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

Surveillance and Eradication programme of Bluetongue

Approved* for 2011 by Commission Decision 2010/712/EU

Hungary

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

for Community co-financing of the national control programme of Hungary for

Bluetongue

for the year 2011

29th of April, 2010
1. **Identification of the programme**

   Member State: HUNGARY

   Disease(s): BLUETONGUE

   Year of implementation: 2011

   Reference of this document: 2008/425/EC and 2009/470/EC

   Contact (name, phone, fax, e-mail): Robert Kocsis DVM, Tel.: +36 1 460 63 80 ext. 114, kocsisr@oaj.hu

   Date sent to the Commission: 29 April 2010

2. **Historical data on the epidemiological evolution of the disease(s)**:

   The first and so far the only Hungarian occurrence of the bluetongue disease was confirmed on 5 Sept 2008. The virus was detected when the obligatory control serological testing was carried out during the isolation period on the animals which were transported from other Member State infected with bluetongue disease.

   On 4 July 2008 142 charolais cattle arrived to Borsod-Abaúj-Zemplén County from France. According to the transport documentation all animals were tested serologically with negative result for the bluetongue disease prior to shipment in accordance with the Comm. Reg. 1266/2007/EC. After the arrival the animals were isolated on the farm. Control tests were performed during the isolation period and 47 animals were found to be seropositive and 1 viropositive. The viropositive animal was killed and disposed. The repeated control tests showed that subsequent 17 animals were viropositive out of the 47 seropositive cattle. All viropositive animals were killed and disposed. The seropositive, but virologically negative animals were slaughtered.

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1. One document per disease is used unless all measures of the programme on the target population are used for the monitoring, the control and eradication of different diseases.

2. 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, vaccination ...) and the main results (incidence, prevalence, qualification of herds and animals). The information is given according distinct periods if the measures were substantially modified. The information is documented by relevant summary epidemiological tables, graphs or maps.
Due to the above mentioned results immediate control testing was carried out on the 281 animals originally held on the same Hungarian farm. 4 seropositive cases were found. These animals were subjected to further virological examination, which showed that all of them were positive for the bluetongue virus. These viropositive animals were killed and disposed.

The bluetongue disease was confirmed on 5 Sept 2008. This fact was reported to the European Commission and also to the OIE.

Protection zone and surveillance zone was set up and monitoring tests were ordered to survey the spread of the disease. Movement restrictions were implemented. Disinsection was carried out in the zone with a radius of 20 km around the outbreak in order to eliminate the vectors.

On 6 Oct 2008 repeated control serological testing was carried out in the affected herd, and the results showed that 36 cattle out of 450 were seropositive (previously all of them were seronegative in Sept). PCR testing of the seropositive animals showed that 14 cattle were PCR positive.

Due to the epidemiological risk of the further keeping of this affected herd the National Disease Control Centre decided to kill and dispose all animals kept on the farm, what was carried out in the following month and finished by 17 Nov 2008. The depopulation of the farm was followed by cleaning and disinfection.

The repopulation was permitted by the Local Veterinary Authority more than one year later.

On 19 Jan 2010 the Hungarian Veterinary Authority applied for the Commission's approval for redemarcation and reduction of the current bluetongue restricted zones in Hungary subsequent upon the favourable sampling results carried out in 2008 and in 2009. The new bluetongue restricted zone was determined around the location of the primary outbreak taking into consideration the Commission's opinion discussed prior to the application. The Map 1 shows the map of Hungary with the restricted zone for bluetongue disease applied from 1 Feb 2010. The Table 1 contains the updated list of settlements in the restricted zone.

In connection with the above submitted modifications, Hungary took the opportunity to lift the bluetongue surveillance zone in Győr-Moson-Sopron county which was set up first in regard with the bluetongue outbreak occurred in the Czech Rep. on 13 Nov 2008 on the farm Ivanice. This surveillance zone was later extended in direction to south in regard with another bluetongue outbreak occurred in the Czech Rep. on 25 Sept 2009 on the farm Násedlovice. In Győr-Moson-Sopron county all serological test results also were negative both in sentinel cattle and in randomly collected individuals in 2008 and in 2009.
<table>
<thead>
<tr>
<th>Alsószolca</th>
<th>Egyek</th>
<th>Kegyöri</th>
<th>Noszvaj</th>
<th>Tarad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andornaktálya</td>
<td>Emod</td>
<td>Katokaj</td>
<td>Novaj</td>
<td>Tibolddárocs</td>
</tr>
<tr>
<td>Árokö</td>
<td>Felsőcsaba</td>
<td>Köröm</td>
<td>Nyékládhaza</td>
<td>Tiszabábolna</td>
</tr>
<tr>
<td>Berzek</td>
<td>Folyas</td>
<td>Maklár</td>
<td>Ostoros</td>
<td>Tiszacsege</td>
</tr>
<tr>
<td>Besenyőtelek</td>
<td>Füzessabony</td>
<td>Malyi</td>
<td>Oszlár</td>
<td>Tiszadorgna</td>
</tr>
<tr>
<td>Bogács</td>
<td>Gelej</td>
<td>Mezőcsát</td>
<td>Öned</td>
<td>Tiszafüred</td>
</tr>
<tr>
<td>Borsodgeszt</td>
<td>Giincs</td>
<td>Mezőkereszt</td>
<td>Pórgár</td>
<td>Tiszagyulahaza</td>
</tr>
<tr>
<td>Borsodvanka</td>
<td>Harsány</td>
<td>Mezőkövesd</td>
<td>Poroszló</td>
<td>Tiszaszi</td>
</tr>
<tr>
<td>Böcs</td>
<td>Hejbábába</td>
<td>Mezőnagymihály</td>
<td>Réspáluta</td>
<td>Tiszaluc</td>
</tr>
<tr>
<td>Bükkaranyos</td>
<td>Hejkeresztiőr</td>
<td>Mezőnyárad</td>
<td>Sajóád</td>
<td>Tiszapákonya</td>
</tr>
<tr>
<td>Bükkabrány</td>
<td>Hejkürt</td>
<td>Mezőszemere</td>
<td>Sajóerős</td>
<td>Tiszaszőös</td>
</tr>
<tr>
<td>Bükkszentkereszt</td>
<td>Hejpapi</td>
<td>Mezőtárkány</td>
<td>Sajópetri</td>
<td>Tiszatárján</td>
</tr>
<tr>
<td>Bükszérec</td>
<td>Hejcsalonta</td>
<td>Miskolc</td>
<td>Sajósziget</td>
<td>Tiszavárös</td>
</tr>
<tr>
<td>Cserépfalu</td>
<td>Hornádvára</td>
<td>Muhi</td>
<td>Sály</td>
<td>Tiszavalk</td>
</tr>
<tr>
<td>Cserépvarda</td>
<td>Hernádneeti</td>
<td>Nagycsics</td>
<td>Szekács</td>
<td>ŐlörinciFalu</td>
</tr>
<tr>
<td>Csincse</td>
<td>Igrić</td>
<td>Nagyatája</td>
<td>Szertistváni</td>
<td>Őjszentmargita</td>
</tr>
<tr>
<td>Dormánd</td>
<td>Kács</td>
<td>Nemesbék</td>
<td>Szalamon</td>
<td>Őjikos</td>
</tr>
<tr>
<td>Egerfarmos</td>
<td>Kesznyelen</td>
<td>Négyes</td>
<td>Szomolya</td>
<td>Vatta</td>
</tr>
<tr>
<td>Egerszécs</td>
<td>Kiscsescs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1:** List of settlements located in the bluetongue restricted zone applied from 1st of February, 2010 in Hungary
3. **Description of the submitted programme**³:

3.1. **Aim of the submitted programme**:

Since the depopulation of the affected holding in 2008 there is no evidence of the circulation of the bluetongue virus on the whole territory of Hungary. The aim of the submitted programme is to follow up the possible spread of the bluetongue virus in the high risk area (in the restricted zone) and to detect the introduction of new bluetongue serotypes. We would also use the monitoring and surveillance programme for identifying the vector species and for the determination of the seasonally vector free period.

