



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Director General

SANCO/10335/2013

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

Eradication programme for Bovine Brucellosis

Croatia

Approved* for 2013 by Commission Decision 2012/761/EU

* in accordance with Council Decision 2009/470/EC

Submission of national programmes for the eradication, control and monitoring of the animal diseases or zoonoses referred to in Article 1(a)

1. Identification of the programme

Member State: **CROATIA**

Disease: **Bovine brucellosis**

Request of Union co-financing for: **2013**

Reference of this document: **Eradication programme of Bovine Brucellosis**

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2. Historical data on the epidemiological evolution of the disease:

2.1. General Background

Although the last case of bovine brucellosis in Croatia (*B. abortus*) was confirmed in 1965, measures of active control and early detecting of bovine brucellosis have been systematically implemented during the last two decades.

Measures set out by the, yearly prescribed, *Order on the measures for animal health protection from infectious and parasitic diseases and the financing thereof*, have been changed several times in period since 1991 – 2010, but mandatory reporting and laboratory investigation of each abortion in cattle and premovement testing of bovine animals older than 12 months were constantly the part of the control measures. Testing scheme of control of the herds has been changed several times, consisting of combination of bulk milk sampling and individual blood testing, especially in holdings with more than 10 dairy cows.

According to actual *Ordinance on notification on animal diseases* (Official Gazette, 62/11), bovine brucellosis is compulsory notifiable disease, as well as it was the case with previous *Ordinance on notification on animal diseases* (Official Gazette, 31/09).

2.2. Testing in last five-year period (2007 – 2011)

In period 2007 – 2009, following measures were prescribed every year by the *Order*:

- a) Mandatory reporting of all abortions and laboratory investigation.
- b) Blood sampling of 20 % cows in all herds with more than ten cattle. Also, blood samples of all heifers, before first lactation, had to be taken in such herds.
- c) Premovement testing for all breeding cattle older than 12 months.
- d) Blood sampling of all breeding bulls, twice per year.

In year 2010, due to financial reasons and hard work related to beginning of BTB eradication programme (tuberculin tests for all herds, twice during 2010), blood tests at herd level were not prescribed, as it was in previous years (point b.).

All other measures (abortions, premovement test, breeding bulls) were provided the same way as it was prescribed for 2007 – 2009 period.

Finally, in 2011, control measures fully aligned with Directive 64/432/EEC has been started, as the first year of the official eradication programme.

Table 1.: Total number of individual blood test performed in the period 2008 – 2011, and number of abortions in cattle, reported and sampled for laboratory examination.
There was no any case of *B. abortus* infection confirmed.

CROATIA - Year	Total number of individual blood tests performed	Reported abortions (laboratoy examination)	Premovement tests	Ordered control measures in the herds
2011	270336	1399	9236	259701
2010	16287	1467	7740	7080
2009	83421	1112	2279	80030
2008	59843	751	2296	56796

2.3. Designation of officially free herds, in accordance with Directive 64/432/EEC

During 2007 – 2009 Croatia has been fully transposed and implemented EU legislation from Animal Health field. Croatian *Ordinance on animal health requirements aplicable to trade in bovine animals and swine (Official Gazette, 154/08)* is fully aligned with Directive 64/432/EEC. In the year 2009 new bovine register was put in place, as the important prerequisite and basis for fully computerised application and database for bovine diseases eradication programmes. *Ordinance of the obligatory identification and registration of bovine animals (Official Gazette, 99/07)*, fully aligned with EU Regulations (EC) 1760/2000, (EC) 494/98, (EC) 1082/2003, (EC) 499/2004, (EC) 911/2004 and (EC) 644/2005, was the legal basis for new bovine database and for the full control of bovine population in the country. From beginning of 2011, process of designation of officially brucellosis free herds was initiated, so 2011 was the first year of implementation of eradication programme measures fully aligned with Directive 64/432/EEC.

For that reason, in the submission for the 2013 we can provide relevant summary epidemiological tables in point 6. only for year 2011.

According to national eradication programme, till the end of 2011 only dairy holdings with more than 10 dairy cows have been fulfilled conditions to be recognized as the brucellosis officially free herds (during 2011, 3 bulk milk tests were performed, followed by the individual blood test of all bovine animals over 12 months, according to the Directive 64/432/EEC). All other herds included into the programme have been tested untill the summer of 2012, as the second individual blood test has been provided at all bovine animals older than 12 months in all other breeding bovines as well.

Croatian Competent Authority confirms year 2011 as the first year where all prerequisites for fully aligned and transparent implementation of Bovine brucellosis eradication programme is provided, fully in compliance with relevant EU legislation and with developed database with close connection to bovine register and database of Croatian Veterinary Institute, as the crucial prerequisite for the sampling capacity.

3. Description of the submitted programme

The main objective of the programme is official eradication of bovine brucellosis through qualifying bovine herds and, in next step, regions of the country, towards the final objective – recognising the status of country officially free from bovine brucellosis.

Objective for the year 2013 is to achieve percentage of officially brucellosis free herds higher than 99.8 % at the end of the year.

According to the *Ordinance on measures for control and eradication of bovine brucellosis* (Official Gazette, 26/06), bovine animals are considered as the confirmed case of bovine brucellosis if:

- a) Animal shows positive reaction on at least two serological tests, followed by the laboratory examination from material sent from slaughter line;
- b) In case of abortion, laboratory examination from sent material has confirmed *B. abortus*;
- c) Serological and microbiological examination must be provided according to Directive 64/432/EEC

All positive animals should be slaughtered, inside 30 days of positive test result.

In case of positive bulk milk sample, individual blood sample must be taken from all bovines whose milk was included into bulk sample.

