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HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit 04 - Veterinary Control Programmes

SANCO/10250/2009

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

## **Surveillance and Eradication programme of Bluetongue**

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

**Romania**

\* in accordance with Council Decision 2009/470/EU

## **Surveillance programme for bluetongue Romania**

**- Year 2010 -**

### **Content:**

1. Identification of the programme
2. Data regarding the bluetongue surveillance during the previous years
3. Objectives of the bluetongue surveillance programme in 2010
4. Description of the taken actions in the programme
5. Measures applied in the frame of the programme
6. General descriptions of the costs and benefits

**1. Identification of the programme**

Member State: Romania

Disease: Bluetongue

Request of Community co-financing for: 2010

Reference of this document:

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## **Introduction**

Bluetongue (BT) is an infectious, noncontagious disease of domestic and wild ruminants. It is a vector borne disease and the biologic vectors of the bluetongue virus (BTV) some species of insects belonging to the genus *Culicoides*.

Usually, the virus can be introduced into a free area with infected ruminants originating from countries or zones were virulent virus strains are present or with infected vectors that can reach new free of the disease areas.

BT is worldwide spread and it is thought that the endemic areal of BTV is limited by the 40-50° N and 35° S latitudes. In 2006 BTV disseminated towards the north of Europe affecting Netherlands, Belgium, Germany, Luxembourg.

This new situation demonstrated that the majority of the European countries are exposed to the risk for bluetongue, not only the states from the Mediterranean basin.

The previous serologic and entomologic studies performed by the present in Romania showed that almost 70% of the territory of the country is at risk for BTV infection.

## **2. Historical data on the epidemiological evolution of the disease: The disease never occurred in Romania.**

In Romania the surveillance of bluetongue was applied since year 2000 in the frame of the annual Programme for the surveillance, prophylaxis and control of animal diseases, of zoonotic diseases and environment protection.

The objectives of bluetongue surveillance were the following:

- Early detection of any evidences of bluetongue occurrence on Romanian territory
- Urgent and efficient intervention in case of a bluetongue outbreak
- Establishing of breeding and survival sites for bluetongue virus vectors
- Establishing of the risk zones for bluetongue in Romania
- Fulfilling of the requirements of the Terrestrial Animals Health Code Chapter 2.2.13. Article 2.2.13.2. which stipulates that "A country or a zone may be considered free from BTV when bluetongue is notifiable in the whole country and either:
  1. the country or zone lies wholly north of 50°N or south of 34°S, and is not adjacent to a country or zone not having a free status; or
  2. a surveillance programme in accordance with Appendix 3.8.X. has demonstrated no evidence of BTV in the country or zone during the past 2 years; or
  3. a surveillance programme has demonstrated no evidence of *Culicoides* likely to be competent BTV vectors in the country or zone."

## ***Components of the strategy during years 2004 - 2008***

### **2.1. Passive surveillance by:**

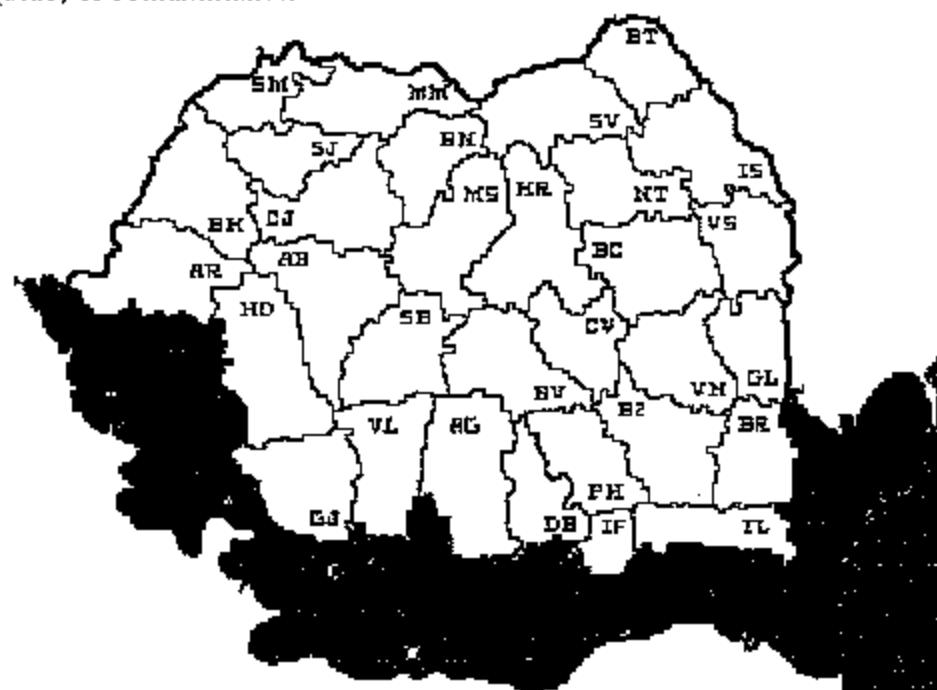
Monitoring of the documents

### **2.2. Active surveillance by:**

- Inspection of animals belonging to domesticated or wild species, susceptible to the BT virus, existing on Romanian territory, as follows:
  - in "target" localities located in districts considered to present a major or lower risk for trans boundary contamination

