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**FINISH
THE
FIGHT...
against**

BRUCELLOSIS

**TEXAS A&M UNIVERSITY
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Finish the Fight Against BRUCELLOSIS

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MARKETS FOR TEXAS' BREEDER and stocker cattle are declining steadily, creating serious problems for Texas cattlemen. These declining markets are a result of efforts to control brucellosis throughout the United States.

More than 90 percent of U.S. counties are now Modified Certified Brucellosis Area. And many additional counties are designated as brucellosis control areas engaged in county-wide blood testing programs. Both categories have stringent rules covering animals entering counties from brucellosis-infected areas.

The extra expense of shipping Texas cattle to out-of-state markets, coupled with these restrictions, is creating declining markets for the tremendous annual crop of Texas stocker and feeder cattle. This is particularly true, since competitors for these markets in the western states have all achieved Modified Certified status.

WHAT IS BRUCELLOSIS?

Brucellosis is a contagious disease caused by the bacteria *Brucella abortus*. This germ is not hardy and cannot survive long outside an animal's body under Texas' climatic conditions. The germ spreads from animal to animal through contaminated water and feed and through direct contact with infected animals with discharge from their reproductive tract. Only in swine is the disease transmitted by breeding.

Cattle infected with brucellosis lose 20 percent of their milk producing ability. They calve on the average of once every 18 months, rather than once a year. In addition, the abortions, sterility and difficult breeders increase the need for replacements by 30 percent.

Swine producers also lose from this disease. Infected sows frequently abort or give birth to weak

litters. They may become permanently sterile. The disease damages the bones of swine and results in paralysis in up to 20 percent of infected swine in some herds.

Brucellosis is the most common cause of fistula of the withers in horses. It frequently is responsible for water-bags forming on knees and elbows of both cattle and horses due to inflammation of the joint capsule or tendon bursae.

Man becomes infected from drinking unpasteurized milk from diseased animals or by handling diseased animals without proper sanitary precautions. Assisting animals during birth or removing a retained placenta is the most dangerous type of contact. Human brucellosis is a lingering disease of the bloodstream. Although seldom fatal, it causes debility, nervous disorders and other physical disturbances.

WHAT IS THE SOLUTION?

The best solution to the brucellosis problem is a county-wide clearance of diseased animals. The means for eradicating the disease from cattle was provided in a law passed by the 56th Texas Legislature. This law gives Texas counties the authority to instigate and carry on an area-wide brucellosis eradication program. To initiate an area brucellosis control program 75 percent of the cattle owners, owning at least 51 percent of the cattle, must sign a petition asking the Texas Animal Health Commission to effect the program. An area is usually composed of one county. After the petition is complete and filed with the Commission, the program can be started after the 90-day waiting period provided for the posting of notice and holding of a hearing. The first action taken by the Texas Animal Health Commission in starting the program is to send a representative to the county to plan the working details of the program with a committee of the county's cattlemen. The county is divided into zones and lineup men are secured to work with their neighbors in timing and sequence of the testing of individual herds. The state then moves in a crew and a portable laboratory to provide testing and vaccinating called for in the program at no cost to the cattle owners.

During the 60 days preceding the arrival of the Animal Health Commission's crew, an owner may have his herd tested by his own private veterinarian, provided the veterinarian is properly registered with the Commission and the testing is approved in

advance. If these requirements are met, the Commission will reimburse the private veterinarian for such test. In some counties with sufficient veterinarians, all herds are tested by this method.

To qualify the county as a Modified Certified Brucellosis Area all cattle in the county must be blood tested. However, dairy herds with a record of three consecutive negative milk ring-test are considered already tested. For other exceptions obtain a copy of the "*Handbook of Brucellosis Laws and Regulations in Texas*" from your county agricultural agent.

When all herds have been tested and reactors removed until less than 1 percent of the county's cattle population is infected, and these cattle are confined to less than 5 percent of the cattle herds, the balance of the county will be certified even though some infected herds are still under quarantine and cleanup. Certification as a Modified Certified Brucellosis Area lasts for 3 years.

