What You Should Know About

BRUCELLOSIS

Texas Agricultural Extension Service • The Texas A&M University System

What You Should Know About BRUCELLOSIS

James M. Armstrong
Extension Project Leader in Veterinary Medicine
and Veterinarian
The Texas A&M University System

WHAT IS BRUCELLOSIS?

It is a contagious disease of livestock and humans caused by the bacteria *Brucella sp.* It is also called Bangs disease or contagious abortion in livestock and undulant fever in humans.

HOW SERIOUS IS BRUCELLOSIS IN CATTLE?

Infected cattle generally lose 20 per cent of their milk producing ability. They have abortions, sterility problems and become slow breeders. Infected herds can have 40 percent fewer calves.

HOW DOES IT AFFECT HUMANS?

People infected with brucellosis have flu-like symptoms such as headaches, high fever, chills, sweats, joint pains, backaches, loss of weight and poor appetite.

HOW DO HUMANS GET BRUCELLOSIS?

Almost always through contact with infected animals. Therefore, human brucellosis will be eradicated when brucellosis is eradicated in animals.

WHAT ARE THE SYMPTOMS OF BRUCELLOSIS IN CATTLE?

There is no sure way to tell infected cattle by their appearance. The most outstanding symptoms in pregnant females are abortion, birth of weak calves and vaginal discharges. An infected cow may give birth to a normal calf and still pass on the Brucella bacteria.

HOW DO CATTLE BECOME INFECTED WITH BRUCELLOSIS?

Cattle usually get the disease by eating or drinking contaminated feed or water, or by sniffing and licking an aborted calf or a full-term calf from an infected cow.

WHAT DOES THE PHRASE "INCUBATION PERIOD" MEAN?

It is that period from the time an animal is exposed to Brucella bacteria until it becomes ill with the disease.

WHAT IS THE INCUBATION PERIOD OF BRUCELLOSIS IN CATTLE?

It usually varies from 3 weeks (21 days) to 3 months (90 days).

CAN BRUCELLOSIS BE CURED IN CATTLE?

No, repeated efforts to develop a cure in cattle have failed.

CAN BRUCELLOSIS BE PREVENTED IN CATTLE?

Proper management practices can prevent brucellosis infection from being introduced into a brucellosis-free herd.

HOW ABOUT CALVES?

Vaccination of 3- to 6-month-old heifer calves with Strain No. 19 vaccine helps build resistance to brucellosis infection. This does not insure lifetime immunity, however.

WHO PERFORMS THIS CALF VACCINATION?

Your local accredited veterinarian, and in some cases state-federal livestock inspectors.

SHOULD I VACCINATE MY CALVES AGAINST BRUCELLOSIS?

Yes, you should if your herd is subjected to continued exposure. But first consult your local veterinarian or state-federal veterinarian.

WHAT IS BEING DONE TO STAMP OUT BRUCELLOSIS?

A cooperative state-federal eradication program is being waged nation-wide. Thirty states are presently certified brucellosis-free.

WHAT IS BEING DONE IN TEXAS?

In May 1973, the Texas legislature passed Senate Bill No. 681 providing for the eradication of brucellosis in Texas cattle.

HOW IS THIS BEING IMPLEMENTED?

This law directed the Texas Animal Health Commission to promulgate regulations that went into effect on January 15, 1974.

HOW DOES THE ERADICATION PROGRAM WORK?

It is designed to locate infection, contain infection and help the owners of infected herds to eliminate the disease.

HOW DO YOU LOCATE BRUCELLOSIS INFECTION IN CATTLE?

- 1. Brucellosis ring test of all dairy herds.
- Market cattle test of all breeding cattle slaughtered.
- 3. Blood test of all breeding cattle changing ownership.

HOW DO YOU CONTAIN INFECTION IN A HERD?

By quarantining all infected and exposed cattle.

HOW DO YOU ELIMINATE THE DISEASE IN AN INFECTED HERD?

By blood testing all breeding cattle in the herd, immediately removing reactors and retesting the exposed cattle.

WHAT DO YOU MEAN BY RETESTING THE QUARANTINED HERD?

All exposed animals must be kept under quarantine until they have passed two consecutive negative tests over a period of at least 120 days.

CAN I SELL CATTLE FROM A QUARANTINED HERD?

Yes, to slaughter or to an approved quarantined feedlot on permit.

WHO PAYS FOR BRUCELLOSIS TESTING?

The livestock owner bears the expense on private treaty and auction market sales. When infection is found, the herd of origin is tested at state-federal expense.

WHAT CATTLE MUST BE TESTED?

All breeding cattle two years of age or older, prior to change of ownership, and any untested cattle considered eligible according to state or federal regulations which are received by a slaughter establishment must be tested. In infected (quarantined) herds all cattle 1 year old or older must be tested.

WHAT TEST IS USED IN BRUCELLOSIS TESTING?

The Buffered Brucella Antigen card test is used. A sample of serum from each animal is brought into contact with a test fluid containing killed Brucella organisms. If the animal is positive (a reactor), the organisms in the test fluid will clump together (agglutinate).

IS THE TEST ACCURATE?

Yes, very accurate, but proper equipment and technique must be used. The test area should be dust free, protected from drying and at a temperature above 50 degrees F.

HOW CAN I KEEP MY HERD BRUCELLOSIS-FREE?

- Buy herd replacements from known brucellosis-free herds.
- 2. Isolate and test all herd replacements. Retest replacements in 60 days.
- Practice calf vaccination if exposure is likely.
- 4. Keep your fences in good repair.
- 5. If possible, separate all animals before calving.
- 6. Test all animals that abort or give birth to dead or weak offspring.
- Consult your veterinarian on herd health problems regularly.
- Encourage cooperation in the fight to eradicate brucellosis.

This publication was developed in cooperation with the Texas Animal Health Commission.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic levels, race, color, sex, religion or national origin.

Cooperative Extension Work in Agriculture and Home Economics, The Texas A&M University System and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914.

5M—2-75

AS1-4

VM