- in "quarantine farms" for imported or exported animals, during a period of time equally to the maximum incubation period of the disease ;
  - Inspection in slaughter houses of all susceptible animals originating from "target" localities or from import "quarantine farms";
  - Monitoring of culicoid vectors, identifying the genus and the species as follows:
- by capturing the insects with mobile light traps, during the activit0079 season of the insects (from May to October);
- by weekly catches with permanent traps, covering the whole territory of the country (one permanent trap per district) and all over the year
  - Serological survey, to detect the eventual trans boundary contamination, as follows:
- in districts considered to present high risk of contamination (CS, CI, CT, DJ, GR, OT, MII, TL, TM, TR), located in the southern part of the country, very close to the national border, on serum samples collected from a number representing 3% of ruminants. minimum 1200 samples/year/district (figure 1);
- in districts presenting lower risk of contamination (AG, BR, BZ, DB, IF, GJ, IL, Bucharest, PII, VL), in the proximity of the above mentioned districts, on serum samples collected from 2% of ruminants, minimum 400 samples/year/district (figure 1) ;
- 10% monthly, on sentinel animals in sentinel farms located in areas very closed to the Danube river;
  - Organization of epidemiological activities to asses the health status related to BT of susceptible wild and transhumant animals;
  - In case of an outbreak of bluetongue, the contingency plan is immediately enforced;

Figure 1. Sites of location of the districts considered to present high risk (red) or low risk (blue) of contamination



### **2.3. Serological surveillance**

#### **Year 2004**

Samples: ruminants sera  
Tests: competitive ELISA, AGID  
Number of tested samples: 22,100  
Positive samples: 0

#### **Year 2005**

Samples: ruminants sera  
Tests: competitive ELISA, AGID  
Number of tested samples: 18,470  
Positive samples: 0

In 2004, 2005 and 2006, the location of "target" localities was established inside of 25 square kms quadrates.

#### **Year 2006**

Samples: ruminants sera  
Tests: competitive ELISA, AGID  
Number of tested samples: 18,680  
Positive samples: 0

#### **Year 2007**

Samples: ruminants sera  
Tests: competitive ELISA, AGID  
Number of tested samples: 70,569  
Positive samples: 0

#### **Year 2008**

Samples: ruminants sera  
Tests: competitive ELISA, AGID  
Number of tested samples: 92,639  
Positive samples: 0

#### **Year 2009 (the first trimester)**

Samples: ruminants sera  
Tests: competitive ELISA  
Number of tested samples: 5,403  
Positive samples: 0

### **2.4. Vectors surveillance**

#### **Year – 2003 (figure 2)**

No. of districts - 11  
No. of localities – 19  
No. of catches ~ 25  
Identified vectors: Culicoides obsoletus  
Culicoides pulicaris

Figure 2. Sites of vectors identification in 2003.



**Year – 2004**

No. of districts 42

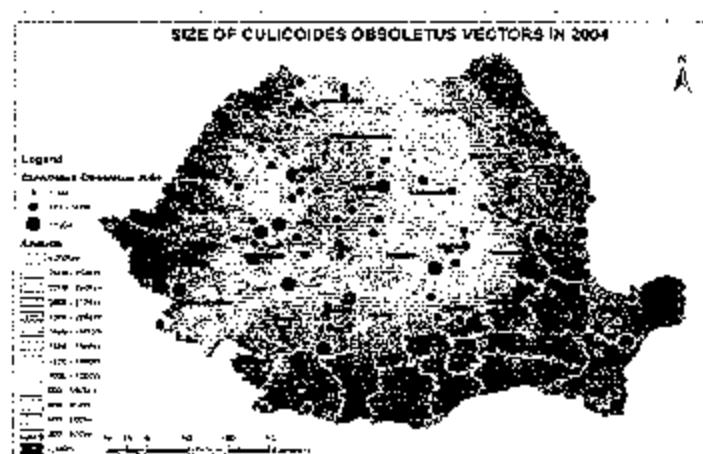
No. of localities (sites) – 314

No. of catches – 709

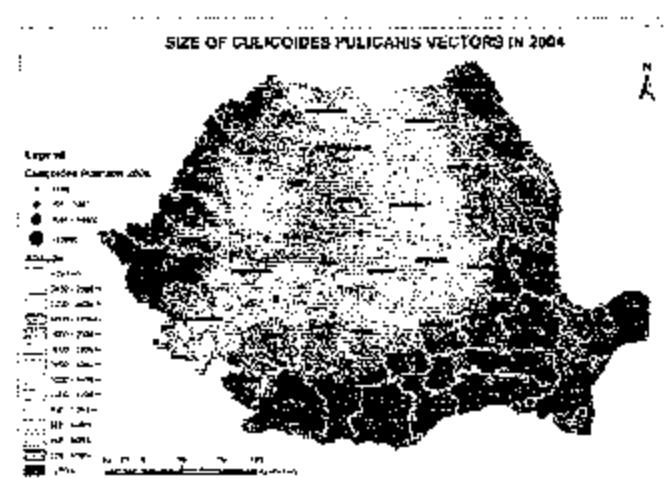
Identified vectors: *Culicoides obsoletus* (figure 3)

*Culicoides pulicaris* (figure 4)

Figure 3. Sites of *C. obsoletus* vectors identification in 2004.



**Figure 4.** Sites of *C. pulicaris* vectors identification in 2004.



**Year – 2005**

No. of districts – 31

No. of localities (sites) – 31

No. of catches – 568

Identified vectors: *Culicoides obsoletus*  
*Culicoides pulicaris*

**Year – 2006**

No. of districts – 38

No. of localities (sites) – 38

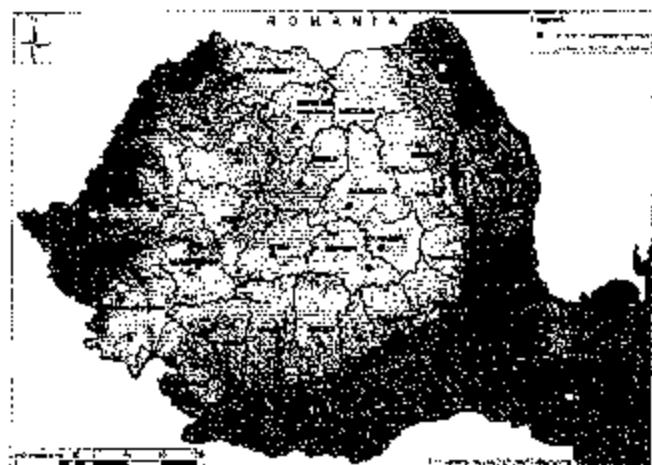
No. of catches – 842

Identified vectors: *Culicoides obsoletus*  
*Culicoides pulicaris*

During 2005, 2006 and 2007 permanent black light traps (South Africa type) were installed in every district (one light trap/district) and vectors were collected weekly (one night/week) in order to asses the seasonal incidence and abundance of the vectors.

