

Conclusions and Recommendations of the FAO-APHCA and OIE Regional Workshop
on Brucellosis Diagnosis and Control with an emphasis on *B. melitensis*
Chiang Mai, Thailand, 20-23 October 2008

Considering that

1. The FAO-APHCA and OIE Regional Workshop on Brucellosis Diagnosis and Control with an emphasis on *B. melitensis* was organized in Chiang Mai and Lampang, Thailand on 20-23 October 2008, to (a) give an update on Brucellosis situation in Asia and the Pacific with an emphasis on current epidemiological situation of *B. melitensis* in the Region, (b) introduce protocol development for control of Brucellosis and (c) provide hands-on trainings on diagnosis of Brucellosis (putting an emphasis on *B. melitensis*).
2. Brucellosis, including caprine and ovine brucellosis caused by *B. melitensis*, has been recognized in most member countries of the Asia and Pacific Region, with a high rate of positive cases in some parts of the Region, and as a consequence, the high infection rate in human populations. The information on Brucellosis in pigs is not sufficient in the Region.
3. Several laboratory diagnostic tests are available for the identification of *Brucella* and for serological testing (in particular, RBT, CFT and iELISA) but no single serological test is applicable for all purposes of Brucellosis diagnosis.
4. PCR is, at present under development, a quicker diagnostic tool for *Brucella* detection. While the conventional *Brucella* typing methods remain standard tests, there is up-to-now no molecular typing system available to differentiate all *Brucella* strains. In general, all molecular tests are still expensive.
5. One of the constraints to more active Brucellosis diagnosis in the Asia and Pacific Region is to obtain diagnostic reagents such as Rose Bengal Test (RBT) antigen, which is essential for routine laboratory work.
6. It is considered that new tools for diagnosis are necessary but an epidemiology-based strategy is essential for testing regime design and results interpretation.
7. In addition to effective veterinary services, (i) educational programmes to other stakeholders such as farmers, including those for good farming management, (ii)

effective enforcement of legislation in conjunction with animal disease control, (iii) public awareness and preparedness of the disease which is transmissible to humans, are all essential for the disease control and the development of long term disease control strategies.

The Workshop on Brucellosis diagnosis and control recommends that,

8. A combination of those different Brucellosis tests mentioned in item 3 above should be considered appropriate for practical diagnostic measures in the field, taking into account various factors including the effectiveness for a complementary purpose of laboratory diagnosis, the different laboratory infrastructure and economic coverage capacity for laboratory reagents, etc. at the respective national laboratories.
9. Referring to item 2 above, the member countries should be encouraged to further investigate the epidemiological situation in livestock, in particular *B. abortus* and *B. suis* (for cattle and pigs respectively).
10. National laboratories should keep the same standard operating procedures. According to the OIE requirements and as CFT is concerned, the national reference laboratory should make an effort to harmonize the operating procedures at least at a national level.
11. Establishment of a Reference Laboratory for Brucellosis for the Asia and Pacific Region should be considered in order to support the strengthening of laboratory capacity and activities of Brucellosis diagnosis and surveillance, and also for national brucellosis control strategies on the short and/or long term basis in the respective countries. Such a Reference Laboratory should provide services on diagnostic reagent and vaccine control as well as *Brucella* typing. For this purpose, the OIE twinning programme should be developed in this Region; for example, between the OIE/FAO Reference Laboratory for Brucellosis (France) and the National Institute of Animal Health (NIAH) in Thailand. Member countries request the modest financial support from international agencies to cover the provision of RBT antigen.
12. Brucellosis control strategies including capacity building at laboratory diagnosis and surveillance should be further strengthened for the disease control and eventual eradication of the disease at the national and regional levels. Member countries request a follow-up workshop/training.

13. Epidemiology and diagnosis of Brucellosis are a key element for the sound development of control strategies, in particular taking into consideration the fact that Brucellosis is a herd/flock disease, and choice of tests and interpretation should always be based on epidemiological reality, as epidemiology of the disease is complex.

14. Selection of control and eradication strategies and decision of control levels, should include some disease control aspects based on the epidemiological situation, policies for the test and isolation/slaughter, animal movement management and for vaccination, while the circumstance surrounding the disease needs to take into consideration the political will, budget availability and capacity of Veterinary Services for disease control, animal/herd identification and availability of quality vaccines.

The exclusive test and slaughter strategy should be limited to the regions/areas, where (i) a herd prevalence of the disease is very low and (ii) adequate budget and the long term political will are secured.

In all other situations, vaccination should be considered as a basic control tool.

The whole population vaccination should be considered, where the herd prevalence is high and where animal movement could not be effectively controlled.

Where the herd prevalence is moderate and where animal movement is controlled as well as budget is adequate, the combination of a test and slaughter policy and vaccination programme should be considered. Therefore, the primary goal of a control programme should be the good knowledge of situation for the adequate definition of epidemiological units of intervention and a well-designed control policy including vaccination and/or the test/slaughter should be a priority for the progressive control of Brucellosis and eventual eradication of the disease.

15. International cooperation for Brucellosis diagnosis and control by FAO-APHCA and OIE should be continued for capacity building of national Veterinary Services in the Asia and Pacific region for development of a long term control programme of the disease.