The other aim is to demonstrate the absence of certain bluetongue serotypes and to detect the presence of the disease at the earliest stage in the free zone.

Hungary is not planning to implement mass vaccination in the restricted zone. Vaccination will be used in emergency case only.

3.2. **Legal background in Hungarian law in force at present**:

Hungarian Act No XI-VI. 2008 on Food Chain and its official control


Detailed rules are prescribed in Decree No 31/2009 of MARD laying down the protective measures against Bluetongue, issued on 27th March, 2009.

3.3. **Applied diagnostics and testing methods**:

Passive clinical surveillance

The Hungarian and European legislation in force ensures that owners or holders of animals as well as veterinarians must report promptly any suspicion of bluetongue to the competent authority. All suspected cases of bluetongue must be investigated immediately.

Serological monitoring with sentinel animals in the restricted zone

The geographical unit of reference for bluetongue monitoring is defined by a grid of around 45 x 45 km. The required number of samples is prescribed for each county (a region as defined in Article 2(p) of Directive 64/432/EEC). The calculation is based on the sentinel number in each geographical unit (approximately 2000 km²) which is sufficient to detect a monthly incidence of seroconversion of 2% with 95% confidence (in accordance with Annex 1, point 1.1. of Comm.

³ 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.
Reg. No 1266/2007/E/C) and this is adjusted to the size of each county affected by the restriction zone. These serological examinations must be carried out monthly.

With this method the sample sizes in the restricted zone are the following (sample number/county/month)*:

<table>
<thead>
<tr>
<th>County</th>
<th>Sample No/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borsod-Abauj-Zemplén</td>
<td>152</td>
</tr>
<tr>
<td>Hajdu-Bihar</td>
<td>152</td>
</tr>
<tr>
<td>Heves</td>
<td>148</td>
</tr>
<tr>
<td>Jasz-Nagykun-Szolnok</td>
<td>148</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
</tr>
</tbody>
</table>

*: Sample size was determined in the restricted part of the counties.

Serological surveillance in the free area

In the free area the sampling size must be calculated with 5% prevalence and 95% confidence due to the Annex I, point 2.2. of the Comn. Reg. No 1266/2007/E/C. With this method the prescribed total number of samples in the free area is 1121 per year (59 sample/county). The serological examinations shall be carried out in October or in November:

<table>
<thead>
<tr>
<th>County</th>
<th>Sample No</th>
<th>Sampling to be carried out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baranya</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Bacs-Kiskun</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Bekes</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Borsod-Abauj-Zemplén</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Csongrad</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Fejer</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Föváros és Pest megye</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Gyor-Moson Sopron</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Hajdu-Bihar</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Heves</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Jasz-Nagykun-Szolnok</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Komarom Esztergom</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Nógrád</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Somogy</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Szabolcs-Szatmár-Bereg</td>
<td>59</td>
<td>October</td>
</tr>
<tr>
<td>Tolna</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Vas</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Veszprem</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Zala</td>
<td>59</td>
<td>September</td>
</tr>
<tr>
<td>Total</td>
<td>1121</td>
<td></td>
</tr>
</tbody>
</table>

*: Sample sizes were determined regarding those territories of the counties which are outside of the restricted zones.

Entomological investigation:
Pestemological investigation shall be carried out on the whole territory of Hungary with the following frequency:

In the free area: 1 sample/country/month

In the restricted zone: 1 sample/country/month except March-April and November-December because in these months 1 sample/country/week shall be taken.

From each insect sample genus determination and virological testing is carried out.

4. **Measures of the submitted programme**

4.1. **Summary of measures under the programme**

Duration of the programme:

First year: 2008

Last year: unknown

- Control
  - Testing
  - Slaughter of positive animals
  - Killing of positive animals
  - Vaccination
  - Treatment
  - Disposal of products

- Eradication
  - Testing
  - Slaughter of positive animals
  - Killing of positive animals
  - Extended slaughter or killing
  - Disposal of products

- Monitoring or surveillance

- Other measures (specify)

4.2. **Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme**

National Authorities:

a.) Central Agricultural Office
Animal Health and Animal Welfare Directorate
Division for Animal Health
address: H-1149 Budapest, Táborok u. 2. “B” ép.
Tel: +36 1 460 6300 ext. 115
- determines the terms and territorial expansion of the monitoring program;
- keeps contact with national institutes (e.g. public health, civil defense), with ministries of other countries and with EU institutes;
- coordinates and supervises the implementation of the programme carried out by the:

County Agricultural Office Food Chain Safety and Animal Health Directorates (19)

Central Agricultural Office, Veterinary Diagnostic Directorate
(1 central and 2 regional laboratories)
The central laboratory in Budapest is the National Reference Laboratory for Bluetongue.

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4 Describe the authorities charged with supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved.
4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented:

The programme for eradication, control and monitoring is to be applied on the whole territory of Hungary. There are two zones differentiated: restricted zone and free area. Map 2 shows the administrative map of Hungary (see also Map 1 for the map of the restricted zone).

Map 2: Hungary and its 19 counties

The following settlements belong to the restricted zone (listed by counties, See also Table 1):

Borsod-Abaúj-Zemplén county:

<table>
<thead>
<tr>
<th>Alsószolca</th>
<th>Egerlevő</th>
<th>Kács</th>
<th>Nagycsacs</th>
<th>Szentistván</th>
</tr>
</thead>
<tbody>
<tr>
<td>Árjót</td>
<td>Érőd</td>
<td>Kesznyéten</td>
<td>Nemesbíkk</td>
<td>Szomolya</td>
</tr>
<tr>
<td>Berzék</td>
<td>Eloszolca</td>
<td>Kiscsés</td>
<td>Negyes</td>
<td>Tard</td>
</tr>
<tr>
<td>Bogács</td>
<td>Gelej</td>
<td>Kisgyőr</td>
<td>Nyékładhaza</td>
<td>Tiboddáróc</td>
</tr>
<tr>
<td>Borsodgész</td>
<td>Girincs</td>
<td>Kistokaj</td>
<td>Öned</td>
<td>Tiszabábolna</td>
</tr>
<tr>
<td>Borsodvánka</td>
<td>Harsány</td>
<td>Köröm</td>
<td>Oszár</td>
<td>Tiszadorogma</td>
</tr>
<tr>
<td>Böce</td>
<td>Hejőbába</td>
<td>Mályi</td>
<td>Répáshuta</td>
<td>Tiszakeszi</td>
</tr>
<tr>
<td>Bukkaranos</td>
<td>Hejőkereszti</td>
<td>Mezőcsát</td>
<td>Sejőlás</td>
<td>Tiszaúc</td>
</tr>
<tr>
<td>Bukkárány</td>
<td>Hejőkurt</td>
<td>Mezőkeresztes</td>
<td>Sejőtől</td>
<td>Tiszapolcnya</td>
</tr>
<tr>
<td>Bukkzentkereszt</td>
<td>Hejőpapi</td>
<td>Mezőkövesd</td>
<td>Sejőpetri</td>
<td>Tiszatárjan</td>
</tr>
</tbody>
</table>