In five districts HOBO metcostations were installed in order to monitor the environment parameters that can influence the activity and competence of the vectors (figure 5).

Figure 5. Site of distribution of the permanent traps (red) and HOBO meteostations (yellow) during the season 2005-2006



**Year – 2007**

No. of districts – 34

No. of localities (sites) – 34

No. of catches – 430

Identified vectors: *Culicoides obsoletus*  
*Culicoides pulicaris*

**Year – 2008**

No. of districts – 32

No. of localities (sites) – 35

No. of catches – 1,279

Identified vectors: *Culicoides obsoletus*  
*Culicoides pulicaris*  
*Culicoides nubeculosus*  
*Culicoides dewulfi*

**Year 2009 (the first trimester)**

No. of districts – 10

No. of localities (sites) – 17

No. of catches – 86

Identified vectors: *Culicoides obsoletus*  
*Culicoides pulicaris*  
*Culicoides nubeculosus*  
*Culicoides dewulfi*

**2.5. Results of the surveillance performed during 2003 – 2008**

Based on the investigations performed during 2003 – 2008 risk maps for bluetongue virus were realized. The maps show the areas where competent vectors from *Culicoides obsoletus* and *Culicoides pulicaris* exist, up to the altitude of 500 m (figure 6).

Figure 6. Map of favorable environmental conditions for culicoid vectors . *C. obsoletus* and *C. pulicaris* (up to 500m altitude)

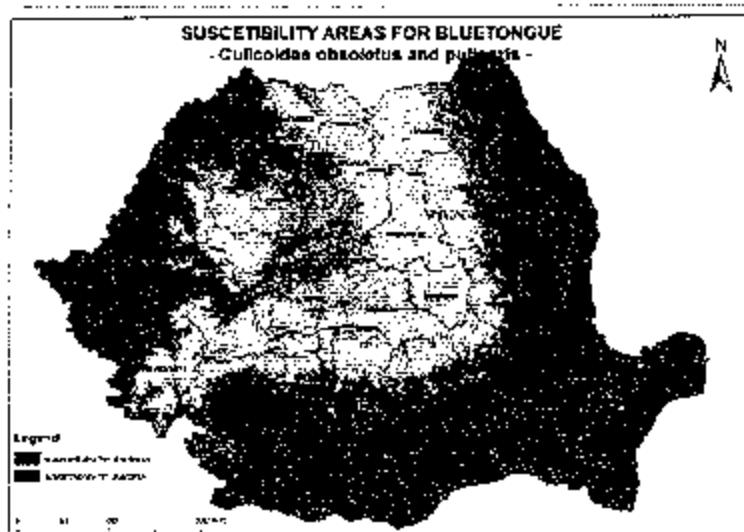
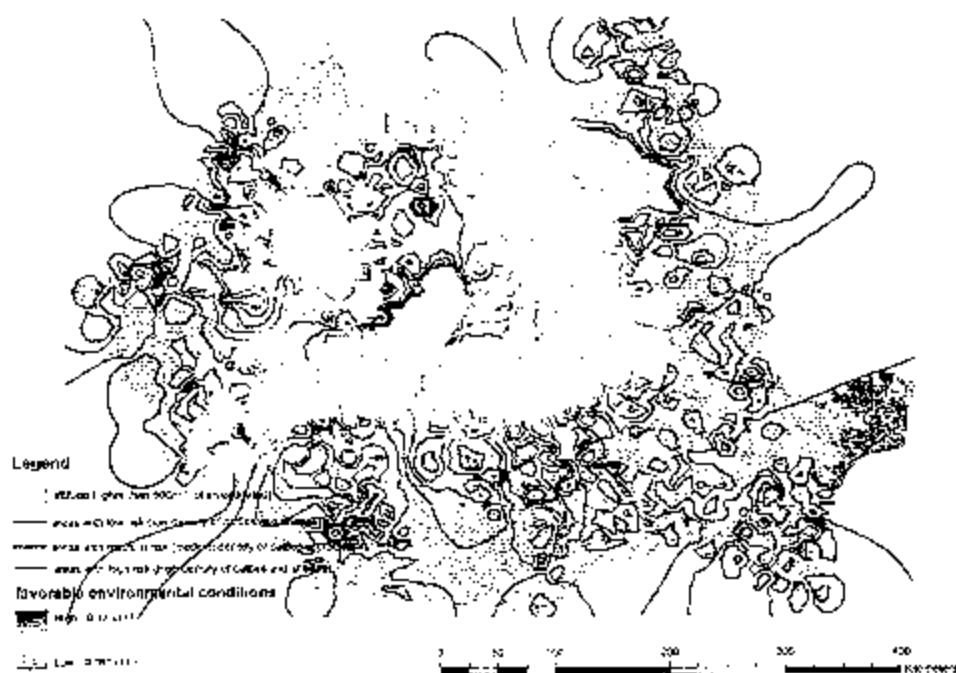


Figure 7. Map of risk areas for bluetongue (up to 500m altitude)



### **3. Description of the submitted program**

In 2008 the surveillance strategy for BT was modified due to the outbreak that occurred in the member state Hungary and it was adapted according to the new situation when the surveillance zone involved a part of the Romanian territory.

