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HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit 04 - Veterinary Control Programmes

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*Programmes for the eradication, control and monitoring of certain
animal diseases and zoonoses*

Eradication programme of Rabies

Approved* for 2009 by Commission Decision 2008/897/EC

Lithuania

* in accordance with Commission Decision 90/424/EEC





**LIETUVOS RESPUBLIKOS
VALSTYBINĖ MAISTO IR VETERINARIJOS TARNYBA**

STATE FOOD AND VETERINARY SERVICE REPUBLIC OF LITHUANIA

**APPLICATION FOR COMMUNITY FINANCING FOR RABIES ERADICATION
PROGRAMME IN LITHUANIA AND KALININGRAD REGION OF RUSSIAN
FEDERATION AND BYELORUSSIA FOR 2009**

LITHUANIA, APRILL 2008

1. IDENTIFICATION OF THE PROGRAMME

Member State: Lithuanian Republic

Disease: Rabies

Year of implementation: 1st of January 2009 to 31st December of 2009

Reference of this document:

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2. HISTORICAL DATA ON THE EPIDEMIOLOGICAL EVOLUTION OF THE DISEASE

Information on the history of the rabies and control activities in the past

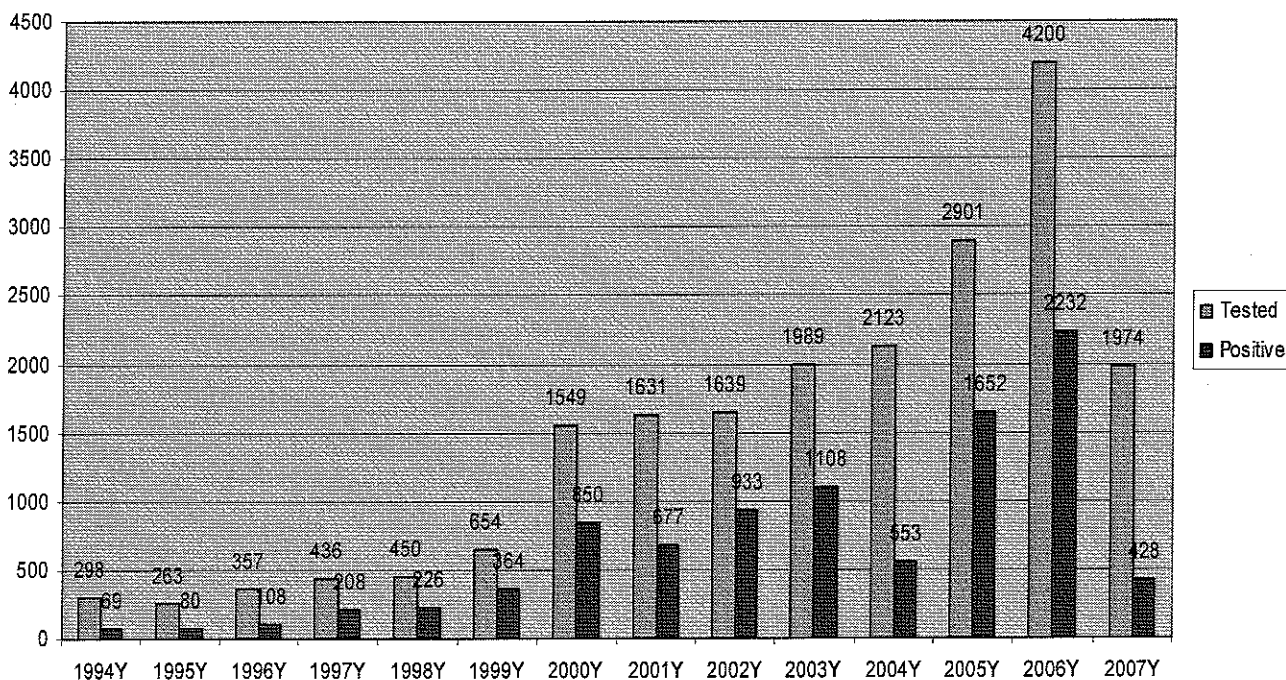
Rabies has been compulsory notifiable an enzootic disease in Lithuania for many years. The State Food and Veterinary Service has carried out surveillance and risk assessment of the epidemiological situation of zoonotic diseases and has developed and implemented prevention and control measures as regard rabies in a country. Suspected cases were notified to the local State Food and Veterinary Services and relevant samples were collected and submitted to veterinary laboratories for the investigation by direct immunofluorescence test and biological test. Mouse inoculation has been used to confirm or rule out rabies on negative samples tested by immunofluorescence method.

