

Veterinary Services

1. Introduction

The Department of Veterinary Services (VS) operates at two administrative levels, central and regional. The central level is organized into two Divisions, the Animal Health and Welfare Division and the Veterinary Public Health Division. As central level there are also the State Veterinary Laboratories Section, the Veterinary Medicinal Products Section, the European and International Affairs Section, the Publicity and Education Section, Registry – Account – Store Section and Public Procurements Section. At regional level there are five District Veterinary Offices (DVOs). In addition, five Veterinary Stations, cover the most remote areas with a local office.

The aim of the Veterinary Services is the protection of animal and the public health, from the stable to the table through a) the eradication and control of several contagious diseases of animals, b) the prevention of entrance in the country of other diseases and c) the controls of all food of animal origin with the exception of ice cream and honey.

2. Animal Health and Welfare Division (AHWD)

The Animal Health and Welfare Division has the responsibility to prevent the introduction and spread of animal diseases into the country, to carry out preventive and epidemiological surveillance programmes, to plan and implement Contingency Plans for contagious diseases and to run the administration of the two Border Inspection Ports (BIPs) at Larnaca Airport and Limassol Port. With regard to animal welfare, the Animal Health and Welfare Division is responsible for the transposition, as well as for the coordination of the animal welfare control system by preparing and issuing circulars, guidelines, inspection checklists and information leaflets, by training staff, farmers and transporters and by preparing reports.

The AHWD operates the central register of holdings and the database for the identification of bovines, small ruminants, pigs, dogs and horses. Furthermore, the AHWD keeps a registry for poultry, rabbit and fish farms.

In the framework of those responsibilities, in 2010 the AHWD has succeeded in sustaining the officially free status for infectious animal diseases. It has also monitored the surveillance programme for bluetongue, based on the serological examination of sentinel cattle and sheep from 17 farms on monthly basis. Through this programme, in 6 farms were detected animals that seroconverted (the transition from seronegative to seropositive status).

Moreover, in 2010 the AHWD has coordinated the surveillance programme for Avian Influenza and the Salmonella control programmes in poultry farms.

Additionally, the AHWD drafted contingency plans for the diseases of Directive 92/119/EEC (Rinderpest, Peste des petits ruminants, Swine vesicular disease, Epizootic haemorrhagic disease of deer, Sheep and goat pox, Vesicular stomatitis, Lumpy skin disease and Rift valley fever) and for African horse sickness.

During 2010 the AHWD continued the coordination of the monitoring programmes for TSEs and the experimental protocol for the TSE resistance in goats. Artificial insemination in goats with semen from scrapie resistant bucks was initiated. The cattle, sheep and goat Brucellosis eradication programme has effectively been continued, succeeding in reducing Brucellosis prevalence. The Avian Influenza surveillance programme for 2010 included sampling of poultry farms, wild birds and backyard poultry.

Regarding animal welfare, throughout 2010, under the supervision of the Animal Health and Welfare Division, the Veterinary Services' personnel from the five District Veterinary Offices carried out numerous inspections of premises, vehicles and other establishments where animals are kept or handled, in order to check for compliance with the provisions of the legislation and to investigate complaints regarding mistreatment or abuse of animals.

More detailed information on the controls carried out for farm animals can be found at the Veterinary Services' website.

3. Veterinary Public Health Division (VPHD)

The Veterinary Public Health Division (VPHD) has the responsibility for the approval and control of establishments producing food of animal origin as well as the responsibility for the processing, handling, transporting, storing and placing on the market of food of animal origin.

Additionally to these responsibilities, the VPHD is also responsible for co-ordinating controls on food of animal origin entering the Cyprus market, through intra – community trade.

The VPHD develops and supervises implementations of the National Residues Monitoring Plan.

The VPHD is also the Contact Point in the Veterinary Services for the Rapid Alert System for Food and Feed (RASFF).

