



Bovine Trichomoniasis

Current: September 2016

Rod Hall, DVM
State Department of Agriculture

John Gilliam, DVM, DACVIM
OSU Food Animal Clinician

Barry Whitworth, DVM
Area Food/Animal Quality and Health

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
osufacts.okstate.edu

What is Trichomoniasis?

Trichomoniasis, commonly referred to as “Trich,” is a highly contagious sexually transmitted disease in cattle, resulting in abortions and infertility. It is caused by a microscopic protozoan parasite *Trichomonas foetus*. In the cow, the organism colonizes the vagina and uterus. In bulls, the organism colonizes or lives in microscopic folds, or crypts, on the skin of the penis and prepuce. As a bull ages, conditions on the surface of the sex organs are more conducive for this protozoa to survive and multiply.

The Importance of Trichomoniasis in Oklahoma

The economic loss to the cattle producer is a reduced calf crop or lower overall weaning weights. For example, in infected herds with a short defined breeding season, the calf crop can be decreased by 50 percent. In herds with longer breeding seasons such as six months or longer, the calving period can be extended. Thus, weaning weights can be dramatically decreased. In smaller, less intensively managed herds, where the problem is not recognized early in the disease process, cows may produce a calf every 18 months, instead of the normal 12 months. This results in both lower weaning weights and fewer calves produced during the life of the cows in the herd.

Symptoms of Cattle with Trichomoniasis

Infected bulls and cows usually look and act normal. The only way to confirm Trichomoniasis infection is by testing. Typically, cattle producers become aware of a problem when cows are pregnancy checked and there are too many open cows, a prolonged calving period, or noticeably reduced calf crop.

Reabsorption of the fetus or abortion usually occurs early (one month to four months) in pregnancy and females become temporarily infertile. Late-term abortions have been described, but are not common. The majority of infected cows will clear a Trichomoniasis infection within four months to five

months of sexual rest. Unfortunately, immunity is short lived, and cows are susceptible to re-infection and abortion the following season. Some cows will not clear the infection and occasionally develop a pyometra (pus-filled uterus).

Bulls become infected with the Trichomoniasis protozoa when breeding infected females. Young bulls less than three years of age may clear the infection, but older bulls are generally permanently infected and considered a source of infection. At this time, there is not an approved treatment or vaccination to use on bulls.

Confirming Trichomoniasis

Although the primary impact of Trichomoniasis is reduced fertility in cows and cows spread the infection to bulls, Oklahoma Trichomoniasis testing centers on bulls. Bulls act as a reservoir for this organism and are the primary method of transmission. Identification of infected bulls is critical. Producers should work closely with a veterinarian who is certified to collect samples for the necessary testing to identify any Trichomoniasis-infected bulls in their herds.

Control and Prevention

The most effective way to control Trichomoniasis is to prevent the introduction of the organism into a herd. This control method is primarily accomplished through testing all new bulls prior to entry into the herd and preventing unwanted bulls from entering through damaged fence lines. Keeping young bulls rather than older ones, and testing all bulls prior to each breeding season are also important tools. Establishing a defined breeding season and early pregnancy diagnosis will aid in rapid detection of reproductive losses caused by Trichomoniasis and other reproductive diseases. As with most infectious diseases, a good biosecurity plan is critical to preventing introduction and/or controlling the organism within a herd.

A vaccine for Trichomoniasis is available and labeled for use in controlling the disease in cows. The vaccine will reduce the reproductive losses associated with the disease and may reduce time to clear the infection. However, in most herds, managing the risk factors for Trichomoniasis through biosecurity is more effective than vaccination. Currently, the vaccine is not labeled for use in bulls. Producers are encouraged to work with their veterinarian to develop appropriate

biosecurity practices for controlling Trichomoniasis and other reproductive diseases in their herds.

Oklahoma Trichomoniasis Regulations

Requirements for breeding bulls change of ownership within the state of Oklahoma.

Any bull changing ownership in Oklahoma by private sale, public sale, lease, trade or barter must have a negative test for Trichomoniasis within 60 days of change of ownership.

Exceptions are:

- Bulls less than 24 months of age and can be certified as virgin bulls. Virgin bulls are less than 24 months of age that have had no breeding or potential breeding contact with females.
- Bulls being sold directly to a slaughter establishment.
- Cutter Bulls that will be castrated within 10 days of purchase with no commingling with female cattle prior to castration.
- Bulls that will be put on feed for slaughter only at a commercial feed lot.

Untested bulls consigned to livestock markets will be allowed to be sampled at the market at the buyer's expense and transported to the buyer's premise under quarantine until negative test results have been reported. The livestock market will not be liable for bulls testing positive after the sale. Within 10 days of notification, bulls tested positive at markets must be castrated or sold for slaughter only.

The owner of the herd of origin will be notified a bull from the herd tested positive for Trichomoniasis. They will be advised to contact their veterinarian for assistance in managing and eradicating the disease from the herd.

Exposed female cattle

Exposed female means a female bovine animal that is sexually intact and sexually mature that has the potential to be bred by a positive T. foetus bull.

Exposed female cattle shall be officially identified and change ownership only:

1. If the female bovine is diagnosed at least four (4) months pregnant by an accredited veterinarian;

2. The female bovine is sold for slaughter only;
3. The female bovine is consigned to an approved feedlot to be fed for slaughter only;
4. The female bovine has a calf less than thirty (30) days old and has not been exposed to a bull since calving, or;
5. Six (6) months has passed since the female bovine's exposure to a bull.

Requirements of Breeding Bulls Entering Oklahoma

Bulls entering Oklahoma from any state must be tested negative for trichomoniasis within 60 days of entry and be identified with an official identification device. Acceptable ID are silver metal USDA tag, 840 RFID tag, registration tattoo or brand, if accompanied by a copy of the registration papers.

Exceptions are:

- Bulls less than 18 months of age that can be certified as virgin bulls. Virgin bulls are bulls less than 18 months of age that have had no breeding or potential breeding contact with females.
- Bulls consigned directly to slaughter.
- Rodeo or bucking bulls that travel to an event and then leave the state.

Three negative culture tests done at weekly intervals or one negative PCR test meets the Oklahoma testing requirements.

For ALL bulls entering Oklahoma, applicable tuberculosis and/or brucellosis entry requirements must be met and the shipment must have a valid Certificate of Veterinary Inspection. Additional information regarding Oklahoma entry requirements call Oklahoma Department of Agriculture, Food, Forestry's (ODAFF) permit line at (405) 522-6141 or check the ODAFF web page at www.ag.ok.gov/ais. More information on management of Trichomoniasis can be obtained from your local veterinarian, Oklahoma State University (OSU) Center for Veterinary Health Sciences, Oklahoma Cooperative Extension Service, Oklahoma Animal Disease Diagnostic Laboratory, or the Animal Industry Division of Oklahoma Department of Agriculture, Food, and Forestry (ODAFF).

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, and Title IX of the Education Amendments of 1972 (Higher Education Act), the Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, genetic information, sex, age, sexual orientation, gender identity, religion, disability, or status as a veteran, in any of its policies, practices or procedures. This provision includes, but is not limited to admissions, employment, financial aid, and educational services. The Director of Equal Opportunity, 408 Whitehurst, OSU, Stillwater, OK 74078-1035; Phone 405-744-5371; email: eeo@okstate.edu has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity. Any person (student, faculty, or staff) who believes that discriminatory practices have been engaged in based on gender may discuss his or her concerns and file informal or formal complaints of possible violations of Title IX with OSU's Title IX Coordinator 405-744-9154.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. Revised 0916 GH.