



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit 04 - Veterinary Control Programmes

SANCO/I2889/2010

*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/EC



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

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)¹: BLUETONGUE

Year of implementation: 2011

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

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Date sent to the Commission: 29 April 2010

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

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.

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. Disinsectisation 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.

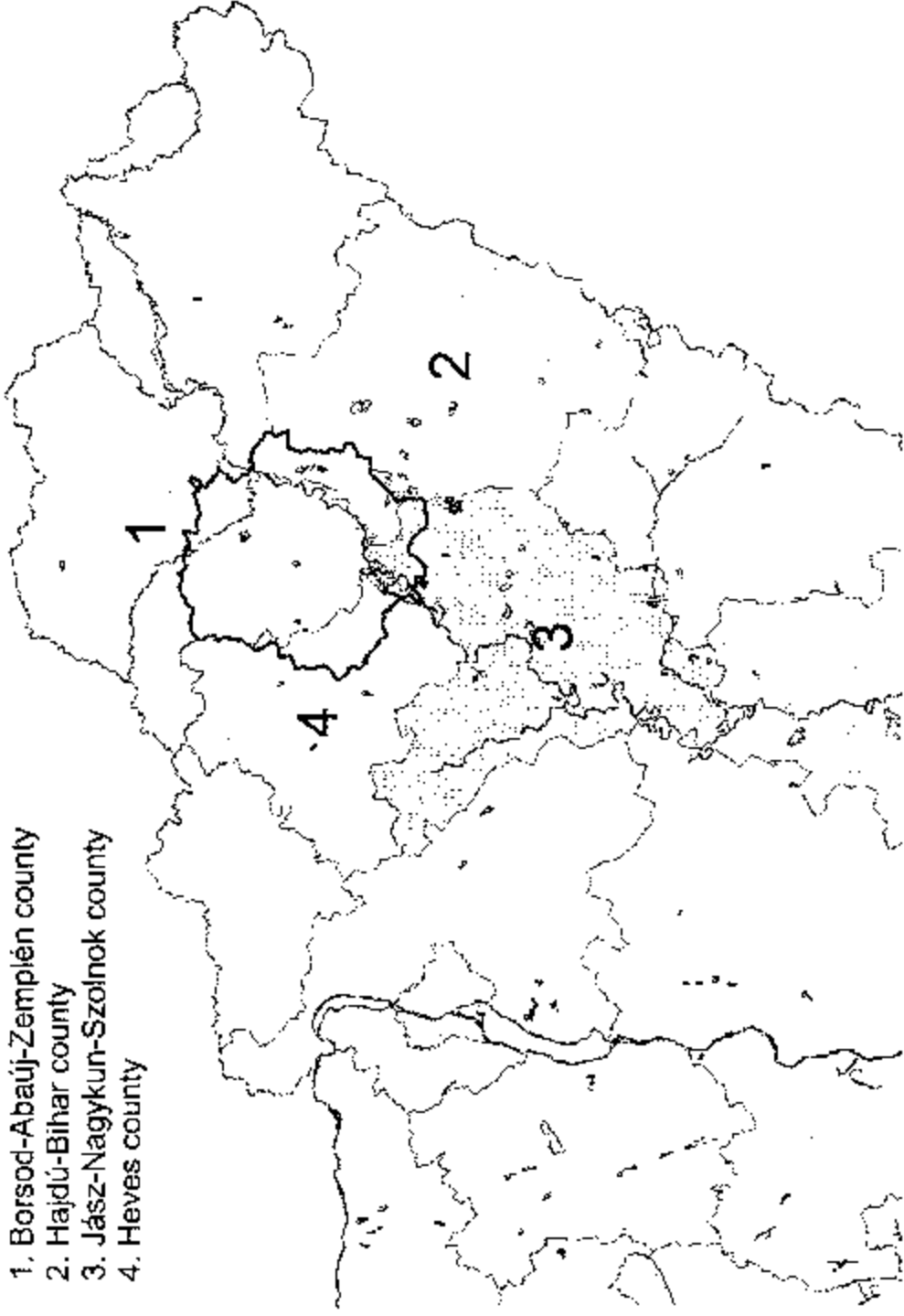
Due to the epidemiological risk of the further keeping of this affected herd the National Disease Control Centre decided to kill and dispose all animals kept on the farm, what was carried out in the following month and finished by 17 Nov 2008. The depopulation of the farm was followed by cleaning and 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 re-demarcation and reduction of the current bluetongue restricted zones in Hungary subsequent upon the favourable monitoring 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-Ménfőcsanak county which was set up first in regard with the bluetongue outbreak occurred in the Czech Rep. on 13 Nov 2008 on the farm Ivanceice. 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-Ménfőcsanak county all serological test results also were negative both in sentinel cattle and in randomly selected individuals in 2008 and in 2009.

