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# VACCINATION

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## A Major Goal of the Texas Brucellosis Plan

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**Texas  
Agricultural  
Extension  
Service**

The Texas A&M  
University System

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# VACCINATION

## A Major Goal of the Texas Brucellosis Plan

*Jimmy L. Howard\**

### **Vaccination Is One of the Most Effective Ways to Prevent Brucellosis**

Vaccination with the reduced dosage of Strain 19 vaccine *is* an important part of the Texas plan for controlling brucellosis.

Vaccination is considered by many authorities to be essential in the control of brucellosis, particularly in areas of high infection and for herds which are sources of replacement heifers in such areas.

A high percentage of cattle herds in Texas is endangered by the introduction and spread of brucellosis from unvaccinated animals. Although the number of vaccinated animals has increased in recent years, there is still a large population of unvaccinated animals in South and East Texas.

### **Vaccination Goal**

The individual herd goal should be to vaccinate 100 percent of the eligible heifer calves with the reduced dose of Strain 19 vaccine. An attainable overall area goal should be to have a minimum of 70 percent of the adult female cattle vaccinated. This is the level epidemiologists consider necessary to break the disease cycle.

### **New Reduced Dose Strain 19 Vaccine**

Important changes in vaccine dosage and eligible vaccination age have eliminated many problems of the past.

The reduced dosage vaccine, when properly diluted and administered, has been shown to be effective but without many of the problems associated with the higher dose. Strain 19 vaccine as

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used in the past was blamed for causing false reactions to the serologic tests. Blood reactions induced by vaccination with reduced dose vaccine are lower and recede more rapidly although the degree of immunity is nearly the same.

## **When to Vaccinate**

Vaccination ages for eligible cattle are now 4 to 12 months for all breeds. The reduced dose vaccine allows calves to be vaccinated up to 12 months of age with much less worry about false reactions to blood tests. However, heifers in infected herds should be vaccinated by 6 months of age to reduce their risk of becoming infected.

Whole-herd vaccination, including adult cattle, should be considered in high-incidence and high-risk herds. Consult your veterinarian or an official with the Texas Animal Health Commission for details.

All vaccination must be done by approved personnel.

## **What Animals Should Be Vaccinated**

All female animals should be vaccinated. Vaccinate all heifer calves including replacement and market calves. Vaccinated calves will move much easier in commerce. Some states require calves to be vaccinated before entering their state.

Adult cows can be vaccinated only under special conditions. Check with your veterinarian or the Texas Animal Health Commission office in your area.

Bull calves are not vaccinated since it may cause sterility.

## **State Funds are Available for Vaccination**

The State of Texas will provide funds for vaccination of eligible cattle.

Contact your veterinarian for details of the reduced-dose vaccination program. Since the vaccine is fragile and must be handled under controlled conditions to establish good immunity, the vaccine must be administered by personnel approved by the Texas Animal Health Commission.

Official ear tags and tattoos must be applied and official records must be kept and reported.

## **The Vaccine Is Safe and Effective**

Strain 19 is a low-virulence strain which has never been shown to spread from vaccinated to susceptible cattle and it has never reverted to the virulent form.

No vaccine is 100 percent effective in preventing infection. Research indicates that 65 to 70 percent of the animals vaccinated with Strain 19 vaccine have adequate immunity against field strain organisms. Field experience indicates that in the fully vaccinated herd immunity may exceed 90 percent.

## **Additional Herd Health Procedures**

Vaccination is a major step in helping keep a herd free of brucellosis.

Additional prevention practices include:

1. Ask the seller to give you information on the brucellosis status of the herd or herds of origin of any cattle you buy.
2. Buy herd replacements only from known brucellosis-free herds.
3. Isolate cattle you buy from your herd and test them in 45 to 120 days following purchase to check for animals that might have been in the early stages of infection.
4. Keep your fences in good repair.
5. Avoid the use of community pastures.
6. Test all animals that abort or give birth to dead or weak offspring as well as slow breeders and those who fail to calve.
7. Follow good sanitation practices.
8. Give serious consideration to a certified brucellosis-free herd plan.
9. Consult regularly with your local veterinarian on herd health plans.

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