

## ANIMAL HEALTH PROTECTION IN THE REPUBLIC OF CROATIA

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### Summary

Development of the international cooperation in veterinary medicine resulted from the necessity to coordinate activities of veterinary services in different countries in order to prevent transmission of infectious animal diseases, to fight and to eradicate particularly dangerous infectious diseases as well as the diseases common to animals and people and finally to coordinate controls in production and trading of products of animal origin.

For some time now, in the international trading of animals and animal products various restrictions are frequently imposed. Such restrictions are mostly related to the outbursts of infectious animal diseases in certain countries, or to the differences appearing due to the inappropriate veterinary service organization. Plain example are the European Union veterinary regulations establishing daily new requirements for the third countries to comply with.

Important political and economic changes that took place in the Central and East European countries put those countries in a special position. The same goes for Croatia, which in addition, borders on the areas at war, for two years now.

Croatia has been, it is now and wishes to be in the future as well, an important exporter of animals and animal products. Prerequisite conditions to achieve this goal, among other things, are:

- a) adequately organized and efficient veterinary service,
- b) efficacious animal health protection, especially against dangerous infectious and parasitic diseases,
- c) uniform and effective control of production and trading (home and international) of animals and animal products, and
- d) respective veterinary regulations brought into conformity with the international standards and particularly with the European Union veterinary regulations.

The efficacious protection of animal (and human) health, reduction of losses in livestock breeding due to diseases and improvement of livestock raising are the most important tasks of the veterinary service in Croatia.

Adequate organization of veterinary service ensured good epizootiological situation in Croatia in spite of the war.

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Rad je priopćen na Fourth EAAP Round Table on Livestock Production in Central and Eastern Europe, April, 20.-24., 1994., Zagreb.

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Through participation in the eminent international organizations (OIE, WHO, FAO) Veterinary service of Croatia has got a chance to show its possibilities but also to single out problems more and more frequent. Veterinary regulations are the frame which is ensuring efficacious system of discovering and controlling of infectious diseases. Certain drawbacks has been noted and they will be soon eliminated.

Qualitative shifts in the animal health control improvement:

- a) introduction of more sensitive, faster and cheaper diagnostic methods (additional harmonizing of the methods with the recommendations contained in the OIE-Manual of standards for diagnostic tests and vaccines),
- b) introduction of the uniform animal designation system (legally regulated in 1994),
- c) active monitoring,
- d) introduction of the uniform information system in controlling infectious diseases situation and its trends,
- e) better data processing, and
- f) further improvement of cooperation with the public health service.

These are considered to be important priorities.

Regarding the fact that Croatia is realizing considerable amount of trading of animals and products of animal origin with the member states of the European Union, outting of our veterinary regulations into conformity with the regulations of the European Union is necessary. At the same time, along with moor intensive international trading of animals and their products, danger related to entering of new infectious diseases into our country is increasing.

By harmonizing the regulations and by insisting on certain requirements toward other countries, we are protecting our own epizootiological area.

Epizootiological situation is an indicator of the organization level of the veterinary service and it will be even more so in the future. Therefore, here in Croatia we are starting with systematic programming of the animal health protection and organizing veterinary service so that it can meet all the problems in realization of such programmes.

### *Introduction*

Development of the international cooperation in veterinary medicine resulted from the necessity to coordinate activities of veterinary services in different countries in order to prevent transmission of infectious animal diseases, to fight and to eradicate particularly dangerous infectious diseases as well as the diseases common to animals and people and finally to coordinate controls in production and trading of products of animal origin.

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Important political and economic changes that took place in the Central and East European countries put those countries in a special position. The same goes for Croatia, which in addition, borders on the areas at war, for two years now.

Croatia has been it is now and wishes to be in the future as well, an important exporter of animals and animal products. Prerequisite conditions to achieve this goal, among other things, are: a) adequately organized an efficient veterinary service, b) efficacious animal health protection, especially against dangerous infectious and parasitic diseases, c) uniform and effective control of production and trading (home and international) of animals and animal products, and d) respective veterinary regulations brought into conformity with the international standards and particularly with the European Union veterinary regulation.

### *1. Organization of veterinary service in Croatia*

Veterinary service in Croatia is organized in a pyramidally shaped structure on the following principles: a) vertical subordination, b) consistent distribution of labour and c) adjustment to the administrative division of the state.

On the of the pyramide there is autonomous Veterinary Administration within the frame of the Ministry of Agriculture and Forestry. In the middle there are state veterinary institutions engaged in providing laboratory diagnostics and analyses (one state veterinary institute and four regional institutes).

At the bottom of the pyramide (at its base) there are veterinary stations. In each of the former municipalities a veterinary station exists. Each of them, depending on the size of its municipality, has built and organized adequate number of veterinary surgeries.

Veterinary stations are privately-owned. In all these stations, veterinary practice is carried out by 1085 veterinarians. Also, the number of veterinarians who are opening specialized veterinary surgeries, is increasing, especially in the towns.

