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HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit 04 - Veterinary Control Programmes

SANCO/10246/2009

*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

The Netherlands

* in accordance with Council Decision 2009/470/EC

Monitoring programme 2010 for bluetongue carried out by The Netherlands, co-financed by the Community

1. Identification of the programme

Member State: *The Netherlands*

Disease: *Bluetongue*

Year of implementation: *2010*

Reference of this document :

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Date sent to the Commission: 30 April 2009

2. Description of the disease situation

Figure 1: situation 2007

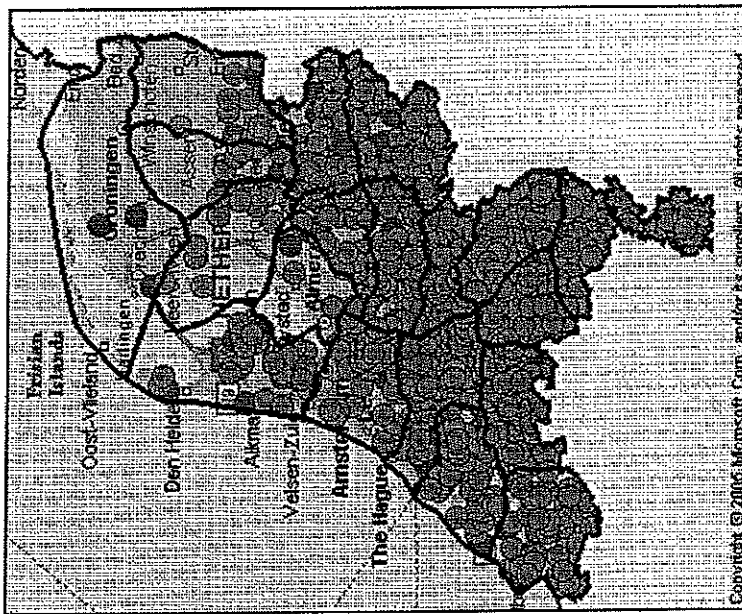


Figure 2: situation 2008

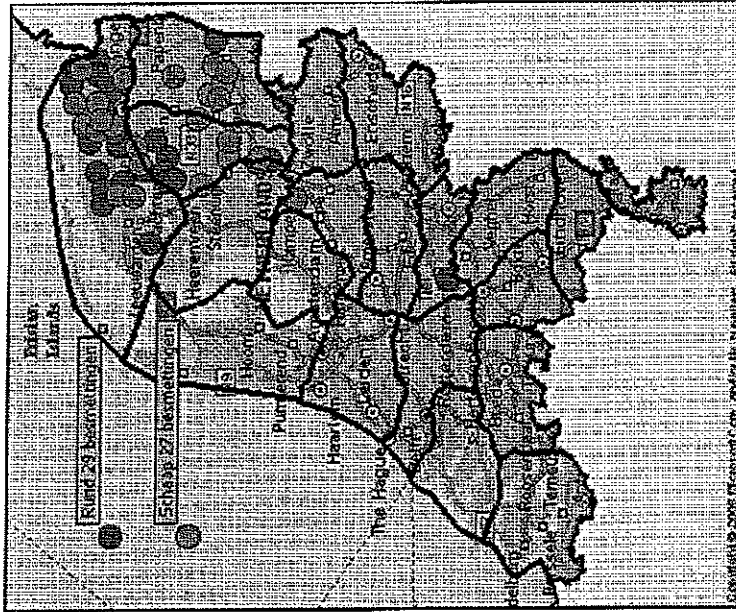


Table 1: Number of cattle per compartment 2008 BTV 8

Compartment	No of holdings	No of cattle	No of infected holdings	No of cattle on infected holdings
1	3600	405.000	33	1296
2	1652	132.996	0	0
3	2407	249.650	7	72
4	2954	274.397	10	120
5	1969	181.056	8	64
6	250	41.342	1	0
7	2484	269.174	2	0
8	4000	292.385	3	153
9	1984	131.176	0	0
10	2657	304.191	0	0
11	4667	338.580	0	0
12	2691	194.199	0	0
13	1445	115.847	1	135
14	386	25.920	0	0
15	694	43.374	0	0
16	1760	178.256	0	0
17	1923	160.816	1	0
18	2484	249.562	0	0
19	1288	120.424	0	0
20	791	53.169	0	0
Total	42.086	3.761.487	66	1840

