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

Eradication and monitoring programme for Bluetongue

The Netherlands

Approved* for 2013 by Commission Decision 2012/761/EU

* in accordance with Council Decision 2009/470/EC
Standard requirement for the submission of programme for eradication, control and monitoring

version: 2.00

1. Identification of the programme

Member state: NEDERLAND

Disease: Bluetongue in endemic or high risk areas

Species: Bovines and sheep and goats

Request of Community co-financing from beginning of: 2013 To end of 2013

1.1 Contact

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Fax: 0031 70 3786100

Email: k.kardinal@mineleni.nl

2. Historical data on the epidemiological evolution of the disease

A concise description is given with data on the target population (species, number of herds and animals present and under the programme), the main measures (testing, testing and slaughter, testing and killing, qualification of herds and animals). The information is given for distinct periods if the measures were substantially modified. The information is documented by relevant summary epidemiological tables, graphs or maps. (max. 4000 chars):

In August 2006, the first cases of bluetongue virus serotype 8 (BTV 8) were found in the Netherlands. Until the end of 2007, a substantial number of cattle on Dutch farms had become infected. Since May 2008 farmers were given the possibility to vaccinate against BTV 8. Natural immunity in combination with vaccination on a large scale lead to an effective reduction of new outbreaks in 2008 (24 infected cattle holdings/27 infected sheep holdings). No cases of BTV 8 were confirmed in the Netherlands in 2009, 2010 and 2011 (see Figure I).

The target population for the passive surveillance is the entire cattle and sheep population in the Netherlands. The active surveillance focuses on the milk cattle population (see Table I).

Main measures
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Active surveillance
In spring 2007, a cross sectional study indicated the evolution of the disease in the susceptible animal population. Later that same year, a sentinel monitoring programme was conducted. In the fall of 2008 and subsequently in the fall of 2009 (November/December), a virological survey was conducted to determine at least 20% prevalence.
In view of the promising monitoring results 2009 (no positives), the Netherlands confirmed these results in the subsequent years:

• Summer 2010: testing of 3308 heifers born in 2008/2009;
• vector-free period 2010/2011: testing of 1949 heifers
• vector-free period 2011/2012 testing of 3240 heifers

None of these animals were tested positive.

Entomological surveillance
At the end of 2006 vector monitoring started with specialized traps in every compartment. In the subsequent year, vector monitoring continued with the weekly analysis of on average 21 traps. Since 2008, vector monitoring has been reduced to activities in fall and spring in order to determine the vector-free period.

Attachments:
Figure I: Description of the disease situation 2008, 2009, 2010, 2011
Table I: Target population

3. Description of the submitted programme

A concise description of the programme is given with the main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence), the main measures (testing, testing and slaughter, testing and killing, qualification of herds and animals, vaccination), the target animal population and the area(s) of implementation and the definition of a positive case.

(max. 4000 chars):


The bluetongue monitoring and surveillance programmes is aimed at:
• detecting any possible incursions of the bluetongue virus and
• determining the seasonally vector free period (entomological surveillance).

Measures
Passive clinical surveillance:
Bluetongue is a notifiable disease in the Netherlands. Passive clinical surveillance is based on the reporting of clinical signs suggesting BTV by farmers and veterinary practitioners to the veterinary
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authorities. After reporting suspected cases of BTV, a veterinarian of the Food and Consumer Authority (NVWA) 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 for serological (ELISA) and PCR-testing on a broad spectrum. In case of positives the serotype is defined.

Active laboratory-based surveillance:
In the fall of 2013 (September/December), a serological survey will be held to determine 20% prevalence with 95% certainty.
- In all 21 compartments, on 15 cattle holdings, 1 non vaccinated or previously infected animals will be sampled (at least 15 animals per compartment).
- This leads to a total of at least 315 animals tested from at least 315 holdings.

In order to prevent false positive results due to interference with antibodies from natural infection in previous years, or from vaccination or maternal immunity, samples are taken from susceptible animals. That is heifers which have not been vaccinated and which have been exposed to the competent vector the entire vector period.