#### **3.1. Objectives of the bluetongue surveillance programme in 2010:**

- Early detection of any evidences of bluetongue occurrence on Romanian territory

- Immediate and efficient intervention in case of a bluetongue outbreak
- Establishing of breeding and survival sites for bluetongue virus vectors
- Establishing of the risk zones for bluetongue in Romania
- Assessing the absence of bluetongue virus circulation, and early detection of any bluetongue outbreak. In the restricted (surveillance) area in the north west of the country (restricted area surrounding the bluetongue outbreak in Hungary)
- Qualification of domesticated ruminants populations in Romania as "free of bluetongue".

The target herds were established into quadrats of 25/25 kms recte 525 square kms during the season May to October (figure 8) and 50/50 kms recte 2500 square kms , from November to April (figure 9) depending of the season of vectors activities. In each quadrat one target herd was established.

Figure 8. Quadrats of 25/25 kms for target localities from Mai-October

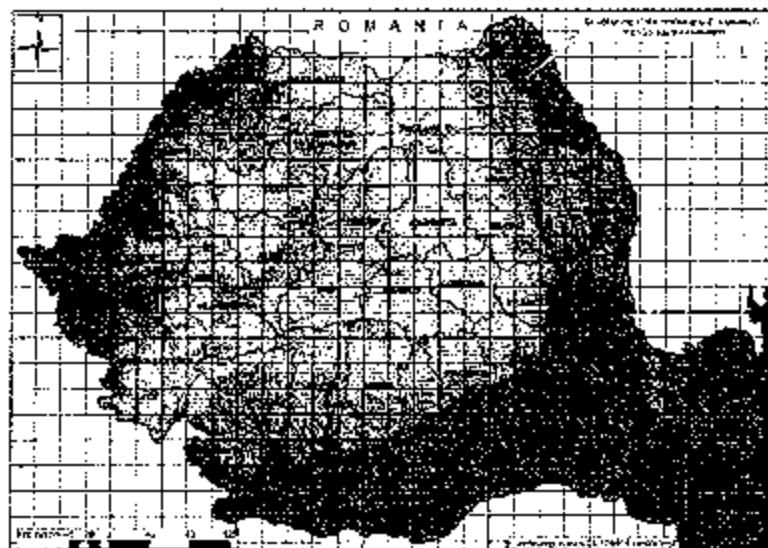
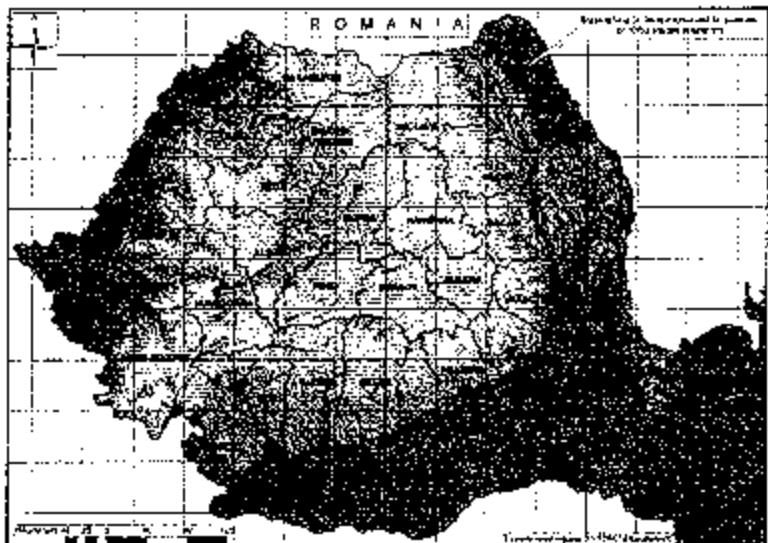


Figure 9. Quadrats of 50/50 kms for target localities from November to April



**Testing strategy:**

- from May to October: monthly surveillance by competitive ELISA on serum samples taken from susceptible animals (bovines, ovines, goats) in quantum of 3% from ruminants (minimum 1200 samples)/district/period;
- from November to April: monthly surveillance by competitive ELISA on serum samples taken from susceptible animals (bovines, ovines, goats) in quantum of 1% from ruminants (minimum 400 samples)/district/period.

**In restricted areas:**

- from May to October: bimonthly surveillance by competitive ELISA on serum samples taken from sentinel animals (up to 10% of bovines, ovines, goats)
- from November to April: monthly surveillance by competitive ELISA on serum samples taken from sentinel animals (up to 10% of bovines, ovines, goats).

### **3.2. Serological survey**

In Romania, the estimated number of ruminants at risk for bluetongue is the following

- bovines: 2.400.000
- sheep: 9.500.000
- goats: 1.200.000

The estimated number of ruminants that should be surveyed by serology in 2010 is 130 000.

**Surveillance in free areas**

During the intense activity of the vectors (from May to October): 3% of ruminants will be tested by ELISA competitive (an average of 1440 samples/district)

Table 1. Sampling model from May to October

Number of quadrats of 25 /25km ( 525 km )	390
Average number of target herds per district	16
Average number of samples /district/period	1550
Average number of samples/target herds/month	14
Total number of animals to be tested during the period	65,100

During the low activity season of vectors (from November to April): 1% of ruminants will be tested (an average of 432 serum samples/district).

Table 2. Sampling model from November to April

Number of quadrats of 50 /50km ( 2500 skm )	98
Average number of target herds per district	5
Average number of samples /district/period	780
Average number of samples/target herds/month	14
Total number of animals to be tested during the period	32,500

#### Surveillance in restricted areas

During the intense activity of the vectors (from May to October): up to 10% of sentinel ruminants will be tested bimonthly by competitive ELISA (an average of 600 samples/district)

Table 3. Sampling model from May to October

Number of quadrats of 20 /20km ( 400 skm )	121
Average number of target herds per district	5
Average number of samples /district/period	7200
Average number of samples/target herds/month	1200
Total number of animals to be tested during the period	21600

During the low activity season of vectors (from November to April): 1% of ruminants will be tested (an average of 432 serum samples/district).

