



# Bovine Trichomonosis

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## The Disease

Bovine trichomonosis is caused by *Tritrichomonas foetus*. Infection with this organism can result in embryonic and foetal death between days 50 and 70 of gestation. Bovine trichomonosis is spread only through coitus (or unhygienic artificial insemination) and can cause substantial economic losses. It is an OIE listed disease. No cases have been recorded in Ireland in several decades, which is unsurprising given the extensive use of artificial insemination in this country, and the limited movement of bulls between herds. The disease does not affect humans.

## Legislative background and testing protocol

The basis of the active surveillance carried out in Ireland is Directive 88/407/EEC, which sets out certain standards for animals used for semen collection in AI stations.

Under this directive, bovine animals must spend 28 days in approved quarantine accommodation prior to entry to the AI station. During the quarantine period, at least 3 tests for *Tritrichomonas foetus* are performed at weekly intervals on a preputial specimen (sheath washing). Animals less than 6 months of age or those which have been kept in single sex groups from six months of age only require a single test during the quarantine period.

Apart from pre-entry test requirements, bovine animals in approved AI centres and pedigree bull centres in Ireland also undergo routine health tests. These tests must be carried out at least once a year, but it is common practice for the tests to be carried out more often than this. As one component of the yearly testing, bulls in production (or having contact with animals that are in production) must be tested for *Tritrichomonas foetus*.

If bulls are in a period of rest (i.e. lay off) they must be tested for *Tritrichomonas foetus* no more than 30 days before resuming production. This situation only occurs where the layoff is within the centre (or is itself an approved centre), otherwise the full rigors of the entry conditions into a centre (quarantine period and associated tests) apply.



In the event of a positive test result, a bull would have to be removed from the station, as affected bulls are not suitable as donors and cannot remain in approved centres.

**Summary of test results for recent years:**

| <b>Year</b> | <b>Number of samples tested</b> | <b>Positive samples</b> |
|-------------|---------------------------------|-------------------------|
| 2017        | 611                             | 0                       |
| 2018        | 726                             | 0                       |
| 2019        | 559                             | 0                       |
| 2020        | 700                             | 1                       |

**Passive surveillance**

It should be noted that the active surveillance outlined above is primarily aimed at facilitating trade in semen from Irish bulls and is supplementary to the passive surveillance which Ireland regards as its mainstay in detecting infectious diseases.

The Department of Agriculture, Food and the Marine (DAFM) operates a network of regional veterinary laboratories (RVLs), strategically located around the country. Farmers and private veterinary practitioners (PVPs) submit large numbers of samples from sick animals to the laboratories every week. It is anticipated that any substantial increase in the prevalence of bovine trichomonosis in Ireland would be detected through this laboratory based passive surveillance system.

Farmers are encouraged to make use of their local RVL to aid with diagnosis of disease conditions.

Thanks to Limerick RVL for providing the relevant testing results data.