1. Borsod-Abaúj-Zemplén county
2. Hajdú-Bihar county
3. Jász-Nagykun-Szolnok county
4. Heves county



Map I: Map of Hungary with the restricted zone for bluetongue disease applied from 1 Feb 2010

Alsószolca	Egyek	Kisgyőr	Noszvaj	Tard
Andornaktálya	Emőd	Kistokaj	Novaj	Tiboldtaróc
Ároktő	Felsőszolca	Köröm	Nyékládháza	Tiszabábolna
Berzék	Folyás	Maklár	Ostoros	Tiszacsege
Besenyőtelek	Fűzesabony	Mályi	Osziár	Tiszadorogma
Bogács	Gelej	Mezőcsát	Ónod	Tiszafüred
Borsodgeszt	Girincs	Mezőkeresztes	Polgár	Tiszagyulaháza
Borsodivánka	Harsány	Mezőkövesd	Poroszló	Tiszakeszi
Bócs	Hejőbába	Mezőnagymihály	Répáshuta	Tiszalúc
Bükkaranyos	Hejőkeresztúr	Mezőnyárad	Sajólad	Tiszapalkonya
Bukkábrány	Hejőkürt	Mezőszemere	Sajóőrös	Tiszaszölds
Bükkszentkereszt	Hejőpapi	Mezőtárkány	Sajópetri	Tiszatarján
Bükkszécs	Hejőszalonta	Miskolc	Sajószöged	Tiszaújváros
Cserépfalu	Hernádkak	Muhi	Sály	Tiszavalk
Cserépváralfa	Hernádnémeti	Nagycsécs	Szakáid	Újírincfalva
Csincse	Igrici	Nagyfálya	Szentistván	Újszentmargita
Dormánd	Kács	Nemesbikk	Szihalom	Újtkos
Egerfarmos	Kesznyéten	Négyes	Szomolya	Vatta
Egerlövő	Kiscsécs			

Table 1: List of settlements located in the bluetongue restricted zone applied from 1st of February, 2010 in Hungary

3. Description of the submitted programme³:

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

Decree No. 41/1997. (V. 28.) of the Ministry of Agriculture on issuing the Animal Health Code.

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 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.

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/EC) 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)*:

County	Sample No/month
Borsod-Abaúj-Zemplén	152
Hajdú-Bihar	152
Heves	148
Jász-Nagykun-Szolnok	148
Total:	600

*: 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 Comm. Reg. No 1266/2007/EC. 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:

County	Sample No	Sampling to be carried out
Baranya	59	September
Bács-Kiskun	59	September
Békés	59	October
Borsod-Abaúj-Zemplén	59	October
Csongrád	59	October
Fejér	59	September
Főváros és Pest megye	59	October
Győr-Moson-Sopron	59	September
Hajdú-Bihar	59	October
Heves	59	October
Jász-Nagykun-Szolnok	59	October
Komárom-Esztergom	59	September
Nógrád	59	October
Somogy	59	September
Szabolcs-Szatmár-Bereg	59	October
Tolna	59	September
Vas	59	September
Veszprém	59	September
Zala	59	September
Total:	1121	

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

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. 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

√ Monitoring or surveillance

⊗ Other measures (specify): -

√ Eradication

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

4.2. *Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme⁴:*

National Authorities:

a.) Central Agricultural Office

Animal Health and Animal Welfare Directorate

Division for Animal Health

address: H-1149 Budapest, Tábornok u. 2. "B" ép.