In 2010, the number of approved establishments increased from **403** to **427** and **1004** inspections took place, in the approved establishments. During the year, **1.003.836** bovine, caprine, porcine and ovine carcasses, were inspected in all five approved slaughterhouses and **11.117.348** poultry carcasses were checked in the **23** approved poultry slaughterhouses. Also **138.943** quail and **106.708** rabbit carcasses were inspected.

Additionally, all establishments, animal holdings, that do not require approval but registration such as butcheries, farms, fishing vessels, rabbit farms and animal by-products processing plants were also inspected. More than **5000** inspections were undertaken for this purpose.

Products of animal origin found not to be complying with the criteria set by the legislation were seized. The total number of seized meat (bovine, caprine, ovine, porcine and poultry), meat products and meat preparations, dairy products, fish and fishery products were **128908 kg**, and for raw milk was **568994 litres**.

4 .Veterinary Laboratories Section: They are organized into the Laboratory of the Control of Foods of Animal Origin and the Diagnostic Laboratory for Animal Health

4.1 Laboratory for the Control of Foods of Animal Origin

The Laboratory for the Control of Foods of Animal Origin (LCFAO) belongs to the Division of Veterinary Laboratories and it closely collaborates with the Animal Health and Welfare Division and the Public Health Division as all the examinations that are performed and the measures that are taken are related exclusively with the protection of public health.

LCFAO consists of four Departments: the 'Department for the Control of Meat and Meat products', the 'Department for the Control of Milk and Milk Products', the 'Department for the Control of Residues in foods' and the 'Department for the control of pathogens'. Three additional units also constitute part of the laboratory. These are the 'sample's reception and recording unit', the 'media unit' and the 'sterilization unit'.

As far as the specific examinations which are carried out in the LCFAO are concerned, the laboratory carries out microbiological examinations both of general and specialized nature. Moreover, various samples (meat, food stuffs, water and milk) are tested for the presence of antibiotics and sulphonamides, while raw milk is controlled for adulteration and count of somatic cells. The parasitological examination in fish and the control for the presence of staphylococcal enterotoxin and Aflatoxin M1 in milk and milk products is also performed in the laboratory.

The LCFAO collaborates closely with other government departments and services (i.e. the Public Health Service, the Army, the State General Laboratory and the Agricultural Research Institute) on issues related to public health, foods of animal origin and animal production. There is also close collaboration with the food industry, mainly via the local veterinary stations, for the solution of problems and assistance in their exports.

In the year 2003 the LCFAO has focused its efforts to the accreditation. More specifically, on the 8th of July 2003, the LCFAO was accredited, according to ISO 17025:1999, by the Hellenic Accreditation Body (ESYD). The accreditation included the quality system of the laboratory along with seven examination methods. On the 20th of October 2006 the quality system of the laboratory was reevaluated and it was moved on ISO 17025:2005. In March 2008, four examination methods have been additionally accredited. During 2009, 8 additional methods were accredited. Finally, there are 19 accredited methods.

In 2010, the laboratory participated in a number of proficiency tests of various examinations. The organizing bodies of these comparisons were the Community Reference Laboratory (CRL) for milk and milk products, the CRL-Salmonella, the CRL-Listeria, the CRL-Staphylococci, the CRL-E. coli, the CRL-Campylobacter, HPA, CECALAIT-France, DRRR and Progetto Trieste.

A total number of 13468 samples underwent multiple examinations by the LCFAO during 2010. More specifically, 1551 samples of meat and meat products, 241 eggs, 120 fish samples and 1113 water and ice samples were microbiologically examined in the laboratory. Moreover, 3279 milk samples and milk products were also microbiologically examined. Finally, 166 milk samples were examined for mastitis, 5331 samples, mostly meat, were examined for the presence of residues and 1310 samples of milk and milk products were tested for the determination of Aflatoxin M₁.

