

Bovine Trichomoniasis

Trichomoniasis is a venereal disease among cattle that can cause abortions, low pregnancy rates and delayed or prolonged calving seasons. The disease is present in the U.S., and can have severe economic costs for Washington's beef producers. Tight economic conditions may allow the disease to spread undetected (e.g. less pregnancy checking, longer breeding seasons, purchase of bargain cows), but trichomoniasis can be prevented and controlled through management.

Cause

Trichomoniasis is caused by a sexually transmitted parasite (*Tritrichomonas foetus*). The protozoa can survive and grow in the folds of the penis. Bulls over three years of age rarely clear the parasite once they become infected, and serve as long-term carriers.

The parasite may also live in the reproductive tract of infected cows, though they often clear the infection within three months. Immunity to trichomoniasis lasts less than a year, so cows may be re-infected. Some infected cows may carry the infection into the next breeding season.

Spread

Trichomoniasis is spread by breeding activity. Infected bulls continue to breed normally and spread the infection to cows, which pass it to uninfected bulls when they rebreed. Bull-to-bull is rare; cow-to-cow transmission does not occur.

Trichomoniasis is more common in breeding pastures where multiple herds are mixed (e.g. community pastures), or in herds that purchase open cows or mature, untested

breeding bulls. The parasite is sensitive to freezing, drying, and sunlight, and cannot survive outside the animal.

Symptoms

Infected bulls show no symptoms. Infected cows usually abort early in the first trimester, resulting in repeat breeding, irregular heat cycles, longer calving intervals, and reduced pregnancy rates. The uterus may become infected in some cases.

In uninfected herds, the majority of cows should be pregnant and calve in the first 45 days of the calving period, given proper management (good body condition score, short breeding season) and no other reproductive problems.

Trichomoniasis abortions peak at 50 to 70 days of gestation. So in trichomoniasis infected herds with a short breeding season, many cows may be open in fall. In infected herds with a long breeding season, many cows calve in the second half of the calving season.

Testing

For best results, tested animals should have a minimum of 4-days without sexual activity before they are sampled.

Several different methods are used in the U.S. to collect and test for trichomoniasis. Washington uses the InPouch TF to collect smegma samples for transport to a certified lab. The lab conducts a Polymerase Chain Reaction test and returns the result to the veterinarian and the state veterinarian's office.

Information is also forwarded to the state when veterinarians identify virgin bulls with the Washington's Trichomoniasis tag.

Treatment and Vaccination

Antibiotics and vaccination are not generally economical or effective because the protozoa do not live within the bloodstream. This makes it difficult for antibiotics and vaccines to reach the parasite. The preventative value of vaccination is relatively short-lived, but may help in some cases.

Control and Prevention

Appropriate management of the breeding herd helps to prevent the introduction of the disease to uninfected herds, and in eliminating the parasite from infected herds.

Control of trichomoniasis in infected herds:

- Test all non-virgin bulls.
- Cull infected bulls, and replace with virgin bulls. Virgin bulls have not been exposed to infected cows, and have not been shown to harbor the infection.
- Pregnancy check and cull open and late-calving females.
- Send culled animals to slaughter to avoid infecting other herds.
- Use home-raised replacements, or purchase pregnant replacements from reputable sources.
- Separate replacements from mature animals.

Minimizing the risk of trichomoniasis infections in uninfected (clean) herds:

- Purchase only virgin or tested bulls.
- Do not borrow, rent, lease or buy untested bulls that have been used for breeding.
- Cull open and late-calving cows.

- Winter cows and bulls separately to minimize infection of bulls by late calving or late cycling cows.
- Do not purchase open cows.
- Use home-raised replacements, or purchase pregnant replacement females from reputable sources.
- Separate replacements from mature animals.
- Avoid commingling of breeding herds, if possible.
- Check fences regularly to keep other animals out.

Community pastures:

Producers using community pasture need to establish, implement and police biosecurity policies that help avoid trichomoniasis, such as:

- Test and cull infected herd and patron bulls.
- Consider wintering bulls used on community pastures away from cows to avoid re-infecting cows.
- Accept only virgin heifers and cows with a calf at side.
- If facilities, fencing and labor are adequate, community pastures may set aside “clean” pastures for cows from uninfected herds with calves at side, and “infected” pastures for infected herds, or herds with open cows.

Danger to humans

Bovine trichomoniasis is not believed to be a risk to humans. Human trichomoniasis is caused by a different organism (*Trichomonas vaginalis*). Trichomoniasis is not a food safety risk, and is not the same as trichinosis. Trichinosis is a parasite found in animals that eat meat.

Other considerations

Reproductive failure can also result from a variety of other nutritional, injury or infectious

causes. A sound herd health program, developed in collaboration with your veterinarian, will help to minimize these risks.

Washington’s Requirement

Washington has a mandatory trichomoniasis ear tag identification requirement for all imported virgin bulls and bulls tested for Trichomoniasis if they originate in a state with a trichomoniasis program.

Bulls from states without a trichomoniasis program must have official individual identification unique to each animal.

Washington has a trichomoniasis ear tag for Washington bulls leaving the state to meet destination testing requirements. It is tamperproof, 3” wide x 2 1/4” tall with a self piercing male button printed with WA and the current Trich year. The female portion of the tag has WA TRICH printed above a 4 or 5 digit number.

The Trichomoniasis year is defined as September 1 through August 31. Tag colors will change on September 1 of each Trichomoniasis year.

For more information on trichomoniasis, please visit our website at: <http://agr.wa.gov/FoodAnimal/AnimalHealth>

Or contact

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