

Eradication programme for the infection of *Brucella abortus*, *B. melitensis* and *B. suis* in bovine populations

1. Date of submission: 28/05/2021
2. **Member State: Hungary**
3. Name of the disease¹: Infection with *Brucella abortus*, *B. melitensis* and *B. suis*

Please note that in text below the term ‘Infection with *Brucella abortus*, *B. melitensis* and *B. suis*’ is referred to as brucellosis.

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5. *Territorial scope with a description and demarcation of the geographical and administrative areas covered by the eradication programme and the names of the zones and regions, if more than one region is included in the territorial scope of the programme.*

The programme covers the whole territory of Hungary and the target population is the entire Hungarian bovine population (except bovine animals falling under derogation in accordance with Article 19 of Delegated Regulation (EU) 2020/689).

¹ This template is to be used for the submission of the following eradication programmes for the following listed diseases:

Category B-diseases

- a) Infection with *Brucella abortus*, *B. melitensis* and *B. suis*
- b) Infection with *Mycobacterium tuberculosis* complex

Category C-diseases

- a) Enzootic bovine leukosis
- c) Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
- d) Infection with Aujeszky’s disease virus
- e) Bovine viral diarrhoea

A description of the epidemiological situation for each zone or region, if more than one region is included in the territorial scope of the programme:

Region (county)	Total number of existing bovine herds		Officially free herds (disease free)		Number of suspended herds	Number of infected herds
Baranya	466	36918	466	100,00%	0	0
Borsod-Abaúj-Zemplén	767	53730	767	100,00%	0	0
Bács.Kiskun	1878	92833	1878	100,00%	0	0
Békés	827	70872	827	100,00%	0	0
Csongrád	1431	49503	1431	100,00%	0	0
Fejér	380	52824	380	100,00%	0	0
Győr-Moson-Sopron	698	58676	698	100,00%	0	0
Hajdú-Bihar	1847	127524	1847	100,00%	0	0
Heves	310	19329	310	100,00%	0	0
Jász-Nagykun-Szolnok	1113	64474	1113	100,00%	0	0
Komárom-Esztergom	275	17600	275	100,00%	0	0
Nógrád	379	24832	379	100,00%	0	0
Somogy	575	44438	573	99,65%	2	0
Szabolcs-Szatmár-Bereg	886	57175	886	100,00%	0	0
Tolna	503	32892	503	100,00%	0	0
Vas	454	29119	454	100,00%	0	0
Veszprém	712	54263	712	100,00%	0	0
Zala	528	33361	527	99,81%	1	0
Pest	1312	71140	1312	100,00%	0	0
Total	15341	991503	15338	99,98%	3	0

(a) the number of establishments keeping animals of the targeted animal population by health status (Disease-free, infected or unknown) excluding establishments falling under the derogation referred to in point (6)(f) at 31 December;

See in the table above.

(b) the number of animals of the targeted animal population kept in the establishments referred to in point (a) by health status;

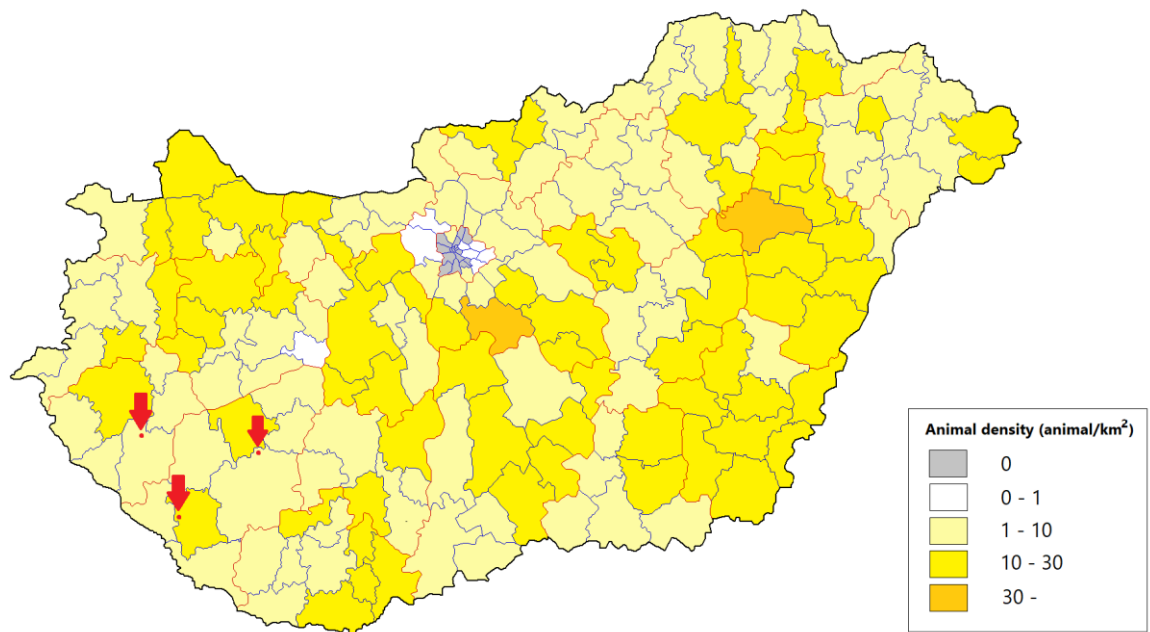
Bovine animals kept in disease free establishments: 991 463