Laboratory diagnostics and analyses (infectious and other diseases, foodstuffs, animal feed, drugs, etc.) is performed by Croatian Veterinary Institute (VCI) consisting of the Veterinary Institute in Zagreb and four regional diagnostic laboratories (Vinkovci, Split, Rijeka and Križevci) and employing 51 veterinarian. Furthermore, Veterinary College of the University of Zagreb, animal insemination centers, organizations for production and trading of drugs, employ 190 veterinarians and administrative bodies another 115 veterinarians.

In the Republic of Croatia veterinary inspection is organized within the Ministry of Agriculture and Forestry and it operates as an independent and autonomous administrative body - Veterinary Administration.

Veterinary-sanitary checks and control of animals and products of animal origin in the process of production and trading, are carried out by the veterinarians duly authorized by the state.

Import of animals and products of animal origin into the Republic of Croatia is allowed only on the basis of the rulling on the veterinary-sanitary conditions, to which the consignments must conform. Transit of such consignments through our country is regulated in the same manner. System of issuing of the import permits is centralized

in the Veterinary Administration, as well as the system of preparing, printing and distributing of the international certificates accompanying the consignments to be export from Croatia.

The border veterinary inspection is operating at the border crossings and it is also organized within the frame of the Veterinary Administration.

## *2. Veterinary regulations in the Republic of Croatia*

The basic veterinary regulation in the Republic of Croatia is the, Law on Animal Health Protection and Veterinary Service ("Official Gazette of the Republic of Croatia" No. 52/91). This law regulates animal health protection, prevention and eradication of diseases which are common to animals and people, control of the animals intended for slaughter, fish, mollusks and crustaceans, products of animal origin, quality of animal feed, reproduction and animal welfare, veterinary protection of the human environment, organization, financing and other questions of importance for implementation of the animal health protection and veterinary service uniform system in the Republic of Croatia.

On the basis of this Law quite a number of new subordinate legislation has been adopted (regulations, decrees, instructions) mainly dealing with fighting and eradicating of some infectious diseases and with control of production and trading of animals and products of animal origin.

Trading of drugs intended for the use in veterinary medicine is regulated by the Law on Trading of Drugs. Veterinary service is also given certain authorities by other laws covering the field of public health service and livestock breeding.

## *3. Basic characteristics of the epizootiological situation in Croatia*

### *a) A-List Diseases*

The last case of foot and mouth disease in the Republic of Croatia was registered in the year 1978 at the port of Ploče in cattle and sheep originating from Hungary and only in transit through Croatia. Since 1985, vaccination against foot and mouth disease has not been practised in Croatia, with exception of the cattle more than four months old and intended for export, if so requested by the importing country. As from 28th August, 1991, vaccination against foot and mouth disease is completely forbidden.

The Last case of rinderpest was confirmed in 1883 and last reported case of sheep pox in 1955.

Other diseases from the List A, except for the classical swine fever and Newcastle disease, have never been established on the territory of the Republic of Croatia.

The Newcastle disease was last recorded in 1991 only at the peasant poultry farms on the territories of 8 municipalities. Systematic vaccination against this disease is carried out in Croatia. For this purpose, attenuated vaccine, prepared from the La Sota breed, is used. During the year 1993, classical swine fever have been established on the territory of Sisak- Moslavina District (Županija). In that region swines are often raised in forests and without the adequate control. A combination of systematic

immunoprophylactic methods with stamping-out method and control of trading of swines, has considerably reduced occurrences of this disease in Croatia during the last several years.

*b) B-List Diseases*

**Rabies**

In the Republic of Croatia approximately 2.000 samples annually are examined for rabies, predominantly foxes. Rabies is confirmed in an average of 20% of the examined cases, most frequently in foxes. The biggest number of rabies cases is registered in the north-western part of Croatia, along the borders with Slovenia and Hungary. The last case of rabies in man was registered in 1960. In Croatia, all dogs more than four months old are vaccinated once a year, while the vaccination of cats is not obligatory under the law.

**Cattle**

In accordance with legal regulations valid in Croatia, systematic examinations of cattle for brucellosis and enzootic leucosis is carried out once each year. Cattle is free from brucellosis while the enzootic bovine leucosis at the large farms is reduced to 1.3% and at the small farms it has not been registered at all. Also, the cattle at the large farms is examined for tuberculosis once a year and at the small farms every three years. Tuberculosis of cattle is eliminated at the large dairy farms.

**Sheep and Goats**

The last case of brucellosis in sheep and goats was registered in 1991 in the animals coming from Macedonia and Kosovo. By means of strict application of stamping-out method and systematic examinations of animals in certain regions, the disease has been eradicated.

**Horses**

By serological examination of equidae, equine infectious anaemia has been established in 1.5 - 3.5% of horses, most frequently in the valleys of the large rivers. In the year 1994, active monitoring in the infected and endangered area of Sisak-Moslavina District (Županija) was prescribed by the law, as well as the isolation of sick horses (serologically positive by slaughtering and clinically positive by stamping-out method).

**Swines**

At the large pig-breeding farms, swines are serologically examined for brucellosis once a year. In such a way, brucellosis of swines has been eliminated in the industrial facilities. The individual cases are appearing at the small pig-breeding farms swines are let to graze freely and artificial insemination is not practised.

