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HEALTH & CONSUMERS DIRECTORATE-GENERAL
Unit 04 - Veterinary Control Programmes

SANCO/10491/2009

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

Multi-annual programme for the eradication of Rabies

Approved* for 2010 by Commission Decision 2009/883/EC

Lithuania

* in accordance with Council Decision 2009/470/T/C



**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 FOR 2010 -2012**

LITHUANIA, APRIL 2009

1. IDENTIFICATION OF THE PROGRAMME

Member State: Lithuanian Republic

Disease: Rabies

Year of implementation: 1st of January 2010 to 31st December of 2012

Reference of this document:

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Date sent to the Commission: April , 2009

2. HISTORICAL DATA ON THE EPIDEMIOLOGICAL EVOLUTION OF THE DISEASE

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

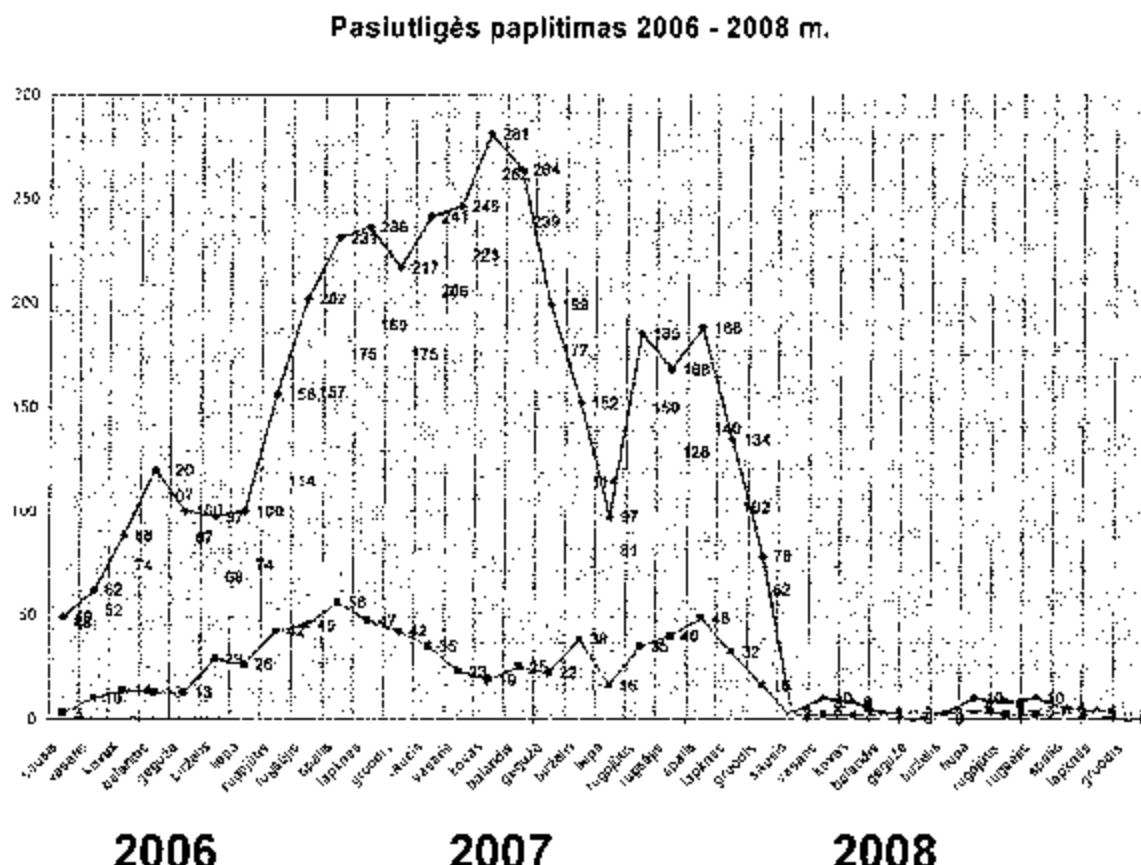
Rabies has been compulsory notifiable an enzootic disease in Lithuania for many years. The State Food and Veterinary Service has carried out surveillance and risk assessment of the epidemiological situation of zoonotic diseases and has developed and implemented prevention and control measures as regard 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 cause 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 wooden 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. Decreasing of rabies cases from 2006 to 2008 after implemented oral vaccination program



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%, 2008 - 68,12 %

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 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), Lysvulen (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“.

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 was already started in Lithuania in 2006. Purchasing of vaccine baits, the distribution of vaccine baits using aircraft 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 is needed. 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 for oral vaccination against rabies in the Lithuania is 2600000.

Existing EU legislation allows supporting national programs concerning rabies eradication. The State Food and Veterinary Service has prepared national rabies eradication program for 2010-2012 and applied for 50% co-financing as foreseen by EU legislation.

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 no rabies cases will be registered + 2 years;
- compulsory vaccination of dogs and cats;
- identification and registration 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: 2012

<input checked="" type="checkbox"/> Control	<input checked="" type="checkbox"/> Eradication
<input checked="" type="checkbox"/> Testing	<input checked="" type="checkbox"/> Testing
<input checked="" type="checkbox"/> Slaughter of positive animals	<input checked="" type="checkbox"/> Slaughter of positive animals
<input type="checkbox"/> Killing of positive animals	<input checked="" type="checkbox"/> Killing of positive animals
<input checked="" type="checkbox"/> Vaccination	<input checked="" type="checkbox"/> Extended slaughter or killing
<input checked="" type="checkbox"/> Treatment	<input checked="" type="checkbox"/> Disposal of products
<input type="checkbox"/> Disposal of products	
<input checked="" type="checkbox"/> Monitoring or surveillance	
<input type="checkbox"/> Other measures	

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 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 2010-2012 will be implemented in whole territory of Lithuania

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 (13 February 2003 No BI-1143) lays down the requirements for animal holding control according to regulation (EC) 1760/2000

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

The Order of the Ministry of Agriculture was adopted (16 June 2003 No. 310-234) and the SFVS was nominated as the competent institution responsible for the implementation of animal identification and registration system in the Republic of Lithuania.

Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97

Commission Regulation (EC) No 911/2004 of 29 April 2004 implementing Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards cartags, passports and holding registers

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.