Bovine animals kept in 3 establishments with suspended status: 40

(c) maps indicating the density of the targeted animal population referred to in point (b) by health status;

The whole bovine population is disease free, except animals from the 3 establishments with suspended status which are marked with red. Disease free status in these establishments were suspended because the yearly testing has not been performed to maintain status.

The map shows density on administrative district level.



(d) timeline with prevalence, incidence data and, where relevant, vaccination history covering at least the past 5 years:

The nationwide bovine brucellosis eradication program for Hungary has been successfully completed by 31 August 1985. After this date *B. abortus* infection has not been confirmed in Hungary. All bovine herds in Hungary were qualified as regards brucellosis status by 1981 and, by 2008, fully complied with the conditions provided for in Section II (1) of Annex A to Council Directive 64/432/EEC on animal health problems affecting intra-Community trade in bovine animals and swine.

During the last five years all bovine herds were covered by the national eradication programme and no case of abortion due to *Brucella* infection was reported and no isolation of *B. abortus*, *B. suis* or *B. melitensis* has been recorded.

Vaccination has been prohibited the last five years.

We expect the epidemiological situation to remain favourable, paying particular attention to preventing the introduction of the disease and we plan to document disease freedom as soon as possible according to Delegated Regulation (EU) 2020/689.

(e) information as regards the epidemiological situation in additional animal populations, where relevant.

Infection with Brucella abortus, B. melitensis and B. suis in small ruminants:

B. melitensis has never occurred in Hungary. Official freedom was recognized by Commission Decision 93/52/EEC and Hungary is listed as disease free in Commission Implementing Regulation 2021/620.

Infection with Brucella abortus, B. melitensis and B. suis in other species:

B. suis biovar 2, which is occasionally isolated from wild boar and European brown hare in some regions of Hungary, causes sporadic outbreaks in domestic pigs (breeds which are kept outdoors) as well.

For domestic pig herds there is a compulsory screening programme in operation according to Decree No. 12/2008 (II.14.) FVM.

6. *A description of the disease control strategy of the eradication programme in accordance with Article 16 of Commission Delegated Regulation (EU) 2020/689 including at least:*

(a) the sampling schemes and diagnostic methods to be used in accordance with Annex IV to Delegated Regulation (EU) 2020/689:

Legal background

Circular letter 78/2021 issued by the Ministry of Agriculture marks the start of the new sampling scheme for bovine animals applicable after 21.04. 2021. The letter connects Delegated Regulation (EU) 2020/689 and the Hungarian legislation on brucellosis (Decree No. 12/2008 (II.14.) FVM of the Minister of Agriculture and Rural Development).

According to circular letter 78/2021, after the 21st April 2021, Chapter 1, Part I of Annex IV to Delegated Regulation (EU) 2020/689 is applicable regarding the rules of granting, maintenance, suspension, withdrawal and regaining of disease free status of bovine establishments, instead of the previous points of the relevant Hungarian legislation.