Tel: +36 1 460 6300 ext. 115

- determines the terms and territorial expansion of the monitoring programme;
- 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 programmes 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)

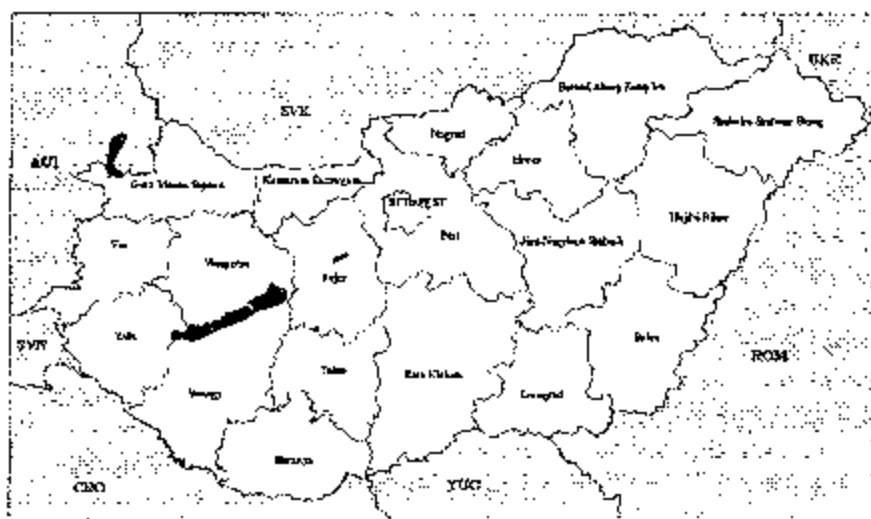
The central laboratory in Budapest is the National Reference Laboratory for Bluetongue.

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.

- b) Ministry of Agriculture and Rural Development
 address: H-1055 Budapest, Kosztuth L. tér 11.
 Department of Food Chain Control, Animal Health and Animal Welfare Unit
 Chief Veterinary Officer of Hungary

4.3. *Description and delimitation of the geographical and administrative areas in which the programme is to be implemented⁵:*

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:

Alsózsolca	Egerlővő	Kács	Nagycsécs	Szentistván
Ároktő	Emőd	Kesznyéten	Nemesbikk	Szomolya
Berzék	Felsőzsolca	Kiscsécs	Négyes	Tard
Bogács	Gelej	Kisgyőr	Nyékládháza	Tiboldfárc
Borsodgeszt	Girincs	Kistokaj	Ónod	Tiszabábolna
Borsodivánka	Harsány	Kördöm	Oszlár	Tiszadorogma
Böcs	Hejőbába	Mályi	Répáshuta	Tiszakeszi
Bükkaranyos	Hejőkeresztúr	Mezőcsát	Sajólad	Tiszalúc
Bukkábrány	Hejőkürt	Mezőkeresztes	Sajóörös	Tiszapalkonya
Bükkszentkereszt	Hejőpapi	Mezőkövesd	Sajópetri	Tiszatarján

⁵ 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.

Bükksérc	Hejőszalonta	Mezőnagymihály	Sajószöged	Tiszaujváros
Cserépfalu	Hernádkak	Mezőnyárad	Sály	Tiszavalk
Cserépváralfa	Hernádnémeti	Miskolc	Szakáld	Vatta
Csincse	Igrici	Muh		

Hajdú-Bihar county:

Egyek	Polgár	Tiszagyulaháza	Újszentmargita	Újtikos
Folyás	Tiszacséze			

Heves county:

Andornaktálya	Egerfarmos	Mezőszemere	Noszvaj	Poroszló
Besenyőtelek	Füzesabony	Mezőtárkány	Novaj	Szihalom
Dormánd	Maklár	Nagytálya	Ostoros	Újtörincfalva

Jász-Nagykun-Szolnok county:

Tiszafüred	Tiszaszőlős
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4.4. Measures implemented under the programme⁶

4.4.1. Notification of the disease:

- Hungarian Act No XI.VI. 2008 on Food Chain and its official control
- Decree No. 41/1997. (V. 28.) of the Ministry of Agriculture on issuing the Animal Health Code.
- Decree No 31/2009. of MARD laying down the protective measures against Bluetongue, issued on 27th March, 2009.

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).

⁶ Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.

