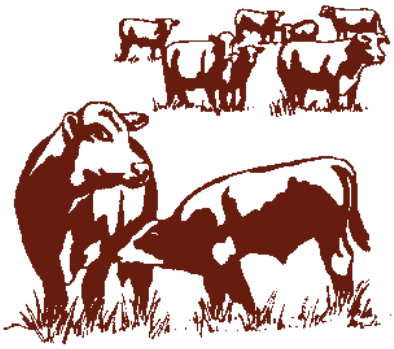
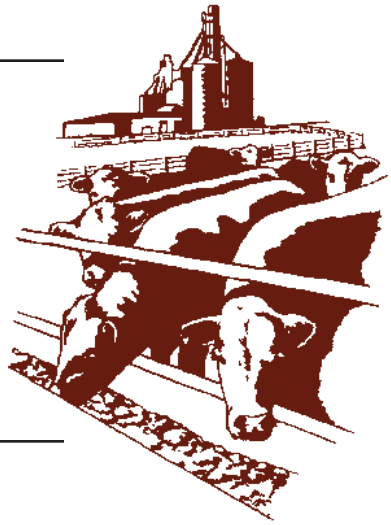


# Beef Cattle Handbook



BCH-3240

Product of Extension Beef Cattle Resource Committee
Adapted from the Cattle Producer's Library

## Trichomoniasis

Donald Hansen, Extension Veterinarian, Oregon State University
William Kvasnika, Extension Veterinarian, University of Nevada

Trichomoniasis, or trich, is a venereal disease of cattle caused by a protozoan parasite, Tritrichomonas foetus. Evidence suggests that the disease is fairly widespread throughout the western United States. Trich is difficult to detect in a herd, and equally hard to remove once it is discovered. The estimated loss by the beef industry to this disease is over $100 million per year.

There are no signs of infection in the bull, but the organism lives in the tissue lining of the penis, prepuce, and sheath. At breeding, trich can be transmitted to the vagina of the cow where it allows the infection to develop in the reproductive organs. The initial infection does not usually interfere with conception, but rather, it results in death of the embryo approximately 50 days later. Typically, infected cows or heifers, return to estrus 1 to 3 months after breeding. Infertility may persist for 2 to 6 months, after which an immune response eliminates the infection in most females and pregnancy can be established. Some infected cows develop pus in the uterus; others may abort. Some cows remain infected but are able to deliver a normal calf. These cows infect bulls at coitus the following breeding season.

Diagnosis of trich in a herd is often difficult. Symptoms in an infected herd appear as an increasing number of open cows or heifers, or a calving interval that is spread over several months. Several factors other than trich may reduce reproductive efficiency in a herd, so an accurate diagnosis must be made. Diagnosis requires a direct microscopic examination or culture of preputial smegma samples from bulls, from pus collected from infected females, and/or tissues taken from aborted feti.

Your veterinarian is the person most qualified to collect samples and make the diagnosis. Because the collection, culture, and examination procedures are still fairly crude by today's standards, confirmation of trichomoniasis infection in a herd may take more than one sampling session. This is especially true if you are attempting to diagnose the disease in a small herd or sampling only a limited number of animals. The diagnostic procedures are more efficient in a herd or battery of bulls than with a single bull. If only one sample is taken, the organism may be missed, and a bull may be falsely identified as negative.

To eliminate other factors that may be contributing to reproductive failure, bulls should be given a complete breeding soundness exam. That is, a physical exam and semen exam should be performed on each bull tested for trich.

The following are current recommendations for managing a trich-infected herd. They are based on the concept of lowering the challenge from the organism and raising resistance in individual animals.

### Lowering the Challenge

*Bull Management*

- The best time to find trich is after the breeding season. Examine bulls at least 2 weeks after they are taken from the cows. If trich is found, cull bulls that are found to be infected. Retest the remainder at weekly intervals until all infected bulls are removed. Provide sexual rest for remaining negative bulls.
- Rest young bulls a minimum of 3 months before reuse. The longer the rest period the better. Some

young bulls will eliminate the infection if given sexual rest. Infected bulls older than 3 years of age tend to become permanent carriers of the disease, and thus do not clear out the infection with sexual rest.

If your management program is to use virgin bulls to breed heifers, keep virgin bulls separate from all other herd bulls.

- When purchasing new bulls, be sure they have been kept separate from all breeding stock, male and female, and be sure the bulls are virgin or have been tested negative before purchase.
- Do not rent, trade, or buy used bulls.
- Be sure that only virgin or negative bulls are used as breeding bulls.

*Heifer Management*

- Use only virgin bulls to breed heifers.
- Remove bulls from heifers after 3 to 4 months of breeding.
- Examine heifers for pregnancy and cull nonpregnant heifers.
- Another option is artificial insemination for those operations set up to do it.
- Remove bulls from the cows after 4 months of breeding, and do not put them back until next breeding season.
- Under range conditions, have as many cows as possible bred before mixing your herd with other herds. Promote good management with other permittees.
- Examine all cows for pregnancy, and cull all nonpregnant cows.

## Raising Resistance

Treatment for trich is not available. However, a commercial vaccine with promising effectiveness is available. Proper immunization requires an initial dose plus a booster dose to be administered 2 to 3 weeks before the beginning of breeding season. Vaccine is given to cows only.

Reprinted from CATTLE PRODUCER'S LIBRARY CL659

Authors:
Donald Hansen, Extension Veterinarian, Oregon State University
William Kvasnika, Extension Veterinarian, University of Nevada

This publication was prepared in cooperation with the Extension Beef Cattle Resource Committee and its member states and produced in an electronic format by the University of Wisconsin-Extension, Cooperative Extension. Issued in furtherance of Cooperative Extension work, ACTS of May 8 and June 30, 1914.

BCH-3240 Trichomoniasis