All blood samples will be serologically tested by the Dutch Animal Health Service. Positive tested animals will be sampled again and re-tested at the Central Veterinary Institute of the Netherlands with additional bluetongue ELISA. In case of a positive results a virus neutralisation Tests (VNT) will follow.

The target population for the passive monitoring is the entire cattle, sheep and goat population in the Netherlands. The active monitoring focuses on the dairy cattle population (please consult Table I).

Entomological surveillance
The entomological surveillance is intended to determine the seasonally vector free period. Entomological surveillance is based on “vector catching”. For this purpose aspiration traps equipped with ultraviolet light will be used (South African “Ondersteapoort-model”). In 2011, 13 traps will be set out spread out over the Netherlands, to catch midges (Figure II). Starting one month before the expected start of the vector free period (15 November) to the start of the vector free period the traps will operate once per week and the midges are retrieved from each trap on the day following its operation. From the start of the vector free period to one month before the expected end of the vector free period (1 March) the traps will operate one night per month 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 Centre for Vector Monitoring 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 (CVI) for virus detection.

4. Measures of the submitted programme
4.1 Summary of measures under the programme
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Duration of the programme: beginning 2011 to end of 2013

First year:
☐ Control
☒ Testing
☐ Slaughter and animals tested positive
☐ Killing of animals tested positive
☐ Vaccination
☐ Treatment
☐ Disposal of products
☐ Eradication, control or monitoring

Last year:
☐ Eradication
☐ Testing
☒ Slaughter of positive animals
☐ Killing of animals tested positive
☐ Extended slaughter or killing
☐ Disposal of products
Other, please specify

4.2 Organisation, supervision and role of all stakeholders involved in the programme

Describe the authorities in charge of supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved.
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(max. 4000 chars):

The central authority in charge of supervising and coordinating and the department responsible for implementing the programme: Ministry of Economic Affairs, Agriculture, and Innovation, Animal Supply Chain and Animal Welfare Department.

Operators Involved:
The Dutch Animal Health Service: Execution of the programme
The Central Veterinary Institute: Re-Testing of positive results and suspected cases.
Food and Consumer Authority (NVWA): Investigation of suspected cases and placing of vector traps.
The Dutch Centre for Vector Monitoring: Analysis of vectors.

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

Describe the name and denomination, the administrative boundaries, and the surface of the administrative and geographical areas in which the programme is to be applied. Illustrate with maps.

(max. 4000 chars):

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.
• For the purpose of the active bluetongue monitoring programme, 20 compartments of approximately 45 by 45 km (apprx. 2,000 km²) are defined (see Figure III)

4.4 Description of the measures of the programme

A comprehensive description needs to be provided of all measures unless reference can be made to community legislation. The national legislation in which the measures are laid down is mentioned.

4.4.1 Notification of the disease

(max. 4000 chars):

Bluetongue is a notifiable disease in the Netherlands. Passive clinical surveillance is based on notification of clinical signs suggesting BTV by farmers and veterinary practitioners to the veterinary authorities. The Food and Consumer Authority (WVA) 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 for serological (ELISA) and subsequent PCR-testing. Special attention is given to whether the animals are vaccinated against BTV 8.

4.4.2 Target animals and animal population

(max. 4000 chars):

The target population for the passive surveillance is the entire cattle, sheep and goat population in the Netherlands. The passive monitoring focuses on the dairy cattle population (please consult Table I). Cattle is considered the preferred host of the virus.

4.4.3 Identification of animals and registration of holdings

(max. 4000 chars):

Holdings are registered with an unique UBN number. Individual animals are identified in the I&R system.

4.4.4 Qualifications of animals and herds

(max. 4000 chars):

n.a.

