

Ten Facts about Trichomoniasis in Cattle

1. Trichomoniasis is an economically important venereal disease of cattle that is characterized by reduced calf crop and weaning weight due to a large number of open cows and a prolonged breeding season.

2. Trichomoniasis is caused by *Tritrichomonas fetus*, a microscopic flagellated protozoan parasite, confined to the reproductive tract of the infected animal. It is transmitted from infected bulls to heifers or cows at the time of breeding [1,2].

3. The parasite transmission rate from male to female at breeding may be as high as 42% [3,4], which means there can be a 42% loss of the calf crop. Affected bulls carry the protozoa in their preputial sheath and penis. The affected cows harbor the organism in the vagina and uterus.

4. The affected bull shows no clinical signs. The parasite does not affect semen quality or sexual behavior. The infected bull breeds cows as normal bulls do and transmits the infection during breeding.



5. In cows, the “Trich” problem presents in two forms. In the first, the affected cow may become pregnant, undergoes early embryonic death and cycles regularly without showing any signs. In this scenario the “Trich” problem is realized only at pregnancy diagnosis with the higher number of open cows than normal. In the other form, the affected cow cycles regularly and builds immunity after 3 cycles. The immunity is short lived and cows can get reinfected and abort during 1/3rd to mid-gestation if they become pregnant [5]. In both forms cows may develop pyometra (a pus-filled uterus with no signs of cycling), another sign that can be observed at pregnancy diagnosis.

6. Due to the fact that the affected bulls show no clinical signs, it is very hard to say if a bull is free of “Trich” without testing. A definitive diagnosis requires the identification of parasites in infected bulls [3,6]. To diagnose the disease, a preputial secretion sample is taken from the bull. The preputial sample is stored in a

Key Points

- **Trichomoniasis is a parasite spread during breeding from infected bull to cow and infected cow to bull**
- **Cows can lose their pregnancies resulting in a varied breeding season and low calf crop**
- **The only way to prevent entry into a herd is through testing of bulls before breeding**
- **In WA, only certified veterinarians can take official “trich” samples**
- **Trich testing make economic sense**

special media and sent to a veterinary diagnostic lab for a culture or a PCR test [6]. In the state of Washington, only certified veterinarians may take and submit “official” trichomoniasis test samples.

7. It is very important that all producers need to test their bulls to keep this disease away from the herd and away from the area. Neighbor’s non tested bulls, addition of new bulls without testing, commingling of cows with no known history, and retaining open cows for next breeding season were the reasons blamed for “Trich” problem [7].

8. No treatment is available for bovine trichomoniasis which makes identifying bulls with trichomoniasis well before breeding season vital. Remember by the time the clinical signs observed in cows the disease is already well spread in the herd. So it is crucial to test the bull before breeding season.



9. Given lack of legal treatment and lifelong nature of most bull infections, test and slaughter of infected bulls is recommended. Other recommendations include but are not limited to:

- Test incoming bulls, heifers and cows
- Cull open cows
- Maintain good fence
- Comingle cows with known history
- Replace old bulls with young bulls

10. Cost benefit: According to the 2008 survey from Colorado for a producer with 100-cow herd, uses 5 bulls (1:20 bull:cow ratio), and lives 75 miles from a veterinary clinic will pay \$2.93/cow to test all 5 herd bulls for “Trich” [7]. He will pay an additional \$1.50/cow for a bull Breeding Soundness Exam on the herd bulls (The bull breeding soundness exam help identify bulls with satisfactory breeding potential). The total cost is \$4.43/cow for “Trich” testing and Breeding Sound Exams.

Considering the risk of reduced calf-crop and weaning weight at the end of breeding season, the cost per cow for bull “Trich” testing during breeding soundness exams of the bulls is a “good investment”. Make an appointment with a veterinarian and test your bull for “Trich” and have fewer worries and a more profitable breeding season.

References:

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