3.1. Testing strategy and management of false positive reactions:

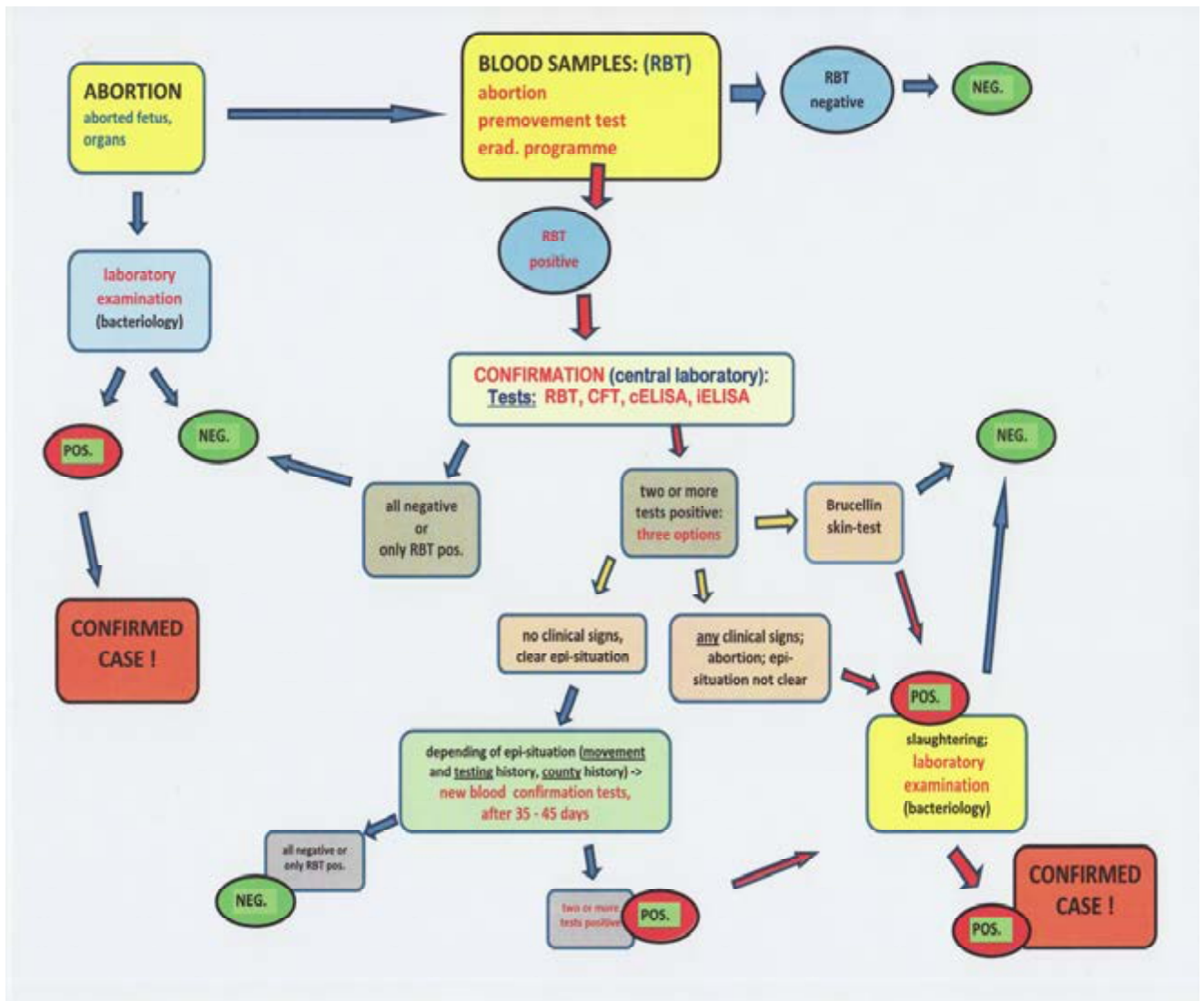
According to *Ordinance on measures for control and eradication of bovine brucellosis* (Official Gazette, 25/2006), “test and slaughter” strategy is prescribed. However, some false positive reaction are expected, so interpretation in different case of positive results is set, including epidemiological data, movement and testing history of the herd and other relevant details.

- a) Basic, screening blood test, is Rose Bengal Test (RBT).
- b) If RBT gives positive result, confirmation test is needed. Croatian Veterinary Institute uses four tests in order to confirm RBT positive results: another RBT, CFT, cELISA and iELISA. If at confirmation level there are no positive results, or again only RBT is positive, final result is considered as negative. But if there are at two or more positive tests at confirmation level, there are three options for further interpretation:
 - a. In case of any clinical signs; in case that blood sample it taken as the result of abortion; in case that movement or testing history of the herd of the origin is not clear -> animal is considered as positive and sent to slaughter and further bacteriological examination
 - b. In case that there are no any clinical signs and if history of the herd is clear (movements, testing), herd is under restriction and positive animals is isolated, but blood sample should be taken one more time, in period of 35 – 45 days from the first sample. If at second test there are two or more positive tests, animal is considered as a positive one and it will be sent to slaughter.

- c. Brucellin skin-test, as final confirmation of positive result. In case of positive brucellin skin-test, animal will be sent to slaughter. (in last few years it is very hard to find brucellin at EU market, but this option is considered as useful tool for year 2013).

In all positive cases, samples at slaughterline must be taken and sent to Croatian Veterinary Institute for further laboratory examination.

Picture 1.: Interpretation of positive results of blood tests



Programme should be carried out in the whole territory of the country, consisting of measures to retain status of officially brucellosis-free herds and to qualify all the herds which will not fulfill the conditions during the year 2012.

Competent Authority (CA) is Ministry of Agriculture – Veterinary Directorate.

Legal basis for the implementation of the Programme

- 1) Veterinary Act (Official Gazette 41/07, 55/11);
- 2) Food Act (Official Gazette 46/07, 55/11);
- 3) Ordinance on animal health requirements applicable to trade in bovine animals and Swine (Official Gazette, 154/08) – fully aligned with Directive 64/432/EEC;
- 4) Ordinance on measures for control and eradication of bovine brucellosis; (Official Gazette, 25/06) – aligned with the criteria for accelerated eradication of bovine brucellosis, prescribed by the Directive 78/52/EEC;
- 5) Ordinance on the notification of animal diseases (Official Gazette 62/11);
- 7) Order on measures to protect animals from infectious and parasitic diseases and the financing thereof in 2012 (Official Gazette 17/12);
- 8) Instructions on the manner of implementing the animal health controls measures prescribed by the Order on measures to protect animals from infectious and parasitic diseases and the financing thereof in 2012 (Official Gazette 30/12);
- 9) Ordinance on official controls of foodstuffs of animal origin (Official Gazette 99/07);
- 10) Ordinance on the hygiene rules for the food of animal origin (Official Gazette 99/07, 27/08, 118/09);
- 11) Ordinance on the obligatory identification and registration of bovine animals (Official Gazette 99/07, 41/08);
- 12) Ordinance on the implementation of the system for the compulsory identification and registration of bovine animals (Official Gazette 99/07);
- 13) Ordinance on veterinary checks on live animals moving in domestic trade and on the certificate of animal health and origin (Official Gazette 87/08)

