Caring for the Newborn Calf

BY HEATHER SMITH THOMAS

You've anxiously waited nine months for your cows to give birth. You've fed and cared for them, hoping to give their calves a good start.

It can all be for nothing, however, if you aren't there when calving time comes. What happens to the calf during birth and immediately afterward can make all the difference in whether or not it will be healthy, strong and vigorous — or stressed, weak and susceptible to disease.

Being there for every birth can save calves that otherwise wouldn't survive or might end up injured. The importance of a normal, problem-free birth cannot be overestimated.

If a calf is presented wrong or is too large for a first-calf heifer, your assistance in correcting the problem can reduce the stress and trauma to the cow and calf and help ensure that the calf will be born alive and strong.

If a calf is born weak, injured or exhausted from a difficult birth, it may not be able to get up and nurse. If cold or wet weather is a factor, it could mean double trouble. Once the calf's mouth gets cold, it may not be able to nurse even if it does get up.

If the calf is in a drafty or damp barn with wet bedding, it may not be any better off than outside. Keep calves reasonably warm and comfortable by providing fresh, dry, clean bedding. A clean cow with a clean udder is just as important.

A calf tired or injured from a difficult birth is also more susceptible to pneumonia. Fluid in its air passages can settle into the lungs. A calf can become very sick within a few hours, with cough and fever. It may take several days of intensive care and antibiotic treatment to save it.

Problems are easily compounded with a vulnerable newborn calf. The strong, lively calf that is born quickly and easily can usually get right up and nurse, in spite of cold weather.

It's important that the calf be up and nursing soon after birth, preferably within one hour. Colostrum in a cow's milk gives the calf antibodies against disease. Unlike a human baby that picks up immunities from the mother while still in the womb, the calf comes into the world completely vulnerable to disease. It has to get its immunities through colostrum. This temporary immunity usually lasts several weeks — until its own immune system matures enough to make its own antibodies.

During the cow's life she comes into contact with a number of disease organisms, developing antibodies against them. She also develops immunities from annual vaccinations. If vaccinations are up to date, the cow will pass some of those antibodies to her calf.

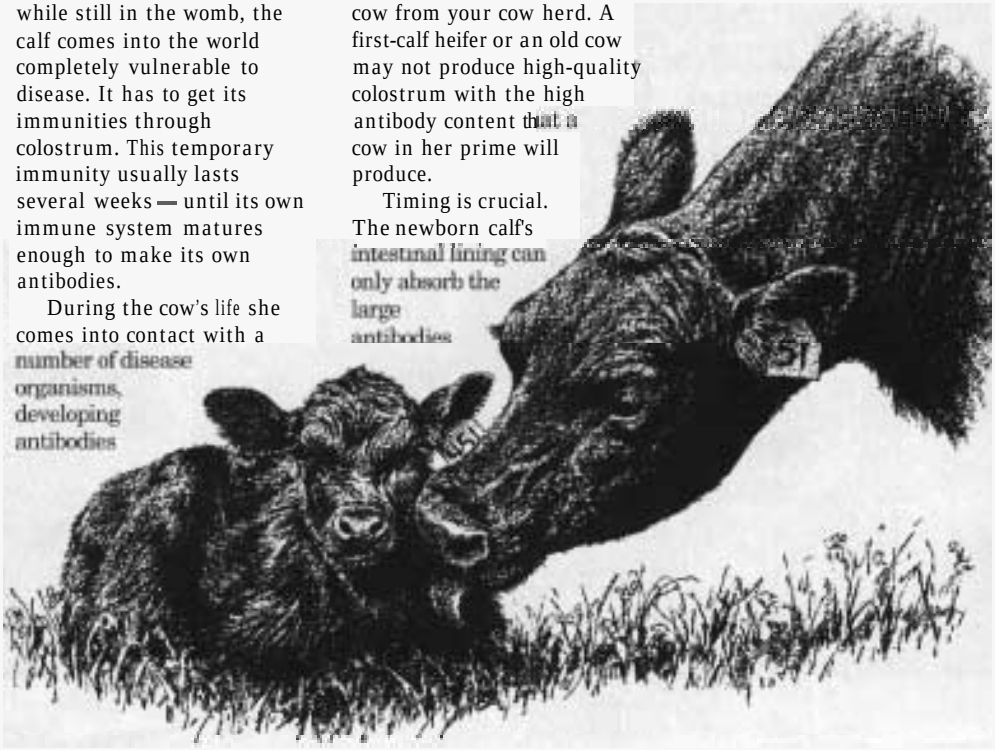
Cows raised on your farm or ranch will have more antibodies against local disease organisms than will a cow brought in from outside your area. This is an important point to remember if you borrow colostrum from a neighbor or a dairy; it may not contain the antibodies your calf needs. The best protection comes from colostrum produced by a cow in your herd.

If, for some reason, you have to use colostrum from a cow other than the calf's mother, choose a middle-age cow from your cow herd. A first-calf heifer or an old cow may not produce high-quality colostrum with the high antibody content that a cow in her prime will produce.

Timing is crucial. The newborn calf's intestinal lining can only absorb the large antibodies from colostrum for a few hours. After that, the lining thickens and antibodies can no longer pass through it into the bloodstream. The optimum time for absorption is the first two hours following birth.

Recent studies show that by the time the calf is four hours old, he has lost 75 percent of his ability to absorb colostrum antibodies. Many cases of weak calf syndrome are actually just a combination of cold weather stress and immune failure — because the calf wasn't able to nurse quickly enough.