The following national measures and several implementing instructions have entered into force:

- Order No. B1-281 of 12 April 2006 "On the approval of the programme for animal contagious disease control".
- Order No. B1-463 of 11 May 2007 "On the approval of requirements for rabies control".
- Order No. V-146/B1-140 of 28 February 2005 of the Minister of Health and Director of SFVS "On approval of the form of information notice about suspected /confirmed cases of animal rabies".
- Order No. B1-351 of 28 March 2007 "On control of wild animal vaccination against the rabies".

The legal provisions exist to implement the requirements for the control of rabies and the application of the REP:

- Notification and measures in case of suspicions
- Collection and testing of dead animals
- Control of vaccinations and the efficiency of vaccinations
- Diagnosis of rabies
- Collaboration between the different services involved
- Identification and registration of pet animals.

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 issued on 2 December 2008 No 3D-646 "Approval of Rules of Evaluation and Compensation of Losses in Case of Emergency".

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

The following national measures and several implementing instructions have entered into force:

- Order No. BI-463 of 11 May 2007 "On the approval of requirements for rabies control".
- Order No. BI-351 of 28 March 2007 "On control of wild animal vaccination against the rabies".

Modified live virus or genetically modified 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

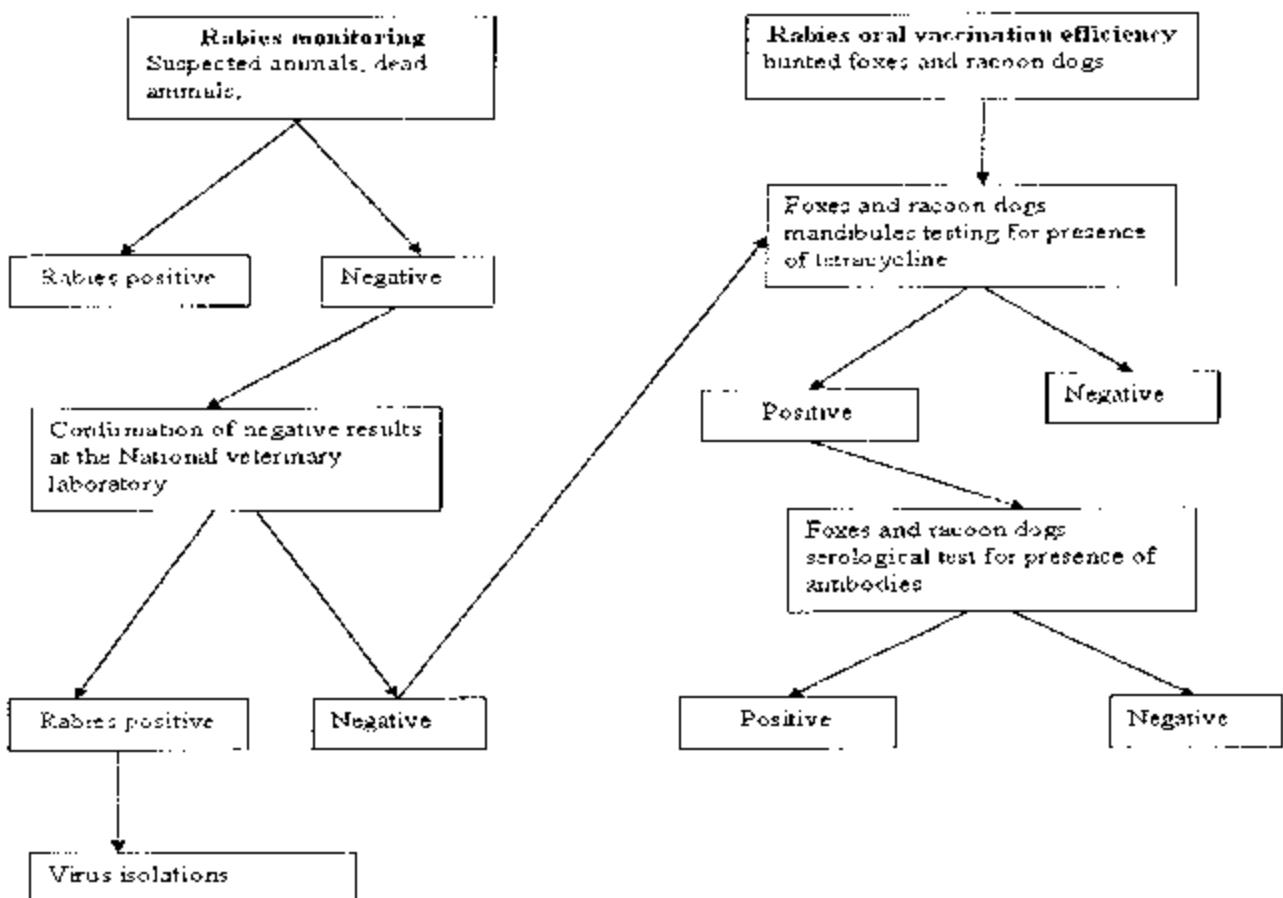
efficacy and safety recommendations of the WHO. The vaccines will be tested in EU reference laboratory.

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

The samples sent to National Food and Veterinary Risk Assessment Institute for rabies efficiency test first of all are tested for presence of tetracycline. In case of positive results the serum samples are tested for presence of antibodies. If samples are negative for tetracycline marker the further investigation of serum tests is not necessary, because its clear that this test will be negative.

RABIES TESTING SCHEME



5. GENERAL DESCRIPTION OF THE COSTS AND BENEFITS

During this eradication program is foreseen to continue 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 raccoon dogs.

