Calf Losses Before Birth Concern Producers

Producers can take steps to reduce the risk of abortions in cows.

by ***Gerald Stokka, Neil Dyer*** *and* ***Carl Dahlen,*** *North Dakota State University*

Abortions are a major concern for cattle producers, especially at calving time.

An "abortion" is the discharge of the fetus prior to the end of the normal gestation period.

Abortions have many causes, including physiological problems (such as hormonal imbalances), metabolic problems, toxicoses and/or infectious diseases caused by protozoa, fungi, bacteria or viruses, according to Neil Dyer, director of the North Dakota State University (NDSU) Veterinary Diagnostic Laboratory.

"The best chance of identifying what caused an abortion is prompt submission of fetal and placental tissues and maternal blood or serum to a diagnostic laboratory," NDSU Extension Service Veterinarian and Livestock Stewardship Specialist Gerald Stokka says. "Contact your veterinarian for assistance with diagnostic efforts, sample submission and identifying management strategies to reduce the risk of future abortions."

Many abortions occur within the first 45 days of conception (called early embryonic death), and the embryos or fetuses are so small that they may not be visible.

Other abortions occur near normal calving time, so determining whether the cow has aborted or a premature birth has occurred is difficult. A stillbirth occurs when a full-term calf is born dead with no evidence of the cause.

Abortions and stillbirths can be the result of a direct effect, such as viral, bacteria or protozoal organisms gaining entrance to the fetus. The fetus also may have abnormal development (congenital defects) resulting in abnormalities noted at delivery, such as a lack of the anus opening or inside-out calf, or inherited genetic defects.

Indirectly, abortions and stillbirths can be a result of an interruption of the connection between the fetus and the dam or the dam being ill. The fetus is nourished and oxygenated via the organ called the placenta. Any disruption can impact the fetus negatively or result in its death.

Inflammation of this organ is called "placentitis." Bacterial, fungal and protozoal infections can cause placentitis. Mycotic abortions are one of the more common results of fungal infections.

Stillbirths can be frustrating because producers often see no indication of the cause or evidence of excessive labor, Stokka says. Stillbirths can result from an umbilical cord rupture, premature separation of the placenta or the placenta blocking the nostrils after the delivery of an otherwise healthy calf.

Regardless of the cause, abortions may be sporadic or they may occur as "storms." The normal abortion or stillbirth rate is 1 to 2% of cows in a herd. Losses greater than this are abnormal, and producers should seek veterinary assistance to identify the cause, NDSU Extension beef cattle specialist Carl Dahlen advises.

Stokka recommends following these steps to prevent fetal losses:

- **Vaccinate/immunize —** Vaccination is a management tool to reduce the risk of infectious causes of calf losses. The most common infectious causes for which vaccines are available are IBR (infectious bovine rhinotracheitis), BVDV (bovine viral diarrhea virus), leptospirosis and campylobacter (vibriosis). These vaccines are safe and effective when given according to label directions. However, vaccines never can reduce the risk of infectious causes 100%.

- **Provide clean late-gestation and calving grounds —** Late-gestation feeding and calving in the same area where cows have been fed through the winter will result in a buildup of bacterial contamination that can cause infectious fetal losses.

- **Reduce the risk of weather stress —** Calving in mid-April and later reduces the risk of very cold temperatures and large amounts of snow. If your calving date is earlier than this, provide protection from the weather, such as clean, well-bedded barns or well-constructed, bedded windbreaks.

- **Provide clean feed to gestating cows —** Clean feed is free from obvious molds and fecal and urinary waste from wildlife populations such as deer, coyotes and rodents and even domestic pets such as dogs and cats. This material can contain potential infectious causes of fetal losses, such as neospora, leptospirosis and toxoplasmosis.

- **Handle pregnant animals properly —** Proper handling means providing the least amount of stress when moving the cows to different locations, whether by trailing them on foot, horseback, ATV or pickup. The rule must be: Never be in a hurry. If you need to transport cows by trailer or semi, move them before late gestation or at least two to three months before their calving date. **HW**