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:

First year: **2011**

Last year: **When final erad. achieved**

Control

Eradication

- | | |
|---|--|
| <ul style="list-style-type: none"> ✓ Testing ✓ Slaughter of animals tested positive <input type="checkbox"/> Killing of animals tested positive <input type="checkbox"/> Vaccination <input type="checkbox"/> Treatment <input type="checkbox"/> Disposal of products ✓ Eradication, control or monitoring. | <ul style="list-style-type: none"> ✓ Testing ✓ Slaughter of animals tested positive <input type="checkbox"/> Killing of animals tested positive ✓ Extended slaughter or killing <input type="checkbox"/> Disposal of products ✓ Other measures (<i>specify</i>): |
|---|--|

Other measures, conducted as the part of the programme:

- ✓ all herds should be tested annually, together with consequential testing arising as a result of identifying and controlling infection (as required by the Directive 64/432/EEC)
- ✓ restriction of holdings in case of suspicion or positive result, and restriction of movement of animals from such holdings
- ✓ compensation to the keepers of positive/slaughtered animals
- ✓ epidemiological investigation of all positive cases, including traceability of potentially infected animals
- ✓ mandatory premovement testing of all bovines older than 12 months (animals from fattening herds, which will not be used for breeding and if they go directly for slaughter, are excluded from premovement blood test)
- ✓ bovine database – recording of all movements and all milk and blood tests performed at the herd level and individual animal

The programme measures include the following:

1) Annual herd blood test

A blood test is carried out in 2011, in all breeding animals aged 12 months and over, in every herd. Fattening herds are not included in the programme. In 2012, all breeding animals in all herds with less than 10 dairy cows have been tested again. For 2013, blood sampling of all breeding animals in all herds is planned.

2) Bulk milk test

In officially brucellosis-free herds with more than 10 dairy cows, two bulk milk ELISA tests, carried out at an interval of at least three months, shall be provided in 2012. There will be no bulk milk testing in 2013, as all breeding animals are planned to be sampled individually, through blood test.

3) Premovement testing

Premovement test with negative result is required prior to movement for all female and entire male animals over 12 months of age. Number of negative laboratory finding must be entered by the authorised veterinarian into animal passport, together with the date of sampling, not older than 30 days before the day of the movement.

4) Sampling and laboratory examination of all cattle abortions

Each abortion should be reported by the owner to the authorised veterinarian, and by the authorised veterinarian to veterinary inspector. Samples must be sent for laboratory examinations (aborted fetus, blood sample).

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

Obligations of the Veterinary Directorate (Competent Authority):

- 1) To coordinate and implement the programme for the eradication of bovine brucellosis in Croatia.
- 2) To collect, analyse, and monitor the collected data.
- 3) To perform statistical analyses and evaluate the results of the implementation of the programme.
- 4) To grant officially brucellosis-free status to herds which fulfill prescribed conditions.
- 5) To submit data required by the European Commission – to provide the relevant bodies of the European Union with information on the attainment of the objectives of the Programme.
- 6) To supervise the work of authorised veterinary organisations or authorised veterinarians in implementing the measures under this Programme.

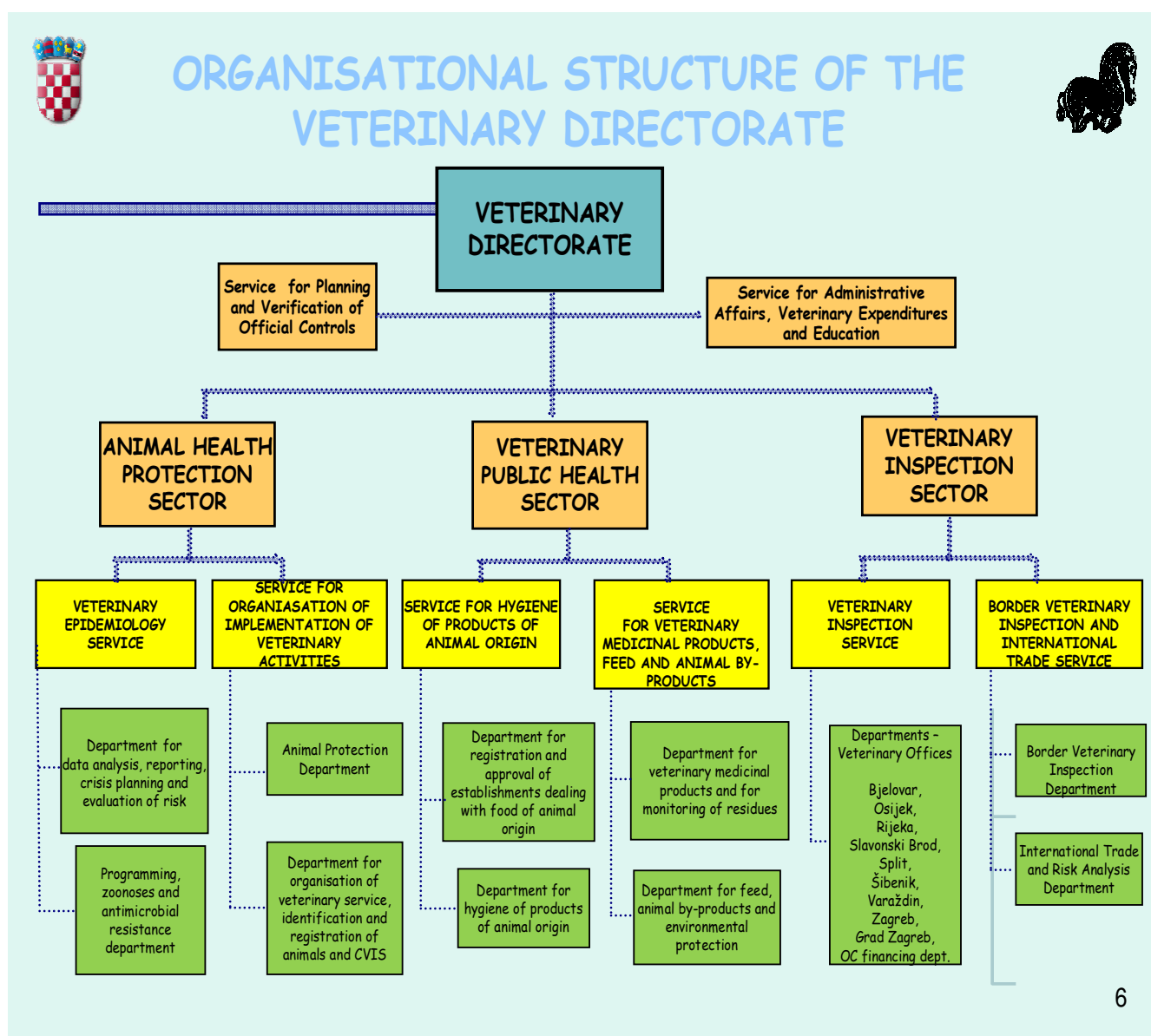
- 7) To take the prescribed measures when irregularities are detected or when measures defined in this Programme are not implemented in a timely manner.
- 8) To carry out supervision to ensure that the prescribed conditions continue to be fulfilled on holdings with officially free status, and to suspend or to withdraw status in case the conditions are no longer fulfilled, for any reason.
- 9) To assure financial resources for programme implementation and compensation for the farmers.

