



**Programmes for eradication, control and surveillance of animal diseases and zoonoses
submitted for obtaining EU financial contribution**

**Annex I.b: Programme for the eradication of bovine tuberculosis, bovine brucellosis or
sheep and goat brucellosis (*B. melitensis*)**

Member States seeking an EU financial contribution for national programmes of eradication, control and surveillance shall submit online this document completely filled out by the 31 May of the year preceding its implementation (Art. 2 of Decision (EU) 2015/2444 and Art. 12 of Regulation (EU) No 652/2014).

For multiannual programmes already approved, this document shall also be filled out and submitted after selection of the options:

This programme is multiannual: "YES"

"Funding request for subsequent year of already approved multiannual programme"

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Instructions to complete the form:

- 1) You can attach documents (.doc, .xls, .pdf, etc) to complete your report using the button "Add attachments" on the last page of the form.
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- 5) For simplification purposes you are invited to submit multi-annual programmes.
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Member state : PORTUGAL

Disease : Bovine Brucellosis

Species : Bovines

This program is multi annual :

Request of Union co-financing from beginning :

1. Contact data

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Submission Date

25/09/2017 11:36:32

Submission Number

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2. Historical data on the epidemiological evolution of the disease

Provide a description on the target population (species, number of herds and animals present and under the programme), and the main results in the last 5 years (incidents, prevalence, qualification of herds and animals). The information is given for distinct periods if the measures were substantially modified.

(max. 32000 chars) :

Portugal is implementing the co-financed bovine brucellosis eradication programme (BBEP) since 1991, and holdings covered by the programme have a health status attributed in accordance with Directive 64/432/EEC of 26 June and its amendments and Decree-Law 244/2000 and 79/2011.

Portugal started the BB programme with 1% of positive holdings and 0.55% of positive bovines and reduced its prevalence by half with 10 years of implementation of the programme, improving at the same time its organization and information system.

In 2001, RB51 vaccine was introduced as a tool to accelerate eradication in certain island of Azores and in 2010 in certain areas of the Continent with a positive progress of the epidemiological situation.

Due to the improvement of brucellosis status of herds, the Autonomous Region of Azores (RAA) obtained the officially free status to 4 islands (Graciosa, Pico, Flores and Corvo) in 2002 and 2 more in 2009 (Santa Maria and Faial). By 2012, Algarve, one of the 5 veterinary regions of mainland, was also recognized as officially free of bovine brucellosis.

In the past 6 years the percentage of positive holding decreased from 0.43% in 2011 to 0.22% in 2016, in the 4 regions and the 3 islands of Azores under the programme. The decrease in % of positive animals was from 0.078 to 0.036%. The number of animals with bacteriological positive results also decreased from 114 in 2011 to 15 in 2016.

The bovine brucellosis eradication programme (BBEP) carried out in 2016 for the non-officially free region of Portugal (4 regions of the continental area and the Azores) resulted in a positive evolution of the epidemiological indicators, as follows:

Continent:

The BBEP was implemented as foreseen in 2016, reaching a coverage of 98.8%, varying from 97.7% in the LVT Region to 100% in the Centro region.

The apparent herd prevalence of BBEP implemented in 2016 remained of 0.21% while decreasing tendency was observed in the herd incidence (from 0.27 to 0.17 %) and in the percentage of positive animals (from 0.05 to 0.04%). In all regions except Alentejo, herd prevalence was below 0.5%.

The variation of apparent herd prevalence by region, from 2015 to 2016, was as follows:

- Norte –5.3% reduction (from 0.19% to 0.18%)
- Centro – maintained (0.03%)
- LVT – 35% reduction (from 0.29% to 0.19%)
- Alentejo – 7.4% increased (from 0.54% to 0.58%)

There were only 57 herds with at least one positive animal and 45 were new positive (79%). Infection was confirmed by bacteriology in 8 herds out of 31 herds investigated (25.8%). All positive animals were slaughtered and in those coming from newly infected herds samples of organs collected for bacteriology. The percentage of slaughtered positive animals with isolation of *B. abortus* was 27.8%

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(15/54). From these 15 isolates 8 were from the Norte region and 7 from the Alentejo region.

The BBEP foresees the investigation of the origin of infection in positive and infected herds. In 2016, there were 18 epidemiological inquiries carried out. The main probable reasons identified, in order of importance, were the introduction of animals (44%), transhumance (39%), contacts of other origin of infection (17%). Please see graphs and tables in the annex.

Regarding abortions tested for Brucellosis, 15 samples were submitted to the NRL all with negative results.

The percentage of free (B3) and officially free (B4) herds were 99.6% with a positive progress. The main reasons for attributing a suspended status were the non-negative serology (36%), followed by delays in regular sampling (34%) and detected irregularities on animal movement (27%). Brucellosis suspicion accounted for only 3% of the suspensions of indeterminate status.

At the 31st December 2016, 12 herds with infected status were located only in two regions: Norte (42%) and Alentejo (58%).

Detailed data on herds health status by region by end of 2016, were as follows:

- Norte (DSAVRN/ 15738 tested herds): 11 non-officially free herds and 34 B4/B3 suspended herds. The bovine production is characterized by small production units, averaging 12 bovines over 12 months of age tested per herd.
- Centro (DSAVRC/ 5722 tested herds): no non-officially free herds and 17 B4/B3 suspended herds. This region also presents a majority of small holdings, averaging 16 bovines over 12 months of age tested per herd.
- Lisboa e Vale do Tejo (DSAVRLVT/ 1039 tested herds): no non-officially free herd and 20 B3/B4 suspended herds. This region has an average of 61 animals over 12 months of age tested per herd.
- Alentejo (DSAVRALT/ 4319 tested herds): 9 non-officially free herds and 23 B3/B4 suspended herds. Alentejo has a production system, with larger herds, most reared in extensive systems, where farms have their own land without much contact between herds. Herds had an average of 104 bovines over 12 months tested under the programme.

As regards geographical distribution of infected herds (B2.1), by the end of 2016, only Alentejo region had one county with more than 3 infected herds.

RB51 vaccination was applied in 411 herds (1961 animals), while in 2015 there were 519 (2205 animals) under vaccination. Targets vaccination for 2016 programme were of 519 herds (2075 animals).

Compulsory pre-movement testing registered at 2016 were applied to 16354 herds, to avoid the entrance of bovine in B3 /B4 herds with the total of 104.489 animals (69.270 national trade and 35219 for TIC).

In 2016, 50 cases of human brucellosis were notified, still provisional data, but they were not related to bovine brucellosis.

Autonomous Region of the Azores (3 islands):

In 2016, the BBEP reached a coverage of 74.41% (2946 herds tested in a total of 3959 herds). Although the coverage of the herds submitted to serological controls/checks was less than 100%, milk ELISA tests are quarterly conducted on all holdings in S. Miguel, Terceira and S. Jorge (total of 1947 herds tested).

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Therefore, the coverage reached was greater than a 100% (123,59%).

There were 7 herds with positive animals and 7 with new positive animals, 8 herds were submitted to bacteriological tests and no *B. abortus* was confirmed.

Herd apparent prevalence varied from 0.47% in 2015 to 0.24% in 2016 (resulted in a reduction of 49%), while the same decreasing tendency was observed in the herd incidence (from 0.44% in 2015 to 0.24% in 2016, representing a reduction of 45%). The percentage of positive animals reduced from 0.015% to 0.009%, with a reduction of 40%.

All Islands are now with 0,0% herd prevalence with the exception of S. Miguel (0.51%).

The variation of apparent herd prevalence by Island from 2015 to 2016, was the following:

- S. Miguel – 52% reduction (from 1.06% to 0.51%);
- Terceira – remained 0.0%;
- S. Jorge – remained 0.0%.

RB51 vaccination was carried out in the island S. Miguel and covered 1216 herds and 17.707 animals.

The BBEP foresee the investigation of positive and infected herds in order to access the origin of infection. In 2016, 21 epidemiological inquiries were carried out.

The main probable causes of infection found were, in order of importance: other origin of possible infection (100%), transumance (33%), and reoccurrence (29%).

Regarding abortions tested for Brucellosis, 29 samples of fetal and 5 placenta were submitted to the NRL all with negative results.

At the end of the 2016, the percentage of free (B3) and officially free (B4) herds was 100% showing a positive progress. The main reasons for attributing a suspended status was due to non-negative results to serology (100%).

Three islands (S. Miguel, Terceira and S. Jorge /2946 tested herds) with no non-brucellosis free herds and two B3/B4 suspended.

No infected animals have been detected since September 2006 at Terceira and since February 2009 at S. Jorge. The last isolation of *B. abortus* in S. Miguel Island was in October 2014. At the 31st December 2016, no herds had an infected status.

Compulsory pre-movement testing registered at 2016 has been applied to 227 herds with the total of 856 animals tested.

There were no human cases of brucellosis in the Azores.

In the Algarve Region and the 6 islands of Azores, all brucellosis officially free, a surveillance programme is carried out for brucellosis in accordance with Article 8 of Directive 64/432/EEC of 26 June 1964.

The BBEP shows a steady progress over the years and at this phase the main difficulties are related to single reactors appearing in herds where epidemiological evaluation indicates no infection and therefore there is a suspicion of being false-positive. A specific procedure is in place to address this problema.

Please see graphs in the annex, regarding the evolution over time of epidemiological indicators and

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vaccinated herds and animals as well as the geographical distribution of infected herds (B2.1) and epidemiological enquiries).

Autonomous Region of the Madeira (RAM):

The Brucellosis eradication programme have not been involved in the bovine brucellosis eradication programme carried out in the country. Some testing were implemented since 2002 with a serology applied to several herds (Rose bengal test) in a non-representative sample of herds and no evidence of this disease was found. Data on production and sampling since 2012 are included in the annex.

3. Description of the submitted programme

Provide a concise description of the programme with its main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence), the main measures (sampling and testing regimes, eradication measures to be applied, qualification of herds and animals, vaccination schemes), the target animal population, the area(s) of implementation and the definition of a positive case.

(max. 32000 chars) :

Objectives and population:

The objective of the current programme is to achieve in the medium term disease-free status for all regions in Portugal. This objective requires the early detection of all cases of disease and its elimination and to maintain the status of herds which are already of the disease. For this purpose it is therefore necessary to ensure the coverage of all population, the rapid elimination of animals identified as reactors, the monitoring of compliance with re-inspection schemes of herds and the control of animal identification and movement.

BBEP programme covers all bovines over 12 months old with the exception of males for fattening provided that they come from officially brucellosis-free herds and that they will not be used for breeding and will go direct for slaughter.

The classification of areas, based on the minimum area of a Food and Veterinary Intervention Division (DAV), is the decisive strategic objective for the implementation of the programme.

In the Continent, BBEP will be implemented throughout the territory except in the Algarve region (officially disease-free).

Regarding the Autonomous Region of the Azores, the programme will continue to be implemented in three islands and vaccination with RB 51 will only continue at S. Miguel.

For the first time, the programme will also be applied at the two islands (Madeira and Porto Santo) of the Autonomous Region of Madeira (RAM) screening all bovine in accordance to the national eradication programme, in order to achieve the officially disease-free status of the disease for RAM. Taken into consideration the results from previous years, the objective is to perform an eradication programme for a period of 5 years (2018-2022).

Activities:

The BBEP is based on the classification of herds through a test and slaughter policy, with compensation to farmers. In some areas RB51 vaccination is applied.

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Data regarding herds, animals and actions on the animals regarding the programme are inserted and managed in a computerized information official system PISA.Net (informatic Programme for Animal Health).