Table 4. Sampling model from November to April

Number of quadrats of 40 /40km ( 1600 skm )	9
Average number of target herds per district	2.5
Average number of samples /district/period	3600
Average number of samples/target herds/month	600
Total number of animals to be tested during the period	10800

The methodology for establishing the target herds to collect the serum samples is the same applied for the year 2009.

All serum samples will be tested in district veterinary laboratories.

The test to be used for serologic surveillance is competitive ELISA.

#### 3.3. Monitoring of culicoid vectors

Identification of the genus and the species and seasonal abundance and distribution as follows:

- by capturing the insects with mobile light traps, during the activity season of the insects (from May to October) according to a monthly timetable for each capturing site (table 5);

Table 5. Monthly timetable of vectors collections by mobile traps

Black light trap code CMYYYYZZ	Days of the month (from May to October)																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	*						*								*						*							

\* Days of capturing

\*\* CM = Mobile light trap; YYYY= the name in short of the locality of collection site; ZZ= the acronym of the district name. Example: the code CPVORBT means: mobile light trap located in Vorona village, district Botosani

- by weekly catches with permanent traps, covering the whole territory of the country (one permanent trap per district) and all over the year (table 6)

Table 6. Weekly timetable of vectors collections by permanent traps

Black light traps code XXYYYYZZ	The name of the farm or collection site	Chatching interval One night/week January → December
	.....	January → December

Black light traps type South Africa will be used.

### 3.4. Monitoring of environmental parameters with HOBO meteostations

In 3 districts (Botosani, Caras Severin, Constanta) along with the permanent light traps, HOBO meteostations are installed. The stations record the environmental data every hour. All the data stocked in the HOBO datalogger are transferred every month to a laptop and used for spatial and statistic analyses and correlated with the dimension and structure of the vectors populations in order to quantify the influence of the environmental factors on the biology of the insects.

### 3.5. Surveillance on wild ruminants

Laboratory tests (virology and molecular biology) are applied on found dead wild ruminants or sick animals killed by shooting because they show symptoms that might be attributed to bluetongue, in order to collect useful data for epidemiologic and risk analysis. Close collaboration with forestry administration and hunting associations is enforced.

## 4. Measures of the submitted programme

### 4.1. Summary of measures under the programme

Duration of the programme: 1 year

- Control
- Testing- yes
- Slaughter of positive animals
- Killing of positive animals

- Vaccination
- Treatment
- Disposal of products
- Monitoring or surveillance - yes
- Eradication
- Slaughter of positive animals
- Killing of positive animals
- Extended slaughter or killing
- Disposal of products
- Other measures (specify):

#### **4.2. Organisation, supervision and role of all stakeholders involved in the programme:**

In Romania, the **National Sanitary Veterinary and Food Safety Authority (ANSVSA)** is the authority that approves and coordinates the national programme for monitoring, surveillance and control of bluetongue.

The National Sanitary Veterinary and Food Safety Authority is led by its President, State Secretary, and the headquarter is located in Bucharest, Negustori street no. 1B, district 2, postal code 023951, phone: 0040213157875, fax: 0040213124967, e-mail: [office@ansv.ro](mailto:office@ansv.ro).

At the county level, the departments responsible for the implementing of the programme are the **42 County Sanitary Veterinary and Food Safety Directorates (CSVFSA)**.

#### **Animal Health and Diagnosis Institute**

- it establishes the strategy of County and Bucharest Municipality Sanitary Veterinary and Food Safety Laboratories regarding the surveillance and diagnosis of bluetongue;
- it coordinates the laboratory activity of surveillance and diagnosis of bluetongue;
- it makes up epidemiological reports, based on the interpretation of the results regarding bluetongue;
- it cooperates with The Laboratory of Community Reference for bluetongue.

#### **The Institute for the Control of Biological Products and Medicine of Veterinary Use**

- it authorizes medical immunological products against bluetongue and reagents (kits) that are to be traded in Romania;
- it carries out the control of series of vaccine quality against bluetongue, in conformity with the provisions of Surveillance, prevention and control actions of animal diseases, of those transmissible from animals to people, animal and environment protection, approved by The NSVFSA 'President' Order;

#### **The Ministry of Agriculture and Rural Development**

- it elaborates the strategy regarding the domestic ruminants breeding system from Romania;
- it assures the necessary amount of money for granting compensations for the animals owners within 90 days, in accordance with european legislation, in limits of allocate budget;
- it registers in the data base of industrial commercial holdings, by means of County and Bucharest municipality agricultural and rural development directorates;
- it assures the maintenance of wild ruminants livestock within reasonable limits and area, by carrying out the seasonal hunting;

- it assures the sampling and their submission to laboratory in order to achieve the laboratory surveillance for the diagnosis of bluetongue, according to the approved sampling programs;
- it assures the functioning of collection, transport and neutralizing system for corpses, products and by-products;
- it decides, together with the Ministry of Environment and Sustainable Development and the Ministry of Public Health over the conditions of breeding animals in cities and municipalities;
- it initiates the necessary measures for granting funds, in order to cover the necessities in emergency cases and the expenses related to the slaughtering of susceptible animals of bluetongue, elimination and processing of corpses, carcasses and contaminated materials, according to the legislation in force;
- it establishes the criteria on which the compensations for the activities of disease eradication;
- it gives advice and trains animal owners for implementing the necessary biossecurity measures for preventing the occurrence and spreading animal diseases.

#### **General Directorate of Forestry and Hunting Control**

- it monitors the population of wild ruminants from Romania, the predicted evolvements and draws up strategies of maintaining livestock within reasonable limits, so that the circulation of virus be controlled;
- it monitors and controls the implementing of measures for the managers of hunting areas, according to the Program.
- it draws up methodologies specific of the field of activity for the control and surveillance of bluetongue for wild ruminants from Romania;

#### **The Territorial Forestry and Hunting Inspectorates**

- it makes available the catagraph of wild ruminants to The County and Bucharest Municipality Sanitary Veterinary and Food Safety Directorates, and geographical coordinates of hunting funds for draw up the GIS maps;
- it monitors and asses the density of wild ruminants from the hunting area of Romania;
- it monitors and controls the implementing of measures for the managers of hunting funds;
- it cooperates with The County and Bucharest Municipality Sanitary Veterinary and Food Safety Directorates in order to implement the Program.