In the Veterinary Directorate, Veterinary Epidemiology Service (inside the Animal Health Protection Sector) is responsible for the coordination and the implementation of the programme. In Veterinary Inspection Sector, Veterinary Inspection Service (consisting of 9 regional offices with 65 branches, covering whole territory of Croatia) is responsible for supervision on the field and for control of the work of authorised veterinary organisations.

Obligations of keepers of animals:

- 1) To give immediate notification to a veterinarian in an authorised veterinary organisation in case of any suspicion on bovine brucellosis, and particularly to report each case of abortion.
- 2) To restrict the movement of an animal suspected of being affected by disease and to prevent contact of other people and animals with the suspected animal or carcass until veterinary checks have been completed.
- 3) To strictly implement all prescribed and ordered veterinary measures in order to control and eradicate the disease.

Picture 2.: Organisational structure of the Competent Authority (Veterinary Directorate)



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Obligations of authorised veterinary organisations:

Prescribed measures should be performed by the total number of 894 authorised veterinarians, from 138 authorised veterinary organisations, contracted by the Competent Authority. All epizootical regions are covered.

Obligations are, as follows:

- 1) To implement the measures determined by this programme and the Ordinance on animal health requirements applicable to trade in bovine animals and swine.

- 2) To timely enter all results of provided measures (blood sampling, bulk milk sampling) into database, in order to be able to get immediate answer from laboratory of Croatian Veterinary Institute (databases are connected).
- 3) To take specific samples in the case of cattle abortion and send them to Croatian Veterinary Institute for further laboratory microbiological examination.
- 4) To immediately notify local state veterinary inspector and CA of any clinical suspicion.

Obligations of the Croatian Veterinary Institute:

Five laboratories of Croatian Veterinary Institute (Central Laboratory in Zagreb, regional Institutes in Osijek, Križevci, Split and Rijeka) cover whole territory of Croatia. All laboratories are well staffed and equipped, controlled and coordinated from the central level – Croatian Veterinary Institute Zagreb. From year 2012 central database for all results is in place.

Obligation of CVI are:

- 1) To perform laboratory tests in accordance with the procedures being laid down in this programme.
- 2) To inform the Veterinary Directorate, the competent branch veterinary offices and the sender of the sample about the results of diagnostic tests (immediately and without delay).
- 3) Croatian Veterinary Institute – Zagreb is National Reference Laboratory. All bulk milk samples should be sent to CVI Zagreb. Blood samples should be sent to regional branches of CVI (Veterinary Institutes at Osijek, Rijeka, Split and Križevci), depending on territorial coverage for each county. In the case of positive result of Rose Bengal test, samples should be sent to CVI – Zagreb, for further examination (Complement Fixation Test, ELISA Tests) and final confirmation of the results.

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

The bovine brucellosis eradication programme is implemented throughout the territory of the Republic of Croatia (all 21 regions - counties). Total area of the territory of the Republic of Croatia is 56 542 km².

The official control and supervision of the implementation of the Programme will be carried out by the Veterinary Inspection Department of the Veterinary Directorate, which is divided into nine regional Veterinary Offices (Bjelovar, Osijek, Rijeka, Slavonski Brod, Split, Šibenik, Varaždin, Zagreb and the City of Zagreb). Branch offices with individual officers (a total of 65 branch offices) have been set up to carry out the tasks falling within the remit of the Sections – Veterinary Offices.

Picture 3: Republic of Croatia – regional division on 21 county (20 counties plus City of Zagreb)



4.4. Description of the measures of the programme:

4.4.1. Notification of the disease:

The Ordinance on the notification of animal diseases (Official Gazette 62/11, 114/11) sets out the obligation to notify the occurrence (confirmed case) of bovine brucellosis and the obligation to notify any suspicion of bovine brucellosis and lays down the procedures to be followed by the keeper of the animal, the authorised veterinarian, the state veterinary inspector and official laboratories.

The keeper of the animal must immediately and without delay notify an authorised veterinary organisation suspicion on disease (clinical signs).

A veterinarian who suspects the disease must notify the Veterinary Directorate and the state veterinary inspector at a competent branch of the veterinary office thereof by telephone and telefax or electronic means, without delay and no later than within 24 hours. The authorised veterinarian must submit information about the suspicion using the forms set out in Annex III to the Ordinance on the notification of animal diseases.

4.4.2. Target animals and animal population:

The programme shall cover bovine herds in the territory of the Republic of Croatia. For year 2013, all breeding bovine animals older than 12 months must be blood tested once per year.

Fattening herds, where all the animals come from officially brucellosis-free herds and where CA guarantees that the animals will not be used for breeding but will go direct for slaughter, are not included in the programme.

4.4.3. Identification of animals and registration of holdings:

All herds and holdings are registered in accordance with Directive 64/432/EEC. The current national system is performed in accordance with Ordinance of the obligatory identification and registration of bovine animals (Official Gazette, 99/07, 41/08), which is fully aligned with EU Regulations (EC) 1760/2000, (EC) 494/98, (EC) 1082/2003, (EC) 499/2004, (EC) 911/2004 and (EC) 644/2005. In case of any in-country movement, an individual animal passport should be issued by the authorised veterinarian. Date of last blood test to bovine brucellosis is the obligate field which should be fulfilled at the passport.

