



# Cattle Producer's Handbook

Reproduction Section

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## Pregnancy Losses in Beef Cattle

Jim Keyes, Extension Area Range and Livestock Scientist  
Utah State University

Pregnancy failures in beef cattle represent huge financial losses to cow-calf producers. The occurrence of pregnancy termination can happen for an assortment of reasons—some straightforward and others complex and difficult to pinpoint.

Pregnancy losses are defined by two groupings. If the loss occurs within the first 42 days of pregnancy, it is referred to as an embryonic loss. If it occurs after day 42, it is considered a fetal loss.

Embryonic loss may represent the single greatest economic loss for cow-calf producers (Geary 2005). Research has shown that fertilization rates for a single service, artificial insemination (A.I.) or natural, are 90 to 100 percent (Sreenan and Diskin 1983). However, rarely more than 70 percent of matings result in a positive pregnancy diagnosed after 30 days, and even fewer result in a positive birth (Geary 2005).

The causes of pregnancy losses can be divided into two categories—infectious and non-infectious. Infectious causes are those that happen due to some type of infectious agent. Non-infectious are those that happen for reasons other than disease or infection.

### Infectious

#### Trich (Trichomoniasis)

Trich has been a widespread problem for cattle producers in the West. This disease can be financially devastating because of the number of open and late cows at the time of pregnancy testing. Trich is a venereal disease spread from one cow to another by contact with an infected bull.

The organism enters the reproductive tract and causes loss of pregnancy in early gestation. The cow will develop an immune response after being infected. She will exhibit normal estrus cycles, and bulls that breed her will pick up the organism and spread it throughout the herd. After at least three or more cycles she will become free of the disease and will become pregnant again. The problem is that she will be

extremely late. A small percentage of cows can become persistent carriers and will never be trich-free.

The bull does not develop an immune response, and the organism lives in his reproductive tract. Currently, there is no treatment. Older bulls that have more wrinkles and folds in their sheath can harbor the organism much easier than young bulls.

Many states have a trich testing law that requires bulls to be tested at least annually. An infected bull should be sold for slaughter immediately.

#### BVD (Bovine Virus Diarrhea)

BVD is a viral disease that can cause abortion. The key factor is at what point during gestation is the cow infected with the virus? During the first trimester of pregnancy the cow can either abort or reabsorb the fetus. If a normal birth occurs after a fetus has been infected around 120 days of gestation, the calf will become persistently infected (PI). This calf will pass on the virus through body fluids for its entire life, thus becoming a huge risk to the cowherd.

Cows infected in the second trimester may also abort, or give birth to a calf with congenital defects of the brain and eyes. Exposure in the third trimester does not usually result in abortion but can result in a stillborn or weak calf.

Diagnosis of BVD can be done through blood samples, ear notches, and aborted fetuses. The BVD can be controlled with a proper vaccination program using modified live vaccines. It is also important to do testing for PI cattle if there is any suspicion in the herd.

#### Vibriosis (Campylobacteriosis)

Vibrio disease in cattle results in abortions caused by the bacteria *Campylobacter fetus* subsp. *Venerealis*. Vibrio is a venereal disease spread through breeding. Infection causes infertility, early embryonic death, and sporadic late term abortion.