



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 symptoms in cows and heifers, it is best to prevent exposure rather than try to control or eradicate the disease.

The primary production and economic impact of trich is on cows because it causes infertility and abortions and often extends the breeding/calving season. The infection can be transmitted only by sexual intercourse and not by the environment. Bovine trichomoniasis is not transmitted to people.

Bulls

Bulls become infected by breeding infected cows. The protozoa live in microscopic folds, or crypts, on the surface of the bull's penis and internal prepuce.

Infected bulls must be moved to slaughter because there is no effective treatment for them. The remaining bulls in the herd must be held and isolated from female cattle until tested negative.

Two laboratory tests can determine whether a bull is infected:

- RT-PCR test (two tests at least 7 days apart) or
- Culture test (three cultures at least 7 days apart)

Only certified, accredited veterinarians can collect samples and submit them to certified laboratories.

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Cows and heifers

Cows and heifers become infected when they are bred to infected bulls. The protozoa live in the vagina, cervix, uterus, placenta, and fetus. Most infected cows will rid themselves of the infection if they receive an extended period of sexual rest (120 to 150 days). However, the immunity is short-lived—a cow can become reinfected. A vaccine can help reduce the severity of the disease in an infected herd.

Control program

Texas is implementing measures to control the spread of trichomoniasis. The program is being implemented in two phases (Tables 1 and 2). Under these regulations, bovine trichomoniasis becomes a reportable disease.

Bovine trichomoniasis enters 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 disease to a bull.

Table 1. Phase I of the Texas Bovine Trichomoniasis Control Program, which became effective April 1, 2009. This phase applies to breeding bulls entering the state.

Requirements for breeding bulls entering Texas	
Age and experience of bull	Protocol
<p>Virgin bulls 24 months old or younger</p> <p>Age determined by:</p> <ul style="list-style-type: none"> • Birth date recorded on breed registration papers or • Not more than two central permanent incisors in wear 	<p>a. Must be officially identified with at least one of the following:</p> <ul style="list-style-type: none"> • a breed registry tattoo or brand • a USDA metal ear tag (Bang's tag) • official 840 bangle or RFID ear tag • official trichomoniasis ear tag from the state of origin <p>b. Can be certified as a virgin bull ONLY IF it has not been commingled with female cattle 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 60 days provided bulls remain separated from female cattle.</p>	<p>a. Must be officially identified with at least one of the following:</p> <ul style="list-style-type: none"> • a breed registry tattoo or brand • a USDA metal ear tag (Bang's tag) • official 840 bangle or RFID ear tag • official trichomoniasis ear tag from the state of origin <p>b. Must have no contact with female cattle during the test period and before shipment and have negative test results for trichomoniasis within 60 days prior to entry:</p> <ul style="list-style-type: none"> • one negative RT-PCR test or • three consecutive negative culture tests not less than 7 days apart <p>c. Must be accompanied by an official trichomoniasis test document, certificate of veterinary inspection, and other required health documents</p>

Table 2. Phase II of the Texas Bovine Trichomoniasis Control Program, effective January 1, 2010, applies to any bull offered for sale, lease, exchange, or otherwise change of possession for breeding. No test or certification is required for bulls marketed as “slaughter only.”

Requirements for breeding bulls in Texas	
Age and experience of bull	Protocol
<p>Virgin bulls 24 months old or younger</p> <p>Age determined by:</p> <ul style="list-style-type: none"> • Birth date recorded on breed registration papers or • Not more than two central permanent incisors that show wear <p><i>Virgin status can be extended to 30 months if the breeder and an accredited veterinarian certify on the breeder's certificate that the facility in which the bull is raised and held allowed no contact with female cattle.</i></p>	<p>a. Must be officially identified with at least one of the following:</p> <ul style="list-style-type: none"> • a breed registry tattoo or brand • a USDA metal ear tag (Bang's tag) • official 840 bangle or RFID ear tag <p>b. Can be certified as a virgin bull ONLY IF it has not been commingled with female cattle and is accompanied by a breeder's certificate signed by the breeder.</p>
<p>Non-virgin breeding bulls and all bulls older than 24 months</p> <p>Negative tests are valid for 60 days if the bulls remain separated from female cattle.</p>	<p>a. Must be officially identified with at least one of the following:</p> <ul style="list-style-type: none"> • a breed registry tattoo or brand • a USDA metal ear tag (Bang's tag) • official 840 bangle or RFID ear tag <p>b. Must have no contact with female cattle during the test period and must have negative test results for trichomoniasis within 60 days of change of possession. Test options are:</p> <ul style="list-style-type: none"> • one negative RT-PCR test or • three consecutive negative culture tests • not less than 7 days apart <p>c. Bull must be accompanied by an official trichomoniasis test document, and a certificate of veterinary inspection.</p> <p>d. Infected bulls will be reported and restricted to movement to slaughter only. Remaining bulls in the herd will be held and isolated from female cattle until tested negative: Test options are:</p> <ul style="list-style-type: none"> • two negative RT-PCR tests not less than 7 days apart or • three consecutive negative culture tests not less than 7 days apart

Prevention

To avoid this disease, practice sound biosecurity principles:

- Maintain good fences to control the movement and commingling of cattle.
- Buy only virgin bulls and heifers, preferably from the original breeder.
- Keep the bull battery as young as possible. Older bulls harbor the protozoa more easily.
- Consider artificial insemination as a way to avoid introducing trich. Reputable semen companies repeatedly test bulls for many diseases, including trich, to ensure that the semen is not contaminated.
- Implement a defined breeding season. Trich may go undetected in a continuous mating system.
- Identify herd sires, and record the breeding group to which each bull is exposed.
- Consider keeping bulls in the same breeding groups for several breeding seasons. Should a false negative (infected) bull be in the battery, the infection would not be spread to uninfected groups.
- To avoid infecting many bulls in one season, consider maintaining small—but not necessarily single—sire groups instead of large, multiple-sire herds.
- Avoid buying open or short-bred (less than 120 days) cows.
- If you buy replacement cows, do not commingle them with the existing herd during the first breeding season.

Annual review

The Texas Bovine Trichomoniasis Control Program is subject to annual review and adjustment by the Texas Animal Health Commission. The commission solicits industry input for changes in the program to review, analyze, and consider for adoption.

Several recommendations for change to the program were considered and adopted by the commission at the fall 2010 meeting. They are listed below. The changes have been incorporated into the summary of regulations previously addressed in this document.

Revisions approved in 2010

- A negative cattle trichomoniasis test will now be valid for 60 days if the bull is kept separate from female cattle during that time. The test may also be transferred within that period with the original signature of the consignor.
- A virgin certificate is now valid for 60 days if the bull is kept separate from female cattle. A virgin certificate may now also be transferred within that period with the original signature of the consignor.
- Revised entry requirements now exempt out-of-state breeding bulls from an entry trichomoniasis test if they come from a Certified Semen Service (CSS) artificial insemination facility where they were isolated from female cattle. The bulls must be accompanied by documents with an original signature by the veterinarian or manager of the facility.
- Revised regulations now allow untested, non-virgin Texas bulls to be sold and moved to a trichomoniasis-certified feedlot before slaughter. Under previous regulations, untested, non-virgin bulls were allowed to be sold only for direct movement to slaughter. This change does not apply to bulls not of Texas origin. Producers may also still buy untested bulls for movement under a TAHC-issued hold order/permit to a location away from female cattle, where the bull is to be tested for trich.
- Commission veterinarians will now notify producers by letter when an infected bull is identified on an adjacent premise. Neighbors will be only informed of the situation, not required to test.

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