#### **The Economy and Finance Ministry**

- it assures the necessary funds for the complete implementation of the Program.

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

The programme will be applied to the whole territory of Romania.

Fig. 10. Administrative map of Romania with the 41 counties and the municipality of Bucharest:



#### **4.4. Description of the measures of the programme:**

##### **4.4.1. Notification of disease:**

- Order 107/2005 for the approval of the Sanitary Veterinary Norm regarding the notification of animal diseases, with all subsequent amendments, for the official transposition of Council Directive 82/894/EEC on the notification of animal diseases within the Community.

##### **4.4.2. Target animals and animal population:**

The programme is targeted to randomly selected domesticated ruminants in free areas and sentinel domesticated ruminants in restricted areas all over Romania.

##### **4.4.3. Identification of animals and registration of holdings:**

- Emergency Government Ordinance no. 108/2001 approved through Law no. 166/10.04.2002 regarding agricultural holdings which settles at Chapter II – „The apportion of the commercial agricultural holdings“, whose implementation is made in conformity with provisions of the Governmental Decision no. 49/2002 for the approval of Methodological Norms for application of the provisions of Emergency Government Ordinance no. 108/2001 regarding agricultural holdings, published in the Official Journal of Romania, Part I, no. 256/16 April 2004, with further amendments.
- Order no. 62/2007 for the approval of the Sanitary Veterinary Norm regarding the procedure of registration and sanitary-veterinary authorization of the units and means of transport from the health domain and animals welfare, published in the Official Journal of Romania, no. 198/22 March 2007, with further amendments.
- Order 171/2004 for the approval of the veterinary Norm regarding the system of identification and registration of sheep and goats, published in the Official Journal of Romania, no. 227/16 March 2004;
- Order 83/2008 for the approval of Methodological Norms of application of the Actions Program regarding the identification and registration of swine, ovine and goat

and of the Actions Program regarding the identification and registration of bovine, published in the Official Journal of Romania, no. 765/13 November 2008.

#### **4.4.4. Qualification of animals and herds:**

All domesticated ruminants in Romania are free of bluetongue.

#### **4.4.5. Rules on the movement of animals:**

The movement of ruminants is controlled with the following documents:

- Animal holding registry;
- Animal movement document;
- Sanitary veterinary transport certificate for live animals.

The ruminants are allowed to move from farm to farm, animal collection centers, animal markets, slaughterhouses or rendering plants accompanied by the above mentioned documents. These movements are registered in the database along with all relevant documents.

#### **4.4.6. Tests used and sampling schemes:**

Competitive ELISA. The sampling scheme was described in point 3.2.

#### **4.4.7. Vaccination used and vaccination schemes:**

Not applicable.

#### **4.4.8. Information and assessment on bio-security measures management and infrastructure in place in the holding involved:**

#### **4.4.9. Measures in case of positive result:**

Animals serologically positive will be further retested by serumneutralisation and real time RT-PCR on serum and blood samples.

#### **4.4.10. Compensation scheme for owners of slaughtered and killed animals:**

- Governmental Decision 1415/2004 on according compensation for slaughtered animals, killed or otherwise affected due to the rapid elimination of transmissible animal disease outbreaks, with subsequent amendments.

#### **4.4.11. Control on the implementation of the programme and reporting:**

The control of implementing of the programme is performed by the inspection body according to the National Inspection and Control Programme, which is part to Multi-annual National Control Plan.

Reporting of the surveillance results is performed every month by the district Sanitary Veterinary and for Food Safety Directorates to the National Reference Laboratory for bluetongue in the Institute for Diagnosis and Animal Health.

### **5. Benefits of the programme:**

Romania considers that it is necessary to rapidly put in place a harmonized BT monitoring and surveillance scheme in the EU. This harmonized system will allow the full and secure implementation of the measures foreseen in Regulation (EC) no. 1266/2007 on implementing rules for Council Directive 2000/75/EC ensuring transparency among the Member States and also as regards the Third Countries.

The serological monitoring will allow to qualify the ruminants in Romania as free of bluetongue and therefore the farmers will be able to export animals.

On the other hand an early detection of any incursion of BTV into Romanian territory could be rapidly jugulated by the veterinary administration.

The identification of bluetongue risk areas in Romania, will allow to the veterinary services to enforce the prophylactic action in those areas.

**6. Data on the epidemiological evolution during the last five years**

**6.1. Evolution of the disease**

**6.1.1. Data on herds (a) (one table per year and per disease/species)**

**Year: 2004, disease: Bluetongue, Situation on date 31.12.2004, Animal species: Bovine.**

region	Total number of herds	Number of herds checked under the program	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
					%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1	2	3	4	5					
Romania (20 districts)	1,780	180	180	0	0	6	7	8	9
						0	0	100	100

**Year: 2005, disease: Bluetongue, Situation on date 31.12.2005, Animal species: Bovine.**

region	Total number of herds	Number of herds checked under the program	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
					%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1	2	3	4	5					
Romania (20 districts)	1,780	180	180	0	0	6	7	8	9
						0	0	100	100

Year: 2006, disease: Bluetongue, Situation on date 31.12.2006, Animal species: Bovine.

region	Total number of herds	Number of herds under the program	Number of herds checked	Number of positive herds	Number of new positive herds	Number of herds depopulated	%positive herds depopulated			Indicators		
							%herd coverage	%positive herds	Period Herd prevalence	%herd coverage	%positive herds	Herd prevalence
1	2	3	4	5	0	6	7	8	9	10	11	0
Romania (20 districts)	1,780	180	180	0	0	0	100	0	0	0	0	0

