohibit the sale of food containing the same seven prohibited chemicals and the 37 chemicals exceeding the same levels of MRLs in meat and milk products.

4. To allow time for the development of laboratory tests, the regulatory control was implemented in three phases. The seven prohibited chemicals and ten restricted chemicals were included in the first phase, implemented immediately after the enactment of legislation. The second phase of control covered an additional nine restricted chemicals and was implemented in January 2003. Control of the remaining 18 restricted chemicals was included in the final phase implemented in December 2003.

TESTING OF LIVE FOOD ANIMALS

5. Screening and monitoring for prohibited and restricted chemicals in pigs, cattle and goats entering the slaughterhouses are carried out using urine and tissue samples. For unsatisfactory results, the relevant authorities (e.g. Agriculture, Fisheries and Conservation Department (AFCD)) if local animals are involved, or the relevant Entry and Exit Inspection and Quarantine Bureau of the Mainland if livestock imported from the Mainland are involved) are notified of the results for investigation and follow up action. All animals tested positive for prohibited chemicals are seized and destroyed or returned to the local farm of origin and will not be allowed to be released to the retail market.

6. Imported poultry are sampled and tested for prohibited chemicals using serum samples and tissue samples are collected for the testing of restricted chemicals at the point of entry. The relevant inspection and quarantine authorities of the Mainland are informed of any unsatisfactory result for investigation and rectification. Poultry tested positive for prohibited chemicals are seized and destroyed and will not be allowed to be released to the retail market.

7. The following two tables show the test results of samples collected for prohibited or restricted chemicals since the enactment of the Public Health (Animals and Birds) (Chemical Residues) Regulation (Cap. 139 Sub. Leg.) in 2001.

Table 1 - Testing Results for Prohibited Chemicals

Item	2002	2003	2004 (Jan-Mar)
Total number of samples (urine, tissue and poultry serum) collected	74 174	67 792	19 679
Total number of unsatisfactory samples	39	24	6
Overall % of unsatisfactory samples	0.053%	0.035%	0.031%

Table 2 - Testing Results for Restricted Chemicals

Item	2002	2003	2004 (Jan-Mar)
Total number of samples (urine, tissue and poultry serum) collected	4 625	7 797	1 228
Total number of unsatisfactory samples	4	5	1
Overall % of unsatisfactory samples	0.09%	0.06%	0.08%

FOOD SURVEILLANCE

8. The table below shows the number of samples of meat and poultry and its products, fish and milk, etc. collected and the test results for prohibited and restricted chemicals during the period from 2002 to 2004. Of the 14 unsatisfactory results, the Food and Environmental Hygiene Department had prosecuted 9 cases.

Item	2002	2003	2004 (Jan-Mar)
No. of samples collected for prohibited chemicals only	4 270	4 085	986
Number of unsatisfactory samples	4	8	1
% of unsatisfactory samples	0.09%	0.19%	0.10%
No. of samples collected for restricted chemicals only	194	84	38
Number of unsatisfactory samples	0	0	0
% of unsatisfactory samples	0%	0%	0%
No. of samples collected for test of both prohibited and restricted chemicals	567	435	62
Number of unsatisfactory samples	0	1*	0
% of unsatisfactory samples	0%	0.23%	0%

* The sample tested positive for a restricted chemical

WAY FORWARD

9. Since the enactment of the Public Health (Animals and Birds) (Chemical Residues) Regulation (Cap. 139 Sub. Leg.), the number of samples tested and found to contain the seven prohibited chemicals or the 37 chemicals with excessive amounts remains low. As part of our ongoing efforts to protect public health, we shall continue to monitor the level of prohibited and restricted chemicals in food animals and related food products.

Health, Welfare and Food Bureau
Agriculture, Fisheries and Conservation Department
Food and Environmental Hygiene Department
May 2004

List of Prohibited Chemicals

1. Dienoestrol ((E,E)-4,4'-(diethylideneethylene) diphenol) including salts and esters thereof.
2. Diethylstilboestrol ((E)-B-diethylstilbene-4,4'-diol) including salts and esters thereof.
3. Hexoestrol (meso-4,4'-(1,2-diethylethylene) diphenol) including salts and esters thereof.
4. Avoparcin
5. Clenbuterol
6. Chloramphenicol
7. Salbutamol

List of Restricted Chemicals

1. Amoxicillin
2. Ampicillin
3. Bacitracin
4. Benzylpenicillin
5. Carbadox
6. Ceftiofur
7. Chlortetracycline
8. Cloxacillin
9. Colistin
10. Danofloxacin
11. Dicloxacillin
12. Dihydro-streptomycin
13. Dimetridazole
14. Doxycycline
15. Enrofloxacin
16. Erythromycin
17. Flumequine
18. Furalfadone
19. Furazolidone
20. Gentamicin
21. Ivermectin
22. Josamycin
23. Kitasamycin
24. Lincomycin
25. Metronidazole
26. Neomycin
27. Oxolinic acid
28. Oxytetracycline
29. Sarafloxacin
30. Spectinomycin
31. Streptomycin
32. Sulfonamides
33. Tetracycline
34. Tiamulin
35. Trimethoprim
36. Tylosin
37. Virginiamycin