Letter 78/2021 also highlights the legal hierarchy and informs the county (regional) veterinary authorities that in all cases Delegated Regulation (EU) 2020/689 applies

and legal references shall be made to this legal act rather than the relevant Hungarian legislation.

- (i) *for the granting of the disease-free status to establishments and the maintenance of that status;*

Chapter 1, Part I of Annex IV to Delegated Regulation (EU) 2020/689 is applicable. In order to maintain free status of an establishment, all bovine animals over 12 months must be tested yearly, instead of the 24 months age limit applicable before and the derogation to exclude males for fattening is no longer in force.

Sampling must be performed as described in Ministerial Decree No 12/2008. (II.14) and in accordance with Circular letter 78/2021. The details on implementation and the tasks of various actors can be found in Point 7. below.

Laboratory tests for granting disease free status can only be performed in the Veterinary Diagnostic Directorate of the National Food Chain Safety Office.

Samples obtained for maintaining disease free status may be tested in designated laboratories other than the NRL in accordance with Article 37 (1) of Regulation (EU) 2017/625 (hereinafter: OCR). Designation of these laboratories are done via a formal official decision on the basis of OCR. These laboratories send their reports quarterly to the central authority about the tests they perform, and immediately in case of a positive result. Positive results have to be confirmed by the NRL.

List of labs designated under Article 37 of OCR:

<https://portal.nebih.gov.hu/hatosagi-feladatra-kijelolt-laboratoriumok>

The sample is in most cases blood (serum) sample, but occasionally milk samples are sent for testing as well. In case of bulk milk samples, the sample must contain milk at least from 30% of the animals from the establishment. The test used for screening is I-ELISA. In case of positive result, CFT (complement fixation test) and RBT (rose bengal test) is performed.

The tests should be performed according to the OIE Manual, Chapter 3.1.4. Brucellosis (*Brucella abortus*, *B. melitensis* and *B. suis*) (infection with *B. abortus*, *B. melitensis* and *B. suis*) (NB: Version adopted in May 2016).

- (ii) *to confirm or rule out the disease in the event of a suspected case;*

The tasks of the private and official veterinarian and district veterinary office in case of suspicion of brucellosis are laid down in Articles 8, 10, 11 and 12 of Ministerial Decree No 12/2008. (II.14). Measures to be applied are in accordance

with Articles 21-23 of Delegated Regulation (EU) [2020/689](#) and include clinical and epidemiological investigations, sampling, observation, movement restriction, notification according to the reporting chain.

Clinical suspects: obligation of notification and investigation of each case of abortion is laid down in Ministerial Decree No [12/2008](#). (II.14) as follows:

- Article 7 (1) The animal keeper and the trader shall:
 - a) report immediately to the veterinarian any illness or suspected illness of his or her livestock and any suspected infections of brucellosis – such as abortions or unusual calving/birthing;

In case of abortion, the private or official veterinarian is obliged to take a sample in accordance with Annex No 5 of Decree No 12/2008. (II.14) FVM for the purposes of laboratory testing. A blood sample taken from the dam must be sent to the NRL in order to exclude the presence of brucellosis and indicate on the accompanying document that it was for the investigation of an abortion case. The blood sample is tested first by I-ELISA, confirmatory tests are CFT and RBT. A second blood sample must be taken from the dam 2-3 weeks later.

Sample must be sent also from the aborted foetus for bacteriological investigations as described in Annex No 5 of Decree No 12/2008. (II.14).

Other suspect cases are defined in Article 2, Point 14 of Ministerial Decree No 12/2008. (II.14) which is in accordance with Article 9 of Delegated Regulation (EU) 2020/689.

In case of a seropositive test result, the animal must be isolated from the herd and sampling must be repeated after a few weeks.

In case of two seropositive results which are confirmed by CFT and RBT tests too, options are killing the animal in order to obtain samples for bacteriological investigation or further investigations in case of suspicion of false positive reaction.

In case of non-conclusive results the decision on confirming or rule out the disease must be based on the epidemiological circumstances and other conditions on the holding.