Year: 2007, disease: Bluetongue, Situation on date 31.12.2007, Animal species: Bovine,

region	Total number of herds	Number of herds under the program	Number of herds checked	Number of positive herds	Number of new positive herds	Number of herds depopulated	%positive herds depopulated			Indicators		
							%herd coverage	%positive herds	Period Herd prevalence	%herd coverage	%positive herds	Herd prevalence
1	2	3	4	5	0	6	7	8	9	10	11	0
Romania (42 districts)	4,365	400	400	0	0	0	100	0	0	0	0	0

Year: 2008, disease: Bluetongue, Situation on date 31.12.2008, Animal species: Bovine.

region	Total number of herds	Total number of herds checked under the program	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
					%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1 Romania (42 districts)	2 394,000	3 537	4 640	5 0	6 0	7 0	8 0	9 119	10 0

Year: 2004, disease: Bluetongue, Situation on date 31.12.2004, Animal species: Sheep and goats.

region	Total number of herds	Total number of herds checked under the program	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
					%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1 Romania (20 district)	2 2,640	3 220	4 220	5 0	6 0	7 0	8 0	9 100	10 0

Year: 2005, disease: Bluetongue, Situation on date 31.12.2005, Animal species: Sheep and goats.

region	Total number of herds	Number of herds checked under the program	Number of positive herds	Number of new positive herds	Number of herds depopulated	%positive herds depopulated		Indicators		
						%herd coverage	%positive herds Period Herd	%new positive herds Herd incidence		
1	2	3	4	5	6	8	10	11		
Romania (20 district)	2,640	220	220	0	0	0	0	0	0	

Year: 2006, disease: Bluetongue, Situation on date 31.12.2006, Animal species: Sheep and goats.

region	Total number of herds	Number of herds checked under the program	Number of positive herds	Number of new positive herds	Number of herds depopulated	%positive herds depopulated		Indicators		
						%herd coverage	%positive herds Period Herd	%new positive herds Herd incidence		
1	2	3	4	5	6	8	10	11		
Romania (20 district)	2,640	220	220	0	0	0	0	0	0	

**Year: 2007, disease: Bluetongue, Situation on date 31.12.2007, Animal species: Sheep and goats.**

region	Total number of herds	Total number of herds under the program	Number of herds checked	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
						%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1	2	3	4	5	6	8	9	10	11	
Romania (42 district)	6,090	510	510	0	0	0	0	0	0	

**Year: 2008, disease: Bluetongue, Situation on date 31.12.2008, Animal species: Sheep and goats.**

region	Total number of herds	Total number of herds under the program	Number of herds checked	Number of positive herds	Number of new positive herds	%positive herds depopulated		Indicators		
						%herd coverage	%positive herds Period herd prevalence	%new positive herds Herd incidence		
1	2	3	4	5	6	8	9	10	11	
Romania (42 district)	1,118,527	1,647	735	0	0	44,62	0	0	0	

**6.1.2. Data on animals (one table per year and per disease/species)**

**Year: 2004, Disease: Bluetongue, Situation on date: 31.12.2004, Animal species: Bovine**

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	slaughter		indicators	
				Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals Animal prevalence
1	2	3	4	5	6	7	10
Romania (20 districts)	1,000,000	13,260	13,260	0	0	100	0

**Year: 2005, Disease: Bluetongue, Situation on date: 31.12.2005, Animal species: Bovine**

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	slaughter		indicators	
				Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals Animal prevalence
1	2	3	4	5	6	7	10
Romania (20 districts)	1,000,000	11,082	11,082	0	0	100	0

Year: 2006, Disease: Bluetongue, Situation on date: 31.12.2006, Animal species: Bovine

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	Number of positive animals	slaughter		% positive animals prevalence	indicators
					% coverage at animal level	% positive animals		
1	2	3	4	5	6	7	8	9
Romania (20 districts)	1,000,000	11,208	11,208	0	0	0	0	0

Year: 2007, Disease: Bluetongue, Situation on date: 31.12.2007, Animal species: Bovine

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	Number of positive animals	slaughter		% positive animals prevalence	indicators
					% coverage at animal level	% positive animals		
1	2	3	4	5	6	7	8	9
Romania (42 districts)	2,750,000	47,000	47,046	47,046	0	0	0	0

Year: 2008, Disease: Bluetongue, Situation on date: 31.12.2008, Animal species: Bovine

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested	Number of animals tested individually	slaughter			indicators		
					Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals	Animal prevalence	
1	2	3	4	5	6	7	8	9	10	
Romania (42 districts)	2,328,842	39,000	54,082	54,082	0	0	0	139	0	

Year: 2004, Disease: Bluetongue, Situation on date: 31.12.2004, Animal species: Sheep and goats

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested	Number of animals tested individually	slaughter			indicators		
					Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals	Animal prevalence	
1	2	3	4	5	6	7	8	9	10	
Romania (20 districts)	2,000,000	8,840	8,840	8,840	0	0	0	100	0	

Year: 2005, Disease: Bluetongue, Situation on date: 31.12.2005, Animal species: Sheep and goats

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	slaughtering			indicators	
				Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals Animal prevalence	
1	2	3	4	5	6	8	9	10
Romania (20 districts)	2,000,000	7,390	7,388	0	0	0	100	0

Year: 2006, Disease: Bluetongue, Situation on date: 31.12.2006, Animal species: Sheep and goats

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	slaughtering			indicators	
				Number of positive animals	Total number of animals slaughtered	% coverage at animal level	% positive animals Animal prevalence	
1	2	3	4	5	6	7	8	9
Romania (20 districts)	2,000,000	7,470	7,472	0	0	0	100	0