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.
Hajdú-Bihar county:

<table>
<thead>
<tr>
<th>Egyek</th>
<th>Polgár</th>
<th>Tiszagyulahaza</th>
<th>Újszentmargita</th>
<th>Újlikos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folyás</td>
<td>Tiszaszegé</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Heves county:

<table>
<thead>
<tr>
<th>Andomakfélyá</th>
<th>Egerfamous</th>
<th>Mezőszemere</th>
<th>Noszvaj</th>
<th>Poroszó</th>
</tr>
</thead>
<tbody>
<tr>
<td>Besenyóttelek</td>
<td>Füzesabony</td>
<td>Mezőtárkány</td>
<td>Novaj</td>
<td>Szilalom</td>
</tr>
<tr>
<td>Dormánd</td>
<td>Maktár</td>
<td>Nagyálya</td>
<td>Ösfélszőlős</td>
<td></td>
</tr>
</tbody>
</table>

Jász-Nagykun-Szolnok county:

| Tiszafüred   | Tiszaszólős      |

4.4. Measures implemented under the programme

4.4.1. Notification of the disease:

- Hungarian Act No X1.VI. 2008 on Food Chain and its official control

4.4.2. Target animals and animal population:

The programme for eradication, control and monitoring is to be applied on the whole territory of Hungary. Table 2 indicates the cattle and sheep number in the bluetongue restricted zone and in the free area (see on the next page).

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6 Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.
<table>
<thead>
<tr>
<th>County</th>
<th>Number of animals in the bluetongue free area</th>
<th>Number of animals in the bluetongue restricted zone</th>
<th>Total number of animals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>cattle</td>
<td>sheep</td>
<td>cattle</td>
</tr>
<tr>
<td>Baranya</td>
<td>18040</td>
<td>20650</td>
<td>-</td>
</tr>
<tr>
<td>Bács-Kiskun</td>
<td>50943</td>
<td>102000</td>
<td>-</td>
</tr>
<tr>
<td>Békés</td>
<td>60000</td>
<td>42500</td>
<td>-</td>
</tr>
<tr>
<td>Borsod-Abaúj-Zemplén</td>
<td>26225</td>
<td>37553</td>
<td>14597</td>
</tr>
<tr>
<td>Csongrád</td>
<td>33740</td>
<td>36000</td>
<td>-</td>
</tr>
<tr>
<td>Győr-Moson-Sopron</td>
<td>50447</td>
<td>4000</td>
<td>-</td>
</tr>
<tr>
<td>Fejér</td>
<td>39237</td>
<td>45500</td>
<td>-</td>
</tr>
<tr>
<td>Hajdú-Bihar</td>
<td>70700</td>
<td>182000</td>
<td>5250</td>
</tr>
<tr>
<td>Heves</td>
<td>10219</td>
<td>15012</td>
<td>2221</td>
</tr>
<tr>
<td>Jász-Nagykun-Sztebolh</td>
<td>42733</td>
<td>47200</td>
<td>850</td>
</tr>
<tr>
<td>Komárom-Esztergom</td>
<td>13500</td>
<td>10000</td>
<td>-</td>
</tr>
<tr>
<td>Nógrád</td>
<td>11553</td>
<td>14783</td>
<td>-</td>
</tr>
<tr>
<td>Pest</td>
<td>45919</td>
<td>64295</td>
<td>-</td>
</tr>
<tr>
<td>Somogy</td>
<td>37500</td>
<td>25000</td>
<td>-</td>
</tr>
<tr>
<td>Szabolcs-Szatmár-Bereg</td>
<td>34278</td>
<td>135481</td>
<td>-</td>
</tr>
<tr>
<td>Tolna</td>
<td>23483</td>
<td>30843</td>
<td>-</td>
</tr>
<tr>
<td>Vas</td>
<td>26700</td>
<td>2510</td>
<td>-</td>
</tr>
<tr>
<td>Veszprém</td>
<td>37144</td>
<td>49075</td>
<td>-</td>
</tr>
<tr>
<td>Zala</td>
<td>20374</td>
<td>9656</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>653741</td>
<td>880309</td>
<td>23118</td>
</tr>
</tbody>
</table>

Table 2: Number of cattle and sheep in Hungary on 31st of December, 2009

4.4.3. Identification of animals and registration of holdings:

System in place for the registration of holdings:

In case of cattle a computerized, centralized identification and registration system (ENAR) has been operated since 1997 and each bovine herd has been registered in the frame of this system.

In case of sheep a computerized, centralized identification and registration system (ENAR) has been operated since 2000. The ovine herds have been registered on the basis of the Decree No. 29/2000. (VI. 9.) of Minister of Agriculture and Rural Development (MARD).

In case of goats the Veterinary Code (Decree No 41/1997. (V.28.) of Minister of Agriculture) prescribes that during identification of these animals pre-printed ear-tags must be used, but until May of 2005 there was no special ministerial decree for the identification and registration of goats. However the voluntary registration of goats have been started by the breeding organizations of goats without the special legislation. In May of 2005 a new decree of MARD, Decree No 47/2005. (V.23.), was published about the identification and registration of goats and sheep and for the implementation of Council Regulation (EC) No 21/2004. (In case of sheep this new decree
replaced the Decree No. 29/2000. (VI. 9.) of MARD. In October of 2007 a new decree of the MARD, Decree No 119/2007. (X.18.) was published about centralized registration of holdings and herds.

**System in place for the identification of animals:**

Bovine animals are subject to individual identification and registration.

**Registration and identification using central, computerised database:**

- ear-tagging by pre-printed, bar-coded individual number
- data recording and handling in computerised, central database.

The rules of the Decree No. 62/1997. (IX. 10.) of MA were equivalent to the relevant rules of the EU. Since 1997 due to inter alia the changes of the EU rules we have modified our rules several times. The current legislative text, namely the Decree No 99/2002. (XI.5.) of MARD is fully compatible with the legislative Rules of the EU. (The Decree No 99/2002. (XI.5.) of MARD was modified before Accession by Decree No 12/2004. (I.31.) of MARD.)

Ovine and caprine animals are subject to individual identification and registration.

From July of 2005 the Decree No. 47/2005. (V.23.) of MARD about the identification and registration of sheep and goats and for the implementation of Council Regulation (EC) No 21/2004 has been effective. Parallel making the new decree in the frame of a PHARE project a new central, computerised database for sheep and goats were developed. After 1 Jan 2006 this new central database was fully operable.

**Registration and identification of caprine animals**

From May of 2005: the Decree No 47/2005. (V.23.) of MARD were published about the identification and registration of sheep and goats and for the implementation of Council Regulation (EC) No 21/2004. This is the first special Hungarian decree regarding the identification and registration of goats. On the basis of the new decree the new central, computerised database is fully operable for goats as well.