Pet animal movements have been controlled at the border entry points and it is required obligatory vaccination against rabies and appropriate animal identification and veterinary certificate for commercial movements of pet animals and approved passport or veterinary certificate for non-commercial movements of animals. Since October of 2004, for international movements, all dogs and cats must be identified by tattoo or microchip. They should be vaccinated against rabies with live or inactivated vaccine of at least one antigenic dose and authorized veterinarian should do vaccination. Pet passport should be used for the movement of animals between Member States. All identified pet animals should be registered into computerized database that and accessible for all relevant competent authorities.

Rabies has been widespread in the whole territory of the Republic of Lithuania. Wildlife rabies has enzootic pattern of the disease while urban rabies has been eradicated. Rabid wild animals are the main reservoir of this disease in a country and they course sporadic cases of rabies in domestic animals. Since 1960 eleven people have died of rabies: dogs infected two, foxes – four, raccoon dogs – two, badger – one, cat – one and the origin of the one case was unidentified. Aggressive dogs pose high risk of rabies to humans, because in each incident they could be considered as rabies-suspected animals.

The main reservoir species of rabies virus and the main animals distributing the disease were red foxes (*Vulpes vulpes*) and raccoon dogs (*Nyctereutes procyonoides*). Rabies is more widespread in wooded areas, but on the other hand wild predators moved as well into areas of human settlements. For instances, foxes and raccoon dogs have become a common sight in urban areas. Under such conditions the number of reports of rabies cases in dogs, cats and foxes in the cities and villages have increased.

Figure 1. Prevalence of animal rabies in 1994-2007



In 1994-1997 more rabies cases were occurred in domestic animals than in wildlife. Since 1998 wildlife rabies was prevailing. There were 58,9 % wildlife rabies cases in 1998, 75,3 % - in 1999, 66,5 % - in 2000, 71,6 % - in 2001, 73,1 % - in 2002 and 72,8 % - in 2003, 2004 - 75%, 2005 – 79%, 2006 – 84 %, 2007 – 70.7%,

2.1. History of Rabies control activities in Lithuania

In Lithuania, oral vaccination trials started as far back as 1983, using Russian vaccine-bait systems (using an adapted ERA derivate in fish or meat baits) (Petkevičius, 1993). A 25-50% reduction in animal rabies cases was reported (SFVS, 1996), but information on safety and efficacy of the vaccine has not been documented (WHO, 1994). In the post-independence era, oral vaccination of wildlife was initiated in 1995 according to the Lithuanian National Rabies prevention programme. Over the 5-year duration of the programme (1995-2000), a range of vaccines has been used and variable geographic areas covered. Overall, oral vaccination has been carried out in more than 8,000 km², with 820,000 baits distributed at various stages of the campaign (reviewed by Zienius et al., 2002). Delivery methods have adopted manual distribution (predominantly by hunters) and aerial distribution using fixed-wing aircraft in a few limited areas. Vaccines have included SAG-1 (1995-1997, 1999), Lysvulpen (1998) and Rabifox (2000), all incorporating tetracycline markers.

Campaigns have followed a twice-yearly delivery strategy, with baits distributed in March-April and October-November. Distribution of baits relied mainly on manual distribution through hunting clubs. Aerial distribution in limited areas used fixed-wing aircraft flying at an altitude of less than 200 m at a maximum speed of 120 km/hr and 15-25 baits deposited per km². The total cost of the campaign in wildlife was €746, 731 (€685,760 for purchase of 820,000 vaccines and €60,971 for distribution). The campaigns were discontinued in 2000 due to lack of funding.

Evaluation of the effectiveness of the oral campaigns is difficult, given the patchy temporal and geographical coverage of vaccines. At national or regional levels, there has been no evidence for control of rabies, with a steady increase in the number of wildlife rabies cases reported from 1995 to the present. However, at local levels, SFVS veterinarians reported that oral vaccination did result in a reduction in wildlife rabies cases. In Taurage district, for example, repeated vaccination of an area of 175-215 km² (18 % of the area of the district) over three years (1997-1999) coincided with a decline in rabies cases from 20 (1997) to 2 (1999). In this area, bait uptake by foxes was estimated to be 80-90% from detection of tetracycline biomarker in a small sample of culled foxes.