Circular letter 78/2021 sets out the rules for suspected false positive reactions caused by, for example, *Yersinia enterocolitica*. If the epidemiological circumstances suggest that the seropositive result is due to false positive reaction, and the written opinion of the NRL supports this assumption, serological investigations can be continued as long as necessary in order to exclude or confirm brucellosis. In this case disease free status of the holding must be suspended and/or movement restriction must be imposed until brucellosis can be excluded or confirmed.

Specification of the maximum period referred to in Article 20 (3)(b) of Regulation (EU) 2020/689 during which the disease-free status may be suspended

If the disease-free status is suspended due to a seropositive result which is suspected to be a cross-reaction (commonly caused by *Yersinia enterocolitica*), the status may remain suspended maximum for 6 months.

In case disease-free status of the herd is suspended due to other reasons than a seropositive result (for example if yearly testing to maintain the status is not performed in time) the maximum period of suspension is 2 months.

(b) disease control measures to be applied in the event of a confirmed case;

Definition of a confirmed case of brucellosis is laid down in Article 2, Point 13 of Decree No 12/2008. (II.14), which is in line with Article 9 of Delegated Regulation (EU) 2020/689.

Measures to be applied by the competent authorities are laid down in Article 11, 12 and 13 of Decree No 12/2008. (II.14) and Articles 24-31 of Delegated Regulation (EU) 2020/689.

If the suspicion is confirmed by laboratory examinations, the official veterinarian maintains movement restriction and officially confirms the case of brucellosis. Milk, fetuses, manure/feed and other substances from the infected establishment must be managed in accordance with Article 28 of Delegated Regulation (EU) 2020/689.

If brucellosis is confirmed, the district chief veterinarian shall:

- immediately submit a report on the official confirmation of brucellosis to county level (to the Food Chain Safety and Animal Health Departments of the County Government Offices (FCSAHD of the CGO), please see the explanation on the competent authorities below in point 8.);
- withdraw disease free status of the herd
- order the killing of the cattle, swine, sheep, goat or horse infected with brucellosis within five days of confirmation of the infection;
- order serological testing of all individuals in the infected stock. If the number of serologically positive animals in the serological test procedure does not exceed 5 % of the total number of animals in the infected stock, the animal keeper shall develop an action plan necessary for declaring the stock free from brucellosis (hereinafter referred to as: the eradication plan). The district chief veterinary officer approves the eradication plan and acts to eradicate the disease according to the plan. If the number of serologically positive animals in the

serological test procedure exceeds 5 % of the total number of animals in the infected stock, or the animal keeper does not implement the eradication programme, the official chief veterinarian shall order the elimination of the stock;

- carry out an epidemiological investigation in order to clarify where the infection could have originated from and where it could have spread to.

The food chain safety and animal health department of the county government office (FCSAHD of the CGO)

- participates in the epidemiological investigation in cases concerning more animal health districts or counties, in cases concerning another Member State, will immediately inform the National Food Chain Safety Office;
- in cases concerning other county or counties, informs the relevant FCSAHD of CGO;
- instructs the official veterinarian through the district chief veterinarian to order movement restrictions due to suspicion of infection on other establishments where the disease could have spread to
- informs the NFCSO once the disease has been officially confirmed;
- sends an annual summary report to the chief veterinary officer and a copy of this report to the NRL.

In addition, the FCSAHD of the CGO may order shooting of a few specimen of wild animal species (wild boar, red deer, fallow-deer, roe deer, mouflon, hare) in the environment surrounding the infected establishment, for diagnostic purposes.

(c) biosecurity and risk mitigating measures to be implemented;

General and disease specific rules laid down in Delegated Regulation (EU) 2020/689 and provisions of Decree No 12/2008. (II.14) must be applied.

General rules on disinfection, quarantine and minimum conditions applicable to small and large scale holdings are laid down in Ministerial Decree [41/1997](#) (V.18) on issuing the Animal Health Code.

The Decree gives details regarding the biosecurity measures to be applied in animal holdings.

Animals shall only be kept in places complying with the construction requirements.

Buildings, holdings (animal keeping facilities) shall be established and technologies of livestock farming and animal keeping (hereinafter to be referred to as technologies) shall be applied in such way that the healthy environment free from infections and the suitability of products of animal origin for human consumption and the manufacturing

of foodstuffs is ensured. The keeping of animals shall not endanger human and animal health and not damage the environment.