**4.4.4. Measures and terms of legislation as regards the different qualifications of animals and herds:**

**Not applicable.**

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

Commission Regulation No 1266/2007/EC, Decree No 31/2009 of MARD laying down the protective measures against Bluetongue (issued on 27 March 2009) and the "Guide on measures concerning Bluetongue disease" - which was issued first on 22 September 2008 and kept up-to-date since then - regulate the strict transport rules to be used inland Hungary and in case of intracommunity trade.
4.4.6. Tests used and sampling schemes:

Sero logical monitoring with sentinel animals in the restricted zone:

Test used: Antibody ELISA

The geographical unit of reference for bluetongue monitoring is defined by a grid of around 45 x 45 km. The required number of sample is prescribed for each county (a region as defined in Article 2(p) of Directive 64/432/EEC). The calculation is based on the sentinel number in each geographical unit (approximately 2000 km²) which is sufficient to detect a monthly incidence of seroconversion of 2% with 95% confidence (in accordance with Annex I, point 1.1, of Comm. Reg. No 1266/2007/E.C.) and this is adjusted to the size of each county affected by the restriction zone. These serological examinations must be carried out monthly.

With this method the sample sizes in the restricted zone are the following (sample number/county/month)*:

<table>
<thead>
<tr>
<th>County</th>
<th>Sample No/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borsod-Abaúj-Zemplén</td>
<td>152</td>
</tr>
<tr>
<td>Hajdú-Bihar</td>
<td>152</td>
</tr>
<tr>
<td>Heves</td>
<td>148</td>
</tr>
<tr>
<td>Jász-Nagykun-Szolnok</td>
<td>148</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
</tr>
</tbody>
</table>

*: Sample size was determined in the restricted part of the counties.

Sero logical surveillance in the free area:

Test used: Antibody ELISA

In the free area the sampling size must be calculated with 5% prevalence and 95% confidence due to the Annex I, point 2.2. of the Comm. Reg. No 1266/2007/E.C. With this method the prescribed total number of samples in the free area is 1121 per year (59 sample/county). The serological examinations shall be carried out in October or in November as it is already indicated in point 3.3 of this document.

Entomological investigation:

Entomological investigation shall be carried out on the whole territory of Hungary with the following frequency:

In the free area: 1 sample/county/month

In the restricted zone: 1 sample/county/month except March-April and November-December because in these months 1 sample/county/week shall be taken.

From each insect sample genus determination and virological testing is carried out.
4.4.7. Vaccines used and vaccination schemes:

Vaccination against bluetongue disease is prohibited on the whole territory of Hungary.

16th § of Decree No 31/2009. of MARD laying down the protective measures against Bluetongue states that to avoid an outbreak or the spread of the disease the chief veterinary officer can order the vaccination and identification of vaccinated animals or herds in the restricted zone (except the surveillance zone), but only with the recommendation of the National Disease Control Center and with notification of the European Commission.

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

The “Guide on measures concerning Bluetongue disease” – which was issued first on 22 September 2008 and kept up-to-date since then - contains measures to be done to enhance the bio-security level of the holdings located in the restricted zone. The main goals were to strictly regulate the transport conditions, strengthen the isolation rules and to protect the animals against vector species. All permitted biocide products available for animal protection against the vector species in Hungary are listed in annex of the guide.

4.4.9. Measures in case of a positive result:


The seropositive animals are slaughtered by isolated slaughter.

The viropositive animals are killed and disposed.

17th § of Decree No 31/2009. of MARD laying down the protective measures against Bluetongue states the rules of disposal of the dead animals.

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

The 54th § and 55th § of the Hungarian Act No XLVI. 2008 on Food Chain and its official control determines the detailed rules of state compensation of the animal owners.

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

At the beginning of the year of implementation the food chain safety deputy president of the Central Agricultural Office issues a circular letter for all directors of County Agricultural Office Food Chain Safety and Animal Health Directorates on the detailed rules and terms of implementation of the monitoring programme and on the terms of the reports to be sent for the Animal Health and Animal Welfare Directorate of the Central Agricultural Office. The Animal Health and Animal Welfare Directorate is responsible for collecting all reports made on county level and for preparing and sending all reports for the Commission regarding the monitoring programme (including the mid term and final reports, too).
5. Benefits of the programme:

**Benefits**: The most important aim for Hungary is to regain the bluetongue free status for the whole territory of the country as soon as possible according to the OIE Terrestrial Animal Health Code. All restriction measures to be kept in force regarding the bluetongue disease cause huge economical losses both on stakeholder level and on national level, as well as on the EU level.
6. **Data on the epidemiological evolution during the last five years**:

6.1. **Evolution of the disease**:

6.1.1. **Data on evolution of the disease**

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

**Year: 2008**

**Situation on date: 29-04-2009**

<table>
<thead>
<tr>
<th>Disease(1); bluetongue</th>
<th>Animal species: cattle</th>
<th>Surveillance programme in the restricted zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total number of herds(2)</td>
<td>Total number of herds under the programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Béordi-Abgoz-</td>
<td>1303</td>
<td></td>
</tr>
<tr>
<td>Zemiin county</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1 The data on the evolution of the disease are provided according to the tables below where appropriate.

2 Data to provide for Bovine tuberculosis, Bovine brucellosis, IBR/IBV (AJI embryo units), Ovine and caprine brucellosis (B. melitensis), Enzootic bovine leukosis (EBL), Aujeszky's disease, Anthrax, Mael/Visna and CAFV, IBR/IBV (other types of enteritis), Johne's disease (paratuberculosis), CBPP, African swine fever, swine vesicular disease, endemic classical swine fever, heartwater transmitted by vector insects in the French overseas departments, babesiosis transmitted by vector insects in the French overseas departments, anaplasmosis transmitted by vector insects in the French overseas departments, Bluetongue in endemic or high risk areas.
### Data on animals (one table per year and per disease/species)

**Year:** 2008  
**Situation on date:** 31-12-2008

<table>
<thead>
<tr>
<th>Disease</th>
<th>Animal species</th>
<th>Region</th>
<th>Total number of animals</th>
<th>Number of animals to be tested under the programme</th>
<th>Number of animals tested</th>
<th>Number of positive animals</th>
<th>Slaughtering</th>
<th>INDIATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>bluetongue</td>
<td>cattle</td>
<td>1</td>
<td>1979</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9 (4.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td>456</td>
</tr>
</tbody>
</table>

- **(a)** Disease and animal species if necessary.
- **(b)** Region as defined in the approved eradication programme of the Member State.
- **(c)** Total number of animals existing in the region including eligible herds and non-eligible herds for the programme.
- **(d)** Includes animals tested individually or under bulk level scheme.
- **(e)** Include only animals tested individually, do not include animals tested by bulk level samples (e.g., milk bulk tank tests).
- **(f)** Include all positive animal slaughtered and also the negative animals slaughtered under the programme.
Data on animals (one table per year and per disease/species)

