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

Survey programme for Bluetongue

Approved* for 2012 by Commission Decision 2011/807/EU

Malta

* in accordance with Council Decision 2009/470/EC
1. Identification of the programme

Member state: MALTA

Disease: Bluetongue in endemic or high risk areas

Species: Bovines and sheep and goats

This program is multi annual: no

Request of Community co-financing from beginning of: 2012
Standard requirement for the submission of programme for eradication, control and monitoring
version : 2.1

1.1 Contact

Name : Dr. Anthony Gruppetta
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Fax. : 0035625905182
Email : cvo.mrae@gov.mt

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. 32000 chars) :

Malta as an island in the centre of the Mediterranean sea, is surrounded by various countries that have had outbreaks of Bluetongue in recent years. Due to the geographical location and the presence of potential vectors of the disease, Malta is in a high risk area for Bluetongue and the ongoing monitoring for the disease is necessary. Malta is listed in the Zone A restricted zone in Annex 1 to Commission Decision 2005/393/EC. Serotypes 2 and 9 are the most recurrent serotypes in this region (BTV4 and BTV16 to a lesser extent).

During the year 2002 an EU funded epidemiological survey for Bluetongue was carried out on the bovine, ovine and caprine population of Malta and Gozo. A total of 6894 animals were sampled. In the first batch of results received, two bovine animals were positive to the ELISA test. These two samples were confirmed by means of sero-neutralisation tests for serotype 2. These positive results must be interpreted in the light of climatic conditions as during the sampling period strong sandstorms could have carried infected vectors passively to the Maltese islands. There were no clinical signs of Bluetongue in the ruminant population observed to date. Even though infected vectors could be carried passively to the Maltese islands, there may not be the ideal climatic and environmental conditions for the vector to survive.

Total No. of samples tested 7868
Total No. of samples tested (excluding duplicates) 6894
Standard requirement for the submission of programme for eradication, control and monitoring

version : 2.1

Total no. of Bovine farms tested (dairy)
(excluding duplicates) 128
Total no. of ovine, caprine farms tested
(non-dairy) 158
Total no. of bovine animals tested
(excluding duplicates) 4893
Total no. of positive bovine animals 2
Total no. of ovine/caprine animals tested 2001
Total no. of positive ovine/caprine animals 0

The Istituto Zooprofilattico Sperimentale dell’ Abruzzo e del Molise (OIE Reference Laboratory) was able to offer its expertise to the NRL in Malta (VAFD laboratory). An entomological surveillance programme was initiated in May 2002, and six insect-traps were set up in four different areas of Malta and two areas on the island Gozo. These traps were activated once a week during the night. The insects caught in the trap were then observed and identified. The IZS carried out the identification until personnel from the Department was adequately trained.

During the late months of summer and early autumn 2002, Culicoides imicola and C. pulicaris are were recorded in very small percentages (approx. 1% of the insects within the catches).

During the year 2004, a surveillance programme was set up. This time the programme made use of sentinel bovine animals on dairy farms distributed over the whole territory of the country. A total of 147 bovines distributed on 68 dairy holdings were sampled. The sera was tested using ELISA kits and was carried out at the National Veterinary Laboratory of the Veterinary Regulation Fisheries Conservation and Controls Division. The number of animals to be sampled was calculated in order to detect 1% herd prevalence with a 5% seroprevalence. This approach was suggested by the IZS Teramo. All sentinel bovines were young adult milking cows. There was seroconversion in a very small number of samples. In 2006, 56 sera samples were tested.
In 2007, 101 sera samples were tested.
In 2008, 569 serum samples were tested all were negative.
In 2009, 2082 samples were tested. Further more 63 samples were also sent to the Community Reference Laboratory for Blue Tongue Pirbright-UK.
No tests resulted positive in 2009.
The number of animals tested in 2010 was 1341 and all samples were negative.
The National Veterinary laboratory also took part in 5 ring tests; in 2006, 2007, 2008, 2009 and 2010 organised by Pirbright-UK. All samples analysed in these trials were correctly identified. In 2011, in addition to the Pirbright proficiency test, the National Veterinary Laboratory will also be participating in another proficiency test organised by the Veterinary Laboratory Agency.

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.
Serological surveillance

The whole Maltese territory is to be considered one serological unit. 45 dairy sentinel farms shall be chosen so as to be equally spread over the whole territory. Within each sentinel farm, 5 sentinel bovine animals shall be selected. A bovine animal shall classify as a sentinel if it is female, docile, young and if the farmer intends keeping the animal on the holding for a reasonable span of time so that the same animal may be re-sampled. Each sentinel bovine shall be sampled on a monthly basis.

Each serological sample shall be tested by means of ELISA in the National Veterinary Laboratory of the Veterinary Regulation Fisheries Conservation and Controls Division.

10% of the samples shall also be sent to Pirbright - UK to be tested by means of PCR targeted at the Bluetongue V 4 serotypes circulating in the central Mediterranean region. Malta is listed in the Zone A restricted zone in Annex 1 to Commission Decision 2005/393/EC. Serotypes 2 and 9 are the most recurrent serotypes in this region (Bluetongue V 4 and Bluetongue V 16 to a lesser extent).