PISA.Net has different profiles of access authorized by DGAV for each interveniente, as follows:

- OPP register all sanitary action on the animals;
- Laboratories register results;
- DSAVR attribute sanitary classification of holdings, impose sanitary restrictions and systematically evaluate and monitorize the work done at different levels;
- DGAV at central level (DSPA) analyses data on the implementation of the programme and also for evaluation and reporting.

Official diagnostic tests are the serological tests Rose Bengal (RBT), as screening test, and the Complement Fixation Test (CFT), as confirmatory test when serial diagnostic is applied.

In line with the objective, serological diagnosis is part of (1) the surveillance activities for maintenance of sanitary status; (2) the eradication measures and validation of absence of infection when applied following detection of a positive animal; (3) to clarify risk situations, when applied in contact holdings following an epidemiological investigation and (4) in pre-movement tests, mandatory for all bovine animals over 12 months of age within 30 days before entering a breeding herd.

ELISA milk test is also used as a diagnostic test in dairy herds under the conditions defined in the current programme.

Bacteriological diagnosis is applied in serological positive animals detected in herds where brucellosis was not yet confirmed (B3/B4 herds). Samples are collected by official veterinarians.

A bovine is considered positive for brucellosis when it is to RBT and has CFT ≥ 20 IU/ml in an indemne and non-indemne herds.

In B2 (infected with last test negative) and B2.1 herds (infected), an animal positive to RBT and/or CFT is considered positive to brucellosis.

A brucellosis infected animal is the one with bacteriological isolation or the one with positive serological results when coming from B2 or B2.1 holding.

An infected herd is the one where infection was confirmed, either through bacteriological confirmation, through epidemiological evidence or when the repetition of tests with positive results does not allow discarding the presence of brucellosis. The investigation of positive herds will be carried out according with the manual of the protocol to investigate the possible false-positive serological reactions. The herds where it was not possible to conduct the investigations to discard brucellosis will be considered as infected. Data on infected herds will be communicated according with article 4 and annex III of Decision 2014/288/UE.

Details of sampling and testing scheme are provided in point 4.4.6.

Classification of herds: following the serologic surveillance, holdings covered by the programme have a health status attributed in accordance with Directive 64/432/EEC of 26 June and Decree-Law No 244/2000 of 8 November 2000. Health status is assigned or amended by the regional official veterinary services DSAVR, and are the following:

- officially brucellosis-free (B4);
- brucellosis free (B3);

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non-disease free, including herds which are undergoing health measures (B2) and infected herds (B2.1 – with isolation of *B. abortus* or *B. melitensis*).

The dynamic assignment, maintenance and change of health status are defined in the programme are described in point 4.4.4.

Measures in case of positive holdings include:

- suspension of status and restriction of movements of animals and products (sequestro); epidemiological investigation;
- procedures for determination of infection when a false serological reaction is suspected, including retesting of positive animals or the herd. In cases where it is possible to discard brucellosis the suspicion is withdrawn and the herd regain the qualification and the herd will not be registered as a positive herd.

Detailed measures are described in point 4.4.9.

Regarding the Autonomous Region of Madeira (RAM), eradication programme will be introduced in 2018 with the aim to have all holdings covered by the programme with a health status attributed, with 2 tests with 6 months interval, in accordance with Directive 64/432/EEC and national legislation. It will be necessary to perform this programme during a period of 5 years.

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme: 2018 - 2018

- Eradication
- Testing
- Slaughter of animals tested positive
- Vaccination

Other, please specify

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4.1.1 Timeline for the eradication

Provide the timeline foreseen for the eradication with detailed justification (max. 32000 chars) :

According to Working Document SANTE/2017/10186, guidelines for the Union co-funded programmes of eradication, control and surveillance of animal diseases and zoonoses for the years 2018-2020, the expected results (targets) will be in 2018 as follows:

- 0.17 % herd prevalence (% positive holdings) - minimum % reduction of 30% when compared to 2015 expected prevalence.
- 0.14 % herd incidence (% new positive holdings) - minimum % reduction of 30% when compared to 2015 expected incidence.

It has to be taken into account that the reduction could be lower, because Portugal is close to the eradication, being the last steps more difficult to manage and to achieve. However it seems possible to achieve the targets foreseen for this programme, with the decrease from 0.22% achieved in 2016 to 0.19% in 2018.

The evolution of indicators at the Autonomous Region of Azores (RAA), suggests that brucellosis have been eradicated in 2010 on Terceira Island and in 2012 in S. Jorge, remaining only in S. Miguel, without infected animals since October 2014. The intention is to prepare the remaining island to eradicate Brucellosis.

The Autonomous Region of Madeira (RAM) will achieve the indemne status in 5 years, if absence of brucellosis is confirmed as expected.

4.1.2 Interim targets in relation to the timeline for eradication

based on herd prevalence and herd incidence at different periods in link with the timeline for eradication (max. 32000 chars) :

Regarding Continent, there are regional differences in the epidemiological situation of bovine brucellosis, there is a stable situation in Centro and LVT, with no isolation of Brucella in 2016. Good progress is also achieved at the Norte while in Alentejo there was an increase in the indicators, with one county with more than 3 infected herds at the end of 2016 (measures to identify and control weak points are being applied).

Algarve Region is officially free and maintains its status.

Regarding the Autonomous Region of Azores, there was an interruption of vaccination in 2016, at Terceira and S. Jorge in order to obtain the status of "Islands officially brucellosis-free bovine" in 2018 (three years after cessation of vaccination as Community legislation). S. Miguel will have to wait until 3-4 years without infected cases and will continue with vaccination.

Regarding the Autonomous Region of Madeira (RAM), taken into account data on the previous years (since 2002) and that the eradication programme will start in 2018, the goal would be to eradicate by 2022.

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It will be difficult to eradicate the bovine brucellosis in the next few years, best efforts are being taken by official and private veterinary services. Being the last step of the eradication more difficult to manage and taking into consideration the need of 5 consecutive years of 99.8% officially free herds, the goal would be to eradicate bovine brucellosis by 2022.

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

Describe the authorities in charge of supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved stakeholders. Explain which actions are taken to actively involve the stakeholders in the implementation of the programme.

(max. 32000 chars) :

Continent:

The General Directorate of Food and Veterinary (DGAV) is the authority responsible for the control and eradication of Bovine brucellosis and its central service (DSPA) is responsible for coordinating and monitoring the programme.

Four Regional Directorates of Food and Veterinary (DSAVR), decentralised services of DGAV (Norte, Centro, Lisboa e Vale do Tejo and Alentejo), are responsible for overseeing the implementation of the various activities under the programme in their area, for the attribution of herd status and the implementation of restrictions in positive herds. DGAV/DSAVR is also responsible for monitoring compliance with the legal requirements arising from the agreements signed with the OPPs.

Most field activities of this programme are implemented by private veterinarians from Livestock Producers Organisations (OPPs) which annually submit sanitary programme to be approved by the official services. There is one veterinary co-ordinator per OPP. Each OPP is assisted by several veterinarians. OPP is responsible for: animal identification, vaccination, blood sampling, computerization of the data in PISA.Net and communication to the regional veterinary services of all irregularities.

Collection of blood samples from animals is carried out by OPP in around 99% of herds and by the DSAVRs or veterinarians employed by them in 1% of herds. The entity that collects the samples is also responsible for submitting them to the laboratory. Sampling during sanitary slaughter is carried out by the veterinary inspector of the DSAVRs.

All laboratories involved in Brucellosis Eradication Programmes are accredited by Portuguese Accreditation Body, called IPAC.

The National Institute for Agrarian and Veterinary Research (Instituto Nacional de Investigação Agrária e Veterinária, I.P., hereinafter - INIAV, I.P.) is the national reference laboratory for food safety, animal and plant health. INIAV, I.P., is the reference laboratory for brucellosis and is responsible for the coordination and technical supervision of the official laboratories and the harmonization of the testing methods used, following guidelines supplied by EURL and OIE Manual. Since 2014, there are two delegations of INIAV performing official samples for brucellosis serology. One is located in the Norte (Vila do Conde) and the other in Alentejo (Évora). These delegations execute Rose Bengal Test (RBT) and Complement Fixation Test (CFT). Brucella Bacteriological examination and typing of Brucella are only performed at NRL at central level and the results are communicated electronically to DGAV.

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In the continent, there are 7 private official Laboratories as follows:

- SEGALAB – Laboratório de Sanidade Animal e Segurança Alimentar (Animal Health and Food Safety Laboratory), SA;
- PROLEITE – Cooperativa Agrícola de Produtores de Leite, C.R.L. (Dairy producers' cooperative);
- The Union of ADS (Health Protection Groups) Laboratory in Viseu District (private);
- LMV - Laboratory of Veterinary Medicine;
- ASSISVET;
- COPRAPEC - Veterinary laboratory of Montemor-o-Novo;
- ACOS – Association of sheep farmers in southern Portugal.

All above mentioned laboratories carry out serological tests (RBT, CFT and iELISA) and issue the results in PISA.Net.

Regarding the activities implemented by the NRL to effectively monitor and control the technical competence of such official laboratories, Quality Assurance Office (QAO) of INIAV, since September 2010 advised them to participate in PT0015 “Brucella abortus CFT”, PT0020 “Brucella abortus RBT and PT0018 “Brucella abortus milk ELISA” organized by VETQAS (APHA Scientific) and their results are monitored by QAO.

VETQAS's a APHA's independent, accredited, proficiency testing service provided by the APHA's Quality Assurance Unit (QAU). Recognised by national accreditation bodies, it is ISO/IEC 17043 accredited and is a market leader in the provision of proficiency tests schemes for veterinary laboratories, with over 30 years' experience.

NRL provides technical training for staff either for initial qualification or for requalification on RBT, CFT and ELISA techniques. NRL provides official Labs with Positive Control Serum for RBT and CFT techniques.

Bovine producers and traders have the responsibility to provide access and provide the necessary means to carry out the necessary interventions on the animals, to comply with the rules on identification and animal movement, to allow loading and transport for slaughter of positive animals and to comply with the movement restrictions and depopulation periods imposed following total slaughter. They have the right to compensation for the value of their animals compulsorily slaughtered or culled provided that they fulfill their responsibilities under the applicable legislation.

Autonomous Region of Azores:

The authority responsible for coordinating and monitoring the Bovine Brucellosis Eradication Programme is the Regional Directorate of Agriculture, via the Directorate for Veterinary Services. The implementation of measures is co-ordinated on each island via a veterinarian who is a Head of Division or Head of the Veterinary Service Sector of the Agricultural Development Service of the island, who may request cooperation from veterinarians from other bodies. The measures under the plan are implemented by technicians from the agricultural development services of the different islands.

Since 2016, in S. Miguel Island, the Official Services have protocols firmed with Farmers Associations and are those private veterinarians that perform the blood tests and vaccination, unless in positive herds, that is performed by Official Veterinarians. Serological diagnostic testing, milk ELISA testing and bacteriological examinations for the isolation, identification and typing of Brucella are carried out in the LRVA - Regional Laboratory of the Autonomous Region of the Azores.

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Autonomous Region of Madeira:

The authority responsible for coordinating and monitoring the Brucellosis Eradication Programme is the Regional Directorate of Agriculture (DRA), via the Directorate for Food and Veterinary Services (DSAV), unit from DRA. Blood samples will be collected by DSAV and data will be introduced in PISA.Net. The Regional Laboratory of Veterinary and Food security of RAM (LRVSA) is authorized by DGAV to perform RBT while FCT and bacteriology are carried out by INIAV (Instituto Nacional de Investigação Agrária e Veterinária, I.P.).