Year: 2009  
Situation on date: 31-12-2009

Disease(b): bluetongue  
Animal species: cattle

<table>
<thead>
<tr>
<th>Region(b)</th>
<th>Total number of animals(d)</th>
<th>Number of animals(d) to be tested under the programme</th>
<th>Number of animals tested</th>
<th>Number of animals tested individually(e)</th>
<th>Number of positive animals</th>
<th>Slaughtering</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Baranya</td>
<td>13040</td>
<td>1346</td>
<td>1346</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Báns-Kiskun</td>
<td>56943</td>
<td>2006</td>
<td>2014</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100.4</td>
</tr>
<tr>
<td>Békés</td>
<td>56000</td>
<td>791</td>
<td>791</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Barsod-Abajú-Zemplén</td>
<td>48832</td>
<td>544</td>
<td>543</td>
<td>543</td>
<td>0</td>
<td>0</td>
<td>99.52</td>
</tr>
<tr>
<td>Csongrád</td>
<td>35740</td>
<td>824</td>
<td>826</td>
<td>826</td>
<td>0</td>
<td>0</td>
<td>82.64</td>
</tr>
<tr>
<td>Győr-Moson-Sopron</td>
<td>56443</td>
<td>1344</td>
<td>545</td>
<td>545</td>
<td>0</td>
<td>0</td>
<td>40.55</td>
</tr>
<tr>
<td>Túrján</td>
<td>32237</td>
<td>1310</td>
<td>1310</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Hajdú-Bihar</td>
<td>76150</td>
<td>468</td>
<td>468</td>
<td>468</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Heves</td>
<td>12440</td>
<td>272</td>
<td>269</td>
<td>269</td>
<td>0</td>
<td>0</td>
<td>98.9</td>
</tr>
<tr>
<td>Jász-Nagykun-Szolnok</td>
<td>44533</td>
<td>420</td>
<td>420</td>
<td>420</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Komárom-Esztergom</td>
<td>13500</td>
<td>541</td>
<td>545</td>
<td>545</td>
<td>0</td>
<td>0</td>
<td>100.74</td>
</tr>
<tr>
<td>Nógrád</td>
<td>11553</td>
<td>188</td>
<td>267</td>
<td>267</td>
<td>0</td>
<td>0</td>
<td>142.92</td>
</tr>
<tr>
<td>Pest</td>
<td>45919</td>
<td>722</td>
<td>733</td>
<td>733</td>
<td>0</td>
<td>0</td>
<td>101.52</td>
</tr>
<tr>
<td>Somogy</td>
<td>37500</td>
<td>1794</td>
<td>1830</td>
<td>1830</td>
<td>0</td>
<td>0</td>
<td>102.01</td>
</tr>
<tr>
<td>Szabolcs-Szatmár-Bereg</td>
<td>34278</td>
<td>452</td>
<td>447</td>
<td>447</td>
<td>0</td>
<td>0</td>
<td>98.99</td>
</tr>
<tr>
<td>Tolna</td>
<td>23483</td>
<td>1107</td>
<td>1110</td>
<td>1110</td>
<td>0</td>
<td>0</td>
<td>100.27</td>
</tr>
<tr>
<td>Veszprém</td>
<td>26790</td>
<td>999</td>
<td>999</td>
<td>999</td>
<td>0</td>
<td>0</td>
<td>109</td>
</tr>
<tr>
<td>Zala</td>
<td>37144</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>0</td>
<td>0</td>
<td>109</td>
</tr>
<tr>
<td>Total</td>
<td>676859</td>
<td>17659</td>
<td>16844</td>
<td>16844</td>
<td>0</td>
<td>0</td>
<td>95.38</td>
</tr>
</tbody>
</table>
6.1.2. Data on evolution of the disease\(^9\) Not applicable

<table>
<thead>
<tr>
<th>Year</th>
<th>Situation on date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Disease/Infection(^{\ast})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Region</td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) For zoonotic Salmonella indicate the serotypes covered by the control programme: (a1) for Salmonella Enteritidis, (a2) for Salmonella Typhimurium, (a3) for other serotypes as appropriate, (a4) for Salmonella Enteritidis or Salmonella Typhimurium.
(b) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, etc. Flocks equals birds or as appropriate.
(c) Total number of flocks existing in the region, including eligible flocks and non-eligible flocks for the programme.
(d) Check means to perform a flock level test under the programme for the presence of salmonella. In this column a flock should not be counted twice even if it has been checked more than once.
(e) If a flock has been checked, in accordance with footnote (d), more than once, a positive sample should be taken into account only once.

---

\(^{9}\) Data to provide for salmonellosis (zoonotic salmonella), Salmonella pullorum, Salmonella gallinarum, Mycoplasma gallisepticum, Campylobacteriosis and agents thereof.

Bluetongue co-financing 2011

19/38 Hungary
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: 2009 | Disease: bluetongue | Animal species/category: cattle |

Description of the used serological tests: antibody-ELISA

Description of the used microbiological or virological tests: PCR (in case of seropositivity or vaccinated animals and also for the detection of the virus in Culicoides)

Description of the other used tests: entomological test (identifying and counting the suspected vector species)

<table>
<thead>
<tr>
<th>Region</th>
<th>Serological tests</th>
<th></th>
<th>Microbiological or virological tests</th>
<th></th>
<th>Other tests (entomology)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of samples tested</td>
<td>Number of positive sample</td>
<td>Number of samples tested</td>
<td>Number of positive sample</td>
<td>Number of samples tested</td>
</tr>
<tr>
<td>Baranya</td>
<td>1346</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bács-Kiskun</td>
<td>2597</td>
<td>0</td>
<td>184</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Békés</td>
<td>3891</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borșod-Abaúj-Zemplén</td>
<td>3832</td>
<td>0</td>
<td>70</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Csongrád</td>
<td>1676</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Győr-Moson-Sopron</td>
<td>2222</td>
<td>0</td>
<td>51</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Fejér</td>
<td>1310</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hajdú-Bihar</td>
<td>3744</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heves</td>
<td>1920</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jász-Nagykun-Szolnok</td>
<td>3280</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Komárom-Esztergom</td>
<td>844</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nógrád</td>
<td>1308</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest</td>
<td>3897</td>
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<td></td>
<td></td>
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<tr>
<td>Somogy</td>
<td>1320</td>
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<td>Szabolcs-Szatmár-Bereg</td>
<td>3467</td>
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<td>0</td>
<td></td>
</tr>
<tr>
<td>Tolna</td>
<td>1110</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vas</td>
<td>999</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veszprém</td>
<td>1400</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zala</td>
<td>1151</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41143</strong></td>
<td><strong>0</strong></td>
<td><strong>332</strong></td>
<td><strong>0</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>
### 6.3. Data on infection (one table per year and per disease/species)

#### Year: 2008

<table>
<thead>
<tr>
<th>Disease</th>
<th>Animal species: cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>bluetongue</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Herds infected</th>
<th>Number of Animals infected</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNGARY Borsod-Abaúj-Zemplén county</td>
<td>1</td>
<td>18</td>
</tr>
</tbody>
</table>

**Total** 1 18

(a) Disease and animal species if necessary.
(b) Region as defined in the eradication programme of the Member State.
(c) Herds equal flocks, or holdings as appropriate.

Note: In Hungary there were no bluetongue cases before September 2008.