The major factors limiting the success of previous oral wildlife vaccination campaigns in Lithuania are likely to have been (a) the patchy and limited geographical coverage, and (b) a lack of coordination of campaigns between districts. Evaluation of bait uptake and vaccine efficacy is difficult, given the limited post-vaccination sampling. Overall, over the 5-year period, tetracycline biomarker was detected in 59/189 (31.2%, range 26-45%) foxes tested post-vaccination, with antibody detected by ELISA in 67/138 (48.6%, range 37-57%). Both assays were carried out at the Pulawy National Veterinary Research Institute.

Oral vaccination of wild animals against rabies has already been started in Lithuania in 2006. Purchasing of vaccine baits, the distribution of vaccine baits using aircrafts and assessment of vaccination effectiveness is carried out according PHARE project No. 2003.0004-341.02.01 „Strengthening of Control on infectious Animal Diseases in Lithuania“. The vaccination program of wild animals against rabies has been also implemented in 2007 and 2008

3. DESCRIPTION OF THE SUBMITTED PROGRAMME

State Food and Veterinary Service of the Republic of Lithuania has prepared a long-term strategy for eradication of rabies in Lithuania. Oral vaccination of wild animals against rabies has already been started in Lithuania in 2006. Purchasing of vaccine baits, the distribution of vaccine baits using aircrafts and assessment of vaccination effectiveness is carried out according PHARE project No. 2003.0004-341.02.01 „Strengthening of Control on infectious Animal Diseases in Lithuania“.

Rabies is an endemic disease of wild animals in Baltic States. In order to ensure complete eradication of rabies and to avoid a re-infection from the neighbouring countries, cross-border oral vaccination with Kaliningrad region of Russian Federation and Byelorussia border. Territory of the Kaliningrad region is about 15,1 thousand square kilometres. Oral vaccination against rabies should be carried out twice a year using aerial distribution of baits. Estimated optimal number per square kilometre is not less than 20 baits. Estimated number of baits is 564650 per year. It is estimated that vaccine baits, distribution of vaccine baits, including cross-boundary vaccination, and evaluation of vaccination effectiveness in Kaliningrad region would cost about 600000 EUR per year. Vaccination territory of Byelorussia will be bufer zone of 50 km on border region with Latvia , Lithuania and Poland. The Byelorussian border with EU are 1004 km long. Vaccination area in the Byelorussia 50200 square kilometres. Estimated number of baits is about 2008000 per year.

Existing EU legislation allows supporting national programs concerning rabies eradication. The State Food and Veterinary Service has prepared national rabies eradication program for 2009 and applied for 50% co-financing as foreseen by EU

legislation. Additionally, this program includes costs of oral vaccination against rabies (purchase, distribution and storage of baits, evaluation of vaccination effectiveness) in Kaliningrad region and Byelorussia applied for 100% co-financing.

The long-term strategy for eradication of rabies in Lithuania contains the following elements:

- oral vaccination of wild animals should cover all territory of Lithuania
- oral vaccination of wild animals, especially red foxes and raccoon dogs, with vaccine which should create sufficient immunity
- for the effectiveness of vaccination campaign against rabies, it would be great advantage if all Baltic states and Poland start this campaign at the same time and coordinate their activities;
- rabies eradication campaign should last not less than 6 years;
- In order to ensure complete eradication of rabies and to avoid a re-infection from the neighbouring countries, cross-border oral vaccination with Kaliningrad region of Russian Federation and Byelorussia ;
- compulsory vaccination of dogs and cats;
- implementation of the identification and registration system for dogs and cats;
- control of the population of stray dogs and cats.

4. MEASURES OF THE SUBMITTED PROGRAMME

4.1. Summary of measures under the programme

Purpose of this programme - minimise the number of rabies cases among domestic and wild animals and thereby reduce the possibilities of human infection.

First year: 2006

Last year:2011

x Control

- Testing
- Slaughter of positive animals
- Killing of positive animals
- Vaccination
- Treatment
- Disposal of products

x Monitoring or surveillance

- Other measures

x Eradication

- Testing
- Slaughter of positive animals
- Killing of positive animals
- Extended slaughter or killing
- Disposal of products

4.2. Designation of the central authority charged with supervising and coordinating the department responsible for implementing the programme:

The authority responsible for the co-ordination of rabies eradication in the entire country, is the State Food and Veterinary Service of the Republic of the Lithuania

The Animal Health and Welfare Department is responsible for the co-ordination and control of all District State Food and Veterinary Services involved in the implementation of this program. This department collects the data, performs statistical analysis and

evaluation of the surveillance program and informs the relevant authorities in European Union about the progress of the control and surveillance program.