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

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

(max. 32000 chars):

The eradication programme will be implemented to the whole continental territory of Portugal with the exception of Algarve, which has officially disease-free status. The area covered by the Regional Directorate Food and Veterinary of Algarve (DSAVRALG), corresponding to the geographical area of the district of Faro, is therefore excluded.

Regions covered by the programme are identified in the attached document (map) and are the following:

- Regional Directorate Food and Veterinary of Norte (DSAVRN);
- Regional Directorate Food and Veterinary of Centro (DSAVRC);
- Regional Directorate Food and Veterinary of Lisboa e Vale do Tejo (DSAVRLVT);
- Regional Directorate Food and Veterinary of Alentejo (DSAVRALT).

In the Autonomous Region of Azores (RAA) the programme will be implemented in three of the nine islands of the Azores:

- S. Miguel;
- Terceira;
- S. Jorge.

The eradication programme will be implemented at the Autonomous Region of Madeira, at two islands:

- Madeira;
- Porto Santo.

4.4 Description of the measures of the programme

A comprehensive description needs to be provided of all measures and detailed reference must be made to Union legislation. The national legislation in which the measures are laid down is mentioned.

4.4.1 Notification of the disease

(max. 32000 chars):

Brucellosis is a notifiable disease since 1953 and appears the annex of Decree Law No 39:209 of 1953.

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The requirement to notify is reinforced by Decree-Law No 244/2000 of 27 September. Disease treatment is strictly prohibited.

Laboratories approved by DGAV to perform diagnostic tests notify veterinary services and insert serological results in PISA.Net.

Notification of abortions in female bovine, ovine and caprine animals by the owners is considered in article 7 of Decree-Law No 244/2000 of 27 September. The notification must give rise to an epidemiological investigation and the collection of material for bacteriological diagnosis. Ministerial Implementing Order 178/2007 with the last amendments, also requires producers to report abortions occurring in females of the bovine, ovine and caprine species on their holdings to the OPP veterinarian. The veterinarian is responsible for identifying risks and informing DGAV. The procedural rules for collecting and sending material from abortions to the laboratory were drawn up jointly by the DGAV and the INIAV and are published on website.

INIAV, as NRL (pursuant to article 4(c) of Decree-Law 244/2000 of 27 September 2000), carries out bacteriological diagnostic tests and sends out the results to DGAV. An investigation is carried out on the holding of origin in response to positive results on testing for Brucella.

Health classification of a herd is suspended following notification of a positive serology or a positive result in investigation of abortions and appropriate measures are carried out. These procedures are described in the guidelines for bovine brucellosis, named as "Manual de apoio às estratégias de controlo da brucelose bovina", published at DGAV website.

SNIRA database is also updated when requirements for maintaining a herd's disease-free or officially disease-free status are not met, allowing the stop of movements between holdings.

4.4.2 Target animals and animal population

(max. 32000 chars):

BBEP programme covers all bovines over 12 months old with the exception of males for fattening provided that they come from officially brucellosis-free herds and that they will not be used for breeding and will go direct for slaughter.

In non-disease free herds all bovines over 6 months old are checked.

In officially disease-free herds the age of the bovines to be checked is determined depending on the epidemiological indicators of the region and the respective risk assessment.

Animal population for the BBProgramme in the Autonomous Region of the Azores also covers all female bovines over 12 months of age and all breeding males in herds on the islands of S. Miguel, Terceira and S. Jorge. Although herd coverage is less than 100% where serological checks are concerned, Milk ELISA tests are conducted on all holdings on the island of S. Miguel and on Terceira and S. Jorge.

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4.4.3 *Identification of animals and registration of holdings including detailed reference to relevant Union legislation and its implementation in the Member State for this disease*

(max. 32000 chars) :

Decree-Law No 142/2006 of 27 July 2006 and its amendments, regulates the National Animal Information and Registration System (Sistema Nacional de Informação e Registo Animal - SNIRA) and lays down measures for the identification, registration and movement of bovine animals, with specific regard to the accompanying documentation required. SNIRA for bovine consists of three essential elements, namely:

- Ear tags for individual identification of animals;
- Individual passport mandatory only for animals intended for intra-Community trade and animals exported to third countries;
- Updated registration of movements per holding extracted from the database;
- National computerised database (SNIRA) with holding registration and each animal and its movement, which is the base of updated farms registration.

All bovine holdings are identified with a unique holding code (ME), attributed by DGAV and are recorded in SNIRA database. This thus contains all cattle producer and their premises and animals.

The bovine passport (PB) is issued only for bovine animals intended for intra-Community trade and animals exported for third countries. The PB has the registration of the identity of the animal, the current holding, the holdings where the cattle went by and the health status of the herd.

All bovines are identified with a unique number applied to the animal in two ear tags, one in each ear. Ear tags are attributed to the holdings, officially authorized, and the respective keeper is responsible for this identification and as well to communicate to SNIRA database the birth of any animal within 7 days from the date of identification. Identification is mandatory and can not exceed 20 days from the date of birth of the animal.

4.4.4 *Qualifications of animals and herds including detailed reference to relevant Union legislation and its implementation in the Member State for this disease*

(max. 32000 chars) :

As already mentioned, all holdings covered by the programme have a health status in accordance with Directive 64/432/EEC of 26 June 1964 and Decree-Law No 244/2000 of 8 November 2000.

The existing health status for holdings are:

- B2 - not free
- B3 – free (if there are vaccinated animals for less than three years ago).
- B4 - officially free

And in complement:

- B2.1 - when isolation of Brucella is officially confirmed, post mortem or other.
- B 3S - suspended free status
- B 4S - suspended officially free status

According to national legislation an epidemiological unit can be a holding or a group of holdings and this classification will be decisive for the preparation and implementation of the programme. These concepts apply uniformly throughout the mainland.

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This health classification is maintained or changed, according to the criteria set out at the legislation and guidelines ("Manual of procedures for herd classification, regarding bovine brucellosis, tuberculosis and leukosis and sheep and goat brucellosis").

Herds are considered as "Officially Free of Bovine Brucellosis" (B4) if:

- the testing programme has been completed;
- there are no vaccinated bovines, with the exception of females vaccinated at least three years ago;
- all bovines over 12 months old which entered into the herd from another herd with the same status tested negative in RB and CF tests (pre-movement tests) 30 days prior to their introduction to the herd of destination, in accordance with the rules set out in the relevant manual produced by the DGAV.

The status of "Brucellosis-Free" (B3) is attributed to herds which meet the requirements for B4 status, but which include females vaccinated less than three years ago.

B3 and B4 status may be maintained in accordance with the methodology described in point 4.4.6.

Disease-free and officially disease-free health statuses are suspended (B3S, B4S) in the following situations:

- Following a positive serological test;
- As a result of the detection of brucellosis following an abortion notification;
- If the Epidemiological Inquire (EI) reveals the possibility of infection;
- When there are no conditions for the herd to be classified as free or officially disease-free (whenever the plan is not being fulfilled);
- For any other reason considered relevant to the strategy against brucellosis by the veterinary services.

B3 and B4 health status are regained whenever:

- following the slaughter of animals with positive results (CFT), two serological tests were carried out with negative results on all animals over 12 months old (the first serological test 30 days after slaughter and the second 60 days after the first), and bacteriological results of the samples taken during slaughter were negative.
- in other cases of suspension, where two negative serological checks were carried out on all animals over 12 months old, at an interval of at least 60 days.

B3 and B4 health status are withdrawn wherever the presence of *Brucella* is confirmed through its isolation in a bacteriological examination of samples taken from sanitary slaughter or life in suspect animals. The herd is then classified as non-disease-free, infected (B2.1)

Infected herds (B2.1) are considered non disease-free, or undergoing health measures (B2) when they have obtained negative results in two successive serological tests carried out to all cattle over six months old, with the first check being carried out 30 days after the slaughter of the last animal which tested positive, and the second 60 days after the first.

B2 herds regain B3/B4 status if they obtain negative results in two successive serological tests, with a minimum interval of 3 months, performed to all bovine animals over six months of age.

The method for attributing, maintaining and altering the health status set out in the programme is presented in the attached document (flowchart on sanitary classification).

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4.4.5 Rules of the movement of animals including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

Please detail also the rules existing for transhumance and common grazing areas, if any.

(max. 32000 chars):

Decree-Law No 142/2006 of 27 July 2006 and its amendments, lays down measures for the monitoring of movements of bovine animals.

When cattle are transferred from one holding to another, or when they are destined directly for a slaughterhouse they must be accompanied by a movement document (named as "Guia de circulação") currently issued from the SNIRA database according to health classification or the health status of holdings involved.

There is a web service between SNIRA and PISA.Net used to validate the movement. The kind of movement authorized, the document that is necessary, who can obtain it and the conditions for each movement, were previously fixed and are part of the informatics system validation. The system is prepared to emit alerts that will help veterinary official services to perform control activities.

The movement document can therefore be obtained directly from the online system by the animal Keeper or at the information collection points located at the Official Veterinary Services (OVS) or at Agricultural Confederations reception desks.

Despite the emission of the Movement document ensures the movement's registration on the SNIRA database, the Keeper of the holding of destination must notify the computerised database of the entrance of the animal within the period of 7 days, and this procedure is mandatory to update the information in the system.

Irregularities to animal movement rules are detected either during visits to the farms or through reports of SNIRA database and infractions are subjected to administrative offense.

In order to support the maintenance of B3 and B4 status, animals entering the holding must come from holdings with B3 or B4 status (to B4 they must be unvaccinated animals) and subject to pre-movement testing up to 30 days before entry (combination of the RBT and CFT serological tests). Procedures for the implementation of pre-movement tests at national territory are published at DGAV website.

Due to the favorable epidemiological indicators of the Azores, in this region the pre-movement tests (TPM) can be exempted when the movements are within the island, after a case-by-case assesment.

Animal movement of herds under surveillance and there are several controls in place, for the herds due to contacts or epidemiological links with infected holdings, such as:

- Whenever links are identified, related holdings are subject to restrictions (or even considered the same epidemiological unit if contacts are regular);
- Restricted holdings are blocked in the computerised database that issues movement permits, therefore animals are not authorized to move, except directly to slaughterhouse;
- As contact herds are investigated by serology, data on field work is entered by OPP on PISA.net,

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allowing DSAVR to control the compliance with the rules through the registered checking's and verify the number and identification of animals present in the holdings.

4.4.6 Tests used and sampling and testing schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease (including herd frequency per region, animal coverage in each herd, interpretation rules of the test,...)

*For bovine tuberculosis, please detail how the quality/reliability of the skin-testing is ensured/verified (training and supervision of field veterinarians, recheck of some officially-free herds by the official veterinarians, quality insurance system in force if any, etc. ...)
Please detail also how the surveillance of bovine tuberculosis is monitored in slaughter houses (Training of vets, monitoring of the lesions submission rates and positivity rates, link with the field vets in case of positive results, etc. ...)*

(max. 32000 chars):

Laboratory testing procedures are carried out in accordance with Directive 64/432/EEC of 26 June 1964 and its amendments and national Decree-Law No 244/2000 of 27 September 2000.