4.4.4. Qualifications of animals and herds:

The attribution, maintenance, suspension and withdrawal of qualifications are fully according to Directive 64/432/EEC as amended.

4.4.5. Rules on the movement of animals:

Individual animal must be accompanied by its passport, issued by authorised veterinarian, where the date of last blood test (in case animal is older than 12 months) and number of laboratory finding from Croatian Veterinary Institute must be entered. For bovine animals which are sent directly to slaughter, premovement blood test is not required. All animals moved for slaughter purposes receive an examination in accordance with Regulation 854/2004/EC.

In case of bovines exported to EU, 30-day premovement blood test on all eligible bovines must be performed, in compliance with Directive 64/432/EEC.

In case of any suspicion case in the herd, as well as in case of any positive blood test result, holding is immediately restricted by the decision of state veterinary inspector and rules prescribed by the *Ordinance on measures for control and eradication of bovine brucellosis* should be applied. That means that no cattle may leave the herd concerned, unless by the authorisation of veterinary inspector for the purpose of slaughter without delay, until the new decision of competent state veterinary inspector.

4.4.6. Tests used and sampling schemes:

The Laboratory for Bacterial Zoonoses and Molecular Diagnostics of Bacterial Diseases of the Croatian Veterinary Institute in Zagreb is the official and national reference laboratory for the diagnosis of bovine brucellosis.

In accordance to the Annex C of Directive 64/432/EEC, blood tests for bovine brucellosis are:

- a) Rose Bengal Test (RBT) – as the screening method
- b) Complement Fixation Test (CFT) – as confirmation method
- c) Competitive ELISA (cELISA) – for confirmation purposes
- d) Indirect ELISA (iELISA) – for confirmation purposes

Bulk milk samples are tested using the Milk ELISA Test.

4.4.7. Vaccines used and vaccination schemes:

Vaccination is prohibited under Croatian legislation, as well as any therapeutical treatment.

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

The guidelines of good manufacturing practice are stipulated by the Veterinary Act, the Food Act and the implementing secondary regulations. Continuous education of veterinarians, producers and animal holders is conducted through the Croatian Veterinary Chamber, the Croatian Chamber of Economy and the Advisory Services of the Ministry of Agriculture. The guidelines are elaborated in accordance with the recommendations of the European Commission, the World Organisation for Animal Health (OIE) and the latest scientific developments.

Primary production establishments and food and feed business operators must ensure the following:

- implementation of hygienic measures on holdings, in establishments and during transport in a regulated manner,
- implementation of measures for the prevention of disease introduction,
- disposal of biological waste,
- respect of animal welfare.

In addition, compensation payment is conditional, depending on bio-security measures provided at the holding, which is controlled by the state veterinary inspectors.

4.4.9. Measures in case of a positive result:

In case where brucellosis is suspected or confirmed, the holding is restricted under EU and national legislation and an animal may not be moved into or out of a restricted holding except in accordance with the movement permit approved by the CA.

Measures in case of suspicion or officially confirmed bovine brucellosis are prescribed by the Ordinance on measures for control and eradication of bovine brucellosis, which is aligned with the criteria for accelerated eradication of bovine brucellosis, prescribed by the Directive 78/52/EEC.

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

Compensation for owners of slaughtered animals is prescribed by Articles 26, 27 and 28 of the *Veterinary Act* (OG 41/07, 55/11).

For animals killed, slaughtered or for animals which have died due to the implementation of the ordered measures, as well as for the objects that were damaged or destroyed in the course of the implementation of the ordered measures referred to in Article 26, the animal holder or the owner of the object are entitled to the compensation in the amount of the market value on the day of the implementation of the measure.

The assessment of the value of the animals and objects is carried out by the commission appointed by the CVO, the composition of which must include the competent veterinary inspector. The decision on the entitlement to the damage compensation and on the amount of damage compensation is passed by the CVO upon the proposal of the commission within 60 days, while payment must ensue not later than 90 days from the day of implementation of the measures.

The animal holder or owner of the object is not entitled to damage compensation referred:

- if he failed to immediately report the appearance of the infectious disease and did not treat the animal in the manner stipulated by the of the implementing legislation.
- if he failed to undertake the stipulated or ordered measures for the prevention and control of infectious or parasitic diseases,
- if he transfers the animal from an uninfected to an infected or endangered area or from the infected or endangered area to the uninfected area,
- if he conducts trade of animal contrary to the provisions of *Veterinary Act*,
- if the animal disease appeared during import or within the duration of quarantine of the imported animal.

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

The authorised veterinary organisation shall verify whether the prescribed conditions are fulfilled and on behalf of the Veterinary Directorate shall grant officially brucellosis-free herd status.

Any further changes to the status of the holding (maintenance, suspension/withdrawal, re-gaining the suspended/withdrawn status) are recorded by a state veterinary inspector or an official veterinarian.

Competent Authority (from the central level, in cooperation with veterinary inspectors/official veterinarians at the field) provides control on scheduling of the tests and sampling, epidemiological investigations and all aspects of the programme including evaluation of results and quality control aspects. Bovine database, developed in cooperation with the Croatian Agricultural Agency (CAA) is the most important tool for further development and improvements of eradication programme.

The Veterinary Directorate submits the data to the European Commission in accordance with the provisions of Commission Decision 2008/940/EEC. laying down standard reporting requirements for national programmes for the eradication, control and monitoring of certain animal diseases and zoonoses co financed by the Community.

5. Benefits of the programme:

1. Confirming officially brucellosis-free status of bovine herds with the aim of improving the health status of bovine population in the country and the human health protection, particularly according to the provisions prescribed by the Regulation (EC) 853/2004, about health requirements for milk production.
2. Creating the possibility of placing bovine animals on the market, without restrictions, throughout the territory of the European Union, thus ensuring the free movement of goods, enhancing market competitiveness and strengthening livestock production.
3. In long terms, declaring the country as officially free of bovine brucellosis.
4. Strengthening the implementation of bio-security and other preventive measures to reduce the risk of introducing the causative agents of dangerous infectious animal diseases (dangerous zoonoses or diseases causing significant economic damage), which, as a rule, occur more frequently in herds of unknown health status.