#### Year: 2009

<table>
<thead>
<tr>
<th>Disease</th>
<th>Animal species: cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>bluetongue</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Herds infected</th>
<th>Number of Animals infected</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNGARY</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total** 0 0

(a) Disease and animal species if necessary.
(b) Region as defined in the eradication programme of the Member State.
(c) Herds equal flocks, or holdings as appropriate.
6.4. **Data on the status of herds at the end of each year**: Not applicable

<table>
<thead>
<tr>
<th>Year:</th>
<th>Disease(^{(a)})</th>
<th>Animal species:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Status of herds and animals under the programme(^{(c)})</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total number of herds and animals under the programme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unknown(^{(d)})</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neat free or not officially free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Last check positive(^{(e)})</td>
<td></td>
</tr>
<tr>
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<td>Last check negative(^{(f)})</td>
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<td>Free or officially free suspended(^{(g)})</td>
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<td>Free(^{(h)})</td>
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<td></td>
<td>Officially free (^{(i)})</td>
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</table>

<table>
<thead>
<tr>
<th>Region(^{(o)})</th>
<th>Herds</th>
<th>Animals(^{(j)})</th>
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</tbody>
</table>

Total

\(^{(a)}\) Disease and species if necessary
\(^{(b)}\) Region as defined in the approved eradication programme of the Member State
\(^{(c)}\) At the end of the year
\(^{(d)}\) Unknown: No previous checking results available
\(^{(e)}\) Not free and last check positive: Herd checked with at least one positive result in the latest check
\(^{(f)}\) Not free and last check negative: Herd checked with negative results in the latest check but not being "free" or "officially free"
\(^{(g)}\) Suspended as defined in Community or national legislation for the respective disease at the end of the reporting period.
\(^{(h)}\) Free herd as defined in Community or national legislation for the respective disease.
\(^{(i)}\) Officially free herd as defined in Community or National legislation for the respective disease.
\(^{(j)}\) Include animals under the programme in the herds with the referred status (left column).

\(^{10}\) Data to provide for Bovine tuberculosis, Bovine brucellosis, IBR/IPV (AI + embryo units), Ovine and caprine brucellosis (B. melitensis), Paralytic bovine leukosis (EBL), Aujeszky's disease, Moccio Vuma and CAV, IBR/IPV (other types of enterprise), Johnes disease (paratuberculosis).
6.5. Data on vaccination or treatment programmes\(^{11}\): Not applicable

**Year:**

<table>
<thead>
<tr>
<th>Disease(^{(a)})</th>
<th>Animal species</th>
</tr>
</thead>
</table>

**Description of the used vaccination, therapeutic or other scheme:**

There were no vaccinations against Bluetongue in Hungary.

<table>
<thead>
<tr>
<th>Region(^{b})</th>
<th>Total number of herds(^{b})</th>
<th>Total number of animals</th>
<th>Information on vaccinations or treatment programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of herds(^{c}) in vaccination or treatment programme</td>
</tr>
<tr>
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</tbody>
</table>

\(^{a}\) Disease and species if necessary

\(^{b}\) Region as defined in the approved eradication programme of the Member State

\(^{c}\) Herds equal flocks, or holdings as appropriate

\(^{d}\) Only for Bovine brucellosis, Ovine and caprine brucellosis (B. melitensis) and zoonotic salmonella, and as defined in the programme

\(^{11}\) Data to provide, where appropriate for Bovine brucellosis, IBR/IPV (AI - embryo units), Ovine and caprine brucellosis (B. melitensis), Anaplaszy's disease, Salmonella pullorum, Salmonella gallinarum, Anthrax, IBR/IPV (other types of enterprise), Johne disease (paratuberculosis), Mycoplasma gallisepticum, heartwater transmitted by vector insects in the French overseas departments, babesiosis transmitted by vector insects in the French overseas departments, anaplasmosis transmitted by vector insects in the French overseas departments, Bluetongue in endemic or high risk areas, Rabies, Feline eosinophilic salmonellosis (zoonotic salmonella) and agents thereof.

---

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6.6. Data on wildlife\textsuperscript{12}: Not applicable

6.6.1. Estimation of wildlife population

| Year | Method of estimation\textsuperscript{(a), (b)}:
|------|---------------------------------------------------------------|
|      | These are the reasonable populations of golden pheasants (male, female, yearlings) and fallow deer (Ontario, York, Peel, Halton) in Minnesota, but the use of these populations is too low, amounting to a few percent of the total population of all wild species (Appendix 4).
<table>
<thead>
<tr>
<th></th>
<th>Regions\textsuperscript{(a)}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimation of the population of the concerned wild species</td>
</tr>
<tr>
<td></td>
<td>Species:</td>
</tr>
<tr>
<td></td>
<td>Species:</td>
</tr>
<tr>
<td></td>
<td>Species:</td>
</tr>
<tr>
<td>Total</td>
<td>The hunting bag is considered to be the standard method of estimation. If other method is used, explain</td>
</tr>
<tr>
<td>(a)</td>
<td>Region as defined in the approved eradication programme of the Member State</td>
</tr>
<tr>
<td>(b)</td>
<td>Peculiarities of the hunting bags of foxes between 1990-2003 (Source: National Game Management Database)</td>
</tr>
</tbody>
</table>

Estimation of the population of wild red foxes was also carried out via questionnaires filled out by hunters.

\textsuperscript{12} Data to provide for Bovine brucellosis, Swine and bovine swinefever, swine vesicular disease, classical swine fever, Rabies, Echinococcus and trichinellosis and agents thereof.
6.6.2. Monitoring of wildlife (one table per year and per disease/species): Not applicable

<table>
<thead>
<tr>
<th>Year:</th>
<th>Disease(^{(a)}):</th>
<th>Animal species:</th>
</tr>
</thead>
</table>

**Description of the used serological tests:**

**Description of the used microbiological or virological tests:**

**Description of the other used tests:**

<table>
<thead>
<tr>
<th>Region(^{(b)}):</th>
<th>Microbiological or virological tests</th>
<th>Serological tests</th>
<th>Other tests (Bone polishing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNGARY</td>
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</tbody>
</table>

- Number of samples tested
- Number of positive samples
- Number of samples tested
- Number of positive samples
- Number of samples used
- Number of positive samples

- **Total**

\(^{(a)}\) Disease and species if necessary

\(^{(b)}\) Region as defined in the approved eradication programme of the Member State
6.6.3. *Data on vaccination or treatment of wildlife: Not applicable*

Year: ______

Disease*: ________________

Animal species: ________________

**Description of the used vaccination, therapeutic or other scheme:** see 3.2 and 3.3.

<table>
<thead>
<tr>
<th>Region</th>
<th>Square km</th>
<th>Number of doses of vaccine or treatment to be administered</th>
<th>Number of campaigns</th>
<th>Total number of doses of vaccine or treatment administered</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

(a) Disease and species if necessary
(b) Region as defined in the approved eradication programme of the Member State
7. **Targets**

7.1. **Targets related to testing**

7.1.1. **Targets on diagnostic tests**

7.1.1.1. **Number and specification of tests**

<table>
<thead>
<tr>
<th>Disease: Bluetongue</th>
<th>Animal species: Ruminants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region:</strong> HUNGARY</td>
<td></td>
</tr>
<tr>
<td><strong>Type of the test:</strong></td>
<td><strong>Target population:</strong></td>
</tr>
<tr>
<td>Serological examination - ELISA</td>
<td>Cattle</td>
</tr>
<tr>
<td>Immunological examination</td>
<td>Culicoides</td>
</tr>
<tr>
<td>Virological examination</td>
<td>Culicoides</td>
</tr>
<tr>
<td>Virological examination - PCR</td>
<td>Cattle</td>
</tr>
<tr>
<td>Virological examination - PCR</td>
<td>Small ruminants</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

(a) Disease and species if necessary
(b) Region as defined in the approved eradication programme of the Member State
(c) Description of the test (e.g. SN-test, AD-Elisa, RFT, ...)
(d) Specification of the targeted species and the category of targeted animals (e.g. sex, age, breeding animal, slaughter animal, ...).
(e) Description of the sample (e.g. blood, serum, milk, ...)
(f) Description of the objective (e.g. qualification, surveillance, confirmation of suspected cases, monitoring of campaigns, seroconversion, control on deleted vaccines, testing of vaccine, control of vaccination, ...)