The organization of sampling within BBEP takes into account the following aspects:

- Percentage of infected cattle herds with bovine brucellosis does not exceed 1% of herds in the all country;
- Requirements for the Enzootic Bovine Leucosis programme - only serological testing by sampling is required in most regions of the country, as they are officially Enzootic Bovine Leucosis-free;
- Certain DAV (Food and Veterinary Health Divisions) have at least 99.8% of cattle herds free and officially free of brucellosis over the past 4 years (Aveiro, Viana do Castelo, Viseu, Porto, Alentejo Litoral, Castelo Branco, Coimbra, Guarda, Setúbal, Alentejo Central, Braga, Bragança, Leiria and Oeste).

The serological tests used are Rose Bengal (RBT) and Complement fixation test (CFT) and the methodology to be applied depends on the health status of the herds, as follows:

1- In B4 and B3 herds:

a) Procedures to maintain the health status: samples are taken from all animals over 12 months old, except in the DAVs of Aveiro, Viana do Castelo, Viseu, Porto, Alentejo Litoral, Castelo Branco, Coimbra, Guarda, Setúbal, Alentejo Central, Braga, Bragança, Leiria and Oeste), in which samples are taken only from animals over 24 months old;

All sera submitted undergo RBT;

All bovines RBT positive undergo CFT;

If at least 1 animal positive RBT test positive to CFT, DSAVR can decide, based on the risk assessment for the region, to require the submission to CFT of all the remaining sera sampled (of the same blood collection). If necessary the False positive reaction protocol is used.

Regarding the Autonomous Region of the Azores, in the Islands at the pre-eradication stage were isolation of Brucella is not obtained for several years, the programme provides for the possibility of application of a false positive reaction investigation protocol with re-testing animals from B3 or B4 herds after 30 days, wherever animals identified as positive are isolated and provided that the risk assessment reveals a very low risk of infection.

b) Procedures for the pre-movement testing:

Samples are taken from all animals over 12 months old which are to be introduced

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in the herd;

The diagnostic tests used are RBT and CFT.

2 - In B4S and B3S herds:

In B4S and B3S herds samples are taken from all animals over 12 months old and all sera submitted undergo testing with RBT and CFT. The occasions are:

- a) Following slaughter of a positive animal;
- b) As a test for the purposes of withdrawal of suspension;
- c) As a risk assessment test (TAR) – this test is used for non-free or non-officially free herds moving negative animals to fattening herds with a special status (E2), accepting these animals for fattening and sending them only to slaughter.

3 - In non-brucellosis free herds (B2 and B2.1):

In B2 and B2.1 herds samples are taken from all animals over 6 months of age and all sera submitted undergo to RBT and CFT.

- a) Following slaughter of a positive animal in B2.1 infected holding the first check is carried out 30 days after and the second 60 days after the first. If the results of both tests are negative, the herd obtains the status of non-brucellosis free undergoing health measures (B2);
- b) As a test for regain of status B3 or B4 - following the checks referred to in a), two serological checks are carried out at an interval of three months on all animals over six months old. If the result of these two checks is negative, the herd obtains the status of disease-free (B3) or officially disease-free (B4);
- c) As a risk assessment test (TAR).

4 - In herds with animals to be vaccinated, samples are taken at the time of vaccination for the purpose of serological tests to be applied in accordance with the herd status.

Milk ELISA test in ELISA test in milk is used for the purposes of maintaining health status B3 and B4 in dairy herds:

Two Milk Elisa tests are carried out each year at an interval of at least three months, with a serological check also being carried out at the time of the first sampling on all breeding males and all females not yet lactating, including heifers and replacement females. The second check to e carried out (at least three months after the first) consists simply of a Milk ELISA test.

Milk ELISA is not applied in the following situations:

Where the DSAVR has previously determined that the conditions for the collection of milk samples are not met;

In herds of the DAV Porto, since this region is not yet free of EBL, therefore serum sample collection is compulsory;

In municipalities subject to serological checks in order to maintain the region's status as EBL- free;

In the Continent, the list of farms selected for the application of milk ELISA test for the screening of brucellosis is cross checked with the data available in PCOL (the official milk control plan) on the farms supplying the dairy industry. This list is also checked with the one presented in the sanitary programme of OPP;

Along the year, information is exchanged between local veterinary services and OPP to allow the exclusion of the list of the farms that are no longer in compliance with the requirements.

The farms are excluded from the list of holdings that can undergo milk ELISA when the following situations are detected by the OPP:

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Changes in the animals present in the farm;
Detection of non-compliance of the rules for the introduction of animals in the farm;
Presence of brucellosis outbreaks in the neighboring farms;
Lack of conditions for the collection of milk samples in all the milk tanks of the farm;
Difficulties in the individual identification of all the cows related with each milk container.

When the above mentioned conditions are detected, serological tests are carried out in all the animals in the farm and the OPP reports to the Regional Veterinary Services the reason for the option for the blood sampling methodology.

Regarding the Autonomous Region of the Azores, as a survey test, Milk ELISA tests are conducted every quarter at all holdings of S. Miguel, Terceira and S. Jorge. Positive results are evaluated case by case. Milk sampling in the dairy tanks is carried out by specific services named "SERCLA" (Classification Service Officer RAA Milk). Sampling are carried out quarterly in order to ensure that in the sum of sampling, there will be more than 30% of dairy cows in milk from each farm. ELISA test is used as a complementary screening test and all cows under the programme are serologically (individually) tested.

Bacteriology

Bacteriology is an important tool to confirm infection, used in the decision process to define the status of the holdings and is routinely applied to sanitary slaughtered animals from herds where infection is not yet confirmed (all non B.2.1 holdings). Isolation of Brucella is also followed by typing.

Sampling for the above-mentioned tests and examinations is based on the procedures of the DGAV and INIAV, I.P..

Regarding the Autonomous Region of the Azores, bacteriological investigation is carried out in all cases of sanitary slaughter.

Brucellosis Skin Test (BST)

Procedures with the use of the Brucellosis Skin Test (BST) will be carried out as a complementary diagnostic test, within the protocol of investigation of False Positive Serological Reactions (FPSR) in specific geographical areas.

The accreditation status of the laboratories performing the Brucellosis eradication programmes testing, is published in DGAV website "List of the approved laboratories".

4.4.7 Vaccines used and vaccination schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

Explain also how the vaccination coverage is monitored by the official authorities

(max. 32000 chars):

Vaccination is considered a useful tool for brucellosis control as it increases herd immunity and decreases environmental contamination. Vaccination with RB51 can only be introduced in a farm once a written compromised is established (protocol) between the official veterinary services (DSAVR) and the farmer with the participation of the private veterinarians of the OPP, where measures to be undertaken are laid down in order to control the Brucella infection in the herd. The protocol includes the vaccination strategy of young and/or adult animals among other measures (such as the schedule of testing, the herd health management, sanitary practices, animal movements, animal identification, etc) and it clearly refers that the entities involved are obliged to fulfil the written responsibilities during the minimum

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period of 5 years. Procedures to this regard are detailed at the published at DGAV website “Manual de Apoio às Estratégias de Controlo da Brucelose Bovina”.

Commercialization and vaccine application against bovine brucellosis at national territory is under DGAV authorisation. Vaccination consists on the administration of 2 ml dose of vaccine (corresponding to 10 - 34 x 10⁹) UFC of RB51 micro-organisms), by subcutaneous via, in the side of the neck. Male bovines are not vaccinated.

Vaccination is exclusively carried out in the epidemiological units defined in the special vaccination programmes. These programmes describe the measures to be taken, in particular the timetable for testing, health management of the herd, movements of animals into and out of the herd, animal identification, the vaccination strategy (young and/or adult animals) and any other information considered necessary. The necessary requirements to stop vaccination in particular areas depend on the favourable evolution of the epidemiological situation at the epidemiological units and it includes the following:

- No positive herds for the last 3 years;
- No clinical or other sign of Brucella infection.

For the following epidemiological units vaccination programmes with RB51 vaccine will continue to be implemented:

- RAA: islands of São Miguel;
- DSAVR Norte: counties of Montalegre and of Ribeira de Pena and contiguous parishes;
- DSAVR Alentejo (in certain units).

Please see graphs of BB vaccination at the attached document.

1. Vaccination at the DSAVR Norte:

Vaccination will be registered in PISA.Net.

On B3 or B4 holdings which through an epidemiological investigation a relationship with an infected herd are identified, vaccination will be carried out depending on the risk assessment.

- High risk - vaccination of all replacement females from 4 months old and non-pregnant adult females.
- Low risk - vaccination of young replacement females between 4 and 12 months of age.

At herds classified as non disease-free (B2),disease-free suspended (B3S) and officially disease-free suspended (B4S), vaccination of all female breeding from 4 months of age will be performed, independently of their state of pregnancy.

1.1 Vaccination programme at Montalegre and contiguous parishes of the County of Vieira do Minho (Campos, Vilar Chão, Anjos, Pinheiro, Ruivães and Cantelães) can also be extended to other contiguous parishes, if justifiable. Actions of the programme will be performed by the following OPP:

- Mútua de Basto, Vieira do Minho, under the supervision of DAV of Braga.
- Coopbarroso, Association of Bons e Valentes, under the supervision of DAV of Chaves-Mirandela.

Being the Montalegre municipality a cross border region, dominated by two breeds with designation of origin, the “barrosão” and cross-breed beef of “Lameiro” (DPO), the implementation of this programme is necessary in order to ensure the preservation of genetic heritage.

Depending on the evolution of the epidemiological situation at the different holdings revaccination of adult females and young, passed 6-12 months can be determined.

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1.2. Vaccination programme at the municipality of Ribeira de Pena and in some contiguous parishes of the municipalities of Vila Real, Boticas, Mondim de Basto and Cabeceiras de Basto can also be extended to other contiguous parishes, if justifiable.

Actions will be performed by the OPP of Boticas e Mútua de Basto, under the supervision of DAV of Vila Real and Douro Sul, Chaves-Mirandela and Braga.

The intention of this vaccination programme is to ensure the preservation of the genetic heritage of "Maronesa" breed, a local breed predominantly for meat (meat is a DOP product that must be protected and maintained).

The programme will cover all existing bovine animals from:

- Municipalities of Ribeira de Pena;
 - Parishes of Lamas de Olo, Vila Marim, Vila Cova e Pena (municipality of Vila Real);
 - Parishes of S. Salvador do Viveiro, Alturas do Barroso, Covas do Barroso and Vilar (municipality of Boticas);
 - Parishes of Atei, Ermelo, Bilhó, Campanhó, Vilar de Ferreiros and Pardelhas (municipality of Mondim de Basto);
 - Parishes of Cabeceiras de Basto, Abadim, Rio Douro, Vilar de Cunhas, Gondíães and Cavez (municipality of Cabeceiras de Basto).

2. Vaccination at Alentejo Region

The vaccination plan which began in 2008 is applied across Alentejo Region (DSAVRALT) with the exception of the municipalities of Cuba and Alvito in which other specific plan of vaccination is in place. Since the introduction of vaccination on the region, there has been an improvement of the disease.

Vaccination will be applied according to the following schedule:

- Primo-vaccination to all heifers with more than 4 months of age and revaccination to young females 6 to 12 months after the first inoculation;
- After this first vaccination, annual vaccination with one inoculation to all replacing young females between 4 and 12 months age.
- Adult and young females introduced into the herd will be vaccinated at the entrance.