Wild animals that are found dead in the nature with symptoms of rabies 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 to eradicate 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 2010-2012 is estimated about 6 392 400 EUR

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

6.6.2. Monitoring of wildlife (one table per year and per disease/species)

Year: 2002

Disease: Rabies Species: Dogs

Description of the used serological tests:

Description of the used microbiological or virological tests:
Description of the other used tests: Immunofluorescence antibody test

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
Abiyus					22	
Kaunas					23	
Klaipeda					42	
Marijampole					3	
Panevezys					17	
Stalialai					16	
Taurage					8	
Telsiai					4	
Utena					32	
Vilnius					23	
Total					190	50

Year: 2002 Disease: Rabies Species: Cats

Description of the used serological tests:

Description of the used microbiological or virological tests:
Description of the other used tests: Immunofluorescence antibody test

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
Abiyus					10	
Kaunas					22	
Klaipeda					26	
Marijampole					3	
Panevezys					16	
Stalialai					26	
Taurage					13	
Telsiai					2	
Utena					14	
Vilnius					10	
Total					142	71

Year: 2002 **Disease: Rabies** **Species: Shcep,**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Imunofluorescence antibody test

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	
Alytus					1
Kaunas					1
Klaipeda					
Marijampole					
Panėvezys					
Siauliai					
Taurage					
Telsiai					
Utena				1	
Vilnius					
Total				2	1

Year: 2002 **Disease: Rabies** **Species: Goats**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Imunofluorescence antibody test

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	
Alytus					1
Kaunas					1
Klaipeda					
Marijampole					
Panėvezys					
Siauliai					
Taurage					
Telsiai					2
Utena					1
Vilnius					1
Total				6	4

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological

Demonstrations of the Hawthorne effect test for Iannone

Region	Description of the other used test: Immunofluorescent antibody test			Microbiological or virological tests		
	Serological tests	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Other tests
Alytus						
Kaukas						
Klaipeda						
Marijampole						
Panevėžys						
Šiauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						1
						2
						3
						1
						1

Year: 2003 Disease: Rabies

Instase: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test					
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	
Alytus					49
Kamnas					56
Klaipeda					57
Marijampole					5
Panevėžys					32
Siauliai					36
Taurage					28
Telsiai					3
Utena					42
Vilnius					50
Total					358
					271

Year: 2002 Disease: Rabies .. Species: Raccoon dogs,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus			36	35	
Kaunas			82	34	
Klaipeda			62	39	
Marijampole			14	12	
Panevėžys			33	31	
Siauliai			42	37	
Taurage			22	17	
Telsiai			4	4	
Utena			87	73	
Vilnius			33	31	
Total			415	313	

Year: 2002 Disease: Rabies .. Species: Badger,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus			1	1	
Kaunas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total			5	4	

Year: 2002 **Disease:** Rabies **Species:** Martens

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus			17		8	
Kaunas			26		6	
Klaipeda			4		3	
Marijampole			5		5	
Paneevezys			15		8	
Siauliai			21		19	
Taurage			7		4	
Telsiai						
Utena			8		4	
Vilnius			9		3	
Total			112		60	

Year: 2002 **Disease:** Rabies **Species:** Other mustelides.

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus			2		2	
Kaunas			17		2	
Klaipeda					1	
Marijampole					7	
Paneevezys					3	
Siauliai					6	
Taurage					8	
Telsiai					1	
Utena					37	
Vilnius					15	
Total						

Disease: Rabies		Species: other carnivores,	
Description of the used serological tests:			
Description of the used microbiological or virological tests:			
Description of the other used tests: Immunofluorescence antibody test			
Region	Serological tests	Microbiological or virological tests	Other tests
	Number of samples tested	Number of positive samples	Number of samples tested
Alytus			
Kaunas			
Klaipeda			
Marijampole			
Paneyezys			
Šiauliai			
Taurage			
Telsiai			
Utena			
Vilnius			
Total			9

Disease: Rabies		Species: Roe deer,	
Description of the used serological tests:			
Description of the used microbiological or virological tests:			
Description of the other used tests: Immunofluorescence antibody test			
Region	Serological tests	Microbiological or virological tests	Other tests
	Number of samples tested	Number of positive samples	Number of samples tested
Alytus			
Kaunas			
Klaipeda			
Marijampole			
Paneyezys			
Šiauliai			
Taurage			
Telsiai			
Utena			
Vilnius			
Total			1

Year: 2002 Disease: Rabies Species: Red deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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			
Alytus	2	1	2	1	2	1			
Kaunas									
Klaipeda									
Marijampole									
Panėvezys									
Siauliai									
Taurage									
Telsiai									
Utena									
Vilnius									
Total					2	1			

Year: 2002 Disease: Rabies Species: Other wild

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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			
Alytus									
Kaunas							9		
Klaipeda							4		
Marijampole							6		
Panėvezys							2		
Siauliai							1		
Taurage							3		
Telsiai							10		
Utena							1		
Vilnius							4		
Total							35		7

Year: 2003 Disease: Rabies Species: Dogs

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					27
Kaunas					74
Klaipeda					50
Marijampole					13
Panevėžys					23
Siauliai					24
Taurage					11
Telsiai					6
Utena					25
Vilnius					32
Total					285
					58

Year: 2003 Disease: Rabies Species: Cats

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					14
Kaunas					38
Klaipeda					50
Marijampole					2
Panevėžys					18
Siauliai					32
Taurage					15
Telsiai					4
Utena					23
Vilnius					9
Total					205
					81

Year: 2003 **Disease:** Rabies **Species:** Cattle

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					16	10
Kaunas					42	19
Klaipeda						15
Marijampole					51	
Panevėžys					28	18
Siauliai					18	12
Taurage					34	27
Telsiai					31	18
Utena					27	21
Vilnius					17	6
Total					10	7
					274	153

Year: 2003

Disease: Rabies **Species:** Equide

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					2	
Kaunas						
Klaipeda						
Marijampole					1	
Panevėžys					2	
Siauliai					1	
Taurage					2	
Telsiai					1	
Utena					9	3
Vilnius					6	5
Total					23	10

Year: 2003

Disease: Rabies Species: Sheep,

20

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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			
Alytus									
Kaunas									
Klaipeda									
Marijampole									
Panevėžys									
Siauliai									
Taurage			1						
Telsiai									
Utena									
Vilnius									
Total				1					

Year: 2003

Disease: Goat,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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			
Alytus									
Kaunas							3		
Klaipeda								1	
Marijampole									1
Panevėžys									
Siauliai									
Taurage									
Telsiai									
Utena									
Vilnius									
Total							5		2

Species: Stray Dogs

Diseases: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other need tests: Immunofluorescence and

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
Alytus					6	6
Kaunas						
Klaipeda						
Marijampole						
Pančevys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total					6	6

Species: Other domestic

Determination of the most economical tests

RESULTS OF THE USE OF SEROLOGICAL TESTS

Desert Island is the used title of *Political or Virtuous Testimony*.