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	Number of positive animals			Number of animals with positive results slaughtered or culled			% coverage at animal level			% positive animals Animal prevalence			indicators
				Total number of animals tested	Number of animals tested individually	Number of positive animals	Total number of animals slaughtered	Number of animals with positive results slaughtered or culled	% coverage at animal level	Total number of animals	Number of animals with positive results slaughtered or culled	% coverage at animal level	Number of positive animals	Animal prevalence		
1	2	3	4	5	5	6	7	7	100	9	8	100	9	10		
Romania (42 districts)	11,946,166	23,500	23,523	23,523	0	0	0	0	0	0	0	0	0	0		

Region	Total numbers of animals	Number of animals to be tested under the programme	Number of animals tested individually	Number of positive animals			Number of animals with positive results slaughtered or culled			% coverage at animal level			% positive animals Animal prevalence			indicators
				Total number of animals tested	Number of animals tested individually	Number of positive animals	Total number of animals slaughtered	Number of animals with positive results slaughtered or culled	% coverage at animal level	Total number of animals	Number of animals with positive results slaughtered or culled	% coverage at animal level	Number of positive animals	Animal prevalence		
1	2	3	4	5	5	6	7	7	100	9	8	100	9	10		
Romania (42 districts)	10,624,560	22,000	31,646	31,646	0	0	0	0	0	144	0	0	0	0		

## 6.2. Stratified data on surveillance and laboratory tests

### 6.2.1. Stratified data on surveillance and laboratory tests (one table per year and per disease/species)

Year: 2004, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Bovine.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	13,260		0

Year: 2005, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Bovine.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	11,082		0

Year: 2006, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Bovine.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	11,208		0

Year: 2007, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Bovine.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (districts)	47,046		0

Year: 2008, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Bovine,

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (districts)	54,082		0

Year: 2004, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Sheep and goats.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	8,840		0

Year: 2005, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Sheep and goats.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	7,388		0

Year: 2006, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Sheep and goats.

Region	Number of sampled tested	Serological tests	Number of positive samples
Romania (20 districts of 42)	7,472		0

Year: 2007, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Sheep and goats.

Region	Number of sampled tested	Serological tests
Romania (42 districts)	23,523	0

Year: 2008, disease: Bluetongue, Description of the used serological tests: Competitive ELISA, Species: Sheep and goats.

Region	Number of sampled tested	Serological tests
Romania (42 districts)	31,646	0

6.3. Data on infection (one table per year and per disease/species): NOT APPLICABLE

6.4. Data on the status of herds at the end of each year: NOT APPLICABLE

6.5. Data on vaccination or treatment programmes: NOT APPLICABLE

6.6. Data on wildlife: NOT APPLICABLE

6.6.2. Monitoring of wildlife: NOT APPLICABLE

6.6.3. Data on vaccination or treatment of wildlife: NOT APPLICABLE

## 7. Targets

7.1. Targets related to testing (one table for each year of implementation)

### 7.1.1. Targets on diagnostic tests

Disease: Bluetongue, Animal species: Bovines, Sheep and goats

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests
Romania (42 districts)	Competitive ELISA	Bovines, Sheep and goats	serum	Qualification - surveillance	130,000
	Serumeutralisation				2,000
	RealTime RT-PCR				1,000
<b>Total</b>					<b>133,000</b>

### 7.1.2. Targets on testing herds and animals

#### 7.1.2.1. Targets on the testing of herds

Disease: Bluetongue, Animal species: Bovine + Sheep + Goats

Region	Total number of herds	Total number of herds under the programme	Number of herd expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds	Expected % herd coverage	% positive herds expected period herd prevalence	% new positive herds expected herd incidence
Romania (42 districts)	10455	320	4	5	0	0	8	100	10	11

**7.1.2.2. Targets on the testing of animals**

Disease: Bluetongue, Animal species: Bovine + Sheep + Goats

Region	Total number of animals	Number of animals under the programme	Number of animals expected to be tested individually	Number of expected positive animals	Slaughtering		Target indicators	
					Number of animals with positive result	Total number of animals expected to be slaughtered bc	Expected % coverage at animal level	% positive animals (expected animal prevalence)
1	2	3	4	5	6	7	8	9
Romania (42 districts)	13,100,000	130,000	130,000	130,000	0	0	0	0

**7.2. Target on qualification of herds and animals (one table for each year of implementation): NOT APPLICABLE**

**7.3. Target on vaccination or treatment: NOT APPLICABLE**

**7.3.1. Targets on vaccination or treatment: NOT APPLICABLE**

**7.3.2. Target on vaccination or treatment of wild life: NOT APPLICABLE**

## 8. Detailed analysis of the cost of the program

Costs related to	Specification	Number of units	Unitary cost in euro	Total amount in euro	Community funding requested (yes/no)
<b>1. Testing</b>					
1.1. Cost of the analysis	Tests: Competitive ELISA, Serumneutralisation Real Time RT-PCR	130,000	1.1 35,74 14,58	143,000 71,474,41 14,579,06	yes yes yes
1.2. Cost of sampling	Serum Samples	130,000	0,7	91,000	yes
1.3. Other costs	Packing and transportation	130,000	1,2	156,000	yes
<b>2. Vaccination or treatment</b>	<b>NOT APPLICABLE</b>				
<b>3. Slaughtered and destruction</b>	<b>NOT APPLICABLE</b>				
<b>4. Cleaning and disinfection</b>	<b>NOT APPLICABLE</b>				
<b>5. Salaries</b>	<b>NOT APPLICABLE</b>				
<b>6. Consumable and specific equipment</b>	<b>NOT APPLICABLE</b>				
<b>7. Other costs</b>					
Entomological survey	Vectors collecting	1500	1,0	1,500	yes
7.1.	Vectors identification	1500	1,5	2,250	yes
7.2.	Costs with packing and transportation				
<b>TOTAL</b>				<b>479.803,47</b>	<b>yes</b>
				<b>EURO</b>	