**Poultry**

Large poultry farms are importing parent flocks from the West European countries and consequently, the poultry pathology is similar to the one existing in the country of export. The same can be said for the application of certain diagnostic and immunoprophylactic measures.

Salmonellosis is becoming more and more significant problem in poultry farming. By the strict application of the legal measures, *S. gallinarum* and *S. pullorum* are successfully put under the control.

By controlling the frequency of certain serological types of salmonella during the last 9 years, increase of the isolate *S. enteridis* has been established. In this connection, program for fighting and eradicating of *S. enteridis* has been elaborated and prescribed.

#### *4. Significance of putting the veterinary regulations of Croatia in conformity with the regulations of the European Union and recommendations of the international organizations*

The efficacious protection of animal (and human) health, reduction of losses in livestock breeding due to diseases and improvement of livestock raising are the most important tasks of the veterinary service in Croatia.

Adequate organization of veterinary service ensured good epizootiological situation in Croatia in spite of the war.

By the end of 1991, Croatia became a member of the International Office for Epizooties (OIE). So, the veterinary service of Croatia has accepted all obligations arising from the International animal Health Code (1). Through participation in the work of not only this organization but also the Department for Veterinary Public Health within the frame of the World Health Organization (WHO) and certain departments of the Organization for Food and Agriculture of the United Nations (FAO), veterinary service of Croatia has got a chance to show its possibilities but also to single out problems more and more frequent.

Veterinary regulations are the frame which is ensuring efficacious system of discovering and controlling of infectious diseases. Certain drawbacks has been noted and they will be soon eliminated.

Qualitative shifts in the animal health control improvement:

a) introduction of more sensitive, faster and cheaper diagnostic methods (additional harmonizing of the methods with the recommendations contained in the OIE-Manual(2)),

b) introduction of the uniform animal designation system (legally regulated in 1994),

c) active monitoring,

d) introduction of the uniform information system in controlling infectious diseases situation and its trends,

e) better data processing, and

f) further improvement of cooperation with the public health service.

These are considered to be important priorities.

Regarding the fact that Croatia is realizing considerable amount of trading of animals and products of animal origin with the member states of the European Union, outting of our veterinary regulations into conformity with the regulations of the European Union is necessary (3). At the same time, along with moor intensive international trading of animals and their products, danger related to entering of new infectious diseases into our country is increasing.

By harmonizing the regulations and by insisting on certain requirements toward other countries, we are protecting our own epizootiological area.

At the same time, Croatia is putting its control of certain animal diseases in conformity respective practice in the European Union. In continuation, we shall mention several examples in this respect.

The epizootiological situation regarding tuberculosis, brucellosis and enzootic leucosis in Croatia is quite favourable. Monitoring, based on law, showed good results. Regulations related to fighting and eradicating of these disease are in compliance with the European Union regulations. In order to achieve the goal of definitive eradication of these diseases it is necessary to make further improvements in diagnostic methods, to ensure even stricter control over the implementation of the prescribed monitoring and to realize better cooperation with public health service.

Directive of the European Union regulates zoonoses control and requires from the third countries to submit their plans related to zoonoses control. The plan must comply with the requirements established in that Directive and is to be approved by the Standing Veterinary Committee. Our regulations dealing with salmonellosis control are not yet quite in conformity with the respective regulations of the European Union, but the proces of their harmonization is in the course.

The most of the European countries, including the neighbouring Central European countries, apply oral vaccination of foxes against the rabies as one of the most important measures in fighting of that zoonosis. The results achieved in such a way are very good in some of the West European countries and somewhat less successful in the neighbouring countries. These countries are suggesting to Croatia to join in.

Decision made by the European Union to stop eradicating certain diseases on its territory by application of vaccination(foot and mouth disease, classical swine fever), resulted in the ban on import from the countries still applying such vaccinations.

In the year 1991, the Republic of Croatia completely prohibited vaccination against foot and mouth disease as well as the import from the countries still carrying out vaccinations against that disease.

Classical swine fever is occurring sporadically in Croatia. However, it is most frequently found on the territory of the Sisak region, where swines are raised in the forests of Lonjsko polje. Eradication of classical swine fever, even on the regional level, without the use of vaccination, requires considerable financial means. Therefore, it is necessary to make estimation of the risks involved in implementation of such decision as the occurrence of classical swine fever in one of our large industrial facilities would have detrimental consequences for the already thinned out number of pigs.

The unfavourable epizootiological situation in the countries of the European Union regarding that disease (during the last epozooty classical swine fever in Germany, which is still going on, approximately 60.000 of swines have been subjected to euthanasia) shows all the complexity of the problem.

Epizootiological situation is an indicator of the organization level of the veterinary service and it will be even more so in the future. Therefore, here in Croatia we are starting with systematic programming of the animal health protection and organizing veterinary service so that it can meet all the problems in realization of such programmes.

**LITERATURE**

1. International Animal Health Code, OIE, 1992, Up-dates 1993.
2. Manual of standards for diagnostic tests and vaccines, OIE, 1992.
3. Veterinary and plant health controls, ECSC-EEC-EZEC, Brussels-Luxembourg, 1992.