4.2 Laboratory for Animal Health

The Laboratory is in charge of carrying out the necessary examinations for the diagnosis and the surveillance of animal diseases. In close collaboration with the Division of Animal Health and Welfare and the Division of Veterinary Public Health programmes on animal diseases and on public health issues are planned and implemented. Furthermore, the Laboratory collaborates with other departments and Services, like the Game Fund, the Medical Services, the State General Laboratory, the Agricultural Research Institute and the Police.

In addition to the diagnostic work research is carried out on Zoonoses and on major problems of the livestock industry (genetic resistance against Scrapie in goats).

The Laboratory of Animal Health is subdivided in five Sections: 1. Bacteriology-Serology, 2. Pathology-Bacteriology and Parasitology, 3. TSEs, 4. Virology and 5. Histopathology.

On the 7th of March 2008 the Laboratories for Animal Health were accredited to ISO: 17025:2005 by the Hellenic Accreditation System SA. The accreditation

concerns all five Sections and covers their quality system and twelve laboratory methods in all. The target which was set some years ago was accomplished.

All the Sections participate in interlaboratory ring trials organized by the CRLs and other organizations.

4.2.1 Virology Section

- For the surveillance, monitoring and diagnosis of diseases the following were tested: 14.358 sera from animals, 1.751 sera from birds and 419 diagnostic specimens for the isolation and/or detection of virus. In addition, 98 samples were sent to EU Reference Laboratories for laboratory examination as well as 54 samples for confirmation.
- Participation in 13 ring trials for 12 diseases organized by OIE and CRLs.
- Surveillance programme for bluetongue and foot-and-mouth disease.
- Application of the surveillance programme for avian influenza as required by EU – Legislation.
- Re-evaluation and maintenance of the accreditation to EN ISO/IEC 17025:2005.
- Application of the PCR technique for four additional diseases (foot and mouth, bluetongue, african horse sickness and rabies).

4.2.2 Bacteriology - Serology Section

The Bacteriology Serology Section of the Animal Health Laboratory performs diagnostics tests for the bacterial diseases of animals. The techniques used are either serological (ELISA, Rose Bengal Test, Complement Fixation Test) or microbiological (identification of bacterial isolates with dyes, the VITEK system and PCR, detection of antimicrobial resistance). In 2010, 66.624 samples were examined in total.

In brief, routine samples from cows, sheep and goats submitted by farmers were examined for *Chlamydia*, *Mycobacterium paratuberculosis*, *Toxoplasma gondii*, *Leptospira hardjo* and *Mycoplasma agalactiae*, *gallisepticum* and *synoviae*. The majority of the serology samples belong to the Brucellosis eradication programme and concern blood samples from sheep and goats and bulk milk samples from bovine farms. The positive sera for brucellosis are in low numbers, reaching the final target of the programme, the elimination of the disease.

Also, in order to cover the requirements of the Dir 2003/99/EC, *Salmonella* isolates were examined for antibiotic resistance. The Rose Bengal and Complement Fixation Techniques for brucellosis diagnosis and the *Salmonella* MIC and *Campylobacter* MIC for antimicrobial resistance remain accredited since 2008 and 2009 respectively.

Finally, the Section participated with success in Ring Trials for antimicrobial resistance of *Salmonella*, *Campylobacter*, *E. coli*, organised by the Community Reference Laboratory for Antimicrobial Resistance (DTU, Denmark) and for the

bulk milk ELISA, the Rose Bengal Test and the Complement Fixation Test used for the diagnosis of brucellosis, organised by the Community Reference Laboratory for Brucellosis (ANSES, France).

4.2.3 Pathology, Bacteriology and Parasitology Section

During 2010, the section performed the following examinations:

- 1727 Autopsies- Post mortem examinations in mammals, birds and fishes.
- 1522 Microbiological examinations in a) routine samples, b) salmonella isolations and c) abortion specimens.
- 1776 parasitological examinations.
- 349 tests in feeding stuffs for the detection of animal proteins. (Accredited Method).