According to the Decree, there are two types of holdings based on capacity:

- small-scale holdings
- large-scale holdings: which is enough for keeping at least 50 bovine animals.

In large-scale holdings there are strict further requirements besides the basic biosecurity measures.

In case of the settlement, construction, reconstruction, extension, taking over, retention and modification of purpose of facilities and additional buildings the FCSAHD of the CGO shall deliver its professional authoritative consent based on specific requirements detailed in the Annex 2 of the Decree. Construction permit is issued by the municipality (mayor's office) based on expert opinion of the CAs (soil conservation authority, veterinary authority, fire department, etc.), and also the occupancy permit. The operating permit of the holding is issued by the veterinary authority (food chain safety authority).

The professional opinion of the veterinary authorities

The veterinary authority examines the fulfilment of the following conditions concerning the animal keeping facilities:

In case of **large-scale holdings**:

- in holdings for free or pastoral keeping of cattle, treatment corridor or, for individual treatment, an equipment for binding and pinning down (pinfold suitable for that purpose);
- in case of treating and disposal of liquid manure, officially authorised forest or tillage area appointed in the neighbourhood of the holding
- for the necessary cleansing and disinfection on holdings, at least one high pressure disinfection machine – if possible, one working with hot water or blast of steam;
- the holding – with the exception of pastoral keeping – is surrounded by a fence adequate for the prevention of intrusions by humans or animals;
- dressing room of black-and-white system, in which the outer section for the storage of street wear is separated from the inner dressing room for the placing of work wear by a lavatory and shower room;
- the shaping of the pavement in the gateway allows the cleansing and disinfection of the wheels of vehicles (e.g. a basin for the disinfection of wheels /6.5 metres x 3

metres x 0.35 metres/ with drainable liquid or a machine suitable for the disinfection of vehicles has been installed;

- mortuary suitable for dissection, supplied with cold and hot water and sewerage system, and with washable and disinfectable walls and floor;
- container storage room or place for the gathering and prior transporting of carcasses or (low capacity) incinerator plant established locally;
- buildings connected with the outer traffic of passengers or vehicles (e.g. dressing room, loading platform, dairy, milk delivery room, room for compulsory slaughter, mortuary) are situated in the fence line;
- the floor and sidewalls of the animal keeping buildings are easy to clean and disinfect, the emerging sewage water, manure and slurry can be removed completely, adequate slip-proofness, ventilation and lighting is provided, the equipment are easy to control, cleanse and disinfect, they do not damage the health and corporal integrity of animals and do not carry the risk of accidents;
- pinfolds, and paddocks for the satisfaction of the motional needs of animals are provided;

In case of **small-scale holdings**:

- rooms for the changing of the clothes, washing and the disinfection of persons are provided;
- the animal keeping building has to be situated so that, in case of epidemic danger, the organisation of vehicle and passenger traffic adequate for protection is ensured.

Furthermore, in case of large holdings, the keeper shall prepare an epidemic prevention plan including the list and quantity of disinfectants and the equipment constantly available. The County Government Office approves the plan and supervises its implementation. Stocking can only take place with the prior authorisation of the district office.

In **large scale holdings**, specific establishments have to be built on the holding, such as:

- fencing and gating system
- dressing room of black-and-white system
- animal loading platforms
- place for emergency slaughter
- feed mixer

- disinfection facility for vehicles
- well, cisterns for drinking water
- storage of feedingstuffs and litter (building, shed, barn-yard)
- facility for the treatment of manure and its fence
- facility designated for collecting and dissecting carcasses
- facilities for the treatment and placement of sewage water
- facilities for the treatment of manure
- other underground or overground facilities for the storage of solids or liquids,
- facilities for the gathering, treatment and decontamination of waste

(d) type of vaccine(s) to be used and the vaccination scheme, if relevant;

Not relevant.

(e) measures to be implemented as regards additional animal populations, if relevant;

Not relevant. Other animal populations do not pose a significant risk as explained in Point 6. e).

(f) derogations to be applied in accordance with Article 19 of Delegated Regulation (EU) 2020/689, if relevant;

Derogation is applied in accordance with Article 19 of Delegated Regulation (EU) 2020/689. Bovine populations falling under point (a)-(d) of Article 19 of Delegated Regulation (EU) 2020/689 are excluded from the programme.