County	Number of animals in the bluetongue free area		Number of animals in the bluetongue restricted zone		Total number of animals	
	cattle	sheep	cattle	sheep	cattle	sheep
Baranya	18040	20650	-	-	18040	20650
Bács-Kiskun	50943	102000	-	-	50943	102000
Békés	60000	42600	-	-	60000	42600
Borsod-Abaúj-Zemplén	26235	37553	14597	19590	40832	57143
Csongrád	33740	36000	-	-	33740	36000
Győr-Moson-Sopron	50443	4000	-	-	50443	4000
Fejér	39237	45500	-	-	39237	45500
Hajdú-Bihar	70700	188200	5450	17830	76150	206030
Heves	10219	15012	2221	2325	12440	17337
Jász-Nagykun-Szolnok	42733	47200	850	1400	44583	48600
Komárom-Esztergom	13500	10000	-	-	13500	10000
Nógrád	11553	14783	-	-	11553	14783
Pest	45919	64295	-	-	45919	64295
Somogy	37500	25000	-	-	37500	25000
Szabolcs-Szatmár-Bereg	34278	135481	-	-	34278	135481
Tolna	23483	30843	-	-	23483	30843
Vas	26700	2510	-	-	26700	2510
Veszprém	37144	49075	-	-	37144	49075
Zala	20374	9656	-	-	20374	9656
Total	653741	880309	23118	41145	676859	921454

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 Zoosanitary 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:

From 18 Sept 1997 (Decree No. 62/1997. (IX. 10.) of MA):
car-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:

Serological 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/EC) 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)*:

County	Sample No/month
Borsod-Abaúj-Zemplén	152
Hajdú-Bihar	152
Heves	148
Jász-Nagykun-Szolnok	148
Total:	600

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

Serological 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/EC. 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 biocid 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:

In case of bluetongue positive result measures applied must comply with the Commission Regulation No 1266/2007 of 26 October 2007 on implementing rules for Council Directive 2000/75/EC as regards the control, monitoring, surveillance and restrictions on movements of certain animals of susceptible species in relation to bluetongue.

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 XI.VI. 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 years⁷:

6.1. Evolution of the disease:

6.1.1. *Data on evolution of the disease⁸*

6.1.1.1. *Data on herds⁽⁹⁾ (one table per year and per disease/species)*

Year: 2008

Situation on date: 29-04-2009

Disease⁽¹⁰⁾: bluetongue Animal species: cattle surveillance programme in the restricted zone

Region ⁽¹⁾	Total number of herds ⁽²⁾	Total number of herds under the programme	Number of herds checked ⁽³⁾	Number of positive herds ⁽⁴⁾	Number of new positive herds ⁽⁵⁾	Number of herds depopulated	% positive herds depopulated	% herd coverage		INDICATORS	
								% positive herds	Period herd prevalence	% positive herd	% new positive herds incidence
Borsod-Abaúj-Zemplén county	2	3	4	5	6	7	8 (75%)	9 = (45)/100	10 = (54)/100	11 = (68)/100	
Total	1303										

⁷ The data on the evolution of the disease are provided according the tables below where appropriate.

⁸ Data to provide for Bovine tuberculosis, Bovine brucellosis, IBR/IPV (AI + embryo units), Ovine and caprine brucellosis (B. melitensis), Enzootic bovine leukosis (EBL), Aujeszky's disease, Anthrax, Maedi-Visna and CAEV, IBR/IPV (other types of enterprise), Johnes 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.

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

Year: 2008

Situation on date: 31-12-2008

Disease ^(a)	Region ^(b)	Animal species: cattle				Slaughtering		INDICATORS		
		Total number of animals ^(c)	Number of animals ^(d) to be tested under the programme	Number of animals ^(d) tested	Number of animals tested individually ^(e)	Number of positive animals	Number of animals with positive result slaughtered or culled	Total number of animals slaughtered ^(f)	% coverage at animal level	% positive animals Animal prevalence
	1	2	3	4	5	6	7	8	9 (13x100)	10 (6-4x100)
	Borsod-Abaúj-Zemplén county	41979				18	18	456		
	Total									

(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.

