

Trichomoniasis in Northern Territory beef cattle

Introduction

Trichomoniasis, caused by the protozoan parasite *Tritrichomonas foetus*, is a contagious venereal disease of cattle, transmitted during mating. The organism may survive in the reproductive tract of cows for up to 2 years, and persists for many years in the reproductive organs of bulls. Infection in the cow may result in infertility and production loss because of early embryonic death and spontaneous abortion, commonly at 2 to 4 months gestation.

Distribution in Northern Australia

Trichomoniasis is particularly prevalent in large, extensively grazed beef herds in Northern Australia, where continuous natural mating is the predominant breeding practice. The disease is widespread in the northern tropical and savannah regions.

Symptoms

The most common indication of infection with trichomoniasis is return to service in cows, 4 to 5 months after mating. The incidence may be higher in heifers than in mature cows. Small, aborted fetuses (2 to 4 months gestation) are sometimes found in the paddock, and a muco-purulent vaginal discharge may be seen in affected cows. Cows may develop endometritis, vaginitis, cervicitis and pyometra (pus in the uterus). Inflammation of the reproductive tract prevents the establishment of a pregnancy until the infection clears. However, owing to extensive grazing practices in Northern Australia, it is rare to observe these signs of infection.

In recently infected herds, 5% to 30% of cows may show clinical signs. Vaginal discharge is more common with *Tritrichomonas* infection compared with other venereal diseases. Bulls often show no overt sign of infection, though some may appear lazy or reluctant to serve cows. This is because infection causes pain in the prepuce and penis in some animals.

Reproductive impact

Most infected cows return to service within 3 to 5 heat cycles after an abortion, and may then conceive and calve normally. However, immunity to the infection is short-lived. Re-infection can occur if the cow is mated again by an infected bull and the cow may abort again.

Some cows remain infected throughout pregnancy and calve normally. They are then a source of infection for clean bulls in the next breeding season. Infected bulls are considered permanent carriers. Therefore, it is important to test bulls to identify the organism and remove these animals from the herd.

Diagnosis and testing

The ideal time to test bulls is after 2 weeks of rest from mating. Test for trichomoniasis and campylobacteriosis on the same sample, collected from the prepuce of the bull. For more information on options for herd testing to assess vibriosis status, go to [Campylobacteriosis](#).

Control measures

- Test all bulls annually and cull positive (infected) bulls.
- Ensure fences are stock-proof to prevent potentially infected scrub bulls from entering the property.
- Practice controlled mating. Pregnancy test cows 2 months after removing bulls and cull empty cows. Repeat this process 4 months later.
- Test replacement bulls for reproductive diseases prior to purchase.
- Quarantine new bulls on arrival and administer two doses of vibriosis and leptospirosis vaccines one month apart, prior to their introduction to the herd. Control of these diseases will make it easier to detect trichomoniasis. There is no vaccine available for trichomoniasis in Australia.

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