

## Basic care ensures calving success

By Heather Smith Thomas

There are a lot of factors that go into a successful calving season, but the work is worth the effort. A strong, healthy calf can grow and move through the marketing chain, doing its job for everyone involved, or return to the herd as a replacement female prepared to be around for a good while.

**For profitability in a cow-calf enterprise, cows should be fertile and healthy, with almost all of them pregnant at the end of breeding season. The next step is having all those calves born alive and healthy.**

The riskiest time in a calf's life is birth. In a Montana study some years back, 68% of calves that died were lost during their first three days of life, and 66% of those losses were due to problems associated with birth. These losses can be minimized with genetic selection and good calving management — assisting a cow or heifer if needed.

Being able to recognize normal stages of labor and timing that progress help you judge whether or not a cow or heifer needs help. It's important to know how long, and in what circumstances, to leave her laboring, and when to help her or seek veterinary assistance.

Don't intervene too soon, before the cervix is dilated, or you may injure her by pulling the calf through that narrow opening.

If you pull too soon and too steadily, a partially opened cervix tends to be pulled out of place, like a sleeve—pulling it cone-like ahead of the calf and restricting the diameter. A too-strong pull may tear it. The cervix opens as the calf presses intermittently on it with each contraction; a hard, steady pull on the calf can delay this process.

Once the calf is in proper position and the cervix nearly fully dilated, there's no point in waiting if it's taking too long to come through. The calf is subjected to pressure from uterine contractions and the constricted area in the birth canal.

Each time the cow strains, her abdominal contractions put pressure on and constrict the blood vessels to the uterus, resulting in diminished oxygen supply to the calf.

If this goes on a long time, the calf may be born weak, unconscious or dead. If it's born in cold weather, it won't be able to shiver to keep warm if his muscles are short on oxygen, and it's more at risk for chilling. A calf that spends minimal time in the birth canal is lively and strong, getting up more quickly to find the udder.

If nothing shows after a cow starts straining, check her to see if the calf is being presented normally or not, or is too large to be born. It's healthier for both cow and calf if you can assist before the cow is fatigued and the calf compromised by being in the birth canal too long.

It's time to check her if she's been in early labor more than six to eight hours; straining hard for more than one hour, with nothing showing; if the feet show when she strains and then go back in; if the amniotic fluid has turned brown; if the calf's feet look upside down or only one foot appears; or if progress has halted.

Your assessment will help you know whether to give the cow more time, call the vet to correct a problem, or go ahead and pull a calf that's started into the birth canal in proper position but is coming too slow because it's big.

Courtesy of Cody Creelman

Often, the person on calving duty can help with a tough delivery. But sometimes, it's difficult enough to need a veterinarian. Here, Canadian veterinarian Cody Creelman checks the progress of a hard calving. If you have to pull a calf, pull when the cow strains. Don't pull steadily — it can be harmful to both cow and calf.

Decide whether it can be safely pulled or if you'll need your vet to do a C-section. When the calf's head is starting through the cow's pelvis, if there isn't room to force your fingers between his forehead and the pelvis, it won't fit.

If you can't determine the calf's position or have tried for 30 minutes to correct a problem and are unable to correct it or extract the calf, call your vet — unless you are making progress. Don't spend too long in futile efforts, or it may be too late for the calf after you decide you can't get it delivered.

Other instances in which you should call the vet are if you discover a tear in the birth canal or uterus; if there are abnormal aspects of the calf, such as forehead too large, fused joints — legs unable to flex to maneuver into the birth canal; or some other problem that would hinder birth progress.

### **Newborn calf care**

If you had to assist a birth, make sure the calf is breathing, gets up quickly and finds the udder. After it starts breathing, treat the navel (umbilical cord stump). If the cow calved on grassy pasture, there's less chance for bacterial infection; but if she calves in mud, manure or a dirty barn stall, or if you had to bring her in from pasture to assist the birth, there's risk for infection.

Head it off by dipping the cord stump in tincture of iodine or chlorhexidine. Iodine kills pathogens and serves as an astringent to help the stump dry more quickly and seal off.

Dip the entire cord stump in a small container, making sure it's fully saturated. If the cord broke off long and might drag the ground, break it to make it shorter before immersing it, leaving just a 3-inch stump. Have clean hands, and pull it between your hands. Never create a jerk on the calf's belly.

One application of iodine may not be enough to dry the stump quickly. You may have to repeat the process during the first 24 hours. Bull calves take longer for the cord to dry, since they often urinate lying down, keeping the navel area wet.

Make sure every calf nurses soon after birth. Calves born easily and naturally on pasture, with good mamas, generally accomplish this. If weather is cold or the cow doesn't mother the calf, or if the calf is compromised by a difficult birth and doesn't nurse on its own, restrain the cow and guide the calf to the udder; or feed it by bottle (or stomach tube or esophageal feeder if it can't suckle).

The cow's first milk is crucial to the health and survival of the calf. Most calves that become ill and die later did not receive adequate colostrum. Colostrum provides energy and generates body warmth in cold weather, and acts as a laxative to help the calf pass its first bowel movements.

But most importantly, it contains key antibodies against disease. Some of these are absorbed directly into the blood and lymph systems, passing through the intestinal wall if the calf nurses soon enough.

These help fight systemic infections and give temporary immunity to common diseases, and attack pathogens like pasteurella, streptococcus or salmonella that might cause septicemia. Other antibodies stay in the gut to attack any scours-causing pathogens the calf ingests.

If the cow had strong immunity to various diseases — you kept her on a good vaccination program before calving — antibodies in her colostrum provide immediate protection as soon as the calf nurses. It does no good to vaccinate the cow against scour-causing pathogens if the calf doesn't nurse within a few hours of birth.

Its ability to absorb antibodies into the bloodstream begins to lessen as soon as it's born; by 4 hours of age, it's lost 75% of that ability. If it takes longer than an hour to nurse, help it nurse its dam, or provide substitute colostrum from another cow or a commercial product.

It's wise to have frozen colostrum for emergencies. Commercial substitutes are handy, but not as good as the real thing.