4.2.4 Histopathology Section

During 2010, the histopathology section received and examined histopathologically 1591 sheep and goat brain (obex and cerebellum) samples of clinical suspect cases for the control and eradication of Scrapie. Other, general cases concerning mammals, fishes and birds were histopathologically examined. In addition immunohistochemistry was performed on 1206 samples, related to two of the experiments included in the protocol; aim to support the resistant genotype of goats in Cyprus. So far all the results are very promising and supporting.

Also 155 brain samples (obex and cerebellum) were examined by immunohistochemistry in order to investigate any atypical cases, in which two cases were atypical scrapie.

In the mean time 1075 samples, concerning one experiment included in the protocol, were sent to the CRL for further investigation

Our histopathology section participated, successfully, three times for the year 2010 in ring trials, organized by the Community Reference Laboratory for TSE.

TSE.

4.2.5 Transmissible Spongiform Encephalopathies (TSE's) Section

During 2010, Tse's Section in the framework of the surveillance programme that is implemented by the Veterinary Services in accordance with the requirements of Regulation 999/2001/EC for the control and eradication of TSE's, performed rapid tests in brain samples of cattle, sheep and goats for the diagnosis of BSE and TSE, respectively, discriminatory testing and also PrP genotyping in sheep and goats. In addition, the TSE's Section

participated in the research of an experimental protocol, concerning the confirmation of the genetical resistance of Cyprus goats to scrapie.

The number of tested animals and the results of the rapid tests are shown on the following Table.

Kind of animal	Total	Positive	Negative
Bovine	6822	0	6822
Sheep	269	12 (4.4%)	257
Goats	424	52 (12.2%)	372
Total	7515	64	7451

The TSE's Section also participated in five ring trials organized by the Community Reference Laboratory for TSE's (VLA), concerning the diagnosis of BSE in cattle, TSE in sheep and goats, the discriminatory testing and the determination of PrP genotype in sheep.

In addition, TSE's Section in the framework of the breeding programme for sheep and goats, participated in the preparation and dispatching of samples to foreign laboratories for PrP genotyping.

5. The Veterinary Medicinal Products Section .

The Director of Veterinary Services provides Secretariat support to the Council of Veterinary Medicinal products through the Veterinary Medicinal Products Section, which consists of five Units.

- a) The Registration of Veterinary Medicinal Products Unit which deals with the issue/renewal/Variations of Marketing Authorization of Veterinary Medicinal Products
- b) The Control and Inspections Unit which deals with the control and inspections of manufacturers, wholesalers and retailers of Veterinary Medicinal Products
- c) The Medicated Feeding stuffs Unit which deals with the control and inspections of manufacturers of Medicated Feeding stuffs and the distribution of Medicated Feeding stuffs in the Community
- d) The Pharmacovigilance/Legislation Unit which deals with the implementation of Pharmacovigilance System, the transposition of the

Directives of EU to the National Legislation and issues related to the Council of Veterinary Medicinal Veterinary Medicinal Products.

6. Research Programmes:

During 2010, the Veterinary Services within the framework of the experimental protocol concerning the confirmation of the existence of TSE resistant genotypes in goats continue the experiments with oral and intracerebral inoculations of goats. The experimental protocol was prepared by the Veterinary Services in collaboration with the Community Reference Laboratory for TSE's (VLA, Weybridge) in 2009 and is 100% financed by the European Commission.

7. Training / Education/ Publicity

The Veterinary Services give a great attention to the continuous education of their staff, in order to succeed a humanization of the inspection from the District veterinary offices and offer a better quality of food from animal origin to the public.

Training Section of Veterinary Services created in 2009 a Training team that has the responsibility for identification of training needs of all staff, preparation of a report and action plan for the training needs, as well as implementation. In addition, Veterinary Services participate also in all training seminars of the "Better Training for Safer Food" programme of DG Sanco.

Last but not least, Veterinary Services inform the public for various subjects through announcements and press releases on TV, Radio, newsletters and magazines.

