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Why Some Cows Don't Conceive

Abnormal conditions in the cow's reproductive organs cause some conception failures. Usually only one or two cows in a herd will have such problems at the same time. Even when only a few cows in the herd are affected these conditions can cause you sizable economic losses. Losses result from delayed conception or permanent impairment of the cow's ability to reproduce.

You cannot prevent all the losses caused by these abnormal conditions; however, keeping good reproductive records, closely observing your animals, and using the services of a skilled veterinarian will help keep these losses to a minimum.



Abnormalities of the Estrous Cycle

Absence of heat or abnormal heat is one of the most frequent problems dairymen experience with problem breeders. Complaints range from cows that don't show estrus to those that show estrus every few days or constantly.

Anestrus (cows that are not observed in heat) is discussed in detail in "Heat Detection and Time to Breed," Dairy Reproduction Series 2, Extension Pamphlet 222, University of Minnesota. About 90 percent of the cows reported as failing to show heat are really the dairyman's failure to observe heat. The remaining 10 percent do not show heat because of some abnormality in the cow's reproductive organs. In many cases a skilled veterinarian can successfully treat these abnormalities, while in others there is no way to restore the animal's normal reproductive condition. These animals should be diagnosed early and removed from the herd to prevent undue economic loss.

Cystic ovaries (nymphomaniac or buller cows) have plagued nearly every dairyman. These cows show frequent and irregular periods of estrus or they may show no heat at all. Cystic ovaries occur more frequently in dairy cattle than in beef cattle.

The cause of cystic ovaries is not known; however, a number of factors seem to favor their development. Cysts occur more frequently in older cows than in first lactation animals. They usually show up within the first 2 to 3 months after calving when milk production is at its peak. This is also the time the cow needs the largest amount of high energy feeds to supply the nutrients for high production. (For more information on nutritional factors see "Nutrition and Reproductive Performance," Dairy Reproduction Series 3, Extension Pamphlet 223, University of Minnesota.) Evidence points to a relationship between the cystic condition and high levels of production. There is also evidence that the tendency to develop cystic ovaries is inherited.

If cows have a cystic condition for an extended period (3-4 months), many develop a raised tailhead and relaxed pelvic ligaments.

They frequently gain weight and develop thickness about the head and neck, producing a staggy or steer-like appearance.

Once a cow shows any abnormal estrus behavior or fails to show heat you should have her examined by a skilled veterinarian. Cows should normally show signs of estrus every 18 to 24 days unless they are pregnant. You need complete records and close estrus observation to detect abnormalities. (For more information see "Records—Not Luck—For Good Reproductive Performance," Dairy Reproduction Series 5, Extension Pamphlet 225, University of Minnesota.) There is little you can do to prevent the development of cysts. But if you recognize and treat them promptly, recovery is often possible.

Various hormones are used to treat cystic cows. They work fairly well if given early in the course of the condition. Cows that have had cystic ovaries for an extended period (3-4 months) seldom respond to treatment and are usually sterile. Routine reproductive exams by a skilled veterinarian about one month after calving will help detect any abnormality and improve the chance for successful treatment.

Tumors occasionally develop in various parts of the reproductive tract. Affected animals usually fail to show estrus and are frequently sterile. The granulosa cell tumor, a tumor growing from cells of the ovary, and the leiomyoma (smooth muscle tumor) of the wall of the uterus are among the more common types. Your veterinarian can detect these tumors. The incidence of tumors is rare and is not a major problem in most herds. You should remove any affected cows from your herd before they cause an economic loss.

Freemartins are females born twin to a bull. They are usually sexually underdeveloped and sterile because the hormones of the male calf override those of the female during gestation. About 90 percent of the heifers born twin to a male are sterile. A skilled veterinarian can detect the freemartin condition at an early age so you can avoid raising unproductive replacements. There is no treatment for this condition.

White heifer disease was first recognized in white Shorthorns and has since been observed in other breeds. Segments of the reproductive tract of affected animals fail to develop. Animals with these missing segments are usually sterile. White heifer disease is inherited and can be detected by a veterinarian as the heifer approaches breeding age. Since there is no treatment for this condition, early detection and culling will save feed and care expenses.

Infections of the Reproductive Tract

Metritis is an infection and inflammation of the uterus. It often follows abnormal and difficult calvings, abortions, retained placenta, premature births, and twins. The condition may be associated with such diseases as trichomoniasis, vibriosis, and brucellosis. (See "Abortions and Calving Problems," Dairy Reproduction Series 6, Extension Pamphlet 227, University of Minnesota.) In severe cases cows may appear generally ill, while in mild and chronic cases infertility, delayed conception, and repeat breeding may be the only signs of the disease. Affected cows may or may not come in heat.

Pyometra is the accumulation of fluid or pus in the uterus and may follow metritis that was not treated. Cows with pyometra do not come in heat. The fluid or pus that accumulates in the uterus simulates pregnancy because it enlarges the uterus. A thick, cloudy, or creamy discharge may come from the vulva in some cows and not in others. Any cows showing abnormal discharges should be examined by a skilled veterinarian.

Proper care and management at calving time, sanitary techniques used in natural breeding and artificial insemination, and prevention of reproductive diseases are all important in preventing metritis and pyometra. Because these conditions may not show external signs, routine reproductive exams by a veterinarian after calving and before breeding will allow early diagnosis. A veterinarian can successfully

treat metritis or pyometra in animals if the disease is detected early.

Vaginitis and cervicitis are inflammations of the vagina and the cervix, respectively. The cause and outcome of each are similar. Affected cows often cycle normally but usually do not conceive until the condition is eliminated. Vaginitis and cervicitis can be recognized usually by reddened, swollen tissues of the vulva, vagina, and cervix. In some cases there may be vesicles (small blisters) on the surface of these tissues. Animals may strain and show other signs of discomfort and they may also show some discharge from the vulva. Vaginitis and cervicitis are sometimes caused by injuries at calving time, especially with first calf heifers. (For more information see "Breeding Dairy Heifers," Dairy Reproduction Series 4, Extension Pamphlet 224, University of Minnesota.)

Service by infected bulls and poor artificial insemination techniques are other causes. Mild cases usually clear up without treatment; however, the infection can be quite severe and may spread from the vagina and cervix to the uterus, resulting in metritis. Your veterinarian can readily diagnose these conditions and decide how to handle individual animals. Treatment will depend upon the cause and severity of each particular case.

Salpingitis and perisalpingitis are inflammations of one or both oviducts and the tissues surrounding the oviducts. They may be caused by uterine infections that spread to the oviducts, or they frequently follow abnormal calving, abortion, retained placenta, metritis, and pyometra. Temporary infertility or permanent sterility can result.

Both salpingitis and perisalpingitis can be diagnosed by a skilled veterinarian using rectal palpation. Even though these conditions can be diagnosed, there is no good treatment available.

Abnormalities of the oviduct usually reduce the chances for adequate fertility. Accurate diagnosis is important in these cases to explain existing infertility and help you decide whether or not to cull animals from the herd.

To Reduce Infertility Losses, REMEMBER:

- Close observation is important to recognize any abnormality early.
- Good records help diagnose abnormal conditions.
- Good breeding practices and sanitation help prevent some abnormal conditions.
- If an abnormality is suspected call your veterinarian for prompt examination and treatment.

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