

Eradication: Final report for Bovine Brucellosis 2018

For each approved annual or multi-annual programme Member States shall submit to the Commission by the 30 April each year an annual detailed technical and financial report covering the previous year. That report shall include the results achieved and a detailed account of eligible costs incurred (Art 14 of Regulation (EU) No 652/2014).

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Country code: PT

Reporting period

From: 2018

To: 2018

Year of implementation: 2018

1. Technical implementation of the programme

1.1 Description and evaluation of the evolution of the epidemiological situation, the technical implementation of the activities foreseen under the programme and the cost-effectiveness of the programme.

Madeira

It was not possible to implement in 2018 all the actions foreseen in the programme for the autonomous region of Madeira, so that a representative view of the real situation in that autonomous region could be shown.

For that reason we decided not to consider the developed actions in this report, namely for reimbursement purposes.

The bovine brucellosis eradication programme (BBEP) carried out in 2018 for the non-officially free region of Portugal (4 regions of the continental area and 3 islands of the Autonomous Region of Azores) resulted in a positive evolution on herd incidence.

Mainland:

Compared to 2017, in 2018 herd apparent prevalence maintained as 0.17% and herd incidence decreased (from 0.15% to 0.13 %). The percentage of positive animals had a slight decrease (from 0.047% to 0.036%). All regions are below 0.5% in herd prevalence.

The BBEP was implemented as foreseen, reaching a coverage at herd level of 96,97%, varying from

98,05% in the LVT region to 95,67% in the Centro region.

There were only 45 herds with at least one positive animal and 37 were new positive (82%). Infection was confirmed by bacteriology in 12 herds out of 29 herds investigated (41.38%).

All positive animals were subjected to sanitary slaughter and those coming from newly infected herds were subjected to organ collection for bacteriology. The percentage of slaughtered animals sampled with isolation of *B. abortus* was 46.47% (33/71). From these total, 31 isolates are from Norte region and 2 from Alentejo region.

Vaccination with RB51 was applied in 602 herds (1767 animals), while in 2017 there were 366 herds (1076 animals). Please see graph in point 1.1 in the annex, regarding the evolution over time of vaccinated herds and animals.

The implementation of BBEP is very important regarding the advantages of the eradication not only due to the positive impact of the safety of products of animal origin but also on the market position of the national herds. The programme is advancing in a pre-eradication phase.

By the end of 2018, there were 7 counties with infected herds in the Norte region and 3 in the Alentejo region. The geographical distribution of infected herds (B2.1) at the continent is presented in the annex.

Azores (3 islands)

Herd apparent prevalence and herd incidence decreased from 0,47% in 2017 to 0,15% in 2018. The percentage of positive animals also decreased from 0.01% to 0,003%. Terceira island had only one seropositive animal, not infected, and S. Miguel island 3 animals in the same situation.

The BBEP was implemented as foreseen, reaching a coverage of 78,46%.

4 herds were investigated by bacteriology and no *B. abortus* was confirmed. Vaccination with RB51 was carried out (in S. Miguel island) and 1.056 herds and 16.749 animals were vaccinated.

1.2 Details on the level of achievement of the targets set in the approved programme and technical difficulties.

Mainland:

The herd apparent prevalence of BBEP implemented in 2018 maintained as 0.17% and there was also a reduction in the herd incidence (0.15% to 0.13%). The percentage of positive animals had a slight decrease (from 0.047% to 0.036%).

The variation of apparent herd prevalence by region, from 2017 to 2018, was the following:

- Norte – reduction 5.3% (from 0.19% to 0.18%)
- Centro – remained 0,00%
- LVT – 12.5% reduction (0.08% to 0,07%)
- Alentejo – 2.7 % increase (from 0.37% to 0,38%)

The percentage of free (B3) and officially free (B4) herds is 87,44%. The main reasons for attributing a suspended status are: non negative serology (15,93%); delays in regular sampling (57,52 %); irregularities on animal movement (17,70 %). Brucellosis suspicion accounts for only 8,84 % of the suspensions of free and non-free status.

At 31st December 2018, 12 herds had an infected status. These herds were located only in 2 regions: 8 at North (66.66%) and 4 at Alentejo (33.33%).

Azores (3 islands)

The herd apparent prevalence and the herd incidence of BBEP implemented in 2018 resulted in an decrease from 0,47% to 0,15%. The percentage of positive animals decreased from 0,01% to 0,003% with no *B. abortus* isolation.

The variation of apparent herd prevalence by Island from 2017 to 2018 was the following:

- S. Miguel - from 0.96% to 0,26% (reduction of 72,9%).
- Terceira –from 0,0% to 0,09%
- S. Jorge – remained 0.0%

The percentage of free (B3) and officially free (B4) herds are 99.9% as happened in 2017. The main reasons for attributing a suspended status are non-negative results to serology (100%).