Description of the other used tests: Immunofluorescence antibody test		Microbiological or virological tests			Other tests	
Region	Serological tests	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of positive samples
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Paneyuys						
Siauliai						
Favars						
Telšiai						
Utena						
Vilnius						
Total					3	1
					3	1

Year: 2003 **Disease: Rabies** **Species: Foxes**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus	73	67	.....	.....	.....
Kaunas	95	23	.....	.....	.....
Klaipeda	202	69	.....	.....	.....
Marijampole	28	26	.....	.....	.....
Panevėžys	37	33	.....	.....	.....
Siauliai	34	30	.....	.....	.....
Taurage	38	33	.....	.....	.....
Telsiai	11	9	.....	.....	.....
Utena	44	39	.....	.....	.....
Vilnius	71	59	.....	.....	.....
Total	635	379	.....	.....	.....

Year: 2003 **Disease: Rabies** **Species: Raccoon dogs,**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus	51	48	.....	.....	.....
Kaunas	99	37	.....	.....	.....
Klaipeda	168	50	.....	.....	.....
Marijampole	19	18	.....	.....	.....
Panevėžys	17	16	.....	.....	.....
Siauliai	24	21	.....	.....	.....
Taurage	19	17	.....	.....	.....
Telsiai	9	7	.....	.....	.....
Utena	52	49	.....	.....	.....
Vilnius	40	39	.....	.....	.....
Total	498	302	.....	.....	.....

Year: 2003 Disease: Rabies Species: Badger,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					2	1
Kaunas					2	1
Klaipeda						1
Marijampole					16	5
Panevėžys						
Siauliai						
Taurage				1		1
Telsiai						
Utena				1		1
Vilnius				2		
Total				24		9

Year: 2003 Disease: Rabies Species: Martens

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					17	16
Kaunas					31	2
Klaipeda					25	6
Marijampole					8	8
Panevėžys						
Siauliai					19	13
Taurage					14	12
Telsiai					8	6
Utena					3	3
Vilnius					16	11
Total					147	31

Year: 2003

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus							13		
Kaunas							9		
Klaipeda							16		
Marijampole							2		
Paneyrys							3		
Siauliai							3		
Taurage							7		
Telsiai							1		
Utena							1		
Vilnius							2		
Total							53		13

Year: 2003

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus									
Kaunas									
Klaipeda									
Marijampole									
Paneyrys									
Siauliai									
Taurage									
Telsiai									1
Utena									
Vilnius									
Total									1

Species: Other mustelides

Species: Roe deer,

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevėžys						
Šiauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
						2

Year: 2003 Disease: Rabies Species: Red deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevėžys						
Šiauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
						1

Year: 2003 Disease: Rabies Species: Other wild

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					11	
Kaunas					3	
Klaipeda						1
Marijampole						
Panėvezys					8	4
Siauliai						
Taurage						
Telsiai						
Utena					12	
Vilnius					7	1
Total					41	13

Year: 2004 Disease: Rabies Species: Dogs

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					20	
Kaunas					53	2
Klaipeda					113	3
Marijampole					4	1
Panėvezys					61	5
Siauliai					28	7
Taurage					20	
Telsiai					9	3
Utena					18	3
Vilnius					18	1
Total					344	25

Year: 2004 Disease: Rabies Species: Cats

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus				14	3
Kaunas				39	4
Klaipeda				121	6
Marijampole				4	1
Panevėžys				52	1
Siauliai				21	9
Taurage				26	3
Telsiai				4	2
Utena				23	4
Vilnius				22	3
Total				326	36

Year: 2004 Disease: Rabies Species: Cattle,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus				9	6
Kaunas				18	2
Klaipeda				31	8
Marijampole				9	2
Panevėžys				10	3
Siauliai				12	6
Taurage				17	12
Telsiai				13	10
Utena				24	10
Vilnius				12	4
Total				155	65

Year: 2004 **Disease: Rabies** **Species: Equine**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas					1	
Klaipeda					3	
Marijampole					2	
Panevėžys					1	
Siauliai					1	
Taurage					3	
Telsiai					1	
Utena					3	
Vilnius					11	
Total					4	

Year: 2004 **Disease: Rabies** **Species: Sheep,**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevėžys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total					3	

Year: 2004

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panėvezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
					5

Year: 2004

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panėvezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
					4

Disease: Rabies

Species: Foxes

Stray Dogs

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					14	11
Kaunas						
Klaipeda						
Marijampole						
Panavezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total				1	15	12

Year: 2004 Disease: Rabies Species: Foxes

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					21	32
Kaunas					68	6
Klaipeda					156	23
Marijampole					5	2
Panavezys					66	25
Siauliai					24	19
Taurage					96	7
Telsiai					6	3
Utena					150	19
Vilnius					66	57
Total					658	193

Year: 2004 Disease: Rabies Species: Raccoon dogs,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					12	
Kaunas					70	
Klaipeda					103	
Marijampole					4	
Panevėžys					36	
Siauliai					20	
Taurage					52	
Telsiai					3	
Utena					93	
Vilnius					42	
Total					435	
						159

Year: 2004 Disease: Rabies Species: wolf,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					1	
Kaunas						1
Klaipeda						
Marijampole						
Panevėžys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						1

Disease: Rabies**Species: Badger,****Description of the used serological tests:****Description of the used microbiological or virological tests:****Description of the other used tests: Immunofluorescence antibody test**

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						

Year: 2004**Species: Martens****Description of the used serological tests:****Description of the used microbiological or virological tests:****Description of the other used tests: Immunofluorescence antibody test**

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						

Year: 2004**Disease: Rabies****Species: Other mustelides****Description of the used serological tests:****Description of the used microbiological or virological tests:****Description of the other used tests: Immunofluorescence antibody test**

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus					2				
Kaunas					10		2		2
Klaipeda					15		2		1
Marijampole					2				
Panevėžys									
Siauliai					6		4		
Taurage					5				
Telsiai					1				
Utena					10		3		
Vilnius					51		12		
Total									

