

Bovine

Trichomoniasis

Trichomoniasis is a venereal disease of cattle characterized by early fetal death and infertility associated with greatly extended calving periods.

Causative Agent

- A protozoa *Tritrichomonas (Trichomonas) foetus*

Epidemiology

- Found only in the genital tract of cows and bulls

Clinical History

- No apparent illness in the cow or bull
- Normal conceptions followed by early fetal death 2-4 month after conception
- Repeat breeders
- Greatly delayed calving
- First time infection causes 90-100 day extended calving intervals
- A high percentage of open cows

Transmission

- Transmitted from an infected bull to the cow during breeding
- The cow becomes infected, the fetus dies and the fetus is expelled
- On the next breeding the organism is transferred to another susceptible bull

Immune response in the bull

- The organisms live in the crypts of the mucosa on the penis and prepuce
- The bull does not mount an immune response therefore the Trich organism continues to live on the penis and prepuce

Immune response in the cow

- After the initial infection and death of the fetus the cow will develop an immune response and free herself of the organism
- The following pregnancy will go undisturbed
- On rare occasions the cow can become a chronic carrier

Prevention/Control

- Place only bred cows, with a calf at side, on a common grazing program
- Buy only virgin bulls that have passed a negative trichomoniasis test
- Replacements must be virgin heifers
- Test all bulls following the breeding season
- Tests should be conducted after 3 weeks of sexual rest
- Test all bulls that have co-mingled with other herds
- In a positive herd, all bulls must pass 3 negative trichomoniasis tests at weekly intervals
- All infected bulls must be sold to slaughter
- Cull all open cows
- Breed only cows which have a live calf or virgin heifers
- Artificially inseminate where possible
- Vaccination is unreliable

Treatment

- **NONE**



**Economic Impact of Trichomoniasis on
West Divide Creek Cattle Growers
Silt, Colorado Year 2000**

| | |
|---|-----------------|
| Additional Cost of Replacing Open Cows | \$18,000 |
| Additional Cost of Replacing Infected Bulls | \$ 5,100 |
| Higher Death Loss of Purchased Cows | \$ 2,550 |
| Reduced Calf Sales | \$14,850 |
| Additional Veterinary Expense | \$ 600 |
| Additional Interest Expense | \$ 1,850 |
| Total Economic Impact due to Trich | \$42,950 |

Total Economic Impact per Cow \$ 143.17

One infected cow steals the profits of 5 cows!

Assumptions:

- 300 cow operation, graze on National Forest
- Replaced 45 additional cows
 - 25% compared to 10%
- Higher death loss due to adjusting to the environment (poisonous weeds)
- Sold open cows for \$450 per head, purchased bred cows for \$850 per head
- Bull to cow ratio of 1:25, 25% of bull were infected
- Sold infected bulls for \$800 per head, purchased bulls for \$2,500 per head
- 7% higher death loss on purchased cows
 - 3 head @ \$850 per head
- 10% lower calf sales due to late calves and lower weights
- Veterinary: Bull testing
 - 12 bulls @ \$50 per head
- Interest: 9% interest rate times the additional cost for 6 months



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**Bovine
Trichomoniasis**

“The Silent Rustler”



Tritrichomonas fetus