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

Year: 2009

Situation on date: 31-12-2009

Disease^(a): bluetongue

Animal species: cattle

Region ^(b)	Total number of animals ^(c)				Number of animals tested individually ^(e)	Number of positive animals	Slaughtering		INDICATORS		
	1	2	3	4			5	6	7	8	% coverage at animal level $9 - (1/7) \times 100$
Baranya		18040	1346	1346	1346	0	0	0	0	100	0
Bács-Kiskun		50943	2006	2014	2014	0	0	0	0	100,4	0
Békés		60000	791	791	791	0	0	0	0	100	0
Borsod-Abaúj-Zemplén		40852	544	543	543	0	0	0	0	99,82	0
Csongrád		33740	824	676	676	0	0	0	0	82,04	0
Győr-Ménfőcsanak-Sopron		50443	1344	545	545	0	0	0	0	40,55	0
Füzfő		39237	1310	1310	1310	0	0	0	0	100	0
Hajdú-Bihar		76150	468	468	468	0	0	0	0	100	0
Heves		12440	272	269	269	0	0	0	0	98,9	0
Jász-Nagykun-Szolnok		44583	420	420	420	0	0	0	0	100	0
Komárom-Esztergom		13500	541	545	545	0	0	0	0	100,74	0
Nógrád		11553	188	267	267	0	0	0	0	142,02	0
Pest		45919	722	733	733	0	0	0	0	101,52	0
Somogy		37500	1794	1830	1830	0	0	0	0	102,01	0
Szabolcs-Szatmár-Bereg		34278	452	447	447	0	0	0	0	98,89	0
Tolna		23483	1107	1110	1110	0	0	0	0	100,27	0
Vas		26700	999	999	999	0	0	0	0	100	0
Veszprém		37144	1400	1400	1400	0	0	0	0	100	0
Zala		20374	1131	1131	1131	0	0	0	0	100	0
Total		676859	17659	16844	16844	0	0	0	0	95,38	0

6.2. Stratified data on surveillance and laboratory tests:

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

Year: 2009

Disease^(a): bluetongue

Animal species/category^(a): 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)

Region ^(d)	Serological tests			Microbiological or virological tests		Other tests (entomology)	
	Number of samples tested ^(b)	Number of positive samples ^(c)	Number of positive samples ^(c)	Number of samples tested ^(b)	Number of positive samples ^(c)	Number of samples tested ^(b)	Number of positive samples ^(c)
Baranya	1346	0					
Bács-Kiskun	2997	0	184		0		
Békés	2891	0					
Borsod-Abaúj-Zemplén	3822	0	79		0	20	NA
Csongrád	1676	0					
Győr-Ménfőcsanak-Sopron	2222	0	51		0		
Fejér	1310	0					
Hajdú-Bihar	3744	0					
Heves	1929	0					
Jász-Nagykanizsa-Szolnok	3280	0					
Komárom-Esztergom	844	0					
Nógrád	1308	0					
Pest	3897	0	1		0		
Somogy	1830	0					
Szabolcs-Szatmár-Bereg	3407	0	17		0		
Tolna	1110	0					
Vás	999	0					
Veszprém	1400	0					
Zala	1131	0					
Total	41143	0	332		0	20	

6.3. Data on infection (one table per year and per disease/species)

Year: 2008 **Disease^(a):** bluetongue **Animal species:** cattle

Region ^(b)	Number of herds infected ^(c)	Number of animals infected
HUNGARY Borsod-Abaúj-Zemplén county	1	18
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 **Disease^(a):** bluetongue **Animal species:** cattle

Region ^(b)	Number of herds infected ^(c)	Number of animals infected
HUNGARY	0	0
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.

6.5. Data on vaccination or treatment programmes¹¹: Not applicable

Year: _____ Disease^(a): _____ Animal species: _____

Description of the used vaccination, therapeutic or other scheme:

There were no vaccinations against Bluetongue in Hungary.

Region ^(a)	Total number of herds ^(a)	Total number of animals	Information on vaccination or treatment programme				Number of young ^(b) animals vaccinated
			Number of herds ^(c) in vaccination or treatment programme	Number of herds ^(c) vaccinated or treated	Number of animals vaccinated or treated	Number of doses of vaccine or treatment administered	
Total							

- (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/PPV (AI - embryo units), Ovine and caprine brucellosis (B. melitensis), Anjeszky's disease, Salmonella pullorum, Salmonella gallinarum, Anthrax, IBR/PPV (other types of enterprise), Johnes 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, Echinococcosis and salmonellosis (zoonotic salmonella) and agents thereof.