(g) coordinated measures with other Member States or third countries, if relevant.

Not relevant.

(h) targeted animal populations and when applicable, additional animal populations

The targeted animal population is kept bovine animals.

7. *A description of the organisation, supervision and roles of the parties involved in the eradication programme including at least:*

(a) the authorities in charge of coordinating and supervising the implementation of the programme;

(b) responsibilities of all stakeholders involved.

The official control of the food chain, including animal health, is supervised by the Minister of Agriculture. The Minister performs this task by the State Secretary for Food Chain Control, and the Deputy State Secretary for Food Chain Control, who is the Chief Veterinary Officer (CVO) as well. Among others, the CVO manages the Food Chain Control Department within the Ministry and supervises furthermore a separated office, the National Food Chain Safety Office (NFCSO). The Food Chain Control Department of the Ministry of Agriculture is responsible for the development of national legislation for food chain safety (including animal health) as well as for the international relations within the area.

The NFCSO is the central competent authority responsible for guiding the implementation of national legislation in the area of food chain safety, including animal health, and is also responsible for providing technical and expert guidance on a national level. The NFCSO is led by its president, who is the Deputy CVO as well. The NFCSO is divided into several directorates including the Animal Health and Animal Welfare Directorate (AHAWD) which guides the work of the regional authorities responsible for animal health and animal welfare. The bovine brucellosis eradication programme is supervised and guided by the AHAWD. The Veterinary Diagnostic Directorate of the NFCSO is responsible for carrying out laboratory tests to detect animal diseases and is solely authorized to perform laboratory test in order to confirm notifiable animal diseases including brucellosis. The Veterinary Diagnostic Directorate (VDD) has three laboratories, located in Budapest, Debrecen and Kaposvár. The laboratory in Budapest is nominated as National Reference Laboratory for bovine brucellosis.

Serological tests to grant brucellosis free status are only performed in the Veterinary Diagnostic Directorate, tests to maintain disease free status can be performed in private laboratories as well (see details above). Bacteriological examinations are performed by the Veterinary Diagnostic Directorate.

On a regional level, the Food Chain Safety and Animal Health Departments of the County Government Offices (FCSAHDs of the CGOs) are responsible for the control of animal health, animal welfare and as well as food and feed safety. On a local level, the Animal Health and Food Control District Offices are responsible for these areas. Each Animal Health and Food Control District Office is led by the District Chief Veterinarian who is responsible for the work of official veterinarians in that area.

Apart from the tasks described above (in case of a suspected or confirmed case of brucellosis) the FCSAHDs of the CGOs are responsible for the organisation and supervision of sampling activities for the purpose of granting or maintaining disease freedom in all bovine establishments in their area. The district veterinary offices have to draw up and submit a timeline of the planned sampling activities by 28 February each year to the county offices which approve or modify the plan. The laboratories involved in testing must be consulted during the approval process.

The district veterinary office informs the animal keepers about the timeline and the animal keepers are responsible for the implementation of sampling which is usually performed by private veterinarians. If the veterinarian does not perform the sampling in time, the animal keeper shall notify the district veterinary office that will conduct an investigation and takes action to ensure that the sampling is conducted. Furthermore, the animal keeper is responsible for restraining the animal, provide a suitable place for sampling and provide help with the sampling if necessary. The veterinarian is responsible for sending the sample to the laboratory.

8. *The estimated duration of the eradication programme.*

3 years: 01. 01. 2022 - 31. 12. 2024

9. *The intermediate targets of the eradication programme including at least:*

(a) *the expected annual decrease of the number of infected establishments;*

We have not had infected establishments since 1985 and do not expect any infected establishments during the programme.

(b) *the expected annual increase of the number of disease-free establishments;*

Not relevant.

Each year there are a few establishments which do not comply with the testing requirements, resulting in suspended status. The number of establishments with suspended status has always remained within the requirements for maintaining of official freedom of a country/zone. All other establishments have been officially disease free and expected to remain so in the next 3 years.

(c) *the expected vaccination coverage, where relevant.*

Not relevant, as vaccination is prohibited.