



## Texas Bovine Trichomoniasis Control Program: Facts for Cattle Owners

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Bovine trichomoniasis (trich) is a **venereal disease** caused by the protozoan *Tritrichomonas foetus*. Because trich has no visible symptoms in bulls and few, if any, visible symptoms in cows and heifers, it is best to prevent exposure to the disease rather than try to control or eradicate it. The primary production and economic impact of trich is on cows, because the disease causes infertility and abortions and often extends the breeding and calving season.

### *Bulls*

Bulls become infected by breeding infected cows. The protozoa reside in the crypts or microscopic folds on the surface of the bull's penis and internal prepuce. The infected bull will show no symptoms.

Laboratory tests can determine whether a bull is infected. Only a certified, accredited veterinarian may collect samples from the bull's penis and internal prepuce and submit them to a certified laboratory for analysis. Two different tests are available:

- RT-PCR test (Real Time-Polymerase Chain Reaction) **or**
- Culture test

Infected bulls must be sold for slaughter because **there is no effective treatment for the disease**. Remaining bulls in the infected herd must be held and isolated from female cattle until they test negative.

### *Cows and heifers*

Cows and heifers become infected when bred to infected bulls. The protozoa reside in the vagina, cervix, uterus, placenta and fetus. Infected cows and heifers show few, if any, visible symptoms. An extended period of sexual rest (120 to 150 days) will allow most cows to rid themselves of the infection. However, this immunity is short-lived and a cow can become re-infected. Cows can be vaccinated to help reduce the severity of the disease in an infected herd.

The infection can be transmitted only by sexual intercourse and not by the environment. Bovine trichomoniasis is **not** transmitted to people.

Texas is implementing new measures to control the spread of trichomoniasis.

This new control program will be implemented in two phases as described below. Under these new regulations, bovine trichomoniasis becomes a reportable disease.

<b>Texas Bovine Trichomoniasis Control Program – Phase I</b> <i>Effective April 1, 2009</i> <b>Applies to Breeding Bulls Entering Texas</b>	
Age and Experience of Bull	Protocol
<p>Virgin bulls 24 months old or younger</p> <p>Age determined by:</p> <p>1. Birth date recorded on breed registration papers <b>or</b></p> <p>2. Not more than two central permanent incisors that show wear</p>	<p>a. Must be officially identified with <b>at least one</b> of the following:</p> <ul style="list-style-type: none"> <li>- breed registry tattoo or brand</li> <li>- USDA metal ear tag (Bang's tag)</li> <li>- official 840 bangle or RFID ear tag</li> <li>- official trichomoniasis ear tag from the state of origin</li> </ul> <p>b. Can be certified as a virgin bull <b>only</b> if it has <b>not been commingled with female cattle</b> and is accompanied by a breeder's certificate, signed by the breeder, and has this information included on the veterinary inspection certificate.</p>
<p>Non-virgin breeding bulls and all bulls more than 24 months old</p> <p>Negative tests are valid for 30 days provided bulls remain separated from female cattle.</p>	<p>a. Must be officially identified with <b>at least one</b> of the following:</p> <ul style="list-style-type: none"> <li>- breed registry tattoo or brand</li> <li>- USDA metal ear tag (Bang's tag)</li> <li>- official 840 bangle or RFID ear tag</li> <li>- official trichomoniasis ear tag from the state of origin</li> </ul> <p>b. Must have <b>no contact with female cattle</b> during the test period and prior to shipment and have negative test results for trichomoniasis within 30 days prior to entry. Test options are:</p> <ul style="list-style-type: none"> <li>- one negative RT-PCR test <b>or</b></li> <li>- three consecutive negative culture tests not less than 7 days apart</li> </ul> <p>c. Bull must be accompanied by an official trichomoniasis test document, certificate of veterinary inspection and other required health documents.</p>

**Texas Bovine Trichomoniasis Control Program – Phase II**

*Effective January 1, 2010*

**Applies to Breeding Bulls in Texas**

**(any bulls offered for sale, lease, exchange or other change of possession for breeding)**

**\*No test or certification is required for bulls marketed as "slaughter only."**

Age and Experience of Bull	Protocol
<p>Virgin bulls 24 months old or younger</p> <p>Age determined by:</p> <ol style="list-style-type: none"> <li>1. Birth date recorded on breed registration papers <b>or</b></li> <li>2. Not more than two central permanent incisors that show wear</li> </ol> <p>(Virgin status can be extended to 30 months if the breeder <b>and</b> an accredited veterinarian certify on the breeder's certificate that the facility in which the bull was raised and held allowed no contact with female cattle.)</p>	<p>a. Must be identified with <b>at least one</b> of the following:</p> <ul style="list-style-type: none"> <li>- breed registry tattoo or brand</li> <li>- USDA metal ear tag (Bang's tag)</li> <li>- official 840 bangle or RFID ear tag</li> </ul> <p>b. Can be certified as a virgin bull only if it has <b>not been commingled with female cattle</b> and is accompanied by a breeder's certificate signed by the breeder.</p>
<p>Non-virgin breeding bulls and all bulls more than 24 months old</p> <p>Negative tests are valid for 30 days provided bulls remain separated from female cattle.</p>	<p>a. Must be officially identified with <b>at least one</b> of the following:</p> <ul style="list-style-type: none"> <li>- breed registry tattoo or brand</li> <li>- USDA metal ear tag (Bang's tag)</li> <li>- official 840 bangle or RFID ear tag</li> </ul> <p>b. Must have <b>no contact with female cattle</b> during the test period and must have negative test results for trichomoniasis within 30 days of change of possession. Test options are:</p> <ul style="list-style-type: none"> <li>- one negative RT-PCR test <b>or</b></li> <li>- three consecutive negative culture tests not less than 7 days apart</li> </ul> <p>c. Bull must be accompanied by an official trichomoniasis test document.</p> <p><b>d. Infected bulls will be reported and restricted to movement to slaughter only.</b></p> <p>Remaining bulls in the infected herd will be held and isolated from female cattle until they test negative. Test options are:</p> <ul style="list-style-type: none"> <li>- two negative RT-PCR tests not less than 7 days apart <b>or</b></li> <li>- three consecutive negative culture tests not less than 7 days apart</li> </ul>

Bovine trichomoniasis can enter a herd or ranch only via infected bulls, cows or heifers. Again, an infected bull can transmit the disease to a cow or an infected cow can transmit the organism to a bull. You can avoid this disease by practicing sound biosecurity principles.

1. Maintain good fences to control the movement and commingling of cattle.
2. Purchase only virgin bulls and heifers, preferably from the original breeder.
3. Keep the bull battery as young as possible, because older bulls harbor the protozoa more easily.
4. Consider artificial insemination as a way to avoid introducing trich. Reputable semen companies repeatedly test bulls for numerous diseases, including trich, to ensure that the semen is not contaminated.
5. Implement a defined breeding season. Trich may go undetected in a continuous mating system.
6. Identify herd sires and record the breeding group to which each bull is exposed.
7. Consider keeping bulls in the same breeding groups for several breeding seasons. Should a false negative (infected) bull be in the battery, this practice prevents spread of infection to uninfected groups.
8. Consider small (but not necessarily single-) sire groups (versus large, multiple-sire herds) to avoid infecting a large number of bulls in a single season.
9. Avoid purchasing open or short-bred (less than 120 days) cows.
10. If you purchase replacement cows, do not commingle them with the existing herd during the first breeding season.

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