6.6.2. Monitoring of wildlife (one table per year and per disease/species): Not applicable

Year: _____ **Disease^(a):** _____ **Animal species:** _____

Description of the used serological tests:

Description of the used microbiological or virological tests:

Description of the other used tests:

Region ^(b)	Microbiological or virological tests		Serological tests		Other tests (Biac polishing)	
	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples	Number of samples tested	Number of positive samples
HUNGARY						
total						

(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

<u>Disease^(a): bluetongue</u>	<u>Animal species: ruminants</u>	<u>Region^(b)</u>	<u>Type of the test^(c)</u>	<u>Target population^(d)</u>	<u>Type of sample^(e)</u>	<u>Objective^(f)</u>	<u>Number of planned tests</u>
		HUNGARY	Serological examination - ELISA	Cattle	Blood	Monitoring and surveillance	8321
			Entomological examination	Culicoides	insects	Monitoring	324
			Virological examination	Culicoides	insects	Monitoring	324
			Virological examination - PCR	Cattle	Blood	Confirming of seropositive animals	100
			Virological examination - PCR	Small ruminants	Blood	Control of clinically suspicious animals	100
Total							9169

(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, AB-ELISA, RBT, ...)

(d) Specification of the targeted species and the categories 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, ...)

7.1.1.2. Testing scheme(s)¹³:

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 investigation 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.

7.1.2.2. 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.

Disease ^(a) : bluetongue	Animal species: cattle						Slaughtering			TARGET INDICATORS	
	Region ^(b) COUNTY	Total number of animals ^(c)	Number of animals ^(d) under the programme	Number of animals ^(e) expected to be tested	Number of animals to be tested individually ^(e)	Number of expected positive animals	Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered ^(a)	Expected % coverage of animal level	% positive animals (Expected animal prevalence)	
	1	2	3	4	5	6	7	8	9 (4.3%100)	10 (6.1x100)	
	Borsod-Abaúj-Zemplén	14597	152	152	152	0					
	Hajdú-Bihar	5450	152	152	152	0					
	Heves	2221	148	148	148	0					
	Jász-Nagykun-Szolnok	850	148	148	148	0					
	Total	23118	600	600	600	0					

(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.

B) Outside the restricted zone: the number of animals to be tested is calculated with 5% prevalence and 95% confidence according to the Annex I, point 2.2. of the Commission Regulation No 1266/2007.

Disease ⁽⁶⁾ : bluetongue	Animal species: cattle									
	Region ⁽⁶⁾ COUNTY	Total number of animals ⁽⁵⁾	Number of animals ⁽⁴⁾ under the programme	Number of animals ⁽⁴⁾ expected to be tested	Number of animals to be tested individually ⁽⁴⁾	Number of expected positive animals	Number of animals with positive result expected to be slaughtered or culled	Slaughtering Total number of animals expected to be slaughtered ⁽⁶⁾	Expected % coverage at animal level	TARGET INDICATORS % positive animals (if specified animals prevalence)
	1	2	3	4	5	6	7	8	9=(4/3)*100	10=(6/1)*100
	Baranya	18040	59	59	59	0				
	Bács-Kiskun	50943	59	59	59	0				
	Békés	60000	59	59	59	0				
	Borsod-Abaúj-Zemplén	26235	59	59	59	0				
	Csongrád	33740	59	59	59	0				
	Győr-Ménfőcsanak	50443	59	59	59	0				
	Hajdú-Bihar	39237	59	59	59	0				
	Hódmezővásárhely	70700	59	59	59	0				
	Jász-Nagykun-Szolnok	10219	59	59	59	0				
	Komárom-Esztergom	42733	59	59	59	0				
	Körmös-Esztergom	13500	59	59	59	0				
	Nógrád	11553	59	59	59	0				
	Pest	45919	59	59	59	0				
	Somogy	37500	59	59	59	0				
	Szabolcs-Szatmár-Bereg	34278	59	59	59	0				
	Tolna	23483	59	59	59	0				
	Vas	26700	59	59	59	0				
	Veszprém	37144	59	59	59	0				
	Zala	20374	59	59	59	0				
	Total	653741	1121	1121	1121	0				

