



World Organisation  
for Animal Health  
Founded in 1924

中华人民共和国农业农村部

Ministry of Agriculture and Rural Affairs of the People's Republic of China

# Best practices on diagnostics, surveillance and control/elimination efforts for Brucellosis In Bangladesh

**Member**

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- Brucellosis is a zoonotic disease caused by bacteria from the genus *Brucella*, with *Brucella abortus* being the primary agent responsible for bovine brucellosis.
- *Brucellosis is present in animal populations of Bangladesh, with nearly 10% of cattle and 09% of goats and sheep showing serological evidence of infection.*





In Bangladesh -7.85% (MRT +ve) and 7.33% (RBT +ve) found in cattle (Sarker et. al., 2018)

In 2013, prevalence found about-11.11% (shahjadpur) and 5.55% (Belkuchi)

In Bangladesh sero prevalence of brucellosis in

- cattle was 6.6%,
- infertility 13.33% and
- higher prevalence in abortion 28.07%.

Among tested 7759 animals(cattle,buffalo,goat ) case positivity is 60 (0.77%) [VPH report analysis, 2021-2022]

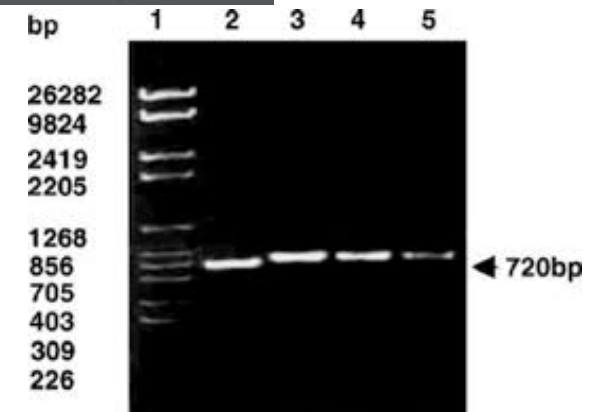
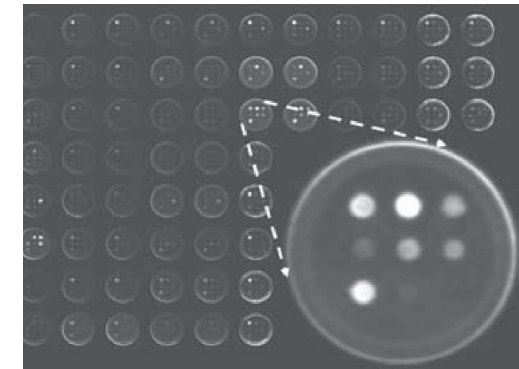
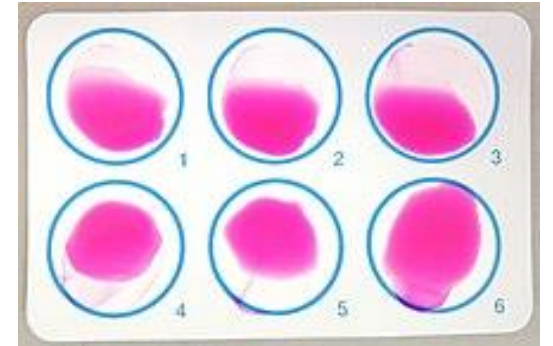
•Among tested 4732 animals(cattle,buffalo,goat ) case positivity is 25 (0.52%) [VPH report analysis, 2022-2023]





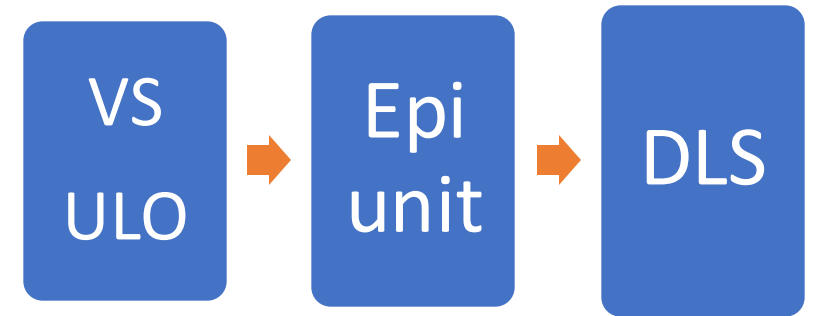


- ❑ Brucellosis in livestock is primarily identified through a combination of serological, molecular, and bacteriological tests.
- ❑ The most commonly used serological tests
  - Rose Bengal Test (RBT)
  - Serum Agglutination Test (SAT)
  - Enzyme-Linked Immunosorbent Assay (ELISA)
- ❑ Molecular techniques
  - ❑ Polymerase Chain Reaction (PCR)





- Official veterinary service extended to Upazila level
- Veterinary Surgeons and ULOs at the Upazilas Livestock Offices visit farms and fields to collect samples for Lab. Diagnosis.
- Regular monthly submission of report of livestock diseases to Epidemiology Unit (Passive surveillance)
- Information taken from sub-technical personnel of DLS those involved in Artificial Insemination activities
- A few active surveillance carried out by DLS and Universities (BAU and CVASU) for research purpose





- 1. Vaccination:** The most effective method for controlling brucellosis globally is through vaccination of livestock, particularly cattle and small ruminants, using vaccines like *Brucella abortus* strain 19 or RB51. We are trying to make vaccine with our local culture, research are performing in our different research lab in Bangladesh.
- 2. Surveillance and Testing:** To detect and control brucellosis, - Rose Bengal Test (RBT), ELISA, and PCR are employed.
- 3. Culling and Quarantine:** In farms where brucellosis is detected, infected animals may be culled to prevent further spread of the disease. In some cases, quarantine measures are implemented to isolate infected animals from healthy ones.
- 4. Collaboration with International Organizations:** Bangladesh collaborates with international bodies like the World Organization for Animal Health (WOAH) and the Food and Agriculture Organization (FAO) to improve disease control and reporting mechanisms. These collaborations provide technical assistance, disease surveillance support, and guidelines for managing brucellosis.



- 1. Lack of Awareness and Knowledge**
- 2. Inadequate Diagnostic Facilities**
- 3. Limited Veterinary Infrastructure Absence of a Nationwide Vaccination Program**
- 4. Cross-Contamination from Livestock to Humans**
- 5. Livestock Trade and Marketing**
- 6. Insufficient Surveillance and Reporting Mechanisms**