6. Data on the epidemiological evolution during the last five years

6.1. Evolution of the disease

6.1.1. Data on herds^(a) (one table per year)

Year: 2011

Bovine brucellosis

Region ^(b)	Animal species	Total number of herds ^(c)	Total number of herds under the programme	Number of herds checked ^(d)	Number of positive herds ^(e)	Number of new positive herds ^(f)	Number of herds depopulated	% positive herds depopulated	INDICATORS		
									% herd coverage	% positive herds Period herd prevalence	% new positive herds Herd incidence
1	2	3	4	5	6	7	8	9 = (f)x100	10= (5/4)x100	11 = (6/5)x100	12 = (7/5)x100
Zagrebačka	bovine	4812	4560	4533	0	0	0	0	99.4 %	0.00 %	0.00 %
Krapinsko- zagorska	bovine	3729	3643	3630	0	0	0	0	99.6 %	0.00 %	0.00 %
Sisačko- moslavačka	bovine	2964	2740	2682	0	0	0	0	97.9 %	0.00 %	0.00 %
Karlovačka	bovine	2454	2276	2214	0	0	0	0	97.3 %	0.00 %	0.00 %
Varaždinska	bovine	1690	1591	1591	0	0	0	0	100.0 %	0.00 %	0.00 %
Koprivničko – križevačka	bovine	4553	4219	4205	0	0	0	0	99.7 %	0.00 %	0.00 %
Bjelovarsko – bilogorska	bovine	4572	4181	4170	0	0	0	0	99.7 %	0.00 %	0.00 %
Primorsko – goranska	bovine	353	323	311	0	0	0	0	96.3 %	0.00 %	0.00 %
Ličko - senjska	bovine	2092	1715	1502	0	0	0	0	87.6 %	0.00 %	0.00 %
Virovitičko – podravska	bovine	1120	995	995	0	0	0	0	100.0 %	0.00 %	0.00 %

Požeško – slavonska	bovine	879	821	821	0	0	0	0	100.0 %	0.00 %	0.00 %
Brodsko – posavska	bovine	1313	1112	1085	0	0	0	0	97.6 %	0.00 %	0.00 %
Zadarska	bovine	456	319	258	0	0	0	0	80.9 %	0.00 %	0.00 %
Osječko – baranjska	bovine	1949	1560	1560	0	0	0	0	100.0 %	0.00 %	0.00 %
Šibensko – kninska	bovine	879	790	757	0	0	0	0	95.8 %	0.00 %	0.00 %
Vukovarsko – srijemska	bovine	1710	1387	1368	0	0	0	0	98.6 %	0.00 %	0.00 %
Splitsko – dalmatinska	bovine	1706	1299	1209	0	0	0	0	93.1 %	0.00 %	0.00 %
Istarska	bovine	1132	1024	989	0	0	0	0	96.6 %	0.00 %	0.00 %
Dubrovačko – neretvanska	bovine	314	226	184	0	0	0	0	81.4 %	0.00 %	0.00 %
Međimurska	bovine	784	701	701	0	0	0	0	100.0 %	0.00 %	0.00 %
Grad Zagreb	bovine	625	565	549	0	0	0	0	97.2 %	0.00 %	0.00 %
Total		40086	36047	35314	0	0	0	0	98.0 %	0.0 %	0.0 %

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

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

Year: 2011

Bovine brucellosis

Region ^(a)	Anim al speci es	Total number of animals ^(b)	Number of animals ^(d) to be tested under the programm e	Number of animals ^(c) tested	Number of animals tested individually ^(d)	Number of positive animals	Slaughtering		INDICATORS	
							Number of animals with positive result slaughtered or cullled	Total number of animals slaughtered ^(e)	% coverage at animal level	% positive animals Animal prevalence
1	2	3	4	5	6	7	8	9	10=(5/4)x100	11=(7/5)x100
Zagrebačka	bovine	37789	22116	22099	22099	0	0	0	99.9 %	0.0 %
Krapinsko- zagorska	bovine	13206	8842	8798	8798	0	0	0	99.5 %	0.0 %
109,1%	bovine	33739	20850	20439	20439	0	0	0	98.0 %	0.0 %
Karlovačka	bovine	16483	10458	10326	10326	0	0	0	98.7 %	0.0 %
Varaždinska	bovine	11943	7240	7240	7240	0	0	0	100.0 %	0.0 %
Koprivničko – križevačka	bovine	76323	35147	35099	35099	0	0	0	99.9 %	0.0 %
Bjelovarsko – bilogorska	bovine	70187	37714	37623	37623	0	0	0	99.8 %	0.0 %
Primorsko – goranska	bovine	2033	1385	1362	1362	0	0	0	98.3 %	0.0 %
Ličko - senjska	bovine	10355	6790	6268	6268	0	0	0	92.3 %	0.0 %
Virovitičko – podravska	bovine	17175	8911	8911	8911	0	0	0	100.0 %	0.0 %
Požeško – slavonska	bovine	13738	7452	7452	7452	0	0	0	100.0 %	0.0 %
Brodsko – posavska	bovine	16611	9298	9224	9224	0	0	0	99.2 %	0.0 %
Zadarska	bovine	5258	2927	2554	2554	0	0	0	87.3 %	0.0 %

Osječko – baranjska	bovine	92818	35422	35422	35422	0	0	0	100.0 %	0.0 %
Šibensko – kninska	bovine	4669	3355	3197	3197	0	0	0	95.3 %	0.0 %
Vukovarsko – srijemska	bovine	33867	20385	20309	20309	0	0	0	99.6 %	0.0 %
Splitsko – dalmatinska	bovine	8951	3912	3665	3665	0	0	0	93.7 %	0.0 %
Istarska	bovine	9919	5919	5873	5873	0	0	0	99.2 %	0.0 %
Dubrovačko – neretvanska	bovine	1975	1192	860	860	0	0	0	72.1 %	0.0 %
Međimurska	bovine	13212	6521	6521	6521	0	0	0	100.0 %	0.0 %
Grad Zagreb	bovine	5565	1734	1680	1680	0	0	0	96.9 %	0.0 %
Total		495816	257570	254922	254922	0	0	0	99.0 %	0.0 %

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

6.2. Stratified data on surveillance and laboratory tests

6.2.1. Stratified data on surveillance and laboratory tests

Detailed explanation of positive results is given in addition to Table 6.3.