Any positive samples shall be sent to the CRL for confirmation and serotyping. It is foreseen the PCR technique will soon be introduced in the National Veterinary Laboratory

Entomological surveillance

The scope of the survey is to determine the Culicoides population distribution in the Maltese territory, and to identify potential vectors of the disease.

The surface area of the Maltese islands is 316 square kilometres. The grid system of 45km by 45 km units (2000 km²) does not apply, and the whole Maltese territory is to be considered as one serological unit. In the Maltese islands six insect traps are in use, two in Gozo and four in Malta.

The midges shall be collected on one night per week all over the year. Information on climatic conditions and temperature shall be collected together with the insects trapped. This would result in 312 catches each year.

The collected midges shall be counted and analysed in the National Veterinary Laboratory of the Veterinary Regulation Fisheries Division. A small sample of midges caught shall be sent to IZS – Teramo for virus identification by PCR. The midges sampled must be blood engorged females belonging to a species of Culicoides that is a probable vector of Bluetongue.

4. Measures of the submitted programme

4.1 Summary of measures under the programme
Standard requirement for the submission of programme for eradication, control and monitoring

Version: 2.1

Duration of the programme: 2012

First year:

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

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.
The programme shall last one year.

The programme is a surveillance programme that shall confirm the disease-free status of the Maltese islands. Considering the geographical location of the islands in a high risk zone being surrounded by other countries that in recent years have had outbreaks of Bluetongue, and considering the recent evolution of the disease in certain member states in central Europe, an ongoing monitoring programme is necessary in order to detect the presence of the disease should it enter the Maltese territory.

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.

The surveillance programmes will apply to the Islands of Malta and Gozo (one region). The total surface area of the Maltese territory is 316 km²;
- There is a lack of extensive grazing land available;
- Average farm size is 0.5 hectares;
- Livestock is reared on farms having a higher stocking density than would apply to an extensive system.

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


4.4.2 Target animals and animal population
4.4.3 Identification of animals and registration of holdings

Veterinary Services Act (Chapter 437) and Prevention of Disease Ordinance (Chapter 36).
Council directive 64/432/EEC on the animal health problems affecting intra-Community trade in bovine animals and in swine and successive amendments, transposed as national legislation under Legal Notice 505 of 2004.

4.4.4 Qualifications of animals and herds

Veterinary Services Act (Chapter 437) and Prevention of Disease Ordinance (Chapter 36).
Council directive 64/432/EEC on the animal health problems affecting intra-Community trade in bovine animals and in swine and successive amendments, transposed as national legislation under Legal Notice 505 of 2004.

4.4.5 Rules of the movement of animals

Measures and terms of legislation as regards the different qualifications of animals and herds

Veterinary Services Act (Chapter 437) and Prevention of Disease Ordinance (Chapter 36).
Council directive 64/432/EEC on the animal health problems affecting intra-Community trade in bovine animals and in swine and successive amendments, transposed as national legislation under Legal Notice 505 of 2004.
4.4.6 Tests used and sampling schemes

(max. 32000 chars):

The tests used will be the IDEXX ELISA. PCR will be used to test a percentage of all the negative samples obtained by the ELISA.

4.4.7 Vaccines used and vaccination schemes

(max. 32000 chars):

No Vaccination for BT is employed in the Maltese Islands. Some Vaccinated animals have been imported into Malta. The serological status of any imported animals is monitored via PCR.

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

(max. 32000 chars):

Assessment of bio- security measures in holdings is carried out by a designated BT sampling team. All the holdings are also visited several times a year as part of other disease surveillance/hygiene programmes.

4.4.9 Measures in case of a positive result

A short description is provided of the measures as regards positive animals (slaughter, destination 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. 32000 chars):

4.4.10 Compensation scheme for owners of slaughtered and killed animals

(max. 32000 chars):

NA

4.4.11 Control on the implementation of the programme and reporting

(max. 32000 chars):

The control, implementation and reporting of the programme is carried out by the National Veterinary Laboratory.

5. Benefits of the programme

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

(max. 32000 chars):

The surveillance programme will provide prompt notification if the disease is introduced into the Islands.
6. **Data on the epidemiological evolution during the last five years**

Data already submitted via the online system for the years 2006 - 2009: yes

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: 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>Malta</td>
<td>Bovine</td>
<td>serological test</td>
<td>ELISA</td>
<td>1341</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>1341</td>
<td>0</td>
</tr>
</tbody>
</table>

### 6.3 Data on infection

- Data on infection: Not applicable
6.4 Data on the status of herds

Data on the status of herds:  
☐ Not applicable  ☐ Applicable...