Year: 2004**Disease: Rabies****Species: Other carnivores****Description of the used serological tests:****Description of the used microbiological or virological tests:****Description of the other used tests: Immunofluorescence antibody test**

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	Number of samples tested	Number of positive samples	Number of samples tested
Alytus									
Kaunas									
Klaipeda									
Marijampole					6				
Panevėžys									
Siauliai									
Taurage					20				
Telsiai									
Utena					3			1	
Vilnius									
Total					29			1	

Year: 2004 Disease: Rabies Species: Wild boar,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Imuno fluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					

Year: 2004 Disease: Rabies Species: Roe deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Imuno fluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					

Year: 2004

Disease: Rabies Species: Red deer,
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Aktus							3		
Kaunas									
Klaipeda									
Marijampole									
Panevėžys									
Siauliai									
Taurage									
Telsiai									
Utena							1		
Vilnius									
Total							4		

Year: 2004

Disease: Rabies Species: Other wild
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Aktus									
Kaunas							24		
Klaipeda							4		
Marijampole								1	
Panevėžys							8		
Siauliai									
Taurage							1		
Telsiai									
Utena							6		
Vilnius							3		
Total							46		7

Year: 2005 **Disease: Rabies** **Species: Dogs**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					41	
Kaunas					44	
Klaipeda					121	
Marijampole					22	
Panevėzys					47	
Siauliai					36	
Taurage					21	
Telsiai					4	
Utena					36	
Vilnius					91	
Total					463	
						82

Year: 2005 **Disease: Rabies** **Species: Cats**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					26	
Kaunas					44	
Klaipeda					112	
Marijampole					7	
Panevėzys					41	
Siauliai					31	
Taurage					25	
Telsiai					3	
Utena					31	
Vilnius					56	
Total					376	
						91

Year: 2005

Disease: Rabies

Species: Cattle

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
			334	145	

Year: 2005

Disease: Equine

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
			14	8	

Year: 2005 **Disease:** Rabies **Species:** Sheep,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					1
Kaunas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					1

Year: 2005 **Disease:** Rabies **Species:** goat,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					4

Species: pig, Disease: Rabies Year: 2005

Disease: Rabies
Year: 2005

Description of the used serological tests:

Description of the other Hes1 tests:

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SCHOLASTIC TESTS OF HYPOTHESES

Region	Serological tests			Microbiological or viralogical tests		
	Number of samples tested	Number of positive samples	Number of positive samples tested	Number of samples tested	Number of positive samples	Number of positive samples
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panėvyys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						

Species: Stray Dogs
Disease: Rabies
Year: 2005

Dominance of the mandibular teeth Disease: rubor

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests	Microbiologic
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Table 1. Number of samples Number of positive Number of negative

Abstract	tested	samples	tested
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SIVAS
KARUNAS

Klaipeda

Matriarchal Patriarchy

Stauffiai

Krautgräser und Gräser der Steppen 103

Leyenda

Vilnius

Total

Year: 2005

Disease: Rabies

Species: Foxes

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					53
Kaunas					33
Klaipeda					57
Marijampole					29
Paneevezys					68
Siauliai					50
Taurage					20
Telsiai					9
Utena					46
Vilnius					170
Total					535

Year: 2005

Disease: Rabies

Species: Raccoon dogs,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					50
Kaunas					69
Klaipeda					83
Marijampole					23
Paneevezys					74
Siauliai					59
Taurage					32
Telsiai					4
Utena					74
Vilnius					138
Total					603

Year: 2005 **Disease:** Rabies **Species:** wolf,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Pancrevezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					

Year: 2005 **Disease:** Rabies **Species:** Badger,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Pancrevezys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					

Year: 2005

Disease: Rabies

Description of the used serological tests:

Species: Martens

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					13	
Kaunas					32	
Klaipeda					71	
Marijampole					10	
Panevėžys					48	
Siauliai					23	
Taurage					17	
Telsiai					1	
Utena					31	
Vilnius					14	
Total					260	
					114	

Year: 2005

Disease: Rabies

Description of the used serological tests:

Species: Other mustelides

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					11	
Kaunas					13	
Klaipeda					35	
Marijampole					5	
Panevėžys					14	
Siauliai					9	
Taurage					2	
Telsiai					21	
Utena					16	
Vilnius					126	
Total					30	

Year: 2005 **Disease:** Rabies **Species:** Other carnivores

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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		
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
	25	15				

Year: 2005 **Disease:** Rabies **Species:** Wild boar,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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		
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
	1					
					1	

Year: 2005 **Disease:** Rabies **Species:** Roe deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kamnas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
			17	6	

Year: 2005 **Disease:** Rabies **Species:** Red deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kamnas					
Klaipeda					
Marijampole					
Panevėžys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					
			11	11	

Year: 2005 **Disease:** Rabies **Species:** Other wild

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas
Klaipeda	1
Marijampole	2
Palevezys
Siauliai
Taurage
Telsiai
Utena
Vilnius
Total	7

Year: 2006 **Disease: Rabies** **Species: Dogs**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas
Klaipeda	10
Marijampole	15
Palevezys	5
Siauliai
Taurage
Telsiai
Utena
Vilnius
Total	104

Year: 2006

Disease: Rabies

Species: Cats

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					13	4
Kaunas					33	8
Klaipeda					89	12
Marijampole					19	14
Panevėžys					38	11
Šiauliai					38	8
Taurage					21	3
Telsiai					3	1
Utena					58	14
Vilnius					42	11
Total					354	86

Year: 2006

Disease: Rabies

Species: Cattle,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					19	15
Kaunas					28	25
Klaipeda					9	2
Marijampole					38	31
Panevėžys					10	8
Šiauliai					9	6
Taurage					7	3
Telsiai					12	8
Utena					83	21
Vilnius					26	18
Total					241	137

Year: 2006 **Disease:** Rabies **Species:** Equine

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus	2	2
Kaunas	1	1
Klaipeda	1	1
Marijampole	1	1
Panevėžys	1	1
Šiauliai	1	1
Taurage	1	1
Telšiai	1	1
Utena	1	1
Vilnius	3	3
Total	18	9	18	9