4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented:

The rabies eradication program for the year 2009 will be implemented in whole country and Kaliningrad region of Russian Federation and bufer zone in Byelorussia

4.4. Measures implemented under the programme

4.4.1. Measures and terms of legislation as regards the registration of holdings

The Order of the Director of the State Food and Veterinary Service (28 February 2003 No B1-191) lays down the requirements for animal holding registers according to regulation (EC) 2629/97

4.4.2. Measures and terms of legislation as regards the identification of animals

The Order of the Ministry of Agriculture was adopted (18 December 2002 No. 496) and the SFVS was nominated as the competent institution responsible for the implementation of animal identification and registration system in the Republic of Lithuania.

The Order of the Director of the State Food and Veterinary Service (28 February 2003 No B1-191) lays down the requirements for eartags of bovine, ovine and caprine animals according to regulation (EC) 2629/97

The Order of the Director of the State Food and Veterinary Service (28 February 2003 No B1-191) lays down the requirements for cattle passport according to regulation (EC) 2629/97.

4.4.3. Measures and terms of legislation as regards the notification of the disease

„Requirements on notification of contagious diseases “ approved by Director of the State Food and Veterinary Service by the Order No 497 12 11 2001 implementing EU Directive 82/894/EEC (Official Gazette 2001, No. 96-3411)

4.4.4. Measures and terms of legislation as regards the measures in case of the positive results.

„Animal diseases surveillance program “ approved by Director of the State Food and Veterinary Service by the Order No B1-281 of 12 04 2006.

4.4.5. Measures and terms of legislation as regards the compensation for owners slaughtered and killed animals

Compensation procedure is foreseen in the Resolution of the Government of the Republic of Lithuania No.1220 of 16 October 2001 on the compensation of losses and expenses incurred by the contagious diseases of animals, eradication of their focuses (Official

Gazette, No, 89-3129, 2001), Order of the Minister of Agriculture No. 3D-100 "Approval of Rules of Support in Case of Emergency" (Official Gazette 2003, No. 29-1205), A List of diseases to be compensated approved by Director of the State Food and Veterinary Service by the Order No B1-60 of 09 01 2003 (Official Gazette 2003, No. 9-332) and The Procedure on Notification of the Ministry of Agriculture on the cases of contagious animal diseases, the acquired anti-epizootic means and the actions performed approved by Director of the State Food and Veterinary Service by the Order No 465 of 01 10 2001.

Development of a list of contagious animal diseases upon the occurrence of which livestock and other animals must be subjected to emergency slaughter or destruction, products and raw materials of animal origin must be decontaminated or destroyed and the losses incurred to the owners must be compensated and the expenses of the eradication of the disease focus must be covered is foreseen. At present not all costs are covered if animals are not insured on private initiative.

Before slaughtering a committee will evaluate a live animal's and propose the amount of compensation. The committee is constituted of a Veterinarian of District State Food and Veterinary Service, an Officer of the District Agriculture Service and a representative of farmers.

After evaluation of losses the report of the committee must be sent to the Ministry of Agriculture. The Ministry of Agriculture prepares the report to the Lithuanian Government. The Lithuanian Government, taking into account report of the Ministry of the Agriculture, will issue Resolution On losses compensation to the farmer, and the compensation is paid from the Government reserve fund for emergencies.

The Ministry of Agriculture defines the amount of compensation that cannot be greater than the market price of the animal, and it depends on the breed and the degree of genetic improvement of the animal. The compensation for the animals which will be slaughtered in the framework of animal diseases control program must be paid to the owner within 90 days after the slaughter of the animals.

4.4.6. Measures and terms of legislation as regards the control of the disease

Modified live virus vaccine is to be used for oral vaccination of wildlife in Lithuania. The vaccine contains a modified attenuated vaccinal strain SAD Bern rabies, propagated in cell cultures, antibiotics and a stabilisation medium. The mixture is dispensed into blisters, plastic capsules sealed with an aluminium foil. These are covered with a bait substance including tetracycline. Tetracycline functions as a vaccination indicator. A vaccinal virus can be differentiated from a field virus if monoclonal antibodies are applied. The vaccine will be laid twice a year, in April/May and in September/October, usually 20 units of bait per km². The vaccines will be evenly distributed over the whole area by planes.

The stability of vaccine baits will be tested before the distribution. The vaccine should fulfil the requirements of the European Pharmacopea monograph (1) as well as the efficacy and safety recommendations of the WHO. The vaccines will be tested in EU reference laboratory.