4.4.5 Rules of the movement of animals

(max. 4000 chars):


4.4.6 Tests used and sampling schemes

(max. 4000 chars):

- In all 21 compartments, on 15 cattle holdings 1 non vaccinated or previously infected animals will be sampled (at least 15 animals per compartment).
- This leads to a total of at least 315 animals tested from at least 315 holdings.
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Sampling will be conducted according to a risk-based approach, in order to prevent false positive results due to interference with antibodies from natural infection in previous years, or from vaccination or maternal immunity. Animal will be chosen under the following preconditions:
- Heifers must be born before 1 March 2013
- Heifers must be older than 8 month at testing to rule out maternal immunity.
- Selected farms have not vaccinated in the previous years.

All blood samples will be serologically (ELISA) tested by the Dutch Animal Health Service. Positive tested animals will be sampled again and re-tested at the Central Veterinary Institute of the Netherlands with additional bluetongue ELISA and in the following with Virus Neutralization (VNT). In case of a new outbreak of bluetongue virus measures will be implemented according to Council Directive 2000/75/EC and Commission Regulation 1266/2007.

4.4.7 Vaccines used and vaccination schemes

(max. 4000 chars)

n.a.

4.4.8 Information and assessment on bio-security measures management and infrastructure in place in the holdings involved.

(max. 4000 chars)

n.a.

4.4.9 Measures in case of a positive result

A short description is provided of the measures as regards positive animals (slaughter, destilation of carcasses, use or treatment of animal products, the destruction of all products which could transmit the disease or the treatment of such products to avoid any possible contamination, a procedure for the disinfection of infected holdings, the therapeutic or preventive treatment chosen, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter and the creation of a surveillance zone around infected holding)

(max. 4000 chars)

no extra measures will be installed.

4.4.10 Compensation scheme for owners of slaughtered and killed animals
4.4.11 Control on the implementation of the programme and reporting

The execution of the programme will be under the responsibility of the Ministry of Economic Affairs, Agriculture, and Innovation. Activities are audited on a regular basis by the Food and Consumer Authority.

5. Benefits of the programme

A description is provided of the benefits for farmers and society in general.

Any possible incursions of the bluetongue virus will be detected and the seasonally vector free period is determined.
6. **Data on the epidemiological evolution during the last five years**

All blocks under 6 are repeated 5 times corresponding to the last 5 years. They must all be filled out.

6.1 **Evolution of the disease**

Evolution of the disease: ☑ Not applicable ☑ Applicable...

6.2 **Stratified data on surveillance and laboratory tests**

6.2.1 **Stratified data on surveillance and laboratory tests for year**: 2011
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<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>Bovine</td>
<td>microbiological or virological test</td>
<td>PCR</td>
<td>35</td>
<td>0</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>bovine, ovine</td>
<td>serological test</td>
<td>ELISA</td>
<td>3,398</td>
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<td></td>
<td></td>
<td>3,437</td>
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</tr>
</tbody>
</table>

6.2.1 Stratified data on surveillance and laboratory tests for year: 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>Bovine</td>
<td>serological test</td>
<td>ELISA</td>
<td>5,501</td>
<td>0</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>bovine, ovine</td>
<td>microbiological or virological test</td>
<td>PCR</td>
<td>154</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>5,655</td>
<td></td>
</tr>
</tbody>
</table>

ADD A NEW ROW

6.2.1 Stratified data on surveillance and laboratory tests for year: 2009
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<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.a.</td>
<td>n.a.</td>
<td>other test</td>
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<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### 6.2.1 Stratified data on surveillance and laboratory tests for year: 2008

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.a.</td>
<td>n.a.</td>
<td>other test</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 6.2.1 Stratified data on surveillance and laboratory tests for year: 2007

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.a.</td>
<td>n.a.</td>
<td>other test</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.3 Data on infection

Data on infection

☐ Not applicable
☐ Applicable...

6.4 Data on the status of herds

Data on the status of herds:

☐ Not applicable
☐ Applicable...
6.5 Data on vaccination or treatment programmes

Data on vaccination or treatment programmes is ☐ Not applicable ☑ Applicable...