At 31st December 2018 (RAA) no herds had an infected status.

1.3 Epidemiological maps for infection and other relevant data on the disease/activities (information on serotypes involved,...) (Please attach files of data using the PDF attachment feature) Use the textbox below to provide clarifications for the maps you attach, if needed.

The geographical distribution of infected herds (B2.1) can be seen in the annex.

POINT 1.4 "ADDITIONAL EPIDEMIOLOGICAL INFORMATION (ON EPIDEMIOLOGICAL INQUIRIES, ABORTIONS, LESIONS FOUND IN ABATTOIR, HUMAN CASES, ETC...)"

Mainland

The BBEP foresees the investigation of positive and infected herds in order to access the origin of infection. For this evaluation a specific data collection questionnaire is used (epidemiological enquiry). These enquiries are implemented with the objective to establish possible links to other farms (trace-back and trace-forward) and characterize possible risk factors and sources of infection.

There were 19 epidemiological inquiries carried out of newly infected herds.

The main probable reasons were introduction of animals (47%) and contacts with animals of other herds (42%).

At Centro Region, epidemiological inquiries were carried out to two herds due to Elisa positive results, but negative to sorology.

There were 3 notified bovine abortions tested for Brucellosis at the Norte region, one with positive results. At the mainland there were 6 samples of abortions / placenta tested for Brucellosis, one positive to B. abortus.

According to the Directorate-General of Health (DGS), 20 human cases of brucellosis (provisional data) were notified in 2018, all laboratory confirmed and were distributed by the following districts:

- 1 case - Aveiro, Braga, Castelo Branco and Évora;
- 2 cases - Leiria and Santarém;
- 3 cases - Lisboa;
- 4 cases - Bragança;
- 5 cases - Vila Real.

Three from Vila Real were related to a farm with infected goats (*Brucella melitensis*).

Compulsory pre-movement testing has been applied to avoid the entrance of infected bovine in free and officially-free herds, with the following data registered at 2018 for the mainland: 18.650 holdings / 79.982 animals.

Azores (3 islands)

There were 12 epidemiological inquiries carried out (11 at S. Miguel island and 1 in Terceira island) and no suspicion of infection was confirmed.

There were 34 notified abortions tested for Brucellosis (8 from S. Miguel, 1 from S. Jorge and 25 at Terceira), all with negative results.

No human cases of brucellosis were notified.

2. TECHNICAL IMPLEMENTATION ON RUMINANT DISEASES PROGRAMMES

VERY IMPORTANT: Please fill out the following tables with figures corresponding to measures performed during the implementing period (1/1 to 31/12).

Table A - DATA ON HERDS

| Region | Animal species | Total number of herds | Total number of herds under the programme | Number of herds to be checked under the programme this year | Number of herds checked | Number of positive herds | Number of new positive herds | Number of herds depopulated |
|--------------|----------------|------------------------|---|---|--|--------------------------|------------------------------------|-----------------------------|
| | | % of herds depopulated | % of herds coverage | | % of positive herds Period herd prevalence | | % of positive herds Herd incidence | |
| DSAVR N | Cattle | 17,892 | 17,207 | 15,903 | 15,448 | 27 | 24 | 5 |
| | | 18.52 % | 97.14 % | | 0.17 % | | 0.16 % | |
| DSAVR C | Cattle | 7,200 | 6,747 | 5,861 | 5,607 | 0 | 0 | 0 |
| | | % | 95.67 % | | 0 % | | 0 % | |
| DSAVR LVT | Cattle | 2,158 | 1,598 | 1,437 | 1,409 | 1 | 1 | 0 |
| | | 0 % | 98.05 % | | 0.07 % | | 0.07 % | |
| DSAVR ALT | Cattle | 4,831 | 4,735 | 4,564 | 4,468 | 17 | 12 | 0 |
| | | 0 % | 97.9 % | | 0.38 % | | 0.27 % | |
| RA Açores | Cattle | 4,459 | 4,459 | 3,440 | 2,699 | 4 | 4 | 0 |
| | | 0 % | 78.46 % | | 0.15 % | | 0.15 % | |
| Total | | 36,540 | 34,746 | 31,205 | 29,631 | 49 | 41 | 5 |
| | | 10.2 % | 94.96 % | | 0.17 % | | 0.14 % | |

