

## **TRICHOMONIASIS**

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### **Description of the Disease**

Trichomoniasis, or "Trich," is a venereal disease of cattle caused by a protozoan parasite, *Tritrichomonas foetus*. Up until the last few years, this disease was almost non-existent in Missouri but now it is being diagnosed with greater frequency throughout the state. Symptoms of an infected herd appear as an excessive number of open cows (40 – 50% on average) and/or a calving interval that is prolonged over several months. This disease can have a devastating financial impact because of poor calf crops and expenses associated with cleaning up an infected herd.

Bulls are the primary source of infection in a herd and older bulls (3+ years) are likely to be permanently infected. The protozoa are found on the bull's penis and prepuce and are transmitted to the cow during breeding. The initial infection in the cow usually does not interfere with conception but rather results in death of the embryo at 50 to 70 days of gestation on average. Cows and heifers typically return to estrus (heat) one to three months after breeding, but a period of infertility may last for two to six months as a result of the infection. Some infected cows may develop pus in the uterus while others may abort in later gestation. Occasionally, cows may become permanently infected, yet be able to deliver a normal calf. This condition is rare but of concern, because these animals can serve as a source of infection to bulls in the following breeding season.

If Trich is suspected, your veterinarian is the most qualified person to collect samples and make the diagnosis. Samples are usually collected from the bulls only since they are a common carrier of the organism, but uterine/vaginal fluid may be collected from individual cows under certain circumstances. In the bull, the number of organisms cultured from the prepuce can be increased if he is isolated from females for one to two weeks prior to sampling. If Trich is diagnosed, there is no treatment. Instead, infected bulls will need to be removed, open cows should be culled and only tested free bulls or virgin bulls should be bought for replacements.

### **Where has Trich been found in Missouri?**

Since March of 2010, Dr. Linda Hickam at the state veterinary office has been monitoring the number and origin of positive Trich samples coming through the MU College of Veterinary Medicine Diagnostic Laboratory and the state veterinary diagnostic lab in Springfield. With this information, she has created maps which show the counties where the positive samples have come from as well as the number of positive samples within each county.

Figure 1 is the most recent map and indicates that from March 1, 2010 through April 30, 2011 there were 30 counties where Trich had been diagnosed. Please be aware this map does not

include results from samples that were sent to diagnostic laboratories in other states and therefore it likely under-estimates the number of positive animals and the number of counties where Trich has been found.



**Figure 1.** Number of cases of Trichomoniasis by county from March 1, 2010 – April 30, 2011.

### New Intrastate Regulations for Missouri

Beginning September 1<sup>st</sup>, 2011 Missouri will begin enforcing new animal health regulations regarding testing for Trich. Missouri already requires that eligible bulls be tested before they can enter the state but the new regulations will require breeding bulls within Missouri be tested before changing possession or ownership. Furthermore, herds that have animals testing positive for Trich will now have additional regulations they are to follow. Below is a summary of the regulations but for complete details visit:

<http://www.sos.mo.gov/adrules/moreg/current/v36n10/v36n10c.pdf> and refer to page 1351.

**Summary of regulations.**

- Non-virgin bulls or bulls twenty-four (24) months of age and older that are sold at livestock markets will be tested for Trich unless the bull(s) is destined for slaughter.
- Non-virgin bulls or bulls thirty (30) months of age and older that are sold through private treaty, leased, bartered or traded will require a negative Trich test within 30 days prior to change in ownership or possession.\*
- If breeding bulls are virgin bulls and less than thirty (30) months of age at the time of change in ownership or possession, they will need to be individually identified by official identification and accompanied with a document or certificate of veterinary inspection indicating the bull(s) are of virgin status.\*
- Any bull that is Trich positive shall be sent directly to slaughter or to a licensed livestock market for slaughter only.
- Trich positive herds shall be quarantined or sold directly to slaughter or to a licensed livestock market for slaughter only. If quarantined, remaining bulls will be released after 2 negative Trich tests and females will be released when they have a calf at side (with no exposure to other than known negative Trich bulls since parturition), have one hundred twenty (120) days of sexual isolation, or are determined by an accredited veterinarian to be at least one hundred twenty (120) days pregnant.
- Regulations exclude exotic bovids including Bison.

\* On November 1<sup>st</sup>, 2011, the age will change from thirty (30) months to twenty-four (24) months of age.