Year: 2006 **Disease:** Rabies **Species:** Sheep,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus	2	1
Kaunas	1	1
Klaipeda	3	1
Marijampole	1	1
Panevėžys	1	1
Šiauliai	1	1
Taurage	2	1
Telšiai	2	1
Utena	2	1
Vilnius	10	3
Total	10	3

Species: Goats, Disease: Rabies
Year: 2006

Description of the used serological tests:

Description of the used serological tests:

Description of the used microbiological or virological tests:

Year: 2006

Blastocysteal Rabies
Decapitation of the second cervical nerve

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					4	4
Kaunas						
Klaipeda						
Marijampole						
Panevyryzys						
Siauliai						
Taurage					3	3
Telsiai						
Utena						
Vilnius						
Total					5	3
						7

Year: 2006 **Disease:** Rabies **Species:** Foxes

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Alytus						104		93	
Kaunas						90		79	
Klaipeda						212		59	
Marijampole						54		51	
Panemerys						42		35	
Siauliai						67		56	
Taurage						36		20	
Telsiai						16		14	
Utena						160		133	
Vilnius						162		146	
Total						943		686	

Year: 2006 **Disease:** Rabies **Species:** Raccoon dogs,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Alytus						65		61	
Kaunas						203		177	
Klaipeda						185		55	
Marijampole						58		56	
Panemerys						71		65	
Siauliai						63		60	
Taurage						54		40	
Telsiai						16		14	
Utena						329		296	
Vilnius						174		165	
Total						1218		989	

Year: 2006

Disease: Rabies

Species: wolf,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panerėjys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						

Year: 2006

Disease: Badger,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panerėjys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						

Year: 2006 **Disease:** Rabies **Species:** Martens

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus	—	—	—	—	16	9
Kaunas	—	—	—	—	39	14
Klaipeda	—	—	—	—	71	16
Marijampole	—	—	—	—	12	9
Panevėžys	—	—	—	—	30	22
Siauliai	—	—	—	—	35	20
Taurage	—	—	—	—	19	4
Telšiai	—	—	—	—	7	4
Utena	—	—	—	—	45	24
Vilnius	—	—	—	—	66	21
Total	—	—	—	—	340	143

Year: 2006 **Disease:** Rabies **Species:** other mustelides

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus	—	—	—	—	9	1
Kaunas	—	—	—	—	18	5
Klaipeda	—	—	—	—	24	—
Marijampole	—	—	—	—	6	2
Panevėžys	—	—	—	—	—	—
Siauliai	—	—	—	—	10	3
Taurage	—	—	—	—	7	—
Telšiai	—	—	—	—	4	1
Utena	—	—	—	—	32	10
Vilnius	—	—	—	—	39	5
Total	—	—	—	—	149	27

Disease: Rabies

Species: other carnivores,

Description of the used serological test 21

DESCRIPTION OF THE USED SOURCE MATERIAL

Description of the used microbiological or virological tests:

Disease: Babesia

Description of the user's relocation toward a rural area

THEORY OF THE STATE

and the results of the various tests.

Region	Serological tests				Microbiological or virological tests		Number of positive samples tested	Number of samples tested	Number of positive samples	Number of positive samples				
	Other tests		Number of positive samples		Number of positive samples									
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples								
Alytus														
Kaunas							3			1				
Klaipeda							8			1				
Marijampole							1			1				
Panevėžys														
Siauliai							1							
Taurage														
Telsiai							1			2				
Utena														
Vilnius							4			3				
Total							20			8				

Year: 2006 Disease: Rabies Species: Red deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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		
Alytus						
Kaunas					1	
Klaipeda						
Marijampole						
Panevėžys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total					8	

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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		
Alytus						
Kaunas					6	
Klaipeda					15	
Marijampole						
Panevėžys						
Siauliai						
Taurage						
Telsiai					1	
Utena						
Vilnius						
Total					37	10

Year: 2007 Disease: Rabies Species: Dogs

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					21	2
Kaunas					57	11
Klaipeda					34	3
Marijampole					5	1
Panevezys					28	7
Siauliai					26	1
Taurage					35	1
Telsiai					6	2
Utena					44	3
Vilnius					53	5
Total					309	35

Year: 2007 Disease: Rabies Species: Cats

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					13	4
Kaunas					37	10
Klaipeda					28	2
Marijampole					13	7
Panevezys					30	10
Siauliai					11	3
Taurage					22	1
Telsiai					7	4
Utena					32	2
Vilnius					29	2
Total					222	43

Year: 2007 **Disease:** Rabies **Species:** Cattle,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					5	3
Kaunas					8	5
Klaipeda					3	1
Marijampole					4	1
Panerėjys					14	8
Siauliai					5	3
Taurage					8	3
Telsiai					2	1
Utena					45	3
Vilnius					14	8
Total					108	36

Year: 2007 **Disease:** Rabies **Species:** Equine

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					2	1
Kaunas					2	
Klaipeda					2	
Marijampole						
Panerėjys						
Siauliai						
Taurage					2	
Telsiai					6	3
Utena					1	1
Vilnius					13	5
Total						

Year: 2007 **Disease:** Rabies **Species:** Sheep,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas				1	
Klaipeda					
Marijampole					
Panevėžys					
Šiauliai					
Taurage					
Telsiai				1	
Utena					
Vilnius					
Total				2	

Year: 2007 **Disease:** Rabies **Species:** Foxes

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					38
Klaipeda					
Marijampole					
Panevėžys					
Šiauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					142

Year: 2007 Disease: Rabies Species: Raccoon doves,

57

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus			25	17	
Kaunas			75	40	
Klaipeda			36	3	
Marijampole			9	8	
Panevezys			23	7	
Siauliai			15	2	
Taurage			25	4	
Telšiai			12	8	
Utena			73	17	
Vilnius			32	17	
Total			325	123	

Year: 2007 Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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	
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panevezys					
Siauliai					
Taurage					
Telšiai					
Utena					
Vilnius					
Total					

Year: 2007 **Disease: Rabies** **Species: Badger,**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of positive tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Alytus	1	1	1	1	1	1	1	1	
Kaunas	1	1	1	1	1	1	1	1	
Klaipeda	1	1	1	1	1	1	1	1	
Marijampole	1	1	1	1	1	1	1	1	
Panevezys	1	1	1	1	1	1	1	1	
Siauliai	1	1	1	1	1	1	1	1	
Taurage	1	1	1	1	1	1	1	1	
Telsiai	1	1	1	1	1	1	1	1	
Utena	1	1	1	1	1	1	1	1	
Vilnius	1	1	1	1	1	1	1	1	
Total	6	6	6	6	6	6	6	6	