3. Vaccination at the Autonomous Region of Azores

In the RA Azores, vaccination began in 2001, in all females of the holdings from, the three islands. After all effective vaccinated, only replacement females from 4 months old are vaccinated at S. Miguel island. Terceira and S. Jorge islands stopped vaccination at the end of 2015, almost 10 and 7 years after the last case of infection in Terceira and S. Jorge, respectively. In S. Miguel island, as already described, its planned to stop vaccination in 2019, 5 years after the last infected case

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

Please detail also the situation as regard to this disease in the wildlife, and explain the surveillance and control measures in wildlife if any, and the coordination between the stakeholders involved (hunters, farmers, official service labs, vets, etc ...)

(max. 32000 chars) :

During epidemiological inquiries, farmers are faced with a range of questions related to biosecurity measures and management which have also informative and educational purposes. Subjects as

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management of pregnant animals, use of pastures, risk on sharing equipment, and the scope for direct or indirect contact with other herds are referred.

The notification to the owner related to sanitary "sequestration" contains instructions related to cleaning and disinfection of the stables and outbuildings, areas and loading points of the materials or substances from animals or been in contact with them, as well as containers, utensils and other objects used by animals.

There are also at the web site "codes on good practices on farms" describing biosecurity measures and management, produced by agricultural associations in cooperation with the DGAV.

4.4.9 Measures in case of a positive result including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

A description is provided of the measures as regards positive animals and detailed reference to the Union legislation provisions (slaughter, destination of carcasses, use or treatment of animal products, the destruction of all products which could transmit the disease or the treatment of such products to avoid any possible contamination, a procedure for the disinfection of infected holdings, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter. A definition of a suspicion and of a confirmation should be provided, with detailed measures implemented in both situation and how the herd is requalified as free after a positive result. Detailed information should also be provided as regard the epidemiological investigations done, and the additional laboratory tests foreseen (culture, PCR, IFGamma, etc ...). Please mention if national guidelines are available.

(max. 32000 chars) :

Whenever there are positive results in B4 and B3 herds, health status is suspended by the regional veterinary services (DSAVR) which notifies the animals keepers on the results obtained and the imposition of restrictions on movement (sequestration). DSAVR decides if the pattern of results and information available sets the grounds for the application of the protocol of investigation of positive serological reactions. In cases where this protocol is not applicable, DSAVR sets procedures such as marking of animals intended for sanitary slaughter, and transport and slaughter which are undertaken under official responsibility. Keepers are compensated.

General measures are the following:

a) In B4S, B3S, B2 or B2.1 herds, farmers are informed by the Oficial Veterinary Services (OVS) of the results obtained, the animals intended for sanitary slaughter are marked, transported and slaughtered. After 30 days following sanitary slaughter all animals over 6 months of age are sampled. The results of serology and the results of the bacteriological examinations of the samples collected from slaughtered animals determine the implementation and frequency of subsequent checks, as well as whether the status is maintained or amended.

b) Prohibition on moving susceptible animals to and from holdings by imposing a quarantine wherever animals with a positive reaction are identified in disease-free or officially disease-free (B3, B4) herds. This restriction remains in place until the herd has regained its status. Consequently all B4S, B3S, B2 and B2.1 herds are under restrictions (sanitary sequestration).

c) Compulsory slaughter (sanitary slaughter) of all animals testing positive under the supervision of the OVS and with appropriate compensation for their owners; animals are slaughtered no later than 30 days following official notification of the owner. For 2018, we intend to maintain the objective of having 75% of animals slaughtered no later than 15 days after their owners are officially notified. In herds confirmed as being infected (B2.1) animals which test positive in the RBT (reactor animals) are also subject to slaughter on health grounds, provided that the same inspection reveals the presence of at least one

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animal testing positive in the CFT. In these herds female offspring of positive or reactors females will be also slaughtered. The destination of the carcass is determined by the sanitary inspector of the slaughterhouse, depending on the lesions observed. DSAVRs enter data on slaughtered animals in PISA. Net and inform the OPPs so that these may assist with the subsequent checks.

d) After animals from an infected holding have been unloaded in the slaughterhouse, the means of transport are cleaned and disinfected with officially approved disinfectants in line with the codes of good practice defined.

e) Upon the imposing of restrictions in infected farms, specific recommendations for cleaning and disinfection are issued by the official veterinarians and OPP veterinarian provides the verification of compliance with these requests. Lifting of restrictions is conditioned to this control of cleaning and disinfection.

f) In order to clarify positive results, samples are always taken from animals subject to sanitary slaughter for the purpose of laboratory (bacteriological) analysis, except where they come from infected herds (B2.1).

g) Payment of compensation for sanitary slaughter of animals.

h) On imposition the sanitary sequestration, the herd owner is instructed to clean and disinfect sheds and annexes, loading areas and places, materials or substances derived from the animals or that have been in contact with them, and the containers, utensils and other objects used by the animals. In herds confirmed as infected, the owners are instructed in order to:

- Ensure that milk from positive animals may only be used by animals from the same holding after undergoing suitable heat treatment, in accordance with Regulation (EC) No 853/2004 of 29 April 2004;
- Ensure that milk from negative animals is prevented from leaving the holding, except where it has undergone suitable heat treatment, in accordance with Regulation (EC) No 853/2004 of 29 April 2004;
- Immediately destroy foetuses, stillborn animals and placentae, unless they are to undergo laboratory analysis;
- Destroy by incineration or burial, after treatment with officially approved disinfectant solution, the straw, bedding and any other materials or substances that have been in contact with infected animals or placentas;
- Prevent the use, without appropriate treatment, of manure from infected sheds or any other quarters used by the animals;
- The grazing areas where infected animals were kept may not be used within 60 days in winter or 30 days in summer, though it is recommended that the depopulation period should never be less than 180 days;
- A system is established for the verification of cleaning and disinfection by OPP or the official veterinarian, after the slaughter of positive animals or after total slaughter, prior to reintroduction of animals.

i) An epidemiological investigation carried out systematically wherever the presence of Brucella is confirmed through isolation thereof in a bacteriological examination. This is identified as one of the main issues in the eradication of brucellosis. As a rule, all infected holdings are subjected to epidemiological investigation. Efforts are being done in order to increase capacities of regional official veterinarians, and to reach conclusions on possible sources of infection. Positive holdings where single

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serological reactions occurred, with no further evidence of brucellosis (negative testing, absence of contacts or introduction of animals), sometimes are not subjected to investigation, due to human resources difficulties. OPP veterinarians are also involved in the epidemiological evaluation of holdings.

The programme's objective is to be carried out this survey within 15 days of the result being made available. Further detail regarding epidemiological investigations done in case of outbreak and detailed procedures to support measures in order to control the disease are described at the guidelines named as «Manual de apoio às estratégias de controlo da brucelose bovina», published at DGAV website. It includes the epidemiological inquiry carried by the local veterinary services (mod 794/DGAV). The IE requires the characterization of the holding, the investigation of possible sources of infection including introduction of animals, contacts at pasture and possible contacts with wildlife. It also investigates all herds that have contacts with the herd in question.

Non-compliances identified are subjected to penalties and contact herds have to be controlled.

j) In addition to these measures, and following the epidemiological surveys carried out by the DSAVR, any herd from which animals have been in contact (whether out in the pasture, during milking or under other circumstances) with animals from herds in which brucellosis has been diagnosed will be treated as suspect and will undergo serological diagnostic testing within 30 days. A similar procedure must be followed in herds in which abortions have occurred for unknown reasons, together with any symptoms that might lead to infection with brucellosis being suspected.

k) The follow up of positive herds starts 30 days following sanitary slaughter - all cattle in the herd over 6 months of age undergo a serological check. The result of this check and the result of the bacteriological examinations of the samples collected during the slaughter on health grounds determine the implementation and frequency of subsequent checks, as well as whether the status is maintained or altered.

l) The use of depopulation (total slaughter) of outbreaks, when necessary, is laid down in article 12th of Decree-Law 244/2000 of 27 September. Depopulation is an important strategy for the areas not covered by the special programmes. Taken into consideration the financial restrictions, this strategy is analysed on cost/benefit terms and this measure is taken based on the risk assessment of specific situations, according to the following criteria:

- When there is no improvement in the health qualification of an infected herd or an epidemiological unit, in the last 12 months;
- When *Brucella* has been isolated;
- When, in certain epidemiological conditions of a geographical area, it is the most appropriate measure to improve the situation;
- When it is not possible to implement any other prophylactic animal health measure.

The proposal for depopulation, which is a sanitary decision performed by official veterinary regional services (DSAVR), is always followed with two documents:

- The epidemiological inquiry;
- An expressed commitment of the owner regarding its compliance with the “waiting period before restocking” and with the expressed conditions for restocking.

m) Owners are committed to perform cleaning and disinfection of holdings and equipment, in accordance with the instructions of DSAVR after depopulation and before the entry of new animals. These procedures are supervised by the OPP and validated by the DSAVR. Pastures used by infected animals can not be used before for 60, or 30 days according to weather conditions (winter or summer respectively) however, it is advised that the waiting period should not be less than 180 days.

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Details on procedures are laid down on guidelines “Procedimentos de trabalho PT/BB07 – serologia positiva/suspeita de infeção/abate total do efetivo”.

n) In certain regions of the continent where large farms exist in extensive regime (Alentejo) and regions where indigenous breeds of cattle are concentrated, efforts have been made to implement strategies as the special vaccination programmes, since otherwise depopulation option would entail high costs and the risk of losing genetic heritage, which could endanger the sustainability of certain indigenous breeds.

Forecasts made for 2018 were based on data related to the previous years, namely in 2015 and 2016 with a rate of depopulation of zero percent. However we are aware of the benefits of this measure in areas with low prevalence and will consider its application case by case

Expenditure related to depopulation, as described at point 8, indent 5, includes: slaughter, average cost per km travelled between the holding and the slaughterhouses, costs of destruction of carcasses, cleaning and disinfection of vehicles.

4.4.10 Compensation scheme for owners of slaughtered and killed animals

(max. 32000 chars):

The relevant compensation is paid to the breeder pursuant to Implementing Order No 205/2000 of 5 April and Joint Order No 530/2000 of 16 May 2000.

The compensation payable is calculated as the sum of several indices according their applicability to each case (Compensation scheme is referred at the attached document).

In cases of slaughter of an entire herd (depopulation) the compensation paid relates not only to positive and reactor animals but to all exposed and cohabiting animals, too.

In Autonomous Region of Azores the compensation for the slaughter of animals is awarded in accordance with the provisions of regional legislation of the Regional Secretariat of Agriculture and Forests of the Regional Government, published annually. The same will be applied to the Autonomous Region of Madeira.

4.4.11 Control on the implementation of the programme and reporting including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

Please indicate also when the last FVO audit has taken place and provide a table listing the recommendations and the actions taken by the national authorities to this regard.

Please mention if a Task Force subgroup visit has taken place and the state of play as regards the implementation of the recommendations suggested if any.

(max. 32000 chars):

The different entities with intervention in the programme, have well defined profiles in PISA.Net for data recording, enabling the DSAVRs to systematically evaluate and monitorize the measures taken at different levels.

Supervision and control measures are implemented at various levels (regional and local and private vet),

Standard requirements for the submission of programme for eradication, control and monitoring

in order to control implementation of the programme's rules which have a decisive impact on changes in the health status of herds, the reduction of infection levels, the rapid detection of positive and reactor animals and their removal from the holding.

Those control measures will be defined at «multiannual control plan 2018-2020» for bovine tuberculosis, bovine brucellosis and sheep and goat brucellosis, prepared in accordance with Regulation (EC) No 882/2004 of the European Parliament and of the Council.

The definition of the information circuits and respective destinations also monitors and standardises the quality of the information produced.