Monitoring of vaccination will be carried out by testing for the occurrence of a biomarker tetracycline, which is incorporated into the bait, in the target species; foxes and raccoon dogs as well as sero-conversion rates.

National Veterinary laboratory is the rabies reference laboratory of the Republic of Lithuania and will carry out the rabies oral vaccination efficiency tests. 4000 samples of mandibula of dead or hunted foxes and racoon dogs and 1000 blood serum samples will be collected by the private veterinarian and distributed to the National Veterinary Laboratory. The samples will be investigated following OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals chapter 2.2.5..

5. GENERAL DESCRIPTION OF THE COSTS AND BENEFITS

During this eradication program is foreseen to start oral immunisation of wildlife population, and In order to make sure that vaccination is effective, the program provides for the control after immunisation by obtaining and laboratory assessment of foxes and racoon dogs.

Wild animals that are found dead in the nature are sent to the National Veterinary Laboratory for examination free of charge. The tests carried out include an examination for rabies.

The benefit of the program is minimise rabies in wildlife through oral vaccination of wild animals and prevent transmission of rabies from wildlife to domestic animals

The total cost for the implementation of the rabies eradication campaign in 2009-2011 is estimated about **6 476 580 EUR**

6. DATA ON THE EPIDEMIOLOGICAL EVALUATION DURING THE LAST 11 YEARS

6.2.1. Stratified data on surveillance and laboratory tests

Year: 1995 **Disease: Rabies** **Species: Cattle, Sheep, Rabbits, Foxes, Raccoon dogs, Dogs, Cats, Polecats, Rat, Minks, Wild boar, Roe, Other wild**

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania						

Year: 1996 **Disease: Rabies** **Species Cattle, Goats, Horses, Sheep, Dogs, Cats, Ass, Foxes, Raccoon dogs, Wolf, Rats, Minks, Roe deer, Roe, Mice, Squirrel, Muskrats, Polecats, Elk**

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
L:ituania					344	106

Year: 1997 **Disease: Rabies** **Species: Cattle, Pig, Horses, Dogs, Cats, Foxes, Raccoon dogs, Weasel, Polecats, Wild boars, Hamster, Marten, Rats, Mice, Muskrats**

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					436	207

Year: 1998 **Disease: Rabies** **Species: Cattle, Goats, Horses, Dogs, Cats, Pig, Foxes, Raccoon dogs, Polecats, Badgers, Martens, Roes, Other wild**

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					450	226

Year: 1999 **Disease: Rabies** **Species** Cattle, Horses, Dogs, Cats, Goats, Foxes, Raccoon dogs, Martens, Polecats, Roes, Elk, Badger, Hares, Squirrels, Mink

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					727	364

Year: 2000

Roe, Rats

Disease: Rabies

Species: Cattle, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats, Badger,

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					1643	850

Year: 2001

Disease: Rabies

Species: Cattle, Goats, Horses, Dogs, Cats, Foxes, Raccoon dogs, Minks, Polecats, Badgers, Wolfs, Elks, Hedgehogs, Muskrats, Rats

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					1591	677

Year: 2002 **Disease: Rabies** **Species** Cattle, Horses, Dogs, Cats, Goats, Sheep, Foxes, Raccoon dogs, Minks, Polecats, Roes, Wolves, Badgers, Beaver, Otter

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					1595	933

Year: 2003 **Disease: Rabies** **Species** Cattle, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats, Badgers, Roes, Lynx, Minks, Beavers, Otters, Rats

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					1959	1108

Year: 2004 **Disease: Rabies** **Species** Cattle, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats, Badgers, Roes, Hedgehogs, Wild boars, Beavers, Otters, Wolfs

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					2059	553

Year: 2005 **Disease: Rabies** **Species** Cattle, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats, Badgers, Roes, Hedgehogs, Wild boars, Beavers, Otters, Wolves

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					2842	1647

Year: 2006 **Disease: Rabies** **Species** Cattle, Sheeps, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats ,
Badgers, Roes, Wolfs , Other, Other carnivores

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					3607	2232

Year: 2007 **Disease: Rabies** **Species** Cattle, Sheep, Horses, Goats, Dogs, Cats, Foxes, Raccoon dogs, Martens, Polecats ,
 Badgers, Roes, Other, Other carnivores

Description of the used serological tests: Immunofluorescence test (IF)

Region	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Lithuania					1974	428

DATA ON WILDLIFE

Year:2001-2005

Method of estimation: hunting

Year	Estimation of the population of the concerned wild species			Species: badgers
	Species: foxes	Species: Raccoon dog	Species: pine martens	
2001	13018	4525	473	2210
2002	16949	5215	831	2689
2003	9450	3914	753	2547
2004	14052	3439	693	80
2005	15120	4178	765	2470
2006	14089	3680	652	2385
2007	15826	8560	845	2856

Data on vaccination or treatment of wildlife

Description of the used vaccination, therapeutic or other scheme :

The first oral vaccination of wild animals was conducted in 1995 in the area of 430 sq. km in Panevezys, Pakruojis and Joniskis districts. The VIRBAC made vaccine SAG-1 with tetracycline marker was used.