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7.1.1.2. Testing scheme(s):

According to Annex I of Commission Regulation No 1266/2007/EC.

For surveillance in the restricted zone: The minimum number of sentinel animals per geographical unit must be representative and sufficient in order to detect a monthly incidence of seroconversion of 2% with a 95% confidence in each geographical unit. These tests have to be performed every month. Entomological investigations shall be carried out as described in point 3.3.

For monitoring outside the restricted zone: the sample size has been calculated such a way to be able to detect a prevalence of 5% with 95% confidence in the bovine population. Once a year, in September-October.

In Hungary all animals originating from an infected country must be isolated and tested for Bluetongue disease serologically. In case of seropositivity or vaccinated animals, virological testing shall be carried out.

---

13 Describe the testing scheme according the different categories if appropriate (which herds and animals, the number of animals per herd, the frequency and the interval of sampling) with reference to the national and Community legislation where appropriate.
### 7.1.2 Targets on testing herds and animals

#### 7.1.2.1 Targets on the testing of herds: Not applicable

<table>
<thead>
<tr>
<th>Disease</th>
<th>Animal species</th>
<th>Region</th>
<th>Total number of herds</th>
<th>Total number of herds under the programme</th>
<th>Number of herds expected to be checked</th>
<th>Number of expected new positive herds</th>
<th>Number of positive herds expected to be depopulated</th>
<th>Target Indicators</th>
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</tbody>
</table>

(a) Herds equal flocks, or holdings as appropriate.
(b) Disease and animal species if necessary.
(c) Region as defined in the approved eradication programme of the Member State.
(d) Total number of herds existing in the region including eligible herds and non-eligible herds for the programme.
(e) Check means to perform a herd level test under the programme for the respective disease with the purpose of maintaining, upgrading, etc., the health status of the herd. In this column a herd should not be counted twice even if it has been checked more than once.
(f) Herds with at least one positive animal during the period independent of the number of times the herd has been checked.
(g) Herds which status in the previous period was Unknown. Not free-negative. Free. Officially Free or suspended and have at least one positive animal in this period.

---

Data to provide for Bovine tuberculosis, Bovine brucellosis, IBR/IPV (AIV embryo units), Ovine and caprine brucellosis (B. melitensis), Enzootic bovine leukaemia (EBL), Aujeszky's disease, Anthrax, Meso/Visna and CAEV, IBR/IPV (other types of enterprise), Johne's disease (paratuberculosis), CBPP, African Swine fever, swine vesicular disease, endemic classical swine fever, heartwater transmitted by vector insects in the French overseas departments, babesiosis transmitted by vector insects in the French overseas departments, Bluetongue in endemic or high risk areas.
7.1.2.2. **Targets on the testing of animals:** (Note: there are two tables “A” and “B” regarding the two types of monitoring method)

A) **In the restricted zone:** sentinel animals will be tested monthly according to Annex I. of Commission Regulation 1266/2007/EC.

<table>
<thead>
<tr>
<th>Disease: bluetongue</th>
<th>Animal species: cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
<td><strong>Total number of animals</strong></td>
</tr>
<tr>
<td><strong>COUNTY</strong></td>
<td><strong>(a)</strong></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Tolna</td>
<td>14597</td>
</tr>
<tr>
<td>Heves</td>
<td>5450</td>
</tr>
<tr>
<td>Mosoni-Szabolcs</td>
<td>2221</td>
</tr>
<tr>
<td>Jasz-Nagykun-Szolnok</td>
<td>850</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23418</td>
</tr>
</tbody>
</table>

(a) Disease and animal species if necessary.
(b) Region as defined in the approved eradication programme of the Member State.
(c) Total number of animals existing in the region including eligible herds and non-eligible herds for the programme.
(d) Includes animals tested individually or under bulk level scheme.
(e) Include only animals tested individually, do not include animals tested by bulk level samples (e.g.: milk bulk tank tests).
(f) Include all positive animal slaughtered and also the negative animals slaughtered under the programme.

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7.1.3.  Targets on testing of flocks\textsuperscript{15}: Not applicable

<table>
<thead>
<tr>
<th>Year:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Animal species:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Situation on date:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of flock\textsuperscript{16}</th>
<th>Total number of flocks\textsuperscript{16}</th>
<th>Total number of animals</th>
<th>Total number of flocks under the programme</th>
<th>Expected number of flocks to be checked\textsuperscript{17}</th>
<th>Number of flocks\textsuperscript{18} expected to be positive\textsuperscript{18}</th>
<th>Number of flocks expected to be depopulated\textsuperscript{19}</th>
<th>Total number of animals expected to be slaughtered or destroyed\textsuperscript{19}</th>
<th>Expected quantity of eggs channelled to egg products (number or kg)\textsuperscript{20}</th>
<th>Expected quantity of eggs channelled to egg products (number or kg)\textsuperscript{20}</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a1)</td>
<td>(a2)</td>
<td>(a3)</td>
<td>(a4)</td>
<td>(a5)</td>
<td>(a6)</td>
<td>(a7)</td>
<td>(a8)</td>
<td>(a9)</td>
<td>(a10)</td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, etc. Flocks equals herds or as appropriate</td>
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<tr>
<td>(c)</td>
<td>Total number of flocks existing in the region including eligible flocks and non-eligible flocks for the programme</td>
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<tr>
<td>(d)</td>
<td>Check means to perform a flock level test under the programme for the presence of salmonella. In this column a flock should not be counted twice even if it has been checked more than once.</td>
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<tr>
<td>(e)</td>
<td>If a flock has been checked, in accordance with footnote (d), more than once, a positive sample should be taken into account only once.</td>
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</table>

\textsuperscript{15} Data to provide for salmonellosis (zoonotic salmonella), Salmonella pullorum, Salmonella gallinarum, Mycoplasma gallisepticum, Campylobacteriosis and agents thereof.
7.2. Targets on qualification of herds and animals\(^\text{1}\): Not applicable

<table>
<thead>
<tr>
<th>Region(^\text{b})</th>
<th>Total number of herds and animals under the programme</th>
<th>Animal species</th>
<th>Targets on the status of herds and animals under the programme(^\text{a})</th>
<th>Expected unknown(^\text{e})</th>
<th>Expected not free or not officially free</th>
<th>Expected free or officially free suspended(^\text{g})</th>
<th>Expected free(^\text{f})</th>
<th>Expected officially free (^\text{h})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Herds</td>
<td>Animals(^\text{c})</td>
<td>Herds</td>
<td>Animals(^\text{d})</td>
<td>Herds</td>
<td>Animals(^\text{e})</td>
<td>Herds</td>
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</table>

Total

(a) Disease and species if necessary
(b) Region as defined in the approved eradication programme of the Member State
(c) At the end of the year
(d) Unknown: No previous checking results available
(e) Not free and last check positive: Herd checked with at least one positive result in the latest check
(f) Not free and last check negative: Herd checked with negative results in the latest check but not being "free" or "officially free"
(g) Suspended as defined for the respective disease in Community or national legislation where appropriate or according national legislation
(h) Free herds as defined for the respective disease where appropriate in Community or national legislation where appropriate or according national legislation
(i) Officially free herds as defined for the respective disease where appropriate in Community or national legislation where appropriate or according national legislation
(j) Include animals under the programme in the herds with the referred status (left column)

\(^1\) Data to provide for Bovine tuberculosis, Bovine brucellosis, IBR/IPV (AI + embryo units), Ovine and caprine brucellosis (B. melitensis), Bovine leukaemia (BL), Anjeszyk's disease, Marek's and CAFV, IBR/IPV (other types of enterprise), Joannes disease (paratuberculosis).
7.3. Targets on vaccination or treatment:

7.3.1. Targets on vaccination or treatment: According to the epidemiological situation, Hungary is planning to implement vaccination of the ruminants in the protection zone with 100 km radius around the outbreak.