6.4 Data on the status of herds at the end of year: 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal Species</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malta</td>
<td>Bovines</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>332</td>
<td>15 005</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>332</td>
<td>15 005</td>
</tr>
</tbody>
</table>
### 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 |
Standard requirement for the submission of programme for eradication, control and monitoring

version : 2.1

7. **Targets**

*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 in case of first year submission of multiple program.*

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

#### 7.1.1 **Targets on diagnostic tests for year:** 2012

<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>Malta</td>
<td>ELISA</td>
<td>Bovines</td>
<td>serum</td>
<td>surveillance</td>
<td>2 700</td>
</tr>
<tr>
<td>Malta</td>
<td>PCR</td>
<td>Bovines</td>
<td>blood</td>
<td>surveillance</td>
<td>270</td>
</tr>
</tbody>
</table>

*Total* 2 970

#### 7.1.2 **Targets on testing herds and animals**
### 7.1.2.1 Targets on testing herds

**Not applicable**

### 7.1.2.1 Targets on testing herds for year: 2012

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal species</th>
<th>Total number of herds</th>
<th>Total number of herds under the programme</th>
<th>Number of expected positive herds</th>
<th>Number of expected new positive herds</th>
<th>Number of herds expected to be depopulated</th>
<th>% positive herds expected to be depopulated</th>
<th>Expected % herd coverage</th>
<th>% positive herds Expected period herd prevalence</th>
<th>% new positive herds Expected herd incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA/ta</td>
<td>Bovines</td>
<td>332</td>
<td>45</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>332</strong></td>
<td><strong>45</strong></td>
<td><strong>45</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>100</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

### 7.1.2.2 Targets on testing animals

**Not applicable**

### 7.1.2.2 Targets on testing animals...
### 7.1.2.2 Targets on the testing of animals for year:

<table>
<thead>
<tr>
<th>Region</th>
<th>Species</th>
<th>Total number of animals</th>
<th>Number of animals under the programme</th>
<th>Number of animals expected to be tested</th>
<th>Number of animals to be tested individually</th>
<th>Number of expected positive animals</th>
<th>Number of animals with positive result expected to be slaughtered or culled</th>
<th>Total number of animals expected to be slaughtered</th>
<th>Expected % coverage at animal level</th>
<th>% positive animals (Expected animal prevalence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAlta</td>
<td>Bovine</td>
<td>15 005</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15 005</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Add a new row

### 7.2 Targets on qualification of herds and animals

**Targets on qualification of herds and animals**

- **Not applicable**
- **Applicable...**

### 7.2 Targets on qualification of herds and animals for year:

| 2012 |
### Standard requirement for the submission of programme for eradication, control and monitoring

**version : 2.1**

#### Targets on the status of herds and animals under the programme

<table>
<thead>
<tr>
<th>Region</th>
<th>Animal species</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
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<th>Herds</th>
<th>Animals</th>
<th>Herds</th>
<th>Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malta</td>
<td>Bovine</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>332</td>
<td>15 050</td>
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<td>0</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>45</td>
<td>225</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>45</td>
<td>225</td>
<td>0</td>
<td>0</td>
<td>332</td>
<td>15 050</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 7.3 Targets on vaccination or treatment

- **7.3.1 Targets on vaccination or treatment is**
  - Not applicable
  - Applicable...

- **7.3.2 Targets on vaccination or treatment of wildlife is**
  - Not applicable
  - Applicable...
8. **Detailed analysis of the cost of the programme for year:** 2012

The blocks are repeated multiple times in case of first year submission of multiple program.

### 1. Testing

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Unit</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>Cost of analysis</td>
<td>Elisa (serum antibody detection)</td>
<td>Individual animal sample/test</td>
<td>2 700</td>
<td>5.1</td>
<td>13770</td>
<td>yes</td>
</tr>
<tr>
<td>Cost of analysis</td>
<td>PCR (animal samples)</td>
<td>Individual animal sample/test</td>
<td>270</td>
<td>25.3</td>
<td>6831</td>
<td>yes</td>
</tr>
<tr>
<td>Cost of analysis</td>
<td>Vector identification</td>
<td>Pooled sample test</td>
<td>52</td>
<td>15</td>
<td>780</td>
<td>yes</td>
</tr>
<tr>
<td>Cost of sampling</td>
<td>PCR (vector samples)</td>
<td>Pooled sample test</td>
<td>52</td>
<td>25.3</td>
<td>1315.6</td>
<td>yes</td>
</tr>
</tbody>
</table>

### 2. Vaccination or treatment

Add a new row

### 3. Slaughter and destruction

Add a new row
### Standard requirement for the submission of programme for eradication, control and monitoring

**version : 2.1**

<table>
<thead>
<tr>
<th>4. Cleaning and disinfection</th>
<th>Specification</th>
<th>Unit</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>5. Salaries (staff contracted for the programme only)</td>
<td>Specification</td>
<td>Unit</td>
<td>Number of units</td>
<td>Unitary cost in EUR</td>
<td>Total amount in EUR</td>
<td>Community funding requested</td>
</tr>
<tr>
<td>6. Consumables and specific equipment</td>
<td>Specification</td>
<td>Unit</td>
<td>Number of units</td>
<td>Unitary cost in EUR</td>
<td>Total amount in EUR</td>
<td>Community funding requested</td>
</tr>
<tr>
<td>7. Other costs</td>
<td>Specification</td>
<td>Unit</td>
<td>Number of units</td>
<td>Unitary cost in EUR</td>
<td>Total amount in EUR</td>
<td>Community funding requested</td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community funding requested</td>
<td>22,696,60 €</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Attachments

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