Year: 2007 **Disease: Rabies** **Species: Marten,**

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of positive tested	Number of samples	Number of positive samples	Number of samples tested	Number of samples	Number of positive samples	
Alytus	14	14	14	6	6	6	6	6	
Kaunas	25	25	25	5	5	5	5	5	
Klaipeda	11	11	11	5	5	5	5	5	
Marijampole	4	4	4	2	2	2	2	2	
Panevezys	20	20	20	4	4	4	4	4	
Siauliai	12	12	12	3	3	3	3	3	
Taurage	21	21	21	3	3	3	3	3	
Telsiai	5	5	5	2	2	2	2	2	
Utena	42	42	42	4	4	4	4	4	
Vilnius	41	41	41	1	1	1	1	1	
Total	195	195	195	25	25	25	25	25	

Species: Other Mustelidae,
Disease: Rabies
Year: 2007

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Documentation on the other hand is a more detailed record of the process.

DESCRIPTION OF THE OTHER USED TESTS: The following section and table

Region	Serological tests			Microbiological or virological tests			Number of positive samples tested	Number of positive samples tested	Number of positive samples
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of samples tested			
Alytus							7	7	1
Kaunas							13	13	3
Klaipeda							9	9	
Marijampole							3	3	
Panevėžys							5	5	1
Siauliai									
Taurage							16	16	
Telšiai									
Utena							22	22	
Vilnius							19	19	1
Total							94	94	6

Species: Other carnivores
Disease: Rabies
Year: 2007

Description of the used serological tests:

Description of the used microkinetic or wireless] tests:

DESCRIPTION OF THE USED IMAGE OPTICAL AND CHIROPOLYGRAPHIC TESTS

Year: 2007 Disease: Rabies Species: Wild boar,
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					1	
Kaunas					1	
Klaipeda						
Marijampole						
Panerėjys						
Šiauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total					3	

Year: 2007 Disease: Rabies Species: Roe deer,
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas					5	
Klaipeda					3	
Marijampole						
Panerėjys						
Šiauliai					2	
Taurage					3	
Telsiai					1	
Utena						
Vilnius						
Total					11	3

Year: 2007

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					13	
Kaunas					4	3
Klaipeda					1	
Marijampole					11	2
Panerėrys						
Siauliai					4	1
Taurage					1	
Telsiai					8	
Utena					10	1
Vilnius					52	7
Total						

Year: 2008

Disease: Dogs

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					13	
Kaunas					17	0
Klaipeda					17	0
Marijampole					11	0
Panerėrys					14	2
Siauliai					13	1
Taurage					19	0
Telsiai					5	0
Utena					25	2
Vilnius					43	0
Total					177	5

Year: 2008

Disease: Rabies

Species: Cats

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					5	0
Kaunas					12	1
Klaipeda					14	0
Marijampole					14	1
Panevėžys					22	0
Siauliai					11	0
Taurage					8	0
Telsiai					22	4
Utena					47	1
Vilnius					47	0
Total					155	8

Year: 2008

Disease: Rabies

Species: Cattle,

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus					6	1
Kaunas					4	0
Klaipeda					2	2
Marijampole					11	1
Panevėžys					5	2
Siauliai					2	0
Taurage					5	1
Telsiai					12	2
Utena					3	0
Vilnius					50	9
Total						

Disease: Rabies Species: Equidae

Description of the used serological tests:

IV) Description of the used serological tests:

Recognition of the need microbial or virological tests:

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Description of the other used test: Immunofluorescence antibody

Region	Serological tests			Microbiological or virological tests		
	Number of samples tested	Number of positive samples	Number of positive tested samples	Number of samples tested	Number of positive samples	Number of positive samples
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panevėžys						
Siauliai						
Taurage						
Telšiai						
Utena						
Vilnius						
Total					2	0

Species: *Schedotriplax*
Disease: *R. a. hirsuta*
Year: 2008

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Description of the used serological tests:

Description of the used microbiological or virological tests:

Year: 2008

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests		Microbiological or virological tests		Other tests Number of samples tested	Number of positive samples	Number of positive samples
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples			
Alytus							
Kaunas						0	
Klaipeda						0	
Marijampole						0	
Panevėžys						0	
Siauliai						0	
Taurage						0	
Telsian						0	
Utena						0	
Vilnius						0	
Total						0	

Year: 2008

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests		Microbiological or virological tests		Other tests Number of samples tested	Number of positive samples	Number of positive samples
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples			
Alytus						0	
Kaunas						0	
Klaipeda						0	
Marijampole						0	
Panevėžys						0	
Siauliai						0	
Taurage						0	
Telsian						0	
Utena						0	
Vilnius						2	
Total						2	

Species: Goat,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests		Microbiological or virological tests		Other tests Number of samples tested	Number of positive samples	Number of positive samples
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples			
Alytus							
Kaunas							
Klaipeda							
Marijampole							
Panevėžys							
Siauliai							
Taurage							
Telsian							
Utena							
Vilnius							
Total						0	

Species: Stray dog, Year: 2008 Disease: Rabies

Disease: Rabies

Description of the used serological tests:

Description of the used microbiological or virological tests:

Species: Stray dog.