In 1996 the spring vaccination campaign was arranged in the area of 4000 sq. km in 13 districts of northern Lithuania. 100000 doses were used (appr. 25 baits per sq. km). The task was effected by hand, placing the baits in forests and bushes, by the dens. In one district (Birzai) a plane was used for completing the task.

In 1997 two vaccination campaigns in spring (May) and autumn (October-November) in the area of 5349 sq. km have been carried out. 250000 baits in 22 districts were distributed.

In 1998 the vaccination campaign was arranged in the area of 6375-7000 sq. km in 26 districts of northern and western parts of Lithuania. During the last campaign a new type of vaccine *Lysvulpen* Bioveta, made in the Czech Republic, was used. 20000 baits were distributed.

In 1999 two vaccination campaigns in 30 districts in spring (April-May), and autumn in November, using vaccine SAG-1 of Virbac with tetracycline marker and Rabifox from Dessau-Tornau, have been carried out.

In 2000 two vaccinations campaigns in 30 districts in spring and in 23 districts in autumn using the vaccine SAG-1 of Virbac with tetracycline marker and Rabifox from Dessau-Tornau, have been carried out.

In 2001 - 2004 oral vaccination of foxes in Lithuania was discontinued, because Lithuanian Government did not provide financial support for this campaign.

In 2006 two vaccinations campaigns was done. All Lithuania was covered. Total 2 100 000 baits were distributed.

In 2006 two vaccinations campaigns was done. All Lithuania was covered. Total 2 600 000 baits were distributed.

7. TARGETS

Targets on vaccination or treatment of wildlife

Since 1995 the number of rabies cases in wild animals has increased in Lithuania. Foxes and racoon dogs appear to be the main source of rabies amongst wildlife in Lithuania. The long-term rabies eradication strategy is to minimise the number of rabies cases among domestic and wild animals and thereby reduce the possibilities of human infection as well. To achieve effective eradication of rabies in European Union the oral vaccination of wildlife should be carried out in all three Baltic States (Lithuania, Latvia and Estonia), as well as Kaliningrad region of Russian Federation and Byelorussia.

The evaluation of the efficiency of the oral rabies vaccination of wild life is targeted to: evaluate the efficiency of the used vaccine and to determine the percentage of consummation.

Disease: Rabies

Animal species: wild animals

Region	Square km	Targets on the vaccination or treatment programme		
		Number of doses or treatments to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
Lithuanian Republic	65000	1300000	2	2600000
Byelorussia	50200	1004000	2	2008000
Kaliningrad region	15100	282325	2	564650

8. DETAILED ANALYSIS OF THE COST OF THE PROGRAMME

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: Vaccination effectiveness (tetracycline)	4000	8.7	34800	yes
	Test: Vaccination effectiveness (serology)	600	16	9600	yes
	Test:				
1.2. Cost of sampling					
1.3. Other costs					
2. Vaccination or treatment					

3.4. Loss in case of slaughtering								
3.5. Costs from treatment of products (milk, eggs, hatching eggs, etc.)								
4. Cleaning and disinfection								
5. Salaries (staff contracted for the programme only)								
6. Consumables and specific equipment								
7 Other costs								
TOTAL								6 476 580

8. Design of the strategy for oral vaccination of wildlife in Lithuania, Kaliningrad Region and Byelorussia

With respect to oral vaccination of wildlife, the short-term strategy is outlined as follows:

- i. Twice-yearly oral vaccination using aerial distribution of baits at a density of not less than 20 baits/km²
- ii. Oral vaccination of red foxes and raccoon dogs in all Lithuanian territory of approximately 65301 km², Kaliningrad region 15100 km² and Byelorussia 50200 km²
- iii. Continued oral vaccination of this territory for at least 5 years.
- iv. Sampling and pathological examination of shot and culled foxes and raccoon dogs for the monitoring of the effectiveness of wild animal vaccination.