

Control of animal brucellosis: the Malaysian experience

ABSTRACT

Brucellosis is a zoonotic disease characterized by reproductive failure in animals and undulant fever in humans. In cattle, it is caused by *Brucella abortus* while in goats by *Brucella melitensis*, the main cause of brucellosis in humans. Brucellosis in livestock has been associated with importation of animals from breeder herd of unknown disease status. The prevalence of bovine brucellosis *Brucella abortus* in 2014 ranged between 1% and 2% in Thailand and Indonesia, and 4%–65% in Malaysia and Myanmar. Prevalence of goat brucellosis *Brucella melitensis* is approximately 1% in Malaysia and Thailand. Test-and-slaughter is the general policy against brucellosis adopted by most ASEAN countries to eradicate the disease. Under this program, the Rose Bengal Plate Test (RBPT) is used as the screening test to identify infected farm/herd while the complement fixation test (CFT) is the confirmatory test. The test-and-slaughter eradication strategy that was implemented since 1979 had managed to keep the prevalence rate to less than 5%, from 3.3% in 1979, 0.23% in 1988, 1% in 1998 and 5% in 2016. The test-and-slaughter program seemed effective in reducing the prevalence of brucellosis but was unable to eradicate the disease due to several factors, which include failure to locate and identify the remaining affected animals and to control their movement, importation of breeder animals from non-brucellosis free countries and lack of participation by the farmers following unreliable test results. To support the eradication policy, research activities since 1980s have suggested combinations of serological tests to improve diagnosis while surveillance should be focused on hotspots areas. The prevalence can be further reduced by strictly sourcing breeder animals from brucella-free areas or countries.

Keyword: Brucellosis; Animal; Control