



Bovine Trichomoniasis



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Trichomoniasis is a bovine venereal disease that can cause substantial reproductive and economic losses in cow-calf operations that use natural service. The disease is caused by the protozoan *Trichomonas foetus* (*T. foetus*), and is commonly referred to as 'Trich'. Bulls can become chronic, asymptomatic carriers of *T. foetus*, because the organism can live in the microscopic folds of a bull's prepuce and the surface of the penis. Infections in cows can result in early embryonic death, abortion, pyometra (pus-filled uterus detected at pregnancy exam), or infertility, influencing the reproductive performance and economic profitability of a cow-calf operation. Many states, including Louisiana, have regulations on movement of bulls to prevent the spread of trichomoniasis.

How does trichomoniasis affect a cattle herd?

- Repeated breeding that results in long, drawn-out breeding and calving seasons.
- A high percentage of open cows at pregnancy examination, or detection of a wide range of gestational ages. Most embryonic/fetal loss occurs during the first trimester, and late term abortions are not common with trichomoniasis. Therefore, most reproductive losses are not detected until pregnancy exam or calving season.
- Pyometra(s) detected at pregnancy exam; this typically occurs in less than 5% of animals.
- Bulls show no clinical signs, but can become carriers.
- Cows and heifers will rarely show a very mild vaginal discharge, but this is usually never noticed. Therefore, like the bull, there are typically no initial clinical signs that a cow or heifer is infected with *T. foetus*.
- Cows and heifers can usually clear the infection in 2 to 6 months (sometimes longer), but usually not before sustaining some type of reproductive loss.

With so few noticeable clinical signs of trichomoniasis it is important to view a herd's overall reproductive performance to look for any indication of a problem. Trichomoniasis should be suspected, along with many other culprits, any time herd reproductive performance declines in a natural service herd. In herds with new infections the results can be devastating, with a long, drawn-out calving season and only a 50-70% calf crop. In herds where trichomoniasis has gone undetected for a long time, the results may be less dramatic because of temporary herd immunity. In such cases, the calf crop may only drop 5-10%, which is still enough to have a substantial economic impact.

What is the economic impact of trichomoniasis?

- Loss of calf crop due to early embryonic loss or abortion.
- Loss of weaning weight due to delayed conception and late calving (since calves are born later in the season and then sold at lighter weights).
- Increased feeding costs associated with feeding lighter calves longer to achieve target weights.
- Culling of open cows and infected bulls.
- Replacement of valuable breeding stock (i.e. open cows and infected bulls).

What risk factors are associated with trichomoniasis?

- Natural service
- Using leased or borrowed bulls, or introducing any 'non-virgin' bulls into a herd without prior testing
- Large herd size (smaller herd size decreases exposure potential)
- Lack of defined breeding season (limited breeding season limits exposure)

How is trichomoniasis prevented?

- When possible, avoid grazing cattle on public lands where both bulls and cows have a much greater risk of exposure through coitus with other *T. foetus*-infected animals.
- Utilize artificial insemination when possible.
- Cull all open cows and heifers.
- Control animal movement into a herd. Maintain good fences to prevent *T. foetus* infected animals from inadvertently entering a herd, or to prevent uninfected animals from temporarily entering a *T. foetus*-infected herd and then returning with *T. foetus* to their uninfected herd of origin.
- Purchase only virgin bulls and heifers as replacements.
- Maintain as young a bull battery as possible.
- Consider immunization against *T. foetus* in high-risk herds.
- Purchase replacement animals from reputable sources and test appropriate animals prior to introducing them to the herd.

How is trichomoniasis controlled in infected herds ?

- Test and cull all infected bulls. Infected bulls should be sold for slaughter only.
- Test bulls for *T. foetus* at least once before introducing them into a new herd. The test should be performed after two weeks of sexual rest. Ideally, a bull should have three negative cultures at weekly intervals.
- Utilize artificial insemination when possible.
- Reduce the breeding season to 60-90 days and cull all open cows and heifers. If there are too many open cows for culling to be economically feasible, then open animals should be separated and maintained as a separate herd.
- Culture all pyometras diagnosed in cows or heifers during pregnancy examinations.
- Submit all aborted fetuses and placental tissue to a diagnostic laboratory.
- Vaccinate against *T. foetus*.

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