Year: 2011

Region ^(a)	Animal species/ category	Test type ^(b)	Description of test	Number of samples tested	Number of positive samples
Croatia – TOTAL (2011)	Bovine	serological	RBT – screening	270336	21
	Bovine	serological	CFT – confirm.	58	3
	Bovine	serological	cELISA – confirm.	90	1
	Bovina	Serological	iELISA – confirm.	90	1
	Bovine	Bulk Milk Sample	ELISA	14882	0
Total					

(a) Region as defined in the programme of the Member State.

(b) Indicate whether the test is serological, virological etc.

6.3. Data on infection

Year: 2011

Region ^(a)	Animal species	Number of herds infected ^(b)	Number of animals infected
Croatia – 2011	bovine	0	0
Croatia – 2010	bovine	0	0
Croatia – 2009	bovine	0	0
Croatia – 2008	bovine	0	0
Croatia – 2007	bovine	0	0
Total		0	0

(a) Region as defined in the programme of the Member State.

(b) Herds or flocks or holdings as appropriate.

6.4. Data on the status of herds at the end of each year

Year: 2011

Region ^(a)	Animal species	Status of herds and animals under the programme ^(b)													
		Total number of herds and animals under the programme		Unknown ^(c)		Not free or not officially free from disease				Free or officially free from disease status suspended ^(f)		Free from disease ^(g)		Officially free from disease ^(h)	
						Last check positive ^(d)		Last check negative ^(e)							
		Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾
Zagrebačka	bovine	4560	22116	27	60	0	0	4132	14806	0	0	0	0	401	7250
Krapinsko-zagorska	bovine	3643	8842	13	45	0	0	3543	7285	0	0	0	0	87	1512
Sisačko-moslavačka	bovine	2740	20850	58	78	0	0	2317	14457	0	0	0	0	365	6315
Karlovačka	bovine	2276	10458	62	120	0	0	2012	6457	0	0	0	0	202	3881
Varaždinska	bovine	1591	7240	0	0	0	0	1443	4696	0	0	0	0	148	2544
Koprivničko – križevačka	bovine	4219	35147	14	28	0	0	3335	19735	0	0	0	0	870	15384
Bjelovarsko – bilogorska	bovine	4181	37714	11	31	0	0	3220	18767	0	0	0	0	950	18916
Primorsko – goranska	bovine	323	1385	12	40	0	0	298	1139	0	0	0	0	13	206
Ličko - senjska	bovine	1715	6790	213	450	0	0	1374	4893	0	0	0	0	128	1447
Virovitičko – podravska	bovine	995	8911	0	0	0	0	793	4215	0	0	0	0	202	4696
Požeško – slavonska	bovine	821	7452	0	0	0	0	651	3766	0	0	0	0	170	3686
Brodsko – posavska	bovine	1112	9298	27	45	0	0	876	4458	0	0	0	0	209	4795

Zadarska	bovine	319	2927	61	129	0	0	252	1573	0	0	0	0	6	1225
Osječko – baranjska	bovine	1560	35422	0	0	0	0	1124	15260	0	0	0	0	436	20162
Šibensko – kninska	bovine	790	3355	33	58	0	0	738	2965	0	0	0	0	19	332
Vukovarsko – srijemska	bovine	1387	20385	19	43	0	0	1021	9428	0	0	0	0	347	10914
Splitsko – dalmatinska	bovine	1299	3912	90	228	0	0	1182	3229	0	0	0	0	27	455
Istarska	bovine	1024	5919	35	67	0	0	915	3856	0	0	0	0	74	1996
Dubrovačko– neretvanska	bovine	226	1192	42	98	0	0	184	1094	0	0	0	0	0	0
Medimurska	bovine	701	6521	0	0	0	0	541	2965	0	0	0	0	160	3556
Grad Zagreb	bovine	565	1734	16	32	0	0	530	1390	0	0	0	0	19	312
Total		36047	257570	733	1552	0	0	30481	146334	0	0	0	0	4833	109684

- (a) Region as defined in the programme of the Member State
(b) At the end of the year
(c) Unknown: No previous checking results available
(d) Not free and last check positive: Herd checked with at least one positive result in the latest check
(e) Not free and last check negative: Herd checked with negative results in the latest check but not being *Free* or *Officially Free*
(f) Suspended as defined in Union or national legislation for the respective disease at the end of the reporting period.
(g) Free herd as defined in Union or national legislation for the respective disease.
(h) Officially free herd as defined in Union or national legislation for the respective disease .
(i) Include animals under the programme in the herds with the referred status (left column).

6.5. Data on vaccination or treatment programmes¹ (NO VACCINATION – NO TREATMENT)

Year:

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

- (a) Region as defined in the programme of the Member State
- (b) Herds or flocks or holdings as appropriate

¹ Data to provide only if vaccination has been carried out.

6.6. Data on wildlife² (NOT APLICABLE)

6.6.1. Estimation of wildlife population

Year:

Regions ^(a)	Animal species	Method of estimation	Estimated population
Total			

(a) Region as defined in the programme of the Member State

² Data only to provide in case the programme comprises measures as regards wildlife or if the data are epidemiologically relevant for the disease.

6.6.2. *Disease surveillance and other tests in wildlife (one table per year) (NOT APLICABLE)*

Year:

Region ^(a)	Animal Species	Test type ^(b)	Test description	Number of samples tested	Number of positive samples
Total					

- (a) Region as defined in the programme of the Member State
- (b) Indicate whether the test is serological, virological, biomarker detection etc.