Table B - DATA ON ANIMALS

| Region | Animal species | Total number of animals | Number of animals under the programme | Number of animals to be tested under the programme this year | Number of animals tested | Number of animals tested individually | Number of positive animals | Number of animals with positive result slaughtered or culled | Number of animals slaughtered | |
|--------------|----------------|------------------------------------|---------------------------------------|--|--------------------------|---|----------------------------|--|-------------------------------|--|
| | | % coverage at animals level | | | | % positive animals Animal Prevalence | | | | |
| DSAVR N | Cattle | 334,780 | 332,785 | 180,735 | 180,699 | 144,320 | 120 | 123 | 504 | |
| | | 99.98 % | | | | 0.07 % | | | | |
| DSAVR C | Cattle | 178,203 | 175,192 | 91,126 | 91,003 | 70,704 | 0 | 0 | 0 | |
| | | 99.87 % | | | | 0 % | | | | |
| DSAVR LVT | Cattle | 210,947 | 179,068 | 76,449 | 76,272 | 64,005 | 3 | 11 | 11 | |
| | | 99.77 % | | | | 0 % | | | | |
| DSAVR ALT | Cattle | 840,768 | 839,056 | 428,924 | 428,768 | 421,633 | 132 | 121 | 124 | |
| | | 99.96 % | | | | 0.03 % | | | | |
| RA Açores | Cattle | 210,936 | 210,936 | 133,754 | 120,751 | 117,059 | 4 | 4 | 4 | |
| | | 90.28 % | | | | 0 % | | | | |
| Total | | 1,775,634 | 1,737,037 | 910,988 | 897,493 | 817,721 | 259 | 259 | 643 | |
| | | 98.52 % | | | | 0.03 % | | | | |

Table C - DATA ON VACCINATION PROGRAMMES

| Region | Animal species | Total number of herds | Total number of animals | Number of herds in vaccination programme this year | Number of herds vaccinated | Number of animals vaccinated | Number of doses of vaccine administered | Number of adults vaccinated | Number of young animals vaccinated | Number of animals with primary vaccination (initial+ booster) |
|--------------|----------------|-----------------------|-------------------------|--|----------------------------|------------------------------|---|-----------------------------|------------------------------------|---|
| DSAVR N | Cattle | 17,892 | 334,780 | 600 | 596 | 1,368 | 1,372 | 390 | 978 | 1,368 |
| DSAVR ALT | Cattle | 4,831 | 840,768 | 10 | 6 | 399 | 399 | 279 | 120 | 399 |
| RA Açores | Cattle | 4,459 | 210,936 | 1,559 | 1,056 | 16,749 | 16,758 | 882 | 15,867 | 16,749 |
| Total | | 27,182 | 1,386,484 | 2,169 | 1,658 | 18,516 | 18,529 | 1,551 | 16,965 | 18,516 |

Table D - DATA ON STATUS OF HERDS AT THE END OF THE PERIOD

| | Region | Animal species | Total number of herds and animals under the programme | Unknown | Not free or not officially free from disease | | Free of officially free-disease status suspended/ withdrawn | Free from disease | Officially free from disease |
|------------------------|-----------|----------------|---|----------|--|---------------------|---|-------------------|------------------------------|
| | | | | | Last check positive | Last check negative | | | |
| herds | DSAVR N | Cattle | 17,207 | 0 | 1 | 14 | 41 | 1,727 | 15,424 |
| animals | " | " | 332,785 | 0 | 29 | 160 | 903 | 21,755 | 309,938 |
| herds | DSAVR C | Cattle | 6,747 | 0 | 0 | 0 | 20 | 6 | 6,721 |
| animals | " | " | 175,192 | 0 | 0 | 0 | 335 | 59 | 174,798 |
| herds | DSAVR LVT | Cattle | 1,598 | 0 | 0 | 0 | 33 | 3 | 1,562 |
| animals | " | " | 179,068 | 0 | 0 | 0 | 1,401 | 14 | 177,653 |
| herds | DSAVR ALT | Cattle | 4,735 | 0 | 3 | 3 | 19 | 11 | 4,699 |
| animals | " | " | 839,056 | 0 | 456 | 463 | 2,404 | 4,370 | 831,363 |
| herds | RA Açores | Cattle | 4,459 | 0 | 0 | 0 | 5 | 2,208 | 2,246 |
| animals | " | " | 210,936 | 0 | 0 | 0 | 368 | 125,507 | 85,061 |
| Total - herds | | | 34,746 | 0 | 4 | 17 | 118 | 3,955 | 30,652 |
| Total - animals | | | 1,737,037 | 0 | 485 | 623 | 5,411 | 151,705 | 1,578,813 |

