

LPM-00742

# Causes of Reproductive Failure in Cattle

Someone once said, “Don’t look for zebras in a horse herd.” Applied to reproductive failure in cattle, this means to find the cause by a process of elimination, starting with the easiest and/or most likely source. For example, if you are using dusty, moldy feed, suspect it first; if you have an “abortion storm” in your herd, it may well be leptospirosis or one of the other venereal diseases; and simple failure to detect heat is probably the most frequent cause of reproductive failure in herds bred artificially. Don’t be overly concerned with obscure trace minerals on which a researcher reported in an issue of *Cowboy Magazine*, even though it is always possible, however unlikely, that your problems may be the result of such a cause. When all is said and done, the vast majority of reproductive problems in cattle herds can be cured by good management and proper nutrition.

A single abortion is not an epidemic. However, it is a good practice to have the dead calf and afterbirth examined by a veterinarian as soon as possible after the abortion occurs. This will help pinpoint the problem and may enable you to take action to prevent further loss. Do not freeze the aborted tissue since it may destroy or alter valuable clues needed to discover the cause. Get it to the laboratory or veterinarian as soon and as fresh as possible. Be careful not to get fluids or tissue into cuts or scrapes on your skin or in your eyes, nose or mouth. Some diseases such as brucellosis are transmissible to man and cause serious problems. If disease or injury is ruled out, have a competent nutritionist analyze your feeding program and look at your feed.

As with most animal health problems, “an ounce of prevention is worth a pound of cure.” Keep your cattle free of internal parasites. Provide adequate amounts of feed and the necessary nutrients, especially energy, protein, vitamin A, calcium, phosphorus and, in Alaska, selenium and vitamin E. *Note:* While selenium is low in most Alaska feeds and must be supplemented, it is easy to kill animals by providing too much; producers should

seek advice from a qualified nutritionist before adding it to the diet. It is critical that cattle have convenient, constant access to fresh, clean water year around.

Buy replacement animals from disease-free herds at least 30 days in advance of breeding. Keep them in isolation the first 30 days they are on the farm. Have your vet do a semen evaluation and reproductive health examination on the bull(s) 30 days ahead of breeding. A pregnancy examination of your cows 30 days to 60 days after the breeding season will determine which cows are open. Keep individual reproductive records on each cow and use the records to determine the cow’s reproductive efficiency. Keep visitors, stray animals and birds out of your herd as much as possible to avoid tracking unnecessary contamination onto your farm.

At the end of this fact sheet is a list of most of the causes of reproductive failure in cattle. It does not include every known possibility. For example, advanced age of bulls and cows leads to low fertility and, of course, the service capacity of young bulls is lower than those between the ages of three and five. It is normal for about 10 to 15 percent of all heifers to be sterile and a very difficult delivery can leave a cow infertile.



*This newborn calf, being dried off by its mother, is the result of a sound, well-planned breeding program.*

Obviously, reproductive failure in a cow herd can be a complex problem to solve. To complicate matters even more, it is often a combination of problems rather than just one. The key is management: close and frequent observation of the herd, good record keeping, annual bull fertility exams, pregnancy exams and determina-

tion of the cause of abortions. Find a local large animal veterinarian and involve him or her in the development of a herd health program. Your local Extension agent can help you obtain analysis of your feed and formulate balanced rations.

### CAUSES OF REPRODUCTIVE FAILURE IN CATTLE

Cause	Symptoms
Failure to detect heat	Cows do not appear to cycle
Injuries to or foreign matter in reproductive system	Infections; temporary infertility; abortions
Severe malnutrition	Animals thin; may fail to cycle or settle
Vitamin A deficiency	Retained placentas; fetal resorption; weak and dead calves
Calcium-phosphorus levels too low	Retained placentas
Iodine deficiency	Retained placentas
Severe protein deficiency	Failure to cycle and settle; weak and dead calves
Vitamin E deficiency	Failure to cycle and settle
Selenium deficiency	Failure to settle; retained placentas
Manganese deficiency	Late sexual maturity; failure to cycle; weak and dead calves
Copper deficiency	Failure to show heat
Cobalt deficiency	Failure to show heat
Leptospirosis	Abortions; weak and dead calves
Brucellosis	Abortions
Vibrosis	Abortions and infertility
Infectious bovine rhinotracheitis (IBR)	Abortions
Bovine virus disease (BVD)	Abortions
Moldy feed	Abortion
Severe internal parasites	Unthriftiness; failure to cycle or settle; abortions; weak and dead calves
Infections of reproductive tract	Failure to cycle or settle, abortions
Lethal genes	Death of the fetus or newborn calf
Poisonous plants or those high in estrogen	Failure to cycle or settle, abortion, malformed calves

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