On our ranch, if a calf isn't up and nursing within an hour, we help it. We make sure it gets on a teat and gets



a good amount of milk from all four quarters.

Colostrum is a high-calorie meal, laced with rich, creamy fat, that gives a calf energy and strength and helps keep it warm. Colostrum also serves as a laxative and gut stimulant to help the calf pass its first bowel movements.

Difficult births can cause injury and damage to the head of the calf. Swelling of the head and tongue can make it difficult or impossible for calves to breathe or nurse. To assist the calf in breathing, take the membrane sac off and clear its nasal passages of fluid.

If a calf has a swollen tongue and has trouble nursing, or if it is weak, we feed it colostrum with a bottle. If it can't suck we give it via stomach tube. An esophageal feeder also works well.

The backward presentation calf can be a real challenge to get started. You may need to hang it up briefly by the hind legs to let fluid drain out of its nasal passages. Then stimulate the calf to cough or sneeze by sticking a clean piece of hay or straw up one nostril. This helps it start breathing.

Every herd has its own unique problems that must be dealt with and overcome. Some producers find pre-calving scours vaccination very helpful. Some producers have to employ further protection, while others have never experienced a problem or needed protection. Consult your veterinarian for a good health and vaccination program to fit your needs.

You Can Minimize Scours

The term scours simply means diarrhea. There are many different things that can cause diarrhea in young calves — including a number of infectious organisms — and some acute intestinal infections can kill a calf even before it has time to develop diarrhea.

Gut infections in young calves, whatever the symptoms (diarrhea or not), can be lumped together as the No. 1 killer during early calfhood. Most of these losses can be prevented by better management of the cow herd at calving time, greatly reducing the incidence of gut infections.

Scours is primarily a problem of contamination; the young calf becomes sick because it comes into contact with another calf with infection, or with the pathogens in its environment (in the dirt and mud, on the cow's dirty udder). If there have been cattle and calves in that pen or pasture before, there will be bacteria there already; some bacteria can still be infective under certain conditions.

The best prevention for scours is to calve your cows on "clean" ground each year — an area that has never had cattle (especially scouring calves) on it before. But most of us don't have that option. We have to work around a given situation, which usually includes fields and facilities that are used year after year for calving and young calves.

But there are certain aspects of management a person can change to minimize contamination and incidence of scours. In many herds, pre-vaccination of the cows can help cut down on certain types of scours. If your calves are suffering from a kind of scours for which there is vaccination — rotavirus, coronavirus, a few types of *E. coli* bacteria, or enterotoxemia — you can vaccinate the cows a few weeks ahead of calving. This will stimulate the cow's immune system to produce antibodies against these organisms, and the antibodies will then be in her colostrum to provide protection for her calf.

Some infectious organisms, however are not incorporated into vaccines, and pre-vaccination of the cows will not protect the calves against scours caused by these bugs.

Scours are often weather related; more calves will get sick during nasty weather or in the days following spring storms. This is partly because bad weather can be a stress on calves (and stress can lower a calf's resistance to disease), but also because the infectious organisms thrive in wet conditions.

The bugs are always there, in pen or pasture where there have been cattle previously, but they are more accessible if the ground is wet. Calves ingest the infectious organisms when drinking out of mud puddles; cows get their udders dirty lying around in the mud and wet manure, and the calves take in the pathogens when they nurse. You can cut down on scours if you change your season of calving to a time of year when the ground is not wet and sloppy.

Keep calving cows clean

The best way to do this is to keep the pregnant and calving cows totally separate from ones that have already calved. Use lots of bedding in the holding pens if weather is wet. Always have a clean, dry place for cows to lie down. Have a calving area and move the cows out of it as soon as they have calved.

We move every pair out of the barn within 24 hours, and never have sick calves in our calving barn. We have a separate facility if a sick calf needs to be brought into a barn with its mother. Our calving barn is used only for calving.

We also use well-bedded second-day pens (with windbreaks in the corners) for the new pairs when they come out of the barn. This gives the young calves another day of shelter, and time to be a little older and wiser before going out to the field.

Quick treatment

If a calf does start to scour, treat it immediately. Don't wait to see if it will get better on its own. It helps to know if you are fighting viral or bacterial scours; so get help from your veterinarian for proper diagnosis.

Viral scours won't respond to antibiotics, but you can help the calf immensely by providing it with fluid, electrolytes and gut soothers like kaopectate — to keep the calf from dehydrating and to maintain its strength to fight the infection.

If scours are bacterial (and many cases are), use a good liquid antibiotic along with the fluids you are giving the calf. An alternative treatment is to dissolve the scour pills and give them as a liquid; it gets to the site of the problem much faster than pills or boluses.

If doctored soon enough, the calf may not need fluid therapy. Any calf that is dehydrated, or weak, however, should have fluid every 6 to 8 hours until it recovers. Don't take the calf off the cow. Veterinarians used to think that milk aggravated scours, but in recent years have learned you do more harm than good withholding milk from the sick calf. It needs fluid and energy.

Minimize contamination any way you can in your particular situation, and this includes treating and halting scours before the calf spreads it all over the pasture. Isolate the calf if necessary, bringing it and its mama in from the field until it has recovered.

Maximize diligence at observing and checking on calves, We feed the cows twice a day (morning and evening) so we can check the babies and look at every cow's udder. Often the first sign of sickness will be the calf not nursing. If we catch and doctor any sick calf right then, we can usually nip the problem in the bud, before the calf is dehydrated and in need of intensive care. AJ