Tabel 2: Number of infected holdings per compartment 2008 BTv 6

Compartment	No of holdings	No of cattle	No of infected holdings
1	3600	405.000	0
2	1652	132.996	0
3	2407	249.650	1
4	2954	274.397	0
5	1969	181.056	0
6	250	41.342	0
7	2484	269.174	1
8	4000	292.385	12
9	1984	131.176	0
10	2657	304.191	1
11	4667	338.580	1
12	2691	194.199	0
13	1445	115.847	0
14	386	25.920	0
15	694	43.374	0
16	1760	178.256	0
17	1923	160.816	1
18	2484	249.562	0
19	1288	120.424	0
20	791	53.169	0
Total	42.086	3.761.487	18

3. Description of the monitoring programme

Introduction

Bluetongue (BT) is a non-contagious, insect-transmitted (only *Culicoides* species), viral disease of domestic and wild ruminants that does not affect humans. Since August 2006, several serotypes of bluetongue (BTV) have been detected in the European Union. Before August 2006 bluetongue had already appeared in the Southern countries of the European Union. In order to improve the understanding of the epidemiological situation and of the risks for the EU posed by this disease and to establish proportionate measures leading to a minimum disruption of trade it is necessary to enhance monitoring for BT in the EU, in accordance with harmonised principles and guidelines¹.

Monitoring consists of veterinary measures and strategies intended to provide information on BT situation in restricted and free zones. The purposes of monitoring are the determination viruscirculation of BTV serotypes at the earliest possible stage, the demonstration of general or specific BTV serotype freedom and the determination of the seasonally vector-free period.

Legal framework

The Community legal framework on BTV surveillance and control is laid down in Council Directive 2000/75/EC² and Commission regulation 1266/2007³. The two legal acts are in line with the chapter on BTV of the Terrestrial Animal Health Code of the World Organisation for Animal Health (OIE). Depending on the basis of epidemiological, geographical, ecological or meteorological circumstances the competent authority may adapt or take further measures.

In accordance to Community legislation, disease surveillance is of fundamental importance to assess the actual risk posed by animal movements and modulate trade restrictions accordingly.

Fundamental tools

BTV monitoring and surveillance is based on three fundamental tools:

1. Passive clinical surveillance
2. Active laboratory based surveillance
3. Entomological surveillance

Geographical unit

- The epidemiological unit of concern for BT is neither the single animal nor the herd, but a *geographical unit* that has to be defined taking into account mainly environmental characteristics. The Netherlands can be regarded as one geographical unit with identical climatic and environmental conditions over the whole territory.

¹ Working document SANCO/10581/2006 rev 4, Working document on Bluetongue monitoring and surveillance in the EU

² Council Directive 2000/75/EC of 20 November 2000 laying down specific provisions for the control and eradication of bluetongue (OJ L 327, 22.12.2000, p. 74–83)

³ Commission regulation 1266/2007 of 26 October 2007 as regards the control, monitoring, surveillance and restrictions on movement of animals of susceptible species in relation to bluetongue

Objectives of the Dutch monitoring plan

- To assess (re)occurrence or new introduction of bluetonguevirus within the infected and restricted zones.
- To gather information on the presence of
 - Identification of the vector free season
 - Vector species involved
 - Quantitative estimation of vectors present

Measures

Passive clinical monitoring

Bluetongue is a notifiable disease in the Netherlands. Passive clinical monitoring is based on the reporting of clinical signs suggesting BTV by farmers and veterinary practitioners to the veterinary authorities. After reporting of suspicions of BTV, a veterinarian of the Food and Consumer Authority (VWA) and a veterinarian of the Animal Health Service visit the suspected animal for investigation and blood sampling. The blood is sent to the Central Veterinary Institute (CVI, formally CIDC) for a PCR-test. All positive samples are tested for as well BTV 8 as BTV 1 and BTV6. Special attention is given to whether the animals were vaccinated against BTV 8 or not. Additionally, for export of live-cattle a large amount of PCR-tests will be conducted to guarantee absence of BTV.