6.6.3. *Data on vaccination or treatment of wildlife (NOT APLICABLE)*

Year:

Region ^(a)	Square km	Vaccination or treatment programme		
		Number of doses of vaccine or treatment to be administered	Number of campaigns	Total number of doses of vaccine or treatment administered
Total				

(a) Region as defined in the programme of the Member State

7. **Targets**

7.1. **Targets related to testing (one table for each year of implementation³)**

7.1.1. *Targets on diagnostic tests*

Region ^(a)	Type of the test ^(b)	Target population ^(c)	Type of sample ^(d)	Objective ^(e)	Number of planned tests
2013 (Croatia – TOTAL)	RBT (Rose Bengal) – screening	All breeding animals > 12 months old (herd test – surveillance)	serum	surveillance	250.000
	CFT (Comp.fixation) – confirm.		serum	Confirmation of RBT pos. test (surveillance)	100
	cELISA, – confirm.		serum	Confirmation of RBT pos. test (surveillance)	100
	iELISA – confirm.		serum	Confirmation of RBT pos. test (surveillance)	100
	Bacteriological examination		Organs	Confirmation of positive (blood test) cases	10
	Bacteriological examination	Breeding cows and heifers (abortions)	Fetus, organs	Confirmation of suspected (abortion) cases	1.300
Total					

- (a) Region as defined in the programme of the Member State
 (b) Description of the test (for instance SN-test, AB-Elisa, RBT,)
 (c) Specification of the targeted species and the categories of targeted animals (for instance sex, age, breeding animal, slaughter animal, ...).
 (d) Description of the sample (for instance blood, serum, milk,)
 (e) Description of the objective (for instance qualification, surveillance, confirmation of suspected cases, monitoring of campaigns, seroconversion, control on deleted vaccines, testing of vaccine, control of vaccination,)

³ For subsequent years of approved multiannual programmes only one table for the relevant year should be filled in.

7.1.2. Targets on testing herds and animals⁴

7.1.2.1 Targets on the testing of herds^(a)

Region ^(b)	Animal species	Total number of herds ^(c)	Total number of herds under the programme	Number of herds expected to be checked ^(d)	Number of expected positive herds ^(e)	Number of expected new positive herds ^(f)	Number of herds expected to be depopulated	% positive herds expected to be depopulated	TARGET INDICATORS		
									Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence
1	2	3	4	5	6	7	8	9 =	10 = (5/4)x100	11 = (6/5)x100	12 = (7/5)x100
2013 (Croatia – total)	bovine	38.500	35.500	35.300	0	0	0	0 %	99 %	0.0	0.0
2012 (Croatia – total)	bovine	39.500	36.000	35.600	0	0	0	0 %	99 %	0.0	0.0
Total											

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

⁴ Data not to provide in case of rabies.

7.1.2.2. Targets on the testing of animals

Region ^(a)	Animal species	Total number of animals ^(b)	Number of animals ^(c) under the programme	Number of animals ^(c) expected to be tested	Number of animals to be tested individually ^(d)	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 ^(e)	Expected % coverage at animal level	% positive animals (Expected animal prevalence)
1	2	3	4	5	6	7	8	9	$10=(5/4) \times 100$	$11=(7/5) \times 100$
2013 (Croatia – total)	bovine	500.000	253.000	250.000	250.000	0	0	0	99 %	0.00 %
2012 (Croatia – total)	bovine	500.000	255.000	250.000	144.000	0	0	0	99%	0.00 %

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

7.2. Targets on qualification of herds and animals (one table for each year of implementation)

Region ^(a)	Animal species	Total number of herds and animals under the programme		Targets on the status of herds and animals under the programme ^(b)											
				Expected unknown ^(c)		Expected not free or not officially free from disease				Expected free or officially free from disease status suspended ^(f)		Expected free from disease ^(g)		Expected officially free from disease ^(h)	
						Last check positive ^(d)		Last check negative ^(e)							
				Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾	Herds	Animals ⁽ⁱ⁾
2013 (Croatia – total)	bovine	35.500	253.000	0	0	0	0	10	200	0	0	0	0	35.490	252.800
2012 (Croatia – total)	bovine	36.000	255.000	50	200	0	0	300	3.000	0	0	0	0	35.700	251.800
Total															

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

7.3. Targets on vaccination or treatment (one table for each year of implementation) (NOT APLICABLE)

7.3.1. Targets on vaccination or treatment⁵

Region ^(a)	Animal species	Total number of herds ^(b) in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Targets on vaccination or treatment programme					
				Number of herds ^(b) in vaccination or treatment programme	Number of herds ^(b) 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 ^(c) expected to be vaccinated	Number of young ^(c) animals expected to be vaccinated
Total									

- (a) Region as defined in the programme of the Member State
- (b) Herds or flocks or holdings as appropriate
- (c) Only for Bovine brucellosis and Ovine, Caprine brucellosis (*B. melitensis*) as defined in the programme

⁵ Data to provide only if appropriate .

7.3.2. *Targets on vaccination or treatment⁶ of wildlife (NOT APLICABLE)*

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

(a) Region as defined in the programme of the Member State

⁶ Data to provide only if appropriate.

8. **Detailed analysis of the cost of the programme (one table per year of implementation⁷)**

<u>Costs related to</u>	<u>Specification/Unit</u>	<u>Unit⁸</u>	<u>Number of units</u>	<u>Unitary cost in €</u>	<u>Total amount in €</u>	<u>Union funding requested (yes/no)</u>
<u>1. Testing</u>						
<u>1.1. Cost of sampling</u>	Blood sampling	sample	250.000	0.5 EUR	125.000,00 EUR	YES
						YES
<u>1.2 Cost of the analysis</u>	Blood sample (RBT)	Sample	250.000	0.2 EUR	50.000,00 EUR	YES
	Blood sample (CFT)	Sample	100	2,5 EUR	250,00 EUR	YES
	Blood sample (cELISA)	Sample	100	2,5 EUR	250,00 EUR	YES
	Blood sample (iELISA)	Sample	100	2,5 EUR	250,00 EUR	
	Bacteriology	Culture	1.310	10 EUR	13.100,00 EUR	YES
<u>2.3. Control costs</u>						
<u>2.4. Others (please specify)</u>						

⁷ For subsequent years of approved multiannual programmes only one table for the relevant year should be filled in.

⁸ Specify the unit to which the data in the following two columns is referring to (e.g. sample, test, animal sampled etc).

<u>3. Slaughter and destruction</u>						
<u>3.1. Compensation of animals</u>	On farm market valuation Reactor grants	Bovine – false positive	5	800 EUR	EUR 4.000,00	YES
<u>3.2. Transport costs</u>						NO
<u>3.3. Destruction costs</u>	Not aplicable.					
<u>3.4. Loss in case of slaughtering</u>						NO
<u>3.5 Costs from treatment of products (milk, or others –please specify)</u>						
<u>4. Cleaning and disinfection</u>						NO

<u>Salaries (staff contracted for the programme only)</u>						
	Further development of Bovine brucellosis / EBL database online application.	Croatian Agricultural Agency				<i>NO</i>
<u>7. Other costs</u>						
	<u>TOTAL</u>				EUR 192.850,00	