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BESSEY v. THE STATE OF ARKANSAS

Disease: Rabies

Descriptions of the used serological tests

Description of the Used Statistical Tests

Description of the used microbiological or virological tests:

Species: Other domestic,

Description of the other used tests: Immunofluorescence antibody test		Microbiological or virological tests		Other tests	
Region	Serological tests	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
Alytus					
Kaunas					
Klaipeda					
Marijampole					
Panerėrys					
Siauliai					
Taurage					
Telsiai					
Utena					
Vilnius					
Total					6

Year: 2008 **Disease:** Rabies

Description of the used serological tests:

Species: Unspecified,

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panerėjys						
Siauliai						
Taurage						
Telšiai						
Utena						
Vilnius						
Total						

Year: 2008

Description of the used serological tests:

Species: Foxes

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Panerėjys						
Siauliai						
Taurage						
Telšiai						
Utena						
Vilnius						
Total						

Year: 2008 Disease: Rabies Species: Raccoon dogs,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of positive samples tested	Number of samples	Number of positive samples	Number of positive samples tested	Number of samples	Number of positive samples	
Alytus							13	1	
Kaunas							39	9	
Klaipeda							26	1	
Marijampole							6	1	
Panevėžys							31	3	
Siauliai							17	1	
Taurage							26	0	
Telšiai							5	2	
Utena							50	3	
Vilnius							122	0	
Total							335	21	

Year: 2008 Disease: Rabies Species: Raccoon,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

Region	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested	Number of positive samples	Number of positive samples tested	Number of samples	Number of positive samples	Number of positive samples tested	Number of samples	Number of positive samples	
Alytus								0	
Kaunas								0	
Klaipeda							2	0	
Marijampole								0	
Panevėžys								0	
Siauliai								0	
Taurage								0	
Telšiai								0	
Utena								0	
Vilnius								0	
Total							2	0	

Year: 2008 Disease: Rabies Species: Badger,
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas					2	0
Klaipeda				1		0
Marijampole						0
Panevėžys						0
Siauliai						0
Taurage				1		0
Telsiai						0
Utena						0
Vilnius				2		0
Total				6		0

Year: 2008 Disease: Rabies Species: Marten,
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					11	3
Kaunas					17	3
Klaipeda					5	0
Marijampole					4	0
Panevėžys					25	2
Siauliai					12	1
Taurage					15	0
Telsiai						0
Utena						0
Vilnius					16	0
Total					116	9

Year: 2008

Disease: Rabies

Species: Other Mustelidae,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					4	
Kaunas					4	0
Klaipeda					2	1
Marijampole					3	0
Panerėjys					4	0
Siauliai					5	2
Taurage					5	0
Telsiai					11	0
Utena					12	0
Vilnius					50	3
Total						

Year: 2008

Disease: Rabies

Species: Other carnivores

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus					1	
Kaunas					0	
Klaipeda					0	
Marijampole					0	
Panerėjys					3	0
Siauliai					0	
Taurage					0	
Telsiai					4	0
Utena					6	0
Vilnius					14	0
Total						

Year: 2008 Disease: Rabies Species: Wild boar,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alitus	0	0	0	0	0	0
Kaunas	0	0	0	0	0	0
Klaipeda	0	0	0	0	0	0
Marijampole	0	0	0	0	0	0
Panevėžys	0	0	0	0	0	0
Šiauliai	0	0	0	0	0	0
Taurage	0	0	0	0	0	0
Telsiai	0	0	0	0	0	0
Utena	0	0	0	0	0	0
Vilnius	0	0	0	0	0	0
Total	0	0	0	0	0	0

Year: 2008 Disease: Rabies Species: Roe deer,

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alitus	0	0	0	0	0	0
Kaunas	0	0	0	0	0	0
Klaipeda	0	0	0	0	0	0
Marijampole	0	0	0	0	0	0
Panevėžys	0	0	0	0	0	0
Šiauliai	0	0	0	0	0	0
Taurage	0	0	0	0	0	0
Telsiai	0	0	0	0	0	0
Utena	0	0	0	0	0	0
Vilnius	0	0	0	0	0	0
Total	0	0	0	0	0	0

Year: 2008

Disease: Rabies
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Palevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
					1	0

Year: 2008

Disease: Rabies
Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						
Klaipeda						
Marijampole						
Palevezys						
Siauliai						
Taurage						
Telsiai						
Utena						
Vilnius						
Total						
					21	0

Year: 2008

Disease: Rabies

Species: bat

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						0
Klaipeda						0
Marijampole						0
Panevezys						0
Siauliai						0
Taurage						0
Telsiai						0
Utena						0
Vilnius						0
Total						0
			4			

Year: 2008

Disease: Rabies

Description of the used serological tests:Description of the used microbiological or virological tests:Description of the other used tests: Immunofluorescence antibody test

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
Alytus						
Kaunas						0
Klaipeda						0
Marijampole						0
Panevezys						0
Siauliai						0
Taurage						0
Telsiai						0
Utena						0
Vilnius						0
Total						0
			35			

DATA ON WILDLIFE

Year:2001-2008 Method of estimation: hunting

Year	Estimation of the population of the concerned wild species			
	Species: foxes	Species: Raecoon dog	Species: pine martens	Species: badgers
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
2008	12685	9658	952	3428

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 VJRBAC 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 *L.vulpient Bioveta*, made in the Czech Republic, was used. 200000 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 2007 two vaccinations campaigns was done. All Lithuania was covered. Total 2 600 000 baits were distributed.

In 2008 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).

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 Year 2010

Region	Square km	Targets on the vaccination or treatment programme			Total number of doses of vaccine or treatment expected to be administered
		Number of doses of vaccine or treatments expected to be administered	Expected campaigns to be administered in the campaign	of	
Lithuanian Republic	65000	1300000	2		2600000

Animal species: wild animals

**Disease: Rabies
Year 2011**

Animal species: wild animals

Region	Square km	Targets on the vaccination or treatment programme		
		Number of doses of vaccine or treatments expected 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

**Disease: Rabies
Year 2012**

Animal species: wild animals

Region	Square km	Targets on the vaccination or treatment programme		
		Number of doses of vaccine or treatments expected 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

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)	12000	8,7	104 400	yes
	Test: Vaccination effectiveness (serology)	3000	16	48000	yes
1.2. Cost of sampling					
1.3. Other costs					
2. Vaccination or treatment					
2.1. Purchase of vaccine/treatment					
Purchase of vaccine		7 800 000	0,5	3 900 000	yes
In Lithuania					
2.2. Distribution		7 800 000	0,3	2 340 000	yes

costs in Lithuania	
2.3. Administering costs	
3. Slaughter and destruction	
3.1. Compensation of animals	
3.2. Transport costs	
3.3. Destruction costs	
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		6 392 400

8. Design of the strategy for oral vaccination of wildlife in Lithuania,

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

- 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 no rabies cases will be registered + 2 years;
- 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.