Active monitoring with laboratory research

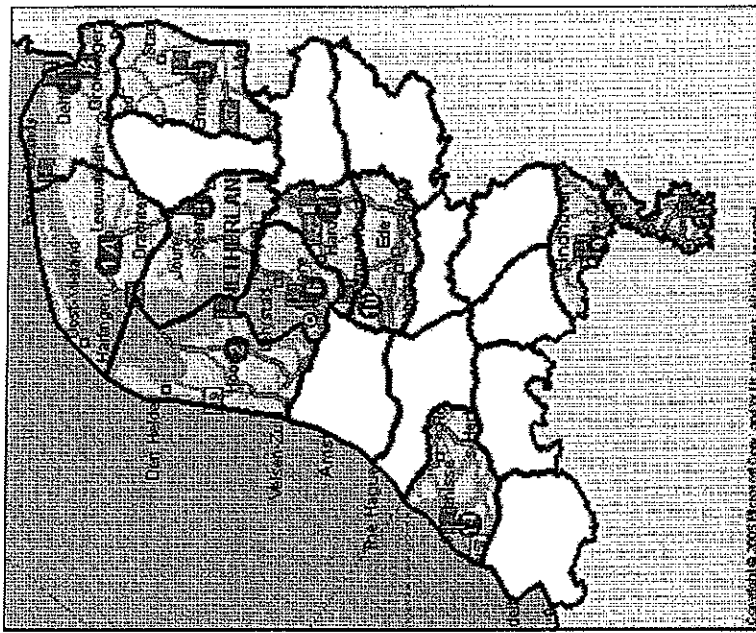
In the fall of 2010 (November/December), a virological survey will be held to determine 20% prevalence. This survey consists of 15 blood samples per compartment (figure 3), originating from at least 7 cattle holdings per compartment. This means that in total, a minimum of 315 samples will be taken. The blood samples will be PCR-tested and, if necessary, a test to define the serotype will be performed.

Entomological surveillance

1. The entomological surveillance is intended to define the vector free period.

Entomological surveillance is based on "vector catching". For this purpose aspiration traps equipped with ultraviolet light will be used (South African "Onderstepoort-model"). In 2010, thirteen traps will be set out spread out over the Netherlands, to catch midges. Throughout the year, these traps will operate once per week and the midges are retrieved from each trap on the day following its operation. Midges collected in the insect traps will be sent to the Plant Protection service of the Dutch Ministry of Agriculture, Nature and Food Quality. Here, trained personnel will count and identify the collected species of *Culicoides* and if necessary, select pools of *Culicoides* to send it to the Dutch reference lab (CIDC Lelystad) for virus detection.

Figure 4: Placement / Location of vector catching traps



4. Table 4: entomological monitoring

Compartment	No of traps placed	Total no of catches	Determination
1a	1	676	Of all catches the different Culicoides species are determined.
1b	1		
2	1		
3			
4			
5	2		
6	1		
7	1		
8			
9			
10	1		
11			
12			
13			
14	1		
15			
16	1		
17			
18			
19	1		
20	2		
total	13		

Costs

Table 5: Estimation of costs of passive clinical surveillance 2010 (sampling of approximately 500 clinical suspected cases)

Description	Amount	Costs per unit (€)	Total Costs (€)	Community funding requested
ELISA	500	6,90	3.450	Yes
PCR general	75	32,20	2.415	Yes
PCR specific BTV 8	75	32,20	2.415	Yes
PCR specific BTV 1	75	32,20	2.415	Yes
Total	725		10.695	

Table 6: Estimation of costs of active monitoring 2010 (Virological survey)

Description	Amount	Costs per unit (€)	Total Costs (€)	Community funding requested
PCR general	300	32,20	9.660	Yes
PCR specific BTV 8	300	32,20	9.660	Yes
PCR specific BTV 1	300	32,20	9.660	Yes
If necessary: PCR other serotype	?	?	?	Yes
Total	900		28.980	

Table 7: Estimation of costs of testing for export 2010

Description	Amount	Costs per unit (€)	Total Costs (€)	Community funding requested
PCR general	50 000	32,20	1.610.000	No
Total			1.610.000	

Table 8: Costs of entomological monitoring 2010

Description	Amount	Costs per unit (€)	Total Costs (€)	Community funding requested
Catching Cullicoides & determination	676	300	202.800	yes
Total			202.800	

⁴ The traps operate one night per week during 52 weeks