**Vaccine(s) and vaccination scheme or treatment and treatment scheme**: If the epidemiological situation requires, Hungary is planning to implement vaccination of the ruminants in the protection zone with 100 km radius around the outbreak.

**Cattle : vaccination**: 31,3002 animals to be vaccinated 2 times – 62,6004 doses

**Small ruminants (sheep, goat)**: 70,778 animals to be vaccinated once – 70,778 doses

Total = 133,3787 doses --> rounded to 133,4000 doses

### Disease: Bluetongue

<table>
<thead>
<tr>
<th>County</th>
<th>Total number of herds</th>
<th>Total number of animals</th>
<th>Number of herds</th>
<th>Number of animals</th>
<th>Number of herds expected to be vaccinated</th>
<th>Number of animals expected to be vaccinated</th>
<th>Number of doses</th>
<th>Number of adults expected to be vaccinated</th>
<th>Number of young animals expected to be vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Békés</td>
<td>328</td>
<td>10304</td>
<td>328</td>
<td>10304</td>
<td>328</td>
<td>10304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borsod-Abaúj-Zemplén</td>
<td>413</td>
<td>56086</td>
<td>413</td>
<td>56086</td>
<td>413</td>
<td>56086</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budapest and Pest</td>
<td>489</td>
<td>20948</td>
<td>489</td>
<td>20948</td>
<td>489</td>
<td>20948</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hajdú-Bihar</td>
<td>2389</td>
<td>103075</td>
<td>2389</td>
<td>103075</td>
<td>2389</td>
<td>103075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heves</td>
<td>176</td>
<td>19011</td>
<td>176</td>
<td>19011</td>
<td>176</td>
<td>19011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jász-Nagykun-Szolnok</td>
<td>1473</td>
<td>62175</td>
<td>1473</td>
<td>62175</td>
<td>1473</td>
<td>62175</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Németi</td>
<td>250</td>
<td>11555</td>
<td>250</td>
<td>11555</td>
<td>250</td>
<td>11555</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Szabolcs-Szatmár-Bereg</td>
<td>760</td>
<td>28968</td>
<td>760</td>
<td>28968</td>
<td>760</td>
<td>28968</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6238</td>
<td>313002</td>
<td>6238</td>
<td>313002</td>
<td>6238</td>
<td>313002</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

---

*Data to provide for Bovine brucellosis, IBR/IPV (Al + embryo units), Ovine and caprine brucellosis (B. melitensis), Aujeszky's disease, Salmonella pullorum, Salmonella gallinarum, Anthrax, IBR/IPV (other types of enterprise), Johne's disease (paratuberculosis), Mycoplasma gallisepticum, heartwater transmitted by vector insects in the French overseas departments, babesiosis transmitted by vector insects in the French overseas departments, anaplasmosis transmitted by vector insects in the French overseas departments, Bluetongue in endemic or high risk areas, Rabies, Fichiroccoccus, salmonellosis (zoonotic salmonella) and agents thereof.

Specify the vaccine and the vaccination scheme (which herds and animals, the frequency and the interval of vaccination) with reference to the national legislation.*
7.3.2. Targets on vaccination or treatment\(^9\) of wildlife: Not applicable

<table>
<thead>
<tr>
<th>Disease((a))</th>
<th>Animal species:</th>
<th>Targets on the vaccination or treatment programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Region(^b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

\(^{a}\) Disease and species if necessary

\(^{b}\) Region as defined in the approved eradication programme of the Member State

\(^9\) Data to provide for Bovine brucellosis, Ovine and Caprine brucellosis (B. melitensis), Aujeszky's disease, African Swine fever, swine vesicular disease, endemic classical swine fever, Rabies, Echinococcosis and Trichinellosis and agents thereof.
8. **Detailed analysis of the cost of the programme**

Estimated costs for the year 2011 (1 € = 265.75 HUF by ECB on 31 March 2010)

<table>
<thead>
<tr>
<th>Costs related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in €</th>
<th>Total amount in €</th>
<th>Community funding requested (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1. Cost of the analysis</td>
<td>Test: ELISA</td>
<td>8321 [piece]</td>
<td>3.91</td>
<td>32 535.11</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Test: PCR</td>
<td>200 [piece]</td>
<td>32.51</td>
<td>6 502.00</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Test: Culicoides specification</td>
<td>324 [piece]</td>
<td>75.26</td>
<td>24 384.24</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Test: Culicoides virology</td>
<td>324 [piece]</td>
<td>32.51</td>
<td>10 533.24</td>
<td>yes</td>
</tr>
<tr>
<td>1.2. Cost of sampling</td>
<td>Sampling</td>
<td>8845 [piece]</td>
<td>3.76</td>
<td>32 606.20</td>
<td>yes</td>
</tr>
<tr>
<td>1.3. Other costs</td>
<td>Delivery of samples</td>
<td>516 [delivery]</td>
<td>18.81</td>
<td>9 705.96</td>
<td>yes</td>
</tr>
<tr>
<td>2. Vaccination or treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(In case of unfavourable epidemiological situation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1. Purchase of vaccine/treatment</td>
<td>Cost of the vaccine</td>
<td>1334000 [unit]</td>
<td>0.5</td>
<td>667 000.00</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Application of the vaccine</td>
<td>1334000 [unit]</td>
<td>3.76/vaccine</td>
<td>5 015 840.00</td>
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</tr>
<tr>
<td>2.2. Distribution costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3. Administering costs</td>
<td></td>
<td>9169</td>
<td>0.03</td>
<td>275.07</td>
<td>yes</td>
</tr>
</tbody>
</table>

---

*Fixed costs should not be included. All amounts are VAT excluded.*
<table>
<thead>
<tr>
<th>2.4. Control costs</th>
<th>133 400€</th>
<th>0.03 €/vaccination</th>
<th>40 020,00</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Slaughter and destruction</td>
<td></td>
<td></td>
<td>338 664,16</td>
<td>yes</td>
</tr>
<tr>
<td>3.1. Compensation of animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2. Transport costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3. Destruction costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4. Loss in case of slaughtering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5. Costs from treatment of products (milk, eggs, hatching eggs, etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Cleaning and disinfection</td>
<td>Cleaning, disinfection, protective clothes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Salaries (staff contracted for the programme only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Consumables and specific equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Other costs</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>6 177 964,98</td>
<td>yes</td>
</tr>
</tbody>
</table>
Abbreviations:

MA = Ministry of Agriculture (until 1997)
MARD = Ministry of Agriculture and Rural Development (since 1998)
AHIC = Animal Health Code
Bp. = Budapest, capital of Hungary