To protect the area from reinfection, certain restrictions are placed on the movement of cattle into the area. Cattle from certified brucellosis-free herds or from other modified certified areas can be moved into the county without restriction. Official brucellosis vaccinates under 30 months of age can be brought in without restriction if suitably identified. Calves under 6 months are exempt from restrictions on movement, as are cattle consigned to immediate slaughter or cattle consigned to an approved feedlot or to a public sale that is under the supervision of the Texas Animal Health Commission. All other cattle must be negative to a blood test before entry and be held in isolation for 30 days and be negative to a second test before being released among the county's non-infected cattle.

A county may be recertified after the expiration of the 3-year period by one of two methods:

If 15 percent of the county's breeding cattle population have been tested for brucellosis at slaughter points through the Market Cattle Testing Program during the preceding 3-year period and any infected herds cleaned up, then the county is automatically recertified for another 3-year period. If less than 15 percent of the county's cattle population has been tested on the M.C.T. program, sufficient cattle on farms and ranches must be tested to make up the difference. Herds will be tested that were not represented in the M.C.T. results.

If few cattle were tested on the M.C.T. program

from a county, then recertification may be obtained by testing the herds that contained reactors on previous test, plus 20 percent of the other herds in the county. Any infected herds found must be quarantined and cleaned up.

A leaflet entitled "*What You Should Know About Market Cattle Testing For Brucellosis*" is available from your county agricultural agent.

WHAT ABOUT SWINE BRUCELLOSIS?

Although brucellosis in swine is not covered in the Texas brucellosis law, if Texas counties are to reach the certified brucellosis-free status, not only cattle, but swine and milk goat herds must be freed of brucellosis. Therefore, swine producers should begin work toward eradication of the disease. In addition to helping the cattle industry remove market restrictions from livestock, eradication will prevent similar restrictions from being imposed on the out-of-state marketing of breeding and feeder swine.

The "Validated" herd plan for the eradication of swine brucellosis is recognized by all states. Validation is an official recognition given swine herds that have met specified standards. It permits interstate movement of animals without testing for brucellosis. For a swine herd to earn the Validated status, all breeding swine in the herd 6 months or older must pass two consecutive negative blood tests 30 to 90 days apart. The Validation is good for 1 year. It can be revalidated annually by passing one negative herd test.

For swine herds that are found infected with brucellosis, there are three approved ways of cleaning up the infection. Of course, a commercial producer may choose to market his hogs and restock with animals from brucellosis-free herds, but the purebred breeder faces a more difficult task. He can market the reactor animals and retest at 30-day intervals until two consecutive negative tests prove the infection has been eliminated. If more infection is present than can be handled in this manner, he may choose to wean all pigs at 6 weeks of age and isolate them from older infected stock.

Gilts saved for breeding should be negative to the blood test 30 days before breeding. All infected sows and gilts should be marketed as soon as economically feasible. If an infected sow is to be kept for additional litters, she should be isolated.

After the clean-testing gilts farrow, they should be retested before being removed from the individual farrowing pens. Only gilts testing clean and gilts from litters of clean gilts should be saved for future breeding. As soon as the entire breeding herd passes two consecutive clean tests, Validation will be granted.

When all swine herds in a county become Validated, the county can be declared a Validated Area. This status is effective for 3 years, and herds in the area must pass only one negative test during the last 18 months of the Validation period. Copies of "Recommended Uniform Methods and Rules for Brucellosis in Swine" are available from your county agricultural agent.

STEPS TO FOLLOW IN YOUR HERD

Even if your county does not enter the program, you should use management practices to rid your herd of brucellosis. If you are in an area not yet free of brucellosis, follow a calfhood vaccination program for your replacement heifers.

- Buy only officially vaccinated cattle or cattle or swine from clean herds as replacements.
- Keep your fences in good repair to prevent wandering animals from introducing infection into your herd.
- Prevent disease spread among your animals by protecting water and feed from contamination with the body-discharges of other animals.
- Brucellosis test all animals that abort or give birth to dead or weak offsprings. Send infected animals to slaughter immediately.
- Encourage your neighbors to cooperate in the fight to eradicate brucellosis. Ask your county agent for more details on organizing your county into a brucellosis eradication area.