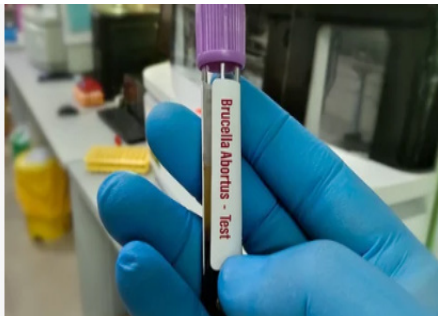

Blood sample for laboratory testing

ii. Milk ring test

iii. Culture and isolation of brucella in high containment.

Prevention – reduce risk of getting brucellosis

Animals

a) Regular testing of the herd to identify infected/ carriers, cull the carriers

b) Use artificial insemination (AI)

c) Proper disposal of aborted fetuses and placenta and disinfection of infected premises

d) Buy only clean animals into your herd.

Humans

e) Avoid contact with infected animals and infected material

f) Practice safe food habits - avoid unpasteurized dairy products, cook meat thoroughly

g) Use appropriate personal protective gear – such as gloves when handling infectious material

h) Take safety precautions in high-risk workplaces

i) Vaccinate domestic animals.

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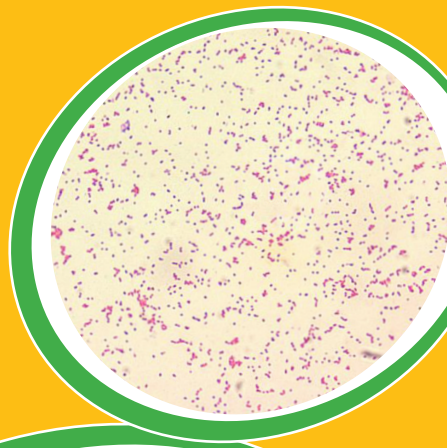
REPUBLIC OF KENYA

KALRO
Kenya Agricultural & Livestock Research Organization

NAVCDP
NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT

MANAGEMENT OF BRUCELLOSIS IN LIVESTOCK AND HUMANS

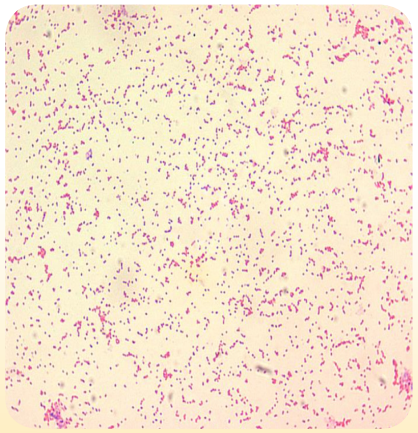


What is brucellosis

Brucellosis, also known as Bang disease, undulant fever, Mediterranean fever or Malta fever, (*Ugojwa wa maziwa*) is a zoonotic bacterial disease that spreads from animals to people. It affects cattle, swine, small ruminants, wild animals and dogs. Brucellosis is an occupational hazard with groups at high risk including animal health service providers, dairy farmers, herders, ranchers, slaughterhouse workers, hunters and laboratory workers among others. Human brucellosis has serious public health consequences.

Causes of Brucellosis

Important species causing clinical brucellosis include *Brucella melitensis, B. abortus, B. suis, B. canis.*



Brucella bacteria

Transmission – How does brucellosis spread?

Animals: Ingestion of feed and water contaminated with discharge from aborted fetus, during breeding (service-inter vaginally).

Cattle eating placenta

Human beings:

- Eating raw dairy products - unpasteurized milk, ice cream, butter, cheeses, raw or undercooked meat of infected animals
- Inhaling contaminated air by the groups at risk
- Touching blood and body fluids of infected animals such as semen or placenta that can enter the bloodstream through a cut.
- Women have passed the disease to their children during birth or through breast milk

Clinical presentation of brucellosis

In animals – reproductive problems (e.g. stormy abortions in third trimester, stillbirth, orchitis, retained afterbirth, infertility), arthritis, mastitis and lameness in goats.

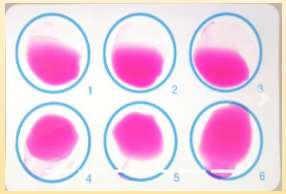
Swollen testis of a bull

An aborted fetus

In human beings the disease presents flu-like syndrome – fever, chills, loss of appetite, sweating, weakness, fatigue, joint pain, headache, unexplained weight loss, abdominal (stomach) pain, large and painful lymph nodes, depression. Chronic state presents with fatigue, recurrent fevers, inflammation of the inner lining of the heart chambers (endocarditis), joint inflammation (arthritis), arthritis of the spinal bones (spondylitis), arthritis of joints where the spine and pelvis connect (sacroiliitis), granulomatous orchitis (unilateral swelling of the testis).

Diagnosis – How do I identify Brucellosis

- Clinical symptoms including stormy abortion in a herd during the last trimester
- Laboratory diagnosis
  i. Serology –RBT, ELISA, PCR



Rose bengal plate test showing agglutination