7.3. Targets on vaccination or treatment:

7.3.1. Targets on vaccination or treatment¹⁷: Hungary is planning emergency vaccination only!

Vaccine(s) and vaccination scheme or treatment and treatment scheme¹⁸: 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: 313002 animals to be vaccinated 2 times – 626004 doses

Small ruminants (sheep, goat): 707783 animals to be vaccinated once – 707783

Total = 1333787 doses --> rounded to 1334000 doses

Disease⁽⁰⁾: bluetongue **Animal species: cattle**

Region ⁽⁴⁾ COUNTY	Total number of animals in vaccination or treatment programme		Targets on vaccination or treatment programme				
	Total number of herds ⁽⁵⁾ in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds ⁽⁵⁾ expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults ⁽⁶⁾ expected to be vaccinated	Number of young ⁽⁶⁾ animals expected to be vaccinated
Békés	338	10304	10304	338	10304		
Borsod-Abaúj-Zemplén	413	56066	56066	413	56066		
Budapest and Pest	489	20948	20948	489	20948		
Hajdú-Bihar	2389	103075	103075	2389	103075		
Heves	126	19911	19911	126	19911		
Jász-Nagykun-Szolnok	1473	62175	62175	1473	62175		
Nógrád	250	11555	11555	250	11555		
Szabolcs-Szatmár-Bereg	760	28968	28968	760	28968		
Total	6238	313002	313002	6238	313002		

¹⁷ Data to provide for Bovine brucellosis, IBR/IPV (AI + embryo units), Ovine and caprine brucellosis (B. melitensis), Aujeszky's disease, Salmonella pullorum, Salmonella gallinarum, Anthrax, IBR/IPV (other types of enterprize), Johne's disease (paratuberculosis), Mycoplasma gallisepticum, bearwater 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, Echinoococcosis, salmonellosis (zoonotic salmonella) and agents thereof.

¹⁸ 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 treatment¹⁹ of wildlife: Not applicable*

Disease ^(a)	Animal species	Targets on the vaccination or treatment programme		
		Region ^(b)	Square km	Total number of doses of vaccine or treatment expected to be administered in the campaign
			Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
Total				

(a) Disease and species if necessary

(b) Region as defined in the approved eradication programme of the Member State

¹⁹ 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 programme²⁰ Estimated costs for the year 2011 (1 € = 265,75 HUF by ECB on 31 March 2010)

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: ELISA	8321 [piece]	3,91	32 535,11	yes
	Test: PCR	~200 [piece]	32,51	6 502,00	yes
	Test: Cuticoides specification	324 [piece]	75,26	24 384,24	yes
	Test: Cuticoides virology	324 [piece]	32,51	10 533,24	yes
1.2. Cost of sampling	Sampling	8645 [piece]	3,76	32 505,20	yes
1.3. Other costs	Delivery of samples	516 [delivery]	18,81	9 705,96	yes
2. Vaccination or treatment <i>(In case of unfavourable epidemiological situation)</i>					
2.1. Purchase of vaccine/ treatment	Cost of the vaccine	1334000 [unit]	0,5	667 000,00	yes
	Application of the vaccine	1334000 [unit]	3,76/vaccine	5 015 840,00	yes
2.2. Distribution costs					
2.3. Administering costs		9169	0,03 €/laboratory	275,07	yes

²⁰ Fixed costs should not be included. All amounts are VAT excluded.

			test	
2.4. Control costs		1334000	0.03 €/ vaccination	40 020,00 yes
3. Slaughter and destruction				
3.1. Compensation of animals				338 664,16 yes
3.2. Transport costs				
3.3. Destruction costs				
3.4. Loss in case of slaughtering				
3.5. Costs from treatment of products (milk, eggs, hatching eggs, etc)				
4. Cleaning and disinfection	Cleaning, disinfection, protective clothes			
5. Salaries (staff contracted for the programme only)	disinsectisation			
6. Consumables and specific equipment				
7. Other costs				
TOTAL				6 177 964,98 yes

Abbreviations:

MA – Ministry of Agriculture (until 1997)

MARD = Ministry of Agriculture and Rural Development (since 1998)

AHC = Animal Health Code

Bp. = Budapest, capital of Hungary