OPP are therefore controlled by DSAVR:

1. At the beginning of each annual programme, when the proposal is analysed to verify its compliance to the programmes;
2. During the implementation of the programme through:
 - Monitoring the sanitary actions performed and its compliance to the programmes;
 - Monitoring the samples sent to the laboratories;
 - Monitoring the data inserted in PISA.net database;
 - Official on-the-spot controls to a selected sample of OPP, including checks to their field work.
3. At the end of the year, with the final detailed verification and evaluation of the work carried out by each OPP;
4. Through control measures that envisage compliance with the deadlines for re-inspection in herds and identifying different degrees of non-compliance and/or improved performance.

Local veterinary services are supervised at central and regional level by monitoring of PISA.Net data and working meetings in order to evaluate the progress of the programme.

The sampling scheme for this supervision is defined in the light of the available resources is carried out with pre-defined targets, such as compliance with the deadlines for sanitary slaughter, while identifying areas for improvement.

The results of the controls carried out, are reported to the responsible units and entities and, if necessary, corrective measures are requested.

Controls are also carried out in animal movements of herds subject to restrictions on movement (quarantined). Those checks are carried out in situ when and as decided by the DSAVRs or by sampling reports of the SNIRA database at a determined frequency.

Special control teams have also been established by IFAP and DRAP to perform checks on 3% of holdings for the purposes of checking proper identification of animals, supporting documentary evidence of purchase or sale of animals and conformity of the records at SNIRA databases, in order to verify cross compliance and other controls to the holdings that have applied for premium payments.

Any instances of non-compliance identified are subject to penalties.

At the Autonomous Region of Azores, the Veterinary Services Directorate quarterly prepares Activities Technical Report which contains data on the Region Health Programme, informing the various islands; Half-yearly meetings are held with all Agrarian Development Services Island to discuss and evaluate the progress of the programmes; technical reports are submitted to the National Veterinary Authority each

Standard requirements for the submission of programme for eradication, control and monitoring

semester. In S. Miguel Island, regarding monitoring implementation of the program rules, Official Services have a regular supervision of the measures executed by private vets according to protocolled programs with Farmer Association.

Actions proposed to recommendations related the audit 2016-8773-MR carried out from 29 February 2016 to 09 March 2016, were all accepted by FVO, as follows:

“Rec 2 - To ensure that after the slaughter of animals, in which presence of brucellosis or tuberculosis, has been officially established, sheds and other herd quarters, and all containers, equipment and other articles used for the animals are cleaned and disinfected under official supervision, in accordance with the instructions given by the official veterinarian, as required in Article 8(1) and 16(1) of Directive 78/52/EEC.”

In the Continent, a new procedure for the control of cleaning and disinfection was implemented. Upon the imposing of restrictions in infected farms, specific recommendations for cleaning and disinfection are issued by the official veterinarians and OPP veterinarian will make the verification of compliance with these requests. Lifting of restrictions is conditioned to this control of cleaning and disinfection. In the Azores, which has a different structure, instructions have been given, by letter, by the Region Competent Authority.

“Rec 3 - To ensure that the ELISA test is used on a sample of milk taken from the milk collected from a farm with at least 30% of dairy cows in milk, as required in Annex (C)(2.2.3.4) to Directive 64/432/EEC.” Regarding Azores, in order to perform the mentioned tests, milk sampling in the dairy tanks of the farms of the Autonomous Region of Azores (RAA) is carried out by specific services named “SERCLA” (Classification Service Officer RAA Milk). Sampling are carried out quarterly in order to ensure that in the sum of sampling, there will be more than 30% of dairy cows in milk from each farm. ELISA test is used as a complementary screening test and all cows under the programme are serologically (individually) tested.

Regarding the Continent, the list of farms selected for the application of milk ELISA test for the screening of brucellosis is cross checked with the data available in PCOL (the official milk control plan) on the farms supplying the dairy industry. This list is also checked with the one presented in the sanitary programme of OPP.

Along the year, information is exchanged between local veterinary services and OPP to allow the exclusion of the list of the farms that are no longer in compliance with the requirements.

The farms are excluded from the list when the following situations are detected by the OPP:

- Changes in the animals present in the farm.
- Detection of non-compliance of the rules for the introduction of animals in the farm.
- Presence of brucellosis outbreaks in the neighbouring farms.
- Lack of conditions for the collection of milk samples in all the milk tanks of the farm.
- Difficulties in the individual identification of all the milk cows related with each milk container.

When the above mentioned conditions are detected, serological tests are carried out in all the animals in the farm and the OPP reports to the Regional Veterinary Services the reason for the option for the blood sampling methodology.

“Rec 4 - To ensure that laboratories that carry out the analysis of samples taken during official controls are designated, assessed and accredited by the CA as required by Article 12 of Regulation (EC) No. 882/2004.”

Standard requirements for the submission of programme for eradication, control and monitoring

All laboratories that are involved in the brucellosis eradication programmes are designated and accredited.

5. *Benefits of the programme*

*A description is provided of the benefits of the programme on the economical and animal and public health points of view.
Describe*

- progress expected compared to the situation of the disease in the previous years, in line with the objectives and expected results
- cost efficiency of the programme including management costs

(max. 32000 chars) :

Disease situation in the previous years is represented in the attached document.
When determining a cost/benefit ratio, various factors must be taken into account, including the cost of the disease, which corresponds to direct and indirect losses, including barriers to free trade.
The increase in the number of officially disease-free herds reduces the costs of successive visits to and tests on the animals in herds, slaughter of animals on health grounds and losses arising from the restriction of movement on health grounds.

Attainment of officially disease-free status encourages livestock production, permits conservation of genetic stock, provides grounds for fixing populations and draws on the pooling of efforts for the common good with socio-economic benefits at the level of the different regions and of the country.
It should further be stated that the benefits from the reduction of the rates of infection among the animal population associated with the reduction of the probability of transmission of the disease to the human population are incalculable.

These effects alone make the investment in a programme like this one extremely positive.

Standard requirements for the submission of programme for eradication, control and monitoring

7. Targets

The blocks 7.1.1, 7.1.2.1, 7.1.2.2, 7.2, 7.3.1 and 7.3.2 are repeated multiple times in case of first year submission of multiple program.

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

7.1.1 Targets on diagnostic tests for year : **2018**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
DSAVR- N (North)	Rose Bengal test	Bovines	blood	eradication	300 150	X
DSAVR- N	complement fixation test	Bovines	blood	eradication	39 000	X
DSAVR- N	Elisa test	Bovines	milk	eradication	1 700	X
DSAVR- N	bacteriological test	Bovines	organs, lymph nodes	eradication	50	X
DSAVR- C (Center)	Rose Bengal test	Bovines	blood	eradication	138 500	X
DSAVR- C	complement fixation test	Bovines	blood	eradication	18 000	X
DSAVR- C	Elisa test	Bovines	milk	eradication	1 000	X
DSAVR- C	bacteriological test	Bovines	organs, lymph nodes	eradication	5	X
DSAVR- LVT (Lisboa e Vale do Douro)	Rose Bengal test	Bovines	blood	eradication	110 350	X
DSAVR- LVT	complement fixation test	Bovines	blood	eradication	14 350	X
DSAVR- LVT	Elisa test	Bovines	milk	eradication	180	X
DSAVR- LVT	bacteriological test	Bovines	organs, lymph nodes	eradication	5	X

Standard requirements for the submission of programme for eradication, control and monitoring

DSAVR- ALT (Alentejo)	Rose Bengal test	Bovines	blood	eradication	646 700	X
DSAVR- ALT	complement fixation test	Bovines	blood	eradication	84 100	X
DSAVR- ALT	Elisa test	Bovines	milk	eradication	31	X
DSAVR- ALT	bacteriological test	Bovines	organs, lymph nodes	eradication	68	X
RA Azores (3 islands)	Rose Bengal test	Bovines	blood	eradication	135 000	X
RA Azores	complement fixation test	Bovines	blood	eradication	13 000	X
RA Azores	Elisa test	Bovines	milk	eradication	15 000	X
RA Azores	bacteriological test	Bovines	organs, lymph nodes	eradication	80	X
RA Madeira (RAM)	Rose Bengal test	Bovines	blood	eradication	7 816	X
RAM	complement fixation test	Bovines	blood	eradication	7 816	X
RAM	Elisa test	Bovines	milk	eradication	0	X
RAM	bacteriological test	Bovines	organs, lymph nodes	eradication	15	X
Total					1 532 916	
				Add a new row		

Standard requirements for the submission of programme for eradication, control and monitoring

	Total number of tests
Total number of tests	1 532 916
Rose Bengal test	1 338 516
complement fixation test	176 266
SAT test	0
Elisa test	17 911
bacteriological test	223
PCR	0

7.1.2 Targets on testing herds and animals

7.1.2.1 Targets on the testing of herds for year : **2018**

										Target indicators			
Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence		
DSAVR-N	Bovines	18 500	18 500	17 100	20	13	0	0,000	92,432	0,117	0,076	X	

Standard requirements for the submission of programme for eradication, control and monitoring

DSAVR-C	Bovines	7 500	7 500	6 530	1	1	0	0,000	87,067	0,015	0,015	X
DSAVR-LVT	Bovines	2 000	2 000	1 480	1	1	0	0,000	74,000	0,068	0,068	X
DSAVR-ALT	Bovines	4 500	4 500	4 350	18	15	0	0,000	96,667	0,414	0,345	X
RA Azores	Bovines	4 713	3 753	3 753	8	7	0	0,000	100,000	0,213	0,187	X
RA Madeira	Bovines	756	756	756	2	2	0	0,000	100,000	0,265	0,265	X
Total		37 969	37 009	33 969	50	39	0	0,000	91,786	0,147	0,115	
									Add a new row			

7.1.2.2 *Targets on the testing of animals for year :* **2018**

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be tested individually	Number of expected positive animals	Slaughtering		Target indicators		
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)	
DSAVR-N	Bovine	320 000	320 000	312 700	292 450	50	50	70	97,719	0,016	X
DSAVR-C	Bovine	170 000	170 000	152 000	134 500	2	2	3	89,412	0,001	X
DSAVR-LVT	Bovine	155 000	155 000	115 000	103 650	3	3	5	74,194	0,003	X
DSAVR-ALT	Bovine	675 000	675 000	637 000	631 600	180	180	200	94,370	0,028	X
RA Azores	Bovine	205 264	135 000	135 000	134 772	10	10	15	100,000	0,007	X

Standard requirements for the submission of programme for eradication, control and monitoring

RA Madeira	Bovine	4 263	4 263	4 263	4 263	5	7	7	100,000	0,117	X
Total		1 529 527	1 459 263	1 355 963	1 301 235	250	252	300	92,921	0,018	
								Add a new row			
Total number of animals expected to be slaughtered or culled : BOVINES								300			
Total number of animals expected to be slaughtered or culled : BUFFALO								0			
Total number of animals expected to be tested								1 355 963			

7.2 *Targets on qualification of herds and animals*

7.2 *Targets on qualification of herds and animals for year :* **2018**

		Targets on the status of herds and animals under the programme														
		Total number of herds and animals under the programme		Expected unknown		Last check positive		Last check negative		Expected free or officially free from disease status suspended		Expected free from disease		Expected officially free from disease		
Region	Animal species	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	
DSAVR-N	Bovines	18 500	320 000	0	0	1	100	8	140	20	250	1 300	15 000	17 171	304 510	X
DSAVR-C	Bovines	7 500	170 000	0	0	0	0	0	0	15	100	6	80	7 479	169 820	X
DSAVR-LVT	Bovines	2 000	155 000	0	0	0	0	1	80	10	300	0	0	1 989	154 620	X