6.6 Data on wildlife

Data on Wildlife is: ☐ Not applicable ☑ Applicable...
7. Targets

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

The blocks 7.1.1, 7.1.2.1, 7.1.2.2, 7.2, 7.3.1 and 7.3.2 are repeated multiple times corresponding to the number of years you selected in 1) Request of Community co-financing from/to.

7.1.1 Targets on diagnostic tests for year: 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of the test</th>
<th>Target population</th>
<th>Type of sample</th>
<th>Objective</th>
<th>Number of planned tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>ELISA</td>
<td>Bovines</td>
<td>blood</td>
<td>surveillance</td>
<td>350</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>ELISA confirmation</td>
<td>Bovines</td>
<td>blood</td>
<td>surveillance</td>
<td>25</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Virus neutralisation tests</td>
<td>Bovines</td>
<td>serum</td>
<td>surveillance</td>
<td>25</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>ELISA</td>
<td>Bovines</td>
<td>blood</td>
<td>confirmation of suspected cases</td>
<td>100</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>PCR</td>
<td>Bovines</td>
<td>blood</td>
<td>confirmation of suspected cases</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>

Add a new row
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7.1.2 Targets on testing herds and animals

7.1.2.1 Targets on testing herds

☐ Not applicable

☐ Applicable...

7.1.2.2 Targets on testing animals

☐ Not applicable

☐ Applicable...

7.2 Targets on qualification of herds and animals

Targets on qualification of herds and animals

☐ Not applicable

☐ Applicable...
7.3 Targets on vaccination or treatment

7.3.1 Targets on vaccination or treatment is \( \bigcirc \) Not applicable \( \bigcirc \) Applicable...

7.3.2 Targets on vaccination or treatment of wildlife is \( \bigcirc \) Not applicable \( \bigcirc \) Applicable...
8. **Detailed analysis of the cost of the programme for year:** 2013

*Block 8 is repeated multiple times corresponding to the number of years you selected in 1) Request of Community co-financing from/to*

### 1. Testing

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA GD</td>
<td>Cost of analysis</td>
<td>350</td>
<td>6.55</td>
<td>2292.5</td>
<td>yes</td>
</tr>
<tr>
<td>confirmation ELISA CVI</td>
<td>Cost of analysis</td>
<td>25</td>
<td>6.55</td>
<td>183.75</td>
<td>yes</td>
</tr>
<tr>
<td>Virus neutralisation test CVI</td>
<td>Cost of analysis</td>
<td>25</td>
<td>68</td>
<td>1700</td>
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</tr>
<tr>
<td>sampling GD</td>
<td>Cost of sampling</td>
<td>350</td>
<td>7.0</td>
<td>2600</td>
<td>yes</td>
</tr>
</tbody>
</table>
### Standard requirement for the submission of programme for eradication, control and monitoring

#### 2. Vaccination or treatment

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.a.</td>
<td>n.a.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

#### 3. Slaughter and destruction

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>not applicable</td>
<td>n.a.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

#### 4. Cleaning and disinfection

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>not applicable</td>
<td>n.a.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

#### 5. Salaries (staff contracted for the programme only)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>not applicable</td>
<td>n.a.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Add a new row
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#### 6. Consumables and specific equipment

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>not applicable</td>
<td>n.a.</td>
<td>0</td>
<td>0</td>
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<td>no</td>
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</tbody>
</table>

#### 7. Other costs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Cost related to</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
</table>

**Total**

|               |               |                 |                    | 40 571.25 €          |

#### Attachments

**IMPORTANT:**

1) The more files you attach, the longer it takes to upload them.
2) This attachment files should have one of the format listed here: .zip.
3) The total file size of the attached files should not exceed 2 500Kb (~ 2.5 Mb). You will receive a message while attaching when you try to load too much.
4) You can try to reduce the size of the files you try to attach: pictures can be downsized a lot by saving them in jpg format.
5) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD** ALL THE ATTACHED FILES. Don’t interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
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Attachment reference a_1272544774435