

## Trichomoniasis in the Northern Territory

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Trichomoniasis is a contagious venereal (transmitted by sexual intercourse) disease of cattle, which causes infertility in cows.

### DISTRIBUTION

Trichomoniasis is particularly prevalent in large beef herds under extensive conditions in northern Australia. It has decreased in importance in the smaller beef herds of southern Australia. Artificial insemination, with no cow to bull contact, has largely eliminated it in dairy herds. Trichomoniasis is widespread in the northern half of the Territory. It has been recorded in the Barkly Tablelands, Elsey and Gulf districts, as well as in the VRD and Darwin district. Its incidence in the Alice Springs district is low.

A survey of 1,008 bulls on 41 stations in the VRD district done in the mid eighties found 65.6% of herds were infected with trichomonas. In infected herds the prevalence of disease ranged from 2.9 to 33.3% with an average of 11.7%.



### CAUSE

Trichomoniasis is caused by an organism called *Tritrichomonas foetus*. This organism can live in the reproductive tract of cows for up to 22 months, but may live for years in the reproductive organs of bulls.

### SPREAD

An infected bull may infect any female it serves. Similarly an infected female may infect any bull that serves it. The disease is purely venereal and can only be passed by sexual contact. Any animal of breeding age is susceptible to infection.

The organism lives in the uterus of the cow where it produces an inflammation which either prevents conception or causes an early abortion. Such abortions are common at approximately two to four months. In bulls, the organism lives on the penis and in the surrounding prepuce.

### SYMPTOMS

The best indication of the presence of trichomoniasis is when females keep returning to the bull for four to five months after they have been initially served. Often the incidence for this is higher amongst heifers than mature cows. Aborted fetuses, of three to four months of age may be found in the paddock and a persistent vaginal discharge occurs in affected cows. However, under the extensive management conditions of the NT, these symptoms are usually not observed.

Bulls often show no obvious symptoms of trichomoniasis infection. Occasionally some may be lazy at service or even refuse to serve cows altogether due to pain in the penis.

## DIAGNOSIS

Diagnosis can only be done by a veterinarian, by microscopic examination of vaginal discharge in cows or preputial scrapings in bulls. An enrichment medium is available in which trichomonas may be cultured in an incubator to increase the number of organisms in the sample, thus making them easier to detect. Unfortunately this diagnosis does not detect all infected animals.

## CONTROL

At present, control of trichomoniasis under extensive conditions is impractical and not cost effective.

However, in special intensive situations control is possible. Because trichomoniasis can only be spread by sexual contact, it can be effectively eradicated by carefully managing a herd. Generally females that have four to six heat periods without mating will rid themselves of the disease.

Where heifers are segregated from the rest of the herd, mate only clean young tested bulls with them. By keeping them segregated from the rest of the herd you should be able to clean your herd of any trichomoniasis infection as long as no infected animal gets into the paddock.

The most reliable way to eradicate trichomoniasis from an infected herd is to separate the females and use only artificial insemination. By using semen from bulls that are guaranteed to be free of trichomoniasis and other venereal diseases on cows that have been isolated for four to six heat periods you will eradicate trichomoniasis. However, in the Northern Territory this would be practical only for special situations such as stud herds and dairy cows.

In a disease-free herd, it may pay to ensure that purchased bulls are free of trichomoniasis before you mate them with any cows or heifers. Stray bulls should be immediately removed from your herd.

A vaccine has been developed for trichomoniasis but at this time, it has not been perfected for commercial release and development is stalled. As most of the profits in pharmaceutical sales occur in southern Australia where trichomoniasis is not a problem, it is unlikely that this vaccine will ever be released. If it is released it will be possible to control trichomoniasis under extensive conditions but until then control under most Northern Territory conditions is impractical.

It is possible that the incidence of trichomoniasis will decrease with the reduction of wild scrub cattle. In the VRD survey mentioned earlier, the percentage of infected herd bulls was half that of scrub bulls.

## TREATMENT

For station cattle, treatment of trichomoniasis is not a cost effective proposition. Special stud animals can sometimes recover if they undergo an intense drug treatment. Consult your local veterinarian for further information.

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