Standard requirements for the submission of programme for eradication, control and monitoring

DSAVR-ALT	Bovines	4 500	675 000	0	0	2	400	5	800	15	2 500	19	3 500	4 459	667 800	X
RA Azores	Bovines	3 753	134 772	0	0	0	0	0	0	5	275	3 648	128 997	100	5 500	X
RA Madeira	Bovines	756	4 263	0	0	0	0	2	10	0	0	0	0	754	4 253	X
Total		37 009	1 459 035	0	0	3	500	16	1 030	65	3 425	4 973	147 577	31 952	1 306 503	
												Add a new row				

7.3 Targets on vaccination or treatment

7.3.1 Targets on vaccination or treatment for year : **2018**

Region	Animal species	Targets on vaccination or treatment programme								
		Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of herds 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 expected to be vaccinated	Number of young animals expected to be vaccinated	
DSAVR-N	Bovines	400	6 920	400	380	800	920	400	400	X
DSAVR-ALT	Bovines	10	1 500	10	10	1 200	1 380	900	300	X
RA Azores	Bovines	1 611	11 412	1 611	1 600	11 400	13 110	1 000	10 400	X
Total		2 021	19 832	2 021	1 990	13 400	15 410	2 300	11 100	
										Add a new row


Standard requirements for the submission of programme for eradication, control and monitoring

8. *Detailed analysis of the cost of the programme*

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


To facilitate the handling of your cost data, you are kindly requested to:

- 1. Fill-in the text fields IN ENGLISH*
- 2. Limit as much as possible the entries to the pre-loaded options where available.*
- 3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.*



REPÚBLICA PORTUGUESA

AGRICULTURA, FLORESTAS E DESENVOLVIMENTO RURAL



Organismo Nacional de Alimentação e Veterinária

PORTUGAL

BOVINE BRUCELLOSIS 2018

EPIDEMIOLOGICAL EVOLUTION

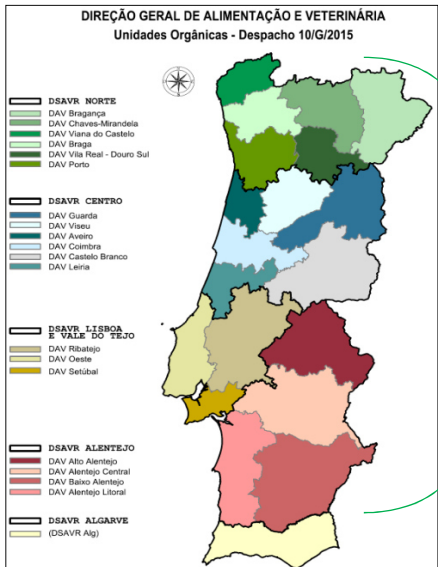
VACCINATION PROGRAMME

CAMPO GRANDE, Nº 50 1700-093 LISBOA TELEF. 21 323 95 00 FAX. 21 346 35 18


1

Bovine Brucellosis – regions under the eradication programme

DIREÇÃO GERAL DE ALIMENTAÇÃO E VETERINÁRIA
Unidades Orgânicas - Despacho 10/G/2015




- DSAVR NORTE**
 - DAV Bragança
 - DAV Trás-os-Montes
 - DAV Vila Real - Douro Sul
 - DAV Porto
- DSAVR CENTRO**
 - DAV Guarda
 - DAV Viseu
 - DAV Aveiro
 - DAV Coimbra
 - DAV Castelo Branco
 - DAV Leiria
- DSAVR LISBOA E VALE DO TEJO**
 - DAV Ribatejo
 - DAV Oeste
 - DAV Setúbal
- DSAVR ALENTEJO**
 - DAV Alentejo Central
 - DAV Baixo Alentejo
 - DAV Alentejo Litoral
- DSAVR ALGARVE**
 - (DSAVR Alg)



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(Algarve and 6 islands are officially free of *Brucella Abortus*)



R.A. Madeira

2

Bovine Brucellosis – regions with vaccination



Vaccination (with RB51 for 2018)

- ✓ Montalegre e Vieira do Minho (DSAVR Norte)
- ✓ Ribeira de Pena (DSAVR Norte)
- ✓ Alentejo (DSAVR ALT)
- ✓ S. Miguel (RA Azores)



3

Bovine Brucellosis – sanitary classification

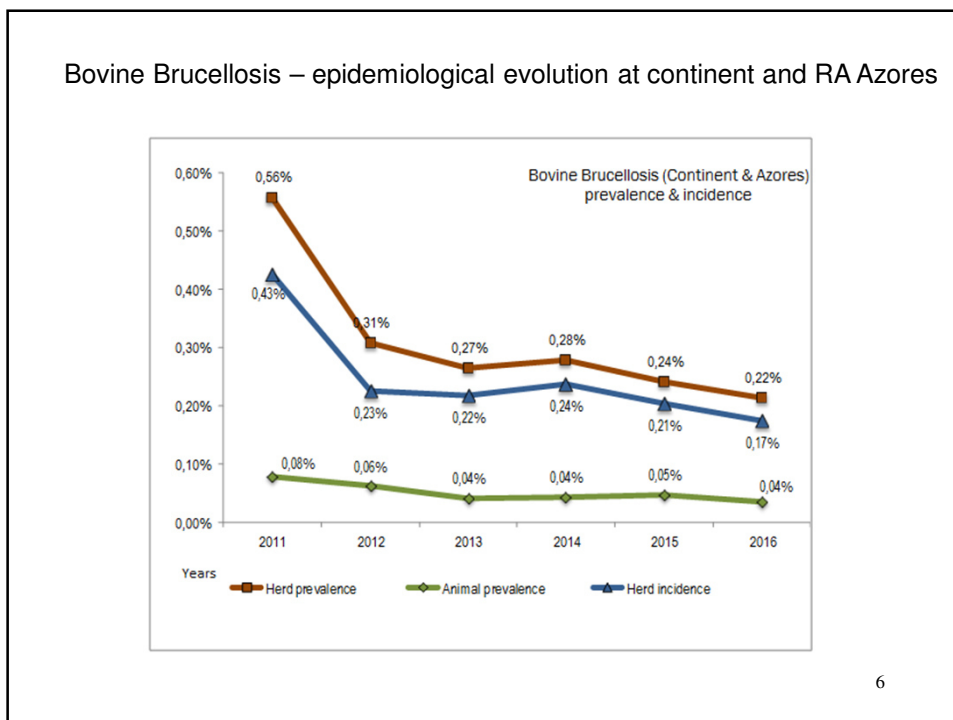
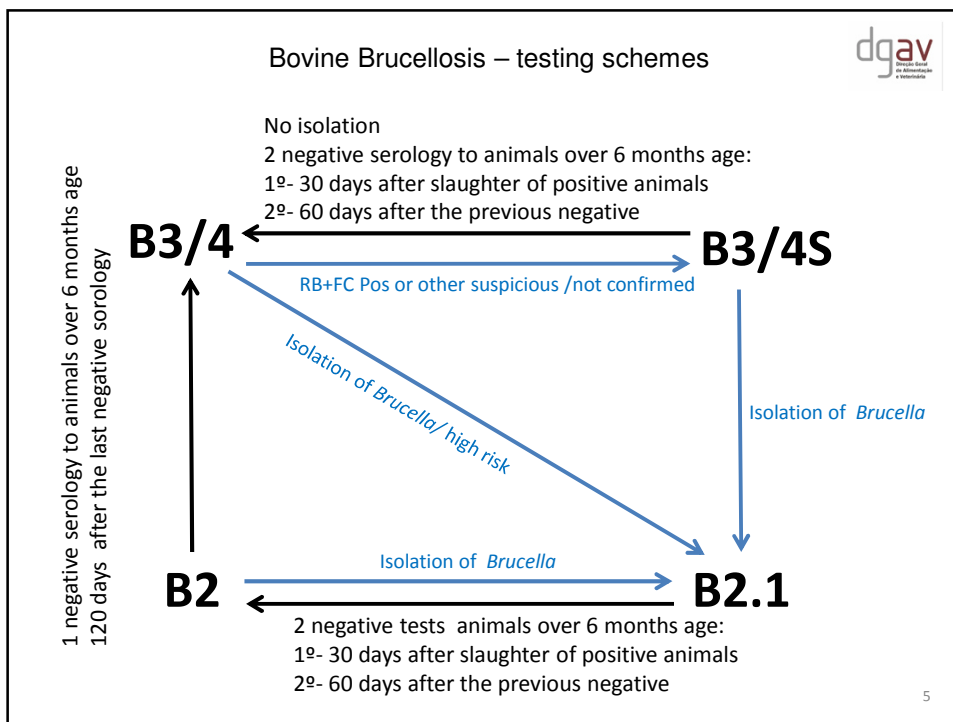
DSAVR attributes and maintains the sanitary classification to all holdings in accordance with compliance with regular surveys and laboratory results

B3/B4 status maintenance

- Since most regions of the country have been declared as officially Enzootic bovine leukosis (EBL)-free:

Methodology of control (1)	Municipalities under sampling for LBE	Municipalities subject to serological checks (in order to maintain the region's status as EBL-free)	
		Dairy herds	Not dairy herds
Annual serological to all animals older than 12 months of age	v		v
Two Milk Elisa tests carried out each year (2)		v (3)	

(1) Frequency, type of test, age of animals to test.
 (2) The two ELISA tests are separated by at least 3 months of interval; the first sampling is also performed serological checks on all breeding males and all females who are not lactating.
 3) Where the DSAVR has previously determined that the conditions for the collection of milk samples are not met.



Bovine Brucellosis
Bovine population of the Autonomous Region of Madeira

RAM		
Year	Total Number of herds	Total Number of animals
2012	1.331	4.981
2013	1.302	4.944
2014	819	3.626
2015	819	3.626
2016	782	3.474

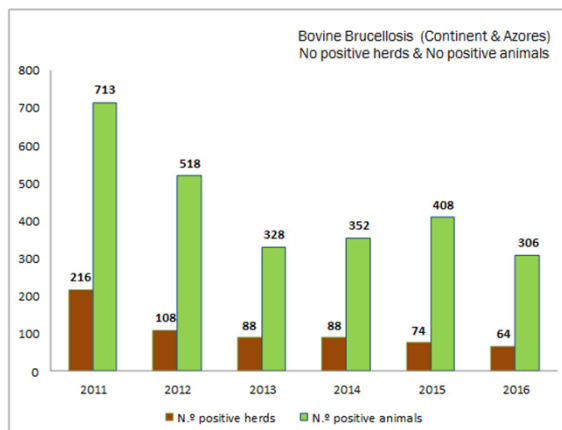
7

Bovine Brucellosis
Epidemiological situation of the Autonomous Region of Madeira

Year	Total number of herds	Total number of Animals	Herds tested	Animals tested	% Herds tested	% Animals tested	N.º positive animals
2012	1.331	4.981	6	17	0,5	0,3	0
2013	1.302	4.944	6	21	0,5	0,4	0
2014	819	3.626	10	117	1,2	3,2	0
2015	819	3.626	24	49	2,9	1,4	0
2016	782	3.474	0	0	0	0	-