Table E - SUSPENSION/WITHDRAWAL OF THE FREE OR OFFICIALLY FREE STATUS

| Region | Animal species | Status | Reason | Number of herds |
|---------|----------------|-----------|--|-----------------|
| DSAVR N | Cattle | suspended | non-negative result in diagnostic test | 11 |

| | | | | |
|--------------|--------|-----------|---|------------|
| DSAVR N | Cattle | suspended | does not fulfil the routine testing frequency | 14 |
| DSAVR N | Cattle | suspended | entering animals in the herd with insufficient status | 11 |
| DSAVR N | Cattle | suspended | the disease is suspected | 5 |
| DSAVR C | Cattle | suspended | does not fulfil the routine testing frequency | 18 |
| DSAVR C | Cattle | suspended | entering animals in the herd with insufficient status | 1 |
| DSAVR C | Cattle | suspended | the disease is suspected | 1 |
| DSAVR LVT | Cattle | suspended | non-negative result in diagnostic test | 1 |
| DSAVR LVT | Cattle | suspended | does not fulfil the routine testing frequency | 26 |
| DSAVR LVT | Cattle | suspended | entering animals in the herd with insufficient status | 6 |
| DSAVR ALT | Cattle | suspended | non-negative result in diagnostic test | 6 |
| DSAVR ALT | Cattle | suspended | does not fulfil the routine testing frequency | 7 |
| DSAVR ALT | Cattle | suspended | entering animals in the herd with insufficient status | 2 |
| DSAVR ALT | Cattle | suspended | the disease is suspected | 4 |
| RA Açores | Cattle | suspended | non-negative result in diagnostic test | 4 |
| RA Açores | Cattle | suspended | does not fulfil the routine testing frequency | 2 |
| Total | | | | 119 |

Table F - STRATIFIED DATA ON SURVEILLANCE AND LABORATORY TESTS

| Region | Animal species | Test type | Number of samples | Number of tests | Number of positive tests |
|--------------|----------------|---|-------------------|------------------------------|--------------------------|
| DSAVR N | Cattle | Rose bengal test | 155,296 | 155,296 | 256 |
| DSAVR N | Cattle | Complement fixation test | 22,383 | 22,383 | 113 |
| DSAVR N | Cattle | ELISA test | 1,636 | 1,636 | 2 |
| DSAVR N | Cattle | Bacteriological test | 43 | 43 | 31 |
| DSAVR C | Cattle | Rose bengal test | 74,570 | 74,570 | 63 |
| DSAVR C | Cattle | Complement fixation test | 9,871 | 9,871 | 0 |
| DSAVR C | Cattle | ELISA test | 924 | 924 | 3 |
| DSAVR C | Cattle | Bacteriological test | 0 | 0 | 0 |
| DSAVR LVT | Cattle | Rose bengal test | 69,061 | 69,061 | 18 |
| DSAVR LVT | Cattle | Complement fixation test | 11,734 | 11,734 | 7 |
| DSAVR LVT | Cattle | ELISA test | 176 | 176 | 0 |
| DSAVR LVT | Cattle | Bacteriological test | 11 | 11 | 0 |
| DSAVR ALT | Cattle | Rose bengal test | 450,888 | 450,888 | 269 |
| DSAVR ALT | Cattle | Complement fixation test | 60,096 | 60,096 | 86 |
| DSAVR ALT | Cattle | ELISA test | 23 | 23 | 0 |
| DSAVR ALT | Cattle | Bacteriological test | 17 | 17 | 2 |
| RA Açores | Cattle | Rose bengal test | 109,499 | 109,499 | 90 |
| RA Açores | Cattle | Complement fixation test | 7,169 | 7,169 | 20 |
| RA Açores | Cattle | ELISA test | 8,008 | 8,008 | 105 |
| RA Açores | Cattle | Bacteriological test | 30 | 30 | 0 |
| Total | | | 981,435 | 981,435 | 1,065 |
| | | Methods of laboratory analysis | | Total number of tests | |
| | | Total - Bacteriological test | | 101 | |
| | | Total - Complement fixation test | | 111,253 | |
| | | Total - ELISA test | | 10,767 | |
| | | Total - Rose bengal test | | 859,314 | |

COMMENT / ADDITIONAL CLARIFICATION

1 TABLE C

1.1 - The last column of table C, "Number of animals with primary vaccination (d) (initial + booster)", was

usually meant for the Blue Tongue report and the indent (d) is not referenced in the footnote. In the present report for bovine brucellosis, this field is marked as a compulsory one.

The brucellosis vaccination is composed of one single dose inoculation, with no booster or revaccination. In this context, the number of animals inscribed on that field is the number of animals vaccinated, as registered in the 7th column "Number of animals vaccinated".

1.2 - There is no table for POINT 1.4 "ADDITIONAL EPIDEMIOLOGICAL INFORMATION (ON EPIDEMIOLOGICAL INQUIRIES, ABORTIONS, LESIONS FOUND IN ABATTOIR, HUMAN CASES, ETC...)"

The comments for this part were included in the POINT 1.3

2 (FINANCIAL DATA - REIMBURSEMENT CLAIM)

2.1 There are no pre-movement tests for export (mandatory under Directive 64/432) included in the claim.

2.2 Vaccination includes 15% loss

2.3 Salvage values were deducted

2.4 Only paid tests/slaughtered animals/vaccines were considered