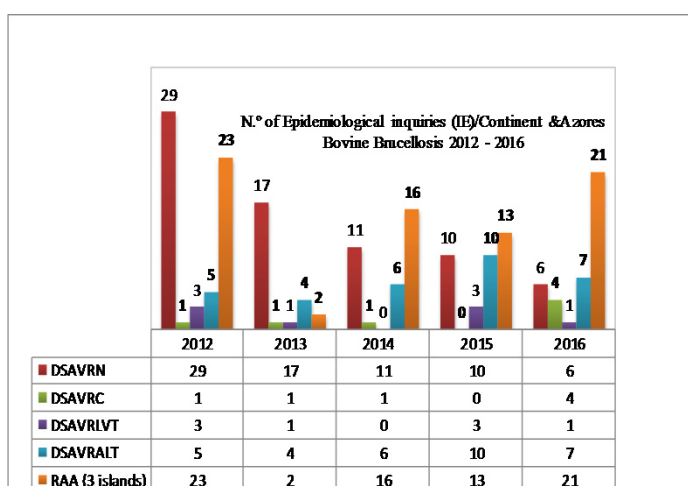
8

Bovine Brucellosis Epidemiological evolution at continent and RA Azores



9

Bovine Brucellosis – sources of infection Epidemiological inquiries carried out by Region



10

Bovine Brucellosis – sources of infection
Epidemiological inquiries carried out by Region

Total n.º of Epidemiological inquiries (Mainland and Açores)

BB - possible source of infection (Continent and Azores)	2012	2013	2014	2015	2016
Total n.º of Epidemiological inquiries	61	27	34	36	21
Direct contact with ruminants from other holding	6	16	25	27	3
Contact with holdings from the same owner	3	1	3	2	1
Introduction of animals	17	18	7	17	8
Non conformity of pre-movement tests	8	10	1	3	3
Common pastures	11	11	7	18	7
Re- occurrence	6	1	2	2	7
Other origins	15	5	3	19	27

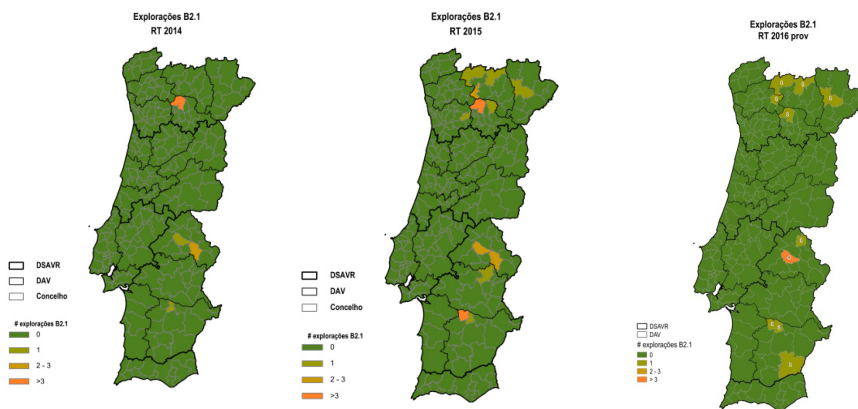
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Bovine Brucellosis
Abortions and cases submitted to bacteriology

Number of cases submitted to bacteriology – 2016				
Regions	Type samples	Nº of samples	Animal species	Positive results to <i>Brucella</i>
Continent	Fetus, stillborn	15	bovine	0
RA Azores	Fetus, stillborn	34	bovine	0

12

Bovine Brucellosis – Geographical distribution of B2.1 herds



13

Bovine Brucellosis – Compensation (point 4.4.9)

Indemnização por abate sanitário de bovinos

a)...Valor base (carne) – peso da carcaça, deduzido de 2% de enxugo multiplicado pelo valor da indemnização (1,96€/Kg).

b)...Aptidão da exploração (valor em €):

Categoria / aptidão	Leite	Carne / misto		
		Autóctone	Exótico	Cruzada
Vaca < 6 anos	698,32	748,20	548,68	299,28
Vaca >6 < 8 anos	349,16	498,80	374,10	224,46
Vaca >8 < 10 anos	-	498,80	274,34	149,64
Bovino de trabalho até 6 anos (**)	-	748,20	-	-
Novilho > 20 meses	149,64	174,52	149,64	149,64
Novilho 12 a 20 meses	174,52	199,52	174,52	174,52
Novilha > 12 < 18 meses	349,16	374,10	299,28	224,46
Novilha gestante (*)	423,98	448,92	374,10	299,28
Novilho 8 a 12 meses	199,52	224,46	199,52	199,52
Novilha 8 a 12 meses	249,40	274,34	224,46	224,46
Vitelo (a) 3 a 8 meses	124,70	149,64	124,70	124,70
Vitelo(a) até 3 meses	99,76	124,70	99,76	99,76

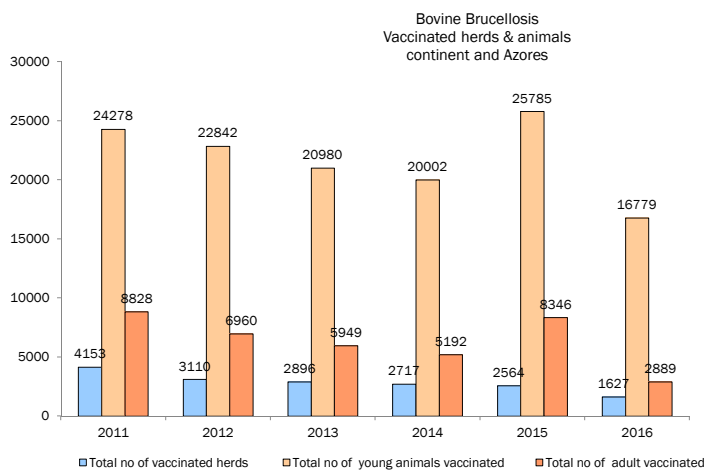
(*)...Certificado pelo médico veterinário o impeter sanitário

(**) Certificado a emitir pela DSVR, onde ateste que a única utilização é a produção de trabalho

c) Valor zootécnico – os animais inscritos em livro genealógico ou registo zootécnico recebem ainda uma majoração de 15% sobre o montante a que se refere a alínea b), mediante apresentação de documentação comprovativa emitida pela entidade reconhecida.

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Bovine Brucellosis – RB51 Special Vaccination



15

Bovine Brucellosis – RB51 Special Vaccination at Azores



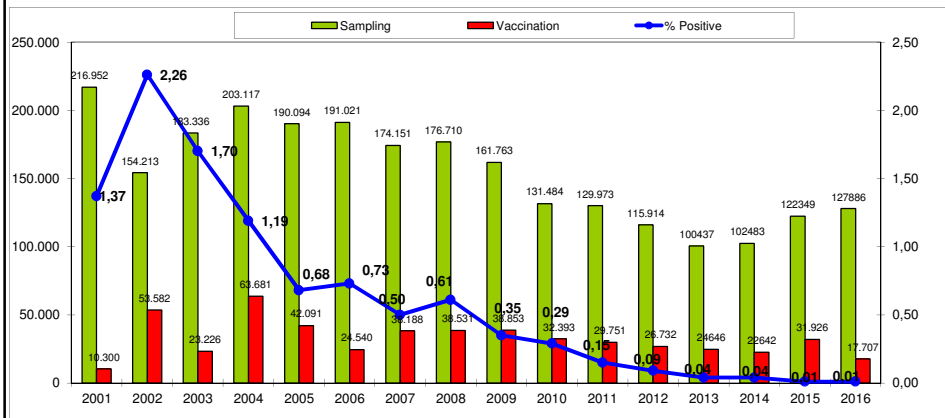
Autonomous Region of Azores:

- ✓ Terceira
- ✓ São Jorge
- ✓ São Miguel

2016	Total	S. Miguel	Terceira	S. Jorge
N.º vaccinated herds	1216	1276	0	0
N.º vaccinated animals	17707	1454	0	0

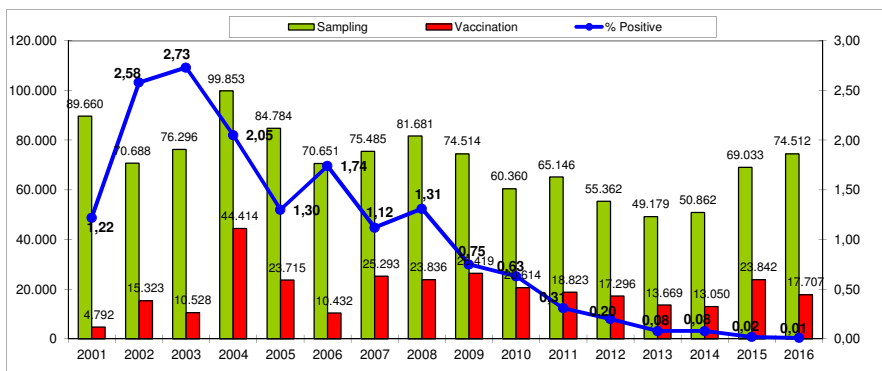
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Bovine Brucellosis – Autonomos Region of Azores



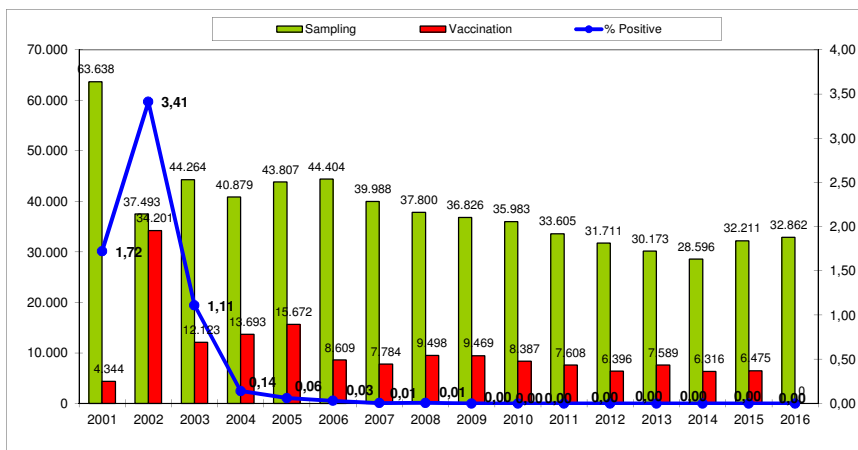
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Bovine Brucellosis – Autonomos Region of Azores – S. Miguel



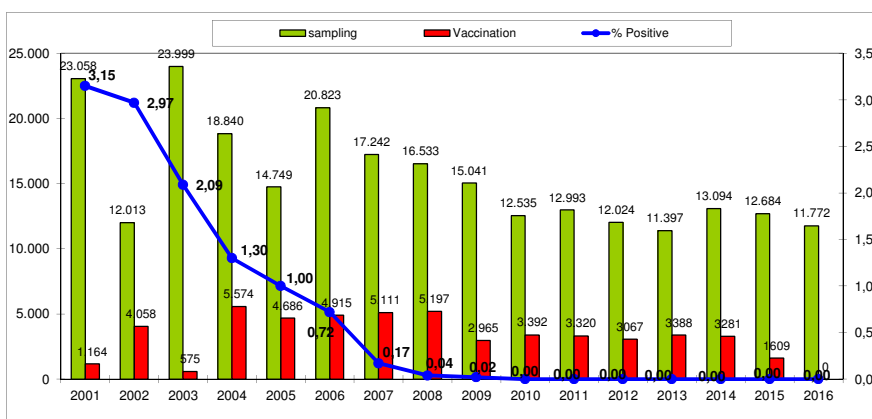
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Bovine Brucellosis – Autonomos Region of Azores - Terceira



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Bovine Brucellosis – Autonomos Region of Azores – S. Jorge



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